# The international diffusion of electoral systems: The spread of mechanisms tempering proportional representation across Europe

# DAMIEN BOL,<sup>1</sup> JEAN-BENOIT PILET<sup>2</sup> & PEDRO RIERA<sup>3</sup>

<sup>1</sup>University of Montreal, Canada; <sup>2</sup>Université libre de Bruxelles, Belgium; <sup>3</sup>Carlos III University of Madrid, Spain

**Abstract.** There is an assumption in much of the electoral engineering literature that domestic episodes of electoral system choice occur in a vacuum, isolated from international influences. Yet this assumption remains largely untested, despite the comparative focus of much of that literature. This article focuses on part of this gap by considering two electoral mechanisms that seek to limit party system fragmentation under proportional representation – low district magnitudes and high electoral thresholds – and shows that the mechanisms have spread across many European countries during the post-1945 period. Analyses reveal that national legislators are more likely to adopt one of these electoral mechanisms when a large number of peer countries have made similar choices within the last two or three years. This effect is robust to various model specifications and to the inclusion of multiple controls. The article also offers some qualitative evidence from case studies and parliamentary debates.

Keywords: electoral systems; electoral reforms; diffusion; proportional representation

# Introduction

In the last two decades, a broad community of researchers has been studying the process of electoral engineering. Many efforts have been made to determine the various factors that push the ruling elite to choose one type of electoral system over another (for full reviews, see Benoit 2007; Rahat 2011). According to the dominant explanation, the ruling elite seeks to secure its position by anticipating the effects of the new electoral system on the allocation of seats (Boix 1999; Colomer 2005; Remmer 2008). Other scholars contest this claim, preferring to explain electoral engineering decisions by stressing the importance of the elite's willingness to adapt to changing socioeconomic environments (Cusack et al. 2007; Rogowski 1987) or sociopolitical environments (Blais et al. 2005; Shugart 2008).

Despite the international and comparative focus of many of these contributions, the assumption is often made, usually implicitly, that episodes of electoral system choice are independent from each other. Actors involved in these processes are often presented as being completely unaware of, or at least not affected by, what is happening abroad. Yet there is no reason to discard the possibility of an international diffusion of electoral systems.

Some authors find support for the hypothesis of international diffusion in specific instances of electoral engineering. Lijphart (1992) shows that the post-1989 institutional choices of some Central Eastern European countries were based on the German democratic model. Likewise, Birch et al. (2002) argue that there is a tendency among

post-communist democracies to mimic each other in terms of institutional design. Blais and Massicotte (1997) argue that newly independent countries tend to adopt the electoral system used by their former colonial rulers.

Some authors do discuss the possibility that legislators are constrained by the international context when they choose an electoral system (e.g., Colomer 2004; Renwick 2010), but to the best of our knowledge, only Blais et al. (2005) and Lundell (2010) specifically assess the extent to which the idea of international diffusion of electoral rules is supported by empirical evidence. According to Blais and his colleagues, countries at the end of the nineteenth and the beginning of the twentieth centuries were more likely to adopt some type of proportional representation (PR) system when a significant number of countries in their geographical zone had recently adopted it. Likewise, Lundell (2010) examines the origin of electoral rules in the period of decolonisation that followed the Second World War and shows that numerous countries inherited their electoral systems from former colonial powers. He argues that this institutional transfer took place within regions and over time.

This article aims to extend the existing findings by analysing the diffusion since 1945 of the system used to elect the lower chamber of European democracies. In particular, it studies two electoral mechanisms that sacrifice pure proportionality for the sake of government stability and accountability: PR with low-magnitude multimember districts; and PR with a high electoral threshold. We argue that the choice of these mechanisms was neither random nor purely the result of domestic considerations. Rather, their adoption can be linked to larger international trends that were informed by a belief that the two mechanisms produce superior democratic outcomes.

In the next section, we document the trade-off at play in electoral system design. We then identify the central arguments in the diffusion of innovation literature and apply them to the specific case of electoral system choice. Following that, we specify a series of event history models and use this quantitative exercise to provide a brief assessment of the diffusion of electoral systems in contemporary Europe. The findings are then situated in the broader context of recent debates on electoral system choice, relying on illustrative qualitative evidence from cases of adoption of low district magnitudes and high electoral thresholds in European democracies since 1990.

#### Tempering PR and the case for the electoral sweet spot

One of the fundamental issues for electoral engineering is the trade-off between fair representation and accountability. It is undeniable that PR tends to produce more inclusive parliaments than first-past-the-post (FPTP) (Powell & Vanberg 2000). In minimising the cost of entry into parliament, this system ensures fair representation of nearly all of the population in the decision-making process. However, the system's rules also result in a greater number of parties in parliament, and therefore a decrease in the chances that a single party will win an absolute majority of seats. Under such circumstances, governments are usually composed of coalitions of more than one party.

Coalitions tend to undermine the identification of which parties are to blame by citizens for good and bad policy outcomes, and thus voters find it difficult to target a particular party when they want to punish them for perceived bad policies by 'voting the rascals out of government'. In contrast, FPTP tends to produce single-party governments that are more stable and offer citizens a clearer picture of who is responsible for policy (Blais & Bodet 2006; Golder & Stramski 2010). The idea that the trade-off between fair representation and accountability is unavoidable is strongly accepted among experts in the field (Bowler & Farrell 2006).

Carey and Hix (2011) have recently changed scholars' perceptions of this trade-off by arguing that an electoral 'sweet spot' exists. It emerges when a system tempers pure PR to produce an arrangement wherein excessive party fragmentation and the unfair exclusion of small parties are balanced, thereby achieving the most efficient representation. According to Carey and Hix (2011), a PR system that is combined with either low-magnitude multimember districts or high electoral thresholds can hit the electoral sweet spot. In reducing the fragmentation of the party system that proportional rules encourage, this kind of system limits the cost of decreased government accountability. We build on this by arguing for the adoption of low district magnitudes and high electoral thresholds to temper the effects of PR. Since they are expected to achieve the same goal, the two electoral mechanisms are functional equivalents.<sup>1</sup>

While acknowledging the intuitive appeal of limiting the inclusiveness of proportional electoral systems, scholars who study the causes of electoral system choice typically neglect to consider that the utility legislators derive from the adoption of an electoral system might be, at least partially, generated by the achievement of this sweet spot. Shugart's (2001) theory about the adoption of mixed-member electoral systems constitutes something of an exception in this respect. He claims that these systems are implemented when the outcomes produced by the previous electoral rules are extreme. Hyper-representative (i.e., those where potential coalition governments are not identifiable during campaign) and pluralitarian systems (i.e., those where the government is not representative of a majority of voters) are prime examples of extreme systems that might be best suited to reform. Despite the theoretical relevance of his arguments, Shugart (2001) does not give any micro-foundation for what pushes legislators to implement the electoral sweet spot, and what gives them the opportunity to do so. In the next section, we will argue that legislators are provided with both the incentive and the opportunity by international circumstances.

#### **Diffusion of electoral systems**

To study patterns of institutional diffusion, it is necessary to identify the actors involved in the decision-making process. Most scholars consider that in both new and established democracies, the process of electoral system choice is dominated by political elites (Benoit 2004; Boix 1999; Cusack et al. 2007). Put another way, they argue that, all other variables remaining constant, the choice of electoral institutions is the result of an agreement between elites (Bawn 1993; Benoit 2004).

Yet as previously mentioned, the classic literature on electoral system choice usually focuses on the willingness of legislators to secure their position by anticipating the effects of the new electoral system on the distribution of parliamentary seats. This approach might be called the 'seat-maximisation' model of electoral system choice. It assumes that parties are unitary actors making decisions aimed at maximising their overall seat share. However, the model only accounts for the interparty dimension of electoral competition; more broadly, models accounting for intraparty competition are relatively less common in the literature on electoral system choice (see, e.g., Karvonen 2010).

The role played by international diffusion in this seat-maximisation model is overlooked in at least three ways. First of all, the rationality of political actors may be seriously bounded in contexts of high uncertainty. As pointed out by previous works, processes of institutional choice are often plagued by elites' lack of information about the effects of their choices (Andrews & Jackman 2005; Pilet & Bol 2011). Experiences of electoral system choice in peer countries can provide legislators with an excellent source of information.

Second, the multiplication of actors in the decision-making process provides further opportunities for diffusion. Some authors refer to the division of interests among the members of a ruling coalition to explain why legislators sometimes fail to implement their preferred set of electoral rules (Katz 2005; Rahat & Hazan 2011). Given the aforementioned debates concerning electoral engineering, coming up with an alternative that satisfies all the relevant actors may be difficult. The lack of consensus within a ruling coalition is likely to contribute to legislators' willingness to pay attention to the institutional experiences of other countries. The recurrent adoption of a particular electoral system abroad should convince legislators about the merits of that institutional choice.

Finally, the repeated adoption of a certain type of electoral system in other countries might provide politicians with useful arguments to convince voters about its viability. Electoral system choice always represents an electoral cost for the ruling elite (Quintal 1970). Adopting an option that the citizenry does not like or failing to enact an option that they do like may negatively impact upon politicians' popular support. This type of act-contingent motivation for electoral system choice is especially strong when politicians expect to benefit from their support for the adoption of a specific arrangement (Shugart 2008). The ruling elite might then draw on international experiences in order to convince a sceptical citizenry of the value of a particular electoral arrangement.

In the last decade, there has been a dramatic surge of interest in diffusion. In their literature review, Graham et al. (2013: 675) note that 'diffusion occurs when one government's decision about whether to adopt a policy innovation is influenced by the choices made by other governments'. Such patterns have been discerned across a broad variety of sectors including local anti-smoking policies (Shipan & Volden 2008), privatisation of care services (Bouché & Volden 2011), retrenchment of unemployment benefits (Gilardi 2010) and liberalisation of trade (Meseguer & Escribà-Folch 2011). Other authors find that various institutional structures diffuse between countries as well. In particular, these authors show that in recent decades many governments have adapted their regime-type choice so as to match the overall degree of democracy or non-democracy of their immediate neighbours (Brinks & Coppedge 2006; Elkins 2010). These governments have also often introduced gender quotas in order to follow the international trend of implementing such a mechanism (Bush 2011).

These studies, together with the theoretical work of Shipan and Volden (2008), have shown that policies and institutions spread between countries via various modes of diffusion. Some argue that diffusion is the result of the gradual spread of international normative standards; others claim that it reflects the willingness of national legislators to learn from peer country experiences. Both arguments are likely to be relevant in explaining the spread of a specific electoral arrangement. In this article, we do not tackle the question of which mechanism best explains the phenomenon. Given that the topic of the international diffusion of electoral systems is relatively new, we concentrate on elucidating whether such diffusion really exists. Further, we assess the empirical relevance of this practice versus the classic seat-maximisation model mentioned above.

Before proceeding further, however, we should make three remarks. First, we do not expect all countries to be affected the same way by international influences. Institutional diffusion is a function of the international network to which the country belongs (Brinks & Coppedge 2006; Bush 2011). In this article, we call these networks 'groups of peer countries' (for a full definition, see below). Therefore, a differential convergence across groups of peer countries should be expected.

Second, it is reasonable to think that (perceived) successful electoral systems will diffuse more than those that are non-successful. However, assessing the success of an electoral system is a complicated task. A system may be implemented to achieve multiple goals, rendering the evaluation of its success difficult. As well, its effects are likely to be observed in both the short and the long terms. It typically takes some time for legislators and the system to coordinate towards a new equilibrium after an institutional change, which also complicates the search of a measure of the success of electoral systems (Selb 2012; Taagepera & Shugart 1989).

Shipan and Volden (2008) suggest that legislators evaluate the success of a policy on the basis of how extensively this policy has been used in, or adopted by, other countries. According to these authors, the proxy of other countries' experiences is indeed likely to be used by legislators in the absence of a precise measure of success. The assumption behind this argument is that if the policy has been extensively adopted/used in other countries, legislators will be more likely to believe there is something good about it. The difference between the two exact operationalisations of this concept (i.e., 'use' and 'adoption') depends on saliency. On the one hand, a non-salient policy only diffuses when other countries extensively adopt it. These extensive adoptions make legislators both aware of the policy and aware of its superiority. On the other hand, a salient policy does not need to be extensively adopted to diffuse. The simple fact of being more and more used in other countries is sufficient in this respect. In the analyses below, we use the proportion of an electoral system's adoption in other countries. Electoral system choice is not a salient issue in normal political times - that is, legislators are unlikely to be influenced by the electoral system used in peer countries until this issue of electoral system choice becomes salient through episodes of adoption in other countries.<sup>2</sup>

Third, it is also important to note that unlike the classic seat-maximisation model our explanation of diffusion of electoral systems implies that legislators are not just interested in their individual fate. It assumes that they are also concerned about the overall outcome produced by the electoral system. Like the argument made by Shugart (2001) in his theory regarding the adoption of mixed-member electoral systems, we claim that legislators are likely to prefer an outcome that is efficient and particularly an outcome where the expected levels of accountability and fair representation of interests from the system are superior to those flowing from another choice. To summarise, these theoretical elaborations lead us to derive the following hypothesis:

*H1*: The greater the number of peer country parliaments that have previously adopted a mechanism tempering the effects of PR, the higher the probability that the legislators of a given country will do so.

As mentioned above, the dominant academic literature states that the choice of an electoral system depends on a legislator's anticipation of its effect on the allocation of seats. This idea emerged from the observation that, in history, multipartism usually preceded the adoption of PR. At the turn of the twentieth century, there was a growing electoral volatility in favour of new parties in Western democracies. Many governments decided to replace the pluralitarian/majoritarian system then in force by PR so as to minimise losses in future elections (Boix 1999; Colomer 2005). In systems where PR is already in place, the ruling elite tends to fight the proliferation of parties by adopting more restrictive electoral rules (such as low district magnitudes and high electoral thresholds). As party system fragmentation increases, parties in the governing coalition have incentives to restrict access to parliament for newcomers. By doing so they maximise their relative power in parliament (Remmer 2008). Also, a highly fragmented parliament tends to complicate the decisionmaking process and undermine political representation. In this situation, legislators might want to adopt an electoral mechanism that tempers the effects of PR so as to reduce the 'extremeness' of the electoral system and produce more balanced electoral outcomes in terms of accountability and representation of interests (Shugart 2001). In turn, a second hypothesis is derived:

*H2*: The greater the party system fragmentation, the higher the probability that the legislators of a given country will adopt an electoral mechanism that tempers the effects of PR.

In this article, we challenge our diffusion hypothesis by giving consideration to the classic seat-maximisation hypothesis. More particularly, we test whether diffusion still explains a part of the observed variation in the adoption of low district magnitudes and high electoral thresholds, even when we account for the seat-maximisation model. Along this line, we consider the two hypotheses to be complementary rather than competing.

## Data and variables

To test the empirical validity of the hypotheses presented above, we use country-year data from 1945 (or the moment in which they became democratic or independent) to 2010 on the evolution of electoral laws, as of 1 July 2013, for the lower house of national parliaments of European Union and European Free Trade Association (EFTA) member democracies. Among these cases, only electoral systems used for selecting the members of the lower house of the national parliaments are considered.<sup>3</sup> This choice is driven by practical reasons of data availability. At the same time, it is reasonable to think that cross-national diffusion is more likely to be observed between electoral systems used for national elections. The electoral systems used for lower-level elections are presumed to be already influenced by national events and the national electoral rules.

Second, only countries that have used a list PR system through the whole period of observation, alone or in combination with a majority or plurality tier to become a mixedmember electoral system, are included in the analyses. The reason for this flows from the definition of the dependent variable, presented below. At the same time, the two electoral mechanisms aiming to temper the effect of PR work the same way in mixed-member and pure PR systems. In sum, the data examined includes information about the electoral system employed in 27 countries for more than 300 elections.<sup>4</sup> However, since we are interested in the adoption of the electoral mechanisms tempering PR (and not in their abolishment), our sample only includes elections during which the mechanism in question is not used until its first time in use. In other words, as soon as the median district magnitude is low or the electoral threshold is high (see the definition of 'low' and 'high' below) , the country is excluded from our sample. For example, regarding the analysis predicting the adoption of a high electoral threshold, Belgium is included from the 1946 election to the 2003 election.

## The dependent variables

The dependent variables consist of the adoption of the two mechanisms tempering PR: low district magnitudes and high electoral thresholds (one variable by mechanism). By 'adoption', we mean that the mechanism is used to elect the lower house of the national parliament at t while it was not used at t-1. The only exceptions to this rule are the countries that were using the mechanism before the Second World War and re-implemented it right after the war ended. This, for example, concerns the use of a low district magnitude system to elect the national house of the parliament in Belgium in 1946.

Insights from the literature on electoral systems are used to operationalise the two electoral mechanisms. Carey and Hix (2011) demonstrate that moving from a district magnitude of one to medium-sized multimember districts with a magnitude of eight provides inclusive parliamentary representation and a stable and accountable government at the same time. Eight is thus chosen as the cut-off point to identify low district magnitudes.<sup>5</sup> Given that countries are typically divided into several districts and that our units of analysis are country/elections, we calculate an aggregate measure of central tendency. The median district magnitude is preferred to the mean to prevent extreme values from producing biases, particularly in countries combining a few very large districts and many much smaller districts. Following the choice of Carey and Hix (2011), we use the magnitude of the district containing the median parliamentary seat.

It has also long been known that a high electoral threshold can prevent the excessive proliferation of parties (Taagepera & Shugart 1989). It is usually acknowledged that electoral systems are truly efficient if they deny representation to parties that gain less than 5 per cent of the national vote (Lijphart 1994). In this article, we only consider the electoral thresholds that are enforced in all the districts of a given country. Sometimes this is a nationwide threshold (e.g., in the Czech Republic) and sometimes it is a district threshold (e.g., in Belgium).<sup>6</sup>

#### The independent variables

To test our first hypothesis about diffusion we use the proportion of peer countries that have adopted (meaning used at t and not at t-1) either a low district magnitude or a high electoral threshold system within a given timespan. As we do not have clear expectations about this timespan, we conduct analyses for a wide range of periods. In particular, we test the impact of the proportion of peer countries having adopted the electoral mechanism tempering PR within the last two years, three years, four years and so on (up to ten years).

The remaining regressors used to account for the seat-maximisation theory of electoral system choice (and *H2*) are standard in the field. The key independent variable is the level of party system fragmentation. As mentioned above, legislators might want to adopt a mechanism to reduce the fragmentation of the party system in order to reduce the 'extremeness' of the electoral system and to produce a more balanced outcome in terms of accountability and representation of interests. We capture party system fragmentation by both the effective number of electoral parties (ENEP) and the effective number of parliamentary parties (ENPP) in the previous legislature (i.e., the legislature during which the inverse of the sum of the square of all parties' vote shares (ENEP) and of all parliamentary parties' seat shares (ENPP), and ranges from one to infinity (in fact, to the number of parties that obtain at least one vote/seat) (Laakso & Taagepera 1979). As mentioned above, we expect that an increase in the size of the party system will lead to the adoption of a mechanism tempering the effect of the PR system.

#### The definition of peer countries

As the literature makes clear, not all legislators are influenced in the same way by what is happening in other countries. Peer countries are expected to exert greater influence than non-peer countries. 'Peer countries' are a group of countries that share a common set of characteristics or, in Rogers' (2003) words, are 'haemophilic'. It is assumed that legislators feel closer to their homologues and that information circulates more efficiently between them. However, the concept of peer countries is hard to operationalise. In the literature, it is usually defined on an *ad hoc* basis. While some authors use geographical proximity (Bouché & Volden 2011; Brooks 2007), others opt for cultural ties (Simmons & Elkins 2004). Various definitions of 'peer countries' are tested in this article in order to develop more compelling evidence for the diffusion of the two mechanisms tempering the effects of PR.

A first definition of 'peer countries' is geographic. The sharing of a land or maritime boundary is used in this operationalisation of the term, and is indeed the most straightforward definition of a geographical zone (following Blais et al. 2005). A second definition is based on the official language of the countries.<sup>7</sup> The rationale behind this choice is that legislators with the same native language are more likely to influence each other as they understand each other better. Also, the feeling of 'closeness' is likely to be greater as countries with a common language usually share many cultural traits. To operationalise the culturally driven conceptualisation, the classic definition of linguistic areas in Europe, developed by Ruhlen (1987), is used. The final aspect of 'peer countries' is historical. It assumes that legislators of countries that have a similar history, and in particular similar democratisation experiences, feel closer to each other. To operationalise this concept, we use three democratisation waves: the post-Second World War wave, the mid-1970s wave and the late-1980s/early-1990s wave.

## Control variables

To these independent variables, we add other controls to account for unspecified effects. In particular, we include variables concerning the institutional structure of the country. The multiplicity of actors involved in the decision-making process – and thus of potential veto players – in presidential or semi-presidential and federal systems may complicate the adoption of new electoral laws (Hooghe & Deschouwer 2011).<sup>8</sup> We also add a dummy variable of whether the principle of PR is written into the country's constitution as it may be legally harder to adopt a mechanism tempering the effects of PR in such cases. Along the same lines, we control for the majority status of the government (in the legislature during which the electoral mechanism was voted in) by including a variable reporting the proportion of parliamentary seats held by the ruling coalition during the preceding legislature, together with another variable capturing the number of parties in the government during that legislature. The small parties of a governing coalition might block the adoption of an electoral mechanism that directly threatens their re-election chances (Rahat & Hazan 2011).

# Specification

As in other subfields of political science, the test of cross-national diffusion hypotheses is achieved through systematic examination of the temporal and geographical patterns of the event of interest. Here we use logistic models predicting the adoption of low district magnitudes and high electoral thresholds in European countries since their first democratic election after 1945. To correct for possible correlations over time within country panels, we calculate standard errors clustered by countries.

# **Results**<sup>9</sup>

Table 1 reports the first democratic election covered in each country, the usage of the two aforementioned mechanisms aiming to reduce the number of parliamentary parties (from the first election in which they were enforced to the year preceding the election in which they were not used anymore, with open-ended date ranges referring to their still being in use at the end of the period covered), the linguistic group to which the country belongs (Balto-Slavic, Romance, Germanic or Uralic) and the wave of democratisation. Our cases show quite a large variation in the usage of low district magnitudes and high electoral thresholds. It appears that while some countries have continuously used at least one of these mechanisms and often both (especially recent democracies such as Estonia, Hungary or Lithuania), other countries, such as Finland, Luxembourg and the Netherlands, have never implemented any of them.

Figure 1 reports the yearly proportion of national legislatures elected through one of the two mechanisms limiting the effects of PR. On average, 75 per cent of European countries

Country	Entry year	Low magnitudes	High thresholds	Linguistic area	Democratisation wave
Austria	1949	[1949–1969] [1994–]		Germanic	First
Belgium	1946	[1946–1984]	[2003–]	Germanic	First
Bulgaria	1990	[1990]		Balto-Slavic	Third
Croatia	1992		[1995–]	Balto-Slavic	Third
Cyprus	1981	[1981–1984]	[1981-1995]	Greek	Second
Czech Republic	1996		[1996–]	Balto-Slavic	Third
Denmark	1947	[1947–1970] [1997–]		Germanic	First
Estonia	1992		[1992–]	Uralic	Third
Finland	1948			Uralic	First
Germany	1949		[1949–]	Germanic	First
Greece	1977	[1977–]	[1977–1985]	Greek	Second
Hungary	1990	[1990–]	[1994–]	Uralic	Third
Iceland	1946	[1946–]	[2003–]	Germanic	First
Italy	1948	[1994-2005]		Romance	First
Latvia	1993		[1995–]	Balto-Slavic	Third
Lithuania	1992	[1992–]	[1996–]	Balto-Slavic	Third
Luxembourg	1945			Germanic	First
Netherlands	1946			Germanic	First
Norway	1949	[1949–1972]		Germanic	First
Poland	1991	[1993-2000]	[1993–]	Balto-Slavic	Third
Portugal	1976			Romance	Second
Romania	1990		[2000–]	Romance	Third
Slovakia	1994		[1994–]	Balto-Slavic	Third
Slovenia	1990			Balto-Slavic	Third
Spain	1979	[1979–]		Romance	Second
Sweden	1948			Germanic	First
Switzerland	1947			Germanic	First

Table 1. Electoral mechanisms tempering PR among European countries, 1945–2010

have used at least one of the mechanisms at one point in time. In addition, the percentage of countries that have used one device during the period under consideration is about the same as the percentage that have used the other device (approximately 50–55 per cennt of the countries in our sample).

Turning to trends over time, the first element to be emphasised is an overall increase in the use of at least one of the two electoral mechanisms designed to reduce the number of parties in PR countries. There are peaks and troughs in the first decades after their implementation, but a gradual increase was observed since the late 1980s. This increase was particularly striking in the 1990s following the democratisation of Central and Eastern European countries. These countries massively adopted high electoral thresholds, which are

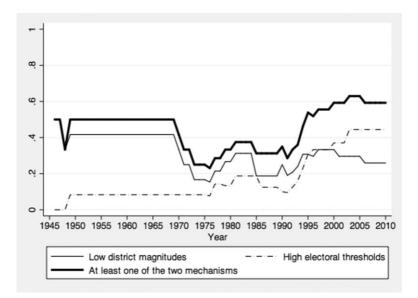


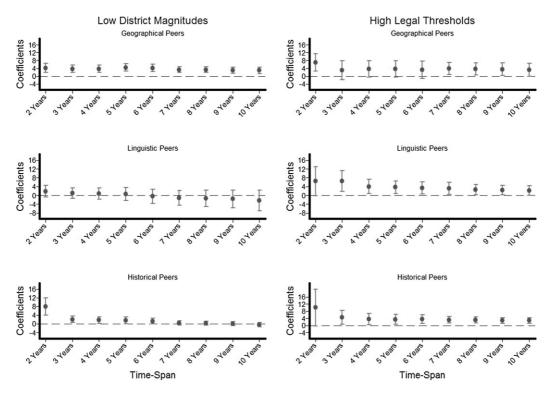
Figure 1. Proportion of countries using electoral mechanisms tempering PR in Europe, 1945–2010.

today used for electing national legislatures in more than 50 per cent of European democracies employing PR (although they were almost never used at the beginning of the period covered). By contrast, the overall use of low district magnitudes remains relatively constant over the sampled period (at around 30–40 per cent).

Figure 2 reports the coefficient estimates (and the 95 per cent confidence intervals) associated with the diffusion variable for both mechanisms tempering the effects of PR, for all three definitions of 'peer countries', and for all timespans between two (i.e., the current and preceding years) and ten years. In order to account for the second hypothesis concerning the seat-maximisation explanation of electoral system choice, the estimated models also include the ENEP and ENPP (although the associated coefficients are not disclosed here).

We see that the effect of diffusion diminishes as the timespan increases. The diffusion effect is strong and statistically significant (at a level of p < 0.05) for most specifications and for both electoral mechanisms when diffusion is defined as the proportion of adoptions among peer countries within the last two, three or four years. This effect is much smaller when the diffusion timespan is set at five years (and more). These results suggest that the diffusion trends among peer countries are rather short-lived and that the adoptions abroad stop having an influence on domestic decisions after a couple of years.

We transform the coefficients estimated through logistic models of Figure 2 to obtain interpretable odd ratios. The hazard of adopting low district magnitudes is between two and three times higher (depending on the definition of 'peer countries') when there is an increase of 10 per cent of peer countries having adopted low district magnitudes within the last two years. This effect is similar (with a hazard rate of adopting the electoral mechanism of 50 per cent, and increasing by two times for each 10 per cent increase) when it comes to high electoral thresholds. The diffusion effect of electoral mechanisms tempering PR among peer European countries is thus substantively relevant.



*Figure 2.* Diffusion effects among peer countries as timespan varies. Note: Dots are coefficient estimates of the diffusion variable and bars are the corresponding 95 per cent confidence intervals.

To further confirm these results, we estimate models with the control variables presented above. Table 2 reports the coefficient estimates of the models predicting the adoption of low district magnitudes when the diffusion variable is calculated for a two-year timespan with and without these controls. Although the diffusion effect sometimes diminishes by half when the controls are included (when 'peer countries' is defined using the linguistic criterion), it remains statistically significant in all six specifications (at a level of p < 0.1) in cases of low district magnitudes. The diffusion effect predicting the adoption of high electoral thresholds is equally robust to the inclusion of these controls. As reported in Table 3, the positive effect of the proportion of adoptions among peer countries within the last two years is positive and statistically significant (at a level of p < 0.1) in five out of six specifications. Also, the strength of this effect remains largely similar, and even tends to increase in case of low district magnitudes.

It is worth mentioning that the empirical evidence also supports the seat-maximisation hypothesis, especially in the case of high electoral thresholds. The joint effect of ENEP and ENPP on the hazard of adopting the electoral mechanism in post-1945 European PR democracies is statistically significant (at a level of p < 0.05) in all six specifications. This effect is also robust to the inclusion of controls. In contrast, the results are less clear concerning the effect of this variable on the hazard of adopting low district magnitudes. The coefficients are much smaller and only jointly statistically significant (at a level of p < 0.1)

	Model 1 Geographical peers (without controls)	Model 2 Geographical peers (with controls)	Model 3 Linguistic peers (without controls)	Model 4 Linguistic peers (with controls)	Model 5 Historical peers (without controls)	Model 6 Historical peers (with controls)
Predictive variables Adoption within the last two years among peers	$4.20^{***}(1.16)$	3.70* (2.10)	1.87 (1.37)	1.19 (1.72)	7.99*** (2.03)	7.58** (2.99)
ENEP	0.04 (0.37)	0.26 (0.44)	0.12 (0.30)	0.20 (0.35)	0.05 (0.37)	0.16 (0.50)
ENPP	0.61(0.41)	0.51(0.36)	$0.50\ (0.37)$	0.63*(0.37)	0.57~(0.41)	0.59(0.34)
(Joint significance)	* *	*	*	*	*	*
Controls						
Federal		1.46(1.54)		$1.61^{**}(0.80)$		1.82(1.39)
Parliamentary		-0.84 (2.27)		-1.44(1.96)		-1.07 (2.20)
Government's seat share		-1.97 (5.19)		-2.10 (6.86)		-2.64 (5.29)
Number of parties in government		-0.42 (1.12)		-0.43 (1.01)		-0.38(1.14)
PR in constitution		0.12(3.03)		0.31(2.84)		-0.01(3.12)
Use of a high electoral threshold		-1.32 (1.05)		-1.31 (1.02)		1.17 (1.00)
Year		$0.05^{**}(0.02)$		$0.04^{***} (0.01)$		0.05*(0.03)
Constant	$-7.90^{***}(2.03)$	$-100.78^{**}$ (42.72)	$-7.51^{***}$ (2.08)	-87.40*** (28.67)	$-7.81^{***}$ (1.97)	$-102.04^{*}$ (53.68)
Diagnostics						
Log-likelihood	11.68	10.89	12.80	11.60	11.82	10.87
χ2	$17.21^{***}$	$119.33^{***}$	5.84	$170.99^{***}$	$19.00^{***}$	$164.80^{***}$
N	201	201	201	201	201	201

parentheses; \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01 (two-tailed tests).

396

#### DAMIEN BOL, JEAN-BENOIT PILET & PEDRO RIERA

© 2015 European Consortium for Political Research

Table 2. Logistic models for diffusion of low district magnitudes

	Model 1 Geographical peers (without controls)	Model 2 Geographical peers (with controls)	Model 3 Linguistic peers (without controls)	Model 4 Linguistic peers (with controls)	Model 5 Historical peers (without controls)	Model 6 Historical peers (with controls)
Predictive variables						
Adoption within the	7.05*** (2.24)	6.36*** (2.37)	6.47* (3.38)	4.89 (3.53)	10.02* (5.27)	9.64 (6.77)
last two years among peers						
ENEP	$1.21^{**}$ (0.55)	$1.22^{**}$ (0.50)	$1.15^{*}(0.66)$	1.37*(0.73)	0.70 (0.51)	0.82 (0.66)
ENPP	-0.77 (0.59)	-0.51(0.49)	-0.76 (0.67)	-0.66(0.61)	-0.28 (0.56)	-0.22 (0.57)
(Joint significance)	* *	*	*	*	*	
Controls						
Federal		1.94(1.73)		1.35 (1.65)		1.25(1.04)
Parliamentary		-0.80(1.18)		-0.28(1.36)		-0.31(1.04)
Government's seat		-6.76 (4.59)		-3.22 (5.96)		-3.73 (5.00)
share						
Number of parties in		-0.29*(0.16)		$-0.48^{***}$ (0.18)		-0.13 (0.20)
government						
PR in constitution		-2.06*(0.16)		-1.65 (1.36)		-1.65 (1.36)
Use of low district		1.79(1.31)		2.21* (1.15)		2.21* (1.15)
magnitudes						
Year		$0.12^{**}$ (0.06)		$0.15^{***}(0.07)$		$0.15^{***}(0.06)$
Constant	$-6.90^{***}(1.21)$	$-240.43^{**}$ (121.54)	-6.64*** (1.27)	$-301.05^{***}$ (114.42)	$-6.71^{***}$ (1.36)	$-301.05^{***}$ (114.423)
Diagnostics						
Log-likelihood	22.91	18.05	22.29	17.71	21.05	16.62
χ2	$19.16^{***}$	65.04***	$10.10^{**}$	42.21***	$11.02^{**}$	35.40***
Z	236	236	236	236	236	236

Table 3. Logistic models predicting the adoption of high electoral thresholds

© 2015 European Consortium for Political Research

THE INTERNATIONAL DIFFUSION OF ELECTORAL SYSTEMS

397

in two out of six specifications. The coefficients associated with ENEP and ENPP are, however, hardly interpretable separately due to the strong correlation between the two measures – for example, as a result of correlation one of the two coefficients is negative in all 12 specifications.

We also conduct supplementary analyses to confirm the robustness of our results (see the Appendix).<sup>10</sup> As reported in Appendix Tables 1, 2 and 3, the diffusion effect remains essentially similar and statistically significant (at a level of p < 0.01) in a majority of specifications (depending on the definition of 'peer countries'), although some models cannot be estimated due to the very few adoptions of the two mechanisms of interest in reduced samples. First, in Appendix Table 1 we estimate models predicting the adoption of low district magnitudes, reducing the sample to countries not using a contentious multipletier system. By 'contentious multiple-tier system', we mean a system in which winning seats in the upper tier(s) does not depend on winning seats in the lower tier and where the number of upper-tier seats is large. These contentious cases are Denmark, Iceland and Poland before 1993 and after 2000. In these systems, lower-tier district magnitude has no impact on the overall proportionality of the electoral outcome and low district magnitudes do not produce the sweet spot mentioned above.

Second, in Appendix Table 2, we estimate the same models as in Tables 2 and 3 with Cox proportional hazard models and country-year units. Following the prescriptions of Box-Steffensmeier and Zorn (2002), we add a conditional frailty term capturing the number of times the electoral mechanisms have been previously used in the country. This term is meant to correct causal heterogeneity brought about by the existence of multiple adoptions of the same electoral mechanism in a single country throughout the period under consideration. The intuition is that the hazard of adopting a given electoral mechanism is different when this electoral mechanism has never been used compared to when it has been used for several elections in the past.

Third, Appendix Table 3 reveals that the effect of the diffusion variable remains similar when we reduce our sample to first- and second-wave democracies (meaning all but post-communist democracies). This suggests that our results regarding the diffusion of electoral systems are not entirely driven by new democracies from the 1990s.

We also estimate models predicting the adoption of either low district magnitudes or high electoral thresholds. Appendix Table 4 reveals that the diffusion effect is much smaller in those instances (and only statistically significant at a level of p < 0.1 in one out of three specifications). These results suggest that it is the particular mechanism that is subject to international diffusion among peer countries rather than the general idea of the electoral 'sweet spot' of PR systems.

Finally, we test whether it is the particular cut-off point used in the analyses presented above that drives our results. We estimate models with alternative cut-off points. Appendix Tables 5 and 6 show that the diffusion effect remains essentially similar when low district magnitudes are defined by a median of, at most, seven or nine. However, it seems that there is no diffusion effect of high electoral thresholds when these thresholds are defined as at least 4 per cent of the party vote share. At the same time, models predicting the adoption of a 6 per cent or higher threshold cannot be estimated due to the very low number of countries having used this mechanism in our sample. This suggests that only the critical 5 per cent electoral thresholds are subject to international diffusion among peer countries.

To give more substance to the quantitative results, and to offer some insights on the mechanisms at stake during the processes of electoral system choice, we look more qualitatively to the cases covered by this study. For practical reasons of data availability, we restrict our illustrations to the post-1990 period. As mentioned above, most of the adoptions of low district magnitudes and high electoral thresholds have occurred during this period (see Figure 1). We use two types of sources: case studies and minutes of parliamentary debates.<sup>11</sup>

We derive two insights from case studies on electoral system choice. First, as mentioned by Birch et al. (2002), the legislators from the newly democratic Central and Eastern European countries were inspired by the electoral system of their neighbours in setting up their own democratic architecture in the early 1990s. However, it appears that not all of them were influenced in the choice of their electoral institutions. The diffusion process was usually based upon a rather crude understanding of institutional subtleties. They mostly imported simple elements of electoral legislation. We can, first of all, conclude that the diffusion effect was more pronounced for high electoral thresholds than for low district magnitudes (although we find similar effects for the two in our quantitative analyses). The adoption of a high electoral threshold is a concrete policy, and one that is easy to identify and emulate. By contrast, implementing a median district magnitude of eight or below requires a greater calculative effort. This argument is reinforced by the fact that implementing low district magnitudes might be a risky operation for the main governing parties. Any legislator from any party may be affected by a reduction of district magnitudes. Even a legislator from a large party might lose their seat after a redistricting decision. On the opposite end of the spectrum, the calculations are much easier regarding high electoral thresholds. The potential victims of this mechanism are easily identifiable, and are almost certainly the legislators from small parties. Along this line, we also find historical elements supporting the diffusion of a high electoral threshold in the reforms of the early 2000s in Belgium (Pilet 2007), and in the reforms of the 1990s in Slovakia, Slovenia (Nikolenyi 2011) and the Czech Republic (Kopecky 2004).

The second insight we derive from existing case-study literature is about which countries are more susceptible to be influenced by foreign examples. According to Lijphart (1992), new democracies are more likely to import electoral systems (or institutional features more generally) than established democracies. Along these lines, Grofman et al. (1999: 235) say that 'all of its components were borrowed or adapted from the West, but their combination was Byzantine' (talking about the 1992 Estonian electoral system). Also, Kopecky (2004: 349) says that 'the actual percentage [the 5 per cent electoral threshold] was probably influenced by foreign examples, specifically that of neighbouring Germany and Austria' (talking about the electoral system adopted by the Czech National Council in 1990).

To complement these insights taken from the historical literature, we conducted a systematic analysis of the parliamentary debates that preceded the adoption of low district magnitudes or high electoral thresholds during the period covered in our qualitative assessment (i.e., 1990–2010). For each country, we carefully read the minutes of these debates. We searched for mentions of foreign countries and noted the arguments made by the legislators in this respect.<sup>12</sup> It is worth noting that the parliamentary debates contained less references to international examples of electoral systems than to domestic elements (such as party competition or democratic representation). However, we also find elements supporting our

quantitative results, and our content analysis confirms that, in several countries, some legislators refer to the functioning of low district magnitudes and high electoral thresholds abroad in order to argue about the desirability of such a mechanism. For example, we find explicit international references in parliamentary debates in Belgium, Slovenia, Slovakia and the Czech Republic. Typically, it was the promoters of the reform that used these references to justify their proposal. The legislators from junior coalition partners or small, opposition parties were very critical of the adoption of a high electoral threshold in their domestic countries. To address these critics, we see that the promoters referred to international experiences during parliamentary debates. In particular, these legislators usually stressed that high electoral thresholds are used in many other democracies, and that their implementation does not require complex arrangements. For example, in 2000, the Belgian government set up an expert committee in charge of making proposals to reform the electoral system. One of the main professed goals was to find a way to reduce party system fragmentation. The experts proposed several reforms, including the introduction of a 5 per cent threshold (which was eventually implemented in 2003) or a radical switch to a mixedmember system. In the final report, the functioning of German institutions was at the core of the experts' justificatory argumentation.

Finally, in line with the historical literature presented above, our content analysis of the parliamentary debates reveals that the references to foreign electoral institutions were more frequent in new democracies in Central and Eastern Europe than in Western countries. We find international references in the debates in Slovenia, Slovakia and the Czech Republic, but also in Croatia and Romania. In this latter case, the legislators produced a report systematically comparing the advantages and disadvantages of various electoral institutions used in other European countries.<sup>13</sup>

#### Conclusions

Despite the international and comparative focus of much of the scientific work on electoral engineering, the literature often fails to take into consideration the fact that national electoral engineering processes do not occur in a vacuum. In this regard, there is no theoretical or empirical reason to discard the possibility of cross-national diffusion. Relying on longitudinal analyses of the adoption of low district magnitudes and high electoral thresholds – that is, two functional equivalents that reduce the number of parliamentary parties under PR – in European democracies from 1945 to 2010, we have found strong evidence of electoral system diffusion between peer countries. More precisely, our empirical analysis supports the existence of short-lived international trends of two or three years in the adoption of low district magnitudes and high electoral thresholds. This effect is robust to various definitions of 'peer countries', to the inclusion of numerous controls (including some accounting for the classic seat-maximisation model) and to various econometric specifications. The likelihood that a country adopts one of these arrangements increases with the number of peer countries that have recently adopted a similar system. This finding has been cross-validated with illustrative case studies.

This article's contribution to the literature on electoral systems is that it confirms the need to take into account the diffusion of innovation across countries in work on electoral

adoption and reform, as well as more broadly in work on institutional choice. However, there are two limitations of this study. The first is that our model specification leaves room for an alternative explanation of the observed diffusion effect. What we have observed is that peer countries tend to adopt a given mechanism tempering PR at the same moment, in what we might characterise as 'spill-over'. These adoption patterns could be due to a third exogenous factor that affects all these countries at the same time. This omitted variable problem is very hard to address in most observational studies. Nevertheless, we have tried to get around it by including in our models variables accounting for the mainstream explanation of electoral system choice (i.e., the fragmentation of party system, through ENPP and ENEP).

The second limitation is that we do not want to claim that diffusion represents the only reason for the adoption of low district magnitudes and high electoral thresholds. The classic seat-maximisation model appears to be an important predictor as well. Additional work needs to be done to disentangle which are the exact causal mechanisms that explain the international diffusion of electoral systems. To take one possible scenario, legislators facing a problem at home, such as a quick increase in the fragmentation of the party system, might look for inspiration abroad. In particular, they might be inspired by the way other countries addressed the same problem in the recent past. Another possible scenario is that the diffusion of electoral systems might also be driven by legitimacy considerations. For example, legislators that are willing to increase the effective threshold of representation so as to get rid of small parties (and to maximise their power over the parliament) might justify their tinkering with the electoral rules by making reference to recent episodes of electoral engineering in other countries. By so doing, they might legitimate their self-interested strategy by arguing that the new rule has proven its superiority abroad. These limitations aside however, it seems clear that from now on, studies on the politics of electoral systems should include the idea of international diffusion in their analyses.

## Acknowledgements

For this research, the Belgian FRS-FNRS supported Damien Bol (Aspirant FNRS Grant) and Jean-Benoit Pilet (MIS-Incentive Grant for Scientific Research). The project Comportamiento electoral y politicas publicas (Reference: CSO2013-40870-R) and the University of Strathclyde supported Pedro Riera.

# **Appendix: Robustness checks**

*Appendix Table 1.* Logistic models predicting the adoption of low district magnitudes, without 'contentious' multiple-tier countries

	Model 1 Geographical peers	Model 2 Linguistic peers	Model 3 Historical peers
Predictive variables	2 (()))	(Model 2 cannot be estimated due to the lack	<b>5</b> 01 http://d. 0 <b>0</b> )
Adoption within the last two years among peers	3.66*** (1.10)	of variation of the main	7.01*** (1.92)
ENEP	-1.12 (0.88)	independent variable)	-1.13 (0.82)
ENPP	1.45** (0.61)		1.46** (0.62)
Constant	-5.34** (2.48)		-5.62** (2.31)
Diagnostics			
Log-likelihood	10.19		10.25
χ2	21.81***		23.35***
Ν	189		189

Notes: Entries are coefficient estimates of logistic models predicting the adoption of low district magnitudes; Standard errors clustered by country are in parentheses. \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01 (two-tailed tests).

		Low district magnitudes	des		High electoral threshold	pld
	Model 1 Geographical	Model 2 Linguistic	Model A3 Historical	Model 4 Geographical	Model 5 Linguistic	Model 6 Historical
	peers	peers	peers	peers	peers	peers
Predictive variables						
Adoption within the last two years among	7.67** (3.23)	8.75*** (2.90)	$12.49^{***}(1.22)$	$3.32^{**}(1.59)$	$3.24^{*}(1.70)$	6.31*** (1.94)
peers						
ENEP	-0.36(0.81)	-0.64 (0.52)	-0.37 (0.69)	$1.31^{***}$ (0.40)	$1.24^{***} (0.45)$	$1.08^{**}(0.51)$
ENPP	0.74 (0.57)	$1.14^{***}$ (0.42)	$0.81^{*}(0.48)$	$-0.82^{**}(0.35)$	$-0.76^{**}(0.39)$	-0.61 (0.44)
Diagnostics						
Log-likelihood	15.34	16.99	16.19	31.68	31.19	29.60
χ2	22.29***	$16.20^{***}$	$135.79^{***}$	24.36***	28.67***	42.32***
Ν	733	733	733	847	847	847

Appendix Table 2. Proportional hazard models predicting the adoption of low district magnitudes/high electoral thresholds

		Low district magnitudes		High el	High electoral threshold	
	Model 1 Geographical neers	Model 2 Linguistic neers	Model 3 Historical	Model 4 Geographical neers	Model 5 Linguistic neers	Model 6 Historical neers
Predictive variables	-	(Model 2 cannot he	-	(Model 4 cannot he	-	-
Adoption within the last two years among	3.24*** (1.06)	estimated due to the lack of variation of	6.47*** (2.08)	estimated due to the lack of variation of	7.16*** (2.15)	7.16*** (2.15) 17.44*** (4.71)
peers		the main independent		the main independent		
ENEP	-0.46(1.28)	variable)	-0.54(1.29)	variable)	-0.38 (0.54)	-0.26 (0.76)
ENPP	0.66(0.96)		0.73(1.00)		1.29*(0.74)	1.19 (0.76)
Constant	-5.28** (2.51)		-5.22** (2.43)		$-9.39^{**}$ (4.08)	$-9.86^{**}$ (3.99)
Diagnostics						
Log-likelihood	10.18		10.19		8.45	7.56
χ2	12.84***		$13.02^{***}$		$11.96^{***}$	$16.88^{***}$
N	160		160		217	217

Appendix Table 3. Logistic models predicting the adoption of low district magnitudes/high electoral thresholds in old democracies (first and second democ-•

404

© 2015 European Consortium for Political Research

•

	Model 1	Model 2	Model 3
	Geographical peers	Linguistic peers	Historical peers
Predictive variables			
Adoption within the last two years among	2.98** (1.26)	1.62 (1.74)	3.96 (3.79)
peers			
ENEP	$0.87^{**}(0.41)$	$0.78^{*}(0.44)$	0.64 (0.54)
ENPP	-0.40(0.49)	-0.34 (0.53)	-0.20 (0.62)
Constant	-6.38*** (1.23)	$-6.05^{***}(1.30)$	-6.06*** (1.27)
Diagnostics			
Log-likelihood	21.77	22.75	22.48
χ2	28.77***	15.58***	17.61***
Ν	162	162	162

Appendix Table 4. Logistic models predicting the adoption of low district magnitudes and/or high electoral thresholds

Notes: Entries are coefficient estimates of logistic models predicting the adoption of low district magnitudes and/or high electoral thresholds. Standard errors clustered by country are in parentheses. \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01 (two-tailed tests).

	Low	Low district magnitudes		Hig	High electoral threshold	_
	Model 1 Geographical peers	Model 2 Linguistic peers	Model 3 Historical peers	Model 4 Geographical peers	Model 5 Linguistic peers	Model 6 Historical peers
Predictive variables						
Adoption within the last two years among	$4.23^{***}(1.15)$	1.93 (1.34)	8.10*** (2.01)	$4.16^{**}(1.83)$	-4.58 (4.53)	0.15 (5.26)
peers						
ENEP	0.06(0.36)	0.14(0.29)	0.06 (0.36)	$0.95^{**}(0.42)$	$1.45^{***}(0.40)$	$0.96^{*}(0.52)$
ENPP	0.59(0.40)	0.48(0.37)	0.56(0.40)	-0.81(0.50)	$-1.24^{***}$ (0.40)	-0.78(0.58)
Constant	$-7.95^{***}$ (1.97)	-7.56*** (2.02)	$-7.85^{***}(1.92)$	$-4.52^{***}$ (0.92)	$-4.78^{***}$ (1.05)	$-4.46^{***}(0.92)$
Diagnostics						
Log-likelihood	11.72	12.85	11.84	32.64	33.26	34.13
χ2	$17.90^{***}$	6.26*	$19.92^{***}$	$12.13^{***}$	23.30***	$10.36^{**}$
Ν	212	212	212	199	199	199

	TOV	LUW UISUICI IIIABIIIIUUCS	2			
	Model 1 Geographical neers	Model 2 Linguistic neers	Model 3 Historical neers	Model 4 Geographical neers	Model 5 Linguistic neers	Model 6 Historical neers
	1	0		1 0	0	
Predictive variables				(Model 4 cannot	(Model 5 cannot	(Model 6 cannot
Adoption within the	2.13 (1.72)	-0.12 (1.00)	$9.37^{***}(3.06)$	be estimated	be estimated	be estimated
last two years among				due to the lack	due to the lack	due to the lack
peers				of variation of	of variation of	of variation of
ENEP	-0.26 (0.35)	-0.26 (0.34)	-0.51(0.47)	the main	the main	the main
ENPP	$1.22^{**}$ (0.47)	$1.22^{**}$ (0.49)	$1.56^{***}(0.45)$	muepenuent variable)	muepenuent variable)	muepenuent variable)
Constant	$-7.71^{***}(1.79)$	$-7.66^{***}$ (1.80)	-8.28 (1.65)		(Alantin)	(ALADITA)
Diagnostics						
Log-likelihood	25.18	22.55	22.52			
χ2	$13.22^{***}$	$11.20^{**}$	35.97***			
Ν	178	178	178			

*Appendix Table 6.* Logistic models predicting the adoption of low district magnitudes (= median of at most 9)/high electoral thresholds (= at least 6 per cent)

#### Notes

- 1. It should be noted that, according to Carey and Hix (2011), mixed-member electoral systems constitute another sweet spot. However, this type of system is rare among European democracies (Germany constituted the only example for about 50 years, until the beginning of the 1990s) as it usually requires a change in the constitutional arrangement. For this reason, it has been disregarded in the present study.
- 2. We also tested whether the use (rather than the adoption) of low district magnitudes or a high electoral threshold in other countries influenced the probability of the adoption of such a mechanism at home. The tests reveal the absence of such an effect. We explain this non-result by the absence of salience of the issue of electoral system choice in normal political times. It is reasonable to assume that legislators hardly looked at what was happening in peer countries when things were 'business as usual' in their own countries.
- 3. The data was collected under the aegis of the Electoral System Change in Europe since 1945 (ESCE) project. The precision and accuracy in the data collection sets the ESCE data apart from similar data. We could not use Bormann and Golder's (2013) widely cited dataset, Democratic Electoral Systems around the World, because the information concerning the electoral threshold is missing.
- 4. The countries are: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and Switzerland.
- 5. We acknowledge that this cut-off point is chosen on a rather arbitrary basis, and that other cut-off points are sometimes used in the literature (see Lowery et al. 2010). However, we tested the two hypotheses mentioned in the text at different cut-off points (median district magnitudes of seven, median district magnitudes of nine, electoral thresholds of 4 per cent and electoral thresholds of 6 per cent; see the Appendix).
- 6. Yet the effect of a 5 per cent electoral threshold might be very different if this threshold were calculated at the country or district level. However, distinguishing between these two types of thresholds would give us too few observations to estimate the models.
- 7. For multilingual countries such as Belgium or Switzerland, the language spoken at home by the majority of the population is used.
- 8. Cyprus is the only presidential country in our sample.
- 9. The dataset and replication material are available on the first author's website (www.damienbol.eu).
- 10. We would like to thank the referees of the *European Journal of Political Research* for challenging us on this point, which encouraged us to add these extra levels of analysis.
- 11. The countries covered by the qualitative analyses are: Austria, Belgium, Croatia, Czech Republic, Denmark, Iceland, Latvia, Lithuania, Romania, Slovakia and Slovenia.
- 12. We would like to thank Pablo Simón Cosano and Lidia Núñez López for their assistance in this part of the analysis.
- 13. Autoritatea Electorală Permanentă, *Raport asupra organizării și desfășurării alegerilor pentru camera deputaților și Senat din 30 noiembrie 2008* (www.roaep.ro/ro/section.php?id=85), pp. 138–139.

# References

Andrews, J.T. & Jackman, R.W. (2005). Strategic fools: Electoral rule choice under extreme uncertainty. *Electoral Studies* 24(1): 65–84.

Bawn, K. (1993). The logic of institutional preferences: German electoral laws as a social choice outcome. *American Journal of Political Science* 37(4): 965–989.

Benoit, K. (2004). Models of electoral system change. *Electoral Studies* 23(3): 363-389.

- Benoit, K. (2007). Electoral laws as political consequences: Explaining the origins and change of electoral institutions. Annual Review of Political Science 10: 363–390.
- Birch, S. et al. (2002). *Embodying democracy: Electoral system design in post-communist Europe*. Basingstoke: Palgrave Macmillan.

- Blais, A. & Bodet, M.-A. (2006). Does proportional representation foster closer congruence between citizens and policymakers? *Comparative Political Studies* 39(10): 1243–1262.
- Blais, A. & Massicotte, L. (1997). Electoral formulas: A macroscopic perspective. European Journal of Political Research 32(1): 107–129.
- Blais, A., Dobrzynska, A. & Indridason, I.H. (2005). To adopt or not to adopt PR: The politics of institutional choice. *British Journal of Political Science* 35(1): 182–190.
- Boix, C. (1999). Setting the rules of the game: The choice of electoral systems in advanced democracies. *American Political Science Review* 93(3): 604–624.
- Bormann, N.-C. & Golder, M. (2013). Democratic electoral systems around the world, 1946–2011. *Electoral Studies* 32(2): 360–369.
- Bouché, V. & Volden, C. (2011). Privatization and the diffusion of innovations. *Journal of Politics* 73(2): 428–442.
- Bowler, S. & Farrell, D.M. (2006). We know which one we prefer but we don't really know why: The curious case of mixed-member electoral systems. *British Journal of Political Science* 8(3): 445–460.
- Box-Steffensmeier, J.M. & Zorn, C.J. (2002). Duration models for repeated events. *Journal of Politics* 64(4): 1069–1094.
- Brinks, D.M. & Coppedge, M. (2006). Diffusion is no illusion: Neighbor emulation in the third wave of democracy. *Comparative Political Studies* 39(4): 463–489.
- Brooks, S.M. (2007). When does diffusion matter? Explaining the spread of structural pension reforms across nations. *Journal of Politics* 69(3): 701–715.
- Bush, S. (2011). International politics and the spread of quotas for women in legislatures. *International Organization* 65(1): 103–137.
- Carey, J.M. & Hix, S. (2011). The electoral sweet spot: Low-magnitude proportional electoral systems. *American Journal of Political Science* 55(2): 383–397.
- Colomer, J.M. (2004). The strategy and history of electoral system choice. In *Handbook of electoral system choice*. Basingstoke: Palgrave Macmillan.
- Colomer, J.M. (2005). It's parties that choose electoral systems (or Duverger's laws upside down)? *Political Studies* 53(1): 1–21.
- Cusack, T.R., Iversen, T. & Soskice, D. (2007). Economic interests and the origin of electoral systems. *American Political Science Review* 101(3): 373–391.
- Elkins, Z. (2010). Diffusion and the constitutionalization of Europe. *Comparative Political Studies* 43(8–9): 969–999.
- Gilardi, F. (2010). Who learns from what in policy diffusion processes? *American Journal of Political Science* 54(3): 650–666.
- Golder, M. & Stramski, J. (2010). Ideological congruence and electoral institutions. American Journal of Political Science 34(1): 90–106.
- Graham, E.R., Shipan, C.R. & Volden, C. (2013). The diffusion of policy diffusion research in political science. *British Journal of Political Science* 43(3): 673–701.
- Grofman, B., Mikkel, E. & Taagepera, R. (1999). Electoral system change in Estonia, 1989–1993. *Journal of Baltic Studies* 30(3): 227–249.
- Hooghe, M. & Deschouwer, K. (2011). Veto players and electoral reform in Belgium. *West European Politics* 34(3): 636–643.
- Karvonen, L. (2010). *The personalization of politics: A study of parliamentary democracies*. Colchester: ECPR Press.
- Katz, R.S. (2005). Why are there so many (or so few) electoral reforms? In M. Gallagher & P. Mitchell (eds), *The politics of electoral systems*. Oxford: Oxford University Press.
- Kopecky, P. (2004). The Czech Republic: Entrenching proportional representation. In J.M. Colomer (ed.), *Handbook of electoral system choice*. Basingstoke: Palgrave Macmillan.
- Laakso, M. & Taagepera, R. (1979). Effective number of parties: A measure with application to West Europe. *Comparative Political Studies* 12(1): 3–27.
- Lijphart, A. (1992). Democratization and constitutional choices in Czechoslovakia, Hungary and Poland, 1989–91. *Journal of Theoretical Politics* 4(2): 207–223.
- Lijphart, A. (1994). Electoral systems and party systems. Oxford: Oxford University Press.

- Lowery, D. et al. (2010). Unpacking logM: Towards a more general theory of party system density. *American Journal of Political Science* 54(4): 921–935.
- Lundell, K. (2010). The origin of electoral systems in the postwar era: A worldwide study. London: Routledge.
- Meseguer, C. & Escribà-Folch, A. (2011). Learning, political regimes and the liberalization of trade. *European Journal of Political Research* 50(6): 775–810.
- Nikolenyi, C. (2011). When electoral reform fails: The stability of proportional representation in postcommunist democracies. *West European Politics* 34(3): 607–625.
- Pilet, J.-B. (2007). *Changer pour gagner? Les réformes électorales en Belgique*. Brussels: Editions de l'Université de Bruxelles.
- Pilet, J.-B. & Bol, D. (2011). Party preferences and electoral reform: How time in government affects the likelihood of supporting electoral change. West European Politics 34(3): 568–586.
- Powell, G.B. & Vanberg, G. (2000). Election laws, disproportionality and median correspondence: Implications for two visions of democracy. *British Journal of Political Science* 30(3): 383–411.
- Quintal, D.P. (1970). The theory of electoral systems. Western Political Quarterly 23(4): 752-761.
- Rahat, G. (2011). The politics of electoral reform: The state of research. *Journal of Elections, Public Opinion and Parties* 21(4): 523–543.
- Rahat, G. & Hazan, R.Y. (2011). The barriers to electoral system reform: A synthesis of alternative approaches. *West European Politics* 34(3): 478–494.
- Remmer, K.L. (2008). The politics of institutional change: Electoral reform in Latin America, 1978–2002. *Party Politics* 14(1): 5–30.
- Renwick, A. (2010). The politics of electoral reform. Cambridge: Cambridge University Press.
- Rogers, E.M. (2003). Diffusion of innovation. New York: Free Press.
- Rogowski, R. (1987). Political cleavages and changing exposure to trade. *American Political Science Review* 81(4): 1121–1137.
- Ruhlen, M. (1987). A guide to the world languages, Volume 1: Classification. Stanford, CA: Stanford University Press.
- Selb, P. (2012). Strategic adaptations to new electoral systems. *European Journal of Political Research* 51(5): 583–606.
- Shipan, C.R. & Volden, C. (2008). The mechanisms of policy diffusion. American Journal of Political Science 52(4): 840–857.
- Shugart, M.S. (2001). 'Extreme electoral systems' and the appeal of the mixed-member alternative. In M.S. Shugart & M.P. Wattenberg (eds), *Mixed-member electoral systems: The best of both worlds*? Oxford: Oxford University Press.
- Shugart, M.S. (2008). Inherent and contingent factors in reform initiation in plurality systems. In A. Blais (ed.), *To keep or to change first past the post? The politics of electoral reform*. Oxford: Oxford University Press.
- Simmons, B. & Elkins, Z. (2004). The globalization of liberalization: Policy diffusion in the international political economy. *American Political Science Review* 98(1): 171–189.
- Taagepera, R. & Shugart, M.S. (1989). Seats and votes: The effects and determinants of electoral systems. New Haven, CT: Yale University Press.

Address for correspondence: Damien Bol, Department of Political Science, University of Montreal, Pavillon Lionel-Groulx, CP 6128, Succursale Centre-ville, H3C 3J7 Montreal, Canada. E-mail: damien.bol@ umontreal.ca