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# Workshop 15: The partisan effect of electoral systems: studying complex electoral rules 

# Pre-electoral Coalition formation in Mixed-member Electoral Systems with Majority Bonus: France and Italy 

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## Abstract:

The proliferation of mixed-member electoral systems has progressively led scholars to abandon the dichotomy between majoritarian and proportional systems. Among these numerous variants of these mixed systems, electoral systems with majority bonus remain overlooked and not well understood, not least because of the absence of systematic empirical comparison between them.

France and Italy offer are among the few countries which have implemented mixed-member electoral systems with majority bonus at several levels of elections. In a preliminary empirical investigation on mixed-member electoral systems with majority bonuses, this study deals with the recent regional elections in France and Italy, in which such systems are used, focusing specifically on the matter of pre-electoral coalition formation, and on the political consequences of these systems. Two main aspects are studied. Firstly, what are the effects of the bonus arrangements on the probability and on the configuration of pre-electoral coalitions among parties? Secondly, what are the types of agreements reached in case of coalition formation? Does the well known 'Gamson law' of proportional sharing hold in such a context?

It appears that these pre-electoral coalitions in such systems tend to lead to surplus coalitions in order to secure the bonus, and to a fairly proportional distribution of seats compared to votes, regardless of competitiveness or of the size of the larger parties. Levels of fragmentation are somehow linked to the constestability of the election both in France and Italy.

## Introduction

France and Italy are among the few countries which have implemented mixed-member electoral systems with majority bonuses. France adopted a proportional electoral system with two rounds and a majority bonus of $25 \%$ of the seats in 2003 for the regional elections. Italy has used a mixed-member-proportional system with majority bonus at the regional level since 1995. This type of electoral system is both rare, difficult to classify, and puzzling in terms of effects and electoral outcomes.

The majority bonus is seldom used at the national level, the main exceptions being probably Greece, and Italy since 2005. Since it is not often used, it is rarely included in classifications of electoral systems and even the terms or concepts to describe this system are not firmly established in the literature. Finally, the effects of majority bonus systems are not known, because they entail trade-offs between the proportional and the majority components, which are mediated by patterns of electoral coalition formation.

The main problem with this type of systems consists in securing the bonus. Parties have one main tool to achieve this goal: coalescing with other parties. Yet, coalition comes with costs: sharing seats with coalition partners, and potential electoral loss for larger, less cohesive coalitions. Hereby, our two questions are firstly, what is the format of the coalitions formed under these systems, and secondly, how do parties share seats within coalitions.

Regional elections have interesting features to answer these questions. The format of the party system can be considered as largely exogenous from the regional contest, hence the opportunity to observe the actual impact of the constraints of the electoral system. Meanwhile, it is important to keep in mind that regional elections are not independent from the national contest, and that effects of contamination may exist. The aim of this paper is not to provide a comprehensive narrative of the results of the French and Italian regional elections, but to show how these two cases illustrate the dynamics of pre-electoral coalitions entailed by mixed-member electoral systems with majority bonus.

We proceed in four sections. The first section examines the issue of classification of this type of system within the realm of mixed-member electoral systems, and describes the two regional systems used in Italy and France. The second section provides a theoretical framework to understand the specific issues raised by this type of systems, through the existing theories of pre-coalition building and coalition formation in general. The two last sections propose the empirical study of respectively Italy and France. It appears that pre-electoral coalitions in systems with majority bonuses do not conform very well to the usual and restrictive expectations of the coalition theory. Coalitions tend to be larger than expected, disproportionality between votes and seats low within coalitions, and fragmentation marginally related to the contestability of elections. This suggests that parties do not conform so much to the "power-bargaining" model, but rather than uncertainty and logics related to the preservation of the cohesiveness of an ideological block contribute to the explanation of party strategies in electoral systems with bonuses.

## Mixed-member systems with majority bonus: what are they?

Considerable efforts of classification of electoral systems have been made in the two last decades to overcome the traditional divide between majoritarian and proportional electoral systems, mostly as a result of the adoption of mixed-member electoral systems in various established and new democracies. However, it is very difficult to adequately classify the electoral systems with majority bonus within the existing theoretical frameworks. After presenting the two main competing definitions of mixed systems, we argue
that they constitute a peculiar type of mixed electoral system. Secondly, we present the electoral systems used in France and Italy for the regional elections, and how they illuminate defining characteristics of mixed electoral systems with majority bonus.

## Unclassified, or unclassifiable? Electoral systems with majority bonuses and mixed electoral systems

There are two main definitions of mixed-member electoral systems in the literature. The first one, that is also the broadest, was developed by Blais and Massicotte. They consider that a given electoral system can be characterized as mixed "if its mechanics involves the combination of different electoral formulas (plurality or $P R$, majority or $P R$ ) for an election to a single body" (Massicotte and Blais 1999, 345). They add that mixed systems in their essence must "incorporate opposed principles", i.e. the mix of majoritarian and proportional principles. Later definitions have argued that this initial definition is too broad, because it is extremely common for countries using proportional electoral systems to use also plurality or majority formulas in certain specific electoral districts. Therefore, Shugart and Wattenberg, who co-edited the reference volume on mixed-member electoral systems, proposed the following definition: "mixed-member electoral systems are defined as a subset of the broader category of multiple-tier electoral systems. (...) with the specific proviso that one tier must entail allocation of seats nominally whereas the other must entail allocation of seats by lists" $(2003,10)$. This second definition is more specific in that this entails the existence of two different mechanisms of repartition of the seats for each tier. The authors also distinguish between mixed-member majoritarian electoral systems, in which there is no linkage between the two tiers, leading to a parallel distribution of the seats, and mixed-member proportional electoral systems, in which the number of seats attributed in the list part depends partially on the number of seats attributed in the nominal tier. These later systems have often been qualified as compensatory, the national German electoral system being the most prominent example.

Where do electoral systems with majority bonuses stand in these definitions? These systems can be defined as electoral systems combining the proportional allocation of seats to lists with the allocation of a bonus of seats to the leading list, coalition, or candidate. This subset of systems can themselves offer a great number of variations. The bonus can be compensatory, linking the size of the bonus to the results obtained in the list or, if relevant, in the nominal part. The size of the bonus can also be fixed ex ante and not dependent on the electoral outcomes obtained in the list part. In that case, the bonus is parallel. These systems can use single or multiple tiers. Some combine list allocation of seats with nominal allocations of seats, but not necessarily. Finally, the size of the majority bonus can vary. Literature on mixed-member electoral systems has been rather elusive when it came to this type of systems, as they do not fit very well the existing definitions: indeed, they do not necessarily use a combination of electoral formulas or multiple tiers, so that in principle, some of them can be qualified as mixed-member electoral systems, and some not. Yet, these systems undoubtedly combine majoritarian and proportional principles in the allocation of seats, as all of them are the results of the double objective to represent a large spectrum of parties and to ensure a stable governing majority.

Shugart and Wattenberg qualify these systems of "majority-assuring" using the example of the Mexican electoral systems of 1988 and 1991 in which the party with the most nominal tier seats get automatically whatever number of list seats necessary to reach absolute majority of the seats. They dismiss this category of electoral systems arguing bluntly that "these systems are rare and are likely to be found in countries of dubious democratic credentials" (2001: 14). Massicotte and Blais classify these systems within the category of mixed-systems using "conditional dependent combinations" (1999, 357). They use the two historical examples of the 1923 and 1953 Italian electoral laws, the "legge Acerbo" and the so-called "legge truffa".

[^0]The law of 1923 specified that two thirds of the seats would be awarded to the party obtaining a plurality of the national vote in the list part, provided that this party gets at least $25 \%$ of the votes. The 1953 electoral system obeyed the same logic: the party getting the plurality of the national vote would automatically get two thirds of the seats. Finally, Martin, who has provided the most comprehensive account of these electoral systems, qualify them of "mixed-member systems with majoritarian finality" $(2006,98)$.

Yet, electoral systems with majority bonuses do not belong only to history. They are now used at the national level in Italy since 2005 (through a system that has been qualified as "bonus-adjusted proportional representation, Renwick 2010), where the winning coalition gets $55 \%$ of the seats, or in Greece since 1993 through what has been labeled as "reinforced PR", where proportional representation is complemented by FPTP, with a majority bonus of 40 seats out of 300 for the leading party in the majoritarian part. Martin focuses on the subnational level, using the example of the French and Italian municipal elections, which are both two-round electoral systems with majority bonuses. In the French case, half of the seats are reserved to the list obtaining the majority in the first round or the plurality of votes in the second round, the rest being divided between all of the lists obtaining at least $5 \%$ of the votes, including the winning list. For municipal elections in Italy, the mayor is directly elected with a uninominal electoral system. In the first round, the voter has a vote to choose the council. If a list or a coalition gets the majority of the votes, the seats are divided between all the lists with PR. If not, after the second round, the lists supporting the candidate who won share $60 \%$ of the seats and the other lists get $40 \%$ of the seats, divided proportionally.

Electoral systems with majority bonuses are seldom used, but still present in a number of established democracies at the national or at the subnational level. Martin unambiguously classifies the electoral systems with majority bonuses as mixed-member systems, because "proportional representation (...) is used as a technique to ensure the representation of minority parties" (2006:109). We endorse his argument and consider that systems with majority bonuses are a peculiar type of mixed-member electoral systems. Indeed, what is implied to the definitions we have reviewed of mixed-member electoral systems is the combination of proportional and majoritarian principles in the mechanisms of allocation of seats, be it through the combination of electoral formulas, multiple tiers with nominal and list allocation, or, in that case, through the existence of a majority bonus.

> The electoral systems for the regional elections in France and Italy: some examples of mixedmember electoral systems with majority bonus

Since 1995 in Italy and the $11^{\text {th }}$ of April 2003 in France, the regional councils and the presidents of regions are elected by mixed-member electoral system with majority bonuses. Variants of this system are used at the municipal, provincial, and even the national level for the lower and the upper houses since 2005 in Italy. France has been using a system with majority bonus for municipal elections since 1983.

France uses a two-round electoral system with PR and majority bonus for regional elections. The council is elected for 6 years, and the lists compete at the regional level. If a list gets the majority of the votes in the first round, it gets $25 \%$ of the seats, while the rest of the seats is attributed to all lists getting at least $5 \%$ of the votes, including the winning list. If no list gets the majority of the votes, a second round is organized, in which only the lists that obtained at least $10 \%$ of the votes in the first round can compete. Between the first and the second round, lists that obtained between 5 and $10 \%$ of the votes can fusion with the lists competing in the second round. After the second round, the list getting the most votes is allocated automatically $25 \%$ of the seats, while the rest of the seats are allocated proportionally between all of the lists that got at least $5 \%$ of the votes (including the winning list). The seats obtained by each list are divided
between the departmental sections at the pro rata of votes obtained by each list, so as to ensure the representation of all the territories in the council. In other words, the French regional electoral system uses a single tier, a bonus that is fixed and does not provide provisions for compensation, and rather high electoral thresholds (5 \% of the valid votes to obtain seats).

The Italian case is more difficult to grasp, as not only the system is extremely complex, but not all regions use the exact same system. The general pattern is provided by the so-called "legge Tatarella" of 1995, putting in place the direct election of the president of region and the implementation of a mixed-member electoral system with majority bonus. Since the constitutional reform of 1999 , ordinary regions ${ }^{2}$ have the possibility to adapt their electoral systems, providing they adopted a new status and they maintain the basic mixed-member electoral rules with majority bonus. Five regions have adopted variants of the 1995 electoral systems, with more or less substantial deviations: Lazio, Puglia, Calabria, Marche and Toscana. The general principle is that the voter is given two votes: one to choose a list at the provincial level (list vote), and one to choose a candidate for the presidency of the region, who himself is the head of a blocked, regional list (nominal vote), elected with a first past the post system. The groups of the provincial lists coincide with the parties, whereas the regional lists represent the coalitions.

All of the provincial lists are linked to a candidate for the presidency. The voter can choose to cast one, or two votes (one for the provincial list, one for a candidate, or both), and has the right to choose a different list and candidate (voto disgiunto). $80 \%$ of the seats are attributed to provincial lists through a proportional system using the Droop quota. The voter has the right to express one preference vote. To be admitted to the repartition of the seats, a list must either obtain $3 \%$ of the votes or be part of a coalition that obtained at least $5 \%$ of the votes in the list vote, hence giving a strong incentive to coalesce for small parties. The remaining seats not attributed with the quota are then allocated in a unique regional college (collegio unico regionale).

The remaining seats are attributed to the blocked regional lists (listino) through a majoritarian, first past the post system. The head of the regional list is the candidate for presidency, and the regional lists represent the coalitions. The candidate that got the most votes gets the majority bonus. Its size varies according to the amount of votes obtained by the lists linked to this candidate in the proportional part at the provincial level. The "full" bonus of $20 \%$ of the seats is distributed if the group of provincial lists linked to the listino and the candidate got less than $50 \%$ of the votes. On the contrary, if the provincial lists linked to the candidate for presidency got more than $50 \%$ of the votes in the proportional part, the bonus distributed represents only $10 \%$ of the seats. In any case, the winning coalition is guaranteed $55 \%$ of the seats of the regional council if the provincial lists got less than $40 \%$ of the votes and $60 \%$ of the seats if the provincial lists got more than $40 \%$ of the votes. Therefore, if after the attribution of the bonus, the number of seats obtained is inferior to $55 \%$ or $60 \%$, other seats are attributed until the following threshold are reached: $55 \%$ of the seats if the provincial lists got less than $40 \%$ of the votes, $60 \%$ otherwise. These additional seats are attributed to the "best" provincial lists, and given to the candidates that got the more preference votes. Four regions have adopted more or less substantial adjustments to this general pattern, in order mainly to solve issues of fragmentation, discrepancy of representation between territories and between men and women, and intracoalitional conflicts due to the composition of the regional lists. We only list the more important modifications (Floridia 2005, Pacini in Chiaramonte and Barbieri 2007, see Table 1).

These reforms are not extremely substantial. The modifications that are most likely to have an effect on electoral outcomes and allocation of seats in coalitions are the introduction of a threshold indiscriminate of the presence in a coalition in Puglia and Calabria. Other provisions mainly aimed at rationalizing the

[^1]allocation of the bonus, getting rid of the regional lists in which candidates elected were perceived as less "democratically legitimate" than candidates elected in provincial lists.

Table 1. Main deviations to the 1995 Italian regional electoral law

| Region | Regional list | Bonus | Threshold | Other main modifications |
| :---: | :---: | :---: | :---: | :---: |
| Lazio | - | Number of councilors is not fixed to 71 members, 56 elected at the provincial level and 14 at the regional level | - | - |
| Calabria | - | - | $4 \%$ for each party competing, regardless of being part of a coalition or not | - |
| Puglia | Abolished. Bonus seats attributed proportionally to the winning coalition. | - | $4 \%$ for each party competing, regardless of being part of a coalition or not | Lists must have candidates in at least half of the provinces |
| Toscana | Abolished. Distribution of the seats between seats over the required thresholds at the regional level. | If the president gets less than $45 \%$ of the votes, his coalition gets $55 \%$ of the seats. Otherwise, $60 \%$ of the seats. The winning coalition cannot have more than $65 \%$ of the seats of the council. | 4\% for parties standing alone, $1.5 \%$ of votes for parties linked to a candidate getting at least $5 \%$ of the votes | Lists must have candidates in at least half of the provinces |
| Marche (from 2010) | Abolished. Determination of the seats of each coalition, with eventual extra seats to reach $60 \%$ of the seats for winning coalition | If the leading coalition has less than $60 \%$ of the seats, it is given extra seats subtracted to the total of losing coalitions. | Coalitions must get at least $5 \%$ of the votes, except for lists below this threshold reaching $3 \%$ of the votes | Coalitions must have candidates in at least half of the provinces |

The regional Italian electoral system(s) is (are) therefore particularly complex. The "standard" Tatarella system uses three different tiers (province, collegio unico regionale, region), the bonus is compensatory and its size varies according to the votes obtained in the proportional part, and it associates a proportional formula with a majoritarian formula. The regions in which variations to the 1995 electoral law have been adopted all share these characteristics as well (multiple tiers, compensatory bonus and the existence of two distinct electoral formulas).

As a conclusion, electoral systems with majority bonuses constitute a peculiar type of mixed-member electoral system. Just as mixed-member systems can be said to be "majoritarian" or "proportional" according to the absence or presence of a linkage between the proportional and the majoritarian part, mixed-member electoral systems with majority bonus have a more or less majoritarian or proportional vocation. This depends on whether the majority bonus is "parallel" to the list allocation of seats (as in the French regional electoral system) or "compensatory" (as in the Italian regional electoral system). This family of electoral systems has been neglected and overlooked by existing literature. Yet, there are several historical examples in which these systems were used (in France, Italy, or Mexico), as well as several established democracies in which such systems are in force at the national (Italy, Greece) and/or at the subnational level (France, Italy). As a result of the scarcity of studies on mixed-member electoral systems
with majority bonuses, their effect on the functioning of party systems, and most specifically, pre-electoral coalitions, are not well established theoretically and empirically.

## The political consequences of mixed-member electoral systems with majority bonuses: theory

Contrary to most "simple" electoral systems which provide only one main threshold in the transformation of votes into seats (Lijphart 1994), mixed systems provide with two thresholds: a threshold for representation (what is the minimum of votes I should get to have at least one seat?) and a threshold of "optimization" (what is the number of votes I should get so as to benefit the most from the disproportional effects of the system). Mixed systems with majority bonuses make these thresholds explicit, as described in the former section, although the "optimization threshold" is not so clear-cut. This section proposes to formulate hypotheses about how parties deal with these two thresholds and the effects of these strategies on the dynamics of party competition and the working of this type of electoral system.

We start by the standard assumption about parties viewed as office maximizers agents (otherwise, the mechanics of electoral systems have little impact on parties' strategies). This assumption should however be made more precise (Müller and Strom 2000). Office-maximizing strategies are here understood as primarily oriented towards government and exogenously constrained by the size of the party. What we mean is firstly that seats do not represent a continuous utility function. What is most important for parties is gaining access to the executive offices of government. Secondly, office-maximizing strategies are not primarily based on strategies to increase vote support for the party. In other words, two parties with the same electoral support are indifferent between winning $x$ seats both on their own or winning $2 x$ seats after having merged together (assuming here the absence of any electoral effect of this merger).

In this context, the representation threshold should not play an important role in these mixed electoral systems with majority bonuses. They should converge towards the working of majoritarian systems (either the plurality system in Italy or the 2 round, run-off system for France) because only two parties are viable in the competition for the bonus, which is central in securing governmental positions.

Provisions for electoral coalitions are the mechanisms by which both thresholds are in fact made meaningful for parties. Pre-electoral coalition formation has been mainly studied in the pioneering works of Golder (2006). Golder identifies two main reasons why parties have formed pre-electoral coalitions: a "signalling hypothesis" and a "disproportionality hypothesis". The "signalling hypothesis" assumes that electoral coalitions are designed to explain voters what next governmental coalitions would look like. This signal may have a positive electoral impact for parties forming such a coalition. The "disproportionality hypothesis" explains that parties may coalesce so as to prevent the mechanical effect of majoritarian systems. In our case, the logic of electoral coalition may however resemble more the logics of governmental coalition formation because the main stake is precisely developing a strategy so as to secure a majority in the next assembly.

There is however one major difference in the principle of governmental coalition building and electoral coalition building in electoral systems with bonus: uncertainty. Electoral coalitions are built in a context of uncertainty for two reasons. Firstly, the balance of forces is not known precisely before the election. Given varying levels of electoral participation and significant electoral volatility, especially in France and Italy, parties cannot anticipate perfectly their future electoral support in the next election (and of course scores of all the other parties as well), or even in the next round of election in France. Secondly, this uncertainty is even increased by the uncertain electoral effects of coalition forming. Golder's assumption of a sur-additive electoral outcomes (i.e. the score of of $\left\{\mathrm{p}_{1}, \mathrm{p}_{2}\right\}>\mathrm{p}_{1}+\mathrm{p}_{2}$ ) gives some indication of this. Yet, this sur-additivity
is likely to vary in intensity depending on context and ideological compatibility between parties up to be possible sometimes in fact negative.

From these general considerations, we propose three general hypothesis about the type of coalition likely to emerge, about fragmentation, and about disproportionality under mixed electoral systems with majority bonus.

## Type of electoral coalition

Following the literature on governmental coalitions, the type of coalition likely to emerge in this context should converge towards "minimum winning" coalition type, that is coalition of parties likely to secure the bonus, but excluding all parties unnecessary to secure this bonus. Winning coalitions are defined in this context by coalition ranking first. The principle of minimization follows the office maximization principle. As already said, the bonus is this type of system is the major stake. Yet, any coalition should be unwilling to share power and seats with any unnecessary partner.

Two main qualifications may be introduced. On the one hand, ideological compatibility among coalition partners is a well known requirement, in this case reinforced by the expected electoral effects of coalition formation. On the other hand, uncertainty about future electoral results contradicts to some extent the principle of minimization. This represents a trade-off for parties, and may be solved by knowing both the level of risk-adversity of parties and the marginal utility of each supplementary seat for them.

Hypothesis 1a: Electoral coalition in mixed member electoral systems with bonuses should converge to the "connected minimum winning coalition" type.

Hypothesis 1b: The likelihood of observing minimum winning coalition is decreasing with electoral competitiveness.

## Fragmentation

The fragmentation of the electoral supply depends both on the representation threshold and the optimization threshold. The number of parties depends on the representation threshold while the number of coalition should be two (Cox 1997).

Fragmentation is however unlikely to be linearly related to the representation threshold. This also depends on how parties share seats within the coalition. By definition, the bargaining power of any actor is increasing with it being pivotal. Smaller parties tend to be in more favorable position of negotiation if the two major blocs are close in the polls.

Hypothesis 2a: The number of coalition s in the second round should converge towards two.
Hypothesis 2c: Fragmentation is positively correlated with competitiveness.

## Disproportionality

The disproportionality of an electoral system is largely determined by the distribution of preferences. This said, the bargaining power of each actor during the process of coalition formation should have an impact on the overall proportionality of the system. If the leading of a coalition may secure the bonus by itself but build however a coalition with smaller parties, the repartition of seats among them should diverge significantly from a proportional -Gamson like - distribution. In particular, the largest party has no
incentive to share the advantage brought by the bonus with the other parties. More generally, pivotal parties should have a disproportional advantage in the distribution of seats, increasing with their bargaining power.

Hypothesis 3a: Disproportionality is highest when the leading party may secure the bonus by itself. Hypothesis 3b: Disproportionality decreases with competitiveness.

These various hypotheses on party system dynamics under mixed member electoral systems with majority bonus are now tested on the cases of Italy and France. The empirical investigation remains preliminary at this stage.

## Regional elections in Italy under a mixed-member system with majority bonus, 2005-2010

The context of the Italian regional elections of 2005 and 2010 can be summarized in few words: as it is now traditionally the case of regional contests in Italy, the electoral outcomes were strongly influenced by the national political environment and the "electoral cycles" (de Sio, D'Alimonte in Chiaramonte and Barbieri 2007, Tronconi in Baldi and Tronconi 2010). As a result, the elections of 2005 witnessed a very clear victory of the center-left coalition that won 11 out of the 13 regions $^{3}$, following the European elections of 2004, and their future victory in the national elections of 2006. The outcomes of 2010 were more balanced, as the center-right coalition won in 6 regions (regaining 4 of the regions lost in 2005), and the center-left in 7 regions.

The regional Italian electoral laws provide strong incentives for bipolarization. These incentives include the direct election of the head executive through a majoritarian, FPTP system, the existence of the majority bonus that encourages the formation of coalitions as large as deemed necessary to secure the bonus, and, finally, the existence (except in Puglia, Toscana and Calabria) of much lower thresholds of representation for parties being part of a coalition than for parties competing on their own (Plescia 2010). Bipolarization might also be conducive of fragmentation, because of the strong incentives to expand the coalitions and provide a large menu of choice to the voters, which is one of the paradoxes of the mixed-member electoral systems with majority, compensatory bonus. Therefore, in the rest of the analysis it is taken as given that Italian political parties are essentially office-seeking, and that the framework of competition is between two main coalitions, one of the center-right and one of the center-left.

The first hypothesis we suggested is that parties seek to form minimum-winning coalitions, and the likelihood of minimum-winning coalitions decreases with electoral competitiveness. The hypothesis is clearly disproved, with an overwhelming majority of regions where the winning coalition is a surplus coalition (Table 2 and 3). The few regions in which we observe minimum-winning coalitions were actually the ones where the contests have been the more disputed. With regard to the formation of pre-electoral coalitions, there were clear differences between 2005 and 2010. Indeed, in 2005, the identity of the coalition partners was largely identical across territories (see Appendix 2), encompassing virtually the whole spectrum of parties. On the contrary, in 2010, there were more variations and differentiated coalitional strategies of certain political actors, in particular the Federazione di sinistra and the Udc (Unione di centro), choosing to compete either alone, of with one of the two main coalitions. Yet, three general patterns emerge. First, there is a group of regions in which the coalition is (almost) minimumwinning, and in which, therefore, parties expand the coalition only up to the point necessary to obtain the bonus: Lazio, Piemonte, Puglia, and Liguria.

[^2]Tables 2-3. Patterns of coalitions in the regional Italian elections, 2005-2010

| Regions | Elections 2005 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Winner | Coalition type | Parties with seats in winning coalition | Parties with seats if coalition was minimum-winning | \% of votes of surplus parties |
| Piemonte (b) | center-left | Surplus | 8 | 8 | 0,8 |
| Lombardia | center-right | Surplus | 4 | 2 | 12,8 |
| Veneto | center-right | Surplus | 5 | 3 | 7,8 |
| Liguria | center-left | Surplus | 6 | 4 | 5,3 |
| Emilia-Romagna | center-left | Surplus | 5 | 1 | 13,9 |
| Toscana | center-left | Surplus | 3 | 1 | 8 |
| Umbria | center-left | Surplus | 4 | 1 | 16,9 |
| Marche | center-left | Surplus | 5 | 1 | 18,8 |
| Lazio (a) | center-left | minimum-winning | 6 | 6 | - |
| Campania | center-left | Surplus | 9 | 3 | 21,9 |
| Puglia | center-left | minimum-winning | 10 | 10 | - |
| Basilicata | center-left | Surplus | 6 | 1 | 29,9 |
| Calabria | center-left | Surplus | 6 | 3 | 21,8 |

Regions

| Regions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Winner | Coalition type | Parties with seats in winning coalition | Parties with seats if coalition was minimum-winning | \% of votes of surplus parties |
| Piemonte (b) | center-right | minimum-winning | 4 | 4 | - |
| Lombardia | center-right | Surplus | 2 | 2 | 0,2 |
| Veneto | center-right | Surplus | 2 | 1 | 24,7 |
| Liguria Emilia- | center-left | Surplus | 6 | 5 | 3,2 |
| Romagna | center-left | Surplus | 4 | 1 | 11,3 |
| Toscana | center-left | Surplus | 3 | 1 | 18,5 |
| Umbria | center-left | Surplus | 4 | 2 | 14,4 |
| Marche | center-left | Surplus | 6 | 2 | 13,1 |
| Lazio (a) | center-right | Surplus | 4 | 4 | 3 |
| Campania | center-right | Surplus | 8 | 2 | 17,5 |
| Puglia | center-left | Surplus | 4 | 4 | 0,3 |
| Basilicata | center-left | Surplus | 7 | 2 | 23,1 |
| Calabria | center-right | Surplus | 3 | 2 | 16,4 |

Source: our elaboration of the electoral results found in the Archivio storico delle Elezioni of the ministero dell'interno and on the regions websites when necessary.
Notes: a) The center left coalition obtained less votes than the center-right coalition in the list part in 2005, but still won in the majoritarian part, so it was considered as a minimum-winning coalition.
b) The center right coalition obtained less votes than the center-left coalition in 2010 in the list part, but still won most votes in the majoritarian part, so it was considered as a minimum-winning coalition.

The score of the "surplus parties" in these three regions is also extremely small in 2010 for Lazio and Puglia, and Piemonte in 2005, and, to a lesser extent, in Liguria. Two of these regions experienced alternation between 2005 and 2010 (Lazio and Piemonte), while the center-left majority retained its
advantage with great difficulty in Liguria and Puglia. In the second group of regions, parties competed and won with relatively largely surplus coalitions, despite the fact there was no alternation: Veneto, Lombardia, Emilia-Romagna, Toscana, Umbria, Marche, and Basilicata, as shown with the gap between the number of parties actually winning seats, and the parties that would have been winning seats if the coalition was minimum-winning. For example, in 2005, in Emilia-Romagna and Marche, the list Uniti nell'Ulivo would have been able to win the bonus on its own, yet, in the end, no less than 5 parties obtained seats. This might suggest a deliberate strategy to involve more parties in the coalition than what would be reasonably needed to secure the majority bonus. Finally, the third group of regions is composed of Calabria and Campania, in which the winning coalitions were large surplus coalitions, but in which there was a political alternation between the center-left and the center-right between 2005 and 2010. The existence of large surplus coalition is not perceived as a puzzle for specialists of Italian elections, between which there is widespread agreement that the more rational strategy for parties is to form a coalition as large as possible to secure the bonus (Vassallo 2005, 991).

This leads us to the hypothesis 2 b , stating that the more competitive the electoral contest in a given region, the more fragmentation. Competitiveness was measured by subtracting the votes of the winning coalition to the votes of the second coalition in the majoritarian part, so as to assess the size of the gap between the two main coalitions. Fragmentation was measured through the standard measures of the effective number of parties getting votes and seats (Laakso and Taagepera 1979). The expected relationship holds in most regions, with interesting exceptions (See Table 4 and 5). In 2005, in Lombardy, Veneto, and Liguria, the expected relationship is not found, as competitiveness is higher than the national average, and fragmentation still below the national average. In Calabria, in 2005, the gap between coalitions is higher than the national average gap; yet, the region displays significantly higher levels of fragmentation. For the 2010 elections, the exceptions to the overall expected relationship between competitiveness of the regional contest and fragmentation include Marche and Liguria, in which the contest was more competitive than average in the rest of the country, and levels of fragmentation still lower than average. In Basilicata and Calabria, on the contrary, the gap between coalitions is larger than in the rest of the country; still, the levels of fragmentation are consistently higher than in the rest of the country.

There might be an idiosyncrasy of reasons to these puzzling exceptions. First of all, the indicator of competitiveness does not say anything about the amplitude of the shifts of coalition that usually occur in a given setting. Vassallo has convincingly shown than when electoral shifts are taken into account as well to build an index of the "invulnerability" of the governing coalitions in each region (2005), it becomes easier to explain why these regions did not behave in the expected direction. For the case of Calabria, despite victories with a strong margin of the center-left in 2005 and the center-right in 2010, it appears clearly that there is no dominant coalition in this region, and that there are very large shifts between coalitions from one election to another, explaining why the coalitions are larger and the fragmentation higher than expected. The gap between coalitions indicator fails to capture the fact that Calabria is a competitive region in which the electoral outcome is consistently uncertain across time. For the case of Basilicata, the high gap between coalitions and the domination of the center-left hinders the fact that shifts of votes between coalitions from one election to another are high. As a result, despite its historical domination, the main center-left parties have a strong incentive to enlarge the coalition to small parties, leading to high fragmentation. Finally, in Lombardy and Veneto, the relatively small gap between coalitions in 2005 does not change the fact that these two regions are historical strongholds of the center-right coalition, and that the shifts between coalitions are usually much too small to reasonably expect alternation. Hereby, the fragmentation in these two regions tends to be lower than the national average. As a conclusion, overall, the relationship between fragmentation and competitiveness of the regional contests holds.

Tables 4-5. Indexes of competitiveness, fragmentation and disproportionality of the Italian regional elections, 2005-2010.

| Regions | Elections 2005 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gap coalitions | Lists>1\% | NeffV | NeffS | \% bigger party* | Lsq | Lsq winning coalition |
| Piemonte | 3,7 | 14 | 7,8 | 7,2 | 20,1 | 2,8 | 3,8 |
| Lombardia | 10,7 | 11 | 5,5 | 4,7 | 26 | 3,6 | 3,2 |
| Veneto | 8,2 | 13 | 6,6 | 5,5 | 22,7 | 3,8 | 2 |
| Liguria | 6,1 | 11 | 5,5 | 4,7 | 34,3 | 4,1 | 4,1 |
| Romagna | 27,6 | 9 | 3,6 | 3,2 | 48 | 3,3 | 3,6 |
| Toscana | 24,5 | 9 | 3,4 | 3 | 48,8 | 3,3 | 1,3 |
| Umbria | 29,4 | 8 | 3,8 | 3,5 | 45,4 | 3,6 | 3,3 |
| Marche | 19,2 | 12 | 4,5 | 3,8 | 40,1 | 4,8 | 5,8 |
| Lazio | 3,3 | 13 | 6,8 | 6 | 27,1 | 2,6 | 2,5 |
| Campania | 27,3 | 16 | 10,1 | 8,7 | 16 | 3,8 | 3 |
| Puglia | 0,6 | 15 | 9,4 | 8,9 | 16,6 | 4,9 | 2,1 |
| Basilicata | 38,2 | 11 | 5 | 4,8 | 38,9 | 4,3 | 3,5 |
| Calabria | 19,2 | 13 | 10,3 | 8,6 | 15,5 | 4,6 | 6 |
| Total Italy | 16,8 | 11,9 | 6,3 | 5,6 | 30,7 | 3,8 | 3,4 |


| Regions | Elections 2010 |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gap coalitions | Lists>1\% | NeffV | NeffS | \% bigger party* | Lsq | Lsq winning coalition |
| Piemonte | 0,4 | 13 | 6,4 | 5,3 | 25,1 | 3,8 | 2,2 |
| Lombardia | 22,8 | 8 | 4,4 | 3,8 | 31,8 | 5,1 | 1,3 |
| Veneto | 31,1 | 9 | 4,3 | 4 | 35,2 | 4,9 | 1,3 |
| Liguria | 4,3 | 9 | 5,2 | 4,3 | 28,3 | 4,3 | 3,7 |
| Emilia- |  |  |  |  |  |  |  |
| Romagna | 15,3 | 8 | 3,9 | 3,4 | 40,7 | 4,9 | 3,6 |
| Toscana | 25,3 | 7 | 3,7 | 3,2 | 42,2 | 4,2 | 5,9 |
| Umbria | 19,5 | 8 | 4 | 3,2 | 36,2 | 6,7 | 8,7 |
| Marche | 13,5 | 12 | 4,7 | 4,2 | 31,1 | 3,9 | 2,2 |
| Lazio | 2,8 | 11 | 5,9 | 5,4 | 26,3 | 3 | 5,2 |
| Campania | 11,2 | 16 | 5,9 | 4,8 | 31,7 | 4,4 | 1,7 |
| Puglia | 6,44 | 10 | 5,9 | 5 | 20,8 | 9,3 | 6,5 |
| Basilicata | 32,9 | 13 | 7,1 | 5,8 | 27,1 | 6,2 | 5,4 |
| Calabria | 24,5 | 13 | 7,9 | 5,4 | 26,4 | 7,6 | 8 |
| Total Italy | 16,2 | 10,5 | 5,3 | 4,4 | 31,0 | 5,3 | 4,3 |

Source: our elaboration of the electoral results found in the Archivio storico delle Elezioni of the ministero dell'interno and on the regions websites when necessary.
Note: * The bigger party refers to the bigger party of the winning coalition.
Hypothesis 3a posits that the closer the bigger party of the coalition of the threshold, the more disproportionality between votes and seats there is. Disproportionality between the allocation of votes and seats was calculated using the Gallagher least-squares index, both overall, and within the winning coalition
(See Tables 4 and 5). The relationship between disproportionality and party domination appears to be quite unclear, disproving the hypothesis in a large number of cases in 2005, and even more so in 2010. Overall, both in 2005 and 2010, the levels of disproportionality are quite low both overall and within the winning coalition, suggesting that coalition repartition of seats obeys more the Gamson's law (a proportional repartition of seats according to votes) rather than to any iron rule linked with the configuration of the coalition and the strength of the dominant parties.

For the elections of 2005, the main exception is Calabria, where the bigger party reunites only around $15,5 \%$ of the votes, and yet, the disproportionality between allocation of votes and seats is higher than the national average both overall and within the winning coalition. This is undoubtedly the result of the adoption of a $4 \%$ threshold of representation for all of the parties, including the ones belonging to a coalition. On the other hand, in regions such as Emilia-Romagna, Toscana and Umbria where the dominant party is very close to the threshold necessary to secure the bonus (with the first party getting between 45,4 and $48,8 \%$ of the votes), the levels of disproportionality both overall and within the coalition are slightly lower than the national average. This is probably due to the fact the overall levels of fragmentation, and the number of coalition partners, are much lower in these three regions, leading therefore to a "fair" repartition between votes and seats. In 2010, there are even more exceptions to the expected relationship between disproportionality and size of the dominant party. In Puglia, Basilicata and Calabria, the bigger parties are overall further away from the threshold than the national average, yet the levels of disproportionality both overall and within the winning coalition are substantially higher than in the rest of the country. For Calabria and Puglia, this is mainly the result of the electoral systems ( $4 \%$ threshold of representation regardless of coalition status). Finally, in Lombardia, Veneto, Emilia-Romagna, and Toscana, the first party of the winning coalition is closer to the threshold than the national average, yet, the disproportionality between votes and seats is lower than the national average. Again, these regions tend to be characterized by lower levels of fragmentation than other regions, as well as by somehow smaller coalitions.

Finally, hypothesis 3 b posits that the more competitive the regional contest, the less disproportionality within the winning coalition in the allocation between votes and seats. The empirical results are mixed, both in 2005 and in 2010. In 2005, notable exceptions include Liguria and Puglia, in which the level of disproportionality between votes and seats within the winning coalition is higher than average despite the fact the competition was particularly contested in these two regions. Other notable exceptions include the three strongholds of the center-left (Umbria, Toscana, and Emilia-Romania), in which despite a huge gap in favour of the winning coalition, the disproportionality between votes and seats was either similar to the national level, or even significantly lower in Toscana. In Puglia, this was the result of the surrepresentation in seats of the Christian-democrats in the winning center-left coalition. In the "zona rossa", these results can be explained by the deliberate choice of building a more inclusive coalition than necessary to achieve victory, but also to distribute seats "fairly", in most likelihood as a result of the upcoming national elections of 2006. This is where the theory of coalition formation reaches its limits in explaining electoral outcomes: elites do not compete in a vacuum, but have to anticipate coalition-building in upcoming electoral contests. This can explain why the dominant parties of the left have chosen to adopt an apparently suboptimal strategy for them in terms of seats in certain regions. In 2010, main exceptions to the expected relationship include Lombardia and Veneto (where the gap between coalitions is very wide, but the disproportionality between votes and seats within the center-right coalition very low), and Lazio and Puglia. Overall, the allocation of seats seems to obey the "Gamson law" rather than the expectations of the bargaining theory (Carroll and Cox 2007).

## Regional elections in France under a two round proportional system with majority bonus, 2004-2010

The majority bonus system has been introduced in France as a remedy to the major crisis of 1998, when several regional right-wing leaders made coalitions with the National Front to keep their offices. The reform introduced a majority bonus into a formerly pure proportional system. The overall goal of the reform was achieved as regions have had stable majorities since 2004 and the cordon sanitaire around the National Front shortly re-established. This should not however be attributed to the sole effect of the electoral system as electoral coalition with the National Front might have emerged, if the expected electoral effect of such a kind of alliance would not have been so negative.

To understand the working of the French bonus system, we primarily focus on the dynamics of coalition building between the two rounds for both the 2004 and 2010 elections, excluding overseas territories as well as Corsica. Notice that victory in the first round has never happen.

There is in fact a basic constraint on coalition building in regional elections: crossing national borders of cooperation is forbidden. This means that both the National Front is systematically excluded from coalitions and that no centrist coalition is possible. Hence two main blocks, one on the left, led by the Socialist party, one on the right, led by the UMP. The UDF was belonging to the right-wing block in 2004 but decided then no longer to cooperate. Tables 6 and 7 display then how coalitions were formed in 2004 and 2010. One main rule emerges: coalition always prevail within blocks. There are only six cases where this not the case, plus two where coalition within a block is only partial. Most of these cases relate to possible coalitions between UMP and UDF where negotiations failed. Remember that parties between 5 and 10 per cent of the votes can merge with another list between rounds but are not allowed to run alone. This means, for instance, that the Socialist party almost always chose to coalesce with the communists, where possible, even if the PC was not able to run a list in the second round even if the threat to the socialist victory was weak to say the least. The logics of coalition building are then far from minimal winning coalitions. There are however some weak signs that the likelihood of excluding partners when victory is granted. In Britanny or in Limousin in 2010, either the communists or the greens were not coopted in the leading socialist coalition, which anyway won 63 vs. 24 per cent in Britanny and 63 vs. 23 per cent in Limousin. Narratives of what happened in these regions tell that debates on how to share seats in a possible merged list did in fact represent the main reason of coalition failure. Hypotheses 1 a and 1 b are then rejected.

Tables 6-7. Patterns of coalitions in France in 2004 and 2010

| Elections 2004 | Winner | $\begin{gathered} \text { Lists }>10 \%, \\ 1^{s t} \text { round } \end{gathered}$ | Lists >5\%, $1^{s t}$ round | Lists, $2^{\text {nd }}$ round | Left coalition | Right coalition |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alsace | Right | 3 | 5 | 3 | - | - |
| Aquitaine | Left | 4 | 5 | 3 | - | UMP-UDF |
| Auvergne | Left | 2 | 5 | 2 | PS-PC-Verts | - |
| Basse Normandie | Left | 3 | 6 | 3 | PS-Verts | No |
| Bourgogne | Left | 4 | 5 | 3 | - | No |
| Bretagne | Left | 3 | 5 | 2 | PS-Verts | UMP-Right |
| Centre | Left | 4 | 5 | 3 | - | UMP-UDF |
| Champagne-Ardennes | Left | 4 | 6 | 3 | No | UMP-UDF |
| Franche Comté | Left | 3 | 5 | 3 | - | No |
| Haute Normandie | Left | 4 | 5 | 3 | - | UMP-UDF |
| Ile de France | Left | 4 | 5 | 3 | PS-PC | UMP-UDF |
| Languedoc Roussillon | Left | 3 | 5 | 3 | - | No |
| Limousin | Left | 2 | 7 | 2 | PS-Verts | UMP-Right |
| Lorraine | Left | 3 | 5 | 3 | - | UMP-UDF-Right |
| Midi-Pyrénées | Left | 4 | 5 | 3 | - | UMP-UDF |
| Nord Pas de Calais | Left | 4 | 7 | 3 | PS-PC-Verts | UMP-UDF |
| Pays de Loire | Left | 3 | 5 | 2 | - | UMP-UDF |
| Picardie | Left | 4 | 5 | 3 | PS-PC | - |
| Poitou-Charentes | Left | 3 | 4 | 3 | - | - |
| Provence Alpes Côte d'Azur | Left | 3 | 3 | 3 | - | - |
| Rhône-Alpes | Left | 4 | 4 | 3 | PS-Verts | - |
| Elections 2010 | Winner | $\begin{gathered} \text { Lists }>10 \%, \\ 1^{\text {st }} \text { round } \end{gathered}$ | List $>5 \%$, $1^{\text {st }}$ round | Lists, $2^{\text {nd }}$ round | ${ }^{\text {d }}$ Left coalition | Right coalition |
| Alsace | Right | 4 | 4 | 3 | PS-Verts | - |
| Aquitaine | Left | 3 | 6 | 3 | PS-PC-Verts | - |
| Auvergne | Left | 4 | 5 | 2 | PS-PC-Verts | - |
| Basse Normandie | Left | 3 | 5 | 2 | PS-Verts | - |
| Bourgogne | Left | 3 | 4 | 3 | PS-Verts | - |
| Bretagne | Left | 3 | 5 | 3 | No | - |
| Centre | Left | 4 | 6 | 3 | PS-PC-Verts | - |
| Champagne-Ardennes | Left | 3 | 4 | 3 | PS-Verts | - |
| Franche Comté | Left | 3 | 4 | 3 | PS-Verts | - |
| Haute Normandie | Left | 3 | 5 | 3 | PS-PC-Verts | - |
| Ile de France | Left | 3 | 5 | 2 | PS-PC-Verts | - |
| Languedoc Roussillon | Left | 3 | 6 | 3 | No <br> PS-Verts (not | - |
| Limousin | Left | 3 | 5 | 3 | PC) | - |
| Lorraine | Left | 3 | 4 | 3 | PS-Verts | - |
| Midi-Pyrénées | Left | 3 | 5 | 2 | PS-PC-Verts | - |
| Nord Pas de Calais | Left | 5 | 5 | 3 | PS-PC-Verts | - |
| Pays de Loire | Left | 3 | 4 | 2 | PS-Verts PS-Verts (not | - |
| Picardie | Left | 3 | 6 | 3 | PC, other left) | - |
| Poitou-Charentes <br> Provence Alpes Côte | Left | 3 | 4 | 2 | PS-Verts | - |
| d'Azur | Left | 4 | 5 | 3 | PS-PC-Verts | - |
| Rhône-Alpes | Left | 4 | 5 | 3 | PS-PC-Verts | - |

[^3]The second step of the analysis focuses on fragmentation. We hypothesized that the second round should oppose only two competitors, that the maximum number of parties is a function of the threshold of representation, and that competitiveness should be correlated with fragmentation.

The first hypothesis is easily dismissed. On average, the second opposes three lists. This is largely explained by the role of the National Front, which stands in the runoff whenever it can make it. Yet, there also several instances where other parties runs alone for the second round when no block agreement has been reached, as in Brittany and Limousin in 2010. These are situations where the competitiveness of the election has been particularly low.

The second hypothesis about the number of parties is, on the contrary, easily confirmed. The average number of lists is 7.9 in 2004, 8.9 in 2010. There is however quite a number of lists that never achieve to pass the threshold for the run-off, although almost all lists qualify for the 5 per cent merging threshold except for the lists from the extreme left.

The third hypothesis is rejected, at least in terms of average. Fragmentation increased from 4.4 effective parties in 2004, when competitiveness was about 14.2, to 4.7 effective parties in 2010, when competitiveness was 17.7. In other terms, fragmentation has increased with a decreased level of competitiveness of the elections (remember that competitiveness is measured as the difference between first and second finishers, here in the second round, in terms of percentage of votes). We expected a positive relation. Yet, with a closer look at the level of regions, the correlation becomes insignificant statistically.

Tables 8-9. Fragmentation and competitiveness of French regional elections in 2004 and 2010
Elections 2004

|  | $1^{\text {st }}$ round |  |  |  | 2nd round |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lists | Lists >5\% | Lists $>10 \%$ | Neff | Lists | Competitiveness |
| Alsace | 9 | 5 | 3 | 4,8 | 3 | 9,1 |
| Aquitaine | 7 | 5 | 4 | 4,4 | 3 | 21,4 |
| Augergne | 9 | 5 | 2 | 4,2 | 2 | 5,3 |
| Basse Normandie | 9 | 6 | 3 | 5,5 | 3 | 6,2 |
| Bourgogne | 9 | 5 | 4 | 4,5 | 3 | 20,3 |
| Bretagne | 7 | 5 | 3 | 4,1 | 2 | 17,6 |
| Centre | 6 | 5 | 4 | 4,1 | 3 | 14,8 |
| Champagne-Ardenne | 7 | 6 | 4 | 4,8 | 3 | 2,1 |
| Franche-Comté | 10 | 5 | 3 | 4,8 | 3 | 10,7 |
| Haute Normandie | 7 | 5 | 4 | 4,1 | 3 | 20,0 |
| Ile de France | 8 | 5 | 4 | 4,7 | 3 | 8,4 |
| Languedoc-Roussillon | 9 | 5 | 3 | 4,3 | 3 | 18,1 |
| Limousin | 7 | 7 | 2 | 4,0 | 2 | 24,0 |
| Lorraine | 9 | 5 | 3 | 5,4 | 3 | 14,2 |
| Midi-Pyrénées | 7 | 5 | 4 | 4,1 | 3 | 27,1 |
| Nord-Pas de Calais | 11 | 7 | 4 | 5,7 | 3 | 23,4 |
| Pays de Loire | 6 | 5 | 3 | 3,7 | 2 | 7,1 |
| Picardie | 5 | 5 | 4 | 4,0 | 3 | 9,8 |
| Poitou-Charentes | 5 | 4 | 3 | 2,9 | 3 | 18,9 |
| Provence-Alpes-Côte d'Azur | 13 | 3 | 3 | 4,0 | 3 | 11,3 |
| Rhones-Alpes | 7 | 4 | 4 | 4,0 | 3 | 8,3 |

Elections 2010

|  | $\mathbf{1}^{\text {st }}$ round |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | Lists | Lists $>5 \%$ | Lists >10\% | Neff | Lists | Competitiveness |
| Alsace | 11 | 4 | 4 | 4,8 | 3 | 6,9 |
| Aquitaine | 11 | 6 | 3 | 4,5 | 3 | 28,3 |
| Augergne | 8 | 5 | 4 | 4,9 | 2 | 19,4 |
| Basse Normandie | 8 | 5 | 3 | 4,6 | 2 | 14,3 |
| Bourgogne | 9 | 4 | 3 | 4,1 | 3 | 19,1 |
| Bretagne | 11 | 5 | 3 | 4,5 | 3 | 17,9 |
| Centre | 9 | 6 | 3 | 5,0 | 3 | 13,5 |
| Champagne-Ardenne | 8 | 4 | 3 | 4,3 | 3 | 5,8 |
| Franche-Comté | 10 | 4 | 3 | 4,5 | 3 | 9,1 |
| Haute Normandie | 11 | 5 | 3 | 4,6 | 3 | 24,4 |
| Ile de France | 12 | 5 | 3 | 5,4 | 2 | 13,4 |
| Languedoc-Roussillon | 9 | 5 | 3 | 5,1 | 3 | 27,7 |
| Limousin | 7 | 7 | 2 | 4,2 | 2 | 15,0 |
| Lorraine | 9 | 5 | 3 | 4,8 | 3 | 18,4 |
| Midi-Pyrénées | 7 | 5 | 4 | 4,0 | 3 | 35,5 |
| Nord-Pas de Calais | 11 | 7 | 4 | 5,5 | 3 | 26,0 |
| Pays de Loire | 6 | 5 | 3 | 3,9 | 2 | 12,8 |
| Picardie | 5 | 5 | 4 | 5,5 | 3 | 15,8 |
| Poitou-Charentes | 5 | 4 | 3 | 3,8 | 3 | 21,2 |
| Provence-Alpes-Côte |  |  | 3 | 3 |  |  |
| d'Azur | 13 | 3 | 4 | 4 | 5,2 | 3 |

Source: Our elaboration of the results found in the French Ministry of interior

Our final perspective on the French regional elections is disproportionality. Table 10 looks at disproportionality at two levels. The first level is the overall disproportionality as traditionally measured by the Gallagher's index, from data for the first round. The second level is the proportionality of seats between coalition partners within the winning coalitions, i.e. for the left in all cases. The overall level of disproportionality is moderate, given the two rounds and the bonus. It is consistently about 11 points. What is however surprising is the low level of disproportionality within the coalition. Even if the coalition partner may not have been able to run for the second round, it gets on average what it would have got without coalition if the electoral system was purely proportional. In other terms, the Socialist party chooses not only to have coalition agreement whenever possible but also rewarded its partner along a constant rule, whatever the actual bargaining situation. This explains, in turn, the rather moderate disproportionality of the system.

Table 10. Overall and within coalition disproportionality in French regional elections, 2004 and 2010

|  | $\mathbf{2 0 0 4}$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 0}$ |  |  |  |
|  | Overall | Within coalition <br> disproportionality <br> disproportionality | Overall <br> disproportionality | Within coalition <br> disproportionality |
| Alsace | 12,2 | - | 11,9 | - |
| Aquitaine | 10,9 | - | 10,5 | 6,6 |
| Augergne | 11,2 | 4,9 | 10,5 | 2,9 |
| Basse Normandie | 12,1 | 0,9 | 10,9 | 1,9 |
| Bourgogne | 10,9 | - | 11,0 | 5,1 |
| Bretagne | 11,1 | 1,2 | 10,9 | - |
| Centre | 11,6 | - | 12,0 | 2,0 |
| Champagne-Ardenne | 13,3 | - | 13,1 | 4,2 |
| Franche-Compté | 11,9 | - | 13,6 | 1,6 |
| Haute Normandie | 11,4 | - | 10,9 | 1,1 |
| Ile de France | 11,8 | 0,1 | 1,3 | 1,2 |
| Languedoc-Roussillon | 11,6 | - | 10,0 | - |
| Limousin | 10,1 | 3,0 | 13,1 | 9,2 |
| Lorraine | 1,6 | - | 11,4 | 1,4 |
| Midi-Pyrénées | 9,4 | - | 8,1 | 2,7 |
| Nord-Pas de Calais | 1,1 | 2,9 | 11,0 | 0,5 |
| Pays de Loire | 1,0 | - | 11,4 | 1,4 |
| Picardie | 12,4 | 4,8 | 11,4 | 4,3 |
| Poitou-Charentes | 10,9 | - | 10,3 | 0,3 |
| Provence-Alpes-Côte | 12,4 | - | 12,6 | 3,2 |
| d'Azur | 11,9 | 0,4 | 11,4 | 2,4 |
| Rhones-Alpes |  |  |  |  |

Source: Our elaboration of the results found in the French Ministry of interior

## Discussion and conclusion

This paper has presented preliminary investigations about a rather understudied and complex electoral system, the mixed member system with majority bonus. We have argued that this system should be classified in the larger class of mixed-member electoral systems. It should be noticed that this type of system encompass significant variations as well, from a rather parallel system in France to a compensatory system in Italy. Some hypotheses about the consequences of this type of system have been proposed, mainly based on the idea that the crux of these systems relies in electoral coalitions, which are expected to work in accordance with the bargaining power of the various candidates. At this stage, any empirical conclusions are, of course, very preliminary and provisional; yet some interesting patterns emerge.

Overall, parties do not conform very well to the expectations of bargaining theories of coalitions. Coalitions are in general larger than expected; both in regions where the electoral contests are heavily disputed and where the electoral outcomes were a foregone conclusion, both in France and Italy. In both countries, the competition tends to be organized around two main coalitions. Yet, the coalescing tendency as well as bipolarization is clearly much stronger in Italy than in France, partly because of the cordon sanitaire excluding the National Front, partly because the majority bonus in Italy is compensatory, pushing therefore
even more towards bipolarization. In both countries, there is a relationship between the level of fragmentation and competitiveness of the election, the two being positively correlated. Finally, in Italy, the overall disproportionality of the system is relatively similar to the level of disproportionality between votes and seats within the winning coalitions. In France, on the contrary, the overall level of disproportionality is significantly higher than in Italy, while the level of disproportionality within the winning coalition is low and quite comparable to the Italian one, if not slightly lower. This finding strongly suggests two things: first, that the overall level of disproportionality between votes and seats within a coalition does not depend on the general level of disproportionality of the system, secondly, that parties tend to allocate seats within the coalitions proportionally to the votes obtained, conforming the Gamson's law.

To put it bluntly, contrary to the case of simple electoral systems, there does not seem to be a dominant party strategy that could explain easily the behavior of political actors in electoral systems with majority bonuses. Further investigation should therefore focus on these two puzzling elements: why do pre-electoral coalitions in electoral systems with majority bonuses tend to be larger than needed? Why is the allocation of seats within coalitions proportional to the votes obtained, regardless of the bargaining power and of the pivotal position of parties? National logics and uncertainty probably provide a great deal of the answers to these two questions. Indeed, elections do not take place in a vacuum where parties only look after their short-term interest in this particular electoral setting. Parties may want to coalesce with more partners in order to strengthen their links with potential coalition partners in following elections or in this case, in other regions. They may be quite unsure about the electoral balance of power before the election, which could in turn explain why even when some parties are dominant; they agree to allocate seats in a proportional way rather than based on the bargaining power of each actor. In other words, there is no straightforward strategy of pre-electoral coalition used with this type of systems.

## References

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## Appendix 1. Results of the 2005 and 2010 regional elections in Italy per region

|  | Piemonte |  | Lombardia |  | Veneto |  | Liguria |  | Emilia-Romagna |  | Toscana |  | Umbria |  | Marche |  | Lazio |  | Campania |  | Puglia |  | Basilicata |  | Calabria |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 | 2005 | 2010 |
| Pd (a) | 30,4 | 23,2 | 27,1 | 22,9 | 24,3 | 20,3 | 34,4 | 28,3 | 48 | 40,6 | 48,8 | 42,2 | 45,2 | 36,2 | 40,1 | 31,1 | 27,1 | 26,3 | 29,2 | 21,4 | 26,3 | 20,8 | 38,7 | 27,1 | 29,9 | 15,7 |
| Idv | 1,5 | 6,9 | 1,4 | 6,3 | 1,3 | 5,3 | 1,3 | 8,4 | 1,4 | 6,4 | 0,9 | 9,4 |  | 8,3 | 1,4 | 9,1 | 1 | 8,6 | 2,4 | 6,5 | 1,8 | 6,5 | 2,7 | 9,9 | - | 5,4 |
| Rc-Pddi | 9 | 2,5 | 8,1 | 2 | 5 | 1,6 | 9,2 | 3,9 | 9,2 | 2,8 | 15,3 | 5,3 | 14,5 | 6,9 | 10,2 | 3,9 | 8,2 | 2,7 | 6,4 | 1,6 | 9 | 3,3 | 8,8 | 2,1 | 5,1 | 4 |
| Verdi | 2,8 | 0,8 | 2,9 | 0,8 | 3 | 0,7 | 2 | 1,2 | 3,1 | - | - | - | 2,3 | - | 3,3 | 1,7 | 2,6 | 1,2 | 3,4 | 1,1 | - | - | 5,7 | 2,1 | - | - |
| Sel | - | 1,4 | - | 1,4 | - | 1,2 | - | 2,5 | - | 1,8 | - | 3,8 | - | 3,4 | - | 2,6 | - | 3,2 | - | 3,5 | - | 9,7 | - | 4 | - | - |
| Other CL (b) | 5,6 | 8,7 | 2,6 | 1,9 | 6,8 | 0,2 | 1,1 | 4,5 | 0,3 | 0,2 | - | - | - | 4,2 | 2,7 | 5,6 | 9,6 | 6,3 | - | 6 | 12,7 | 5,8 | 12,7 | 14,8 | 25,5 | 14,9 |
| Udc | 4,6 | 3,9 | 3,8 | 3,8 | 6,4 | 4,9 | 3,3 | 3,9 | 3,9 | 3,8 | 3,7 | 4,8 | 4,9 | 4,4 | 7,2 | 5,8 | 7,8 | 6,1 | 6,7 | 9,4 | 7,8 | 6,5 | 7,9 | 7,4 | 10,4 | 9,4 |
| Pdl (c) | 31,9 | 24,9 | 34,6 | 31,8 | 30,8 | 24,7 | 26,8 | 29,3 | 27,1 | 24,6 | 28 | 27,1 | 29,5 | 32,4 | 31,1 | 31,2 | 32,3 | 11,9 | 21,1 | 31,7 | 29,9 | 31,1 | 19,2 | 19,4 | 19,9 | 26,4 |
| Ln | 8,5 | 16,8 | 15,8 | 26,2 | 14,6 | 35,2 | 4,7 | 10,2 | 4,8 | 13,7 | 1,3 | 6,5 | - | 4,3 | 0,8 | 6,3 | - | - | - | - | - | - | - | - | - | - |
| Other CR (d) | 5,1 | 5,2 | 1,3 | 0,2 | 1,4 | 0,8 | 11,8 | 7,8 | 0,9 | 0,1 | - | - | - | - | 1,3 | 2,6 | 10,2 | 33,4 | 18,5 | 17,5 | 11,7 | 13,3 | 0,9 | 7,8 | 8,2 | 22,1 |
| Others (e) | 0,5 | 5,5 | 2,3 | 2,6 | 6,3 | 5,1 | 5,5 | - | 1,2 | 6 | 2,1 | 1 | 3,6 | - | 1,8 | - | 1,3 | 0,3 | 12,3 | 1,3 | 0,7 | 2,9 | 3,3 | 5,3 | 0,8 | 2,2 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| \% votes | 71,4 | 64,3 | 73 | 64,6 | 72,4 | 66,4 | 69,6 | 60,9 | 76,7 | 68,1 | 71,3 | 60,7 | 74,3 | 65,4 | 71,5 | 62,8 | 72,7 | 60,9 | 67,7 | 63 | 70,5 | 63,2 | 67,2 | 62,8 | 64,4 | 59,3 |
| \% valid votes | 66,5 | 60,6 | 69,2 | 62,6 | 67,8 | 64,1 | 66,7 | 58,6 | 73,2 | 64,8 | 68,4 | 58,7 | 70,3 | 63 | 67,2 | 59,8 | 69,8 | 58,3 | 63,1 | 56,9 | 66,5 | 59,9 | 63,7 | 58,6 | 60,7 | 56,1 |
| Valid votes | 2428014 | 2204349 | 5285975 | 4819576 | 2700742 | 2540735 | 935281 | 913176 | 2527559 | 2300385 | 2066096 | 1767409 | 506437 | 449782 | 865503 | 770749 | 3213036 | 2755085 | 3078322 | 2924360 | 2128974 | 2338391 | 353464 | 333739 | 1124526 | 1064003 |

Source: Electoral results found in the Archivio storico delle Elezioni of the ministero dell'interno and on the regions websites when necessary (for Marche, Calabria, Puglia, and Toscana in 2010).
Notes:
(a) In 2005, competed under Uniti nell'Ulivo, Ds, and Margherita
(b) Includes all minor lists competing within the center-left coalition
(c) In 2005, competed under Forza italia and Alleanza Nazionale
(d) Includes all minor lists competing within the center-right coalition
(e) Includes all minor lists not part of any of the two main coalitions

## Appendix 2. configuration of the two main coalitions in each region for the Italian regional elections, 2005-2010

| Regions | Elections 2005 | Elections 2010 |
| :---: | :---: | :---: |
| Piemonte | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds-Sel-Idv-Pd-Udc \|| Pdl-Ln |
| Lombardia | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds \|| Sel-Idv-Pd || Udc || Pdl-Ln |
| Veneto | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds-Sel-Idv-Pd \||Udc || Pdl-Ln |
| Liguria | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds-Sel-Idv-Pd-Udc \|| Pdl-Ln |
| Emilia-Romagna | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds-Sel-Idv-Pd \||Udc || Pdl-Ln |
| Toscana $\square$ | Pd-Verdi-Idv \|| Rc\| Pdl-Ln-Udc | Fds-Sel-Idv-Pd \||Udc || Pdl-Ln |
| Marche | Pd-Fds-Verdi-Idv \|| Pdl-Ln-Udc | Fds-Sel \|| Idv-Pd-Udc || Pdl-Ln |
| Umbria | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds-Sel-Idv-Pd \||Udc || Pdl-Ln |
| Lazio | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds-Sel-Idv-Pd \|| Udc-Pdl |
| Campania | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds \|| Sel-Idv-Pd || Udc-Pdl |
| Puglia | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds-Sel-Idv-Pd \|| Udc || Pdl |
| Basilicata | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds-Sel-Idv-Pd-Udc \|| Pdl |
| Calabria | Pd-Fds-Verdi-Idv \|| Pdl-Udc | Fds-Sel-Pd \|| Idv || Udc-Pdl |

Source: For the elections of 2005 , our own elaboration of the results found in the archivio storico delle Elezioni of the ministero dell'interno. For 2010, see Baldi and Tronconi, p. 54.

Note: For matters of comparability, we used for both elections the labels of 2010. For example, Pdl refers in 2005 to FI (Forza italia) and An (Alleanza nazionale), Pd to the alliance between Ds (Democratici di sinistra) and the Margherita, and Fds to the federazione di sinistra, the label under which Rc (Rifondazione comunista) and the Pdci (Partito dei comunisti italiani) competed un 2010.
$\square$ In 2005 in Toscana, Pdci competed with the center-left coalition and Rifondazione Comunista on its own


[^0]:    ${ }^{1}$ Literally, "Scam law".

[^1]:    ${ }^{2}$ For the sake of simplicity, this study will focus only on the case of Ordinary regions in italy, leaving aside the Special Statute regions (Sicily, Sardegna, Trentino Alto-Adige, Valle d'Aosta, and Venezia-Friuli Giuliana) in which different rules apply.

[^2]:    ${ }^{3}$ In this paper, only the regional contests in Ordinary regions are analyzed. Abruzzo is excluded from the comparison, since elections were held in 2008 because of the demission of the president of the region before the end of the term.

[^3]:    Source: French Ministry of interior
    Note: - means: no opportunity to coalesce with "possible partners"

