The London School of Economics and Political Science

The Impact of Electoral Reform: Parties, Voters and Legislators in Italy, 1996-2001.

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Declaration

I certify that the thesis I have presented for examination for the MRes/PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

Kamleh Khatib
Brussels (B), 30 September 2008.

Abstract

This thesis presents a comprehensive picture of the Italian political system under mixed electoral rules, between 1996 and 2001. It addresses how a mixed member majoritarian electoral system affects the incentive structure of parties, voters and legislators, which in turn affect political and social outcomes. The thesis consequently investigates three related phenomena which were not necessarily considered by the drafters of the reform; namely pre-electoral bargaining, split-ticket voting, and the link between dual candidacy and legislative behaviour. First, the thesis addresses pre-electoral coalition bargaining, investigating the role that parties' policy positions play as a 'threat' resource. Second, the thesis investigates the impact of candidates' policy positions, among other variables, on the tendency of voters to split their ticket. Finally, the thesis addresses how indicators of electoral path, such as the opportunity of MPs to run simultaneously in both proportional and majoritarian tiers, affect legislative behaviour. The research develops new theoretical insights, analyses new empirical data, and applies innovative methodological tools. Not only does the thesis shed light on the logic underlying these three intriguing phenomena, but also contributes to our understanding of mixed electoral systems. Specifically, by investigating the incentive structures of parties, voters and legislators under mixed rules, the thesis represents an important contribution to contamination theory. The results support the argument that mixed electoral systems are not merely the sum of their proportional and majoritarian elements, but instead constitute a new and distinct hybrid system.

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To my mother.

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- PART I -

CHAPTER 1 - INSTUTUTIONS, CHOICE AND BEHAVIOUR: A COMPREHENSIVE MODEL OF MULTI-PARTY SYSTEM.

A popular view in the political science literature sees institutions as the means through which individual preferences and actions are aggregated into collective outcomes. This entails that institutional change translates into policy change (Riker, 1980; Ostrom, 1986). It is not surprising, therefore, that a lot of the scholarly social science's attention is directed to study the nature of the different outcomes resulting from the emergence of new political institutions such as electoral systems. Different forms of electoral institutions translate into different forms of its players' incentive structures, which in turn contribute to the change in the final policy outcome. Mixed electoral systems (MES) are among the latest innovations in the field of comparative electoral institutions, which paved the way to new research opportunities.

This thesis is a research piece about two utterly intriguing and at the same time fascinating units of analysis: 'Italy' and 'mixed electoral rules'. Not only Italy has been a very fascinating topic of debate, and off-limits for many analytical scholars, but the introduction of mixed electoral rules between 1994 and 2005 renders it even more fascinating and intriguing.[1]

[1] The mixed electoral system was officially introduced in 1993 through the so much wanted electoral reform. The 1994 and the 2001 elections were the first and the last elections to be carried out under those rules.

Since their inception, these systems generated a lot of interest among political scientists. The combination of the proportional and majoritarian elements spawned a whole new area of research, and studies addressing mixed electoral systems grew so much to the extent that they are described as a "cottage industry" (Ferrara et al., 2005: 3). These studies, in fact, not only assess the 'normative' aspects of mixed systems, in terms of their merits and qualities (take for example the title of Shugart and Wattenberg's 2001 book: "Mixed Electoral Systems: *The Best of Both Worlds*?"), but they also assess their 'positive' aspects in light of the new mechanisms created by the union of the two rules (take for example the work on 'contamination' and its effects initiated by Herron and Nishikawa, 2001). More precisely, research is conducted on most aspects of mixed electoral systems; their origins (Shugart and Wattenberg, 2001; Navarra and Sobbrio, 2001), and their consequences in terms of parties (Nishikawa and Herron, 2004; Ferrara and Herron, 2005), voters (Bawn, 1999; Benoit et al., 2006; Karp et al., 2002) and legislators (Herron, 2002; Thames, 2001; Haspel et al., 1998).

Concerning the case study, Italy, for decades the proportional logic represented a "genetic trait of the Republican political system" (Bartolini and D'Alimonte, 1995: 7) which modelled and influenced its actors' values and behaviour. With the adoption of a mixed electoral system Italy abandoned its old proportional tradition and introduced a system characterised by a dual ballot; a proportional as well as a majoritarian one. The first mixed elections,

in 1994, represent a discontinuation with the past. This set of new rules affects the incentives of the main political actors, namely parties, voters and legislators, which consequently brings about changes to their behaviour. This reform makes the study of the new analytical elements, introduced by the dual ballot, necessary. These new elements, that did not characterise the old proportional system and upon which this thesis is articulated, include pre-electoral coalition formation, split-ticket voting and dual candidacy. By studying these aspects of the Italian political scenario under mixed rules, the scope of this thesis is to directly address how mixed electoral systems affect the incentive structure of parties, voters and legislators, which consequently affect their behaviour. Through this research I enhance the fairly developed body of theory in the field of mixed electoral systems with new theoretical insights and then I confront my theoretical arguments with empirical evidence using different types of data, as well as different and innovative methodological tools.

In doing so, this research constitutes a unique piece of work especially because it seeks to present a comprehensive picture of Italy under mixed rules relying on the most important stages of that era (1996-2001). The framework of this work is mainly justified by the seminal work of Austen-Smith and Banks (1988, 2005), who suggest that a multiparty representative system is identified by a social choice mechanism intended to aggregate individual preferences into social choices in four consecutive stages:

1. The pre-electoral stage: whereby parties position themselves in a policy space, chose a leader and declare their manifesto.

2. The electoral game: whereby voters choose whether to vote and for whom.

3. Coalition formation: characterised by a bargaining game over the division of a political cake.

4. The legislative stage: whereby policy is implemented as the social choice outcome.

A comprehensive model of a multiparty representative system must include these four consecutive stages (Schofield and Sened, 2006). By appropriately adapting these stages to the study of the Italian system under mixed rules, where for example both the coalition formation and the pre-electoral stages fuse into one single element, this research constitutes a thorough account of Italian political players' new incentives under a mixed member majoritarian system.[2]

As the subsequent chapters demonstrate, research on mixed electoral systems has proliferated abundantly. Nevertheless, theoretical and empirical gaps still exist regarding the mechanisms through which mixed rules affect both choice and behaviour of the concerned actors. This is where this thesis intervenes. My objective is to focus on a clearly defined set of questions

[2] As I explain in Chapter (2) the Italian mixed electoral system is known as a 'mixed member majoritarian' (MMM) system with partial compensation. This is different from mixed member proportional (MMP) systems whereby there exists a compensatory vote link between the two tiers (Shugart and Wattenberg, 2001).

relating to how mixed electoral rules constrain and thus affect the choice and behaviour of involved actors. Consequently, this research plan is "intensive, rather than extensive" (Mudambi et al., 2001a: 7) and it contributes to the theoretical and empirical debate on the political consequences of mixed electoral laws.

While in this works I answer a different set of questions, I do nonetheless complement the 'positive' work of Mudambi et al. (2001a,b) that covered both the 1994 and the 1996 elections. In fact, while their studies focus on both normative (constitutional political economy) and positive (public choice) aspects of voting rules in Italy, in my research plan I only focus on the latter. In other words, I focus "on choices subject to rules that define any community's political institutions and on the manner in which such institutions impact on collective decision making" (Rowley, 2004: 3). This implies that I forgo the objective of evaluating mixed electoral systems and I limit my purpose to analysing the implications of these rules for political behaviour.

The goal of this thesis is ambitious; to formulate hypotheses that seek to find and describe causal relationships. Consequently, I discuss my empirical findings with caution and candour recognizing that like every other methodology and dataset the ones I adopt in this work have their own limitations. In the respective empirical chapters 4, 5 and 6 I use a variety of quantitative methods to test my hypotheses. In each chapter I try to identify

the best and most appropriate empirical technique that is adequate for the data available as well as for the questions I pose.

Summing up, this research aims at making both theoretical and empirical contributions to the mixed electoral systems literature, in general, and to Italian studies, in particular. On the one hand, the thesis makes an important theoretical contribution to the topic of pre-electoral bargaining. As I demonstrate in Chapter (3.1), the dividing line between coalitions formed 'to establish a government' and those formed 'to divide a pie' is blurred and under-investigated. Consequently, the resource-based account I develop to explain pre-electoral coalition bargaining fills the theoretical gap that prevails in this field. On the other hand, while the theory of split-ticket voting and that of legislative behaviour under mixed rules is rather developed, academics reach somewhat inconclusive results as how voting and legislative behaviour is constrained under these forms of rules. Consequently, this thesis chews over, expands and replicates some existing theoretical insights and tests them in the Italian mixed context. The use of advanced econometric tools such as Bayesian simulations as opposed to the use of survey data to study the split-ticket phenomenon, and the breaking down of variables into smaller units like I do for the legislative behaviour section, together generate more precise and reliable empirical results that help explaining how institutions constrain

choice.[3] Since comparative political theorists in general and Italianists in particular have been unable to determine the merits of mixed electoral rules without ambiguity, the issue must ultimately be decided empirically. The objective of this study is, therefore, to provide such an important empirical contribution.

1.1 Research questions of the thesis.

As stressed in the above introduction, the direct scope of this thesis is to address how mixed member majoritarian (MMM) electoral systems, like the Italian system between 1994-2006, affect the incentive structure of parties, voters and legislators, which in turn affect and alter political outcomes. While the main focus is to analyse how the interaction of plurality and proportionality constrain and thus affect political behaviour, the findings have wider implications. The major by-product of answering this general question is to determine the extent to which the behaviour of the above actors is different under mixed rules than it is under pure majoritarian or proportional rules. In other words, to assess the extent to which the interaction of the two tiers produces a new system with some old features but also with new and unique ones. This implies that this research touches upon the issue of 'contamination' between the two tiers. To be more precise; it addresses the extent to which mixed systems can be defined as hybrid new systems as

[3] While technically King's (1997) approach is actually based on importance sampling from constrained maximum likelihood and not a fully Bayesian method, I refer to it as 'Bayesian' for simplicity.

opposed to the mere sum of proportional and plurality systems (Ferrara et al., 2005; Herron and Nishikawa, 2001).

With the above premises in place, it becomes obvious that this study fits the wider academic research that spans across areas. The study of electoral institutions - qualitative, quantitative, formal, or comparative - is among the most developed in political science. While this research seeks to contribute to the already existing literature about mixed electoral systems, it follows a clear-cut rationale. It is clear by now that the general research goal of this thesis is to evaluate how mixed electoral rules constrain and thus affect the choice and behaviour of political actors. This, however, is achieved by addressing three new distinct phenomena engendered by the reform. Through the study of pre-electoral coalition bargaining, split-ticket voting and dual candidacy this thesis evaluates the new set of incentives faced by parties, voters and legislators under mixed electoral rules to give an analytical explanation and assessment of the consequences of such rules. Consequently, this thesis tackles the change of incentives in three scenarios and as such it engenders three different research questions:

"Q1: How does the strategic environment created by mixed electoral rules affect pre-electoral coordination? More specifically, what affects bargaining potentials in pre-electoral alliances?"

Pre-electoral intra-coalition bargaining and the distribution of electoral districts among allies is the first interesting phenomenon that we can observe in Italy after the introduction of mixed rules. In pre-reform Italy with pure

proportionality the decision to run in each district was a matter of internal politics. With the transition to a different system characterised by an abundant majoritarian element (75%), the decision to run in each electoral district becomes a tricky one. As explained in detail in future chapters, the new incentive structure created by the new rules of the game imposes on parties within each coalition the need to gather around a negotiation table to coordinate entry decisions. In order to maximise the chances of winning as many single member districts (SMDs) as possible, allied parties face the need to distribute the electoral cake composed of 475 districts among themselves. The question of 'who stands where' (i.e. who gets what), therefore, becomes a very salient issue and the essence of pre-electoral coalition bargaining under the new rules.

In the relevant theoretical chapter of this thesis I highlight the absence of a proper theoretical account for pre-electoral intra coalition bargaining. I fill this gap by proposing a resource-based theoretical model, which I later test empirically. I then move to the second question of the thesis:

"Q2: How does the strategic environment created by mixed electoral rules affect voters' behaviour and in particular split-ticket voting?"

Voters' electoral behaviour is another interesting phenomenon related to the incentives created by the new mixed rules. Voters under these new rules face two voting choices rather than one; they are all endowed with a proportional and a majoritarian ballot. One the one hand, in the proportional

tier parties obtain a share of seats that is proportional to their electoral size.[4] Consequently, voters can express a sincere preference and vote for their first choice without running the risk of harming it. On the other hand, in the majoritarian arena their choice is restricted by what is on offer by the coalition. Following Benoit et al. (2006) these voters are identified as "frustrated voters". In such situations frustrated voters might opt to vote for another party's candidate within the same coalition, vote for a party belonging to another coalition or even vote for an independent party not belonging to any coalition. In multiparty systems the choice to abandon the preferred party's coalition to another party belonging to another alliance in the plurality tier can have serious consequences on the victory chances of alliances. Consequently, it is necessary to analyse the motives and the conditions under which frustrated voters are driven to jeopardise or at least affect the victory chances of the coalition to which their preferred party belongs.

This analysis complements the existing literature in two major ways. First, by simultaneously testing some of the most important theories of split-ticket voting on the 2001 Italian general 'Lower House' elections this work seeks to identify the validity of existing explanations. Second, the research employs some of the most recent methodological advancements, not yet widely used, known as Bayesian simulations. This latter method is adopted in order to (attempt to) overcome the widely known ecological inference

[4] This is simplified account of the two tiers. In the next chapter I explain the nature of the system in more details.

problem, which arises when using common election data, through the simulation of more precise dependent variables. Finally, I move to the last question:

"Q3: How does the strategic environment created by mixed electoral rules constrain the behaviour of office seeking legislators? More specifically, how does the opportunity created by the reform to run in both proportional and majoritarian tiers affect legislative behaviour of elected MPs?"

The interaction of proportional and majoritarian tiers is finally analysed within the context of legislative politics. Whether the incentives faced by proportional and majoritarian candidates differ in influencing their legislative behaviour is of great importance. While there are various studies concerning legislative behaviour under pure proportional and pure majoritarian systems, more research is needed in the context of mixed systems.

Apart from shedding some light on the nature of legislative behaviour in the Italian Parliament, this area of research is interesting from a more general 'mixed-electoral system' perspective. The conclusions I draw from the legislative behaviour investigations help us understand more about the nature of the new incentives faced by MPs touching upon the new 'hot topic' within mixed electoral systems, that of contamination effects (Herron and Nishikawa, 2001). The 'contamination effects' theory suggests that mixed electoral systems do not simultaneously exhibit the same characteristics of both majoritarian and proportional systems. This is because the interaction of those two tiers creates a new hybrid system with its own identity and features.

Therefore, by studying the legislative behaviour of those MPs who run in either a proportional district only (similar to pre-reform), or in a majoritarian district only and comparing it to the behaviour of those who run in two tiers simultaneously (only possible during the mix rules era), I can shed some light on the issue of whether this new system portrays new and unique traits from a legislative behaviour standpoint.

By drawing important elements from the political economy literature I investigate the role that district-specific characteristics (such as seat safety) and candidate-specific characteristics (such as an MP's electoral mandate) play in explaining legislative behaviour using NOMINATE scores as my data (Landi and Pelizzo, 2006a).[5]

This analysis contributes to the limited existing literature of Italian legislative politics in two major ways. First, I analyse legislative behaviour in Italy using a different set of data so far unused for this parliament; that is NOMINATE scores instead of simple roll call data (RC).[6] This data comes from the analysis of 242 bills voted by 642 MPs during the XIII Italian legislature. Second, I study legislative behaviour at three different levels. At the first level I compare two categories of MPs; those who run in either

[5] Even though recent work of Landi and Pelizzo (2006b) estimates Optimal Classification (OC) scores for the same legislature, I use NOMINATE scores as they represent the 'industry' standard for scaling roll call (RC) votes.

[6] One clear advantage of NOMINATE vis-à-vis raw RC is that we can obtain the directionality of individual's policy positions. For example, while RC can indicate weather a legislator is closer or further away than the party mean (median) compared to another legislator, NOMINATE can go further by indicating weather that same legislator is closer or further and in which direction (to the right or the left) compared to the party mean (median). For a more detailed explanation of the shortcomings of simple RC see Poole and Rosenthal (1997), p. 5-7.

districts (only SMD or only PR) and those who run in both. At a second deeper level I compare three categories of MPs; those who run in PR districts, those who run in SMD ones, and those who run in both. Finally, at the deepest level of analysis I further disentangle the category of MPs who run in both districts into four mutually exclusive categories that combine their political mandate with their electoral path. While this is an uncommon procedure in most legislative studies, as they usually separate mandate and path, this classification sheds the light on new interesting results about what affects legislative behaviour under mixed rules.

1.2 Overview of the thesis.

In the next Chapter I address the general theoretical views and the existing empirical work permeating the literature on mixed electoral systems in general as well as the main literature that addresses the Italian system under mixed rules. This information is necessary in order to identify the body of literature to which this thesis contributes to and reveals the gaps that need to be filled.

In Chapter (3) I move to the discussion of the more detailed theories related to the three research questions. This part also exhibits a dual purpose. First, it gathers the theoretical explanations that the literature provides addressing the three political phenomena under investigation. Second, it complements the existing material with my own theoretical reflections, and extensions.

In the subsequent three chapters (4, 5, and 6) I adopt a quite similar structure; the difference rests in the topic each one addresses. First, I present and explain the data employed in each chapter. Then, I expand on the research design, present detailed hypotheses and justify the methodology employed.[7] This is followed by reporting the results and a discussion of the estimations. Each empirical chapter relies on a different set of dependent variables, explanatory variables and methodology. While the explanatory variables sometimes overlap, for consistency reasons and in order to facilitate the reader to follow the logic of each chapter, I address the data, the methodology and the results of each single topic together in individual chapters.

Finally, in Chapter (7) I sum up the main findings and address the implications of the empirical chapters.

[7] This order is not followed in Chapter (5), whereby I discuss the methodology first. This is necessary as the data I use are derived through Bayesian simulations which need to be fully introduced.

CHAPTER 2 - ITALY AND MIXED ELECTORAL RULES: NEW OPPORTUNITIES AND NEW CHOICES.

This chapter is divided into two sections; the first one focuses on mixed electoral systems and the other focuses on the Italian political system under mixed rules. The scope of addressing the literature that addresses these two topics consists in highlighting the important contribution of this thesis in filling the existing theoretical and empirical gaps that transpire from the literature.

The first section uncovers the main body of knowledge concerning mixed systems. I start from the simple definition and description and then I move to a more detailed account of their working mechanisms in terms of how these systems differ from pure ones. In particular, I address the distinctiveness of these systems vis-à-vis pure ones in their ability to affect the incentive structure of the political system's players; namely parties, voters and legislators. This touches upon the topic of mixed systems as being a new hybrid form with their own characteristics and not as the mere product of uniting plurality and proportionality. This latter feature brings about the need to distinguish between 'interaction' and 'contamination'; two concepts that are often confused in the literature.

The second section addresses the body of literature that investigates the Italian political system under mixed rules between 1994 and 2005. This is

essential in order to highlight the main contribution of the literature but especially to highlight the several remaining pending question marks. This section is particularly important as it highlights the existing 'gaps' especially in reference to the theoretical debates advanced by studies on mixed electoral systems.

On the one hand, these two sections encompass the body of literature to which this thesis contributes both theoretically and empirically. On the other hand, they demonstrate how both my theoretical arguments and my empirical findings are generalizable beyond the Italian case and which can travel beyond Italy's borders.

Generalizing about electoral politics is not a trivial matter. Every country is unique. Even those countries that share a similar electoral system challenge those who govern it with a distinctive mixture of historical precedents, democratic principles, social conventions and popular demands. This would lead us to expect that clarifying accounts of one country's electoral politics will seem bizarre when applied elsewhere. If a theoretical framework can explain important aspects of pre-electoral bargaining, voting and legislative behaviour in the Italian 'unique' context, can I use it to better explain electoral politics in other countries with similar electoral systems? Throughout this thesis, I answer "Yes." Using a single case study to analyse the feature of mixed electoral systems is not an uncommon procedure. Most of the literature on mixed systems focuses on a single country or on a small

group of countries (Ferrara et al., 2005: 11). The framework adopted throughout this thesis stems from the premise that electoral rules constrain the choice and the behaviour of political actors. Therefore, by controlling for country specific variables, as I do in this thesis, this work can be extended to understand the 'rules-constrains-behaviour' relationships under mixed rules in other countries outside of Italy.

2.1. Mixed Electoral Systems.

"...electoral engineering is a highly inexact science and one liable to rebound upon those who try to practice it".
Bogdanor (1983: 16)

2.1.1. Focus on Mixed Electoral Systems (I): A New Species of Electoral Institutions.

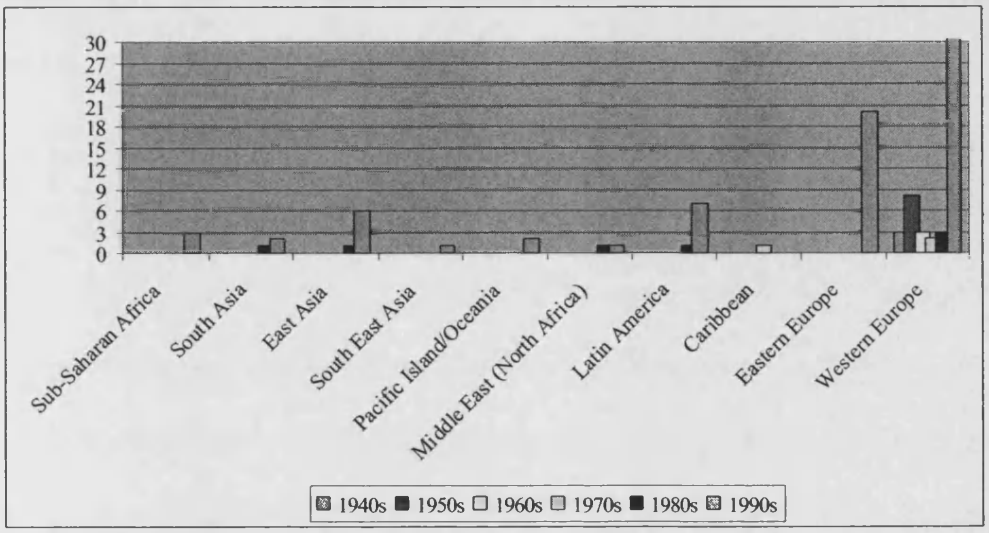
Recently, mixed systems of representation witnessed a "surprising growth in the popularity" (Cox and Schoppa, 2002: 1027); they became *de jour* (Thames, 2005). These systems are in fact used to govern a great deal of the world's population, and they are found in countries of all sizes and on all continents (Massicotte and Blais, 1999: 345). Back in 2001 Herron and Nishikawa affirm that during the last decade in more than twenty national parliaments, and in several other sub national units, a form of mixed systems was employed to elect representatives (63). It is estimated that hundreds of millions of voters took part in an elections characterised by this form of institutional framework (Ferrara and Herron, 2005: 16). While very few countries are abandoning this institution (like Italy and the Ukraine), the positive trend is constantly increasing, especially in former Soviet Union countries which previously adopted or are still adopting this form of representation (Kostadinova, 2002: 24).

The data provided by Golder (2004), which covers 199 countries from all continents over the period between 1946 and 2000, shows that there is a clear and increasing trend in the adoption of mixed systems of representation

(Figure 2.1) and that Eastern and Western Europe witnessed a boom during the nineties (Figure 2.2).

Figure (2.1): Electoral Systems Across 199 Countries Between 1946 and 2000.

Figure (2.2): Mixed Electoral Systems Distribution Between 1946 and 2000.



Source: Golder (2004).

Consequently given the rising number of mixed electoral systems around the world, it is important that the implications of these systems are analysed for the working of democracy, especially because they are high on the engineering agenda of many other new and old democracies.

Going back to basics, an electoral system is simply the mathematical formula through which votes are translated into seats. The choice of which mathematical formula to employ, consequently, affects every component of the representative system. While scholars have extensively evaluated the consequences of the extended and diverse families of pure proportional and plurality electoral systems (Cox, 1990; Cox and Shugart, 1996; Downs, 1957; Rae, 1967; Tsebelis, 1986 just to name a few); a less extensive but yet increasing amount of work exists to address the consequences of this new form of institutions. Scholars, in fact, agree on the necessity to expand the

research agenda on mixed electoral systems (Kostadinova, 2002; Massicotte and Blais, 1999).

According to Nishikawa and Herron (2004) the existing literature on mixed electoral systems can be disentangled into three main groups. One group is concerned with the normative aspects of the study of mixed systems and is mainly concerned with their description and classification. The other two address more positive aspects of the study of mixed systems and are divided into a case study group and a cross-national research group.

The first group of research addresses the nature of this form of institutions in terms of definition and taxonomy, as well as its origin and development. While various opinions exist concerning what constitutes a mixed electoral system, some common ideas prevail. The first one is that all mixed systems combine the two principles of representations, whether it has a two ballots structure (Shugart and Wattenberg, 2001) or it uses only one tier (Golder, 2005). Reynolds and Reilly (1997) define mixed electoral systems as those which "use both PR lists and plurality majority ('winner takes all') districts" (19). Massicotte and Blais (1999) define mixed rules as "*the combination of different electoral formulas (plurality or PR; majority or PR) for an election to a single body*" (345).[8] For Shugart and Wattenberg (2001) electoral systems are a "subset of the broader category of *multiple-tier* electoral systems [...] with the specific proviso that one tier must entail

[8] Emphasis in original.

allocation of seats *nominally* whereas the other must entail allocation of seats by *lists*" (10).[9] As Ferrara et al. (2005) highlight, while the list of systems classified as mixed varies across definitions, one fundamental element prevails across them (17). That is the allocation of seats by more than one formula. This defines the fundamental criterion for Ferrara et al.'s definition of mixed systems. According to them a mixed electoral system is one where "*more than one formula is employed to distribute legislative* seats" (17).[10] In line with other definitions and taxonomies, by "more than one formula" they mean a proportional formula reflected through the adoption of party lists and semi-proportional or a majoritarian formula where votes are cast nominally for individual candidates. This definition excludes electoral systems that use variations of one formula for the same district (such as Remainders-Hare and D'Hont or SMD plurality and majority run off) from being defined as mixed.[11]

The second common view scholars agree on is the fact that various forms of mixed systems actually exist and that they can be classified according to some distinct taxonomies. Scholars distinguish between mixed member systems on the basis of the independence or the dependence of the two tiers (Shugart and Wattenberg, 2001; Massicotte and Blais, 1999; and Golder, 2005). For example, Shugart and Wattenberg (2001) distinguish

[9] Emphasis in original.
[10] Emphasis in original.
[11] Remainders-Hare and D'Hont are two formulae used to distribute PR seats, while SMD plurality and majority run off are two formulae used to distribute majoritarian seats.

between mixed member majoritarian electoral systems (MMM) and mixed member proportional electoral systems (MMP) whereby the former is characterised by two parallel tiers while in the second there exists a compensatory link between the two (13).[12] Finally, this group also tackles aspects ranging from the origins of these systems and their evolution (Bawn, 1993; Benoit and Schiemann, 2001; Diaz-Cayeros and Magaloni, 2001; Dunleavy and Margetts, 2001; Gambetta and Warner, 2004; Nagel, 2004; Remington and Smith, 1995; and Wada 2004).

The other two groups concerned with mixed electoral systems are those that focus on the research of the specific features of these institutions through empirical theory testing. As mentioned in the introduction, the proliferation and expansion of research on mixed systems was mushroom-like. In particular, this analytical group investigates, in a mixture of case study and cross national contexts, the nature of party systems and electoral coordination under these rules (Barker and McLay, 2000; Bartolini et al., 2004; Benoit 2001; Birch, 2000; Denemark, 2003, Ferrara 2004a, 2004b, 2006; Herron, 2002; Herron and Nikishawa, 2001; Nishikawa and Herron, 2004; Katz, 1996; Kostadinova 2002, 2006; Moser and Sheiner, 2005; Reed, 2001), as well as voting behaviour (Bawn, 1999; Bawn and Thies, 2003; Benoit et al. 2006; Benoit et al., 2005; Burden and Kimball, 1998; Fisher, 1973; Gschwend et al.,

[12] The Italian mixed electoral system is a Mixed Member Majoritarian system with partial compensation, whereby list votes are reduced from successful majoritarian candidates who are linked to those lists. For a detailed discussion on MMM and MMP as well as for the distinction of votes and seats linkages, see Shugart and Wattenberg, 2001: 13-18.

2003; Karp et al., 2002; Klingemann and Wessel, 2001; Moser and Scheiner, 2005; Reed, 1999; Roberts, 1988; Schoen, 1999) and legislative behaviour (Haspel et al. 1998; Herron, 2002; Judge and Ilonskzki, 1995; Remington and Smith, 1995; Smith and Remington, 2001; Thames, 2001).

Perhaps the common feature among these four groups of research on mixed electoral systems consists in the two fundamental questions, often confused, that they pose, directly or indirectly, concerning the nature of mixed systems. On the one hand, this body of research addresses the question of "whether mixed systems represent a new hybrid of electoral institutions and what are the new consequences of such new and 'different' systems". On the other hand, it addresses the question of "the nature and the extent of contamination between the two electoral formulae" (Bawn and Thies, 2003; Cox and Schoppa, 2002; and Ferrara et al., 2005; Herron and Nishikawa, 2001).

Most of the analytical work on mixed electoral systems addresses how the combination of majority and proportionality affects strategic behaviour of parties and voters. This is known as the "controlled comparison approach" whereby the two different logics can be studied in isolation. However, this method, by definition, minimizes the implications of such a combination (Bawn and Thies, 2003; Cox and Schoppa 2002).

One the contrary, some scholars argue that the two tiers are not independent of each other by reversing the causal relationship of Duverger

(1985). In other words, instead of focusing on the impact that electoral rules exert on the number of parties (Duverger, 1985: 72) these studies investigate how the multiparty competition, which characterises PR competition, spills over to the SMD contest (Cox and Schoppa, 2002; Ferrara, 2004; Herron, 2002; Herron and Nikishawa, 2001). These studies suggest that these systems violate the above mentioned independence assumption and as such they should not be used as laboratories for 'controlled experiments'. This thesis fits this branch of the literature whereby the interaction between the majoritarian and the proportional components of mixed electoral systems is considered to "give rise to incentive structures that differ from those we would observe if the two tiers operated independently" (Ferrara et al., 2005: 4). Following this rationale, the interaction between the mechanical components of majority and proportionality is likely to produce outcomes that diverge from those observed under separate pure rules. Consequently, mixed systems do not constitute a controlled laboratory setting whereby independent effects of majority and proportionality can be isolated and compared.

With these premises in mind, this thesis will go beyond its main scope, which is the analysis of how the new incentive structure created by mixed rules affects the behaviour of the electoral system's players. In fact, while pursuing this goal the results of the empirical analysis will by default simultaneously shed some light on the issue of 'interaction' and

'contamination'. However, a few words should be first spent regarding the difference between the two.

The contamination literature, lead by the work of Herron and Nishikawa (2001) and that of Ferrara et al. (2005), mainly suggests that mixed electoral systems constitute a new species of electoral rules. According to them, contamination can be observed at both the micro and at the more aggregate level. At the micro-level, contamination is "*when the behaviour of a voter, a party, a candidate or a legislator, in one tier of the election is demonstrably affected by the institutional rules employed in the other tier*". At the aggregate level, contamination is observed "*when a particular outcome produced in one tier [...] is affected by the institutional features of the other*" (Ferrara et al., 2005: 8-9).[13] However, this definition fails to distinguish between interaction and contamination. In fact, while different these two concepts are seldom used interchangeably. Ferrara et al. in fact posit that "the two components of mixed rules do not operate independently, but are characterised by profound interaction that alters the decision-making processes *and ultimately the choices* of relevant political actors" (2005: 139).[14] Nevertheless, interaction does not automatically translate into contamination. The mere fact that the two distinct tiers interact and give birth to a new mixed system with new characteristics does not necessarily mean that the features of one tier (its outcome) affect the features of the other tier (its outcomes). To be more

[13] Emphasis in original.
[14] Emphasis in original.

precise, interaction implies the following. The union of the two tiers generates a third system which is not equal to the mere sum of the two. The difference in this third system lies in the fact that the new incentive structure diverges from the incentive structure under the two distinct rules. In other words, contamination is an automatic indicator of interaction. However, interaction does not automatically signal contamination. To give an example, in the Italian political scenario under mixed rules the creation of 'pre-electoral alliances' is an evidence of interaction. The co-existence of proportionality and majority *per se* imposes the need on parties to come together under pre-electoral alliances in order to win as many SMDs as possible. There is no contamination in this scenario, but simply interaction. However, in the case of Ferrara's (2004) study about entry decision of Italian parties in SMDs, where he demonstrates that the number of parties running in the majoritarian tier affects the performance of parties in the PR tier; we can talk about both interaction and contamination. Consequently, my understanding of contamination is more limited than that of Ferrara et al. (2005). Consequently, I consider that when two tiers "give rise to incentive structures that differ from those we would observe if the two tiers operated independently" (2005: 4) as 'interaction' without contamination.

2.1.2. Political Actors' Incentives Under Pure Systems vs. Political Actors' Incentives Under Mixed Systems.

In order to pursue the scope of this thesis, to investigate the new incentive structures that prevail under mixed rules, it is useful to look first at the political players' incentives under pure systems. Consequently, this section illustrates the incentives of political actors under distinct proportional and majoritarian systems.

More precisely, this brief section describes (1) How electoral systems affect party competition and their electoral strategies, (2) How electoral systems affect voting behaviour and (3) How electoral systems affect legislators' propensity to vote against their party.

2.1.2.a. Parties Electoral Strategies: Proportionality vs. majority.

Parties' electoral strategy is a very broad theme. In fact, it could entail parties' electoral campaigns, their revealed policy platforms, candidate selection, entry decisions and the choice of partners for coalition formation, just to name a few. What I am concerned with in this section, however, is only the aspect of parties' electoral strategies related to coalition formation. The scope is to distinguish between the incentives that parties face concerning coming together in both 'pre' and 'post' electoral alliances. In other words, how do mixed electoral systems differ from pure PR and majoritarian systems in terms of the constraints they generate on coalition formation strategies? With few exceptions, in parliamentary democracies single parties are usually unable to command a majority of support in the legislature. Consequently,

when they desire to be involved in the executive power they are typically forced to enter a form or another of coalitions. Pre-electoral coalitions are understood as a collection of parties that come together before elections and choose to co-ordinate their electoral strategies rather than running for office alone (Golder, 2006a: 194). In those rare studies about pre-electoral coalitions Golder (2006a, b) reports that it is a common and implicit claim in the coalition literature that pre-electoral coalitions are a simple function of electoral rules (Shepsle and Boncheck, 1997; Laver and Schofield, 1998). More specifically, "Systems not based on PR lists tend to force parties to coalesce before elections in order to exploit electoral economies of scale. The more disproportional the electoral system, the greater the incentives for pre-electoral alliances" (Strøm et al., 1994: 316). However, through a thorough empirical analysis Golder reaches different conclusions and suggests that pre-electoral coalitions can also form in highly proportional electoral systems. According to her it is not the electoral rule that matters but instead the expected utility from forming the coalition before elections as opposed to the expected utility from running independently (2006: 197).

In both pre and post electoral alliances a party will make some concessions in terms of policy and office to its coalition partners. However, in pre-electoral alliances concessions may be more costly than those made afterwards. This is because after elections any concessions that must be made to other parties in terms of ministerial posts or coalition policies can be

presented to party members as a consequence of the votes cast by the electorate. However, concessions that occur before an election can only be blamed on the party leadership (Ibid: 197). Consequently, the reason for which parties do not wait until after elections has to do with winning probabilities. Because pre-electoral coalitions can affect the probability that a party enters government, party leaders will form them if they believe that it "will increase their probability of entering government to such an extent that the expected utility from doing this is larger than the expected utility from running independently" (ibid: 197).

While there is no specific research undertaken, yet, concerning pre-electoral coalition under mixed rules; both the above views contribute to the explanation of the formation of this type of alliances. On the one hand, by definition mixed rules employ some elements of majority rules that are considered to provide incentives for pre-electoral alliances. On the other hand, the presence of a PR threshold might negatively affect a party's probability of winning if running independently. This in itself creates incentives to create this form of alliances.

2.2.b. Voting Behaviour (Split-ticket behaviour): Proportionality vs. majority.

Divided government and split-ticket voting are usually studied together. This phenomenon is usually studied in those electoral systems which adopt a majoritarian or plurality formula in whole or in part (like it is the case for mixed systems). In fact, incentives to split the ticket in proportional systems are weaker as a voter can simply vote for her preferred candidate without risking wasting her vote.[15]

The American and the British electoral systems are two examples of majoritarian systems investigated by scholars of split-ticket behaviour. (Born, 1994; Burden and Kimball 2002; Fiorina, 1996; Grofman et al., 2000 for the USA and Johnston and Pattie, 1991; Rallings, 2003 for Britain). As for mixed systems, split-ticket research is available for several countries such as Germany (Bawn, 1999; Gschwend et al., 2003; Schoen, 1999; Italy (Benoit et al., 2006; Venturino, 2002), New Zealand (Johnston and Pattie, 1999, 2002, 2003; Karp et al., 2002), Japan (Kohno, 1997; Reed, 1999) and Russia (McAllister and White, 2000).

[15] That is if the party, of course, reaches the pre-determined PR threshold.

2.1.2.c. Legislative Behaviour: Proportionality vs. majority.

There is little question that electoral rules do have persistent and significant effects on legislative behaviour. Electoral systems have different impacts in terms of how they can influence personal vote. This in fact could be affected by access to ballots, access to financial resources and by career advancement considerations (Collie, 1985; Loewenberg and Patterson, 1975; Weaver and Rockman 1993). In other words, different institutions provide legislators with different opportunities and different incentives to skew away from party lines. [16] More specifically, in the legislative behaviour literature there are three institutional elements which are highly investigated; namely electoral rules, candidate selection procedure and district magnitude (Carey and Shugart, 1995; Hix 2001; 1995; Mitchell, 2000; Pennings and Hazan, 2001; Samuels, 1999). Electoral rules are arranged on a continuum on the basis of the extent to which voters can exert preference. Electoral systems are consequently ordered from closed-list proportional representation (PR) systems (with the most party-centred setting and little or no incentive to seek personal vote), to single-member–simple-plurality and single-member–

[16] I refer to the act of MPs to skew away from party lines with the term 'legislative individualism'. In the legislative behaviour literature the tendency of an MP to vote with or against party lines is usually addressed under the labels of 'cohesion' or 'discipline'. There exist a clear distinction, and a long debate, between what both discipline and cohesion are (see Owens, 2003). Party cohesion is described as a "bottom up phenomenon" while party discipline is viewed as a "top down" one (Giannetti and Laver, 2008: 2). Discipline is reflected in MPs responding to the party's rewards and punishment system while cohesion is the product of coordinated behaviour stemming from individuals' incentives. The end-product of the presence of either of the two is, however, the same. In fact, in both cases we observe that MPs are compact and vote with party lines. However, in this thesis such distinction is not relevant as the dependent variable is an MPs tendency to vote with or against party line; in other words her degree of 'legislative individualism'.

alternative vote or double-ballot systems (with limited effectiveness to of personal voting), to fully open-list PR systems and single-transferable-vote (with the most *candidate-centred* setting, which makes personal voting the most effective). As far as candidate selection is concerned, in those systems in which there is weak central party leaders' control over access to and orderings on ballots; there are significant incentives for candidates to cultivate personal identification and support that might consequently tend to stray away from party lines. On the contrary, in systems where parties have a strong control over nominations, legislators seeking re-elections have great incentives to support their parties. Finally, the role of district magnitude is also considered a central one. In fact, the size of a district influences the ability of a party leadership to threaten the punishment of a candidate by moving her, for example, down its lists. Candidates in small districts are more vulnerable to pressures from their party leaders than candidates in large districts because in the latter popular incumbents have greater chances to stand as independent candidates.

When it comes to mixed system, however, the picture is blurred and the literature provides inconclusive answers concerning the incentive structure of legislators. As I demonstrate in Chapter 3.3 there is no agreement on the matter as existing studies reach quite diverging conclusions.

2.2. Italy.

2.2.1 Focus on Italy: The New Institutional Dimension 1994-2001.

While several studies address the reasons behind electoral reform in general, there is a common agreement concerning the motivations behind the Italian electoral reform. In Shugart and Wattenberg's (2001) language, the reform was designed to fix pathologies arising from 'extreme' institutional features.[17] To be more specific, Italy (like Israel) exhibited a severe form of hyper representation or what Sartori labelled as "polarized pluralism" (1976). In fact, the long dominance of the Christian Democracy (*Democrazia Cristiana*) prevented any form of power alternation and favoured the spread of political corruption. It is not a surprise, therefore, that the decrease in the number of parties not only was the most anticipated and awaited consequence of the reform but also the one most studied by scholars of Italian politics. Interest in this topic was amplified by the fact that the first elections held under the new mixed rules (in 1994) witnessed a proliferation rather than a decrease in the number of parties (Morlino, 1996). While research conducted in this area provides some satisfactory answers to one of the most solicited questions posed by the new rules, so many other questions remain unanswered. Even if the emergence of phenomena such as pre-electoral party competition or split-ticket voting are phenomena not originally nor

[17] See Pappalardo (1994), and Katz (2001:102-106) for an in-depth discussion about the motivations behind the Italian electoral reform as well as the original aspired goals of Italian electoral reformers.

intentionally contemplated by the reform advocates, they are, nonetheless, important outcomes of the new rules of the game which need to be addressed. This brings me to the explanation of the choice of the Italian lower house as a case study, and in particular the 1996 and 2001 elections, which is justifiable on several grounds. To begin with, the nature of the new system is ideal for the study of mixed systems. The coexistence of the plurality and proportional tiers provide an excellent environment for the study of the new incentives faced by the system's actors under the new rules of the game. Second, the Italian lower house is a fertile ground of research from an empirical point of view. Compared to other parliamentary systems, little empirical research was conducted on Italy to assess the political consequences of the new rules. Finally, the 1996 and 2001 elections represent the second and third elections held under the mixed rules. The cultural legacy of the players' attachment to proportionality elections translates into a limited experience by the political actors of the new electoral rules (Di Virgilio, 1998). Discarding the first elections is thus dictated by the assumption that parties, voters, and legislators need some time to adapt to the new norms. As Bartolini and D'Alimonte put it; "*the Italian electorate was taken by surprise at its majoritarian debut*" (1998: 159). Intuitively, it is reasonable to assume that the reform represented a learning curve for every actor of the political scene.

While it is not the purpose of this chapter to go over the whole political scenes of the 90s, I will touch upon the most important changes that were brought about by the 1993 electoral reform.

In 1993, motivated by a need to restructure its electoral system permeated by a fragmented number of parties coupled with other factors such as the overwhelming corruption scandals; Italy abandoned its old proportional system for a mixed member majoritarian one (MMM) with partial compensation. It was after a referendum (in 1993) and several negotiations later that the new electoral law became a reality. The electoral system introduced by the 1993 electoral reform transformed the Italian system from one of pure proportionality to a mixed one. The new rules introduced the majoritarian element and, in particular, both chambers were elected through 'mixed member majoritarian with partial compensation' systems (Shugart and Wattenberg, 2001), whereby three quarters of the seats are filled in single member districts (SMD). The remaining seats are filled by proportionality (PR), with a 4% national threshold, and with the 'vote totals' used for proportional allocations adjusted on the basis of the outcome of the plurality elections. This latter complex mechanism, also knows as "*lo scorporo*" or "unbundling", was designed to sustain smaller parties overwhelmed by the probable domination of SMDs by larger parties (Donovan, 1995: 60). For the Chamber of Deputies each elector has two ballots, one for one candidate in

his SMD and another for a party list but without 'preference voting'.[18] Table (2.1) below reports the distribution of PR and SMD seats across the 20 Italian regions.

Table (1.1): Distribution of Seats Between Plurality (75%) and Proportional Districts (25%)

Constituency	Total Seats	Number of PL Seats	Number of PR Seats
Piemonte 1	25	19	6
Piemonte 2	23	17	6
Valle d'Aosta	1	1	0
Lombardia 1	41	31	10
Lombardia 2	42	32	10
Lombardia 3	15	11	4
Trentino	10	8	2
Veneto 1	29	22	7
Veneto 2	20	15	5
Friuli	13	10	3
Liguria	19	14	5
Emilia Romagna	43	32	11
Toscana	39	29	10
Umbria	9	7	2
Marche	16	12	4
Lazio 1	42	32	10
Lazio 2	15	11	4
Abruzzi	14	11	3
Molise	4	3	1
Campania 1	33	25	8
Campania 2	29	22	7
Puglia	45	34	11
Basilicata	7	5	2
Calabria	23	17	16
Sicilia 1	27	20	7
Sicilia 2	28	21	7
Sardegna	18	14	4
Total	630	475	155

[18] For more analytical accounts on the reform see Donovan (1995), Katz (1996) and Shugart and Wattenberg (2001).

It is needless to say that the reform prompted several innovations in the political system as a whole. Nowadays, even after 14 years, the 1993 reform represents the institutional change with the biggest impact. The novelty of the majoritarian element and the subsequent emergence of bi-polarism are two important phenomena that represent a huge transformation and a change form the First Republic.[19]

Moving the attention to the major alliances; the three Italian national elections held under mixed rules (1994, 1996 and 2001) are largely characterised by the formation of connected coalitions. As table (2.2) below shows, while the choice of partners varied across elections ideological compatibility was generally the norm.[20]

[19] The expression 'First Republic' marks the period between 1948 and 1994. In other words, the first elections held under the mixed electoral rules represent the beginning of the 'Second Republic'.

[20] Like the following section highlights, the 1994 elections, for example, represent an exception for this rule. In terms of connectedness we find that the centre-right coalition in the north "*Casa delle Libertà*" is exclusive of the centre-right party *Alleanza Nazionale*, which formed a separate coalition in the south with *Forza Italia* called "*Partito del Buon Governo*". The lack of ideological compatibility and connectedness is also reflected in the enrolment of the centrist *Pannella list* (currently *Radicali Italiani*) in a coalition with the extreme right *Lega Nord*.

Table (2.3): Coalitions Throughout the 1994, 1996 and 2001 Italian Elections.

	1994	1996	2001
Centre-left coalitions	**Progressisiti:** *PDS, PSI, RC, VERDI, Movimento per la Democrazia- La Rete, AD, Partito Socialista, Rinscita Socialista* and *CS*	*Ulivo: PDS, Verdi, PPI, RI.*	*Ulivo: Ds, Margherita (PPi, Udeur, RI, Democratici), Girasole* (Verdi and Sdi), Svp, and *Pdci.*
Centre-right coalitions	***Polo delle Libertà*** (North of Italy): *Fi* and *Ln, Ccd,* and *Udc Lista Pannella-Riformatori.* ***Polo del Buon Governo*** (South of Italy): *Fi* and Msi-*An* as well as *Lista Pannella-Riformatori, Ccd, Udc, Cdl Liberal-Democratico.*	***Cdl per le Libertà:*** *Fi, An, Ccd,* and *Cdu.*	***Casa delle Libertà (Cdl):*** Fi, An, Ln, Biancofore (Ccd, Cdu), *Nuovo Psi,* and *Pri*
Other Coalitions	***Patto per L'Italia:*** *PPI, Patto Segni, Pri, Unione Liberaldemocratica*	**RC** [21] **Ln** **Lista Dini-Rinnovamento Italiano.** **Lista *Pannella-Sgarbi (centre-right)***	**Lista *Pannella-Bonino*** **Italia dei Valori** **RC** **DE** **Msft**

Source: Adapted from Venturino (2004: 21) as well as from official election data.

[21] *RC* and *Ulivo* agreed through the 'non belligerence pact' known as '*Patti di desistenza*' or '*Patti di non belligeranza*' to place, in some agreed upon districts, a *RC* candidate under the label of *Progressisti* with no direct competition from *Ulivo*.

As highlighted by Reed (2001), throughout the three elections bipolarity developed and materialized under the form of two major blocks; the centre-right and the centre-left. In 1994, the centre-left is under the name "*Progressisti*" gathering most of the left wing spectrum. In the middle we find a minor congregation called "*Patto per L'Italia*" which lasted only for those elections and gathered four centrist parties. In these elections the centre-right is broken down into two major blocks. In the north Forza Italia (*Fi)* is allied with the Northern League (*LN*) and some other smaller components under the label of Pole of Liberties (*Polo delle Libertà*). In the south *Fi* is allied with the Northern Alliance (*An*) and with some other smaller components under the label of Pole of the Good Government (*Polo del Buon Governo*). This division proved semi-successful for the centre-right as it contributed to attracting votes across Italy and contributed to facilitating its victory. However, while a majority was obtained in the lower house, the centre-right failed to gain majority of the Senate. For this and other reasons, such as the dissidence of the extreme right party *Lega Nord*, the government fell and new elections took place in 1996. In these second elections both blocks loose their 'extreme' components. The centre-left now called Olive Tree (*Ulivo*) runs without the Communist Refoundation Party (*Rc*), and the centre-right, called the Pole for Liberties (*Polo per Libertà*), runs without *Ln*. In fact, an important feature of these second mixed rules elections was the deal that the extreme left party *Rc* stroke with the centre-left coalition *Ulivo* called "*Patto*

di non belligeranza" or *"Patto di desistenza"*. According to this agreement *Rc* agreed not to compete in some majoritarian districts of the lower house while at the same time giving its voters indications to support the *Ulivo* candidates in those particular districts. Consequently, the winning coalition did not match the governing coalition. *Rc*, in fact, was part of the former but not of the latter. This time the centre-left gains victory and governs until the 2001 elections through the *Prodi* I, *D'Alema* I, *D'Alema* II, and *Amato* II governments. Finally, in the 2001 elections we observe a consolidation of the two blocks; the *Ulivo* maintains its overall 1996 composition with the addition of the Democratic Union for Europe (*Udeur*), a centrist political party led by the ex-Christian Democrat *Clemente Mastella*, while the centre-right, now the Casa Delle Libertà, rejoins with *Ln*. In these last mixed elections the centre-right obtains a striking majority in both houses and governs Italy for five years under Berlusconi's (I and II) Governments.

2.2.2 The Italian Second Republic: What We Know and What We Don't Know.

As every other new political change, the one that took place in Italy as a consequence of the electoral reform of 1993 attracted a lot of scholarly attention. The academic research on Italy under the mixed electoral system can be grouped under two main headings. The first one is the collection of work produced in the first years of the reform, what I call the 'first generation studies'. The main scope of this generation of work was exploratory aiming at theory formulation and data collection. Take for example the book series initiated by the *Rivista Italiana di Scienza Politica* and which was published by *Il Mulino*.[22] The scope of such series was to collect as much data as possible and to document the important structural changes that took place in Italy as a consequence of the electoral reform. Between 1995 and 2002 three major volumes edited by the two same authors; D'Alimonte and Bartolini, were published to "comprehend the evolution of the political system in Italy" (Bartolini and D'Alimonte, 2002). These were *Maggioritario ma non troppo* (Majoritarian but not too much) in 1995,[23] *Maggioritario per caso* (Majoritarian by chance) in 1997, and *Maggioritario Finalmente*? (Majoritarian at last?) in 2002. These three editions covered almost every aspect of the new electoral system from parties, to voters, legislators, cartels,

[22] The *Rivista Italiana di Scienza Politica* is the most renowned Italian journal for political science.

[23] As mentioned above, the first mixed rules election engender a divided parliament; two different majorities won in the lower house and in the Senate. From this is derived the title of the first edition: "Majoritarian but not too much".

symbols, alliances and political participation. Notwithstanding the valuable contribution of these volumes, especially in their endeavour to create a database of Italian elections, they provide an insufficient contribution towards satiating the empirical and analytical research gap that reigns within Italian studies. In fact, little empirical work is undertaken throughout these volumes. Articles are of a 'catch-all nature' gathering under the same title topics ranging from the creation of electoral coalitions to party fragmentation, split-ticket behaviour and the role of the media. With the exception of the 2002 volume each other one is tailored around one specific election. Consequently, their scope is mainly to describe the overall context of the specific election by simultaneously covering several of its aspects. While this in itself is essential in order to explain the circumstances that lead a particular alliance to win the elections under consideration, it constitutes a weakness of such literature as it runs short from building a general body of theory and empirics.

The second group of research is more data-focused and while it involves some degree of theory formulation it is of a predominant empirical nature. In fact, while the first generation of research on Italy under mixed rules answers many of the questions posed by the reform, very little of this work is corroborated by empirical findings. This second group of research combines theory formulation and theory testing, with a focus on the latter, to address several aspects of the electoral reform. Studies include analyses of voting behaviour (Benoit et al., 2006; Mudambi and Navarra, 2004), parties and

party systems (Ferrara, 2004a; Ferrara and Herron, 2005; Reed 2001), and legislative behaviour (Ferrara, 2004b; Giannetti and Laver, 2008).

Given the breadth of these themes, no single chapter could do justice to their detailed overview. I will, therefore, attempt to present a synthesis of the most relevant body of literature on the Italian electoral system under mixed rules belonging to both generation studies. Consequently, the next section outlines contemporary debates and the fundamental questions that characterised the political scenario after Italy's electoral transition.

The very same issues that prompted the Italian reform were the first on the expectation-agenda of political scientists during the first years of the reform. Consequently, they wanted to investigate themes such as 'whether a closer control of candidates by voters occurs and whether a more significant voters' role in selecting their representatives occurs', 'whether party fragmentation decreases', 'whether government alternation takes place and if it leads to cabinet stability' and 'whether parties adapt to the new logic of competition'. Among these topics, the interlinked issues of 'party fragmentation and the decrease in the number of parties' and consequently 'the issue of bipolarity' are perhaps the most important of all (Bartolini et al., 2002, 2004).

Studying the impact of electoral rules on the number of parties goes back to the seminal work of Duverger (1951, 1954) and Downs (1954). In Italy the general expectations were of a simplification of the party scenario

and an increase in governability through the creation of two competing blocks. Consequently, this would have favoured the so hoped-for phenomenon of governments' alternation (Chiaramonte and D'Alimonte, 2004: 105). It seems, however, that party fragmentation under the new rules was higher, overall, than it was pre-reform if compared with levels in 1987.[24] By comparing the number of parties pre-reform to their number post reform it is obvious that the mixed rules did not bring about a reduction in the number of parties. Bartolini et al. (2004) suggest that while the distributive criteria are rather complex, the outcome of this distributive process is a partition of plurality seats "more or less equivalent to the size of their electoral contribution to the success of the coalition" (12).

Table (3.4): Number of Party Actors in the Italian Chamber: 1987–2001 Elections.

	Elections				
Units of Accounts	**1987**	**1992**	**1994**	**1996**	**2001**
Lists with more than 0.5% of the PR vote in the Chamber	14	16	14	11	14
Number of parties/lists obtaining seats in the Chamber	14	16	20 of which: 7 PR lists 19 parties in the plurality arena	24 of which: 8 PR lists 24 parties in the plurality arena	20 of which: 5 PR lists 19 parties in the plurality arena

Source: Bartolini et al. (2004:11).

[24] The proportional elections of 1987 can be considered an adequate reference point as opposed to the more recent elections of 1992. In fact, while the latter also took place in a pure proportional system the destructuring of the party system was already under way.

Several interpretations are brought forward. Small parties are considered to retain 'coalitional blackmailing power' because the plurality competition is embedded within a fundamentally proportional environment (Bartolini et al., 2004). In other words, the power of small parties derives from those arenas where strength is measured in PR terms. This is the case, for example, in most other elections like elections of city councils' Majors and those of the European Parliament. This, however, explains why small parties survive in the regional and local arenas but it does not necessarily explain the blackmailing power exercised at the national level. There is a missing link in terms of explaining how this power at the local and regional level is translated into the national arena. Another more convincing explanation attributes smaller parties an "electoral blackmail power" in the national arena (13). In other words, the bigger is the coalition the higher its probabilities of success in the single member districts (Bartolini and D'Alimonte, 2002). Small parties' blackmailing power consists in the threat that they will defect and present their own candidates at the election, accruing a potentially irreparable damage to the coalition's chance of winning (Bartolini et al., 2004: 13). This is what Bartolini et al. (2004) define as "the freezing of party fragmentation" (13). These scholars, however, admit that the serious fallacy with their interpretation relies on the actual credibility of the threat. The credibility of this threat is anchored to the assumption that when the small party will present its own candidate it will gain sufficient support to be regarded as a

threat. This assumption, however, clashes with the other assumption whereby instrumental voters will rationally abandon parties which have low probability of winning in order not to waste their vote. As a way out, and to explain the blackmailing power of small parties, Bartolini et al. (2004) hypothesise that the threat of leaving persists because there exists "a quota of identifiers" who are so loyal that will support the party label no matter what, or whom do not follow classical logics of political rationality based on maximisation (13).

In a similar vein, and by analysing the changes that Italy undertook after the reform from a different perspective, Reed (2001) reaches interesting conclusions concerning the 'number of parties' issue. His results suggest that "Duverger's law is not only working in Italy but it is working rapidly and powerfully" (313) manifesting itself through the two-candidate competition at the district level. Nevertheless, scholars go as far as saying that in the context of the 1990s party scene any other form of electoral reform would have hardly succeeded in containing party fragmentation (Chiaramonte and D'Alimonte 2004: 116). Such a reform would have interfered with the complex institutional architecture dominated by a purely proportional logic (like it is the case for the public financing of parties).

This brings me to the issue of party system change and of whether parties adapted to the new logic of competition. On the one hand, soon after the reform the Italian system was described as a party system in transition (D'Alimonte and Bartolini 1997b: 121). The break with the past was evident

in the sense that the old anti-system parties-disappeared,[25] and competition turned among alliances (coalitions) not parties. The system became more competitive, which is clear in the increase in number of marginal seats (whereby the difference between the winner and the second placed candidate is less than 8% of the votes) (D'Alimonte and Bartolini, 1997b: 132; Bartolini and D'Alimonte, 1995:328). On the other hand, although coalitions did not technically replace parties, the new rules of the game transformed electoral competition into "a context based on coalitions rather than parties" (Bartolini et al., 2004: 2; Bartolini and D'Alimonte, 1998:164; D'Alimonte and Bartolini, 1997b: 131; Di Virgilio 1998: 5).

Since 1994 the Italian party system developed according to a bipolar pattern. Throughout the three elections the formation of pre-electoral coalitions favoured the progressive concentration of votes and seats with the two main coalitions. This in turn played a major role in the increasing decline of third actors, which contributed to the creation of parliamentary majorities in favour of one of the major coalitions (Bartolini et al., 2004: 3). The formation of pre-electoral coalitions has been described as "the most important development of Italian politics in recent history" (Bartolini et al., 2004: 2). Before the 1993 reform Italian coalitions were post-electoral governing coalitions. Consequently, in those few instances where post-

[25] For example in the left spectrum we find transformations such as the 'Italian Communist Party' (*Pci*) which first becomes the 'Democratic Party of the Left' (*Pds*) and later turns into the party of the 'Left Democrats' (DS). On the right we find the 'Italian Social Movement' (*Msi*) turning into the 'National Alliance' (*An*).

electoral coalitions are investigated, they are only analysed in function of their causal link with electoral outcomes. For example Bartolini et al. (2004) explain how the 'variable geometry' nature of the 1994 centre-right coalition granted it its victory, how the abandonment of *Lega Nord* caused its defeat in 1996 and how the coming together of all centre-right parties under one label of the *Casa delle Libertà* (*Cdl*) determined its victory in 2001 (Bartolini et al., 2004: 2).

Among the other issues addressed by scholars of Italian politics we find the nationalisation of candidates, or in other words, the weakening of territorial links between candidates and voters (Bartolini et al., 2004; Chiaramonte and D'Alimonte, 2004; Di Virgilio, 1997 and 2004; Verzichelli, 2002). This is a direct consequence of the new politics of alliance. In fact, this nationalisation can be explained by the fact that coalitional quotas are determined at each election. Furthermore, re-evaluations and a re-assessments of districts in terms of winnability change at each election. This causes the movement of candidates from a district to another (Chiaramonte and D'Alimonte, 2004). Furthermore, while district allocation is the result of intra coalition bargaining, the choice of the specific candidate to run in the district belongs to the party and this could be subject to internal party dynamics that are independent of voters-candidate ties. Alliances are thus more competitive (Di Virgilio, 2004: 200; Chiaramonte, 2002: 182-186) and portray a higher level of discipline as opposed to pre-reform (Di Virgilio, 2004: 200). Overall,

across the three elections (1994-2001) less than 100 candidates competed in the same election Di Virgilio, 2002: 124-126).

Finally, some research was conducted to study the nature of voters. This work mainly demonstrates that in Italy under mixed rules there were two distinct electorates (Corbetta and Caciagli, 2002:438). The centre-left electorate is described as more educated, more informed and more interested in politics. These qualities lead them to trust politics more than the centre-right electorate. This latter is found to be less educated, less informed and more distant from politics, and consequently more "alienated" (ibid: 439).

2.3. Conclusions.

The above literature review uncovers many important details about the working of the Italian system after its 1993 reform. Three important phenomena were documented an analysed. The first is the proportionalisation of alliances (Di Virgilio, 2004: 196), which lead to the move towards a more centralised party decision making (Di Virgilio, 2004: 195; Di Virgilio, 2002: 126). The second is party system fragmentation and the increasing power of small parties within alliances. The last one is the confirmation of bipolar competitive dynamics (Chiaramonte and D'Alimonte, 2004: 108; Reeds, 2001; Bartolini et al., 2004: 3).

By now, the need to address the research questions of this thesis becomes obvious. While the above literature is very useful to comprehend the post-reform Italian scenario, its lack of empirical testing leaves room to conduct more investigations. Only a limited amount of literature, discussed in its relevant chapter, addresses Italy under mixed rules from an empirical stand point. For example, some scholars investigate party entry decisions (Ferrara, 2004a; Ferrara and Herron, 2005; D'Alimonte and Bartolini, 2002; D'Alimonte and Chiaramonte, 1995), others investigate voting behaviour (Benoit et al., 2006; Venturino, 2002), and others analyse legislative behaviour (Benoit et al., 2006; Ferrara, 2004b; Giannetti and Laver, 2008; Mudambi and Navarra, 2004). This literature is discussed in detail in Chapter (3) in order to highlight both its contribution and its limitation. In the

following Chapter, in fact, I demonstrate why this material is insufficient to explain the incentives of political players under mixed rules and how this thesis complements the existing material both theoretically and empirically.

CHAPTER 3 - THEORIES OF ITALIAN POLITICS UNDER MIXED ELECTORAL RULES.

The previous chapter demonstrates that, with few exceptions, most research carried out on the Italian political system between 1994 and 2001 is of a descriptive nature. It is important to recognise the role these studies play in increasing our understanding of the Italian political scene during that period. However, it is also true that in proportion to the existing literature a very limited amount of work is corroborated through appropriate empirical testing. Consequently, most of the available research I use as starting point for my analyses comes from the work of comparative scholars who do not necessarily study Italy in their research. Bawn (1999), Benoit et al. (2006), Cox and Schoppa (2002), Ferrara (2004a,b), Giannetti and Laver (2001, 2008), Haspel et al. (1998), Hix (2001, 2006a,b) and Herron and Nikishawa (2001) are just few examples. This is why, aside from theoretically enhancing the already existing research, this thesis is essentially an empirical contribution to those themes reached by theory but not sufficiently corroborated by empirics.

As highlighted in the research question section, this thesis is not about one single topic but about three connected themes. Therefore, there is no single overarching theory but instead there are three different, but nevertheless connected, theoretical frameworks. These theoretical frameworks tackle three political outcomes; the pre-electoral partition of majoritarian

districts trough intra-coalition bargaining, split-ticket voting, and the propensity of dual-candidacy MPs to vote against their party. These outcomes are linked together by the umbrella of mixed electoral rules and at the same time they constitute three unintended consequences of the reform drafters. As said before, in the late eighties and early nineties a mixture of factors such as pervasive corruption and the high number of parties called for heavy changes in Italian politics if things were to be improved. The emergence of pre-electoral alliances, allowing for split-ticket voting, and dual candidacy '*per se*' were not intentional goals of reformers, but instead externalities. Furthermore, the necessity to tackle the three phenomena together comes from the work of Austin-Smith and Banks (1988, 2005) which argues that a comprehensive model of a multiparty representative system must cover the pre-electoral, the electoral, and post electoral stages.

This chapter is divided into three main sections each of which addresses one of the three analytical themes of the thesis. Each section is composed of three parts. In the first one I expose the political phenomenon engendered by the new rules (pre-electoral coalition, split-ticket voting or dual candidacy). In the second section I address the most relevant theoretical and empirical work undertaken in the specific area. Finally, I complement it with my own theoretical contributions as well as my own expectations.

3.1. The Intra-Coalition Bargaining Game of Pre-Electoral Politics.

As it is the case for each of the three phenomena under investigation, the point of departure of this analysis is the crucial change in the Italian political system brought about by the new mixed rules. As Table (3.1) below shows, before the 1993 reform Italy witnessed 50 post-electoral alliances. In the game theoretic language such coalitions are characterised by 'inter-coalition Nash bargaining behaviour' because parties adopt a competitive behaviour vis-à-vis other coalitions (Roemer, 2001).

Table (3.1): Post-electoral Alliance in Italian Pre-reform Governments (1948-1994).

Legislature		Prime Minister	Parties in coalition
I -1948	1	De Gasperi VI	PSDI+PRI+DC+PLI
	2	De Gasperi VII	PRI+DC+PLI
	3	De Gasperi VIII	PSDI+PRI+DC
	4	De Gasperi IX	PRI+DC
	5	De Gasperi X	PRI+DC
	6	De Gasperi XI	DC
II-1953	7	Pella	DC
	8	Fanfani I	DC
	9	Scelba	PSDI+DC+PLI
	10	Segni I	PSDI+DC+PLI
	11	Zoli	DC
III – 1958	12	Fanfani II	PSDI+DC
	13	Segni II	DC
	14	Tambroni	DC
	15	Fanfani III	DC
IV – 1963	16	Fanfani IV	PSDI+PRI+DC
	17	Leone I	DC
	18	Moro I	PSI+PSDI+PRI+DC
	19	Moro II	PSI+PSDI+PRI+DC
	20	Moro III	PSI+PSDI+PRI+DC
V - 1968	21	Leone II	DC
	22	Rumor I	PSU+PRI+DC
	23	Rumor II	DC
	24	Rumor III	PSI+PSDI+PRI+DC
	25	Colombo I	PSI+PSDI+PRI+DC
VI - 1972	26	Colombo II	PSI+PSDI+ PRI+DC
	27	Andreotti I	DC
	28	Andreotti II	PSDI+DC+PLI
	29	Rumor IV	PSI+PSDI+PRI+DC
	30	Rumor V	PSI+PSDI+DC
VII – 1976	31	Moro IV	PRI+DC
	32	Moro V	DC
	33	Andreotti III	DC
	34	Andreotti IV	DC
VIII -1979	35	Andreotti V	PSDI+PRI+DC
	36	Cossiga I	PSDI+DC+PLI
	37	Cossiga II	PSI+PRI+DC
	38	Forlani	PSI+PSDI+PRI+DC
	39	Spadolini I	PSI+PSDI+PRI+DC+PLI
	40	Spadolini II	PSI+PSDI+PRI+DC+PLI
IX - 1983	41	Fanfani V	PSI+PSDI+DC+PLI
	42	Craxi I	PSI+PSDI+PRI+DC+PLI
	43	Craxi II	PSI+PSDI+PRI+DC+PLI
	44	Fanfani VI	DC
X - 1987	45	Goria	PSI+PSDI+PRI+DC+PLI
	46	De Mita	PSI+PSDI+PRI+DC+PLI
	47	Andreotti VI	PSI+PSDI+PRI+DC+PLI
XI - 1992	48	Andreotti VII	PSI+PSDI+DC+PLI
	49	Amato I	PSI+PSDI+DC+PLI
	50	Ciampi I	PSI+PSDI+DC+PLI

Source: Italian Ministry of Intern. DC (Democrazia Cristiana), PLI (Partito Liberale Italiano), PRI (Partito Repubblicano Italiano), PSDI (Partito Socialista Democratico Italiano), PSI (Partito Socialista Italiano), PSU (Partito Socialista Unificato).

By introducing the majoritarian element, coupled with the inability of parties to control a majority by themselves, the reform impinged on parties the need to come together in pre-electoral alliances to secure as many of the newly created 475 majoritarian districts as possible. The new rules of the game transformed Italian coalitions from post-electoral to pre-electoral ones exhibiting, in the game theoretic language, what is knows as 'intra-coalition Nash bargaining behaviour'. In these types of coalitions, parties adopt a cooperative behaviour inside their coalitions (Roemer, 2001).[26]

The total number of majoritarian districts can thus be viewed as a pie that needs to be divided among allies. Each party wants to obtain as many candidatures as possible. Therefore, parties need to sit around a negotiation table and decide who stands where. Explaining what affects the division of these newly created districts among allies is the crux of this section. In the following section I will provide an overview of the distribution of districts among parties within both the centre-left and the centre-right alliances. Then, I will provide a literature review about the existing explanations regarding pre-electoral alliances and parties' bargaining power determinants. The section will illustrate that there is a shortage of knowledge in the subject of pre-electoral coalitions. Finally, I will draw my theoretical model which will allow me to make testable predictions about what effects 'who gets what and where' in the distribution of SMDs.

[26] According to this approach the electoral equilibrium (Nash equilibrium) is as the simultaneous combination of the above Nash bargaining solutions (Roemer, 2001).

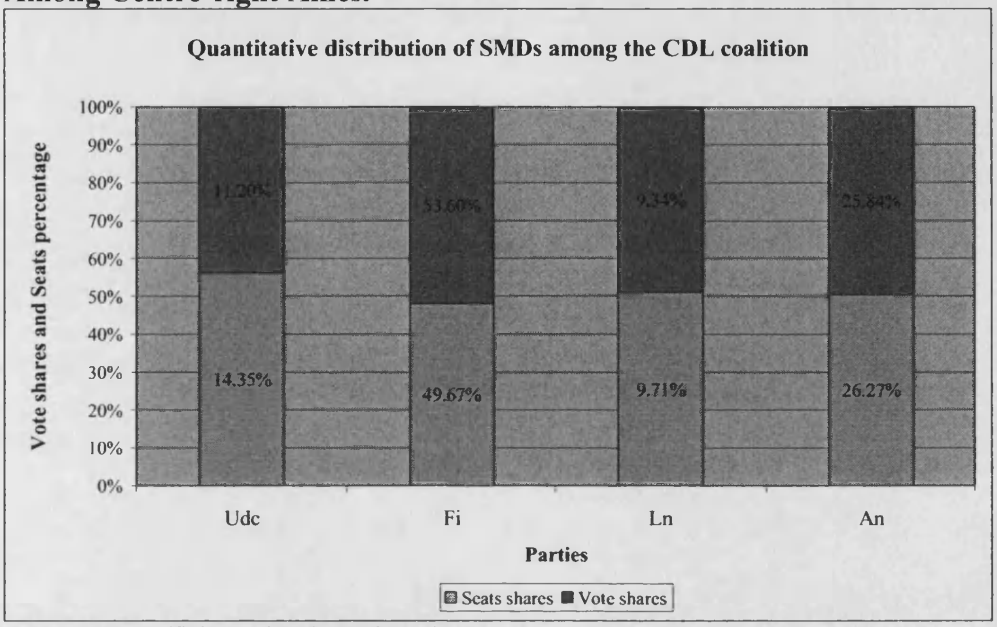
3.1.1 The Italian Coalition Scenario Under Mixed Rules: a new '*Modus Operandi*'.

The distribution of the 475 majoritarian districts among allies is in essence a 'divide the pie game', which was evidently in place from the first mixed rules elections of 1994 and throughout the subsequent ones (Di Virgilio, 1998). In this section I address the last elections of 2001 where voters and legislators familiarised and acquainted themselves with the new mixed rules of the game. Furthermore, in these elections the geography of the alliances is national. In 1994 territorialisation of the alliances is represented through the two coalitions of the centre-right; one in the North (*Fi* with *Ln* and *Radicali* under the name *Pdl*) and one in the South (*Fi* and *Msi-An* under the name *Pdbg*). In 1996 the territorialisation can be seen in the presence of *Ln* as a third competitor in the northern districts. In 2001, however, alliances are free from geography in the sense that the two main players are the centre-left and centre-right coalitions. Outside the two alliances there are only small actors more or less homogenously distributed along the territory (such as *Rc* only in the Senate; Lista Di Pietro, *Democrazia Europea*; *Lista Pannella Bonino*; and *Fiamma Tricolore*). By having the two main actors facing the same bargaining situation (i.e. divide the pie) in the same environment (in terms of 'other' actors) the 2001 elections, as opposed to the1994 and 1996 ones, constitute a somewhat ideal case where to test theories of pre-electoral bargaining (Di Virgilio, 2002). Furthermore, as tackled in Chapter (2), the

proportionalisation of the majority lead to the move towards a more centralised party decision making (Di Virgilio, 2004: 195; Di Virgilio, 2002: 126). In particular, and for both alliances, in the 2001 elections bargaining was more centralised if compared to 1994 and 1996 (Di Virgilio 2002: 97).

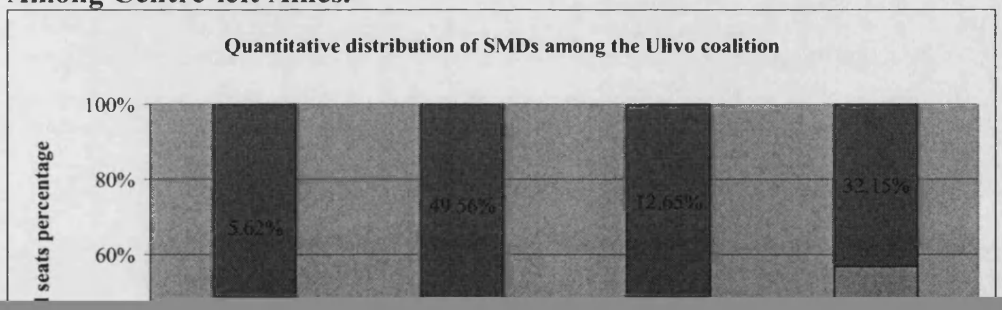
By looking at the simple quantitative distribution of districts among allies for each of the two coalitions (Graphs 3.1 and 3.2), the first striking evidence is that size and leadership matter. In fact, for both allies the two major parties *Fi,* and *Ds* are the two parties with the highest number of seats with 49.67% and 42.58% of the total seats respectively.

Figure (3.1): Dividing the Pie (I): Quantitative Distribution of SMDs Among Centre-right Allies.



Source: 2001 official national elections data.

Figure (3.2): Dividing the Pie (I): Quantitative Distribution of SMDs Among Centre-left Allies.

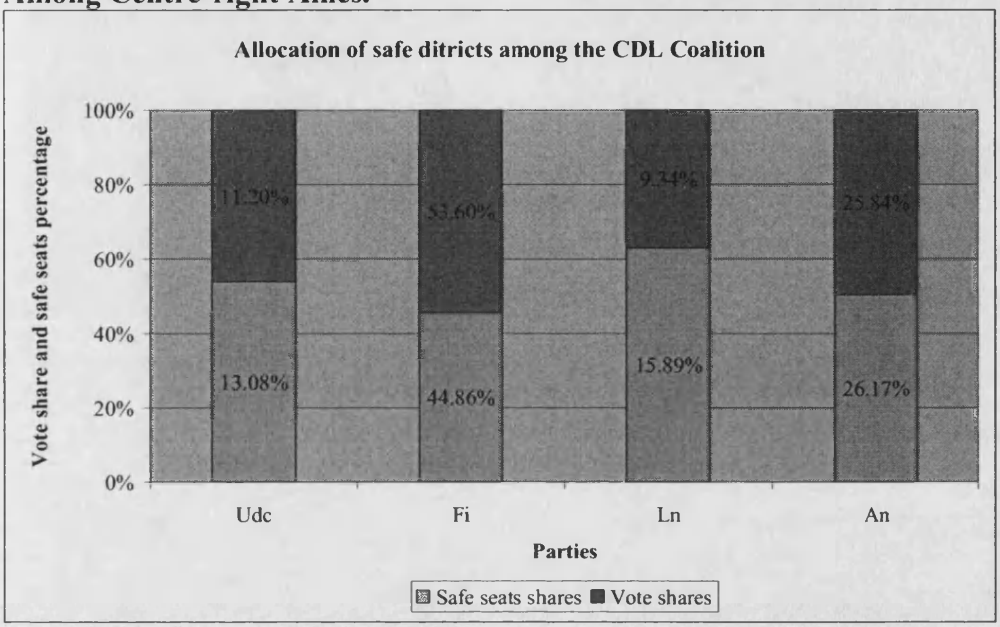


It is also interesting to observe the allocation of districts according to the nature of each one. In fact, districts differ among themselves in terms of their winnability. By this I mean the probability that this district is going to be won by a party. Throughout the literature and the relevant empirical chapter of this thesis 'safety' is operationalised as a continuous variable. In fact, it is common procedure to look at the difference between the first and second candidate to describe winnability. The greater is the difference between the first and the second candidate the safer is a district. For obvious reasons, parties would want to gain as many 'safe' districts as possible.

The two graphs below (3.3 and 3.4) show the allocation of districts among the two allies according to the quality of districts. Following Bartolini and D'Alimonte (1995, 1996), districts whereby the difference in favour of one candidate is higher than 8% are labelled as 'safe' and 'not safe' otherwise.[27]

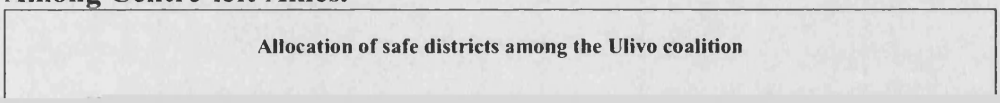
[27] While another category of classification best known as 'marginal districts' could be identified, it is here irrelevant. In fact, while marginal districts are better than purely lost ones, it is the number of safe district vis-à-vis others that parties attempt to maximise.

Figure (3.3): Dividing the pie (II):Qualitative Distribution of SMDs Among Centre-right Allies.



Source: 2001 official national elections data.

Figure (3.4): Dividing the Pie (II): Qualitative Distribution of SMDs Among Centre-left Allies.



However, it is by comparing the number of majoritarian districts allocated to each party in the 2001 elections to their size, measured as the vote share at previous elections (also known as advantage ratio), that I can spot some interesting observations.[28] Such a comparison is an important starting point as it helps uncover whether parties receive a disproportional number of districts compared to their size. As the advantage ratio approaches one it indicates that there is almost a perfect proportionality between the exchange of SMDs for votes. If the ratio is bigger than one, it indicates that a party receives a share of SMDs that is bigger than its votes' contribution. The contrary is true if it is smaller than one.

Beginning with the centre-right, table (3.2) below illustrates how the party of the media tycoon Berlusconi, *Forza Italia,* obtained the majority of districts across all the country (north, centre, and south) totalling to 49.67% of all SMDs. Nevertheless, if I look at the vote share obtained by this party in the 2000 regional elections - which is the index for size- illustrated in table (3.3) below, I find that its vote share was of 53.60%. This produces an overall advantage ratio of 0.92 (49.67% divided by 53.60%). The interesting thing that I can observe is that *Udc,* the most centrist of the centre-right alliance, is the one party with an advantage ratio which is very close to one or bigger than one in every of the three geographical areas. This suggests that the percentage

[28] As properly explained in the relevant data section; because of the narrower time lag, the 'previous' elections for this comparison are the 2000 regional elections or the 1999 European elections where there where no regional ones, and not the previous 1996 elections. The data for the regional elections are aggregated so as to mach the electoral districts of the national elections.

of districts this party received is proportional and sometimes greater than what it should have obtained on the mere basis of vote shares. As for *Ln*, scholars suggest that the 44 districts received (30% less than it obtained in 1994) reflect its weakening (Di Virgilio 2002: 107). However, similar to *Udc*, *Ln*'s overall advantage ratio above 1 makes us reject such claim. The same applies for *An* with an overall advantage ratio of 1.01. These values suggest that with the exception of *Fi* all other smaller parties of the centre-right coalition received a number of districts that is greater than their electoral size.

The results of the bargaining process differ significantly on the left. By looking at tables (3.4) and (3.5) I observe that the major party of the coalition (*Ds*) obtained the overall majority of the SMDs (43.22% of the total districts) with an overall advantage ratio of 0.88. However, it is the most moderate party of the coalition (*Margherita*) that obtained the majority of the northern and southern districts (44.69% of the northern district, and 48.35% of the southern districts respectively). In the north, in particular, it obtained an advantage ratio higher than 5. This indicates that in the north that the party was awarded an abundant number of districts if compared to its electoral size. The *Margherita* is the sole coalition member with all its advantage ratios bigger than one or at least very close to one in all geographical areas (5.19 in the north, 0.94 in the centre, and 0.87 in the south). The *Girasole* displays an overall advantage ratio close to 1 (0.96) signalling that there is a *quasi* equivalence between its size and the allocated number of electoral districts.

With the exception of the centre area, the most extreme party of the coalition (*Pdci*) was always allocated a smaller number of districts than its electoral size. In the centre, in fact, the *Pdci* was awarded 6 districts making its advantage ratio in that area almost one (0.93). Overall, it seems that the allocation of districts within the centre-left coalition is between the two parties *Ds* and *Margherita* and it discriminates against the two smallest parties G*irasole* and *Pdci*. In fact, only these two smallest parties (*Girasole* in the centre and *Pdci* in the south) portray an advantage ratio less than 0.50 (0.44 and 0.27 respectively).

Finally, if I correlate the advantage ratio with size I can get some insights on whether there are some elements of bargaining. A positive correlation coefficient suggests that big parties are those who receive bonus SMDs and vice versa. The correlation coefficient amounts to -0.95 for the centre right and -0.92 for the centre left, which suggests that small parties receive bonus SMDs while big parties are those which surrender them.

Table (3.2): District Allocation for the Centre-right, by Area (2001 Lower House Elections).

Political area	Freq.	Freq. Udc	Fi	Freq. Ln	Freq. An
North	175	14 (3.09%)	95 (20.97%)	36 (7.95%)	30 (06.62%)
Centre	74	11 (2.43%)	35 (7.73%)	7 (01.55%)	21 (04.64%)
South	205	40 (8.83%)	96 (21.19%)	1 (0.002%)	68 (15.01%)
Total	453	65 (14.35%)	225 (49.67%)	44 (09.71%)	119 (26.27%)

Source: Official electoral data. The brackets reflect the number of districts allocated as the overall percentage of districts.

Table (3.3): 2000 Regional Elections Results for the *Cdl* by Region.*

Political area	Votes Udc	Votes Fi	Votes Ln	Votes An
North	3.18% (0.97)	24.79% (0.84)	8.90% (0.89)	7.78% (0.85)
Centre	2.46% (0.99)	11.17% (0.69)	0.43% (3.60)	9.05% (0.51)
South	5.55% (1.59)	17.63% (1.20)	0.002% (1.00)	9.0% (1.66)
Total	11.20% (1.28)	53.60% (0.92)	9.34% (1.03)	25.84% (1.01)

Source: Official electoral data. *The first figure reflects the votes obtained by each party in each geographical region as a percentage of the total votes. Numbers in brackets represent the 'advantage ratio'; the % of districts obtained divided by % votes.** For example this 0.85 reflects 20.97% (*Fi*'s district share in the north) divided by 24.79 (*Fi*'s vote share in the north).

Table (3.4): District Allocation for the Centre-left, by Area (2001 Lower House Elections).

Political area	Freq.	Freq. Pdci	Freq. Ds	Freq. Girasole	Freq. Margherita
North	179	5 (1.07%)	71 (15.26%)	23 (4.94%)	80 (17.20%)
Centre	80	6 (1.29%)	50 (10.75%)	5 (1.07%)	19 (4.08%)
South	213	3 (0.64%)	80 (17.20%)	28 (6.02%)	103 (22.15%)
Total	465	14 (3.01%)	201 (43.22%)	56 (12.04%)	201 (43.22%)

Source: Official electoral data. The first brackets reflect the number of districts allocated the overall percentage of districts.

Table (3.5): 2000 Regional Elections Results for the Ulivo by Region.*

Political area	Pdci	Ds	Girasole	Margherita
North	1.82% (0.58)	9.66% (1.57)	3.22% (1.53)	3.31% (5.19)
Centre	1.38% (0.93)	19.14% (0.56)	2.38% (0.44)	4.30% (0.94)
South	2.35% (0.27)	20.10% (0.85)	6.89% (0.87)	25.37% (0.87)
Total	5.56% (0.54)	48.91% (0.88)	12.49% (0.96)	32.99% (1.31)

Source: Official electoral data. * The first figure represents the percentage of votes in the geographical region. The numbers in brackets represent the 'advantage ratio'; the %district divided by %votes of previous 2000 regional elections. At the aggregate level only the *Margherita* has a ratio bigger than one, which reflects that it obtained more seats than its actual size.

The descriptive statistics portrayed in Tables (3.2) through (3.5) demonstrate that the two centrist parties of both alliances, *Margherita* for the centre-left and *Udc* for the centre righ, as well as two other components of the centre-right namely *Ln* and *An*, have an overall advantage ratio bigger than one. This is an indicator that these parties have a considerable power at least over the quantitative allocation of districts. While only of a descriptive nature, the data reported above suggests that it is inaccurate to generalise about the large power of small parties. In fact, while the *Pdci* and the *Girasole* are two small parties, the preliminary statistics suggest that, unlike *Udc*, they are not that powerful after all.

The values of the descriptive advantage ratios above suggest that some forms of bargaining do take place. Bargaining, in fact, explains how some parties obtain a share of seats bigger than their electoral size. Consequently, if bargaining confirms itself as one basic element of the new multifaceted Italian system, what affects it? In other words; 'what determines who stands where' is the inevitable question that arises.

3.1.2 On Pre-electoral Intra-Coalition Bargaining.

Throughout the academic research related to multiparty systems, where no single party controls a majority, an interest arises concerning coalitions' agreements and the process of government formation. Despite the extensive scholarly work devoted to the study of coalitions arising after elections (Austen-Smith and Banks, 1988; Laver and Shepsle, 1990a,b; Riker, 1962), little attention is devoted to the study of pre-electoral alliances. In fact, stripped down to their basics, coalition bargaining theories are predominantly 'coalition building or coalition formation' and 'coalition termination' theories. This existing research aims at predicting the types of coalitions that will emerge given the nature of parties (such as their size and their location) and the nature of expected gains.[29] Take for example the seminal work of Riker (1962) "The Theory of Political Coalitions", which is considered the cornerstone of coalition studies. This work uses bargaining theory to address legislative coalition formation. In fact, concepts that engender from this work such as 'minimum winning coalitions', and the subsequent 'minimum connected winning coalitions' (Axelrod, 1970), rely on the knowledge of each party's location and its post-electoral size.

A great deal of the literature also dedicates its attention to post electoral alliances' life, such as policymaking, conflict management, and coalition

[29] Take for example those theories that address the division of cabinet portfolios among allies; in essence they are coalition formation theories (Laver and Shepsle, 1990a,b; Schofield and Laver, 1980). These studies in fact explain coalition formation on the basis of future gains in terms of ministerial, or other, positions.

termination. Lupia and Strom (1995), for example, look at coalition bargaining in the context of coalition termination and parliamentary dissolution. Similarly, Mershon's (1996) extensive survey of Italian coalitions between 1946 and 1992 assessing the schools of research prevalent in the literature is in itself a study of 'coalition formation' and 'coalition termination'.

Only recently scholars rediscovered pre-electoral alliances and a limited amount of work, mainly Golder's (2005, 2006a,b) emerged addressing pre-electoral coalition formation, which actually prevailed in 19 European countries between 1946 and 2002 (Golder, 2005: 646). It is needless to say that the study of these coalitions is important for several reasons, but especially because of the impact this forms of institutions exert on election outcomes and the types of policies that are eventually implemented.[30]

While the above approaches to the study of pre-electoral and post-electoral coalitions' formation are very different, they are similar in their failure to discriminate between coalitions formed 'to establish a government' and those formed 'to divide a pie'. As Laver and Shepsle (1990a) pinpoint, while these coalitions are intertwined, it is necessary and useful to distinguish between the two (489).

As previously said, the 1994 reform impinged on parties the need to come together in pre-electoral alliances to secure the newly formed 475

[30] See Golder (2006a,b) for a more detailed account of the importance of pre-electoral coalitions.

majoritarian districts. In the pursuit of an explanation for parties' bargaining success in obtaining an (n) number of those districts, it becomes apparent that I am interested in the 'divide the pie' scenario only.[31]

Perhaps the most useful tools of analysis needed for this purpose comes from the coalition theory which deals with the division of government portfolio. Gamson's law (1961) is considered one of the strongest findings in the social sciences. It states that there prevails a proportional relationship between legislative seats and portfolio allocation. Gamson describes the near perfect relationship in parliamentary systems between a party's contribution to the coalition in terms of seat contribution and its quantitative allocation of cabinet portfolio. To put it simply parties are expected to demand from the coalition a share of payoff proportional to the amount of resources which they contribute to the coalition. In his work Gamson equates resources with a party's seats share and payoffs with its quantitative portfolio's share (374). For example if a party's share of parliamentary seats constitutes 30 per cent of the total number of seats held by the coalition, then that party can expect to be allocated approximately 30 per cent of the ministerial portfolios.

Regarding the connection between size and SMD shares the existing literature on the Italian mixed system provides us with some very useful insights. What is known is that the nature of this assessment is based on the performance of each party at the previous (usually national) elections (Di

[31] In other words, while the two are indeed connected, I am not concerned with 'choice' of partners with which it is 'rational' for a party to form a government with in case of victory (or in other words coalition formation).

Virgilio, 1997, 1998). On the more general side, Bartolini and D'Alimonte (1998) suggest that if compared to the 1994 elections, in 1996 small and medium parties have "gained greater political weight" and that the electoral system is the one to blame (Bartolini and D'Alimonte, 1998: 156). This according to them is explained by two elements. The first is that through the proportional quota small parties are guaranteed survival especially for the leaders and their entourage. Second, the great electoral balance between the two coalitions and the high level of competition increases the cost of such defection for the main parties. In other words, their potential defection is a real and costly threat (Bartolini and D'Alimonte, 1998:156). In their opinion the proportionalisation of the plurality also has a significant effect, which is the "weak territorialisation of candidatures" (Bartolini and D'Alimonte, 1998: 158). They, therefore, blame the logic of proportionalisation as the main obstacle to territorialisation (Bartolini and D'Alimonte, 1998:158).

On the more analytical side regarding small parties' power, not only do Browne and Franklin (1973) find support of Gamson's law but they also found a slight tendency for smaller parties to receive more than their proportional share and larger parties to receive less (1973). This is what they call "the relative weakness effect" (460)[32]. They describe this effect as the tendency of small coalition parties to do better in the process of exchanging seats for ministerial shares than larger parties. While there is an almost perfect

[32] Warwick and Druckman (2001) prefer to call it the "small party bias" (629, fn 9) because in their view this label is more descriptive of the nature of the effect.

one-to-one proportionality between seat shares and ministerial portfolio shares, small parties seem to deviate from this effect.

The relative weakness effect is demonstrated by creating a new variable called the index of overpayment, which comes from the subtraction of the proportion of seats contributed by a party from the proportion of ministries received by that party (461). If the party contributes more seats than it receives ministries this index is negative, and it is positive when the party receives more ministries than its seats contribution. Browne and Franklin (1973) find that this index is correlated with party size and thus small parties receive bonus ministries while big parties are those which surrender them. They find a correlation coefficient of -0.54 indicating that the smaller the party the greater the overpayment (461). The literature on coalition suggests that this might be explained by the fact that it is likely that small parties are pivotal partners and their mere presence will guarantee the victory of the coalition. Consequently, small parties will be able to exert a high price for their entry. Furthermore, unlike big parties small ones do not have the ability to inhibit the activity of larger partners to the same extent as bigger parties. As such they are considered more desirable as coalition partners Browne and Franklin (1973) also argue that the relative weakness effect operates differently in coalitions of different sizes. Small parties are most successful in extracting bonus ministries in a coalition with few partners. In order to predict the probable payoffs in terms of ministerial portfolios received by each party

in a coalition we need to know the size of the party and the size of the coalition it is intending to join (Browne and Franklin (1973: 464).

Di Virgilio is probably the only scholar who addresses this matter in the Italian political scenario. According to Di Virgilio (1998), Italian coalitions during the mixed era adopted several criteria for allotting SMDs (1998: 15). These criteria not only varied across coalitions but they also changed through time. Di Virgilio (2002) defines the district allocation process as a "top-down" one, divided into five main stages: 1) the choice of the criteria and information upon which to define the rating of the districts and the quota for each party 2) classification of districts into types in terms of winnability 3) the selection of coalition and sub-coalition quotas[33] 4) the assignment of the districts to parties around a negotiation table on the basis of a mixture of 'party quota' and 'district rating' criteria 5) choice of the single candidate which is left to each party (98). As he highlights, the decision of the weight of the individual components is a conflicting issue. In his 1997, and 1998 articles, he envisages several factors as determinant in coalition agreements such as "the number of actors involved, their cultural orientation, the level of territorial differentiation in the alliance, continuity for sitting members of parliaments as well as the levels and the actual locations of the negotiations" (Di Virgilio, 1997: 91-92; 1998:14). These factors are determinant in

[33] By coalition quota he means the various lists within the cartel (for example *Fi, Ln, An, Biancofiore*), while the sub-coalition quotas refer to the single parties (such as *Ccd, Cdu, Ln, An, Fi, Npsi, Pri, Upr* and many others). For more details see Di Virgilio (1998: 98), footnote 12.

influencing the intra-coalition decision-making processes as well as the coalition's electoral performance.

In 1994, the definition of a basic criterion for the allocation of SMDs was a highly debated issue within the *Polo* (Di Virgilio, 1998: 15). The criterion of party incumbency did not meet opposition but the specification of the 'weights' of individual parties caused considerable disagreements (Di Virgilio 1998: 15). The distribution took place on the basis of quota that granted many districts to the *Lega* in the north and to *An* in the south thus compensating them for the advantage that *Fi* enjoys by having two alliances. In 1996 the opinion polls were not used to create a picture of voting intentions and were not given a role in determining the allotment of SMDs (Di Virgilio, 1998: 15). Bilateral meetings were also dismissed as means of allotting districts. Moving to the second Italian mixed elections; the centre-right used parties' performance at the previous 1995 regional elections as the allocation criterion.

For the centre-left in the 1994 elections, districts allocation was more or less proportional to their 'assumed' electoral strength. The centre-right instead adopted a 'compensatory distribution'.

As compared to 1994, the centre-left coalition leaders in 1996 shifted the bargaining process from the regional level to the national level and party leadership conducted the negotiations. Furthermore, negotiations were not centralised, instead negotiations were carried out at different tables, including

bilateral ones (Di Virgilio, 1998: 17). This resulted in an allocation of districts to the right side of the coalition amounting to 40% of the total amount of SMDs. This in itself outweighs the number of seats that would have distributed if the 1995 regional elections were the only criterion (Di Virgilio, 1998: 18).

Going back to the literature on coalition, the principle that the share of seats is the only resource that determines the number of cabinet portfolios is challenged by several formal theory models. These approaches assert that coalition parties do not receive cabinets according to the number legislative seats that they contribute, but instead according to the bargaining potential they exercise. Others are based on the 'formateur models' of bargaining which undermine this one-to-one relation and introduce a new source that of 'the proposal power'. These suggest that the party which proposes the coalition, also known as formateur, should be able to exploit this privilege position in their own favour in terms of portfolios it receives (Baron and Ferejohn, 1989; Harrington, 1990; Martin and Stevenson, 2001; Ansolabehere et al. 2005). This potential is measured as the extent to which each party is pivotal in forming winning or minimal winning coalitions.

An important turn in the literature, and very relevant to this chapter is the work of Warwick and Druckman (2001). By taking into account the quality, alternatively described as 'salience', of cabinet portfolios that a party is assigned and not the mere quantity they challenge the above models. In fact,

because they do not find that the formateur's party receives more portfolios than it seats share would warrant, they indirectly suggest that maybe the party is extracting qualitative rents. In other words the proposer might receive a qualitative compensation and take its share from the most valuable portfolios like the prime ministership (637).[34] In order to employ a measure of salience Warwick and Druckman (2006) conduct a survey in 14 West European countries in which experts were asked to provide cardinal rating of the cabinet portfolios in their respective countries (637). In their previous study (Warwick and Druckman, 2001) they use Laver and Hunt's (1992) ordinal ranking of major portfolios in West European democracies. Warwick and Druckman (2001, 2006) reason that parties place different valuations on the ministerial posts to be distributed (640). Likewise, parties award different values on the different SMD they compete for. Warwick and Druckman (2001) in fact claim that the above mentioned "relative weakness effect" could be an artefact of the failure to take the nature of portfolios, or their salience, into account (638-641).

In terms of the quality of districts in the Italian scenario, since 1994 parties adopted some sort of rating processes for SMDs according to some specific criteria of 'winnability'. In 1994 this procedure was limited due to the unfamiliarity of actors with the new rules of the game (Di Virgilio, 1998: 20).

[34] While several scholars recognized the difference in portfolio salience (such as Laver and Schofield, 1990; Browne and Feste, 1975; Budge and Keman, 1990), none of their studies before Warwick and Druckman incorportate portfolio salience weights in a cross-national statistical analysis.

In 1996, in order to create a map reflecting the degree of winnability of districts parties used a combination of the 1995 regional elections results and data from polls of voting intentions commissioned by parties. Four categories arouse from this data mainly: safe, marginally winnable, marginally unwinnable, and unwinnable (Di Virgilio, 1998: 20).

Summing up, the above section highlights that four important contributions emerge from the existing literature. The first concerns the resources attributed the explanatory power when explaining the number of portfolio assigned. While there is agreement that the payoff to partners in wining coalitions will be proportional to their resource contribution, there is less agreement about what is the nature of these resources. Gamson's law (1961), considered one of the strongest findings in the social sciences, states that there prevails a proportional relationship between legislative seats and portfolio allocation. However, several formal bargaining models promote the idea of formateur over compensation.[35]

Second, the introduction of the "proportionalisation of the plurality" concept (Bartolini and D'Alimonte, 1998), which describes the process through which coalitions partition the single member districts SMDs among

[35] A semantic statement is of useful relating to these two views. In the literature the voting weights while considered 'resources' they are called 'bargaining power' so as to distinguish the different mechanism through which they are transformed into portfolios. In other words, while according to Gamson' Law more parliamentary seats translate into more portfolios (and as such they are a resource), according to formal models of portfolio allocation more parliamentary seats do not necessarily translate into more portfolios. Instead, the more pivotal a party is in making a coalition a winning one, the more it has bargaining power and the more portfolios it will be assigned.

their members in order to avoid a clash of interests and therefore they proportionalize the SMDs to maximise their vote shares. This phenomenon that enabled small parties to gain more representation in the SMDs than in the proportional arena However, little is found in the literature to account for this phenomenon and let alone test it. In fact, all that is known is that nationwide 'some agreements' between parties within (and sometimes outside) each coalition take place to assess and decide who stands in which district. The only useful intuitions come from the work of Warwick and Druckman (2001, 2006) who introduce the idea that parties place different valuations on the ministerial posts to be distributed and that "there is no dispute that portfolio payoffs ought to take into consideration the varying levels of importance of the portfolios, rather than just their number" (647). While formateurs (in our case *Fi* and *Ds*) are undercompensated in terms of numbers of SMD they receive, there is no reason why SMDs payoffs should be evaluated only in those terms. As mentioned, it is unlikely and implausible that parties would rate all SMDs equally and count the number each party receives. Some SMDs are safe in the sense that the probability that they will be won if elections take place are high. It is consequently possible that any shortfall in the number of SMDs that big parties receive is made up by the inherent values of the other SMDs they get.

Like Di Virgilio suggests, parties developed the concept of predictability "to regulate internal party dynamics" (Di Virgilio, 2004: 198-

199). In other words, parties developed pre-electoral estimates of increasing precision evaluating the majoritarian electoral districts based on their characteristics. While in 1994 there was little familiarity with this technique, in the subsequent elections of 1996 and 2001 pre-electoral rating was an extensively used tool. In particular, in 2001 the number of districts about which the two alliances share the same evaluations of districts sum up to 85% of the total districts compared to 1996 where they shared only 53.8% (Di Virgilio, 2004: 199).

While the above are very useful contributions; to this stage very little is known about the bargaining process underlying the allocation process of SMDs. Furthermore, there are few indications that encourage me to have some obvious doubts concerning the extent of the bargaining power of small parties.

Consequently, turning the attention to 'bargaining' and its determinants seems an indispensable step. We know from the game theoretic literature that bargaining occurs whenever two or more players attempt to reach agreements over the "mode of allocation, distribution or redistribution of scarce resources" (Doron and Sened, 2001: 7). Several factors are accredited as elements of bargaining and considered important for determining bargaining outcomes such as players, differences of interest, interdependency, time factors, rules of progress, agreed solutions and method of enforcement (ibid.). In multiparty systems that adopt a full or partial majoritarian system with a

number of SMDs to compete, an aspect of parties' bargaining becomes the distribution of these limited districts among allies. Likewise, in countries with list systems, party members engage in bargaining in order to attain the highest positions of the lists. Irrespective of the system, parties or individuals within parties need to negotiate in order to get hold of the limited resources available (districts or top positions in lists).

The literature review on coalitions highlighted the existing knowledge gap concerning pre-electoral coalition in general and pre-electoral coalition bargaining in particular. Therefore, in order to put together a theoretical model that will lead to testable predictions about who gets what in the distribution of the 475 Italian SMDs I need to look elsewhere.

The literature on power provides some interesting intuitions for electoral bargaining. In his seminal work on 'power' Dowding admits that it is "inherently difficult to conceptualise power" (1996: 23). Because of this, Dowding, expanding Harsany's work (1976), suggests that to understand an actor's power we should focus on the actual resources that an actor commands.

Resource accounts for negotiation success are used to analyse the Council of Ministers of the European Union (EU). While not concerned in a 'divide the pie' situation, Bailer (2004) investigates the role of the 'resources' of member states, disentangled into exogenous and endogenous ones, in predicting member countries' bargaining success over achieving their goals in

European Union negotiations. Interestingly, she finds that when it comes to EU negotiations, and contrary to traditional theoretical approaches, some resources of power such as economic resources and number of votes, rarely translate into bargaining success. Some other, however, like a position close to the agenda setter is found to have an important, but often neglected, impact.

3.1.3 Theory and Expectations: Bargaining and its Determinants

"Who prevails in coalition bargaining depends on what political parties can offer to one another."
(Lupia and Strom, 2003: 6)

Drawing inspiration from the literature on power, in this section I present a resource account of bargaining, portraying the resources that could actually influence party's negotiation power and consequently its bargaining power. In the following section I expand on the three main resources that I envisage as essential for the understating of bargaining games among allies: size, blackmailing potentials, and incumbency.

i. Size as a resource.

Following the analysis introduced based on Gamson's Law, the party's contribution in terms of votes, or its size, as the classical resource advanced by coalition theorists. The bigger the player, the more pressure she can exert on a negotiation table. A party's size could be measured in many ways, one of which is the total share of the population vote it gained at the previous elections. More votes could be seen as having more "force of law on one's side" and this "leads others to be more likely to comply" (Dowding, 1996: 55). Therefore, the greater the party's vote share the more bargaining power it can exert on negotiations.

The descriptive statistics back in tables (3.2) through (3.5) are useful for illustrative purposes. Tables (3.2) and (3.4) show the number of districts that the centre-right and centre-left parties received, respectively. Tables (3.3) and

(3.5) report the electoral size of each party. For the centre-right the descriptive figures are in line with the size claim. The size order for parties of the centre-right alliance is; (1) *Fi* (with 53.60% of the total coalition's votes); (2) *An* (with 25.84% of the total coalition's votes); (3) *Udc* (with 11.20% of the total coalition's votes) and (4) *Ln* (with 9.43% of the total coalition's votes). The order in terms of the number of districts received is also the same; *Fi* (with 225 districts), followed by *An* (with 119 districts), then *Udc* (with 65 districts), and finally *Ln* (with 44 districts). The same applies to the centre-left coalition, whereby the ordering of parties according to their size is (1) *Ds* (48.90% of the total coalition's votes); (2) *Margherita* (32.99% of the total coalition's votes); (3) *Girasole* (12.49% of the total coalition's votes) and (4) *Pdci* (5.56% of the total coalition's votes). With the exception of *Margherita* which obtained as many districts as the biggest party, the *Ds*; the order in terms of the number of districts received is very similar. In fact the order is *Ds* and *Margherita* first with 43.22% of the total allocated districts, followed by the *Girasole* with 12.04% of the total allocated districts, followed by the *Pdci* with only 3.01%.

As an extra test I carry out the same analysis conducted by Gamson (1961) and subsequently by others such as Browne and Franklin (1973). Specifically, I test whether party's size (its share of votes within the coalition) is correlated with its share of SMDs. For the centre right the correlation coefficient is $r=0.9974$ ($p<0.001$). This means that .9948 of the variance of

SMDs share is explained by size. In other words only 18 per cent of the variance in the dependent variable remains to be explained by all other factors whatsoever. It can therefore be affirmed, with few reservations, that that the number of SMDs received by coalition partners of the centre right is indeed explained almost on a one-to-one basis, by their size in their coalition. The same applies to the centre left where the correlation coefficient is $r=0.9440$ ($p<0.001$). This means that .8911 of the variance of SMD share is explained by parties' size. Before elaborating on the relationship between size and the quality of districts, I need to investigate whether the "relative weakness effect", which is the tendency of small parties to do better than bigger parties in the process of exchanging vote shares for SMDs , introduced in the literature review, is prevalent in the Italian scenario. For this purpose I correlate the index of overpayment with size. The index of overpayment comes from subtracting the proportion of votes contributed by a party from the proportion of SMDs received by that party. If the party contributes more seats than it receives ministries this index is negative, and it is positive when the party receives more ministries than its seats contribution. For the centre right this analysis yields a coefficient (Pearson's r) of -0.86, and for the centre left is -0.90 showing that the smaller the party is the greater the overpayment. The advantage ratio could also be employed. The two variables are highly correlated with an r of 0.92. The same applies to the centre left where the correlation coefficient amounts to 0.93.

Now the logic of the relationship between the size of a party and the number of districts it will receive can be extended to link size with the quality of districts the party receives. The above correlations indicate that small parties obtain more SMDs than their proportional vote share and larger parties receive less. Consequently, following Browne and Franklin (1973) it is reasonable to assume that bigger parties extract qualitative rents. In other words they might receive a qualitative compensation and take their share from the most valuable portfolios, read the ones described as safe. In fact, not only will a party with a high vote share demand more districts to place its candidates, but it will also exert its power to obtain a grater share of safe districts. In other words, the party will employ its resources to run in districts where the probability of being elected is high.

ii. Blackmailing ability as a resource.

In the game theoretic literature an actors' blackmailing ability is called "Best Alternative to The Negotiation Agreement" (BATNA). The negotiation outcome is seen as crucially dependent on the attractiveness of the bargainers' alternative opportunity (Dixit and Skeath, 2004; McMillan, 1992). Similarly, Lupia and Strom (2003, 2007) deem "walk-away values" as an important determinant of 'who gets what' and therefore an important determinant of bargaining power. The "walk-away value" is what the negotiator can gain walking away from the bargaining table without an agreement. This constitutes an important bargaining chip when it hinges on the credibility of a

bargainer's negotiating position. In other words, "walk-away values" represent implicit threats to other members of the coalitions the higher they get, and that is the less the negotiator loses moving away from the agreement (ibid. p.9). In my case, I make the reasonable assumption that a party's walk-away values, and similarly a party's blackmailing potential, are a function of its location. The location of a party hinges upon the probability of this party leaving the coalition to run alone or with allies. I assume that parties on the other extremes, further away from the centre of the political spectrum, are less likely to leave the coalition because they have no (other) one to ally with. On the contrary, parties that are closer to the centre of the political spectrum are more credible in their threat of leaving the coalition to join new allies.

By the same token, the party that finds itself in such a position will exert its blackmailing potential in order to obtain a larger number of safe districts that have a higher probability of winnability.

iii. Incumbency as a resource.

Being an incumbent gives a party several years of advantage to convince voters of its merits and provides them with record of service for the district and its electorate (Cain et al., 1987). It is reasonable to expect that an incumbent party has more chances of attracting many votes and enjoy an electoral advantage in those districts won at the previous election. Therefore, incumbency should constitute an important bargaining resource when negotiating for the allocation of previously won districts.

In this analysis I rely on a measure of incumbency that reflects 'party incumbency' and not 'legislator incumbency'. This is simply justified by the fact that I am assessing the bargaining potentials of parties and not of the running candidates.

3.2 Two Ballots and Two Preferences: 'Split-ticket Voting'.

The claim that electoral rules are critical for the success of representative democracy is undisputed. Stripped down to their basics, electoral rules are nothing but 'a mathematical formula' through which votes are translated into seats, and as such they have a direct impact on political outcomes. Equally important, however, are the indirect effects resulting from political actors' reactions to the incentives created by electoral rules. In fact, not only does the nature of the electoral system determine the way votes are translated into seats, but it also influences the way they are cast (Bawn, 1999).

The direct and indirect consequences of electoral rules represent the crux of Duverger's (1954) work about the 'mechanical' and 'psychological' effects of electoral systems. On the one hand, the mechanical effects can be understood as the mathematical formula. They describe how the electoral rules constrain the manner in which votes are converted into seats. On the other hand, the psychological effects are represented in voters' response to the mechanical effects. In other words, they constitute voters' change of behaviour. In a majoritarian electoral system, voting for a different party instead of the preferred one is a method of avoiding wasting one's vote. Consequently, voters' strategic behaviour (psychological effects) is their attempt to bypass the direct consequences of the mathematical formula which could have punished her preferred party (mechanical effects).

Going back to the core of this thesis, that is political actors' reactions to the incentives created by electoral rules, this section addresses 'voters' as the political actor under scrutiny. Among the most significant and indirect effects of the new rules, and not a planned consequence *per se*, is voters' split-ticket behaviour. By studying split-ticket voting I am simultaneously addressing the mechanical and psychological effects of an electoral system.

3.2.1 Split-ticket in Italian Mixed-Elections.

With the introduction of the majoritarian element, the 1993 reform conferred to voters an extra ballot. Voters under the new rules simultaneously express their preference twice. Once for the candidate of a 'going alone' party, or for a candidate chosen by a coalition to represent the alliance as a whole in the majoritarian tier, and again for a candidate that represents a single party list in the proportional tier. It goes without saying that amplifying the opportunity set of voters through the extra ballot paved the way to a more sophisticated form of voting. In fact, while a voter is most likely to find in every PR district a candidate belonging to each party list (as parties will rationally run in as many districts as possible to reach the 4% threshold determined by the reform), the majoritarian tier will not be as representative. In fact, as explained in the previous section, because of the majoritarian element, now parties need to come together under pre-electoral alliances and decides who runs where. Furthermore, as previously addressed, centrist parties of both coalitions (namely *Margherita* for the centre-left and *Udc* for

the centre-right) are over-represented as the number of districts awarded to them outweighs their electoral size. Consequently, this drives unrepresented voters to at least consider new options, both inside and outside their coalition domain. In such a situation, it is likely that I will observe a discrepancy between the sum of votes received by the coalition in majoritarian districts, and the sum of proportional votes of its components in the proportional tier. A quick look at electoral results of the three elections held under mixed rules gives a better picture of the phenomenon itself. As tables (3.6) and (3.7) below illustrate, sometimes the coalition as a whole outperforms its components (like the centre-right in 1994, and the centre-left in both 1996 and 2001) and sometimes the other way around (like the centre-left 1994, and the centre-right in both 1996 and 2001).

Table (3.6): Coalitions' and Parties' Performance in the Three Mixed Rules Elections.

	1994		1996		2001	
	% smd votes	% pr votes	% smd votes	% pr votes	% smd votes	% pr votes
Centre-Left	33.29%	34.32%	44.77%	40.80%	42.97*	34.92%*
Centre-Right	46.17%	42.91%	40.20%	42.09%	45.38%	48.62%
Others	15.63%	15.71%	13.52%	14.52%	9.61%	13.9%

*It is important to recall that the huge discrepancy between the votes received by the centre-left coalition as a whole and the sum of its component list is explained by the fact that RC did not run in the majoritarian tier at all. In other words, the centre-left coalitions attracted the majoritarian votes of *Rifondazione* supporters, but their PR votes are not considered when creating the last column of the table. Source: for the 1994 elections Chiaramonte (1995: 377). For 1996 and 2001 elections the source is the national elections results. Totals do not always add up to 100 % because in some districts a number of small local parties are excluded. Furthermore, in other districts some parties run under a mixed label (like *Ulivo* + SVP in 2001) where this not included in the calculus.

Table (3.7): Coalitions' and Parties' Performance in 2001.

	2001 National Elections in Detail	
	% SMD votes	**% PR votes**
Centre-Left	42.97%	34.92%
Ds		16.56%
Margherita		14.52%
Girasole		2.17%
Pdci		1.67%
Centre-Right	45.38%	48.62%
Fi		29.44%
Ln		3.94%
An		12.02%
Udc		3.22%
Others	9.61%	13.94%
Lista Pannella Bonino		2.24%
RC		5.04%
Italia dei Valori		3.89%
Democrazia Europea		2.39%
Msft		0.39%

Source: 2001 official national elections results. Again, totals do not always add up to 100 % because a number of small local parties are excluded.

Split-ticket behaviour could have serious consequences on the victory chances of alliances. In both the 1996, and the 2001 elections the centre-left coalition outperformed the collection of its parties (1996: 44.77% in the majoritarian tier versus 40.80% in the PR; 2001: 42.97% in the majoritarian tier versus 34.92% in the PR). But it is only in 2001 that the alliance won the elections. In both 1994 and 1996, the centre-right coalition outperformed the collection of its parties. However, only in 1994 this helped the coalition to win.

It is interesting to note that back in 1998, Bartolini and D'Alimonte use the term "wasted vote" phenomenon to describe split-ticket in Italy. This was because they noticed that in the 1996 elections minor parties such as *Ln* and *Msft* obtained a high number of votes, which were, however, insufficient to grant them any seat (Bartolini and D'Alimonte 1998:161).

3.2.2 Split-ticket Theoretical Views.

Unlike pre-electoral coalition bargaining, the phenomenon of split-ticket voting in mixed electoral systems is a largely investigated one; both in terms of theory and empirics.

When surveying the literature of split-ticket behaviour in the U.S. congress or in several mixed member electoral systems, two groups of studies emerge. The first is categorised on the basis of addressing the determinants of split-ticket voting, the other on the basis of the data employed.

While studies of split-ticket voting acknowledge that this phenomenon may occur for a variety of reasons, case study analyses as well as comparative analyses differ from each other depending on which explanation they revolve around. Split-ticket models either focus on candidate characteristics, on ideology (that of voters' and candidates'), on strategic motivations or on a combination of these.

Irrespective of which variable is considered important, in order to test their assumptions some scholars use survey or aggregate level data (the old classical school) while others complement this data with new data created by using recent and innovative methodological techniques such as 'Ecological Inference Methods' (the new school).

In the following sections I overview the most important contributions in the split-ticket literature dividing them into two groups, the first on the basis

of the explanations they provide for split-ticket behaviour, the other on the basis of the data they employ.

(1) 'Candidate' centred (Personal vote), 'Ideology' centred and 'strategic voting' explanations of split-ticket behaviour.

The explanations provided by scholars of voting behaviour when analysing split-ticket usually revolve around three main headings. The first is a candidate-centred vision of split-ticket. In other words, the gap between PR and SMD total votes can be explained by factors related to individual characteristics of candidates themselves. Studies that highlight candidates' qualities over other explanations usually refer to 'the personal vote' as the determinant of spit ticket behaviour. Burden (Forthcoming), for example, in his study of Japanese elections addresses the role of incumbency and that of the absence of some parties. His analysis using a mixture of survey and electoral data suggests that the split-ticket phenomenon in Japanese elections stems from non-ideological candidate characteristics. Instead, it is differentials in the number and quality of candidates run by each party that affect split-ticket voting.

Studies that are concerned with candidate-centred explanations also study the role played by the absence of some parties, because it creates 'necessary' split-tickets (Burden, Forthcoming; Johnston and Pattie, 2002; Benoit et al., 2004, 2006). In the Italian case the absence of some parties in the SMDs is not an exception but the norm. As repeatedly discussed in this thesis, parties need to coordinate entrance in the majoritarian tier in order to

secure as many seats as possible. Consequently, only one of the many coalition parties will be present in each SMD.

Incumbency, another personal characteristic, is widely used. Burden and Kimbal (2002), for example, use it to explain variation in ticket splitting across US house districts. Scheiner (2005) adopts the measure of a candidate's quality understood as 'incumbency' and other prestigious occupations to explain victory in Japanese SMDs. Evidence of the role played by incumbency, and consequently personal vote, is also found by Moser and Scheiner (2005) in Russia, Lithuania, Japan and New Zealand, and by Reed's study of the first Japanese elections held under mixed rules (1999).

In terms of Italian studies, Maraffi (2002), Di Natale (2000, 2002) and Bartolini and D'Alimonte (1998) focus on candidates' personal characteristics and in particular highlight the role of the leader. The most analytical insights concerning personal vote in Italy come from Maraffi (2002) who provides a more comprehensive picture concerning voting motivations of the Italian electorate using data from the Italian Election Studies (ITANES 2001). The data, reported in Table (3.8), demonstrates that when asked about what influenced their voting decision, the electorate gave some weight to 'the coalition, the programme, the leader of the coalition, the preferred party and the candidate in the district' (Maraffi 2002: 303). With the exception of the last (the candidate) voters used four "cognitive shortcuts" of equal importance in deciding whom to vote for (335).

Table (3.8): Voting Motivations in SMDs by Percentage Points.

Relevant Issue	Overall	Centre-left	Centre right
The coalition	27.4	32.6	23.4
The programme	23.6	19.2	27.0
The leader of the coalition	21.8	13.5	19.2
The preferred party	21.9	28.2	17.0
The candidate in the district	5.3	6.5	4.4
Total	100	100	199
N	2117	924	1193

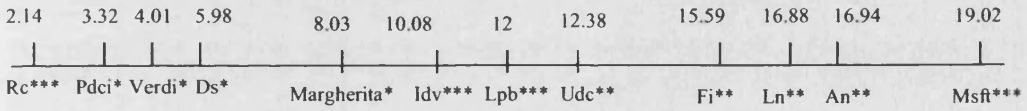
Source: Maraffi (2002): 303-304.

Two main interesting elements emerge from this table. The first is the apparent low relevance of the candidate's characteristics and persona as a determinant of voting behaviour in the SMDs. The second is that the centre-left and centre-right electorates rely on two different sets of decision models. About a third of the interviewed belonging to the centre-left uses the 'coalition' as the voting criterion. Instead, almost 30% of the centre-right interviewed considers the programme as the main criteria.

Without underestimating the role of personal characteristics in affecting split-ticket behaviour, other scholars envisage ideology as playing a major role in explaining this behaviour. Benoit et al. (2004, 2006) study of the 1996 Italian elections stress the role played by a voter's distance between her coalitions' candidate and what is on offer from the competition. To do this they create a variable called the Inter Cartel Midpoint (ICM), which represents the mid point between the candidates offered by each of the two main coalitions. This variable is used as a proxy for ideology. A big (small)

value, for example, reflects a scenario whereby an extreme right (left) wing candidate faces a centrist left (right) wing candidate. Figure (3.5) below reports parties' policy positions in 2001 (Benoit and Laver, 2006).[36] This variable is often used to explain split-ticket decisions. For example, *ceteris paribus*, when a PR supporter of the Christian Democrats (*Udc*) finds in her SMD an extreme right candidate (like *Lega Nord*) and a centre-left candidate (like *Margherita*), she might decide to switch to the centre-left coalition because she finds herself closer to the moderate centre-left than to the extreme far right.

Figure (3.5): Policy positions of Italian parties in 2001.



* *Ulivo* coalition, ** *Cdl* coalition, *** Third parties
Source: adapted from Benoit and Laver (2006).

It is interesting to note that Burden (Forthcoming) and Benoit et al. (2004, 2006) have one important element in common. According to them, voters split their vote because they do not find in their SMD a candidate belonging to their preferred party. While Burden and Benoit et al. reveal that in Italy and Japan split-ticket is constrained or, as Burden puts it is, "necessary ticket splitting" (20), some scholars, instead, rely on strategic

[36] See Chapter (4.2) for a detailed discussion about the measurement of policy positions.

motivations for such a behaviour. Some studies even consider 'split-ticket' and 'strategic voting' as two faces of the same coin and use the two terms interchangeably (Bawn, 1999; Cox, 1997; Fisher, 1973; Roberts, 1988). In her work, for example, Bawn (1999) defines split-ticket as the rational and strategic reaction of a voter in the proportional tier to the presence of single-member districts. This is because, according to her, voters split their ballots strategically by giving more of their SMD votes to the larger and more competitive parties, saving their PR votes for smaller parties not present in SMDs. I find this operationalisation very limited as it does not distinguish between strategic and non strategic motivations behind this sophisticated form of behaviour.

It is important, consequently, to point out the distinction between such phenomenon and between 'strategic voting'. In fact, not all split-ticket voting is actually 'strategic'. Strategic voting is voting in such a way to improve the expected outcome of the election, not necessarily by voting one's first preference. It is casting the vote in a way that avoids wasting someone's vote. Split-ticket, instead, is a form of sophisticated voting that takes place when casting more than one single vote and doing so in a mismatched manner. When such a behaviour happens to have strategic motivations, we can then label it strategic voting. Consequently, a split-ticket vote can be seen as strategic behaviour under several scenarios. One is where the coalition candidate has no chances of winning so voters cast their vote for their second

best in order not to waste the vote. An alternative scenario is when the preferred candidate's victory is very likely and therefore a voter can cast another strategic vote to increase, for example, the gap between the least likely candidate and the second best (D'Alimonte and Chiaramonte, 1995: 70). Finally, when such behaviour is an intentional act targeted to create divided governments (Alesina and Rosenthal, 1995; Fiorina, 1996).

Moser and Scheiner (2005) are more precise with their use of strategic voting and they use it as a counterexample of what motivates split-ticket as opposed to personal vote. They define strategic voting as "casting ballots for alternatives other than one's first preference in order to improve the expected outcome of the election" (260). They theorise that while personal vote is most likely to be present in some degree in nearly any electoral system, when it comes to mixed systems its effect is weaker in those systems with linkage between tiers. In these systems parties have fewer incentives to encourage their candidates to behave personalistically and engage in personal electoral campaigns. This is because the benefit they could reap from this form of campaigning will not affect the number of seats the party will be allotted unless their behaviour increases support for the party as a whole. Personal vote justifications of split-ticket are replaced with strategic considerations. By examining election results in five mixed electoral systems they find that the form of split-ticket in Germany is of a strategic nature, unlike that of Russia, New Zealand, Japan and Lithuania. This is tested by assessing the role played

by the closeness of a race (known as marginality) on split-ticket. The logic of this variable dictates that in close races (where the difference between the first two candidates -or the margin of victory- is small) voters will rationally and strategically stick with the coalition candidates. When the race is not close, instead, fewer strategic votes will be cast. Interestingly, they suggest that in those occasions where the race is not close, but SMD candidates still receive additional votes; a substantial amount of personal voting is taking place.

Using this same definition, split-ticket was described as strategic for elections in many countries adopting mixed electoral systems such as Germany (Bawn, 1993, 1999; Gschwend et al., 2003; Moser and Scheiner, 2005: Schoen, 1999), and New Zealand (Karp et al., 2002).

Moving on to Italian studies, elements of strategic voting are found in Mudambi et al. (2001a,b). In their study of the 1996 elections, while they are mainly interested in what affects a coalition's probability of victory, they still address the "switching voter phenomenon". They claim that ticket splitting is a voter's strategic reaction to a coalition's objectives. Parties have a 'coalition focused objective', which consists in achieving coalition victory in the majoritarian tier. At the same time they exhibit a 'party focused objective', which consists in promoting the party in the PR tier. The focus on each objective depends on the nature of districts. In safe districts inter-coalition competition is accentuated. When parties are confident that the SMD is secured, the party focused objective becomes a priority. Mudambi et al.

suggest that under this scenario those parties that did not place the SMD candidate desire that the coalition's candidate wins with the smallest of margins. This is because such a situation would strengthen their position in future seats allocations at other regional elections. Consequently, the rational supporters of non represented coalition parties will go as far as voting for a non coalition candidate in that specific district, thus increasing split-ticket voting. On the other hand, in marginal districts where the coalition victory is in doubt, inter-coalition cooperation is accentuated. In this scenario the primary objectives becomes the coalition-focused objectives. This would minimise the share of supporters of non-represented coalition parties who would abandon the coalition.

(2) Old data versus new data.

The empirical work reported above is divided between case studies and comparative analyses. These different studies revolve around candidate centred, ideology centred or strategic-based theories of split-ticket behaviour. In these studies it is possible to distinguish among three different types of data used for the analyses. The first, and most frequently used, involves aggregate election results. This is employed by the like of Bawn (1999) and Reed (1999), Kohno (1997) and Moser and Scheiner (2005). More specifically, these studies use the difference between the vote percentage of a given candidate and the PR vote percentage won by the candidate's party.

The second type is data derived from surveys, which is usually used in conjunction with other data (Benoit et al., 2004, 2006; Burden, 2007; Venturino, 2004). Venturino, for example, uses survey data from ITANES 2001 to explain right wing voters' decision to abandon the coalition in the SMD race. His results demonstrate that centre-right voters' negative rating of the premier affects this decision.

Finally, the need to overcome ecological fallacies and their annexed shortcomings associated with the two previous types of data,[37] paved the way to more innovative techniques that seek to reach more precise split-ticket estimates. The third type of data is derived, in fact, from applying the new technique of ecological inference (Achen and Shively, 1995; King, 1997; King et al., 2004), which is now widely used in studies of split-ticket voting. Burden and Kimbal (1998), Burden (Forthcoming), Benoit et al. (2004; 2006) are just a few examples.

[37] This topic is addressed in detail in Chapter (5).

3.2.3 Towards a Model of Split-ticket Voting for Frustrated Coalition Supporters.

From the above section it emerges that the literature on split-ticket agrees on two distinct matters. The first is the difficulty of obtaining split-ticket estimates in multiparty systems. The other is that split-ticket behaviour is understood as the difference between the total number of PR and SMD votes. Consequently, to understand split-ticket behaviour we must understand what drives voters towards or away from candidates, parties and coalitions running in the SMD tiers.

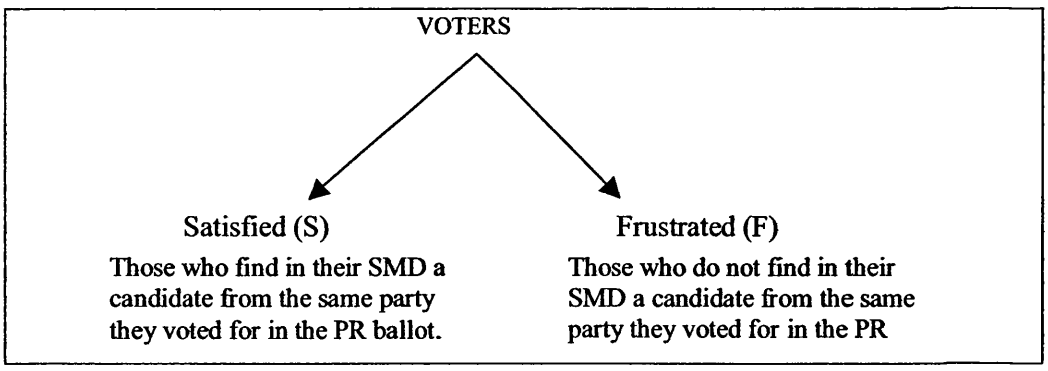
So far, in the Italian scenario only distinct explanations were tested. For example personal voting alone is addressed by Maraffi (2002) and Venturino (2004), the role of strategic vote is investigated by Mudambi et al. (2001a,b), and the role of ideology alone is addressed by Benoit et al (2004), while ideology and strategic voting is combined in Benoit et al. (2006). However, given the relevance of these variables when assessed independently, it seems reasonable to investigate whether more than one element is at work in the same electoral set up. Consequently, the scope of this chapter on split-ticket behaviour is more empirical than theoretical. Because of their innovative methodology used by Benoit et al. (2006) my approach consists of chewing over, replicate and extend their work on split-ticket behaviour. As explained above, several theoretical views addressed the phenomenon of split-ticket. The line of reasoning followed throughout this section attributes this phenomenon to a combination of candidates', voters' and districts'

characteristics. It is the combination of 'who' are the chosen candidates to run in a district, and 'which voters' preferences dominate the district, that together give birth to this interesting phenomenon.

In terms of the model, at the highest level of taxonomy voters are classified into two categories; those who support parties external to any coalitions, and those who support a party belonging to either of the two main alliances, the centre-left and centre-right. As explained in the following section, this dichotomy is important in relations to the above distinction about strategic versus sophisticated forms of voting.

At a deeper level of dichotomy, following Benoit et al. (2006), I classify voters of both groups into two further distinct categories; satisfied and frustrated. As figure (3.6) below demonstrates, satisfied voters are those who find in their SMD a candidate from the same party they voted for in the PR ballot. Frustrated ones, instead, are those who do not find in their SMD a candidate from the same party they voted for in the PR ballot. The latter voters face a more "restricted choice menu" than satisfied ones (459).

Figure (3.6): Voters' Types.



In order to explain the changes in the incentive structure of voters under mixed rule, my scope is to primarily focus on frustrated voters only, excluding satisfied ones. This choice is justified by the fact that the act of splitting of a satisfied voter is rather rare. In 1996, for example, Benoit et al. demonstrate that only between 0.03% and 0.04% of satisfied voters belonging to either of the two main coalitions actually split their vote (478). In other words, almost every satisfied voter is a party sticker. In fact, with the exception of unintended mistakes, when, if at all, would a coalition supporter who finds in her SMD a candidate that belongs to the same party of her PR preference opt for another candidate in the other coalition or who is not member of any coalition? In such scenario strategic voting is ruled out simply because by abandoning one's coalition a voter cannot be better off. Consequently, apart from an unintended mistake, the reasonable explanation of a satisfied voter's split could be that the 'other' candidate is more appealing to this particular voter. In other words, a 'personal vote' based on the characteristics of the candidate alone (such as gender), is a plausible explanation of this behaviour. However, such an act would consist in wasting the vote. A satisfied supporter of either alliance can only increase the chances of victory of their preferred party, or its block, by sticking with their party.

For obvious reasons the choice to split of a coalition's frustrated voter[38] is much more comprehensible and much more intriguing, and consequently is the focus of this analysis. The absence of a candidate that belongs to the same party of her first preference (understood as her PR vote) puts the voter in a situation to choose between to stick with the coalition of her PR preference, to split to the opposing coalition or to split to a third party. Splitting the vote would inflict a loss to her PR preference's coalition and thus it will not contribute to its probability of winning. Therefore, it is reasonable to theorise that splitters must have rather strong incentives that push them towards other candidates to undergo such transgression.

As explained in detail in the data and research section, the data available to me is aggregate data; the 2001 national election results. This type of information stands as an obstacle in the face of testing theories that rely on individual level covariates. In other words, the use of aggregate data to extract clues about individual behaviour implies that we are making an ecological inference.

In the attempt to overcome the ecological inference problem, I use Bayesian simulations, namely King's algorithm, to create district level estimates.[39] In other words, I obtain split-ticket estimates for frustrated coalition supporters in each of the 475 majoritarian districts. Given that each coalition is composed of 4 parties (*Fi*, *Ln*, *An*, and *Udc* for the centre-right

[38] As opposed to a voter of a party who is not a member of any coalition (a third party).
[39] See footnote n. 3.

and *Ds*, *Margherita*, *Pdci*, and *Girasole* for the centre-left) I obtain a total of 1425 split-ticket estimates.[40] Therefore, with this specific type of data available, the most appropriate type of covariates that can be tested are also district level covariates. Consequently, in order to simultaneously test the various existing explanations of split-ticket, I employ data that account for a candidate's position (policy distance), for voters' preferences and for the districts' nature.

Ideology

In their analysis of the 1996 Italian elections Benoit et al. (2006) define the "Inter-Coalition Midpoint" (ICM) as the "point halfway between the positions of parties of the candidates offered by each coalition in the constituency in question" (14). They theorise that the position of the ICM affects the level of coalition splitting. For example, when in a specific SMD the *Ulivo* places a left-wing candidate while the *Cdl* places a centrist candidate, the ICM will be to the left of the centre of the spectrum (a small ICM). In such a case they assume that *Ulivo* voters have more incentives to split compared to *Cdl* supporters. Conversely, when the *Cdl* places a right wing candidate and the *Ulivo* places a centrist one (high ICM), *Cdl* supporters will have more incentives to switch compared to *Ulivo* ones. In other words, they expect the 'frustrated *Ulivo* supporters who switch to *Cdl*' estimates to

[40] In fact, only one of the four parties has an SMD candidate in the specific district. Therefore, we have 3 groups of frustrated voters for each coalition in each district.

be negatively related to the position of the ICM, while the 'frustrated *Cdl* supporters who switch to Ulivo' estimates to be positively related. Consequently, the first step is to test this theory on the 2001 elections.

While the above seems very intuitive, it overlooks an important element, and that is the distribution of voters in each district. For example, in the above scenario when a far left candidate (such as *Pdci*) faces a centre-right candidate (such as *Udc*) the above logic predicts high rates of *'Ulivo'* to *'Cdl'* switching. However, this sole definition does not take in consideration that the switching will be different in those districts where the *Pdci* receives 40% of the coalition vote compared to those districts where the *Margherita* (the most centrist of all centre-left parties) receives 40%. Figures (3.7 and 3.8) below portray this important distinction by comparing two similar scenarios in terms of parties on offer but with a different electorate composition. In other words, in order to have a more accurate reflection of reality I must control for the distribution of voters in the district, whether the coalitions' electorate is more biased to the right or to the left.

Figure (3.7): Split-ticket Voting Scenario With Extreme Left Median Voter (model A).

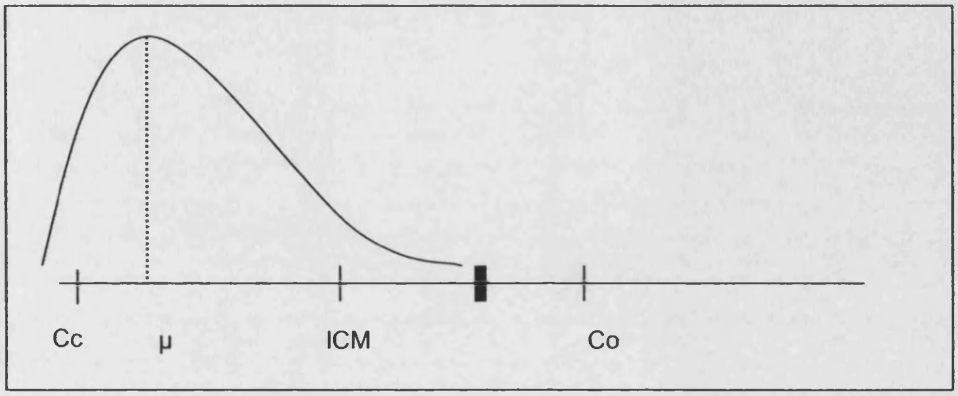
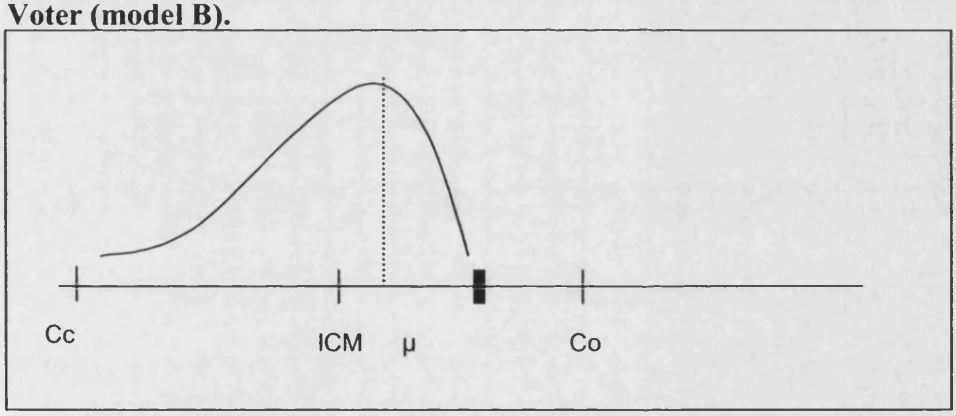


Figure (3.8): Split-ticket Voting Scenario With Central Left Median Voter (model B).



Cc is the Coalition candidate, μ is the median voter in that district, ICM is the Inter Cartel Mid point, and Co is the candidate of opposition. The spectrum is divided into two by the thick line in the middle. Figures A and B portray two different districts in terms of the voters' orientation, but with the same offer in terms of candidates. In the first one the location of μ reflects a very left wing district. Instead in figure B the location of μ reflects a more centrist district. Because the ICM is the same in the two districts, Benoit et al. would predict splitting behaviour among the leftist supporters (because the ICM is located to the left of the centre. However, the two curves, which represent the distribution of voters across the district, suggest that in the case of B I should expect more levels of splitting by the leftist supporters. Unlike in A, in B in fact the distance between μ and Co is less then the distance between μ and Cc.

Strategic Voting

Strategic considerations are considered to play an important role in this circumstance. In fact, in those districts where there is a close race, frustrated voters that choose to stick might do that as a strategic vote in order to increase the probability of victory of their preferred party's coalition.

A district's safety, measured as the absolute difference between the first and second candidate, is a relevant variable in studies of Italian electoral behaviour (Benoit et al., 2004; Mudambi et al. 2001a,b). Rational voters who desire victory for their preferred party or for the coalition to which their party belongs to, might tend to behave differently, *ceteris paribus*, in those districts where there is close competition *vis-à-vis* those districts where victory is a sure (lost) matter. Sticking is expected to increase in those districts where the race is close so as to increase the chances of victory.

Personal Vote

As widely illustrated in the literature, good candidates are considered important to winning SMD seats. In line with the U.S literature, quality is defined as having been elected to office, or in other words incumbency (Jacobson, 2004). Previous office holding experience is considered to play an important role in attracting votes. Consequently, it is important to investigate whether the nature of candidate competition is key to understanding split-ticket voting in Italian mixed elections.

3.3 Dual Candidacy and Legislative Behaviour in the Italian XIII Legislature.

The last topic under consideration in this theoretical chapter is that of MPs behaviour under mixed rules. Several models of political economy focus on the link between the electoral system and the agency problem. In fact, the principal-agent problem is one of the central paradigms in representative politics. The principal-agent relationship is characterised by difference in interest between the two, and as such it is applicable to various political scenarios and situations. For example, the relationship between voters (principals) and representatives (agents) has been widely addressed by the like of Persson and Tabellini (2000) who develop a 'career concern model' as well as 'an accountability model of elections' in order to formally address the distinct impacts that electoral systems exert on MPs' performance and their accountability (225). Their work suggests that incentives for good performance might be diluted in proportional systems of representation and as such they are less powerful compared to majoritarian electoral systems in disciplining politicians (234).

Compared to pure systems, a less developed account of this link is available when the electoral system under discussion is a mixed one. In fact, how does a mixed system affect the incentive structure of legislators and consequently affect their behaviour in Parliament? Studies of legislative behaviour have commonly addressed the tendency of members of parliament

to comply with party lines in both proportional and majoritarian systems of representation. Mixed electoral systems combine the two together and as such they engender new questions regarding accountability and compliance of MPs with party lines.

To begin with, it is necessary to illustrate how the new rules affect legislators' incentives. Interestingly enough, the roots of such incentive change are indirect, as they go back to the electoral stage. In fact, unlike pure proportional or pure majoritarian electoral systems, candidates in mixed systems running for parliament have direct access to parliamentary seats through more than one channel. They, in fact, can choose between running in the proportional tier alone, running in the majoritarian one alone, or more interestingly, running in two tiers simultaneously.

Consequently, mixed rules affect the possible ways or paths through which a legislator can reach her seat. In turn, this could affect her tendency to comply with party lines differently, compared to those colleagues running in a single tier only. Therefore, the question arising is if mixed rules, characterised by this new third option (running in both tiers), affect an MP's tendency to comply with party lines in the legislative arena. In the next three sections I will go over voting behaviour in the Italian Parliament, I address the major contributions provided by the relevant literature and finally I present my own theoretical model.

3.3.1 Legislative Behaviour in the Italian XIII Legislature.

How Italian MPs vote is of great relevance for the implications on policy outcomes. Voting behaviour in parliament could be dictated by personal believes, by party discipline or by both. When information about individual MPs' policy preferences is unavailable, it is rather complicated to unveil the real motivations that drive legislative behaviour. However, by looking at voting behaviour and by applying appropriate scaling methods, I can at least measure MPs 'revealed' policy preferences.

Landi and Pelizzo's (2006a) study of the XIII legislature covered roll call votes for 630 bills and a total of 651 MPs. By applying the NOMINATE scaling method (thoroughly explained in Chapter 5.3) they created a map of the Italian political space which gives a picture of the location of parties and the dimensions governing the XIII Italian Parliament. They suggest that the horizontal dimension reflects loyalty to either the centre-left or the centre-right coalitions. In the second dimension, instead, parties' positions reflect a north-south divide. Table (3.9) below reports the parties' average NOMINATE score for the XIII legislature on the two dimensions.

Table (3.9): Parties' means NOMINATE scores in the XIII legislature.

Party	NOMINATE SCORES First dimension	NOMINATE SCORES Second dimension
Verdi	-0.896	-0.074
Pdci	-0.870	0.475
Pds	-0.761	-0.078
Popolari	-0.759	0.159
Ri	-0.734	0.020
Prc	-0.407	0.858
Udeur	-0.189	-0.362
Ccd	0.109	-0.236
Fi	0.239	-0.159
An	0.372	-0.449
Ln	0.782	0.550

Figure (3.9) shows the location of the 651 MPs in the first and second dimension produced by NOMINATE. Relative spread of MPs groupings gives an indication of how often they vote with each other. Figure (3.10), instead, shows the average coordinates by party.

Figure (3.9): Nominate Scores Coordinates for 651 MPs in the XIII Italian Legislature.

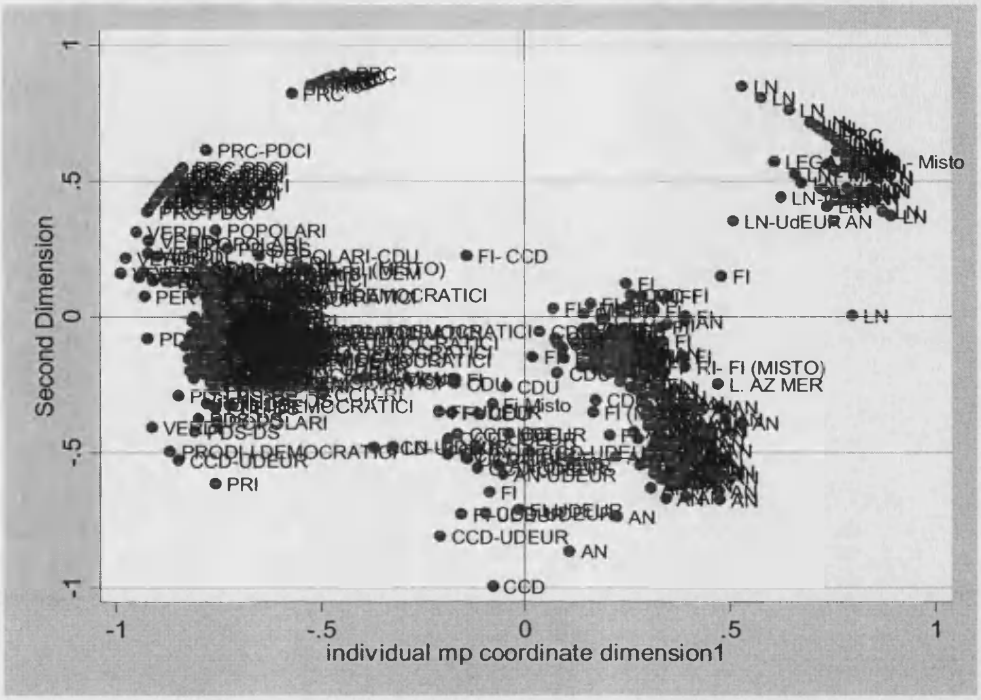
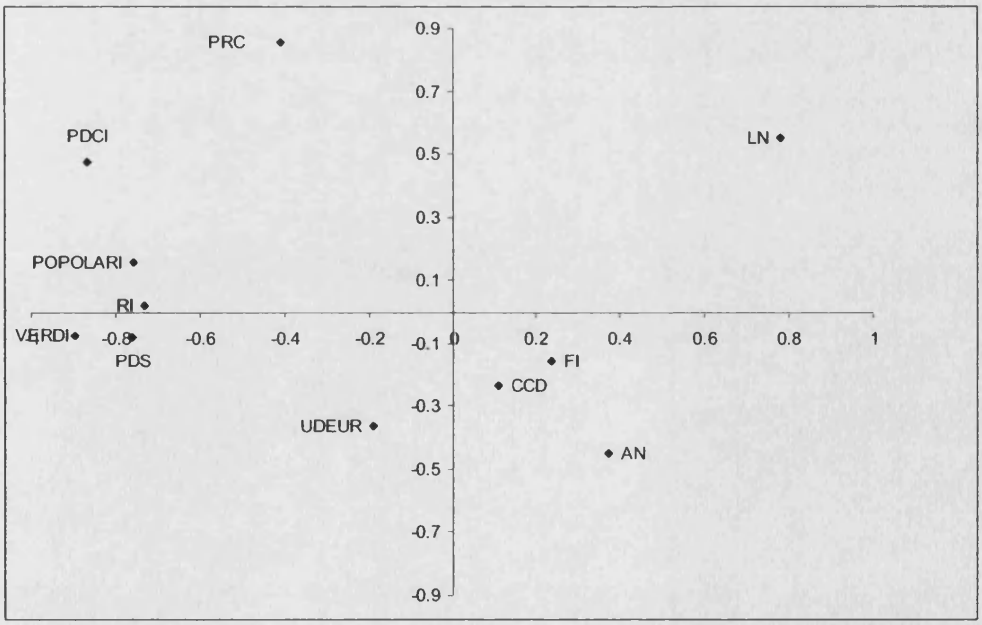


Figure (3.10): Average NOMINATE Coordinates by Parties.



The intense concentration of dots in Figure (3.9) reflects the closeness of same party MPs to each other and their gravitation around a spatial location that can be interpreted as their party of origin (clearly indicated in Figure 3.10). Obviously, not every MP's pattern of voting is in line with her party. The *Lega Nord*'s MP located on the right axis of Figure (3.9) is one example of an MP who is deviant from party lines (as the *Lega Nord* party's coordinates are positioned more to the north east of the graph). The natural question that comes to mind is: how does the structure of the Italian mixed electoral system affect the decision of this 'outlier' of *Lega Nord*, for example, to distance herself from party lines?

3.3.2 Previous Work and Evidence of Contamination Effects.

Given its direct impact and consequence on policy, parliamentary behaviour is an increasingly studied topic. The study of MPs' voting behaviour has been widely addressed by scholars of all electoral systems and a particular attention is given to the relatively new chamber of the European Parliament (Hix, 2001, 2002). The key question addressed in those studies is the extent to which members of the European Parliament (MEPs) vote with party lines and what affects this tendency or lack thereof.

The first step towards understanding legislative behaviour is to find a common measurement of such behaviour. Several opinions and approaches reign as how to measure this variable. Generally speaking, the literature is divided between studies that employ simple roll call data (Depaw and Martin,

2005; Ferrara, 2004b; Haspel et al., 1998; Rasch, 1999; Remington and Smith, 1995; Thames, 2001) and those which apply a scaling method to roll calls such as NOMINATE or OC (Hix and Jun, 2006; Hix et al., 2005; Noury and Mielcova, 2005[41]).[42]

Those scholars who use simple roll calls are interested in measuring the number of times that a legislator's vote matches that of her party. For example, in their studies of the Ukranian parliament and that of the XIV Italian chamber, Herron (2001) and Ferrara (2004b) measure party loyalty operationalised as the propensity of legislator to vote in line with her party as a percentage of the total votes in which the legislator could have potentially participated (% of all votes). More precisely, the percentage of votes where a legislator's behaviour (yea, nay, abstained, did not vote and absent[43]) matched the modal behaviour of the parliamentary group of which she is a member is calculated. This excludes votes in which the legislator's absence is justified (like for example when an MP is in a mission). However, Ferrara postulates that in some instances the 'non voting' behaviour might simply not be an indicator of an MP 'voting with her feet' but it might reflect the fact that she is elsewhere discussing matters, drinking coffee or having a cigarette with

[41] Noury and Mielcova (2005) is an interesting piece of work where legislative behaviour is analysed as the independent variable rather than the dependent one. In fact, they investigate the relationship between legislative behaviour and the propensity of voters to punish or reward MP. Consequently, they address the impact of voting with party lines on the probability of being re-elected.

[42] There are some exceptions to the use of roll calls or to their different scaling methods. For example both Lancaster and Patterson (1990) and Judge and Ilonszky (1995) study legislative behaviour of German and Hungarian deputies respectively employing survey data.

[43] This latter, 'absent', was only used in Herron's (2001) operationalisation.

colleagues (Ferrara, 2004b; 20). Consequently, to factor-in this detail, Ferrara also operationalises party loyalty as a percentage of votes cast rather than as a percentage of total votes. Similarly, Thames (2001) creates a dependent variable that measures the percentage of times that an individual MPs vote in line with partisan majority. Again, Thames considers only the total votes cast and excludes where the MP abstained or where she failed to vote.

NOMINATE as a scaling method, which is described in detail in Chapter 6.1, has increasingly become the industry standard to establish the revealed behaviour of MPs. This is because this method generates ideal point estimates of legislators' position on a multi-dimensional policy space. As an example of the use of NOMINATE we can look at Hix (2002). In his study of voting behaviour of MEPs he uses NOMINATE scores and operationalises the propensity of an MP to vote against her party as "the absolute distance between an MEP's NOMINATE score and the mean NOMINATE score of all the MEPs in her EP party" (693).

After having operationalised 'legislative behaviour', the second steps in our analysis is concerned with addressing what affects such behaviour. As addressed in Chapter (2) section (2.1.2.c), conventional wisdom and several studies convey that pure PR systems of representation with close lists are more successful in disciplining their members. In these systems MPs greatly rely on their party for accessing resources such as ballots entry, financial resources or career advancement. On the contrary, legislators elected in SMDs

need not to entirely rely on their party for resources, as they must appeal to local constituents in order to win seats. However when moving to mixed systems of representation the question that arises is: which features will characterise the incentive of legislators? Proportional or majoritarian traits will be prevalent, or will it be a mixture of the two?

From my previous discussion on contamination it emerges that contamination effects theory suggests that mixed electoral systems do not simultaneously exhibit the same characteristics of both majoritarian and proportional systems because the interaction of those two tiers creates a new hybrid system with its own identity and features (Ferrara et al., 2005). Consequently, by studying the legislative behaviour of those MPs who run in the proportional districts only (similar to pre-reform) or in the majoritarian districts only and comparing it to the behaviour of those who run in two tiers simultaneously (only possible during the mix-rules era), I could shed some further light on the issue of whether this new system portrays new and unique traits from a legislative behaviour standpoint.

Extremely relevant to this study is the work conducted for Germany (Lancaster and Patterson, 1990), Hungary (Judge and Ilonskzki, 1995), Russia (Haspel et al., 1998; Remington and Smith, 1995; Thames, 2001; Smith and Remington, 2001), and Ukraine (Herron, 2002). As touched upon in more detail below, all of these analyses address the effect of seat type or mandate on legislative behaviour and consequently test directly or indirectly the

assumptions of contamination theory. Nevertheless, there is no agreement on the matter as these studies reach quite diverging conclusions.

Those analyses that find a relationship among mandate and legislative behaviour (Thames, 2001; Lancaster and Patterson, 1990) theorise that legislators elected through PR ballot are more dependent on their party for election and career advancement vis-à-vis SMD ones. In fact, those legislators are elected because their party leaders appointed them in a high enough rank position of their party list. Consequently, if the legislator wants to maximise her chances of being re-elected, pleasing party leaders through cohesive legislative behaviour appears to be more important and effective than pleasing voters. Furthermore, those candidates who find themselves on lower lists positions might need to please their party leaders in order to increase their chances of being upgraded on the party list at future elections.

In his study of the Russian Duma, Thames (2001) studies the effect of mandate on legislative behaviour between 1994 and 1998. One of the acknowledged weaknesses of his dependent variable is, however, the exclusion of intended non-voting and abstention from the measurement. Unlike Ferrara (2004) who creates two dependent variables; one in which all votes are counted (potential and actual) and one in which only actual votes cast are counted, Thames excludes the latter thus awarding every vote equal weight. The interesting change brought about by Thames is that he distinguishes among issue areas. His study, in fact, suggests the existence of a

PR-SMD divide in legislative voting behaviour of MPs in the Russian Duma between 1994 and 1998. Interestingly, Thames argues that the distinguished features of the Russian party systems characterised by weak parties and their limited ability to attract parties might be a relevant element that affected his conclusions.

Judge and Ilonskzki (1995) and Lancaster and Patterson (1990) study two different countries but adopt the same tool of research, that of survey data. Judge and Ilonskzki (1995) use an opinion survey to study the Parliament of Hungary in 1990. The data constitutes valuable research material especially because the 1990 Parliament was both the first democratically elected parliament and the first under mixed rules. Using data from a survey, involving 185 out of the 498 members of the German Bundestag between 1983 and 1986, Lancaster and Patterson's (1990) analysis focuses on the impact of mandate on an MPs' tendency to serve local interests (also known as pork barrel politics). In their study of Germany they find evidence in favour of a PR-SMD divide in the legislative behaviour of German MPs. The conclusions of their paper do not contradict conventional wisdom about the existence of a PR-SMD divide in legislative behaviour. However, the main problem related to this study and that of Judge and Ilonskzki (1995) consists in the nature of the data used. In both cases deputies of both mandates were asked to express their perceptions about the importance of pork barrel as opposed to other focus of representation. While

they both find a systematic difference between PR and SMD deputies, their analysis does not allow us to single out the role of neither mandate nor that of party discipline on legislative behaviour. Let alone that it does not help identifying other institutional factors that might be relevant. Furthermore, the studies, while very interesting and revealing, rely on cross tabulations only, which reveal correlation but not necessarily causality.

Another analysis conducted by Haspel et al. (1998) uses roll call data to address the effect of mandate on legislative behaviour in the Russian Duma between 1994 and 1995. Initially, they find difference between the behaviour of SMD and PR deputies. However, they also point out to the fact that this result could be misleading because of the unequal distribution of MPs across categories and factions. Consequently, when they address the relevance of mandate within factions, they find no significant differences.

Remington and Smith (1995), and more recently Smith and Remington (2001), use roll call data to study cohesion in the Russian Duma. While they do not provide explanations for their results, their work sheds further light on legislative behaviour inside the Duma, contributing, however, to the mix picture already available. In fact, unlike Thames (2001) they demonstrate that deputies' seat type is not useful for predicting their legislative behaviour. This is not because they find no link between seat type and legislative behaviour, but instead it is because their findings are inconsistent with expectations about the effects of PR-SMD divide on cohesiveness. In other words, the results of

their analysis indicate that district deputies are more cohesive than party list ones.

Unsatisfied with the study of mandate alone in explaining MPs electoral behaviour, Herron (2002) extends existing work and stresses the importance of studying dual candidacy and the safety of a district. His starting point is a recurring idea of this thesis whereby mixed electoral systems are not considered the mere addition of pure proportional and majoritarian ones. Instead, in mixed systems the incentives associated with pure laws interact and create a new incentive structure (Cox and Schoppa, 2002; Herron and Nisihkawa, 2001). Intuitively, because this interaction concept extends to the legislative realm as well, Herron rejects the mandate-geographical representation equivalence consisting in the divide between PR (as national) and SMD (as local) established by the legislative behaviour literature. In his study of the Verkhovna Rada (the unicameral parliament of Ukraine) Herron evaluates mandate, dual candidacy and the safety of district in influencing deputies' behaviour. In line with contamination theory expectations he finds that the connection between a deputy's seat type and her legislative behaviour is more complex than that hypothesised by scholars of pure systems. It is a candidate's electoral path to her legislative seat and not the mandate that matters when explaining legislative behaviour. When dual candidacy was introduced as a dummy variable (1 for MPs who run in both tiers and 0 otherwise) it failed to explain variance in legislative behaviour. When,

however, variables that more accurately represent MP's path were constructed (variables that reflect simultaneously mandate, dual candidacy and the safety of a seat), some effects of electoral variables emerged. For example, it transpires that, everything else equal, MPs with dual candidacy who run in majoritarian districts which are not safe and who also run low on PR lists have a higher tendency to vote with party lines compared to other MPs. This is because by complying with party lines deputies signal loyalty towards their party and could, therefore, hope to obtain better seats in terms of quality at the following elections. Ferrara (2004b), following Herron (2002), also uses the type of the MP's political mandate (proportional or majoritarian) combined with indicators of electoral path to study legislative behaviour.

While the fact that parties' control over access to parliamentary seats is very strong for PR candidates, it is true for several electoral systems. The Italian case, among others, is a particular case whereby SMD candidates develop a strong dependency relationship with their parties not weaker than that of PR ones. Legislators elected through the SMD ballot, like those elected under PR, have incentives to please their party leaders if they want to increase their chances of being re-elected. In fact, although the allocation of districts is the result of a bargaining game among parties (see Chapter 2.1), the choice of which single candidate who will run in the specific SMD belongs to the party alone. Consequently, while satisfaction of the electorate would be necessary to ensure re-election in the same district, satisfaction of party leaders is

fundamental to be taken in consideration to run as a candidate in the first place.[44] Furthermore, pleasing party leaders is also important for the 'career-driven' candidate. In fact, a possible scenario for a 'good behaving' candidate could be the upgrade from running in a lost or in marginal majoritarian districts to running in a safe ones, or to gain a higher rank in a PR list. Consequently, this in itself stands as preliminary evidence that mandate, in the Italian party scenario, does not necessarily reflect a geographical (local versus national) divide.

One striking element emerges from the above literature review. While there are many diverging and inconclusive views concerning the role of mandate in affecting legislative behaviour, academics agree on two facts. The first is that legislators care, among other things, about re-election. The second is that MPs legislative behaviour reflects a trade off between pleasing the party and pleasing the electorate.

Summing up, the literature disentangles electoral systems on the basis of "two inherently incompatible principles - national and local representation" (Thames, 2001: 870). In this dichotomy PR systems are the one biased towards nationalisation and majoritarian systems are biased towards localisation.

[44] The same cannot be said about all mixed systems. In the Russian Duma for example, where Thames (2001) finds systematic difference between PR and SMD deputies, he remarks that "the key to winning single-member district elections in Russia often has less to do with party affiliation than with the candidate's independent control of other electoral resource" (875).

Building up form the idea of trade off (national versus local), in their model of 'How Unorganised Interests Get Represented' Denzau and Munger's (1986) investigate another form of trade off. They look into legislators' trade off between pleasing voters and between pleasing organised interest groups, which in turn affects their probability of being re-elected. According to them the national versus local paradigm occurs at the legislator's individual level. The legislator's dilemma consists in finding the best mode of allocating her total available service efforts in order to maximise her probability of re-election. Expanding this model, Bawn and Thies (2003) emphasise that the chances of re-election are affected by nomination and nomination quality first. In other words, legislators need to gain access to both PR and/or SMD electoral districts and they especially prefer access to favourable and safer ones. Only after this is guaranteed they can, subsequently, spend efforts to maximise the probabilities of obtaining enough votes to win the seats they compete in.

The mixed rules implemented in the Italian electoral scenario make it as such that being selected to run in a district (S) can be disentangled into two parts. That is; being selected to run in only one tier, and being selected to run in two tiers (the first column of Table (3.10)). In terms of victory, these candidates can either win the SMD seat only, the PR only or win both. Therefore, legislators in the Italian parliament fit one of the 6 categories below (A, B, C, D, E, F and F).

Table (3.10): Electoral Path and Mandate of Italian MPs Under Mixed Rules.

SEAT WON
(Mandate)

TIER SELECTED WHERE TO RUN (electoral path)	PR	SMD	BOTH	
			CHOSE SMD	CHOSE PR
PR	A			
SMD		B		
BOTH	C	D	E	F

While in the US, for example, nominations for MPs take place as 'district level primaries', in the Italian case, like it is in many other Parliamentary systems, nominations are centrally controlled by party nomination. Nevertheless, we still witness a situation whereby, using Bawn and Thies' (2003) language, candidates need votes from the unorganised (voters) and need resources, understood as seats, from the organised (parties) (11). Consequently, a model which addresses how legislators' incentives in terms of their mandate and electoral path (single or dual candidacy as well as

single and dual victory) affect their tendency to care more about the organised vs. the organised or vice versa, is needed.[45]

3.3.3 Theory and Expectation.

Explanations of legislative voting behaviour.

Legislators first need to gain access to electoral seats and then they need to obtain enough votes to win them. Consequently, to develop an account of legislative incentives under mixed rules a key factor is to incorporate elements that affect both requirements. Legislators, thus, need to please their parties, which guarantee access to seats in terms of both quantity and quality. Subsequently, they need to please voters who can help them gain victory over those seats.

For this purpose, I look at a combination of the theoretical work of Denzau and Munger's (1986) and Bawn and Thies (2003). In fact, I adopt the concept of trade off that an MP faces when allocating her total available service (understood as votes) between voters' and parties' interests. In other words, in order to maximise her chance of re-election (R_L), the legislator wants to maximise the probability of being selected to run in a PR or SMD district (S), and wants to maximise the probability of winning enough votes to win the selected districts (V). To put it formally $R_L = \max f(S,V)$.

[45] It is useful to remember that while Denzau and Munger (1986) and subsequently Bawn and Thies (2003) refer to pressure groups as the 'organised', I leave them out of the analysis and focus on parties as the organised entity MPs seek to please. In other words I only distinguish between the provider of electoral seats (parties) and the providers of votes (the electorate as one).

Therefore, in this simplified model, an MP faces the trade off between voting in line with national interests (voting according to party lines) and between voting in line with more local interests (drifting away from party lines), with the exception of those situations in which the two coincide. Following this line of reasoning, voting in parliament is a democratic tool through which parties (as collection of MPs) seek to serve the interests of their electorate. As a consequence, it is reasonable to assume that when legislators stray from party lines in terms of voting behaviour they do so because 1) the two interests (national vs. local) do not match and 2) they choose, for some reasons, to favour the latter interests over the former.[46]

After postulating this conjecture, which is a simplified account and might not be always the case, but it can be, nevertheless, a reasonable and good approximation of reality, it is necessary to expand on the conditions under which such defection behaviour could prevail.[47] Going back to Table (3.10) above we can observe that there are two categories of legislators who might feel strong enough and confident enough that their deviant behaviour might not be necessarily punished in the future. Those are MPs who fall within categories E and F. On the one hand, unlike legislators of categories A and B, these MPs were selected by their parties to run in both majoritarian

[46] This also stems from the simplifying assumptions that we have a two dimensional policy preference parliament: national versus local. Therefore, voting behaviour reflects one or the other and not a third option.

[47] In fact, in this simple model of local versus national interests I do not take in consideration situations whereby MPs decide to deviate from their party for personal convictions or other more complex motives.

and proportional tiers. In other words, they are invested with a double share of party trust. On the other hand, unlike legislators of category C and D who are also nominated twice, these MPs won both tiers simultaneously. In other words, they are invested with double trust from the electorate as well. Consequently, it is reasonable to assume that, in those circumstances whereby national and local interests do not coincide, MPs invested with an 'intentional' double mandate (understood in terms of double candidacy and double victory) have stronger incentives compared to other categories of MPs to deviate from party lines. By being elected twice, and thus reflecting strong electorate support, these MPs feel more confident that their party will forgo the option of punishing them, by not nominating them for example, at future elections. Instead, legislators falling within categories A and B fear similar degrees of party retaliation in case of deviant behaviour. In fact, given that nominations belong to parties in majoritarian and proportional tiers alike, similar logics should govern both categories of MPs. The same applies for categories of C and D. These MPs, in fact, were nominated twice (and as such they were invested with party trust twice), but they were empowered by voters only once.

While there are several elements in common between this work and the other work of legislative behaviour under mixed rules, this work represents a departure from such work in three major ways. First, the most obvious element is the classification of MPs. Most analyses use a dichotomous

variable to classify PR and SMD candidates (that is simply 0 and 1). To control for the way an MP reaches her seat, some scholars (Herron 2002, and Ferrara 2004b) create new sets of variables that control for dual candidacy (i.e. when the MP runs in both proportional and majoritarian tiers), and for multiple elections (i.e. the when the MP wins both the proportional and the majoritarian tiers). In other words, each MP can fall into one, two, or three of the above categories. In this work, however, I combine the mandate and the electoral path into one single variable. The operationalisation in this section takes into account that even though an MP covers an SMD seats she could have run in both the plurality and proportional tiers. It is also possible that she won both tiers but chose the plurality one, or that she only won the plurality. From this, it emerges that mandate is far more complex than the simple PR vs. SMD dichotomy and that there are six possible scenarios to account for the 'way' an MP reaches Parliament: (A) she stood in an SMD district only and won it, (B) she stood in a PR district only and won it, (C) she stood in both SMD and PR districts but winning only the SMD seat, (D) she stood in both SMD and PR districts but only winning PR seat (E) she stood in both SMD and PR districts winning both and choosing the SMD and finally (F) she stood in both SMD and PR districts winning both and choosing the PR.

Second, I use NOMINATE instead of simple roll calls. This choice is justified by two major elements. On the one hand, at the more descriptive level, simple roll calls cannot shed any light on the directionality of legislative

behaviour. In other words, NOMINATE scores help us understand whether each MPs is situated to the right or the left of her average party mean. This opens the door to more detailed analysis to explain such deviant behaviour and gives us some hints as to when MPs skew towards the right or left of their party. On the other hand, as repeatedly emphasised throughout this chapter NOMINATE has increasingly become the industry standard for generating ideal point estimates on a multi-dimensional policy space. The estimates hence tell us about the dimensionality of the policy space within a Parliament and where are MPs situated in such a space. Not surprisingly, former analyses yield ambiguous results when using simple RC, in the sense that the main variable under scrutiny (mandate) changes significance with the change in the operationalisation of the dependent variable (see Ferrara, 2004b). In fact, only when non-voting is included in the measurement of party discipline (the paper's dependent variable); the results suggest that mandate does exert an impact on legislative behaviour. Consequently, an extra analysis using NOMINATES can help shed some further light on this matter.

Finally, an obvious but less central element involves the use of parties rather than groups as the main unit of analysis. In fact, a great deal of the reasoning behind contamination theory, in one of its assertions whereby mandate is not a relevant determinant of legislative behaviour, revolves around the extensive role of parties in granting access to parliamentary seats for both PR and PL candidates. In the Italian case in particular, parties

maintain a monopoly concerning exerting control over such access.[48] Therefore, it is parties and not political groups that MPs need to please in order to increase their chances of accessing seats and thus winning them at future elections. Furthermore, like table (3.11) shows, although national parties and parliamentary groups compositions are rather similar, they do not coincide.

Table (3.11): Party Group Membership.

	Group									
Party	*Ds-Ulivo*	*Democratici*	*Misto*	*Popolari*	*Unione Democratica*	*An*	*Comunista*	*Fi*	*Ln*	Total
An	0	0	1	0	0	92	0	2	1	96
Ccd	0	0	11	0	0	0	0	0	0	11
Cdu	0	0	7	0	0	0	0	2	0	9
Democratici	1	16	0	1	0	0	0	0	0	18
Fi	0	0	3	0	0	0	0	110	0	113
Ln	0	0	5	0	0	0	0	1	48	54
Pdci	0	0	0	0	0	0	19	0	0	19
Pds	164	0	2	0	0	0	1	0	0	167
Popolari	1	1	0	54	0	0	0	0	0	56
Prc	0	0	15	0	0	0	0	0	0	15
RI	0	1	15	0	0	0	0	1	0	17
Udeur	0	0	0	1	19	0	0	0	0	20
Verdi	0	0	14	0	0	0	0	0	0	14
Total	166	18	73	56	19	92	20	116	49	609

Source: Italian Ministry of Intern.

[48] This is true for every coalition candidate.

To test the role that double candidacy plays in affecting legislators voting behaviour I will investigate a mixture of candidate and district variables. As mentioned above, unlike previous work, in this thesis measures of electoral path (type of candidacy) and measures of electoral performance (type of victory) are measured simultaneously. In fact, I should expect candidates who are selected to run in more than one district to feel more confident about their party's support and, therefore, exhibit a different legislative behaviour than those MP who where selected to run in only one of the two tiers.

Furthermore, I expect there to be another systematic difference between candidates who run in both tiers and who win one of the two compared to those who run in both tiers and win both. In fact, candidates belonging to this deeper level of taxonomy, running in both and winning both, will feel as the most confident, as they have high party trust (they are selected twice) and high voters' trust (they won twice). This high level of confidence, in turn, will translate in more freedom and lower probability to comply with party lines.

As for control variables, I test for both personal and district level characteristics. In terms of personal characteristics, I investigate the role played by incumbency, tenure and gender. An incumbent legislator, who, therefore, is at least at her second consecutive legislature, might feel that her dual victory is a signal of popularity that the party should not ignore in order to win that seat again. Therefore, given her popular support she is less dependent on the party vis-à-vis a freshly elected legislator and she can thus

afford to skew away from time to time. The same cannot be said about a newly elected legislator who needs to prove herself to both her party and the electorate and is, therefore, more inclined to vote along party lines to gain its much needed future support. A similar logic applies for tenure. I expect tenure to be negatively correlated with an MPs' tendency to comply with her party lines.

The gender of candidates also falls in the personal characteristics. While women and men alike who fall in the above (A through E) categories need to increase their chances of being re-elected, it is women who are comparatively badly represented in both chambers. This discrimination might create the feeling that they must prove themselves more than men, and therefore *ceteris paribus* tend to vote along party lines more than men.

In terms of seat-related characteristics, it easy to identify those legislators who would like to improve the nature of the district (in term of winnability) in which they were elected. Legislators who run in lost seats (majoritarian mandate) and those who are low on a PR list (proportional mandate), and thus who in both cases luckily made it to Parliament, would obviously prefer to get a better seat at future elections to increase their chances of victory.

I also expect district-related characteristics to be connected with personal ones. For example, as party leaders usually run in safe districts or they run high on party lists, I expect the effect of seat safety to be different for

different seniority levels. This is because those who serve for several legislatures are usually party leaders themselves or at least powerful members who not only vote along party lines but also dictate those lines.

CHAPTER 4 - THE IMPACT OF MIXED ELECTORAL RULES ON THE INCENTIVE STRUCTURE OF PARTIES.

As explained in detail in Chapter (3.1), the introduction of mixed electoral rules, in general, and the adoption of an abundant majoritarian element in the elections of the Italian Lower House, in particular, imposed on parties the need to come together under unprecedented pre-electoral alliances. That same theoretical chapter highlights the weaknesses prevailing throughout the general political science literature concerning the theme of pre-electoral alliances. Not only is the existing work about post-electoral forms of coalitions; but it also predominantly addresses those (post-electoral) coalitions formed 'to establish a government', leaving those formed 'to divide a pie' under-investigated. Therefore, very little is known as to what affects intra-coalition bargaining when the parties involved attempt to reach agreements in 'divide the pie' situations.

More specifically, in the Italian context, pre-electoral bargaining consists in the distribution of the 475 single member districts among the alliances' partners. When it comes to the relevant literature on Italian politics, it appears that scholars have simply focused on describing the process of pre-electoral coalition formation. In a few instances (such as Di Virgilio, 1998, 2002, 2004) some more tentative explanations are brought forward arguing, for example, that past electoral performance is the one and only criterion that

determines bargaining power. This gave birth to a number of contentions attributing to the new rules of the game an important role in increasing small parties' bargaining power (Bartolini et al., 2004). The bargaining power of small parties is, thus, explained by asserting that small parties retain 'electoral blackmailing power' in the sense that they can threat to defect from the coalition and present their own candidates at the election.

However, if looking back to the figures of advantage ratios associated with the 2001 elections, reported in Tables (3.3 and 3.5), we notice that there are some fallacies and weaknesses with some of the above interpretations. In fact, when we consider the advantage ratio as an index of power, then the 'small is powerful' assertion applies to *Udc* and *Ln*, but it does not apply to *Pdci* and *Girasole*. While the advantage ratios are only descriptive statistics, they do suggest that not all small parties obtained an overall number of seats that is disproportionately higher than their electoral success. Finally, up to date there is no existing empirical work which can either corroborate the above assertions or provide a better framework for determining what actually affects parties' pre-electoral bargaining power.

This is why in Chapter (3.2) I formulate a resource-based account of pre-electoral intra-coalition bargaining. Its purpose is to provide a theoretical framework to explain what affects parties' power around the negotiations' table. Consequently, by looking at the partition of the 475 SMDs among partners within each of the two coalitions in the 2001 elections, the scope of

this chapter is to empirically investigate such a model by testing a set of relevant resource-based hypotheses.

The 2001 Italian general elections represent an ideal case study to test my hypotheses. In fact, these elections were the third elections conducted under the new mixed electoral system, and, consequently, parties had by then adapted to the new rules of the game. An important remark is of duty concerning the complexity of the Italian party scenario in terms of the structural changes between 2000 and 2001. As explained in detail below, I use the total vote each party obtained in the 2000 regional elections and the 1999 European ones where appropriate, as an index of size (one of the resources that affect bargaining).[49] However, between the 2000 regional elections and the 2001 political elections the centre-left, unlike the centre-right, underwent several fission and fusions. This renders the creation of the size index for thia alliance a very difficult endeavour. One of the greatest challenges, for example, is to re-create the size of *La Margherita* and the *Girasole*. In fact, given that these two actors did not exist back in 2000 I had to track all the votes of its original members. Given the difficulty of identifying all the original components of these two parties (as not all of them joined *La Margherita* or the *Girasole* but were, instead, scattered here and there), I cannot track back all the votes. This might stand as an obstacle towards the

[49] This is because in few regions there were no regional elections in the year 2000. Consequently, they were replaced by the 1999 European elections results. As explained in detail in the coming sections, appropriate tests are conducted to control that this change did not cause any bias or inefficiency.

creation of a precise index. In other words, the index that I create for the centre-left might not accurately reflect these two parties' true electoral gains.

The parties that compose the *Cdl* undertook fewer structural changes. Between the 2000 regional elections and the 2001 general elections, the only major change on the right side of the political spectrum is the fusion of the two Christian parties, the *Ccd (Centro Cristiano Democratico)* and the *Cdu (Cristiani Democratici Uniti)*, under the label of *Udc* (*Unione Democratica Cristiana*). Fusions, unlike fissions, are easier to manipulate and are consequently less subject to error. In fact, by simply summing up the regional votes of the two Christian parties it is easy to recreate the index of *Udc* in 2001.

This chapter is structured as follows. First, I provide an overview of the required methodology. Then I introduce the data and variables necessary to test my resource-based theory. Detailed hypotheses are introduced in connection with every relevant variable. Finally, I conclude with a discussion of the main results.

4.1 Methodology.

As repeatedly discussed throughout this thesis, very little is known about the mechanisms of Italian pre-electoral district allocation. Therefore, the way I look at this 'game' might have some implications for the empirical model to be adopted. On the one hand, the process could be viewed as a two-stage game where allocation decisions (quantity and quality) might be either mutually dependent or mutually independent. On the other hand, the results could be the outcome of a package deal where the number and type of districts are chosen at one point in time. As mentioned in Chapter (3), the only insights available on this matter come from Di Virgilio (2002), where he defines the allocation process as a "top-down" one divided into five main stages: 1) the choice of the criteria and information upon which to define the rating of the districts and the quota for each party 2) classification of districts into types in terms of winnability 3) the selection of coalition and sub-coalition quotas 4) the assignment of the districts to parties around a negotiation table on the basis of a mixture of 'party quota' and 'district rating' criteria 5) choice of the single candidate which is left to each party (98).

The above, especially point (4), suggests that the 'package deal' scenario, vis-à-vis the 'two stage game' might actually be a more plausible one. Therefore, the choice of the mixed logit model I use to explain both the quality and the quantity of the districts allocated can, thus, be justified. Several models are devised for categorical dependent variables.

Notwithstanding the differences, they all share a complex nature and various difficulties when interpreting their results. For choices involving alternatives among three or more categories, using the characteristics of those same alternatives as explanatory variables, McFadden's conditional logit model (1974) is appropriate (Greene 2000, 862-864).[50] Here, I apply such a model because I need to investigate the probability that a party is assigned a district given both the attributes of the parties themselves and given the attributes of the selected districts. Unlike other models, the one in this thesis is particularly interesting, but complex, because there is actually no "chooser".

In the conditional logit model the probability of observing outcome m is given by:

$$\Pr(y_i = m \mid z_i) = \frac{\exp(z_{im}\gamma)}{\sum_{j=1}^{J} \exp(z_{ij}\gamma)} \qquad \text{for } m = 1 \text{ to J}$$

where z_{im} contains values of the explanatory variables for outcome m for party i. γ is a parameter that indicates the effect of each z_k on the probability of observing the outcome (Long and Freese, 2005). In the equation above, the coefficients for a variable are the same for each outcome (a single γ_k for each z_k) but there are different (J) values of the variable for each outcome. The above model, however, needs to be slightly modified in order to incorporate the characteristics of the district as well as those of the party

[50] Sometimes this model was referred to as the Luce model, or the multinomial model (Long, 1997; Powers and Xie, 2000).

(which is the outcome). This amended version is also called 'mixed model' because it combines features of the multinomial logit (MNL) with that of the conditional logit. A mixed model is thus necessary because it allows for testing simultaneously party-specific characteristics and district specific characteristics. The above equation, to model the probability that (y=j) where j= 1, 2,..., j, then becomes:

$$\Pr(y_i = j \mid x_i, z_{ij}) = P_{ij} = \frac{\exp(z_{ij}'\alpha + x_i'\beta_j)}{\Sigma_{h \in c} \exp(z_{ih}'\alpha + x_i'\beta_h)}$$

where z_{ij} and x_i denote the two types of explanatory variables; district related such as safety and party related such as size, incumbency and location. This is essentially carried out by adding individual level characteristics to the original conditional logit model through a number (J-1) of dummy variables multiplied by all district level covariates (Powers and Xie, 2000). It is important to note that interaction terms between all individual level covariates and the specific dummies must be included in the model. Failure to do so results in model misspecification (ibid.).

In order to identify the model, I need to normalise on any of the alternatives and set its β coefficient to zero (in this paper I set the β coefficient of the largest parties, *Forza Italia* for the centre-right and the *Democratici di Sinistra* for the centre-left, to zero).

4.2 Data and Variables.

Dependent Variable.

To begin with, I run two regression models; one for the centre-right coalition and one for the centre-left. Consequently, there are two dependent variables. For the centre-right (left) analysis, the dependent variable is the party which the *Cdl* (*Ulivo*) coalition selected among its members to stand in each of the 475 single member districts for the 2001 general elections.

For the centre-right, there are originally six parties to choose from, but only the main four are considered in this analysis, namely *Forza Italia* (*Fi*), *Lega Nord* (*Ln*), *Alleanza Nazionale* (*An*), *and Unione dei Democratici* (*Udc*). The two excluded components, the *Indipendenti Cdl* and the *Nuovo Psi*, ran in only 6 of the 475 districts. In terms of descriptive statistics, the four parties of the centre-right contended 453 of the overall SMDs. The remaining 22 districts are either missing data or were districts assigned to either of the excluded two parties.

Table (4.1): District Allocation for the Centre-right (2001 elections).

	Udc	**Fi**	**An**	**Ln**	**Total**
Frequency	65	225	119	44	453

As for the centre-left; districts were also distributed among four partners, namely *Democratici di Sinistra* (*Ds*), *La Margherita*, *Girasole*, and *Partito dei Comunisti Italiani* (*Pdci*). These four parties considered in the analysis

contended 465 of the 475 districts. This leaves only 10 districts out of the analysis.

Table (4.2): District Allocation for the Centre-left (2001 elections).

Party	Margherita	Girasole	Ds	Pdci	Total
Frequency	201	56	201	14	465

Explanatory Variables and Hypotheses.

Two distinct sets of characteristics emerge, from the theoretical framework developed in Chapter (3.2), as relevant when explaining pre-electoral coalition bargaining. Namely, party-specific resources and district-specific variables.

Party-specific resources

Size: to measure the extent to which the size of a party influences the probability that such a party is chosen to run in a specific district, I use the votes received at the previous regional elections. However, regional elections did not take place in all the 20 regions in the year 2000. Therefore, in those (few) instances where such elections did not take place I use the 1999 European elections results instead. Di Virgilio's work supports the use of this variable, as he suggests that the two allies used the regional results as the main indicator of parties' strength in 2001 (2002: 100). The introduction of this first variable brings us to the first two hypotheses related to the connection between size and parties' bargaining power over the allocation of SMDs. As

argued in Chapter (3), the greater the party's vote share, the more bargaining power it can exert on a negotiation table. This translates into hypotheses (1) and (2):

H1: "The greater the size of a party (the greater its legitimacy), the greater its bargaining power and the more districts it obtains out of coalition negotiations."

H2: "The greater the size of a party (the greater its legitimacy, the greater is its bargaining power over the obtainment of more valuable (safer) districts (in terms of winnability)."

Hypotheses 1 and 2 lead me to expect 'Size' to be positively correlated with the probability of being assigned a greater number of districts in general, and to be positively correlated with the probability of being assigned a greater number of safe districts, in particular.

Location: In the theoretical section I have highlighted how a party's location could affect its blackmailing ability. The location of a party hinges on the probability of this party leaving the coalition to run alone or with allies. In order to test the impact that the location of a party plays, I need a proxy for parties' positions. Party policy position is among the most important variables of this research. The 'best way' to empirically estimate such variable has been at the heart of heated debate. Two main approaches emerge; the first is the "party manifesto based estimate" led by Budge et al. (2001) through the Comparative Manifesto Project (CMP). The second is that of "expert survey analysis" led by Benoit and Laver (2006, 2007a). The first derives parties'

policy positions from extensive hand coding of party manifestos. The latter, instead, derives policy positions by asking several country specialists to place parties on a left-right dimension.

Benoit and Laver (2007a) compare estimates of the left-right positions of political parties derived from their expert survey with manifesto-based estimates of policy positions, created by the CMP. Through the analysis of the expert survey results they demonstrate that the "substantive meaning of left and right is not constant, either from country to country or even across time within a single country" (103). The implication of this result is that scales built from pre-defined and fixed components of left-right (such as the CMP) will poorly fit real party policy positions when applied across space and time. Furthermore, by comparing estimates of both methods, Benoit and Laver (2007a) demonstrate that while the estimates converge on average, there are nonetheless, important differences across countries (ibid.). With smaller measurement errors, expert survey estimates are more accurate.[51] Consequently, I choose to use Benoit and Laver's (2006) values from the survey of expert placement of parties on policy positions. The location of the party on a right-wing dimension takes different values for each party and it increases the more right-wing the party is. Table (4.3) below shows the calculated estimates of Italian parties' policy positions by Benoit and Laver (2006).

[51] The debate about which method is more accurate is an open one. In fact, several papers were subsequently published by these authors on the matter. See for Example Benoit and Laver (2007b) and Budge and Pennings (2007).

Table (4.3): Centre-Right and Centre-Left Parties Policies' Positions.

Centre-right parties	**Udc**	**Fi**	**Ln**	**An**
Policy position	12.38	15.59	16.88	16.94
Centre-left parties	**Margherita**	**Girasole**	**Ds**	**Pdci**
Policy position	8.04	6.30	5.98	3.33

One basic problem with this operationalisation, however, is that the values of parties' location do not vary at the district level. This means that there are essentially 4 values repeated in 475 districts. While the actual *n* of each regression adds up to a max of 1900 observations,[52] there are only 4 unique values. It is not very easy to get around this problem since I am not able to measure different party positions at the district level. However, in order to increase the values, slightly, I follow Benoit et al. (2005) and take the mid-point between the possible Centre-Right candidates and the actual candidate chosen by the *Ulivo*. This produces an Inter Cartel Midpoint (ICM) that has 24 values (or 4!).[53] Although still a discrete number, it is more than 4, and it also varies at the district level.[54]

As addressed in detail in the theoretical section, I theorise that the location of a party hinges on the probability of this party leaving the coalition to run alone or with allies. I assume that parties on the other extremes, further

[52] As explained in the methodology section this is because in each districts there are four parties to choose from. The value 1900 comes from 475 times four.
[53] The symbol (!) stands for factorial.
[54] Note that this mode of specification presumes that the centre-right (left) would choose their candidate based on the other coalition's choice, which may not at all be the case

away from the centre of the political spectrum, are less likely to leave the coalition because they have no (other) one to ally with. On the contrary, parties that are closer to the centre of the political spectrum are more credible in their threat of leaving the coalition to join new allies. By the same token, the party that finds itself in such a position will exert its blackmailing potential in order to obtain a larger number of safe districts that have a higher probability of winnability. This brings us to the next two hypotheses:

H3: "The closer a party, within the coalition, to the centre of the political spectrum, the higher its blackmailing potentials and the higher its probability of being allocated a greater number of districts."

H4: "The closer a party, within the coalition, to the centre, the higher its blackmailing potentials and the higher its probability of being assigned a greater number of safe districts."

Incumbency: In order to test the impact of being an incumbent in a district on the likelihood of being allocated the same district I introduce a dummy variable. 'Incumbency' is coded 1 if the party won the specific district at the previous general elections (1996 elections), and 0 otherwise. I expect this variable to be positively correlated with the probability of being assigned a greater number of districts. This brings me to the next hypothesis:

H5: "Party incumbency in a specific district increases the probability of being allocated the same district."

Dummy variables: a vector of party dummies is introduced. For the centre-right the dummies are *Fi*, *Ln*, *An* and *Udc*, whereby *Fi* is the excluded reference category. For the centre-left the parties are *Ds*, *Margherita*, *Girasole* and *Pdci*, with *Ds* as the reference category. The introduction of these party dummies is a necessary requirement of the mixed logit model.

District- specific variables

Safety: in order to introduce a measure for the type of districts (or rating), I construct a continuous variable that describes the value of the percentage vote difference between the first and the second candidate for each of the two alliances at the previous 2000 regional or 1999 European elections. The bigger the value of this variable, the safer is the district for the alliance because the difference between the winning candidate and the loosing candidate increases. With very few exceptions the first two candidates in every district belong to either of the two main coalitions. Consequently, the values of this variable are the same for both alliances except for their sign.

4.3 Analysis and Results.

The scope of this analysis is to assess the role that a party resources play in the quantitative and qualitative allocation of districts among allies. On the one hand (for the purpose of explaining the quantity allocation), I introduce three individual variables that account for party resources (size, incumbency, and party location through the inter-coalition mid point).

It is important to highlight that when I introduce the variable ICM the algorithm used to maximise the log likelihood function fails to converge. According to my theoretical model I hypothesize that a party's location plays a role in the process of distributing SMDs among allies. When using the policy position of each party I end up with only four values, one for each party in every coalition. To increase the number of values I substitute the individual values with the ICM. Now that this variable appears to be unsuitable to run the models I must resort to another measure which can take into account the unique policy position of each party. The only way to surmount this obstacle is to use fixed effects, or party dummies, as a proxy for party location. The introduction of party dummies is also dictated by the econometric model. Mixed logit models impose that 'choice dummies' must be introduced (Powers and Xie 2000). This way, not only I allow party dummies to have separate effects on the dependent

variable but each party represents a unique policy position. One drawback is that dummy influence might also capture other effects, such as size. This is not an issue because size is introduced in the model as explanatory variable. This covariate controls the share of votes each party contributes. While 'ideology' is another characteristic that might be captured by party dummies and which I cannot isolate, it is not theoretically linked to the resources a party retains. Therefore, it is safe to assume that these dummies are a good proxy for location.

For example, the differences observed in the following analysis between *Ln* and *An* (which are on the right side of the centre-right coalition) and between *Udc* (which is on the other side of the coalition) might reflect the importance played by location without the need to specify it directly. As highlighted in Chapter (4.1) the mixed model requires that I include the number of (J-1) of dummy multiplied by all district level covariates (Powers and Xie, 2000). Consequently, I interact the party dummies with size and incumbency.

On the other hand (for the purpose of explaining the quality allocation), in the same model I introduce the interaction between parties' size and the measure of district safety in order to assess whether the effect of size changes with the change of the safety of districts. Subsequently, I introduce an extra model whereby the

above variables, with the exception of the interaction between size and safety, are tested in different districts with different levels of safety. For this, I split the sample and estimate the model for safe and non-safe districts, where a safe district is operatonalized as the one whereby the difference between the first and second candidate is higher than 8% (D'Alimonte and Bartolini, 1997b: 132; Bartolini and D'Alimonte, 1995:328).

4.2.A Quantitative distribution.

Table (4.4) and (4.5) exhibit the log and odd ratio results, respectively, of the mixed logit regressions. The first column displays results for the centre-left alliance and the second for the centre-right one. The first most noteworthy result that emerges from looking at the tables is with reference to Hypotheses (1) and (5) of this chapter. In line with the classical views, for both alliances size and incumbency are statistically significant and portray the expected signs. Consequently, they are useful elements when explaining the allocation of districts for both the centre-left and the centre-right. In other words, these two resources are two good proxies of anticipated electoral gains and as such they exert a positive influence on the likelihood of being allocated a district. The bigger a party, the more power it can exert on the 'quantity' negotiation table. Similarly, incumbent parties are more successful in obtaining those districts where they won at the previous elections, because by placing an old

winner, the coalition could increase its chances of winning that same district again.

As introduced in the theoretical section and in the data part, in order to assess the role that a party's blackmailing ability plays in the division game, party dummies are introduced.[55]

Beginning with the centre-right, I tested for the joint significance for the three dummy variables and I had to reject the null hypothesis that they are all jointly equal to zero. Nevertheless, individually, only *Udc* portrays a coefficient that is statistical significant from the reference category (*Fi*). Its negative sign (or odd ratio smaller than one) suggests that, *ceteris paribus*, compared to *Fi*, it is less likely that *Udc* will be allocated a district. *An* and *Ln*, which have very similar party location values (16.88, and 16.94 respectively), also portray a negative, although not significant, coefficient. While *Udc* portrays a statistically significant but negative coefficient, its value (smaller than the values of both *An* and *Ln*) suggests that its central position tends to be associated with a lower likelihood of being allocated a district with respect to *Fi* but a higher likelihood if compared to An and *Ln*.

Turning to the centre-left, party dummies also provide interesting insights. In this case, the dummies are jointly statistically

[55] Like just stated in the previous section, I use party dummies as proxies for location rather than the ICM simply because when the variable ICM is introduced the algorithm used to maximise the log likelihood function fails to converge.

different from zero. In particular, *Margherita*, which is the most centrist party with a location value of 8.04, portrays a positive coefficient (odd ratio greater than one). This implies that, *ceteris paribus,* it is more likely that it will be assigned a district vis-à-vis the reference category of *Ds*. Likewise, *Pdci* and *Girasole* have odd ratios smaller than one, suggesting the opposite effect. Furthermore, *Pdci,* which is on the left of *Girasole* (3.33 and 5.98 respectively), has an even smaller likelihood of being allocated a district with respect to *Ds*.[56]

If we look at the interaction variables, on the centre right we find that Size**Udc* is positive and statistically significant. This suggests that the size effect is stronger for *Udc* compared to other parties in the alliance. The same cannot be said about the interaction between the dummies and the incumbency variable. On the left side spectrum we obtain a mixed picture, whereby the interaction between size and *Margherita* is the only statistically significant interaction but it portrays a negative sign. This suggests that the effect of size is weaker than it is for the reference category *Ds*. Given the insignificance of the other two interactions we can say very little in terms of comparisons. Like it is the case for the centre

[56] The chi square statistic (17.15), with p value of 0.000) suggests that they are statistically different from each other.

right the interactions between incumbency and the party dummies do not yield statistically significant coefficients.

Consequently, a noteworthy intuition, which is indirectly drawn for the centre-right results but directly drawn for the centre-left coalition, is that these results support Hypothesis (3). According to this hypothesis the closer a party, within its coalition, to the centre of the political spectrum the higher its blackmailing potentials and the higher its probability of being allocated a greater number of districts. While for the centre right it is less likely that the most centrist party *Udc* receives a seat vis-à-vis *Fi*, the probability it receives a seat is higher than the probability of the other allies. On the centre left side *Margherita* the most centrist party of the coalition has a higher likelihood of being allocated a district with respect to *Ds*.

Table (4.4): Mixed Logit Regression Coefficients Results: 2001 Partition of SMDs.

	CDL	ULIVO
Size	0.039	0.045
	(2.26)*	(2.47)*
Incumbency	1.755	1.916
	(4.81)**	(6.57)**
Udc	-1.302	
	(-2.52)*	
Ln	-0.721	
	(-1.30)	
An	-0.399	
	(-0.70)	
Margherita		1.367
		(3.40)**
Girasole		-1.954
		(-3.39)**
Pdci		-0.113
		(-0.26)
Size*Udc	0.075	
	(1.74)	
Size*Ln	0.051	
	(1.48)	
Size*An	0.003	
	(0.08)	
Size*Margherita		-0.051
		(-2.12)*
Size*Girasole		-0.030
		(-0.53)
Size*Pdci		0.124
		(0.78)
Incumbency*Udc	-0.091	
	(-0.14)	
Incumbency*Ln	-0.179	
	(-0.24)	
Incumbency*An	0.986	
	(1.85)*	
Incumbency*Margherita		
Incumbency*Girasole		-0.257
		(-0.38)
Incumbency*Pdci		16.325
		(0.02)
Size*safety	0.042	.038
	(2.33)*	(2.18)*
Observations	1752	1618

Absolute value of z statistics in parentheses * significant at 5%; ** significant at 1%.

Table (4.5): Mixed Logit Regression Coefficients Results: 2001 Partition of SMDs (odd ratios).

	CDL	ULIVO
Size	1.039	1.046
	(2.26)*	(2.47)*
Incumbency	5.783	6.796
	(4.81)**	(6.57)**
Udc	0.271	
	(-2.52)*	
Ln	0.486	
	(-1.30)	
An	0.670	
	(-0.70)	
Margherita		3.926
		(3.40)**
Girasole		0 .141
		(-3.39)**
Pdci		0.892
		(-0.26)
Size*Udc	1.077	
	(1.74)*	
Size*Ln	1.051	
	(1.48)	
Size*An	1.002	
	(0.08)	
Size*Margherita		0.949
		(-2.12)*
Size*Girasole		0.970
		(-0.53)
Size*Pdci		1.132
		(0.53)
Incumbency*Udc	0.192	
	(-0.14)	
Incumbency*Ln	0.836	
	(-0.24)	
Incumbency*An	2.681	
	(1.85)*	
Incumbency*Margherita		
Incumbency*Girasole		0 .773
		(-0.78)
Incumbency*Pdci		1.230
		(0.38)
Size*safety	1.001	1.012
	(1.82)*	(2.18)*
Observations	1752	1618
Absolute value of z statistics in parentheses * significant at 5%; ** significant at 1%.		

4.2.B Qualitative distribution.

Before addressing Hypotheses (2) and (4) about the effect of a party's size and location on the probability of being assigned an SMD, I need to introduce back the concept of 'index of overpayment' addressed in the previous chapters.

Like I show in Chapter (3.1.3) section (i), while there is a correlation between size and the number of SMDs, there is a tendency for small parties to be slightly overpaid. Through the use of both the advantage ratio and the overpayment index I find evidence of what is known in the literature as the relative weakness effect (Browne and Franklin, 1973). What I can investigate is whether and the extent of which SMDs tend to be associated with parties overpaid and underpaid in the exchange of SMDs for votes. Consequently, I correlate the proportional share of each SMD type (safe, or not safe) received by each party in each of the two coalitions with the index of overpayment for that party. Since large parties are more likely to receive SMDs of all types than are small parties, I need to standardize the data by dividing the number of SMDs of each type received by the total number of SMDS of all types received by the party. This yields the proportion of share of each SMDs type that each party receives. The resulting coefficients of the correlation between safe districts and the overpayment index (-0.93, for the centre right and -0.90 for the centre left) indicate that the safe

districts tend to go to parties underpaid in the exchange (large ones). Contrarily, I obtain positive coefficients when I correlate districts which are not safe with the overpayment index. This suggests that that these districts tend to go to parties overpaid in the exchange (smaller parties).

Given this overpayment it is reasonable to assume then that bigger parties are extracting qualitative rents and receive a higher number of better (read safe) districts in exchange of this underpayment. If we look at the interaction between size and safety in Table (4.4) and (4.5) we can get some clear support. In fact, the interaction for both alliances is positive and statistically significant, suggesting that the effect of size is stronger in safer districts. In other words this corroborates Hypothesis (2) related to the positive role that size plays in the allocation of safe districts.

In order to have stronger predictions about the role of size in safe districts and in order to investigate Hypothesis (4) about the role of party location in the qualitative allocation, I run the same analysis of Tables (4.4) and (4.5) in a split sample. Tables (4.6) through (4.9) display the results in safe districts and lost ones.

Table (4.6) Mixed Logit Regression Coefficients Results: 2001 Partition of Safe SMDs.

	CDL	ULIVO
Size	0.055	0.071
	(2.18)*	(2.08)*
Incumbency	2.594	3.135
	(2.42)*	(3.92)**
Udc	0.179	
	(0.25)	
Ln	-0.819	
	(-1.30)	
An	-0.585	
	(-0.87)	
Margherita		2.094
		(3.53)**
Girasole		0 .612
		(0.90)
Pdci		-0.147
		(-0.13)
Size*Udc	0.069	
	(1.16)	
Size*Ln	0.026	
	(0.48)	
Size*An	-0.041	
	(-0.92)	
Size*Margherita		-0.072
		(-2.13)*
Size*Girasole		-0.043
		(-0.49)
Size*Pdci		-0.580
		(-0.80)
Incumbency*Udc	-0.944	
	(-0.67)	
Incumbency*Ln		
Incumbency*An	-0.551	
	(-0.45)	
Incumbency*Margherita		
Incumbency*Girasole		-1.414
		(-1.04)
Incumbency*Pdci		
Observations	382	521

Absolute value of z statistics in parentheses * significant at 5%; ** significant at 1%. Incumbency*Ln, Incumbency*Margherita and Incumbency*Pdci dropped due to collinearity.

Table (4.7) Mixed Logit Regression Coefficients Results: 2001 Partition of Safe SMDs (Odd Ratios).[a]

	CDL	ULIVO
Size	1.056	1.073
	(2.18)*	(2.08)*
Incumbency	13.382	6.292
	(2.42)*	(5.16)**
Udc	1.196	
	(0.25)	
Ln	0.440	
	(-1.30)	
An	0.557	
	(-0.87)	
Margherita		1.457
		(3.53)**
Girasole		0.354
		(-1.58)
Pdci		0.092
		(-1.95)*
Size*Udc	1.071	
	(1.16)	
Size*Ln	1.026	
	(0.48)	
Size*An	0 .960	
	(-0.92)	
Size*Margherita		1.009
		(-0.34)
Size*Girasole		1.041
		(-0.45)
Size*Pdci		1.147
		(-0.29)
Incumbency*Udc	0.389	
	(-0.67)	
Incumbency*Ln		
Incumbency*An	0 .576	
	(-0.45)	
Incumbency*Margherita		
Incumbency*Girasole		0.0872
		(-0.19)
Incumbency*Pdci		1.223
		(0.02)
Observations	382	521

Absolute value of z statistics in parentheses * significant at 5%; ** significant at 1%. [a]Incumbency*Ln, and Incumbency*Margherita dropped due to collinearity.

Table (4.8) Mixed Logit Regression Coefficients Results: 2001 Partition of Lost SMDs. [a]

	CDL	ULIVO
Size	0.0234	0.023
	(0.95)	(1.53)
Incumbency	1.618	1.798
	(3.98)**	(5.72)**
Udc	-0.935	
	(-1.08)	
Ln	-2.237	
	(-2.5) *	
An	-1.101	
	(-1.19)	
Margherita		0.708
		(1.66)*
Girasole		-0.729
		(-1.44)
Pdci		-3.830
		(-3.89)**
Size*Udc	0 .081	
	(1.32)	
Size*Ln	0 .086	
	(1.75)	
Size*An	0.043	
	(0.96) *	
Size*Margherita		-0.020
		(-0.84)
Size*Girasole		0.012
		(0.17)
Size*Pdci		0.739
		(2.45)*
Incumbency*Udc	-0.069	
	(-0.09)	
Incumbency*Ln	0 .057	
	(0.06)	
Incumbency*An	1.433	
	(2.14) *	
Incumbency*Margherita		
Incumbency*Girasole		-0.171
		(-0.23)
Incumbency*Pdci		15.715
		(0.03)
Observations	1374	

Absolute value of z statistics in parentheses. * significant at 5%; ** significant at 1%. [a] Incumbency*Ln, and Incumbency*Margherita dropped due to collinearity.

Table (4.9) Mixed Logit Regression Coefficients Results: 2001 Partition of Lost SMDs (Odd Ratios). [a]

	CDL	ULIVO
Size	1.023	1.024
	(0.95)	(1.53)
Incumbency	5.046	6.039
	(3.98)**	(5.72)**
Udc	0 .332	
	(-1.19)	
Ln	0 .106	
	(-2.59)*	
An	0.392	
	(-1.08)	
Margherita		2.031
		(1.66)*
Girasole		0 .482
		(-1.44)
Pdci		0 .021
		(-3.89)**
Size*Udc	1.090	
	(1.75)*	
Size*Ln	1.084	
	(1.32)	
Size*An	1.044	
	(0.96)	
Size*Margherita		0.979
		(-0.89)
Size*Girasole		1.012
		(0.17)
Size*Pdci		2.095
		(2.45)*
Incumbency*Udc	0 .932	
	(-0.09)*	
Incumbency*Ln	1.059	
	(0.06)	
Incumbency*An	4.192	
	(2.14)*	
Incumbency*Margherita		
Incumbency*Girasole		0.842
		(-0.23)
Incumbency*Pdci		1.463
		(0.02)
Observations	1374	1173

Absolute value of z statistics in parentheses. * significant at 5%; ** significant at 1%. [a] Incumbency*Margherita dropped due to collinearity.

Tables (4.6) and (4.7) display the results for safe districts, where the difference between the first and the second candidate is higher than 8%. The first and foremost interesting results are the coefficients for size and incumbency for both alliances. The odd ratios in table (4.7) clearly support Hypothesis (2) and expand Hypothesis (5). They show that both variables are positive and statistically significant for the centre left and the centre right. The size safety suggests that size and incumbency play a strong and positive role in the allocation of safe SMDs.

In terms of Hypothesis (4) a look at the coefficients of the dummy variables provides some interesting insights but inconsistent across the two alliances. The coefficient of *Margherita*, the most centrist of the centre left parties, which I use as a proxy of centrality, is both positive and significant. This suggest that being in the centre in the left coalition can be considered a threatening devise and therefore increase the likelihood of being assigned a safe SMD. The same cannot be said about the centre right where none of the party dummies portray a significant coefficient. Nonetheless, a look at the directionality of the coefficients shows that ceteris paribus *Udc* is less likely to be allocated a safe district compared to the reference category *Fi*, but more likely compared to *Ln* and *An*.

The other interesting result comes from looking at the size variable in Tables (4.8) and (4.9), which display the analysis I run in lost districts. While incumbency clearly plays a positive role irrespective of the district's type, for both alliances size does not appear to be relevant in explaining the allocation of lost SMDs. These results add robustness to Hypotheses (1) and (2) relating size with quantitative and qualitative allocation of SMDs.

Notwithstanding these interesting results, we must be cautious when making inferences. There is, in fact, still a possibility that there is a degree of randomness in the translation of votes into SMDs in terms of their quality. It may be the case that in some instances a party gets a safe SMD too many or too few in exchange for its votes' contribution but that such pattern is globally random, systematically favouring small parties, centrist parties or another category.

4.4 Conclusions.

To what degree do mixed electoral systems affect parties' incentives in the pre-electoral arena? The phenomenon of pre-electoral coalition formation and the distribution of the 475 SMDs within each alliance, through the 1994, 1996 and 2001 elections, reflect *per se* a symptom of change in the incentive structures of parties. What influences parties' coalition bargaining which in turn affects the distribution of those seats is both theoretically and empirically under-investigated. While in Chapter (3) I introduced a theoretical framework with the scope of theorizing about parties' bargaining power, in this chapter my purpose was to test the formulated theoretical model. The results presented support the claim of the importance of some party resources in explaining the partition of SMDs among coalition members. The key finding is that a party's location near to the centre of the political spectrum is evidence of a potential threat device. The data also provides direct and indirect evidence regarding the role played by a party's policy location in exerting power over the quantitative allocation of districts. Similarly, in line with my expectations, size and incumbency are two resources that prove to be good indicators for explaining bargaining power over the quantity allocation of SMDs. The same can be said about the qualitative allocation. Not only does the interaction between size and safety suggest that *ceteris paribus* the effect of size is stronger in safe districts, but also the analysis of the split sample supports the size vs. safe district relation.

Overall, the results of this study represent unique and unprecedented material. On the one hand, the descriptive statistics presented in Chapter (3) encourage us to be cautious when theorizing about the high bargaining power of small parties. On the other hand, the statistical analysis presented in this chapter highlight the role of parties' resources in explaining bargaining. In particular, it provides evidence about the under-investigated resource, namely parties' threatening potential reflected by their location in the political spectrum.

CHAPTER 5 - THE IMPACT OF MIXED ELECTORAL RULES ON THE INCENTIVE STRUCTURE OF VOTERS.

This Chapter addresses another interesting electoral phenomenon, that of split-ticket voting, which, as I demonstrate in Chapter (2), permeates the three Italian elections held under mixed rules. Several aspects of this phenomenon could be analysed. On the one hand, why does it happen and the conditions under which it increases deserve our attention. On the other hand, the connection between this phenomenon and parties' chances of winning the elections is also worth the attention. Given that the scope of this thesis revolves around the study of the impact of mixed rules on the incentive structure of political actors, it becomes apparent that I am only interested in investigating the former.

In Chapter (3.2) I address the main theoretical and empirical work concerning split-ticket voting. The theoretical literature reviewed uncovered the lack of consensus among scholars as to what affects split-ticket behaviour. Some consider voters and electoral rules as the main causes of split-ticket voting (Bawn, 1999; Cox, 1997; Fisher, 1973; Reed, 1999; Roberts, 1988; Schoen 1999). A second group considers candidates and their individual characteristics as the main cause (Karp et al., 2002; Burden and Kimball, 1998; Moser and Scheiner, 2005). The final group acknowledges the merits of both explanations and consequently investigates together voters, electoral

rules and candidates' characteristics (Benoit et al. 2006). Again, by virtue of the scope of this thesis, the approach adopted by the last group of research is more appealing. Therefore, I investigate split-ticket behaviour by looking at a mixture of candidates', voters' and districts' characteristics.

The overview of the empirical literature reveals another division within the split-ticket voting literature. In fact, the body of empirical knowledge is divided into two groups. On the one hand, most of the existing empirical work makes use of survey data whereby a sample of voters is asked about the way they cast their vote at the last elections. For the reasons explained in detail below, more recent analyses take some distance from using this type of data and introduce a more sophisticated way of elaborating election results. Namely, Bayesian simulations are adopted in order to reproduce unavailable individual level data. While currently in expansion, this methodology has still a limited use in political science, especially due to the insistency of many scholars to use survey data.

In order to explain split-ticket voting in the Italian 2001 elections, in this chapter I chew over the existing theoretical explanations, I replicate the analysis conducted by others (as Benoit et al,. 2006) using a different database, and consequently I contribute to the existing body of empirical knowledge. To conduct the analysis I use two types of data. First, in line with most electoral studies on voters' behaviour, I rely on data produced by surveys conducted, in this case, by the Italian National Elections Studies

(ITANES) for the 2001 elections. This exercise is useful to address the extent to which PR votes can be used as a proxy for voters' first preferences. Furthermore, this is necessary as it highlights the shortcomings inherent in this data in connection to split-ticket estimates. As I demonstrate below, there is evidence that the data provides inaccurate estimates, which impels the need to look elsewhere. The second type of data consists in the above mentioned Bayesian simulations employing the election results of 2001.[57]

This chapter is structured as follows. First, I introduce the data and variables necessary to test the theoretical arguments advanced in Chapter (3.2). Detailed hypotheses are introduced in connection with every relevant variable. This is followed by a discussion of the methodological tools employed. Finally, I conclude with a discussion of the results.

[57] See footnote 3.

5.1 Data and Variables.

Survey Data.

As previously mentioned, 'split-ticket voting' reflects the expression of different voting patterns. It consists in casting a divided vote when facing two distinct voting choices. In the Italian mixed election context this occurs when voters vote for different alliances in each of the two electoral tiers (plurality and proportionality). To understand this phenomenon information about the way every individual voter behaves in every district for each of the two ballots is, therefore, ideally needed. Unfortunately, for cost and confidentiality reasons, no such information is always available.

Survey data, when obtainable, is a suitable surrogate but usually not very revealing. First, due to sampling error, the finite sample of voters interviewed is likely to produce uncertain estimates. The sample might not be perfectly representative of the voters' population due to both imperfections in the sampling frame or due to response bias (Weslye, 1991; Burden, 2006). Second, is the problem that one cannot decompose the sample into smaller units of aggregation because of the number of cases required for such analysis (Voss et al., 1995). While we might have a large N database, the data available at the district level might not be sufficient. Take as an example the Italian case where there are 475 majoritarian districts. An N of 10000 observations would imply about only a meagre 21 observations per district. A more specific example could be drawn from the 2001 Italian National Election

Studies (ITANES) survey results. This study asks a sample of Italians how they voted in the most recent elections. A total of 3209 people were interviewed, which implies that relatively few respondents come from each of the 475 districts.

A clear benefit of survey data, which must be acknowledged, is that it is useful to assess the underlying assumptions made in the aggregate data analysis. A key assumption in the literature of mixed electoral systems is that PR votes closely reflect voters' party preferences (Burden, 2000; 2006; and Forthcoming). This is why voters rarely defect from their party identification in the proportional tier. On the contrary, voters are more likely to defect from the candidate identification in the majoritarian tier because of other considerations that sometimes might outdo partisanship (Burden, 2006).

To test this assumption for coalition supporters I compare the PR and SMD votes of survey respondents with their revealed preferred party. By tabulating ITANES (2001) questions C33 "What party do you feel closest to?" and QE20 "Can you tell me which list/coalition you voted for in the PR ballot?" I can relate party support to vote choice. For simplicity I grouped parties under coalition labels. Table (5.1) below validates the assumption that PR votes reflect sincere party preference.

Table (5.1): Validating the Claim of the Sincere Nature of PR vote.

Coalition of Party that the respondent feels closest to	Coalition of party receiving PR vote		
	Cdl	*Ulivo*	Other
Cdl	0.97 (0.96, 0.98)	0.008 (0.001, 0.014)	0.02 (0.01, 0.03)
Ulivo	0.02 (0.01, 0.04)	0.93 (0.90, 0.95)	0.05 (0.032, 0.07)

Source: ITANES (2001). Questions C33 and QE20. 95% Confidence intervals in parentheses.

The Table demonstrates quite clearly that PR vote proxies party preferences, with 97% of voters who feel closest to a party of the *Cdl* voting for the same party or at least for the *Cdl* in the PR tier. Similarly, 93% of voters who feel closest to a party of the *Ulivo* vote for the same party or at least for the *Ulivo* in the PR tier.

Next, in order to obtain the picture of the splitting and sticking estimates according to these data, in Table (5.2) I tabulate question E18 "Who is the coalition of party receiving your PR vote?" and question E20 "Who is the Coalition of party receiving your plurality vote?" While the *Ulivo* sticking estimates are slightly higher then the centre-right ones (0.962 compared to 0.96) they are almost identical. There is strong evidence that these results do not reflect the aggregate data I obtain from pure election results.

Table (5.2): Cross-tabulation of Coalitions Receiving PR Vote and Coalition of Party Receiving Plurality Vote.

	Coalition of party receiving Plurality vote		
Coalition of party receiving PR vote	*Cdl*	*Ulivo*	Other
Cdl	**0.96**	0.02	0.02
	(0.95, 0.97)	(0.01, 0.03)	(0.01, 0.03)
Ulivo	0.018	**0.962**	0.019
	(0.008, 0.02)	(0.95, 0.98)	(0.009, 0.029)
Other	0.06	0.50	**0.44**
	(0.04, 0.09)	(0.44, 0.55)	(0.38, 0.49)

Source: ITANES 2001, Question E18 and questions E20, with 95% confidence intervals in parentheses.

A quick look at these cross tabulations reveal some clear inaccuracies. Unlike aggregate election data, survey results suggest that sticking estimates for both the *Cdl* and the *Ulivo* are rather similar. However, Table (5.3) below which reports actual parties' performance in the 2001 elections (which is actually column three of Table (3.6)) suggests otherwise. By comparing the two tables it becomes apparent that sticking and splitting estimates from the survey are not remotely similar. This suggests that other means must be pursued in order to obtain these estimates. As it is the case for the U.S. and Japan, Italian surveys appear to overstate the amount of straight ticket voting (Burden, 2000; Burden, 2007; Burden and Kimbal, 2002). Consequently, not only are ecological inference (EI) estimates helpful; they are necessary.

Table (54.3): Coalitions' and Parties' Performance in the 2001 House Elections.

	2001	
	% SMD votes	% PR votes
Centre-Left	42.97*	34.92%*
Centre-Right	45.38%	48.62%
Others	9.61%	13.9%

*It is important to recall that the huge discrepancy is explained by the fact that *Rifondazione Comunista* decided of 'not running' in the SMDs. Source: for the 1994 elections Chiaramonte (1995: 377). For 1996 and 2001 elections the source is the national elections results. Totals do not always add up to 100 % because in some districts a number of small local parties are excluded. Furthermore, in other districts some parties run under a mixed label (like *Ulivo* + SVP) and where this not included in the calculus.

Aggregate Data.

When the ideal survey data to study split-ticket voting is not available, or is inaccurate, scholars usually opt for other measures such as SMD-PR vote gap. To be more specific, they use the difference between the vote percentage of a given candidate and the PR vote percentage won by the candidate's party (Bawn, 1999; Kohno, 1997; Moser and Sheiner, 2005; Reed, 1999). Others, like Mudambi and Navarra (2004) in their study of the 1994 and 1996 Italian general elections, use the 'Split preference voting index expectation' defined as:

$\frac{PPL - PPR}{PPL}$, where PPL is percentage of plurality voting and PPR is percentage of PR voting.[58]

Mudambi et al. (2001a) use an even more basic form of this equation and simply look at the difference between PPR and PPL (150). The shortcomings of such indices for the study of split-ticket voting are simple and clear. On the one hand, these measures do not help in explaining where the extra votes come from or where the lost votes go. Rusk (1970) describes this as the inability to "detect mutual crossovers between parties" (1224). On the other hand, PPL and PPR are aggregate measures, so the use of such data to extract clues about individual behaviour implies that we are making 'an ecological inference'.

Take the hypothetical situation where there are two main coalitions $CL_{(A)}$ and $CR_{(B)}$, where CL and CR stand for the centre-left, and the centre-right coalitions respectively. The subscripts (A, and B) refer to the collection of parties which compose each of them $[(a_1, a_2, ..., a_n)$, and $(b_1, b_2, ..., b_n)]$. The available information is how many votes were cast for each of the two groups or in other words the sum of votes received by those parties belonging to each coalition in the plurality tier. I also know how many votes each party $[(a_1, a_2, ..., a_n)$, and $(b_1, b_2, ..., b_n)]$ individually receives in the proportional tier.

[58] In both the above case PR votes are considered sincere expressions of preferences. In fact, the more votes a party receives in the PR tier the more are its chances of gaining representations. This link is weakened when the threshold increases.

However, the information that I am interested in is individual voting behaviour or at least sub-aggregates such as how many $a_{1,}$ party supporters stick with the coalition CL in a particular district given aggregates such as the total number of $a_{1,}$ supporters in a specific district and given the total amount of votes received by CL. But why is obtaining such information a problem? Assume that in one district thirty percent of the voting population supports party $a_{1,}$ (an information I know by looking at this party's PR votes) and at the same time CL received thirty percent of total SMD votes cast in that district. Also assume that in another district forty percent of the voting population supports party $a_{1,}$ and simultaneously forty percent of the total electorate votes for CL. Thus it seems that there is a perfect positive correlation between voting for a_1 and votes for CL. In other words it appears that all $a_{1,}$ party supporters consistently vote for the coalition their party belongs to. However intuitive this relation might be, votes in the second district might come from quite a different sector; party a_1 supporters in this district may not have voted for CL at all. Postulating influences on the behaviour of individuals acquired from aggregate data, or in other words hypothesizing about the behaviour of individuals by using data from whole populations, is often misleading.

Consequently, while useful, ecological inference is usually perceived as a problem because some information generally related to the quantities of

interest is generally lost during the process of aggregation. The problem is well known in political science since Ogburn and Goltra (1919) introduced it in the very first multivariate statistical analysis that was ever done in political science and published in a political journal. This has been among the longest standing unsolved problems in quantitative social science (King, 1997).

The exact problem of ecological inference could be conceptualised as a standard contingency table with missing data whereby the marginals based on the aggregate data are known, but the cell percentages are unknown (Achen and Shively, 1995; King, 1997; King et al., 2004). Table (5.4) illustrates the Italian case, where, to complicate matters further, there are three groups and not two like the example above. What I observe is (a) the total votes that the centre-left coalition (*Ulivo*) obtained as a whole in SMDs (N_U^{SMD}), (b) the total votes that the centre-right coalition (*Cdl*) obtained as a whole in SMDs (N_P^{SMD}), (c) the total votes that other non-allied parties obtained as a whole in SMDs (N_O^{SMD}), (d) the total sum of PR votes received by all parties that belong to the *Ulivo* coalition (N_{Uparty}^{Pr}), (e) the total sum of PR votes received by all parties that belong to the *Cdl* coalition (N_{Pparty}^{Pr}) and finally (f) the total sum of PR votes received by all parties that are non allied (N_{Oparty}^{Pr}). If every voter casts a straight vote, which is the same as saying that each voter

votes in the plurality and proportional tiers for the same alliance, then the values of both N^{SMD} and N^{Pr} would be the same.[59]

Table (5.4): Description of the Basic Ecological Inference Problem in Each Italian SMD: Contingency Table With Missing Data.

	Ulivo Coalition	**Cdl Coalition**	**Other Parties**	
Ulivo parties' supporter	**Stickers** UU (?)	Switchers UP (?)	Switchers UO (?)	N^{Pr}_{Uparty}
Cdl parties' Supporter	Switchers PU (?)	**Stickers** PP (?)	Switchers PO (?)	N^{Pr}_{Pparty}
Supporters of Other parties	Switchers OU (?)	Switchers OP (?)	**Stickers** OO or OO' (?)	N^{Pr}_{Oparty}
	N^{SMD}_{U}	N^{SMD}_{P}	N^{SMD}_{O}	

[59] We should be aware that straight voting is a sufficient but not necessary condition for observing equal N^{SMD} and N^{Pr}. In fact if split-ticket results in an equal loss and equal gain of votes we can still observe equal N^{SMD} and N^{Pr}.

Having outlined the above, the non-observed split (straight) ticket estimates are what I am interested in. The question marks in the first raw, under UU, UP, and UO denote the number of frustrated[60] voters that support a party in the centre-Left '*Ulivo*' coalition in the PR tier and who: vote for the *Ulivo* coalition in the majoritarian tier (UU), who vote for the *Cdl* coalition in the majoritarian tier (UP), and who vote for an 'other' non-coalesced party in the majoritarian tier (UO), respectively. As King (1997) explains, "several combinations of numbers could be placed in these cells without contradicting the row and column marginals" (13). This logic is referred to in the literature as the methods of bounds.

More formally, the basic problem illustrated in Table (5.5) has two main observed variables (T_i and X_i)[61] and four unobserved quantities of interest (β_i^b , β_i^w , λ_i^b , λ_i^w) for each observation.

[60] For a justification of the use 'frustrated' please refer back to Chapter 3.B.

[61] Whereby (T_i) is broken into (V_i) and (1-V_i).

Table (5.5): The Ecological Inference Problem at the Constituency Level.

	Voting probabilities				
	Vote for non-party p candidate				
	Vote for rival coalition's candidate	Vote for non coalition candidate		Vote for party p candidate	
Vote for party p's list	λ_i^b	$1-\lambda_i^b$	β_i^b	$1-\beta_i^b$	X_i
Vote for a non-p list	λ_i^w	$1-\lambda_i^w$	β_i^w	$1-\beta_i^w$	$1-X_i$
	V_i	$1-V_i$	T_i	$1-T_i$	N_i

Note: For reasons of comparability and convenience, King's (1997) notation is used.

National statistics provide the values in the margins of the table: X_i is the proportion of party p's list vote in district i, V_i is the plurality vote proportion of the rival coalition candidate as a fraction of the sum of the plurality vote proportions of the rival coalition candidate and the non coalition candidate(s), T_i is the sum of the plurality vote proportions of the rival coalition candidate and the non-coalition candidate(s), and N_i is the adjusted number of valid votes in the SMD (means of total list and plurality valid votes).

However, the values of concern are those in the inner cells of the table, i.e. λ_i and β_i, which cannot be observed: λ_i^b is the share of party p's

supporters that voted for the rival coalition candidate, and $1-\lambda_i^b$ is the share of party p's supporters that voted for the non-coalition candidate, whereas λ_i^w is the share of those who support another party than p that voted for the rival coalition candidate, and $1-\lambda_i^w$ is the share of those who support another party than p that voted for the non-coalition candidate. β_i^b is split-ticket estimate for party p's supporters and $1-\beta_i^b$ is the share of straight ticket voters. β_i^w is the split-ticket estimate for those who support another party than p and $1-\beta_i^w$ is the share of voters except of party p who cast a straight ticket.

While the extended formal explanation can be found in King (1997), in this section I only provide the non-technical intuition behind the method, which is sufficient to get an idea of where the estimates come from.

King's method relies on the method of bounds, which through the knowledge of both T_i and X_i it restricts β_i^b and β_i^w (the cell quantity of interest) to a narrower region than the [0,1] interval (Duncan and Davis, 1953). Consequently, these bounds increase the information needed in a statistical model. King's technique imposes a probabilistic distribution of the quantities of interest that assumes that β_i^b and β_i^w are distributed as truncated

bivariate normal (TBN) conditional on X_i. Using this distributional assumption a tomography plot (β_i^w by β_i^b) is created, whereby each line represents a district. The true values of β_i^b and β_i^w must thus fall somewhere on the line. Then a normality assumption is made in order to identify a mode on such tomography whereby most of the lines cross and where the estimates are improved by 'borrowing strength' from other districts. Intuitively, β_i^b and β_i^w are most likely nearest the mode, which is the peak of the three-dimensional normal bell shape. Maximum likelihood estimation is then performed to estimate five intermediate parameters that will be subsequently retransformed and rescaled. Posterior distribution using importance sampling is used to draw values from these parameters. The means of β_i^b and β_i^w distributions are used as points estimated, and standard errors and confidence intervals are based upon the variation of the simulated values.

These parameters ($\lambda_i^b, \beta_i^b, \lambda_i^w, \beta_i^w$) do not reflect the row proportions that I am seeking to estimate; therefore, as I demonstrate in table (5.6), several transformations are needed in order to get the straight and split-tickets voting. Estimating these values does not just provide far more and better information about voting behaviour of different voters; it also creates new dependent variables that can then be used to study other influences on voter's decision (Benoit et al., 2004).

Table (5.6): Quantities to be Estimated and Transformed, as Required By King's Parameterisation.

Pr(UU)	$E(1-\beta_i^b)$	Proportion of frustrated *Ulivo* voters who stayed with an *Ulivo* candidate.
Pr(PP)	$E(1-\beta_i^W)$	Proportion of frustrated *Cdl* voters who stayed with a *Cdl* candidate.
Pr (UP)	$E(\lambda_i^b)E(\beta_i^b)$	Proportion of frustrated *Ulivo* voters who voted for a *Cdl* candidate.
Pr (PU)	$E(\lambda_i^W)E(\beta_i^W)$	Proportion of frustrated *Cdl* voters who voted for an *Ulivo* candidate.
Pr(PO)	$E(1-\lambda_i^W)\,E(\beta_i^W)$	Proportion of frustrated *Cdl* voters who voted for a candidate from the other cartel.
Pr(UO)	$E(1-\lambda_i^b)\,E(\beta_i^b)$	Proportion of frustrated *Ulivo* voters who voted for a candidate from the other cartel.

Source: Benoit et al. (2004: 341).

King's (1997) approach has some strong advantages over previous solutions. For one thing, it offers realistic assessments of the ecological uncertainty of ecological estimates. King's method has been evaluated with real data in several studies and is robust for aggregation bias. Also, his solution corrects for a variety of other serious statistical problems that affect ecological inference, such as the production of unrealistic results, as for instance percentages that add up to more than 100%.

A final remark concerning the validity of this statistical method is of duty. As explained, ecological inference problems arise from the lack of individual level information. As such, there is no unique method including

King's that will produce precise and accurate results in every instance. Having said this, statistics is a field in constant development and improvement, and this is the best solution available to us so far.

Explanatory Variables.

As I highlight in the theoretical section of Chapter (3.2), the overview of the relevant literature reveals that explanations of split-ticket behaviour are usually either candidate centred (focusing on individual characteristics of candidates), ideology centred (focusing on the distance between voters and candidates) and strategic consideration centred (highlighting the relevance of close races). The theoretical intuitions that I develop in that chapter highlight the need to assess a mixture of these explanations rather than selecting one alone. Consequently, the variables I use in this analysis reflect this holistic approach.

Parties' policy position: To address the role that ideology plays in affecting split-ticket behaviour, I need a measure that describes the positions of SMD running candidates. While voters possess imperfect information about policy positions of individual MPs, they use parties' policy preferences to draw useful inferences (Giannetti and Laver, 2008). Therefore, I adopt parties' policy positions as proxies for individual MP's positions.

Consequently, I go back to a concept I have already mentioned in this thesis, that of the "Inter-Coalition Midpoint" (ICM). In their analysis of the 1996 Italian elections Benoit et al. (2006) define the ICM as the "point

halfway between the positions of parties of the candidates offered by each coalition in the constituency in question" (14). They theorise that the position of the ICM affects the level of coalition splitting. When in a specific SMD the *Ulivo* places a left-wing candidate while the *Cdl* places a centrist candidate, the ICM will be to the left of the centre of the spectrum. In such a case they assume that *Ulivo* voters have more incentives to split compared to *Cdl* supporters. Conversely, when the *Cdl* places a right wing candidate and the *Ulivo* places a centrist one, *Cdl* supporters will have more incentives to switch compared to the *Ulivo* ones. In other words, they expect the F-UP to be negatively related to the position of the ICM, while F-PU to be positively related. This brings me to the first hypothesis of this chapter, the sixth of the thesis:

Hypothesis (6): The ICM is negatively (positively) related to Ulivo (Cdl) supporters split-ticket voting."

The nature of the electorate: this variable is necessary in order to control for whether the electorate is more biased to the right, or to the left. To do so, I first create a proxy for the nature of each district's electorate. I do this for both the centre-left's and the centre-right's electorates. If we consider a party's PR vote as the true representation of its electoral power, then by taking the average of the multiplication of the percentage share of PR votes of each party (of each coalition and within each district) with their policy positions we can obtain a proxy for that district's policy position. This proxy takes values

between 3.69 (min) and 7.07 (max) for the centre-left with an average value of (5.81). For the centre-right it takes values between 12.38 (min) and 16.88 (max) with an average value of (15.61). Then I create a dummy for each coalition, which I call "Electorate_type". For the centre-left electorate, the dummy takes values of 0 when the proxy is smaller than 5.81 (more left wing electorate), and takes values of 1 when the proxy is bigger than 5.81(more centrist). By the same token the dummy for the centre-right electorate takes values of 0 when the proxy is bigger than 15.61 (more right wing electorate), and takes values of 1 when the proxy is smaller than 15.61 (more centrist). Finally, I interact the ICM with "Electorate_type" to analyse the role played by the ICM when the district is moderate-intensive, or more extreme-intensive. In fact, I expect that the presence of extreme candidates does not contribute to high levels of split-ticket (as opposed to what hypothesised above) in those districts with an abundant 'extreme' (right or left) electorate. For example, if a district is predominantly *Lega Nord*-intensive, then the presence of a *Lega Nord* candidate against a *Margherita* candidate should not lead, everything else equal, to high split rates among voters. This brings me to the second hypothesis of this chapter, the seventh of the thesis:

Hypothesis (7): "the impact of the ICM is weaker in those districts where the median voter is skewed to the right (left)."

Strategic voting: A variable that captures voters' strategic considerations is utilized in many papers such as Bawn (1999) and Moser and Sheiner (2005). As they explain, many theories of strategic voting suggest that the number of strategic votes cast in close races is higher than those cast in those that are not close. What is troublesome, however, is that in both articles the authors use 'the difference between the vote percentage won by the candidates in the first and second place' for the same elections under scrutiny. This causes endogeneity because it is not possible to identify and isolate the causal effect of the closeness of the race over strategic voting and vice versa.[62] For the purpose of my analysis, I construct a continuous variable, "Closeness", that describes the absolute percentage vote difference between the first two candidates at the previous 2000 regional elections.[63] The smaller the value of this variable, the higher its competitiveness (marginal district). The expectations are that at high level of competitiveness voters have stronger incentives to stick with their cartels. However, at low level of competitiveness (safe or lost districts), voters might feel that their votes are not very significant or decisive, and therefore we observe increased rates of split-ticket behaviour. This brings me to the third hypothesis of this chapter, the eighth of the thesis:

[62] Sheiner (2005:268) admits this shortcoming but justifies the replacement with the lack of appropriate data.

[63] As I explained in Chapter 4, I use the regional elections because they were the closest ones. In fact the previous national elections took place in 1996. The 2000 regional elections took place in all but four regions. For those regions I use the European elections results for the same year instead. I ran a test to check that this difference is not statistically significant.

Hypothesis (8): "Split-ticket voting decrease in those districts where there is a close race compared to those districts which are a sure victory or a sure loss."

In his paper on Japanese election, Burden (Forthcoming) theorises a similar relation between the degree of competition within a district and split-ticket behaviour. In some cases, however, voters might refrain from supporting their party or the coalition their party belongs to even in those districts when it matters the most (marginal ones), because they are casting a personal vote. They opt for an opponent candidate because they personally like him more compared to the candidate who is on offer by the coalition. In other words, the absence of strategic voting could be interpreted as an indirect evidence for personal voting.

Incumbency: In order to test the role that personal voting plays in split-ticket behaviour I introduce a dummy variable. 'Incumbency' is coded 1 if the candidate won the specific district at the previous general elections (1996 elections), and 0 otherwise. I expect this variable to be negatively correlated with the probability of splitting the vote. This brings me to the last hypothesis of this chapter:

H9: "Party incumbency in a specific district decreases the probability of split-ticket behaviour."

5.2 Methodology.

Following Benoit et al. (2006) I apply the literature recommendation concerning the use of the estimated values from King's and Benoit's EzI as dependent variables in second-stage regressions.[64] As common practice suggests, any quantities not originally included as covariates in the first-stage EI estimation are not used in the second stage either (Adolph et al., 2003: 86–94). Furthermore, to take into account Heteroskedasticity, I use weighted least squares (WLS) using the estimated EI standard errors as weights.

As highlighted by Benoit et al. (2006: 476), split-ticket can be explained by a myriad of explanations. Limitations in terms of scope, estimation technique and measurement error can be attributed to the model, used in their paper as well as to its expanded version adopted here. Nevertheless, the several theoretically consistent, and significant relationships found provide strong evidence of a relationship between policy and vote choice at least among centre-right frustrated voters.

[64] This is known on the literature as EI-R.

5.3 Analysis and Results.

Table (5.7) reports the aggregate estimated rates of frustrated voters' coalition sticking and splitting in the plurality districts obtained using King's extended EI method. These aggregates are measured by weighting the individual districts estimates by the number of voters. Consistent with the observed aggregate marginals, King's estimates reveal sticking rates for *Ulivo* parties supporters of 81% (F-UU) compared to *Cdl* rates of 64.4% (F-PP). Interestingly enough, unlike the previous 1996 elections where a similar splitting trend was observed (*Cdl* losing about 35.4% of its supporters compared to *Ulivo*'s loss of 18.9%) the split-ticket phenomenon did not cause the defeat of the *Cdl*.[65]

Similar to the 1996 elections, in the event of switching, supporters of either of the two coalitions portray very low support rates for non-coalesced parties in the majoritarian tier. In fact, F-UO and F-PO portray values of 0.5% and 2% respectively.

[65] In 1996 the rate of coalition splitting for voters of Cdl in the PR tier was 35% (F-PU) compared to Ulivo's 21% (F-UP) (Benoit et al, 2006: 473).

Table (5.7): Mean Estimates of Frustrated Voters' Behaviour.

	SMD		
PR	Ulivo Coalition	Cdl Coalition	Other parties
Ulivo Supporter	Sticker F-UU 0.810 (0.730)	Switchers F-UP 0.139 (0.228)	Switchers F-UO 0.050 (0.03)
Cdl Supporter	Switchers F-PU 0.325 (0.125)	Stickers F-PP 00.644 (0.133)	Switchers F-PO 0.029 (0.028)
Supporters of Other parties	Switchers F-OU 0.332 (0.162)	Switchers F-OP 0.635 (0.623)	Stickers F-OO 0.032 (0.04)

* Standard errors in parentheses.

As mentioned before, the purpose of this chapter is to chew over replicate and extend the innovative work of Benoit at al (2006). In fact, while the main drive for party splitting for the authors is party proximity, I control for the districts' nature, in terms of both its electorate and of its winnability, which is needed in order to have a more complete picture of the situation. Therefore, I begin by testing the role of ICM alone in explaining split-ticket voting and I later expand this basic model demonstrating how the control variables improve the model. I begin by running equation (1) exhibiting the

results throughout Table (5.7). Therefore, in the first model I estimate the following equation:

$$DV_i = a + \beta_i icm + \varepsilon \ldots (1)$$

Where DV_i reflects the split-ticket estimates obtained with EzI programme.

Table (6.8): Second-Stage Weighted Least Square with (ICM) Only.

	(1)	(2)	(3)	(4)
	F-UU	F-UP	F-PP	F-PU
Icm	-0.003	-0.004	-0.034	0.027
	(2.85)**	(2.92)**	(24.31)**	(19.17)**
Constant	0.837	0.164	1.020	0.028
	(65.89)**	(9.74)**	(58.55)**	(1.79)
Observations	1272	1272	1083	1079
R-squared	0.01	0.01	0.30	0.25

Absolute value of t statistics in parentheses* significant at 5%; ** significant at 1%

I begin by discussing the results for the centre-right coalition (*Cdl*). Columns 3 and 4 of Table (5.8) are in line with the expectations and demonstrate that coalition sticking (F-PP) is negatively related to the Inter-Coalition Midpoint while coalition splitting (F-PU) portrays a positive sign. This suggests that *Cdl* voters tend to support the other coalition and split their vote in the scenario whereby the Inter-Coalition Midpoint tends to be to the right of the centre. This scenario takes place when, for example, the centre-right coalition places an extreme right candidate while the centre-left places a centrist one (column 4). Consistently with this result, when the Inter-Coalition Midpoint increases, coalition sticking tends to fall (column 3). This comes in

support of Benoit et al (2006), whereby they find the same results for the1996 elections.

For the centre-left, however, the results are puzzling. Unlike Benoit et al. (2006) who find the Inter-Coalition Midpoint to be positively correlated with centre-left sticking rates and negatively correlated with splitting rates, my results are not similar. In fact, while the coefficients are all statistically significant, not all signs conform to the expectations of the model. In fact, the results reported in columns (1) and (2) of Table (5.8) suggest that the Inter-Coalition Midpoint has the same 'negative' effect on sticking and splitting rates of centre-left voters. Furthermore, as I demonstrate below, most of these inconsistencies, on the centre-left side, with the theoretical expectations are carried on in the extended model discussed below. There is reason to believe that the behaviour of *Rifondazione Comunista* (the extreme left party which did not run in the SMDs but ran only in PR districts) affect the validity of the model for the voters of the centre-left. In fact, unlike centre-right voters, a fraction of centre-left ones face different choice options across the two tiers.

As I explain in the theory section, I argue that it might be important to take into account the nature of each district to assess the presence and extent of strategic considerations. By 'the nature of a district' I mean both its safety in terms of winnability, as well as in terms of the nature of the electorate. Furthermore, a control for personal voting should also be introduced. For

these purposes, like equation (2) below shows, I augment the original equation with three more variables:

$$DV_i = a + \beta_1 icm_i + \beta_2 Incumbency + \beta_3 Closeness + \beta_4 Icm * Electorate\_type + \varepsilon ...(2)$$

In particular, I have added "Incumbency" to control for personal voting and 'Closeness' to control for strategic voting. I also added an interaction term between the Inter-Coalition Midpoint and the dummy that describes the nature of the electorate. This is done in order to allow for the Inter-Coalition Midpoint to have a different impact on the dependent variable depending on the safety of the district as well as the distribution of voters. Table (5.8) below reports the results of this second expanded model.

Table (5.9): Complete Second Stage Weighted Least Square (WLS) Model.

	(1)	(2)	(3)	(4)
	F-UU	F-UP	F-PP	F-PU
Icm	-0.003	-0.002	-0.034	0.016
	(2.61)**	(1.36)	(19.09)**	(8.18)**
Incumbency	0.001	0.002	-0.00041	-0.006
	(0.81)	(0.44)	(0.10)	(1.42)
Closeness	0.0005	0.007	-0.002	0.0004
	(0.11)	(2.67)**	(16.19)**	(2.80)**
Icm*Electorate_type	0.000	0.000	-0.006	0.006
	(8.21)**	(1.51)	(18.39)**	(19.58)**
Constant	0.815	0.102	1.072	0.065
	(66.82)**	(6.94)**	(52.80)**	(2.94)**
Observations	1272	1272	1083	1079
R-squared	0.12	0.28	0.51	0.32

Absolute value of t statistics in parentheses. * Significant at 5%; ** significant at 1%.

While I will start by addressing the results concerning the centre-right coalition, the variable Incumbency needs to be singled out right away. The sign of this variable is in line with theory only in two instances; column (1) and (4). This would suggest that when centre-left voters find a centre-left incumbent as a candidate in their district they are more likely to stick with their coalition. Similarly, centre-right voters who find a centre-right incumbent as a candidate in their district are less likely to cast a split-ticket vote. Nevertheless, not only are the incumbency estimates for centre-left splitters and centre-right stickers inconsistent with expectations, but the coefficients for all four estimates are statistically insignificant. This indicates that there is no evidence, in this model, for a role of personal characteristics when explaining split and stick voting among Italian voters.

I move now to the discussion of the other variables of the extended model starting with the centre-right. To begin with, in this extended model the Inter-Coalition Midpoint (ICM) still portrays statistically significant coefficients with the expected signs. As the Inter-Coalition Midpoint increases, I observe decreased rates of sticking and increased rates of ticket splitting among centre-right voters. The marginal effect of Inter-Coalition Midpoint on coalition sticking should also be measured, and it is calculated as $\beta_1 + \beta_4 Icm * Electorate\_type$. Given that, for centre-right stickers, β_1 and β_4 are all negative and "Electorate_type" takes on values equal or greater than zero, the marginal effect of Inter-Coalition Midpoint on centre-right

coalition sticking rates is negative as suggested by the econometric estimates of the baseline specification (equation 1). However, the significance of β_4 suggests that the impact of Inter-Coalition Midpoint coalition sticking varies with the nature of the electorate. In line with Hypotheses (7), when taking into account the distribution of voters in the districts, coalition-sticking estimates portray an opposite and statistically significant sign (column 4). The negative sign of β_4 suggests that the Inter-Coalition Midpoint has a stronger negative impact in reducing coalition sticking in those districts where the median voter is to the left of the centre of the coalition (in other words in those districts with a higher concentration of centrist voters like *Udc*). Likewise, the Inter-Coalition Midpoint has a weaker negative impact on splitting and sticking in those districts where the median voter is to the right of the centre (where there is a rightward bias)

The results portrayed in Table (5.8) reinforce the results of Benoit et al. (2006) as Inter-Coalition Midpoint has a positive impact on centre-right coalition splitting and a negative impact on centre-right coalition sticking. Nevertheless, this new operationalisation suggests that the effect of the Inter-Coalition Midpoint does vary according to the different nature of the electorate. This sheds some more light on the dynamics that govern voters' electoral behaviour. In fact, notwithstanding the small magnitude of interaction terms' coefficients, the results suggest that choosing extreme candidates to run in a district always increases the level of centre-right

coalition splitting. However, this effect tends to be stronger in more moderate districts.

Finally, both sign and significance of the variable 'Closeness' suggest that some forms of strategic consideration do take place. In line with Hypothesis (8), the negative sign of F-PP (that is the share of *Polo* frustrated voters who stick with the *Polo* candidate) suggests that as "Closeness" decreases (i.e. the difference between the first two candidates decreases) sticking increases. As hypothesised, in those districts where the run is close, voters strategically stick with their coalition. Similarly, the positive sign for splitting estimates, suggests that as "Closeness" decreases splitting also decreases.

Turning to the centre-left, econometric estimates do not deliver results as neat and as consistent with theory as it is the case for the centre-right. There are serious indications that the centre-left party scenario in Italy in 2001 stands as an obstacle in the face of the creation of accurate variables. As quickly touched upon above, in the 2001 elections the extreme left party *Rifondazione Comunista* decided not to enter the majoritarian competition. This causes serious repercussions as it creates substantial noise in the variables that are used for the Bayesian estimations. In fact, the difference between the sum of the proportional votes received by parties within the *Ulivo* coalition and the sum of votes received by the *Ulivo* in the majoritarian tier do not only reflect conventional trends of vote-splitting towards the *Cdl* coalition.

This vote gap (portrayed in Table 4.2) in fact reflects by far *Rifondazione's* supporters who vote for their party in the proportional tier. Under this unconventional trend of massive 'aggregate' splitting, I believe that perhaps it might not be entirely correct to rely on King's algorithm. In fact, while some could suggest running King's algorithm considering *Rifondazione Comunista* as part of the *Ulivo* coalition, estimates drawn from ITANES 2001 suggest that this is not entirely correct. In fact, while the majority of those voters who reported voting for *Rifondazione Comunista* in the proportional tier supported *Ulivo* in the majoritarian elections, a non-negligible minority (about 11%) declared of supporting the *Cdl* and other minor parties (questions E18 and E20 of ITANES 2001).

Columns (1) and (2) in Tables (5.7) and (5.8) portray the regression results of the basic model and of the more extended model. Whilst many variables appear to be statistically significant, very few of the covariates exhibit the expected sign. With the above intricate dynamics taking place on the centre-left's side, the 2001 results for this alliance represent a unique scenario that apparently does not lend itself to the use of King's methodology.

5.4 Conclusions.

To what degree do mixed electoral systems affect the incentive structure of voters? Using a Bayesian algorithm to simulate missing individual level data I investigated the role of the distance between the PR candidate and the SMD candidate in affecting voters' incentives to split. The nature of the variables used is dictated by the nature of the data. In fact, because in this analysis I employ aggregate level data, aggregate level variables are a must.

In terms of results, due to the poor quality of the data for the centre-left, the analysis conducted on this alliance is rather inconclusive. In fact, the data I use to make inference about the left coalition is not 'clean'. As mentioned before, the extreme left party *Rifondazione* made an electoral agreement with the *Ulivo* coalition about not running in SMDs. In other words, when I create the aggregate values of vote shares for *Ulivo* voters, the value is biased as it also includes *Rifondazione* voters. Consequently, I cannot isolate the impact on split-ticket decisions that might result from this action.

The same cannot be said about the centre-right, where building the database was more straightforward due to a less colourful party scenario in terms of old and new units. This analysis confirms the work carried out by Benoit et al. (2006) concerning the important role played by the distance between the PR and SMD candidates. This distance, known as the variable Inter-Coalition Midpoint, operationalised as the point halfway between the positions of parties of the candidates offered by each coalition in the

constituency in question, appears to play a central role in explaining split-ticket voting. Unsatisfied with this variable alone, I extended the analysis to study the role of this variable in different scenarios. More specifically, I investigated how the impact of this variable changes in different districts in terms of the nature of its voters. The results highlight the importance of taking into account this element. The results also demonstrate how, for the centre-right, the positive impact of Inter-Coalition Midpoint on coalition splitting is higher in those districts with a high concentration of non-centrist candidates. As the distance between the position of a voters' preferred candidate (operationalised as his PR choice) and the position of the candidate selected by the coalition to run in the SMD increases, split-ticket increase. This phenomenon is stronger in those districts more biased to the centre, or in other words where the ratio of centrist voters to extreme right voters is high. Furthermore, the results reveal voters' strategic considerations. In fact, less split-ticket occurs in those districts where there is a close race between the first two candidates. Overall, these results suggest the prevalence of ideological and strategic explanation for split-ticket voting over explanations based on candidates' specific characteristics.

CHAPTER 6 - THE IMPACT OF MIXED ELECTORAL RULES ON THE INCENTIVE STRUCTURE OF LEGISLATORS.

To investigate how the rules adopted in Italy between 1994 and 2006 affect the incentive structure of legislators, and consequently affect their behaviour, is the last of the three main questions posed by this thesis. As I highlight in the theoretical Chapter (3.3), from a theoretical standpoint the academic research in this realm focuses on comparing the behaviour of MPs who are elected through the PR tier and those who are elected through the majoritarian one. In other words, available research focuses on the relationship between mandate and legislative behaviour under distinct electoral rules. From Chapter (3) it emerges that the general trend is to theorise that legislators who are elected through the PR ballot are more dependent on their party for election and career advancement vis-à-vis SMD ones.

However, such existing theoretical account looks at mixed systems as the union of two separate units. The interaction logics previously touched upon urge us to develop a model that takes this interaction into account. This is why I supplement the above views with my new theoretical model borrowed and adjusted from the political economy literature combining the work of Denzau and Munger's (1986) and that of Bawn and Thies (2003).

In my model the important assumption is that 'in order to maximise her chances of re-election an MP faces the trade off between voting in line with national interests (voting according to party lines) and between voting in line with more local interests (drifting away from party lines). This is with the exception, of course, of those situations where the two coincide. Consequently, I theorise that an MP would drift away from party lines in those instances where she believes that such behaviour would not affect in a negative way her chances of being re-elected. The scope of the theoretical model consists in identifying a set of MP's characteristics and districts' characteristics that make MPs drift away from party lines and consequently favour local politics versus national ones.

From the empirical standpoint, after examining the existing research in mixed electoral contexts, I found that there is no clear agreement as these studies reach quite diverging conclusions on the role that mandate plays in explaining legislative voting behaviour. As I also discuss, the work of Ferrara (2004), which follows from the work of Herron (2002), makes some relevant steps ahead compared to previous work (s.a. Haspel et al., 1998;Remington and Smith, 1995; Thames, 2001; Smith and Remington, 2001). In fact, both Ferrara and Herron go beyond the classical approach of simply looking at mandate (proportional or majoritarian mandates) and they enrich the analysis by using separate indicators of electoral path (winning the PR tier only, winning the plurality tier only, or winning both). While this *per se* represents

an improvement of the original work on legislative behaviour, I demonstrate in Chapter (3.3) an essential drawback of such an approach. In fact, in reality one cannot separate between the political mandate of an MP and her electoral path. Therefore, classifying MPs according to their mandate (PR or SMD) alone is inaccurate. The classification must simultaneously reflect 'mandate' and 'electoral path', which leads to a six-category variable. Another important improvement of this thesis, highlights in that Chapter, is the use of RC data as opposed to simple roll call votes.

This chapter is structured as follows. First, I introduce the data and variables necessary to test the theoretical arguments advanced in Chapter (3.3). Detailed hypotheses are introduced in connection with every relevant variable. This is followed by a discussion of the methodological tools employed. Finally, I conclude with a discussion of the main results.

6.1 Data and Variables.

Dependent Variable

It is standard practice in studies of party discipline and those of legislative behaviour to look at the distance between MPs' positions and that of their party. Consequently, measures of both positions are necessary. There are several ways to assign policy positions to politicians. A simple and straightforward method is to directly ask them to make a subjective evaluation by placing themselves on scaled right-left continuum. This is similar to Benoit and Laver's (2006) approach whereby they ask a number of political experts to make a subjective judgement about parties' right-left placement. An alternative, more mathematically challenging, but more practical and feasible method is to infer policy position from studying politicians' voting patterns. This method is called NOMINATE.

NOMINATE theoretical grounding lies in the spatial theory of voting, whereby MPs are assumed to have single peaked preferences (where peaks are called bliss points) over an *n*-dimensional space, which is the task of the NOMINATE method itself to identify. NOMINATE calculates the 'revealed' position of each MP based on an alternating three step algorithm using roll call votes (Poole and Rosenthal, 1997).[66]

[66] NOMINATE assumes that each legislator I has a utility function over the policy outcome y on vote j of: $U_{ijy} = u_{ijy} + \varepsilon_{ijy} = \beta \exp\left[-d^2_{ijy}\right] + \varepsilon_{ijy}$, whereby s is the number of policy dimensions (k=1,2,...,s), p is the number of legislators (i=1,2, ..., p), q is the number of roll-

The specific data used in this chapter comes from applying the above method to 242 bills collected that were voted by 642 MPs during the XIII Italian legislature (Landi and Pelizzo, 2006a).

With this data Landi and Pelizzo (2006a) create a map of the Italian political space, which gives a picture of the location of parties and the dimensions governing the XIII Italian Parliament. They suggest that the horizontal dimension reflects loyalty to either the centre-left or the centre-right coalitions. In the second dimension, instead, parties' positions reflect a north-south divide.

The analysis of this chapter is only concerned with the study of legislative behaviour through looking at the first dimension mainly because of the nature of the second dimension. As Landi and Pelizzo (2006a: 20) note, the distribution of parties along the second dimension is correlated with territorial ties of parties, i.e. a North-South divide. By looking at the

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call votes (j=1,2, ...,*q*), u_{ijy} is the deterministic portion of the utility function while ε_{ijy} is the stochastic portion, and *d* is the Eucledian distance between x_i and z_{jy} (the former being a vector of x_i's ideal points of lengths *s* and the latter being a vector of roll call votes of lengths *s*). Finally, the coefficient β is a constant, whereby as β increases, the deterministic component of the function also increases relative to ε resulting in perfect spatial voting. Instead, as β decreases, voting becomes random. The assumption that the stochastic term ε reflects a logit distribution allows the likelihood that a legislators votes, 'yes' or 'no', to be computed using standard logit arithmetic. Finally, by maximising the constructed likelihood function we can obtain the model's parameters or in other words the dimensions of the political space as well as the ideal point of each legislator. For a more detail account see Poole and Rosenthal, 1997: 233-251.

improvement in Aggregate Proportional Reduction in Error (APRE)[67] reported in Table (6.1) below, and when moving from one to two dimensions, we only note an improvement of 6.8%. Such figure is not considerably 'high' according to the relevant literature standards. Furthermore, while the percentage of correct classified in the first dimension (PCC1), which is a goodness of fit statistics, is 96.192, adding a second dimension improves the PCC only very minimally (PCC" equals 97.694). This leads me to assume that the second dimension is only noise and can be therefore discarded from the analysis.

Table (6.1): Summary Statistics of NOMINATE Scores.

Roll-calls read	630
Cutoff for bills	0.025
Number rejected	388
Number accepted	242
Legislators read	651
Cutoff for MPs	20
Legislators read	651
Cutoff for MPs	20
Number rejected	9
Number accepted	642
PCC(1)	96.192
APRE(1)	0.827
PCC(2)	97.694
APRE(2)	0.895
PCC(3)	97.94
APRE(3)	0.906
APRE(2) - APRE(1)	6.8%
APRE(3) - APRE(2)	1.1%

Source: Landi and Pelizzo (2006a: 6).

[67] APRE scores indicate how classification results from a simple spatial model improve upon classification results from a more basic benchmark model. A higher APRE signifies a greater degree of improvement.

Figure (6.1) below provides a graphical illustration of the distribution of Deputies' NOMINATE scores on the first dimension.

Figure (6.1): Distribution of Deputies' NOMINATE Scores on the First Dimension.

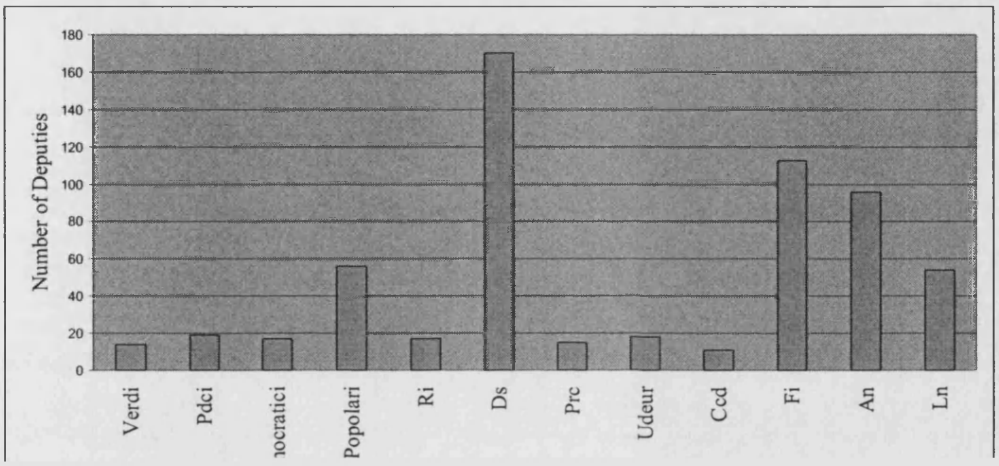


Table (6.2): Descriptive Statistics of the Logarithmic Function of the Dependent Variable (DV).

Variable	N	Mean	Std. Dev.	Min	Max
Ln(DV)*	599	-3.30	1.16	-6.91	0.14

*The dependent variable is operationalised as the natural logarithm of the absolute distance between a legislator's NOMINATE score and the mean NOMINATE of all the legislators in her party on the first dimension

The choice of the logarithmic function is dictated by the nature of the data. Figure (6.2), which shows a histogram of the frequency of the 'absolute distance between an MP and her party', indicates that its frequency is clearly log-normally distributed. This implies that its logarithm is normally distributed, and is graphically displayed in Figure (6.3). Therefore, as it is common in applied econometrics, I have taken the log of the 'absolute distance between an MP and her party' as my dependent variable.

Figure (6.2): The lognormal Distribution of the Absolute Distance Between an MP and Her Party Mean.

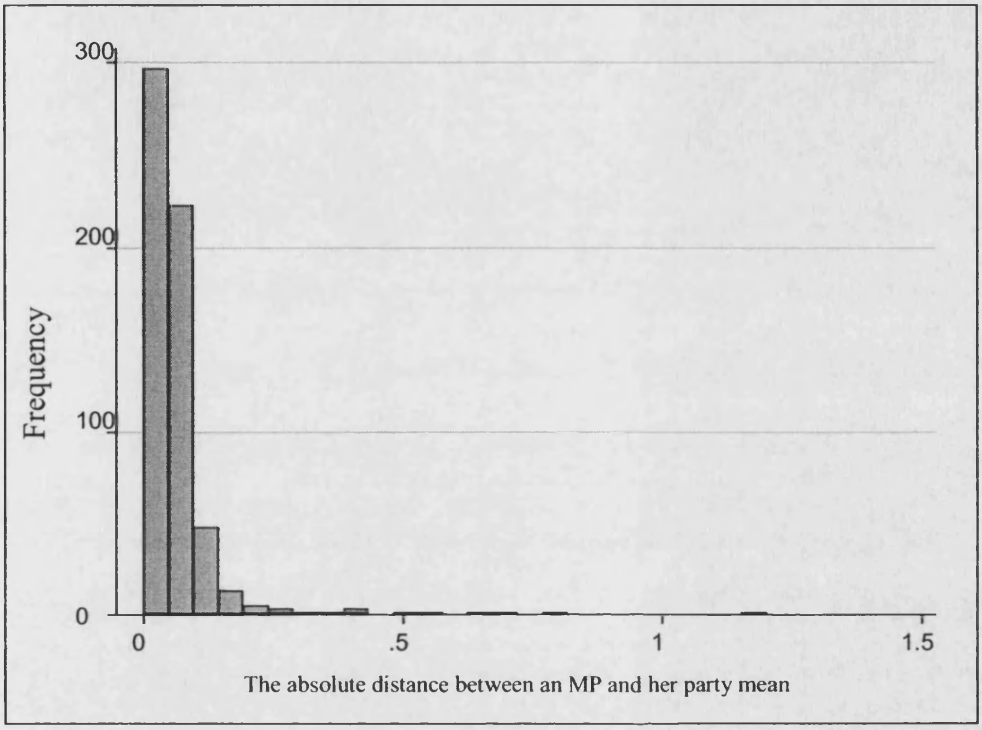
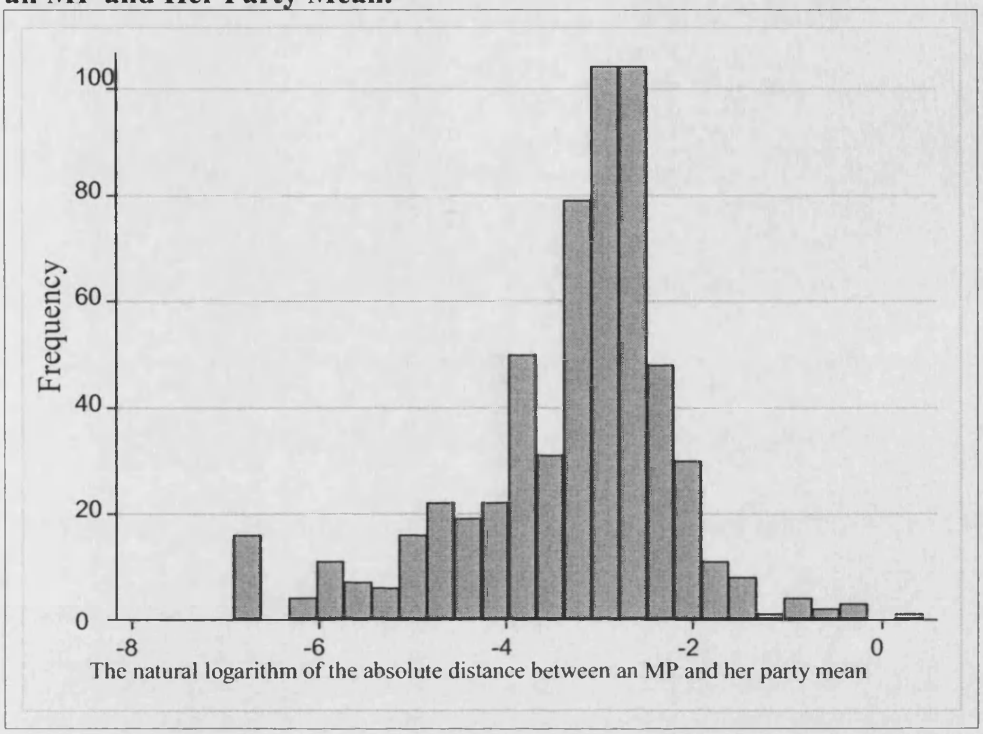


Figure (6.3): The Natural Logarithm of the Absolute Distance Between an MP and Her Party Mean.



Explanatory Variables

In order to test the theoretical model and to develop appropriate hypotheses, the first step is to classify MP depending on both their mandate

choose the SMD one. Consequently, this category (number 4 below) is omitted from the analysis.

Table (6.3): Possible Ways of Competing in Districts and Obtaining a Parliamentary Seat.

Category	Number of observations
1) Running in a PR district only and winning it.	99
2) Running in an SMD district only and winning it.	409
3) Running in both tiers - winning in both - choosing the SMD one.	16
4) Running in both tiers - winning in both - choosing the PR one	0*
5) Running in both tiers - winning only the SMD one.	56
6) Running in both tiers - winning only the PR one.	62
Total	642

* This category is excluded

As explained in the theory section (3.3), the explanatory variables used in my theoretical model fall into two categories; candidate-specific variables and district-specific ones.

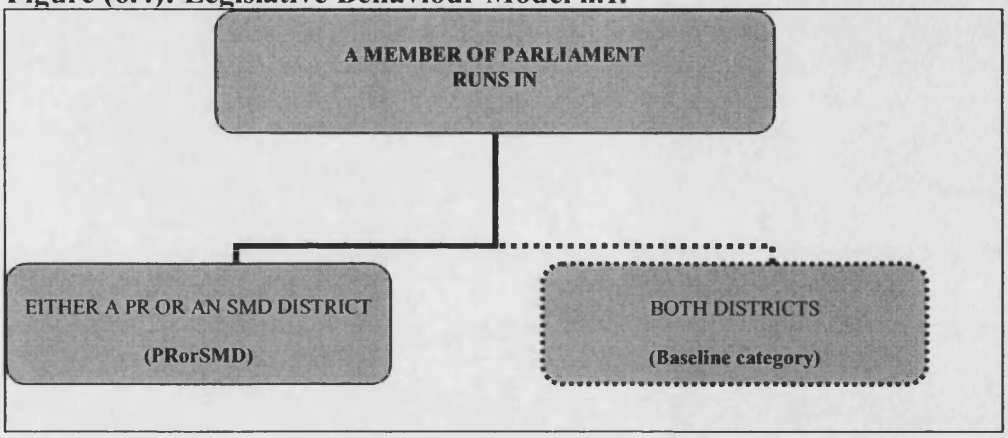
Candidate-specific variables

Path. This variable reflects the path of each MP to her seat. As originally theorised, I will look at three different models in which this variable is assessed at different levels of analysis.

In the first model (see Figure 6.4 for a graphical illustration) I simply compare those MPs who run in either tier only (as those running in a pure proportional or majoritarian system) with those who run in both tiers

simultaneously. For this purpose I use variable (**PRorSMD**) that takes the value of 1 for MPs running in only one tier and 0 otherwise.

Figure (6.4): Legislative Behaviour Model n.1.



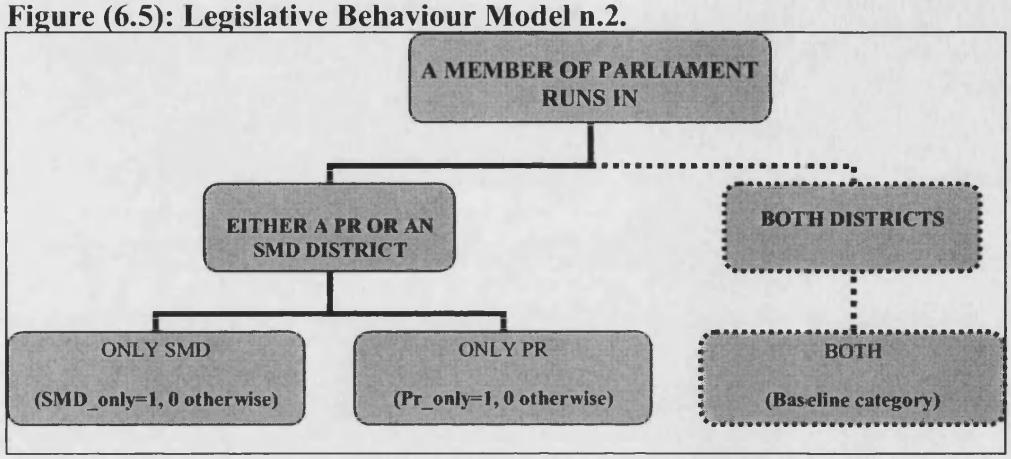
The weakness of this operationalisation consists that it reflects a level of aggregation that excludes information about the mode of victory (winning both or just one seat). Nevertheless, running in both tiers does reflect the fact that a party invested the candidate with a double share of party trust. Compared to the other category of running in only one tier, double runner MPs might have confidence in the fact that deviations form party lines might not be very costly. This brings me to hypothesis number (10):

Hypothesis (10): "Candidates running in both the proportional and majoritarian tiers simultaneously display a lower tendency to comply with party lines compared to legislator who run in only one tier."

In the second model (see Figure 6.5 for a graphical illustration) I break down the first category into two distinct ones, obtaining a total of three categories: **SMDonly** (equals 1 when an MP runs in a SMD district only, 0 otherwise), **PRonly** (equals 1 when an MP runs in a PR district only, 0

otherwise) and **Both** (equals 1 when an MP runs in both districts, 0 otherwise).

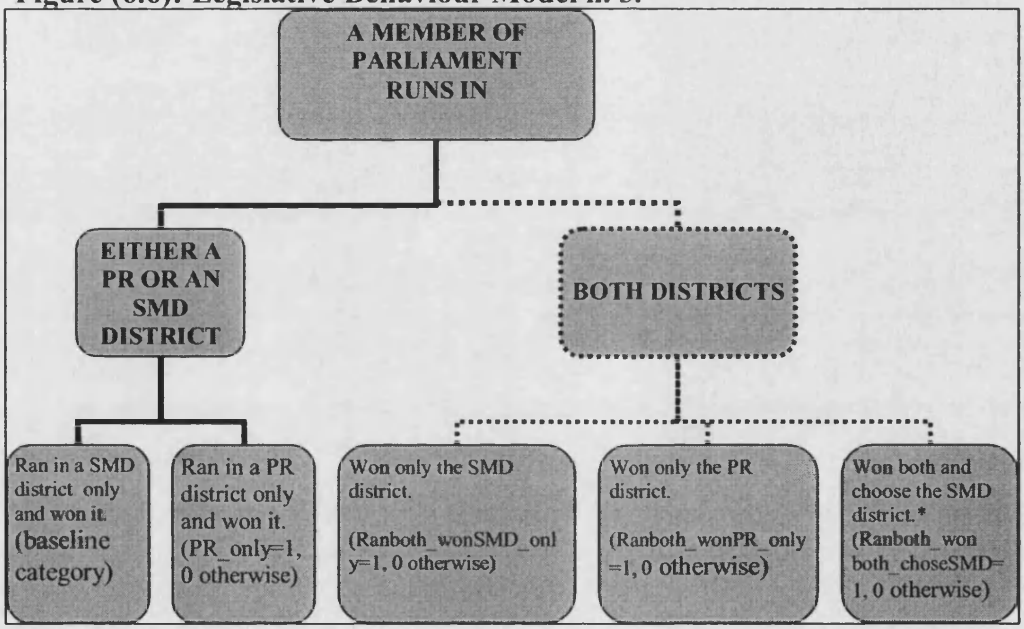
Figure (6.5): Legislative Behaviour Model n.2.



The intuitions developed in the theoretical chapter coupled with the above operationalisation lead me to the second hypothesis of this chapter:

an MP runs in both SMD and PR districts and wins only the PR one, 0 otherwise), and **Ranboth_wonboth_choseSMD** (equals 1 when an MP runs in both SMD and PR districts, wins both and choosing the SMD one, 0 otherwise). Among the 642 MPs of this analysis 409 fall in the first category, 99 in the second, 16 in the third, 56 in the fourth and 62 in the fifth.

Figure (6.6): Legislative Behaviour Model n. 3.



* The original model theorises an additional option: won both districts and chose the PR one. However, there are no observations under this option and it was, therefore, excluded from the graph and from the analysis.

This brings me to the third hypothesis of this chapter, the twelfth of this thesis:

Hypothesis (12): "Candidates running in both the proportional and majoritarian tiers simultaneously and winning both will display a lower tendency to comply with party lines compared to legislator who run in both but win only one of the two."

Incumbency. Incumbency is coded 1 for those MPs who also served in the previous legislature and 0 otherwise. Incumbent legislators are expected to have gained both party and voters' support and therefore are less party dependant in their endeavour to gain re-election vis-à-vis newly elected ones. I consequently expect this variable to display a positive sign. [68]

Tenure. Tenure reflects the number of legislatures that an MP served in Parliament and it ranges between 0 and 13. I introduce this variable to control for the fact that party leaders, or important party members, are often elected in safe districts or high in party lists. Failing to control for this variable could lead to under estimating the effect of seat safety (both PR and SMD) on the propensity of an Italian legislator to vote against her party. Consequently, the next hypothesis becomes:

Hypothesis (13): "Incumbent legislators or those with multiple mandates display a lower tendency to comply with party lines compared to legislators at the first mandate."

Parties. I introduce 11 dummies to control for the type of partisan affiliation using the party *Forza Italia* (*Fi*) as the reference category. This is in line with the literature on legislative behaviour in order to control for possible variation in the cohesiveness of political parties (Haspel et al. 1998; Herron, 2002; Remington and Smith 1995; Thames, 2001). Controlling for factions is

[68] Again, a positive (negative) dependent variable sign suggests a larger (smaller) absolute distance between the legislator's NOMINATE score and that of the mean of her party. In other words, less (more) cohesion.

necessary. In the case that some included regressors are correlated with the party dummies, failing to control for that would lead to biased coefficients. Also in line with the literature deputies are coded on the basis of their final partisan affiliation, not their initial one. However, as an extra robustness check I run the models excluding those candidates who switch.

Switch. Among the 642 MPs of this analysis, 58 switched party between 1996 and 2001. To control for the effect of changing factional affiliation, I included the dummy variable **switch** that is commonly used in the literature (Thames, 2002; Herron, 2002). In this instance is coded 1 for those legislators who left their party for another one during the legislature and 0 otherwise. It is interesting to note that this sample is one of moderate rates of switching if compared to other Parliaments. For example in the Russian Duma between 1994 and 1995 the rate of switching was about 25%, which renders it more difficult to define factional affiliation (Haspel et al., 1998: 427).

Gender. This control variable is coded 1 for female MPs and 0 for male ones. Given the low number of female candidates in the Italian political scenario, it is reasonable to expect female MPs to portray higher rates of sticking with party line to improve their probability of being selected by their party at future elections. Consequently, I introduce hypothesis (14):

Hypothesis (14): "Female legislators have a greater tendency to comply with party lines compared to male legislators."

Finally, a last remark about other candidate specific variables is of duty. Following Herron (2002), for those MPs with dual candidacy, I created four dichotomous variables to test their theory about the simultaneous impact of the SMD safety and the list rank (safe/high, safe/low, unsafe/high and unsafe/low). Nevertheless, I excluded them from the analysis because one of them displayed very little variability, which turns out to be not estimable. Even when the three remaining variables are added they are not statistically significant. As for the remaining variables of my model, they maintained their sign even if their statistically significance drops somewhat for some of them.

District-specific variables.

District Type. In order to control for the role that the type of district plays in affecting legislative behaviour of MPs, I introduce two variables one for SMD districts and one for PR ones. The safety of SMD seats, **Safety(SMD),** is measured by taking the natural logarithm of the absolute difference in percentages between the first and second candidates. The smaller the value the more contested the district. The value of this variables ranges between 0.03% and 67.42% for SMD districts and it takes a value of 0 for PR ones.[69] Less safety can be translated in more 'need' at future elections of a better (safer) district to increase the chances of victory. Therefore, I expect **Safety(SMD)** to display positive a sign. The safety of a PR seat, **Safety(PR),**

[69] This variable has an average of 11%, and values above 50% occur in only 5 districts.

is measured as the natural logarithm of a continuous variable measured by "dividing the effective vote received by their party list in a constituency where they were elected by the number of Hare quotas needed for them to be guaranteed a seat" (Ferrara, 2002: 13-14). When the raw figure (without logarithm) is higher than 1, it means that the party received an effective vote higher than the quotas actually needed to win that particular seat (given the candidate's position on the list). If the figure is lower than one, it means that the candidate was elected thanks to remainders or thanks to another candidate's renunciation. Therefore, I also expect this variable to positively affect the propensity of MPs to vote against her party lines.[70] This brings me to the last hypothesis of this chapter:

Hypothesis (14): "Legislators in lost seats in terms of 'winnability' need the party to improve their electoral conditions and therefore portray a more cohesive behaviour more in line with the party vis-à-vis other legislators."

[70] In the analysis section I mention that PR legislators who are highly ranked on list will be likely top behave differently than those on a low rank. In the relevant literature such ranking is considered 'high' when the ratio of the party effective PR vote to the Hare quota needed for the MP to get a seat in the district where she was nominated is greater or equal to one (Ferrara 2002: 14). When I created a dummy variable on this basis, it correlated at more than 80% with the explanatory variable Pr_safety. Therefore, a high Pr_safety can also be said to correspond to a high list ranking.

6.2. Methodology.

To test the above hypotheses I run three different models. All the regressions are estimated with OLS with robust standard errors adjusted for correlation within clusters, where clusters are parties. This takes into account the possibility that error terms are correlated for MPs belonging to the same party. Failing to control for this effect might lead to biased standard errors, invalidating the statistical inference (Greene 2003).

The three models differ in the categorization of an MP's path to her electoral seat. So, with the exception of the operationalisation of this variable the control variables remain the same. To begin with, and in order to test whether MPs who run in one tier behave differently than those who run in two simultaneous tiers I run the following model:[71]

$$\ln y_i = \beta_0 + \beta_1 PRorSMD_i + \beta_2 Incumb_i + \beta_3 Gender_i + \beta_4 Switch_i + \\ + \beta_5 Safetysmd_i + + \beta_6 Safetypr_i + \beta_7 Safetysmd * tenure_i + \beta_8 Safetypr * tenure_i + \\ + \beta_9 Gender * tenure_i + u_i ...(1)$$

whereby y_i is the absolute distance between a legislator's NOMINATE score and the mean NOMINATE of all the legislators in her party on the first dimension.

[71] A full set of 11 party dummies was also included in the regression. It was omitted from the equation for practicality. See operationalisation of $u_i = v_g + e_i$ in the text.

In the second model I run the following equation:

$$\ln y_i = \beta_0 + \beta_1 PRonly_i + \beta_2 SMDonly_i + \beta_3 Incumb_i + \beta_4 Gender_i + \beta_5 Switch_i + \\ + \beta_6 Safetysmd_i + \beta_7 Safetypr_i + \beta_8 Safetysmd * tenure_i + \beta_9 Safetypr * tenure_i + \\ + \beta_{10} Gender * tenure_i + u_i ...(2)$$

Finally, the equation of the full model looks as follows:

$$\ln y_i = \beta_0 + \beta_1 PRonly_i + \beta_2 Ranboth\_wonSMDonly_i + \beta_3 Ranboth\_wonPRonly + \\ + \beta_4 Ranboth\_wonboth\_choseSMD + \beta_5 Incumb_i + \beta_6 Gender_i + \beta_7 Switch_i + \\ + \beta_8 Safetysmd_i + + \beta_9 Safetypr_i + \beta_{10} Safetysmd * tenure_i + \beta_{11} Safetypr * tenure_i + \\ + \beta_{12} Gender * tenure_i + u_i ...(3)$$

In all the above equations u_i can be expressed as follows:

$u_i = v_g + e_i$, where v is a fixed party effect and e is the classic error term. In other words, I estimate the equations above including a full set of party dummies which are, therefore, treated as fixed effects and which are estimated together with the other regressors. To further take into account potential correlation within parties I have used standard errors robust to within group clustering.

6.3. Analysis and Results.

A quick look at the results of the three models suggests that no matter which of the three levels of analysis is considered, the coefficients and their significance in the rest of the model are not particularly affected. This is further evidence to the robustness of the models as a whole.

As in all the three models, in the first one I investigate *candidate-specific* and *district-specific* variables and their role in affecting the propensity of a legislator to vote against her party. In particular, I compare the legislative behaviour of MPs who run in either tier (that is only PR or only SMD) to those who run in both tiers simultaneously. As Table (6.4) demonstrates, among the candidate-specific variables only the control variables 'Switch' and several party dummies appear to be statistically significant at different significance level.[72] Surprisingly, and unlike postulated through hypotheses (11) and (13), 'Incumbency' and 'Gender' do not display significant coefficients and consequently do not help explaining legislator's voting behaviour. In terms of the variable 'PRorSMD' (Column1), the coefficient suggests that those legislators who only run in one tier do not appear to portray a higher propensity to vote against their party in respect to those who run in both. It is important to reiterate that this model reflects a high level of aggregation. Legislators who run in either a PR or an SMD district are

[72] Note that most of the party dummies are individually statistically significant. I also tested for joint significance of the party dummies and I had to reject the null hypothesis that they are jointly equal to zero at the conventional levels of confidence.

aggregated together under one roof. Likewise, legislators who run in both tiers, but who actually win either or both, are aggregated also under one tier.

Moving to the district-specific variables, I only find 'Safety(SMD)', the natural logarithm of the safety of the SMD, to portray a positive and significant sign. As anticipated in Hypothesis (14), this result suggests that as the safety of SMD increases, the propensity of an MP to vote against their party lines increase. In fact, MPs who occupy more precarious majoritarian seats need their party more than those standing in safer and more winnable seats. Consequently, they display stronger incentives to demonstrate loyalty to their party, by voting more in favour of its lines, so as to win its needed future support. The same cannot be said about PR legislators who are placed on lower party lists.

As I explain in the above data section, I include the variable 'Tenure' as an interaction with 'Safety(SMD)' and 'Safety(PR)' in order to control for the fact that party leaders or important party members (both with a long tenure) are often elected in safe districts or high in party lists. Failing to control for this variable could lead to under estimate the effect of seat safety (both PR and SMD) on the propensity of an Italian legislator to vote against her party. When such interactions are included, the coefficient of 'Safety(SMD)' and 'Safety(PR)' should be interpreted as the impact of 'Safety(SMD)' (or Safety(PR)) on the dependent variable for a legislator with 0 level of tenure. Again, only the interaction with 'Safety(SMD)' shows signs of significance.

The negative sign suggests that at higher levels of seniority the effect of 'Safety(SMD)' on the propensity of legislators to vote against their party gets weaker. On the one hand, it is not such a big finding *per se* to find that more senior legislators, who run in safe districts, vote with party lines (as I previously mentioned they are the one who dictate those line). However, failing to control for this effect would tend to produce an 'average' magnitude for the 'Safety(SMD)' that could be misleading for non-senior legislators. For example, for SMD legislators a higher seat safety tends to increase the propensity of an MP to vote against her party lines but only for legislators at their first or second legislature (i.e. with a tenure lower or equal than 1). For MPs with tenure between 2 and 5 the effect of seat safety on the dependent variable is not significantly different from zero. For MPs with a tenure higher than 5 the impact of seat safety is to increase party loyalty. [73] Mathematically, the marginal impact of safety on the propensity of an MP to vote against her party lines can be expressed as

$$\frac{\partial Y}{\partial SMDsafety} = b + c * seniority$$, whereby "Y" is the dependent variable,

"*b*" is the coefficient of 'Safety(SMD)', and "*c*" is the coefficient of the interaction term between 'Safety(SMD)' and seniority.

While the gender *per se* of a legislator does not seem to affect her propensity to vote against her party, the variable's interaction with tenure

[73] In this analysis there is a total of 14 legislators who served in 6 or more legislatures.

suggests different results. In fact, female legislators at their first or second legislature do not behave differently than their fellow male colleagues. However, female legislators who are at their third legislature and above, portray a higher propensity to vote against party line vis-à-vis their male colleagues. In both the above cases, the results demonstrate how an increase in the seniority, indirectly associated with power and leadership, signifies less need of the party future support and translated in more detachment from party lines.

Model (2) provides very similar results to the previous model regarding the candidate-specific and district-specific variables. In this model I disaggregate the original variable 'Path' into three distinct categories: MPs who run in a SMD district only (SMD_only), those who run in a PR district only (PR_only) and those who run in both tiers simultaneously (the baseline category). Column two of Table (6.4) shows the results consistent with the analysis of model (1).[74] In particular, legislators who fit categories 'SMD_only' and 'PR_only' do not behave differently than those belonging to the reference category (those who run in both). The effects of 'Safety(SMD)' and its interaction with tenure appear to be similar to those in model (1). The only difference is that for MPs with tenure higher than 7 (and not 6) the impact of seat safety appears to increase party loyalty. In this model, the

[74] The only change is that the control variable for party LN is not significant at the 1% level of significance.

behaviour of female legislators with long tenures does not seem to have an important role in affecting their legislative behaviour.

Finally, model (3) is the one that mostly reflects the real picture of Italian MPs' composition in terms of mandate and electoral Path. In fact 'Path' is here disaggregated at the most basic level of analysis. I create five categories that reflect each and every possible path of an MP to her seat (see Data section for a detailed explanation). While all the other variables remain highly unchanged the results at this different level of analysis provide new and interesting results. On the one hand, legislators who belong to the categories 'Pr_only', 'Ranboth_wonSMD_only', 'Ranboth_wonPR_only' do not appear to portray a different behaviour vis-à-vis the excluded category (legislators who run in an SMD district only). However, the same cannot be said about legislators in the category 'Ranboth_wonboth_choseSMD' who behave different than everyone else. This result is interesting from two perspectives. First, it indicates that legislators who have both a strong party support (highlighted by the fact that they run in two districts simultaneously) and who have a strong voter support (highlighted by the fact that they won in both districts) feel stronger and consequently need the party less than those who only run in one of the two tier and those who run in both but won only one. Unlike legislators who run only in one tiers, and unlike those who run in two tiers but win only one, MPs with double candidacy and double victory are invested with double trust from both their parties and their electorate.

Consequently, the data supports the theoretical expectations according to which when national and local interests do not coincide MPs invested with an 'intentional' double mandate (understood in terms of double candidacy and double victory) feel strong enough to deviate from party lines compared to other categories of MPs.

Second, the opportunity of running into two tiers simultaneously is a consequence of the new mixed rules. These new rules create five distinct categories of legislators, two of which are similar to those running under pure proportional and pure majoritarian systems. Nevertheless, belonging to any of those two categories does not seem to affect in any way the propensity to vote against their party lines suggesting that the new rules do in fact develop a new and distinct identity as opposed to pure proportional or majoritarian systems. To add strength to this view is the evidence from column three about the effect of belonging to category 'Ranboth_wonboth_choseSMD' on the propensity of a legislator to vote against her party. As in model 1 and 2, only 'Safety(SMD)' and its interaction appear to be statistically significant. The results in this model do not vary much from the other two. In fact, a higher seat safety tends to increase the propensity of an MP to vote against her party lines but only for legislators at their first, second or third legislature. For MPs with tenure between 3 and 6 the effect of seat safety on the dependent variable is not significantly different from zero. For MPs with tenure higher than 7 the

impact of seat safety is to increase party loyalty, in conformity with the conclusion above stated.

As a final remark, with the exception of *Ln*, *Udeur*, and *Verdi*, party effects for all other parties are highly statistically significant in all the analyses in which they are included.[75] This strongly suggests that the party internal dynamics strongly affect whether MPs vote in line with the majority of their party.

[75] The Party LN was actually significant in the second analysis.

Table (6.4): The Impact of District-Specific and Candidate-Specific Characteristics on Legislative Behaviour-Party Fixed Effects Model with Clustering.

	(1)	(2)	(3)
Candidate specific variables:			
PRorSMD	-0.200		
(baseline is running in both)	(1.42)		
SMD_only		-0.313	
		(1.79)	
PR_only		0.127	
(baseline is running in both)		(0.42)	
PR_only			0.500
			(1.20)
Ranboth_wonSMD_only			0.194
			(1.15)
Ranboth_wonPR_only			0.470
			(1.18)
Ranboth_wonboth_choseSMD			0.405
(baseline SMDonly)			(2.34)*
Incumbency	0.052	0.038	0.030
	(0.75)	(0.58)	(0.44)
Gender	-0.042	-0.072	-0.048
	(0.26)	(0.49)	(0.36)
Switch[76]	1.175	1.164	1.150
	(29.52)**	(26.63)**	(22.18)**
PARTIES: An	0.291	0.308	0.313
	(11.22)**	(8.92)**	(8.69)**
Pds	0.591	0.616	0.611
	(18.20)**	(23.26)**	(27.16)**
Ccd	1.168	1.201	1.204
	(29.93)**	(23.97)**	(18.36)**
Ln	0.041	0.082	0.063
	(1.43)	(2.34)*	(0.99)
Prc	1.135	1.047	1.047
	(18.26)**	(9.58)**	(10.00)**
Ri	0.549	0.582	0.609
	(7.35)**	(6.86)**	(6.16)**
Verdi	-0.025	-0.004	0.023
	(0.75)	(0.13)	(0.49)
Popolari	-0.758	-0.727	-0.714
	(31.36)**	(22.72)**	(23.89)**
Pdci	-1.658	-1.702	-1.682
	(23.46)**	(19.76)**	(14.59)**

[76] In these three models for those candidates who switch party factions are defined as the parties of origin and not the party of arrival. When I run the same models defining party factions as those of arrival the results are unchanged. The same happens when Switch is totally excluded from the three analyses.

Udeur	-0.152	-0.107	-0.091
	(1.79)	(1.13)	(0.92)
Democratici	-0.349	-0.298	-0.276
	(18.54)**	(6.96)**	(5.16)**
District Specific and interacted variables:			
Safety(SMD)	0.122	0.151	0.161
	(3.42)**	(2.70)*	(2.52)*
Safety(PR)	-0.059	0.137	0.187
	(0.31)	(0.53)	(0.66)
Safety(PR)*tenure	0.108	0.114	0.121
	(0.57)	(0.60)	(0.64)
Safety(SMD)*tenure	-0.038	-0.040	-0.038
	(3.19)**	(3.11)**	(3.45)**
Gender*tenure	0.138	0.124	0.122
	(2.16)*	(1.83)	(1.79)
Constant	-3.524	-3.509	-3.842
	(26.81)**	(26.34)**	(26.05)**
Observations	579	579	579
R-squared	0.20	0.20	0.21

Robust t statistics in parentheses * significant at 5%; ** significant at 1%

As a further robustness check, I also estimate the models represented by equations 1, 2, and 3 without parties' fixed effects. As before, I have used standard errors robust to within group clustering. The results are displayed in Table (6.5) below.[77]

As it is clear by comparing the results of the two tables, not only do I find no change in terms of the significance of the main variables of interest, but also the magnitude of the coefficients is barely affected.

[77] As an additional robustness check I estimated the three above equations treating the parties effects as random, rather than fixed, effects. The results of interest are unaffected.

Table (6.5): The Impact of District-Specific and Candidate-Specific Characteristics on Legislative Behaviour-OLS With Clustering.

	(1)	(2)	(3)
Candidate specific variables:			
PRorSMD	-0.115		
(baseline is: running in both)	(0.79)		
SMD_only		-0.225	
		(1.23)	
PR_only		0.191	
(baseline is: running in both)		(0.70)	
PR_only			0.470
			(1.22)
Ranboth_wonSMD_only			0.020
			(0.15)
Ranboth_wonPR_only			0.364
			(0.90)
Ranboth_wonboth_choseSMD			0.663
(baseline is: SMDonly)			(4.20)**
Incumbency	0.110	0.093	0.086
	(0.77)	(0.67)	(0.60)
Gender	0.036	0.005	0.032
	(0.17)	(0.03)	(0.18)
Switch	0.085	0.065	0.061
	(0.17)	(0.12)	(0.12)
District Specific and interacted variables:			
Safety(SMD)	0.144	0.174	0.182
	(3.41)**	(2.84)*	(2.81)*
Safety(PR)	-0.217	-0.025	0.017
Safety(SMD)	(1.04)	(0.11)	(0.06)
Safety(PR)*tenure	0.133	0.136	0.143
	(0.71)	(0.72)	(0.76)
Safety(SMD)*tenure	-0.034	-0.036	-0.033
	(2.72)*	(2.77)*	(2.76)*
Gender*tenure	0.168	0.156	0.151
	(2.16)	(1.94)	(1.83)
Constant	-3.472	-3.437	-3.680
	(21.75)**	(23.53)**	(13.08)**
Observations	579	579	579
R-squared	0.03	0.04	0.05

Robust t statistics in parentheses * significant at 5%; ** significant at 1%

A final remark about the risks of endogeneity is of duty. In this study I treat several candidate specific variables and district specific variables as exogenous factors that affect the probability of MPs of voting with party lines. While the results of my analyses above provide some interesting and new insights about legislative behaviour, some might advance some reservations. For example, the data shows that legislators who run in both districts and win both are less likely to comply with party lines compared with other MPs who belong to any of the other categories. Nevertheless, some may allude to the fact that these MPs who have a dual mandate are chosen to run in both districts exactly because of their voting record. Similarly they might allude at the fact that the selection of candidate is likely to be correlated with unobserved characteristics of the individuals, and thus endogeneity risks may arise. While these doubts seem valid, the above results mitigate these risks. In fact, dual candidates who win twice, and who might be leaders, have fewer tendencies to vote with party lines than other MPs and not the other way around. The risk of endogeneity would be more significant and consequently more serious if dual mandate MPs who win twice, and who are likely to be members of particular leadership factions, would have a higher tendency to vote with party lines. In such a scenario it could be the case that there are some unobserved characteristics which favoured their selection as running candidates.

To expand these analyses and investigate endogeneity in detail, future work could address what affects the probability that a candidate is chose to run in one or more district.

6.4 Conclusions

To what degree does the incentive structure created by MMM electoral rules affect legislators' voting behaviour? To what extent does dual candidacy, which characterises mixed electoral systems, affect the voting behaviour of elected MPs? They key finding is the incentive structure faced by Italian Legislators is not exclusively affected by their electoral mandate. Instead, it also depends on the prospects of competing in both SMD and PR tiers as well as election outcomes.

The overview of the relevant literature highlights how conventional wisdom and several studies assert that pure PR systems of representation with close lists are more successful in disciplining their members. In these systems MPs greatly rely on their party for accessing resources such as ballot entry, financial resources, or career advancement. Legislators elected in SMD need not to entirely rely on their party for resources, as they must appeal to local constituents in order to win seats. However when moving mixed system the picture is blurred and the literature provides inconclusive answers as the incentive structure of legislators under such rules.

In the theoretical model I hypothesise that legislators face a trade off between expressing a vote that pleases parties and expressing one that pleases the electorate (the national versus local interest divide). In my model I argue that there are some candidate-specific and some district-specific characteristics that influence this trade off.

The results of this analysis suggest that the model is very useful when predicting legislators' voting behaviour. They enclose a significant contribution to the study of legislative behaviour under this form of electoral systems. For example, this work demonstrates the importance of disentangling MPs into the natural categories they belong to in terms of what seat they occupy and how they reach it (a combination of mandate and electoral path). The electoral incentives engendered by the new rules make it inadequate to simply compare the behaviour of PR legislators versus SMD ones.

Overall, the contribution of this chapter can be synthesised in two main elements. The first one stems from the fact that office-seeking Italian legislators face a trade off between pleasing their party (for access to seats) and pleasing the electoral (for winning seats). When the need for their party's support at future elections is accentuated or is in danger MPs face strong incentives to stick with party lines. The mandate *per se* does not affect such need. This need, instead, arises from several intertwined candidate and district-specific characteristics, in particular the SMD seat safety and tenure. Second, the study unfolds a third influential element. In fact, the interdependence of the majoritarian and proportional elements, under the form of dual candidacy, does indeed affect patterns of legislative behaviour. The case of a legislator who runs in both tiers and wins both is significant. Such legislators can rely on both a strong party support (expressed by double candidacy) and on strong voters' support (expressed by double victory). Given

the support he receives from voters granting him victory, such legislator does not feel the pressure to demonstrate his loyalty to his party (see in fact that belonging to the category of 'double candidacy with a single victory' does not seem to affect legislative behaviour).

7. CONCLUSIONS.

Electoral system reforms are high on the engineering agenda of many new and old democracies, Italy among them. Given the great impact of these rules on the working of democracy, it is important that their implications are analysed, in particular in order to help reformers take future decisions concerning the best form to adopt.

The recent proliferation of countries adopting a form or another of mixed rules to elect members of their Parliaments was paralleled by an equally increasing number of studies dedicated to the study of these systems. Italy chose a form of Mixed Member Majoritarian (MMM) electoral system for the period running 1994 and the beginning of 2006, when the system was changed again. Unlike the plethora of research that developed immediately after the Italian reform, the present work does not focus on assessing whether its expected and targeted consequences materialised or not. In fact, the normative implications of whether the 1994 electoral system is interpreted as the product of a rational process of institutional engineering or the result of conflicting parties' strategies are of little interest to this thesis.

As shown in Chapter (2), a great number of analytical work exists that addresses the effects of the Italian mixed electoral system on topics like 'party fragmentation and the decrease in the number of parties' as well as 'the issue of bipolarity'. Instead, the characterising feature of this work is that it gathers

under one roof the analysis of the choice and behaviour of the major political actors (parties, voters and legislators) subject to the constraints imposed by the new rules of the game. In fact, through the study of the pre-electoral, the electoral and the legislative stages, I examine the new incentive structure that the combination of the proportional representation and majority rule provide to parties, voters and legislators at three different electoral levels.

The choice of this framework is dictated by the fact that the interdependence of the proportional and plurality tiers in the Italian mixed system (between 1994-2001) is epitomised at all stages of the representative system. This is coupled with the notion that a multiparty representative system is identified by a social choice mechanism intended to aggregate individual preferences into social choices in a number of consecutive stages (Austen-Smith and Banks, 1988, 2005). Consequently, I study the pre-electoral stage where intra-coalition bargaining over the allocation of single member districts defines an incentive structure, whereby the interests of parties and those of their coalition do not match entirely. Then, I examine the electoral stage characterised by the dual ballot available to voters and whereby voters, as a consequence, may split their vote. Finally, I study the legislative stage investigating the role that the political 'mandate' can play in affecting MP's legislative behaviour.

In this thesis I demonstrate how the interaction between the majoritarian and proportional tiers of mixed electoral systems creates incentive structures

that are different from those that we would observe if the two components operated independently. In particular, this work represents a contribution to the study of contamination and interaction. If we understand 'contamination' as the phenomenon whereby mixed electoral systems do not simultaneously exhibit the same characteristics of both majoritarian and proportional systems, because the interaction of those two tiers creates a new hybrid system with its own identity and features, then the last chapter is essentially a contribution to contamination theory. In essence this research is in line with those studies that define mixed electoral systems as a 'new species of electoral institutions'. The purpose is to assess political actors' behaviour subject to mixed rules. Consequently, finding evidence of contamination in some parts of this thesis is just a by product, and not a goal *per se*.

While from a theoretical standpoint both ticket splitting behaviour and legislative behaviour under mixed rules are abundantly investigated throughout academic studies, the same cannot be said about the existing empirical contributions for all of the three topics of this study. Consequently, aside from theoretically enhancing the already existing research, this thesis is essentially an empirical contribution to those themes addressed by theory but not yet sufficiently corroborated by empirics. Nonetheless, the theoretical contribution of this thesis in shedding the light to the causal mechanisms that govern pre-electoral coalition bargaining should not be underestimated.

Starting from the pre-electoral stage, this study provides a unique piece of research as it addresses the link between a party's resources and its bargaining power in obtaining SMDs. As previously discussed, Reed's work suggests that "Duverger's law is not only working in Italy but it is working rapidly and powerfully" (2001: 313) manifesting itself through the two-candidate competition at the district level. His conclusions highlight the importance of moving the analysis' focus in Italy from the study of party competition to that of coalition competition at the district level. Chapter (4) of this thesis, for its part, goes one step further, addressing the analysis of intra-coalition competition at the district level.

The theoretical chapter highlights the weakness prevailing throughout the general political science literature concerning the theme of pre-electoral alliances. What we know is that the introduction of mixed electoral rules, in general, and the adoption of an abundant majoritarian element in the elections of the Italian Lower House, in particular, imposed on parties the need to come together under unprecedented pre-electoral alliances. However, the exact mechanisms explaining the intra-party bargaining taking place and linking the sources of such power to the number of SMDs received have rarely been spelled out. Furthermore, not only is the existing academic work mainly about post-electoral forms of coalitions; but it also essentially addresses those (post-electoral) coalitions formed 'to establish a government', leaving those formed 'to divide a pie' under-investigated. As a result, very little is known regarding

what may affect intra-coalition bargaining when the parties involved try to reach agreements in 'divide the pie' situations.

This thesis, therefore, provides a theoretical account of 'who gets what and where' when it comes to distributing the cake of 475 electoral districts among allies, using a resource-based account. This thesis does not only enhance the theoretical literature in this area, but it also provides an important and valuable empirical contribution. Relying on data from the 2001 Italian elections, this thesis demonstrates that while the classical resource of power (also known as 'size') is fundamental in explaining bargaining outcomes, a party's blackmailing potential reflected in its policy position, constitutes another important and under-investigated resource.

Overall, in terms of what affects intra-coalition bargaining power especially over the allocation of 'safe' districts, the results of this thesis provide unique and unprecedented material. To begin with, the descriptive statistics I present in Chapter (3) encourage us to be cautious when theorizing about the claimed 'high bargaining power' of small parties. On the other hand, the statistical analysis presented in the subsequent chapter highlights the role of parties' resources in explaining bargaining. In particular, the results provide evidence corroborating the hypothesis according to which a party's resources, in terms of size, incumbency and location influence their bargaining power over the quantitative and qualitative allocation of districts.

Unlike pre-electoral coalition bargaining, the phenomenon of split-ticket voting in mixed electoral systems has been a largely investigated issue, both in terms of theory and empirics. While extensive, both theoretical and empirical contributions have been greatly ambivalent. On the one hand, several rival explanations co-exist to account for voters' motives in splitting their ticket. The theoretical literature that has been reviewed uncovers the lack of consensus among scholars as to what may affect split-ticket behaviour. The cardinal difference among the existing studies lays in what these studies contend to be the influential variables behind split voting decisions. Such work usually revolves around distinct ideological, personal characteristic or strategic motivations to account for this phenomenon. On the other hand, the studies rely on different types of data to study split-ticket behaviour. While , most of the existing research usually relies on survey data, the new wave of academic work on split-ticket behaviour, relies on Bayesian simulations to derive split-ticket estimates. This lack of theoretical agreement on variables and data is amplified by the recent proliferation of comprehensive empirical studies aimed at providing empirical leverage on this disputed question. This ambiguity prevalently comes from the difficulty of obtaining reliable and accurate split-ticket estimates in multiparty systems.

By and large, these studies are impaired by either their poor and limited data or by their narrow minded single variable focus. In this thesis I attempt to overcome both sets of flaws. In fact, I confirm many of the existing results by

implementing a more sophisticated approach to the estimation of split-ticket, while at the same time adopting a more comprehensive approach. My results confirm, for the centre-right coalition, the conclusions drawn from Benoit et al. (2006) in their study regarding the important role played by the distance between PR and SMD candidates in affecting split-ticket voting. My statistical analysis, however, goes beyond the mere analysis of candidates' policy positions and highlights the importance of taking into account different districts variables such as the nature of the electorate in each district. The results of the analysis for the 2001 Italian elections suggest the prevalence of ideological and strategic motivations for split-ticket voting over explanations based on candidates' specific characteristic.

When it comes to the centre-left, econometric estimates do not deliver results as neat and as consistent with the theory. Iin Chapter (5) there are serious indications that the Italian centre-left party scenario in 2001 stands as an obstacle in the face of the creation of accurate variables.

Finally, in terms of the theme of legislative behaviour, this thesis' valuable contribution consists in spelling out in detail the mechanisms linking the mandate and electoral path of a legislator with her voting behaviour. As it is the case with the literature on split-ticket behaviour, my analysis demonstrates that there is no clear agreement as these studies reach quite diverging conclusions on the role that mandate plays in explaining legislative voting behaviour. Several empirical studies have recently emerged to give

empirical leverage on this theoretically disputed question. However, the main weakness of these studies is the operationalisation of some variables and, consequently, their measurement strategy. In my model, I hypothesise that legislators face a trade-off between expressing a vote that pleases parties and between expressing one that pleases the electorate (the national versus local interest divide). Then, I argue that there are some candidate-specific and some district-specific characteristics that influence this trade-off. I subsequently make a case that electoral incentives engendered by the new rule make it inadequate to simply compare the behaviour of PR legislators versus SMD ones. Consequently, I disentangle MPs into the natural categories they belong to in terms of what seat they occupy and how they reached it (a combination of mandate and electoral path).

The key finding is that the incentive structure faced by Italian legislators is not exclusively affected by their electoral mandate. Instead, it also depends on the prospects of competing and winning in both SMD and PR tiers. The results that derive from my measurement strategy are consistent throughout the different models that I run and as such add robustness to previous work.

There are a number of other important points that need to be mentioned concerning the empirical nature of this thesis and of its implications. First, when constructing an explanatory model I seek to identify a set of factors that account for the occurrence of a particular phenomenon. Consequently, it is important to bear in mind that all models are departures from the reality

(Fiorina, 1975: 153 and Downs, 1957: 34). Indeed one of the main advantages of modelling is that by cutting away a large number of factors it allows for "precision and clarity of thought" (Fiorina, 1975: 138). However, as much as these advantages are worth seeking for, "one must take care not to trade away the problem in order to get enough simplicity to analyze it" (Fiorina, 1975: 153). Therefore, it is important to insist on the fact that the assumptions underlying a model are not in outright contradiction to reality, but they are only simplifying it to varying degrees. Consequently, in this thesis I endeavour to adopt such simplifying assumptions that nevertheless are guided by a regard for the robustness of the model.

Second, in section 2.1.2 of this thesis I illustrate the incentives of political actors under distinct proportional and majoritarian systems related to the three electoral stages addressed by this thesis. In other words, I describe how pure electoral systems affect party competition and their electoral strategies, how they affect voting behaviour and how they affect legislators' propensity to vote against their party. However, because talks about reforms in Italy nowadays do not involve discussions about pure majoritarian or proportional forms,[78] it becomes salient to spend some words about the relevance of this study when discussing variant forms of mixed systems.[79]

[78] For example one of the latest reform proposals known as the *Vassallum* (after the name of its drafter) proposes an electoral system, which, to simply put it, is a mixture of the German and Spanish systems, and as such it includes both majoritarian and proportional traits.
[79] The current Italian electoral system, the one adopted after the mixed one, is a purely proportional based on closed party lists and with a majority bonus (*Premio di Maggioranza*).

Essentially, scholars identify 'the independence or the dependence of the two tiers' in terms of seats and votes among the most important distinguishing features across different mixed member systems (Shugart and Wattenberg, 2001; Massicotte and Blais, 1999; and Golder, 2005). For example, some previously established classifications distinguish between Mixed Member Majoritarian (MMM) electoral systems, and Mixed Member Proportional (MMP) electoral systems. Essentially, the first type is characterised by two parallel tiers, while in the second there exists a compensatory link between the two, and the votes won in one tier are subtracted from those won in the other tier (Shugart and Wattenberg, 2001: 13). Italy between 1994 and 2006 adopted a Mixed Member Majoritarian system with partial compensation. While the system was characterised by no 'seat' linkage, the *scorporo*[80] represents a form of 'vote' linkage. Variations on the form of vote or seat linkages could, thus, have serious implications on the incentive structure of one of the actors discussed in this thesis, that of voters.

In fact, the occurrence of pre-electoral coalitions (and consequently the incentive structure of parties) depends greatly on the number of actors involved and the district magnitude. Similarly, the incentive structure of legislators pertaining to voting with or against their parties greatly depends on their mandate and electoral paths. Voters' incentives to split their ticket,

[80] The '*scorporo*' or 'unbundling' was discussed back on page 48.

however, might be directly influenced by the linkage, or absence of it, between proportional and majority tiers. The effects of the linkage, of course, should also depend on how the linkage is actually carried out. Germany, for example, has a Mixed Member Proportional system with seat linkage between its tiers. In this system a party's overall seats entitlement is proportional to the number of the votes received by applying the PR formula nationally to the total number of parliamentary seats. Each party is then entitled to the number of seats it won through the SMDs. Subsequently, the party complements the remaining seats with the number of candidates from its lists required to reach its overall entitlement.

It can be argued, that this institutional variation among mixed electoral systems could affect the incentives of voters in casting their votes. This is because in systems similar to the German one the SMD vote has no real impact on the final number of seats a party receives. Consequently, while in an MMM system, like the Italian one, there is reason to expect that split-ticket decisions are influenced by strategic motivations (which was corroborated in this analysis), the same cannot be theorised about some MMP systems similar to the German type. These considerations must be taken in consideration when trying to apply this work to other mixed electoral systems. Nevertheless, in order to formulate a more detailed theoretical account to explain how the incentive structure of political actors changes across different mixed systems, a comparative study is deemed necessary.

Despite the aforementioned issues, which apply to all empirical work, it is important to underline the current relevance and salience of this work. With electoral reform talks being more important than ever in today's Italy, advancing our understanding of electoral rules is a crucial matter. When it comes to Italy and Italian reformers it is unsafe to rule out *a priori* that the next electoral system will be free from mixed traits. Therefore, while policy makers and institutional drafters usually look at direct consequences of electoral reforms, this study highlights the importance of tackling other, less direct but nonetheless, important consequences of rule changes especially those that affect the incentive structures of political actors.

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