Opportunism and MPs' chances of re-election: an analysis of political transformism in the Italian parliament

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Abstract

We identify as political transformists the Italian members of parliament (MPs) who cross the aisle and vote for legislation opposed by their own political group—i.e., MPs who transform from the political opposition to the ruling parties (or from government supporters) into a force supporting the government (or opposition)—thus representing sources of party and governmental instability. Transformism, which characterized 471 MPs over the period considered, does not coincide with the broader phenomena of party switching already studied in political science. Once we disentangle the distinct behaviors, we study whether transformism helps extend the tenures of all 7128 MPs observed from 1946 to 2013. To the best of our knowledge, ours is the first work to consider the role of transformism in the survival of politicians. Our results suggest that transforming MPs suffer marked reductions in their survival probabilities, especially when compared with their fellow parliamentarians. However, transformist MPs, immediately after coming out as such, are more likely to survive than MPs remaining reliably loyal to their parties. That is, over time, transformists are punished by the electorate, but newly transformed politicians enjoy short-term comparative electoral advantages, thus shedding light on the relevance of a long-standing Italian political phenomenon.

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1 Introduction

We study the role of transformism as it applies to the political survival of all Italian members of parliament (MPs) from 1946 to 2013. We define political transformism (as distinct from party switching) as the practice of being co-opted from the political opposition (government support) and transformed into a government force (opposition). Transformism or "crossing the aisle," in a broad sense, has been a recurrent feature of the Italian political landscape since unification.[1] Transformist MPs are perceived as sacrificing their principles in exchange for immediate reward, and transformism is often considered to be one of the main determinants of the (in)stability of both governments and political parties.

Following Vilfredo Pareto (1916/1954),[2] we consider transformist MPs as engaging in a type of opportunistic behavior wherein their own interests in gaining power and prestige dominate professed party affiliations or previous voting records. In that respect, switching from one political party or faction to another for reasons other than dissatisfaction with the political and moral behavior of one's own party/faction or for more general ideological reasons is a subcategory of the opportunistic behaviors of politicians, where betrayal is also included (Buchanan, 1954, 1986, 1996).

The rational ignorance of voters makes monitoring politicians extremely costly. Electors might be reluctant to replace opportunistic public officials; elections thus might be ineffective in constraining such behavior. Moreover, analyzing the US Congress, Parker (2004) supports the view that rational politicians do not necessarily exploit voters' rational ignorance to behave opportunistically, because the reward for ethical conduct is in maintaining their reputations, which serves both as a re-election advantage and a benefit when seeking post-parliamentary employment. Nevertheless, rational politicians do act opportunistically; such behavior can be thought of as a cost of their principal-agent relationships with voters, also known as "shirking." That certainly has been the case in Italy; we test whether and how MPs' opportunism has influenced voters' choices, and whether trust in MPs' parliamentary performance has been a sufficient condition for their electoral successes.

Whether or not MPs remain faithful to party labels (and their electioneering promises) is crucial for representative democracies. It speaks to questions about political accountability, especially so in countries with apparently weak institutions delegating broad powers to elected politicians. Since Barro (1973) and Ferejohn (1986), political agency models study the choices of politicians facing the threat of re-election to gauge the extent to which elections can resolve the conflict of interest between citizens and their elected representatives. Here, we argue that the representation of parties in legislative bodies is also determined by how political institutions function in practice. Therefore, the contribution of our paper encompasses predictions from agency models regarding politicians' coherent (or opportunistic) behavior once elected (i.e., when MPs are voting in the parliament) which have

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[1] In 1883, Italian Prime Minister Depretis, member of the Constitutional-Left party, included Minghetti, who was a moderate member of the Constitutional-Right, in the governing coalition. Subsequently, the most successful politician to implement transformism was Giolitti, who was prime minister five times between 1892 and 1921.

[2] Pareto (1916/1954) expresses disgust at the spread of transformism in parliament because it generates harmful effects such as clientelism, corruption, and the degradation of public life.

not been tested before. Specifically, we ask (1) whether elected politicians who behave as transformists in the eyes of the voters are likely to be replaced, and (2) whether formal and informal rules related to the delegation of powers to representatives (see below) matter. Concerning the latter issue, a key feature of our study is that institutions are the rules of the game in any society, but that institutional filter, which contributes to determining policy outcomes, is not necessarily efficient.

Departing from the prevailing party-centered view found in political science studies of party switching, we look at whether the opportunistic behavior of individual MPs who might change the destiny of the government in charge determines the lengths of their terms of office in the Italian parliament. Clearly, the ideological or nonideological nature of Italian political parties may still be relevant, but when the ideological basis of a political movement is weak, transformism is more likely to occur.[3] Nevertheless, instead of focusing on the fluidity and clarity of party labels and on the levels of party discipline, we look at the institutional features of the Italian parliament and divide Italian parties (actually the Italian parliamentary groups present in parliament, as will be explained below) into factions supporting the government and those opposing it. The substantive focus of our study on the Italian parliament and on the voting behavior of its members singles out the opportunistic behaviors of MPs once they are elected.

To the best of our knowledge, this is the first time that the role of transformism has been considered in the context of the survival of politicians. Our analysis takes advantage of a unique and newly built dataset that contains detailed information on all members of both the Chamber of Deputies and the Senate from 1946 to 2013.[4] The dataset contains recurrent event outcomes for 15,344 repeated observations related to 7128 MPs. For individual MPs, the dataset contains their dates and places of birth, gender, education, professions, electoral district, political affiliations, and eventual changes in those affiliations (whether of the transformist type or not). Within the entire period, we observe 1984 changes, 471 of which are categorized as political transformist behavior. Table 1 reports the numbers of MPs who switched from government to opposition and vice versa as well as the number of other changes apart from transformism.

As suggested by Box-Steffensmeier and Zorn (2001), we build on the Cox (1972) model to generate estimates of the effect of a set of explanatory variables on the risk of an MP leaving parliament. On that basis, we study whether transformism helps politicians to survive in parliament, with re-election being the prize tracked by the fact that the MPs are still in office in subsequent legislatures; punishment, by analogous reasoning, is non-re-election. We refer to voters' punishment as instances of MPs exiting the parliament (note that the event is technically incorporated in the survival analysis; see below). For the same

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[3] Before 1994, Italian parliamentary groups were more ideological in nature, resulting in a long period of substantial stability in their memberships. From Legislatures I (1948–1953) through IX (1983–1987), the balance of power was fixed at election time and rarely shifted between elections.

[4] The dataset we have been building is much more complete than other datasets recording similar information. The Fondazione Rodolfo de Benedetti website reports information only on the individuals who were elected to the Camera dei Deputati of the Italian Parliament (the House) after the inception of the Italian Republic in 1948, up to 2008, for 15 legislatures and the two Republics (Italy's First Republic, from 1948 to 1994, and the Second Republic, which began with the election of Legislature XII in 1994). On the other hand, the website of the Empirical Research in Economics (http://www.empirical-economics.it/Ricerche/tabid/57/Default.aspx) makes data available from 1987 to 2008. The dataset we have been building also contains data on the Senate (1948–2013), the Constituent Assembly (1946–1948), and the Chamber of Deputies during Legislature XVI. Therefore, unlike other works (e.g., Boeri et al., 2010) based on the abovementioned datasets, we can analyze both chambers in the Italian Parliament from 1946 to 2013.

Table 1 Governments, PM political affiliation, transformists, and other changes by legislature, 1946–2013

Legislature	Number of governments	Number of prime ministers and their affiliations	Number of transformists	Changes from majority to opposition	Changes from opposition to majority	Other changes
Constituent Assembly						
	5	1 Partito d'azione + 4 DC	–	–	–	92
First Republic (1948–1994)						
I Legislature	3	3 DC	8		8	89
II Legislature	7	7 DC	12		12	62
III Legislature	4	4 DC	11	1	10	43
IV Legislature	4	4 DC	4	4		64
V Legislature	6	6 DC	14	12	2	29
VI Legislature	5	5 DC	14	1	13	11
VII Legislature	3	3 DC	4		4	52
VIII Legislature	6	4 DC + 2 Republican Party	4	2	2	23
IX Legislature	3	2 PSI + 1 DC	1	1		49
X Legislature	4	4 DC	4	1	3	72
XI Legislature	2	2 Technical PM	36	29	7	40
Second Republic (1994–2015)						
XII Legislature	2	1 Center-right + 1 Independent	110	17	93	192
XIII Legislature	4	4 Center-left	32		32	283
XIV Legislature	2	2 Center-right	42	35	7	131
XV Legislature	1	1 Center-left	46	17	29	178
XVI Legislature	2	1 Center-right + 1 Technical PM	129	109	20	103

reason, the voting rules in place (both internal to the parliament and the electoral system) are important.

As in Parker (2004) and in the main strands of the literature in the political agency tradition, which predict that only those politicians that perform better than some threshold value will be re-elected, voters do punish opportunistic MPs; general elections are instruments for ridding parliament of transformists. Our results suggest that political transformists have a probability of survival of about 25.9 percentage points less than MPs sticking to their initial affiliations. That conclusion is similar for the First Republic (with and without the secret ballot as an internal voting rule) and the Second Republic. Our analysis also shows that transforming MPs capture immediate benefits from their actions: the probability of survival for political transformists is about 4.8 percentage points higher than that for MPs who remain loyal to their original group affiliation. Facing (long-term) punishment at the hands of voters may not fully deter MPs' future opportunistic behavior.

2 Related literature and motivation

Although its aims and purposes diverge from those of the present paper, the current body of literature already considers the broad issue of politicians changing political parties. Antonio Gramsci (1975) offers one of the earliest analyses of the narrower definition of political transformism and points to its relationship to crises in political parties and institutional authority, the spread of apoliticism amongst the electorate at large, the decline in parliamentary prestige, and Caesarism. In that line of research, some of the literature on party switching studies the effects of changes in the party system rather than in legislator turnover. Often, the body of such studies favors the alternative terms "party switching," "defection," and "crossing the floor," focusing on the implications for governmental and party-system instability.[5] Some scholars regard party switching as an issue limited to newly developing non-Western democracies (Mainwaring, 1991). According to McElroy and Benoit (2009, p. 2), party switching has traditionally been "viewed as an aberration or an indicator of a weak, ill-formed party system, a phenomenon associated with newly emerging democracies or unstable ones." Desposato (2006) supports the same view and argues that while switching is rare in most countries, it has been common in others; such behavior is usually dismissed as an indication that parties do not matter in the latter countries. Recent studies challenge the conventional wisdom that party switching is an exceptional occurrence, because it is becoming more frequent in many Western democracies. For example, from 1947 to 1994, 20 members of the US Congress changed party affiliations while in office (Nokken, 2000). In France, several high-ranking socialists left the party to become officials in Sarkozy's government (Sciolino, 2007). Likewise, Heller and Mershon (2005) observe a good deal of party switching in several European countries, including Italy.

Various scholars discuss the motivational conflicts confronting deputies in their parliamentary performance. Heller and Mershon (2008, p. 912) identify four factors affecting a legislator's decision to switch, which include "some function of her ideal policy, her party's policy position, her party's ability to influence outcomes, and her contribution to that

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[5] For example, see Kato and Laver (1998), Montinola (1999), Kamath (1985), Rakner and Svåsand (2004), Levitsky and Cameron (2003), Mainwaring (1998), Fraenkel (2005), Carothers (2006), Barrow (2007), and Ufen (2008).

influence." Other scholars describe the legislator's dilemma when voting on policy issues: legislators can either choose to cater to their constituents' interests and stand good chances of re-election, or they can consistently support their party and vote with it, thereby ensuring their ability to rise up the ranks of party power, nomination for the next election, and other benefits by virtue of their loyalty. Conflicts may occur when legislators believe that their constituents' wishes deviate from their party's position or when legislators' beliefs clash with their constituents' opinions, regardless of party positions.

A rather different conflict arises when deputies are tempted to defect from their party in return for an appointment in another party. Defections in such instances—which are more likely to occur in nascent rather than in established democracies—can provide the votes necessary to create a new government and open up positions in the governing party, as seen in India in 1967 and 1968 (Malhotra, 2006). Typically, studies focus on finding solutions to prevent MPs from voting in their own interest and defecting to another party for personal gain; governments may even enact anti-defection laws to promote party stability (Janda, 2009).

Finally, research on party switching seeks to explain why MPs do or do not change their party affiliations; examples include Cox and McCubbins (1994), Samuels (2000), Castle and Fett (2000), Laver and Benoit (2003), Shabad and Slomczynski (2004), Heller and Mershon (2005), Desposato (2005, 2006) and McElroy and Benoit (2009). Some of those studies are concerned with the political consequences for members who switch parties, and typically examine two consequences for individual switchers: their subsequent voting behavior and their likelihood of re-election.

Our analysis focuses on the impact of politicians changing party affiliations once elected and political transformism on the survival of Italian MPs. We test whether the possibility of facing punishment at the hands of voters on Election Day deters MPs from engaging in opportunistic behavior and whether elections are mechanisms for ridding parliament of transformists. Electoral consequences also emerge as constraints from the two strands of work in the political agency tradition. In the first-generation models (e.g., Barro, 1973; Ferejohn, 1986), elections are politician-control devices. Voters express their preferences, and underperforming politicians are dismissed from office in the next election.[6] In the second-generation models, politicians are described as having different motivations or competencies (e.g., Banks & Sundaram, 1998; Coate & Morris, 1995; Fearon, 1999; Rogoff, 1990).[7] A shortcoming of those models is that voters might not be in a position to replace current politicians with better ones. Sometimes, the literature overcomes that problem by looking at a different type of agency models, inspired by career concerns, according to which voters care about politicians' characteristics, such as competence, that affect election outcomes. Then, forward-looking voters look at past performance to estimate the politicians' abilities and thus their electability.[8] Also borrowing from the literature on worker incentives, for which higher pay (or pay that is more sensitive to performance) not only affects effort but also influences employee selection (through differential hiring or retention policies), the political economy literature supports the view that different institutional arrangements

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[6] The assumption is that voters view all politicians as identical and they employ a cutoff voting rule; that is, they retain the politician if her/his performance exceeds a threshold and replace him/her otherwise. In such models, elections are seen as sanctioning devices that induce elected officials to do what the voters want.

[7] Besley (2006) provides a comprehensive overview of the relevant literature.

[8] Several contributions in the literature point to the existence of political agency considerations. See Besley and Case (1995), Dal Bo and Rossi (2011), and Ferraz and Finan (2008).

(different rents) not only affect incentives but also may change the composition of the pools of political candidates and elected officeholders. The empirical literature provides some evidence that politician behavior and effort respond to electoral incentives and that voters, deliberately or otherwise, provide such incentives.

Fedeli et al. (2014) argue that an MP's survival (as the ability to be re-elected) depends on various characteristics of the party system. Indeed, parties articulate choices, aggregate preferences, and organize legislatures (Cox & McCubbins, 1994). On the one hand, they gather individual politicians under a party label, impose discipline on them, and determine their electoral fortunes. On the other hand, politicians belonging to a party renounce their freedom of action in exchange for membership in a stable, identifiable electoral and policymaking organization (Cox, 1987; Cox & McCubbins, 1994). Although the importance of parties to democratic political life should encourage politicians to hold fast to the party labels under which they were elected, opportunistic politicians might resist subordinating their own goals to party dictates and be tempted to change parties. Moreover, in the Italian institutional context, the role of political parties in the parliament is determined by how a given set of formal and informal rules and institutions function in practice. We refer to both the Italian Constitution and the internal rules of procedures regulating the House of Representatives and the Senate.

In the Italian parliament, transformism is not revealed during general elections, but after the election has been held (i.e., once a candidate is elected and enters parliament) and over the course of the following parliamentary session, i.e., when an elected MP might decide to vote for legislation opposed by her/his own political party or faction, thus transforming her/himself from a member of the political opposition to the ruling coalition or moving in the opposite direction (from a government supporter to opponent). Such behavior is recorded formally because, other than the official act of voting in parliament, a vote against the MP's own parliamentary group requires a formal switch of that MP to another group.

It is important to note that the Italian parliament is not simply divided into political parties, but into parliamentary groups that are formed by MPs immediately after the election: once elected, each MP must adhere to a parliamentary group (affiliation is compulsory and regulated, respectively, by the Chamber of Representatives and Senate Rules of procedures, which are independent sources of law determining the internal organizations of the chambers). Moreover, according to the Italian Constitution, Article 67 (prohibiting imperative mandates), every member of parliament represents the nation and performs his/her functions unrestrained by their individual constituencies. National representation, in principle, implies that the MP elected with a given party label might join, once elected, any parliamentary group, even that of a different party. Moreover, if an MP is not happy with the chosen parliamentary group, the initial affiliation can be changed at any time, under the constraint that affiliation with a parliamentary group is compulsory. The parliamentary majority supporting (or opposing) the government is determined on the basis of the numbers of MPs belonging to parliamentary groups voting *pro* (*cons*) the government. In other words, once the MP decides not to vote in line with his/her original group, s/he must change parliamentary groups, and can do so without consulting her/his constituents. Moreover, according to both chambers' Rules of Procedures, new parliamentary groups can always be formed during the legislature's term, subject to the constraint that the new group being assembled reaches a minimum membership threshold.[9] Thus, when some MPs are unhappy with their parliamentary policy position (to be voted on in the assembly), the

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[9] The threshold has changed over time—it is now 10 in the Senate and 20 in the Chamber of Deputies—provided that the new group represents one of Italy's organized political parties. Recognition as an organized party requires submitting its own candidate lists under the same party label in at least 20 constituencies and winning at least one seat in those constituencies and at least 300,000 valid list votes nationwide.

unhappy MPs can switch to another existing group or can form a new one under the just-stated conditions. If the membership threshold of the new group is not reached, the MPs can affiliate with the "mixed group" (which is internally organized into homogeneous sub-groups without being constrained to a minimum size).[10] Hence, transformation—or, more generally, switching—from a parliamentary group to another is almost always, with few exceptions, a formal act recorded by the two houses.

We test whether MPs' opportunism is a determinant of voter choice that governs the lengths of service of incumbent legislators, their trustworthiness, or both is a sufficient condition for electoral success. Apparently, an MP's trustworthiness might not be essential to their political survival (Parker, 2004). Transformists seem to be unusually adept at staying in office, and voters might be reluctant to oust them—possibly because opportunism is often perceived as more unethical than illegal. The ability of incumbent transformists to provide services to their constituents (e.g., through MPs' presumed monopoly over bureaucratic fix-it services or clientelism) makes the electorate virtually silent on (or tolerant of) opportunistic behavior. Another reason that transformist legislators might survive electoral challenges is that voters lack salient information and have weak incentives to overcome their rational ignorance. On the other hand, voters might consciously elect opportunistic politicians by voting for candidates willing to exchange material benefits for electoral support. In other words, voters might tolerate and enthusiastically support politicians meeting their material demands.[11]

We ask whether the phenomenon of political transformism—as distinct from changes in political affiliation—helps incumbent legislators to remain in office longer, or whether sticking with a political group that clearly supports the government (opposition) is a better plan, with fickle MPs being punished across legislatures. Related to these issues, we also consider the (changes in the) institutional context. In particular, we test whether the Italian electoral system and internal parliamentary voting rules affect MPs' survival in the presence of phenomena relating to changes in both political affiliation and transformism.

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[10] Note also that belonging to a parliamentary group, other than being compulsory, is economically convenient, given that the parliamentary group receives extra money—based on the number of MPs belonging to it—for financing the political activities of its members. The mixed group receives the money too, but in smaller amounts, which must be shared amongst the mixed subgroups, thus making affiliation with the mixed group less economically rewarding.

[11] Note here that we do not tackle the issue related to voters' strategic or sincere behavior. The results of two or more linked elections are considered and taken as given. In this respect, the issue of transforming politicians analyzed herein also shows that it is not unrealistic that parties are unable to make binding commitments to policies when their elected candidates are in the position of transforming. The perspective adopted in citizen-candidate models, such as Osborne and Slivinski (1996) or Besley and Coate (1997), does not explore what happens when parties/politicians can commit to policies, but also have their own policy preferences.

3 Data and preliminary evidence

Our analysis takes advantage of a unique and newly built dataset that contains detailed information on all members of both the Chamber of Deputies and the Senate from 1946 to 2013. Our main source is *La Navicella*, an official publication produced at the beginning of each legislature that contains self-reported biographical information on all MPs, and the official website of the Italian parliament (http://www.parlamento.it). For each MP, the dataset contains the date and place of birth, gender, education, profession, electoral district, political affiliation, and eventual changes in political affiliation, if any. The latter two characteristics warrant further explanation.

3.1 Political affiliation

The postwar Italian Constitution established a perfect bicameral legislature whose members serve five-year terms. Elections may be called before the end of the legislature if the President of the Republic acknowledges that the majority is no longer capable of holding a government. Until 1994, a proportional electoral law was in place, with different rules for election to each house. For the Chamber, each voter could select three candidates from the list, regardless of the number of seats in the constituency, which were allocated based on the population. During the first stage of vote-counting, the winners were determined based on the votes cast. In the next stage, the surplus votes (not needed for election at the constituency level) were allocated nationally according to the Hare quota. For the Senate, each elector could vote for only one candidate of the regional sub-constituency. Each region was divided into single-member sub-constituencies, and candidates were expected to obtain 65% of the vote to win. When this was not achieved, as was almost always the case, the party votes were aggregated at the regional level, and seats were assigned using the D'Hondt method.

In the early 1990s, several shocks affected Italy's political institutions: a series of judicial inquiries into corruption were opened on the existing political class; most of the old parties disappeared; a new electoral system was created, spurred by a popular referendum; and Italy moved to a mixed-plurality electoral system in 1993. From 1994 to 2005, in the Chamber of Deputies, 75% of the MPs were elected via a plurality system, and the remaining 25% according to a proportional system. In the Senate, the numbers were 232 members and 83 members, respectively. In 2005, Law n.270 modified the electoral system to one that is proportional but oriented toward plurality without votes of preference. In the Senate, seats are assigned at the regional level, with additional seats awarded to the party that wins the relative majority within each region; in the Chamber, there is a double threshold to obtain the premium. Italian electoral systems, mainly in the Second Republic, have always been hybrid forms of plurality mixed with proportional rules (see Appendix 1).

During the First Republic, the Democratic-Christian Party (DC) always obtained a (relative) majority of seats and led most of the governments. Typically relegated to the opposition (except for a period of external support given to the government during the 1970s), the Communist Party (PCI) was the second-largest party in Italy. Other relevant parties during the First Republic were the Socialist Party (PSI), the Social Democrats (PSDI), the Liberals (PLI), the Republican Party (PRI), and the Italian Social Movement (MSI). All these parties, with the exception of the MSI (composed of former fascists), supported the government. During the Second Republic, parties often changed names, split, and re-aggregated.

As early as 1991, the PCI transformed into the Democratic Party of the Left (PDS first, then DS). Part of the PCI's membership did not join the new group, forming instead the Communist Refoundation (RC), which later split into the Communist Refoundation–European Left (RC-SE) and the Italian Communist Party (PdCI). The Northern League and La Rete (meaning "the Network"—a small left-wing party) obtained seats in parliament in 1992.

In 1994, the new electoral system governed the beginning of the Second Republic. The electoral competition was characterized by three main coalitions: (1) a center coalition, Pact for Italy, which included the Italian Popular Party (PPI, composed of a part of the former DC) and parts of the former PSDI, PRI, PLI, and PSI; (2) a left-wing coalition led by the PDS that included the RC, the Green Party, part of the old PSI, and the Social Christians (formerly the DC); and (3) a right-wing coalition led by Forza Italia (FI, founded by Silvio Berlusconi) that included the Northern League, the National Alliance (AN, whose members used to belong to the MSI), and the Christian Democratic Party of the Center (CCD). Due to the principle requiring a threshold of votes to be met in order for a party to enter parliament, the new electoral rule favored the formation of two large coalitions. On the right, FI allied with the AN and the Northern League. On the left, the DS (formerly the PDS) formed a center-left coalition called the Olive Tree (*L'Ulivo*) with minor parties including the Green Party and some on the extreme left. In 2008, some of these parties merged to form the Democratic Party (PD).

Political parties enter our analysis according to whether they support the government or the opposition via parliamentary groups. Therefore, for each legislature, we distinguish between MPs belonging to parliamentary groups supporting the government and those in the opposition (see Table 5 in Appendix 2). On this basis, the variable *Government* is coded 1 if the MP belongs to a parliamentary group that supports the government and 0 otherwise. The variable *Opposition* is coded 1 if the MP belongs to a parliamentary group in the opposition and 0 otherwise.

3.2 Change in affiliation and political transformism

For each MP, we consider any changes that occurred during her/his tenure in parliament. The moves recorded occur between parliamentary groups, not parties per se. Given all the government coalitions of the period under study (Table 5 in Appendix 2), for each MP we find four possible changes within a legislature, plus two possible changes between legislatures as follows: moves from a group (or mixed subgroup) supporting the majority to another group (or mixed subgroup) supporting either (1) the majority or (2) the minority; and moves from a group (or mixed subgroup) supporting the minority to another group (or mixed subgroup) supporting either (3) the majority or (4) the minority.[12] For MPs elected to consecutive legislatures, we record the changes in both (5) electoral constituency and (6) political group, with respect to the previous legislature. Through this process, we capture the phenomenon of political transformism; the variable *Political transformists when changing affiliation* describes, in a given legislature, the MP's moves from a majority group (or mixed subgroup) to a group or mixed (sub)group supporting the minority, and the MP's moves from a minority group (or mixed subgroup) to the majority group or a mixed (sub)

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[12] The "mixed group" is institutionally divided into subgroups with a clear political affiliation with the majority or minority.
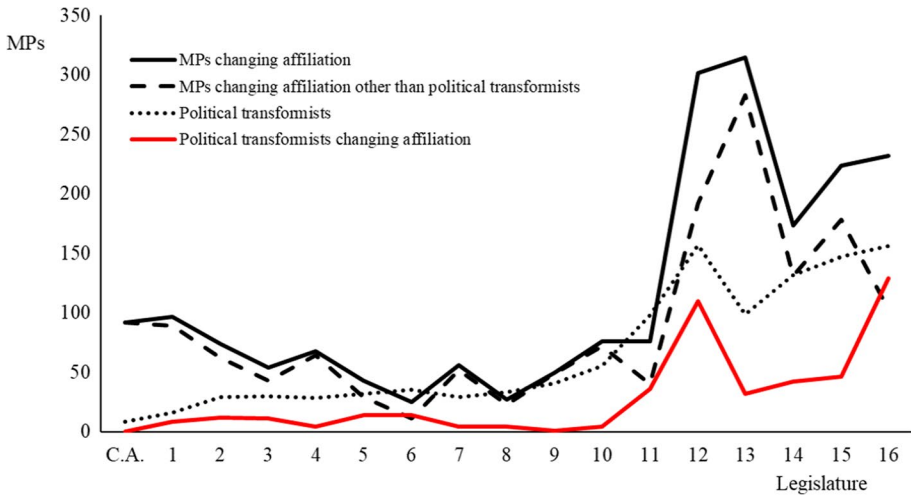
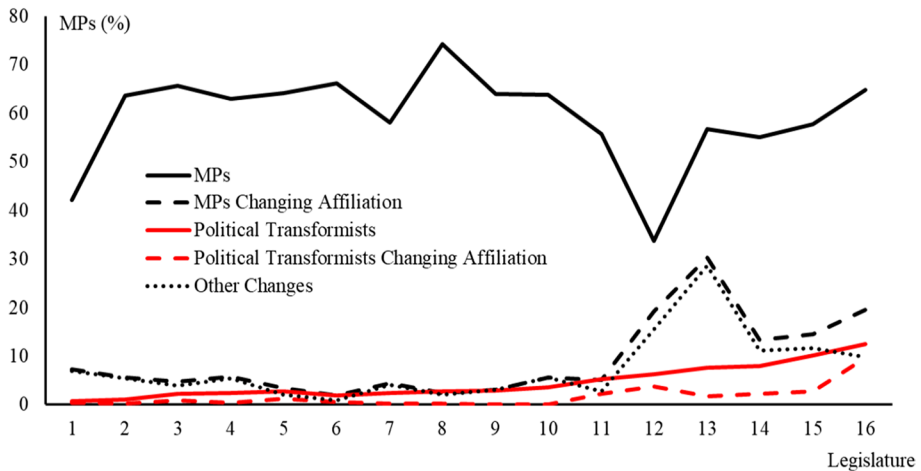**Fig. 1** MPs changing affiliations

group supporting the government. Our definition allows us to also identify a broad group called *political transformists*, which includes transformist MPs who were re-elected after the switch. In other words, this includes members identified as political transformists in the previous legislatures. The category *Other changes* includes MPs who switch parties without being transformists.

We do not consider transformists to be (1) MPs who leave a group to form a new political party (e.g., the split of the Socialist Party in 1947 into the PSI and the Italian Labor Socialist Party, PSLI; later the PSDI); (2) MPs belonging to the Radicals who were traditionally elected from different parties, or the Radicals who formed a new party, the Rose in the Fist ("Rosa nel Pugno") in 2005.[13] In these special cases, Hirschman's (1970) exit, voice, and loyalty framework may apply. If party leaders demand absolute loyalty in voting, they deny legislators their voice (to express dissenting opinions) and thus tempt frustrated legislators to exit the party. Because crossing the aisle in Italy does not necessarily lead to leaving parliament, an exit in Hirschman's terms may remove the motivation to cross the aisle even without becoming a supporter of the incumbent government or without helping an existing party to form an alternative government, thus becoming a political transformist.[14]

Across the 15,344 repeated observations that refer to 7128 individuals, we observe 1984 changes, of which 471 involve transformists and 1513 refer to other changes. Overall, 1125

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[13] Legislature X (1987–1992) witnessed multiple switches, with MPs moving in clusters, not individually. In most cases, such changes cannot be considered transformism: in 1989, dissident MPs from Proletarian Democracy (DP) and the Radicals founded Rainbow Greens. In 1991, when the PCI renamed itself the PDS, a few of its members refused to enter the PDS and allied with a rump DP to establish the RC.

[14] Two other exceptions related to actions that dissenting MPs can take with respect to their own parliamentary group cannot be considered here because they do not require the formal change of the parliamentary group in response to the MP's dissent: (1) unjustified absence from the plenary assembly during a vote, and (2) abstention that technically does not require a change of the parliamentary group.

Fig. 2 Re-election rate of MPs changing affiliation over legislatures

observations are recognized as political transformist. In Appendix 2, Table 6 defines the main variables, and Table 7 reports some summary statistics.

3.3 Political transformism and re-election in the Italian parliament

According to the legislature (horizontal axis) and inclusive of the Constituent Assembly (CA), Fig. 1 reports the number of MPs who changed political affiliation (vertical axis) according to those who changed for any reason (black line), those defined as political transformists in the current legislature (red line), "other changes" (dashed line), and the larger group of transformists, including those in the legislature under study and those labeled as such during a legislature different from the one considered in the horizontal axis (dotted line).

The evidence suggests that transformism was more frequent during the Second Republic. This is unsurprising, because the secret ballot was utilized during the First Republic. This voting method possibly obscures instances of political transformism because, even when voting against their own parliamentary group, MPs did not need to disclose their decision or leave the group. In Legislature X of the First Republic, the abolition of the secret ballot in 1988 revealed MPs' opportunistic behavior. This behavior was accentuated after the fall of the Berlin Wall with the disappearance of the ideological parties, but it clearly emerged during the Second Republic.

Figure 2 reports the re-election rates (vertical axis) across legislatures (horizontal axis). The number of re-elected MPs who changed their political affiliation is much lower than the overall number of re-elected MPs during the First Republic until Legislature XII. In contrast, their number increased during the Second Republic, suggesting that changing affiliation can help candidates win re-election. The re-election rates for MPs who changed their political affiliation, despite their relatively small proportion within the overall membership, are high if compared with those of the whole parliament (all indexes have the same denominator). Moreover, until Legislature X (when the

secret ballot was abolished), there were few differences in the re-election rates among changing politicians, transformists, and those changing for other reasons. Subsequently, changes of any type became evident, as they were no longer hidden by the secret ballot, and re-election rates for transformists increased steadily.

In the econometric analysis, we control for age, gender, and education. The average age of MPs in the Italian parliament is among the highest in Europe (Boeri et al., 2010). Likewise, the average proportion of male MPs in the Italian parliament is 92.21%. The majority of MPs have a university degree (73.77%); however, there are also members of both houses with only an elementary/primary education (2.26%).

4 Empirical framework

Our dataset contains recurrent events that are represented in the data by subjects with multiple observations (i.e., MPs elected to more than one legislature). The data are therefore suitable for a counting process, with a time interval defined for each observation. In this context, subjects are not restricted to equal numbers of time intervals or recurrences, and the first and last events may differ between subjects. The repeated event studied is the recurrence of re-election before exit.

We use the Cox model because it enables us to estimate the hazard of the average MP leaving parliament as a function of a set of explanatory variables. This hazard is estimated between the first and last times the MP is recorded in the sample. In our setup, this period coincides with the length of their term of office, which can span more than one legislature if they are re-elected. The model is as follows:

$$h(t, X) = h_0(t) \exp\left[\sum_i \beta_i X_i\right] \tag{1}$$

The model is defined by the product of the baseline hazard function, $h_0(t)$, which is independent of the set of covariates, X, and $\exp\left[\sum_i \beta_i X_i\right]$, i.e., the exponential of the sum, which ensures that the fitted model always gives a non-negative hazard ratio (HR). If all predictors are equal to zero, the formula reduces to the baseline function. Note that $h_0(t)$ is an unspecified function that is taken as a function of time, t, and is assumed to be independent of the predictors; X, the exponential expression, does not involve t as long as the hypothesis of time-independent predictors holds. These mild assumptions are only needed to estimate the parameters of interest.

The assumption that the set of covariates X does not vary with t is called the proportionality hazard (PH) assumption. The hazard function gives the instantaneous potential of the event's occurrence per unit of time, given that the individual has survived up to time t; by contrast, the survivor function focuses on not failing. Being a rate and not a probability, the hazard ranges from zero to infinity. The impact of each variable on the HR can be determined by taking the natural log (ln) of the estimated parameter of the hazard. In our case, the PH assumption is unlikely to hold given the long time span and the large number of events. Following Kleinbaum and Klein (2005), we adopt the stratified Cox model with recurrent events using the counting process, with *Legislature* as the stratifying variable. The stratum variable treats the time interval as a categorical variable. This approach allows us to focus on the time in office between the two events (the first and last times the MP is in the sample) and to consider the actual time of the two events from the study entry. The

approach uses the exact time data layout, and the risk set is determined for the strata based on events after the first. In other words, *Legislature* indicates whether subjects were at risk of not being re-elected to their first, second, third, or fourth legislature (and so on). This helps to distinguish the order in which recurrent events occur. In this way, the model captures the re-election of an MP in consecutive elections, which considers MPs' incumbency advantages. Moreover, it allows us to study the effects of variables that change within the legislature without fitting separate Cox models for each value of the relevant time-varying variable inside the stratum.

This approach also controls for incumbency and persistence. However, for a given subject, the covariates may still be time-independent or time-dependent, and the long period under analysis certainly indicates that time dependence is likely to be the case for many of them (Singer & Willett, 1993). Therefore, we also test for this because if the assumption is violated, the estimates of the coefficients of interest are certain to be biased (Box-Steffensmeier & Zorn, 2001). To test the violation of the PH assumption, we analyze the residuals of a generalization of Eq. (1):

$$h(t, X) = h_0(t) \exp \left[\sum_i \beta_i X_i + (\gamma f(t) X_i) \right] \tag{2}$$

where γ is a parameter and $f(t)$ is a function of time. If the variables violate the PH assumption, they should be stratified, or the model should be estimated by keeping the interaction term $\gamma_i f(t) X_i$ in the set of regressors; it is suggested to set $f(t) = \ln(t)$. The function of time adopted is related to the continuous growth of the variables; however, using the alternative specification of this function, $f(t) = t$, does not alter the conclusions. The set of control variables (*Gender*, *Age*, and *Education*) builds on the literature (Fedeli et al., 2014). We estimate a base model by removing statistically nonsignificant variables from the set of regressors, and we report the effect of each variable individually and interacted with (the ln of) time (Kleinbaum & Klein, 2005).

This general-to-specific approach helps by increasing the degrees of freedom of the estimate and its precision, and by reducing the likelihood that the results will be driven by the high correlation between regressors. The process is conducted as follows. For each pair of nonsignificant variables and its interaction with time, we test the joint significance of the pair, beginning with the least significant. Next, we test the significance of the interaction of each of the remaining variables with time. Finally, we remove the remaining nonsignificant variables, again beginning with the least significant. With this base model, we augment the set of variables by adding those that measure the parliamentary changes: being a "political transformist" as opposed to "other changes," and the different impact of being a "political transformist when changing" in the legislature. Given the nature of our study, we add two variables that capture whether the MP's parliamentary group always supported the government or the opposition throughout an entire legislature.

5 Results

5.1 The full period (1946–2013)

Table 2 reports the findings for the period 1946–2013. The PH assumption is always violated for *Age* and *Government*. In the absence of switching politicians of any type, the

Table 2 Survival in the Italian parliament: 1946–2013

Variable	Base model	Impact of transformism			
	(a)	(b)	(c)	(d)	(e)
Gender	0.944	0.948			
	(0.030)	(0.030)			
Age	1.094	1.091	1.091	1.091	1.090
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Education	0.901	0.896	0.905	0.904	0.907
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Government	0.157	0.190	0.148	0.158	0.196
	(0.050)	(0.060)	(0.047)	(0.050)	(0.062)
Changes		1.195			
		(0.028)			
Other changes			1.164	1.187	1.257
			(0.033)	(0.035)	(0.037)
Political transformists			0.712	0.775	0.317
			(0.027)	(0.030)	(0.027)
Secret ballot × Other changes				0.792	0.746
				(0.094)	(0.088)
Secret ballot × Political transformists				0.449	0.594
				(0.076)	(0.086)
Political transformist when changing affiliation					3.830
					(0.363)
Variable interaction with (*ln* of) time					
Age	0.994	0.994	0.994	0.994	0.994
	(0.001)	(0.001)	(0.001)	(0.001)	0.001
Government	1.213	1.191	1.222	1.214	1.184
	(0.040)	(0.039)	(0.040)	(0.040)	0.039
LogL	−41,663.21	−41,650.81	−41,632.27	−41,620.89	−41,547.36

remaining MPs in the opposition groups do not significantly affect the results. On the other hand, while supporting the government has a negative impact on an MP's re-election, belonging to the majority makes a difference over time, given that the HR of its interaction with time is greater than unity. The results for the control variables suggest that men survive less than women. The HR estimated for *Age* is slightly greater than unity; the coefficient associated with the time interaction is slightly lower than unity. The evidence supports the hypothesis that age is neutral in determining MPs' survival, with the clear exception of death. The estimates also show an HR less than 1 for education, which supports the hypothesis that more educated MPs tend to survive less than others.

The results of the base model in column (a) of Table 2 are stable and consistent across all models estimated over the entire 1946–2013 period [columns (b)–(e)]; the set of regressors relevant for survival when politicians switch from one parliamentary group to another refers to MPs supporting either the government or the opposition. This helps to explain the length of their term of office, considering the different aspects of the phenomenon of

changing politicians: we consider in column (b) all MPs who changed affiliation; in column (c), we divide the changes into *Political transformism* and *Other changes*.

In column (d), we check whether the results are driven by the use of the secret ballot. We create a dummy variable coded 1 for the period when the secret ballot was allowed (until 1988) and 0 afterward, and we interact it with the variables related to switching politicians (*Other changes*, *Political transformists*). Finally, we distinguish, in column (e), *Political transformists* from *Political transformists when changing affiliation* during the legislature of the stratum.

With respect to the base model, column (b) shows that changing MPs survive longer than those who do not change. In column (c), we find that the changing MPs' longer survival is driven by *Other changes*, suggesting that being recognized as a political transformist does not help MPs to serve longer (HR < 1). This result is in line with the literature inspired by career concerns models, where voters care about a politician's "ability" and its effects on policy outcomes. In other words, forward-looking voters—who consider MPs' past performance—estimate politicians' abilities and, thus, their electability. When it comes to transformists, who are likely motivated by the benefits they can receive from remaining in office, voters appear to kick out politicians who (badly) misbehave. The use of the secret ballot in parliament influenced the disclosure of transformism, as shown in column (d). The interacted variables are all significant, and the log-likelihood of the model improves significantly with their inclusion. *Secret ballot* has a negative impact on re-election chances when interacted with *Political transformists* and *Other changes*, for which the HR is less than 1.

When transforming within the legislature (i.e., our stratum), a high HR suggests an immediate reward for betrayal among MPs who helped the government or opposition to change the status quo emerging during the general election. When stratifying the estimation by legislature, we allow the baseline hazard functions to differ for the groups of MPs elected to any legislature. This is equivalent to fitting separate Cox proportional hazards models under the constraint that the coefficients are equal but the baseline hazard functions are not.

In this context, the variable *Political transformist when changing affiliation* is an internal time-dependent variable that captures changes within the legislature. By construction, it helps us analyze the results in terms of short-term benefits within the stratum, but it has little effect on the expected long-run benefit. Our conclusion in terms of re-election is confirmed, yet the effects of these short-term benefits inside the stratum support the view that a transformist's re-election is mainly benefitted by changing during the legislature of the stratum. Column (e) shows that the HR for political transformists reduces by more than half when we consider transformists changing affiliation during the legislature of the stratum.

Column (e) allows for a detailed comparison of the probabilities of survival associated with different changes in MPs' affiliation.[15] The estimate for *Other changes* implies a 5.6-percentage-point increase in the probability of survival compared with MPs not changing affiliation. On the contrary, being a *Political transformist* is significantly associated with an effect of −25.9 percentage points compared with all other non-transformist MPs. The conclusion is similar if we consider the *Secret Ballot* period, which is associated with a −34.1-percentage-point change in the probability of survival. Finally, *Political transformist when changing affiliation* corresponds to a probability of survival that is similar

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[15] The probability of survival is derived from the hazard ratio, HR, using the following transformation: Prob = HR/(1 + HR).

Table 3 Survival in the Italian parliament: First Republic (1946–1993)

Variable	Base model	Impact of transformism			
	(a)	(b)	(c)	(d)	(e)
Gender	0.876	0.878	0.889	0.880	0.890
	(0.055)	(0.055)	(0.056)	(0.055)	(0.055)
Age	1.039	1.038	1.038	1.038	1.038
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.902	0.897	0.909	0.905	0.902
	(0.016)	(0.016)	(0.017)	(0.016)	(0.016)
Government	0.377	0.438	0.362	0.460	
	(0.158)	(0.185)	(0.154)	(0.198)	
Opposition	1.078	1.084	1.077	1.086	1.093
	(0.042)	(0.042)	(0.041)	(0.041)	(0.041)
Changes		1.190			
		(0.054)			
Other changes			1.172	1.273	1.326
			(0.059)	(0.071)	(0.073)
Political transformists			0.486	0.590	0.250
			(0.045)	(0.065)	(0.041)
Secret ballot × Other changes				0.683	0.648
				(0.091)	(0.085)
Secret ballot × Political transformists				0.603	0.585
				(0.120)	(0.091)
Political transformist when changing affiliation					5.904
					(1.205)
Variable interaction with (*ln* of) time					
Government	1.101	1.087	1.106	1.079	0.992
	(0.050)	(0.050)	(0.051)	(0.050)	(0.004)
LogL	−24,738.52	−24,734.36	−24,707.97	−24,702.66	−24,671.59

to that of MPs changing affiliation; it is 4.8 percentage points higher than that for all other non-transformist MPs.

5.2 The First Republic (1946–1994) versus the Second Republic (1994–2013)

We expect our results to depend on the electoral period, because transformism became more common during the Second Republic when the electoral system was governed by plurality-oriented rules. Here, we study the impact of the electoral system (proportional vs. plurality-oriented systems) on MPs' political loyalty. Table 3 reports the results for the First Republic.

The PH assumption is rejected for the variable *Government*. This result is expected given that the First Republic represents the larger fraction of the time span under investigation. The variable *Government*, indicating an MP's support for the ruling government, is always significant, with an HR less than 1 indicating that government support does not help

MPs to survive in parliament. However, the HR for government support becomes greater than 1 when interacted with time. During the First Republic, belonging to the opposition is significant, although it is nearly neutral for MPs' duration in office (with the HR close to unity in all model specifications).

As for the controls, *Gender* is significant in all model specifications, with an HR lower than that obtained for the entire period. Likewise, *Age* is always significant, with an HR close to unity, which is in line with the hypothesis that this variable is neutral. Again, *Education* is significant, with an HR less than 1. Column (b) gauges the effect of changing affiliation. The HR greater than 1 associated with changes shows that, during the First Republic, switching for any reason helped MPs to survive. Column (c) differentiates between *transformism* and *Other changes*. Longer-serving MPs' changes in affiliation are driven by *Other changes*; that is, being a transformist does not help an MP to survive.

Column (d) considers whether the results are driven by the use of the secret ballot. The discontinued use of the secret ballot occurs almost simultaneously with the end of the First Republic; therefore, we consider this variable only in interaction with *Other changes* and *Political transformists*. These interacted variables are statistically significant, and the log-likelihood associated with the model improves significantly. The secret ballot had a negative impact on re-election chances only when interacted with both *Other changes* and *Political transformists*.

Table 4 reports the findings for the Second Republic. Columns (a)–(d) show the results for the entire period, and columns (e) and (f) cover the two subperiods (1994–2006 and 2006–2013). In column (a), the base model shows that the variables never violate the PH assumption, possibly because the period is short. In all model specifications, *Age* is significant and neutral to the time in office. *Gender* is never significant, whereas *Education* (HR < 1) signals higher turnover for the most educated MPs. A peculiar result regarding the Second Republic is that, in the presence of political switchers, being affiliated with a majority parliamentary group significantly increases an MP's survival. Supporting the opposition is significant in all specifications of the model, but with a negative impact on the time in office.

The results in column (b) suggest that, for the Second Republic compared with the baseline model, the effect on survival of changing affiliation for any reason produces an immediate return on the term of office (HR > 1). In column (c), this result is divided between *Political transformists* and *Other changes*: the higher survival for a changing MP is driven by *Other changes*, whereas being recognized as a transformist does not help an MP to survive (HR < 1). Again, being a transformist in the legislature of the stratum (column d) produces an immediate reward for MPs who have worked to sway the election results.

Columns (e) and (f) check the validity of the model for the subperiods of the Second Republic. Column (e) refers to the mixed-plurality period. The results are similar to those obtained for the entire Second Republic, with the main difference being due to *Education*, which is not significant for survival (this period had the highest turnover and a relatively low number of university graduates among the MPs). Belonging to a government coalition helped MPs to survive ($p < 0.10$), whereas belonging to the opposition is associated with an HR of less than 1. Note that the HR for transformists in the legislature of the stratum takes on the highest value of all the estimated models for the Second Republic. Column (f) refers to a proportional electoral system plurality-oriented and is limited to a few legislatures. *Age* and *Education* take on values obtained in the base model of the Second Republic. Belonging to a government coalition helps MPs to

Table 4 Survival in the Italian Parliament: Second Republic (1994–2013)

Variable	Base model	Disaggregated impacts			Before law 270/2005	After law 270/2005
	(a)	(b)	(c)	(d)	(e)	(f)
Age	1.015	1.014	1.015	1.014	1.018	1.012
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Education	0.923	0.922	0.929	0.935		0.929
	(0.023)	(0.023)	(0.023)	(0.023)		(0.027)
Government	1.087	1.101	1.098	1.079	1.114	1.122
	(0.039)	(0.039)	(0.040)	(0.038)	(0.061)	(0.033)
Opposition	0.901	0.919	0.890	0.907	0.793	
	(0.032)	(0.033)	(0.032)	(0.032)	(0.044)	
Changes	1.201					
	(0.032)					
Other changes			1.176	1.252	1.103	1.403
			(0.040)	(0.043)	(0.065)	(0.057)
Political transformists			0.815	0.364	0.277	0.392
			(0.031)	(0.034)	(0.066)	(0.040)
Political transformists when changing affiliation				3.163	5.637	2.579
				(0.327)	(1.433)	(0.277)
LogL	−16,886.94	−16,878.44	−16,873.42	−16,836.00	−5819.61	−11,091.12

survive, whereas belonging to the opposition is not significant. *Changes*, not transformism, help MPs to survive.

Several empirical exercises testing the robustness of our conclusions, especially regarding the confounding factors and causality concerns, are reported in Appendices 3 and 4.

6 Conclusion

We quantified the phenomenon of political transformism in Italy—separate from the phenomenon of MPs simply changing parties—by considering it a type of opportunistic behavior wherein an MP's personal interests of power and prestige, clientelism, and pressure groups prevail. We evaluated the impacts of "changing" and "transforming" politicians in a complex multiparty system where the role of parties in parliament emerges via the support that parliamentary groups give to either the government or the opposition. We tested whether these phenomena affect incumbent MPs' survival by considering the type of electoral system (proportional vs. plurality-oriented) and the parliamentary voting system (open vs. secret ballot). This framework allowed us to capture the differences between the First and Second Republics.

Overall, transformism, always present in Italy, appeared mainly during the Second Republic. This is unsurprising, because the First Republic is characterized by the use of the secret ballot, which contained the emergence of transformism until 1988. When looking at the electorate's reactions in terms of re-election of incumbent legislators over 1946–2013, MPs who changed political affiliation for any reason survived longer than MPs who did not. By dividing these changes into *Political transformism* and *Other changes*, we find that MPs' longer survival is driven by *Other changes*, suggesting that being recognized as a transformist does not help. Nevertheless, those transformists who helped the government or opposition to change the status quo emerging from the elections gained an immediate reward for betrayal in terms of higher survival with respect to other/previous transformists.

The *Secret ballot* had a negative impact on MPs' survival when interacted with *Political transformists*; that is, MPs who emerged as transformists during the secret ballot's use survived a shorter time than those who did so after its abrogation. Similarly, MPs who were transformists outside the stratum saw their opportunistic behavior identified by voters who sometimes punished them accordingly.

We verified that parliamentary survival in the presence of simple switching and transformism is conditional on the electoral laws, and we find some differences between the First and Second Republics. Under the pure proportional system of the First Republic, supporting the government did not immediately reward MPs by ensuring their survival, but it did help over time, whereas belonging to the opposition was neutral. The opposite occurred for the Second Republic under the plurality-oriented electoral system. In this case, supporting the government helped to ensure an MP's immediate re-election, whereas supporting the opposition did not. Changes for any reason and "other changes" had the same impact on MPs' time in office during both the First and Second Republics. Nevertheless, transformism during the legislature of the stratum offered a greater immediate reward during the First Republic despite the higher number of transformists in the Second Republic. This is confirmed by the finding that transformists refining their strategies outside of the legislature in which they acted as such have low chances of survival, whereas they are immediately rewarded after coming out as transformists.

The result that MPs' identification as transformists leads to their punishment by the electorate while those just transformed enjoy a comparative short-term advantage holds true for the overall period and for all subperiods. Along with the evidence of a long-lasting and increasing presence of transformists in the Italian parliament, this finding suggests that an MP's ability to transform may not fully allow the electorate to rid the parliament of transformists.

Appendix 1: Subsample periods: Italian electoral systems

Apart from the First Republic, Italian electoral systems have always been hybrid forms of plurality mixed with proportional, which cannot simply be neatly pigeonholed. For this reason, and because of the long period under analysis, we report a very simplified summary to clarify the type of electoral system of each subperiod.

First Republic (1946–1994): Pure proportional representation (also called classical proportional law, with open lists to allow voters to indicate preferences for individual candidates during the elections). There were few differences between the Senate and Chamber of Deputies, mainly due to the number of multi-member constituencies (32 for the Chamber and 20, corresponding to the number of Italian regions, for the Senate) electing a variable number of MPs, depending on the population.

Over this period the electoral law changed only in 1953; this revision gave a majority premium to the coalition reaching 50% of the vote. This law was never applied, given that no coalition reached the threshold. The law was abrogated in 1954 when the old law of pure proportional representation was re-adopted with the following features.

Chamber of Deputies: in a first phase, the elected candidates were determined for each constituency based on the votes won. The remainder votes were then allocated at the national level according to the Hare quota. Each elector could vote for a maximum of three candidates.

The Senate electoral law was articulated on a regional basis, with each region divided into single-member sub-constituencies where the candidate was expected to gain 65% of the vote to win. In the absence of such a winner, as was almost always the case, the party votes were aggregated at a regional level and the seats were assigned using the D'Hondt method. In the Senate, each elector could vote for only one candidate for their regional sub-constituency.

Second Republic (1994–2013) is divided into two periods.

From 1994 to 2006: Hybrid plurality system. In the Chamber of Deputies, 75% of MPs were elected via a plurality system (majoritarian, first-past-the-post) and the remaining 25% were selected proportionally. Likewise, 232 senators were elected via plurality (again majoritarian, first-past-the-post) and the remaining 83 by a proportional system.

From 2006 to 2013: Hybrid proportional system. In 2005, Law n.270 modified the electoral system to make it proportional and "oriented toward plurality": with blocked lists and without votes of preference, the list or coalition of lists obtaining the relative majority also won 55% of the seats in parliament. In the Senate, seats were assigned at a regional level, with a premium of additional seats for the party with the relative majority within each region; in the Chamber, there was a double threshold to obtain the premium.

Since 2006, for both houses, voters are only allowed to cast a ballot for their party and not for individual candidates. Hence, a conceptual problem for the legislature after 2006 has existed in that what matters for the election is the position of the candidate in the party list: the closer they are to the top, the higher their chances of election.

In 2014, the Constitutional Court declared Law n.270 unconstitutional due to both the majority premium and the length of the blocked lists. A new system was established in 2017.

Appendix 2: Duration of governments, definition of variables and descriptive statistics

Table 5 reports the list of Italian governments from the Constituent Assembly to the XVI Legislature, and demonstrates that the tenure of the government is always shorter than the legislature. We refer to this table to consider MPs' loyalty to the government/opposition. Table 6 reports the variable definitions, and Table 7 presents descriptive statistics for the entire period and the subsamples.

Appendix 3: Robustness to potential confounders

We report results from several empirical tests of the robustness of our conclusions by tackling the possibility of confounding factors that are left out of the empirical analysis. If some confounders simultaneously raise (lower) MPs' likelihood of transforming, and lower (raise) their chances of re-election, then our results may simply stem from omitted variable bias. For instance, candidates that are ex ante less likely to run for re-election may also be more likely to transform in order to survive. In the first set of exercises, we consider alternative specifications and progressively saturate our preferred model, with a wide set of additional controls included to reduce such a possibility. The results are summarized in Table 8.

The set of covariates in our baseline model includes *Gender*, *Age*, *Education*, and *Government*, and the interaction of *Age* and *Government* in the set of regressors. We begin by testing whether our conclusions depend on the adopted specification resulting from our general-to-simple exercise. Therefore, column (a) reports the results we obtain by removing the set of control variables from our set of regressors, and column (b) includes in the specification all variables, even those that are not statistically significant, together with their time interactions. Our results are largely confirmed.

One additional issue that may affect the survival of an MP is related to the role played by political parties. Indeed, transformists can negotiate rewards with their new party, as well as threaten their current party to leave. If we ignored this channel, the lower survival of transformists may be simply due to their inability to bargain a good position in the following election with either the party they are switching to or the party that they are threatening to leave. To control for such a scenario, we augment our model with variables capturing the main parties of the First (DC, MSI, PCI, and PSI) and Second Republics (center-left or center-right). For the sake of simplicity, we report the test for joint exclusion of the six dummies instead of their individual hazard ratios. The results are summarized in column (c) and confirm our previous findings.

Table 5 Government coalitions by legislature, 1946–2013

Legislature	Gov	Prime minister (duration)	Government coalition
Constituent Assembly	1	1. Parri (21.06.1945–8.12.1945)	DC, PCI, PSIUP, PLI, PDL, Partito d'Azione
	2	1. De Gasperi (10.12.1945–1.07.1946)	DC, PCI, PSI, PLI, PDL, Partito d'Azione
	3 (1)	2. De Gasperi (15.07.1946–2.02.1947)	DC, PCI, PSI, PRI
	4 (2)	3. De Gasperi (2.02.1947–31.05.1947)	DC, PCI, PSI
	5 (3)	4. De Gasperi (31.05.1947–23.05.1948)	DC, PLI, PSLI, PRI
I	6 (4)	5. De Gasperi (23.05.1948–27.01.1950)	DC, PLI, PSLI, PRI
	7 (5)	6. De Gasperi (27.01.1950–26.07.1951)	DC, PSLI, PRI
	8 (6)	7. De Gasperi (26.07.1951–16.07.1953)	DC, PRI
II	9 (7)	8. De Gasperi (16.07.1953–22.08.1953)	DC
	10 (8)	1. Pella (22.08.1953–10.02.1954)	DC
	11 (9)	1. Fanfani (12.01.1954–10.02.1954)	DC
	12 (10)	1. Scelba (10.02.1954–6.07.1955)	DC, PSDI, PLI
	13 (11)	1. Segni (6.07.1955–19.05.1957)	DC, PSDI, PLI
	14 (12)	1. Zoli (19.05.1957–01.07.1958)	DC
	15 (13)	2. Fanfani (1.07.1958–15.02.1959)	DC, PSDI
III	16 (14)	2. Segni (15.02.1959–25.03.1960)	DC
	17 (15)	1. Tambroni (25.03.1960–26.07.1960)	DC
	18 (16)	3. Fanfani (26.07.1960–21.02.1962)	DC
	19 (17)	4. Fanfani (21.02.1962–21.06.1963)	DC, PSDI, PRI
IV	20 (18)	1. Leone (21.06.1963–4.12.1963)	DC
	21 (19)	1. Moro (4.12.1963–22.07.1964)	DC, PSI, PSDI, PRI
	22 (20)	2. Moro (22.07.1964–23.02.1966)	DC, PSI, PSDI, PRI
	23 (21)	3. Moro (23.02.1966–24.06.1968)	DC, PSI, PSDI, PRI
V	24 (22)	2. Leone (24.06.1968–12.12.1968)	DC
	25 (23)	1. Rumor (12.12.1968–10.08.1969)	DC, PSU, PRI
	26 (24)	2. Rumor (10.08.1969–27.03.1970)	DC
	27 (25)	3. Rumor (27.03.1970–12.08.1970)	DC, PSI, PSDI, PRI

Table 5 (continued)

Legislature	Gov	Prime minister (duration)	Government coalition
	28 (26)	1. Colombo (12.08.1970–17.02.1972)	DC, PSI, PSDI, PRI
	29 (27)	1. Andreotti (17.02.1972–26.06.1972)	DC
VI	30 (28)	2. Andreotti (26.06.1972–07.07.1973)	DC, PSDI, PLI
	31 (29)	4. Rumor (7.07.1973–14.03.1974)	DC, PSI, PSDI, PRI
	32 (30)	5. Rumor (14.03.1974–23.11.1974)	DC, PSI, PSDI
	33 (31)	4. Moro (23.11.1974–12.02.1976)	DC
	34 (32)	5. Moro (12.02.1976–31.07.1976)	DC
VII	35 (33)	3. Andreotti (31.07.1976–11.03.1978)	DC
	36 (34)	4. Andreotti (11.03.1978–21.03.1979)	DC
	37 (35)	5. Andreotti (21.03.1979–05.08.1979)	DC, PRI, PSDI
VIII	38 (36)	1. Cossiga (5.08.1979–05.04.1980)	DC, PLI, PSDI
	39 (37)	2. Cossiga (5.04.1980–18.10.1980)	DC, PSI, PRI
	40 (38)	1. Forlani (18.10.1980–28.06.1981)	DC, PSI, PSDI, PRI
	41 (39)	1. Spadolini (28.06.1981–23.08.1982)	DC, PSI, PSDI, PRI, PLI
	42 (40)	2. Spadolini (23.08.1982–01.12.1982)	DC, PSI, PSDI, PRI, PLI
	43 (41)	5. Fanfani (1.12.1982–04.08.1983)	DC, PSI, PSDI, PLI
IX	44 (42)	1. Craxi (4.08.1983–01.08.1986)	DC, PSI, PSDI, PRI, PLI
	45 (43)	2. Craxi (1.08.1986–14.04.1987)	DC, PSI, PSDI, PRI, PLI
	46 (44)	6. Fanfani (14.04.1987–29.07.1987)	DC, Indipendenti
X	47 (45)	1. Goria (29.07.1987–13.04.1988)	DC, PSI, PSDI, PRI, PLI
	48 (46)	1. De Mita (13.04.1988–23.07.1989)	DC, PSI, PSDI, PRI, PLI
	49 (47)	6. Andreotti (23.07.1989–12.4.1991)	DC, PSI, PSDI, PRI, PLI
	50 (48)	7. Andreotti (12.04.1991–24.04.1992)	DC, PSI, PSDI, PLI
XI	51 (49)	1. Amato (28.06.1992–28.04.1993)	DC, PSI, PSDI, PLI
	52 (50)	1. Ciampi (28.04.1993–10.05.1994)	DC, PSI, PSDI, PLI

Table 5 (continued)

Legislature	Gov	Prime minister (duration)	Government coalition
XII	53 (51)	1. Berlusconi (10.05.1994–17.1.1995)	FI, LN, AN, CCD, UDC
	54 (52)	1. Dini (17.01.1995–17.05.1996)	Indipendenti
XIII	55 (53)	1. Prodi (17.05.1996–21.10.1998)	PDS, PPI, Lista Dini, UD, Verdi
	56 (54)	1. D'Alema (21.10.1998–22.12.1999)	Ulivo, PDCI, UDEUR
	57 (55)	2. D'Alema (22.12.1999–25.4.2000)	DS, PPI, Democratici, UDEUR, PDCI. VERDI, Rinnova-mento
	58 (56)	2. Amato (25.04.2000–11-6-2001)	DS, PPI, Democratici, UDEUR, SDI, PDCI, VERDI, Rinnovamento, Indipendenti
XIV	59 (57)	2. Berlusconi (11-06-2001 to 23-4-2005)	Forza Italia, AN, Lega Nord, Biancofiore (CCD–CDU), Indipendenti
	60 (58)	3. Berlusconi (23-4-2005 to 16-5-2006)	Forza Italia, AN, Lega Nord, Biancofiore (CCD–CDU), Indipendenti
XV	61 (59)	2. Prodi (16-5-2006 to 8-5-2008)	Margherita–DS–UDEUR—Italia dei Valori.—Verdi—PRC—Rosa nel Pugno
			Quota Prodi
XVI	62 (60)	4. Berlusconi I (8-5-2008 to 16-11-2011)	Popolo della Libertà, Lega Nord, MpA
	63 (61)	1. Monti (16-11-2011 to 25-4-2013)	(Technical Government)

Party acronyms not defined in the text are: PSIUP (Partito Socialista Italiano di Unità Proletaria), PDL (Partito Democratico del Lavoro), PSU (Partito Socialista Unificato), LN (Northern League), UDC (Unione dei Democratici Cristiani e di Centro), UD (Unione Democratica), UDEUR (Unione Democratici per l'Europa), SDI (Socialisti Demo-cratici Italiani), Biancofiore (Ccd–Cdu) (Christian Democratic Party of the Center -CCD- joint with Cristiani Democratici Uniti -CDU), PRC (Partito della Rifondazione Comunista), and MpA (Movimento per l'Autonomia)

Table 6 Definition of variables

Variable	Description
id	An indicator for the member of the Parliament. It includes multiple observations for the same subject, given that re-elected members of the Parliament are present in more than one legislature
Start	Beginning of the legislature (i.e., the starting time of the event for each interval)
Stop	End of the legislature (i.e., the time of the event or censorship for each interval)
Start–stop	The time interval for the risk period, specific to each individual
Last time	Indicates whether each member enters, re-enters and exits the Parliament. Its value is 0 if the individual exits and re-enters the Parliament; 1 if member exits the Parliament and never enters it again. For example, if the member of the Parliament is elected only once, the value is 1; if the member of the Parliament is elected 4 times, the value is 0 for the first 3 times and 1 for the last time, and it does not matter whether the legislatures in which s/he is elected are consecutive
Gender	0 for female and 1 for male
Age	Age of the members of the Parliament, taken at the beginning of the legislature
Experience	Counting variable representing the order of the time interval for a given subject (it is coded 1 for a subject's first time interval; coded 2 for a subject's second time interval; and so on)
Education	The level of education of the members of the Parliament. 1 for primary/elementary school; 2 for middle school/junior high; 3 for high school; 4 for a university degree
Government	1 if the individual was affiliated with a political party supporting the incumbent during the legislature; 0 otherwise
Opposition	1 if the individual was affiliated with a political party against the incumbent during the legislature; 0 otherwise
Political transformist	1 if the member of parliament has ever moved from a political group belonging to the majority (or supporting the majority from a mixed subgroup) either to a political group belonging to the opposition or to a mixed (sub)group supporting the opposition; those passing from a political group belonging to the opposition (or supporting the opposition from a mixed subgroup) either to a majority group or to a mixed (sub)group supporting the government; 0 otherwise
Political transformist when changing affiliation	1 if in a given legislature the member of Parliament moves from a political group belonging to the majority (or supporting the majority from a mixed subgroup) either to a political group belonging to the opposition or to a mixed (sub)group supporting the opposition; those passing from a political group belonging to the opposition (or supporting the opposition from a mixed subgroup) either to a majority group or to a mixed (sub)group supporting the government; 0 otherwise
Other changes	1 if the individual changes political affiliation but not in the political transformist group; 0 otherwise
Parties	Six dummies for affiliation to a large party: center-left, center-right, DC, MSI, PCI, PSI
Professions	Eight dummies for groups of professions: (1) "manual workers and farmers"; (2) "medical doctors, pharmacists, veterinary doctors"; (3) "journalists and writers"; (4) "artisans, traders, army officers, architects, engineers, accountants, consultants, others"; (5) "managers, industrialists, entrepreneurs"; (6) "political managers"; (7) "lawyers, judges, notaries"; and (8) "white-collar workers and teachers, including university professors"
Committees	15 groups of committees: "constitutional affairs," "justice," "foreign affairs," "defense," "budget," "finance," "culture and education," "public works," "agriculture," "industry," "environment," "EU policies," "social affairs," "transportation," and "the Presidency of the Council of Ministers"
After	1 for the legislature after the transformism, and 0 otherwise

Table 6 (continued)

Variable	Description
Ever after	1 for any legislature that follows the transformism, and 0 otherwise
Control	1 for non-transformist, and 0 otherwise
After2	1 after two legislatures as an MP, and 0 otherwise

Table 7 Summary statistics (main variables)

Variable	Sample	First republic	Second republic		
			Total	Before law 270/2005	After law 270/2005
Last time					
0	59.81	59.19	61.21	50.29	68.33
1	40.19	40.81	38.79	49.71	31.67
Number of elections					
1	46.42	44.65	50.39	58.11	45.34
2	25.38	25.26	25.66	25.17	25.97
3	13.35	13.71	12.53	9.48	14.52
4	7.02	7.74	5.41	3.05	6.95
5	3.88	4.34	2.85	1.50	3.73
6	1.93	2.22	1.27	1.12	1.36
7	1.02	1.10	0.85	0.96	0.77
8	0.51	0.50	0.55	0.37	0.66
9	0.29	0.30	0.27	0.05	0.45
10 or more	0.20	0.19	0.21	0.16	0.24
Gender					
Male	92.21	94.75	86.49	88.75	85.02
Female	7.79	5.25	13.51	11.25	14.98
Education					
Elementary	2.19	3.13	0.13	0.16	0.11
Middle	3.03	3.77	1.42	1.90	1.10
High	19.57	16.56	26.16	26.71	25.78
University	75.21	76.54	72.29	71.24	73.00
Age					
Average	50.93	50.65	51.57	49.59	52.87
Government	52.96	54.96	48.47	44.53	51.03
Opposition	31.13	25.91	42.88	44.86	41.59
Political transformist	7.33	4.09	14.62	13.72	15.22
Total changes	12.93	6.95	26.37	33.07	22.00
Transformist when changing affiliation	3.07	1.05	7.59	7.61	7.58
Other changes	9.86	5.90	18.77	25.46	14.41
Number of observations	15,344	10,619	4,725	1,866	2,859

To save space, the summary statistics for the group of dummies for committees, parties and professions are not reported. These are available upon request from the authors

Table 8 Survival in the Italian Parliament: robustness to confounding factors

Variable	(a)	(b)	(c)	(d)	(e)	(f)
Gender		0.449	0.512	0.443	0.433	0.478
		(0.285)	(0.332)	(0.283)	(0.275)	(0.311)
Age		1.090	1.089	1.089	1.089	1.087
		(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Education		1.032	1.110	1.055	1.012	1.106
		(0.197)	(0.215)	(0.204)	(0.193)	(0.216)
Government		0.189	0.842	0.195	0.189	0.879
		(0.061)	(0.348)	(0.063)	(0.061)	(0.364)
Other changes	1.369	1.255	1.222	1.259	1.263	1.235
	(0.039)	(0.037)	(0.037)	(0.037)	(0.037)	(0.038)
Political transformists	0.314	0.318	0.325	0.317	0.320	0.327
	(0.026)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Secret ballot×other changes	0.708	0.743	0.740	0.743	0.753	0.752
	(0.078)	(0.088)	(0.089)	(0.087)	(0.090)	(0.090)
Secret ballot×political transformists	0.539	0.594	0.620	0.590	0.590	0.611
	(0.078)	(0.086)	(0.089)	(0.085)	(0.085)	(0.087)
Political transformists when changing affiliation	4.073	3.823	3.650	3.832	3.833	3.675
	(0.391)	(0.363)	(0.343)	(0.363)	(0.363)	(0.345)
Test for exclusion:						
Center-left, center-right, DC, MSI, PCI, PSI			152.900			157.910
			[0.000]			[0.000]
Profession 1, …, profession 8				23.740		18.710
				[0.000]		[0.000]
Committee 1, …, committee 15					60.940	68.050
					[0.000]	[0.000]

Table 8 (continued)

Variable	(a)	(b)	(c)	(d)	(e)	(f)
Variable interaction with (*ln* of) time						
Gender		1.080	1.067	1.082	1.085	1.075
		(0.069)	(0.070)	(0.070)	(0.070)	(0.071)
Age		0.994	0.994	0.994	0.994	0.994
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education		0.986	0.981	0.984	0.989	0.983
		(0.020)	(0.020)	(0.020)	(0.020)	(0.021)
Government		1.189	1.039	1.185	1.189	1.035
		(0.040)	(0.044)	(0.040)	(0.040)	(0.043)
LogL	−44,418.83	−41,546.18	−41,506.66	−41,668.65	−41,529.46	−41,740.51

Table 9 Transformism and probability of re-election: difference-in-differences

	(a)	(b)	(c)	(d)
Political transformists × After	−0.159***	−0.187***	−0.393***	−0.199**
	(0.0405)	(0.0406)	(0.0397)	(0.0893)
Age		−0.0229***	−0.0179***	
		(0.00251)	(0.00241)	
Government		−0.0792***	−0.0541***	
		(0.0160)	(0.0153)	
Education		0.190***	0.148**	
		(0.0684)	(0.0656)	
Changes		−0.0977***	−0.0235	
		(0.0206)	(0.0200)	
Gender				
Control × After2			−0.315***	
			(0.0118)	
Time FE	Yes	Yes	Yes	Yes
MP FE	Yes	Yes	Yes	Yes
Estimator	DID	DID	DID	Matching-DID
Number of observations	14,388	13,835	13,835	1350
R^2	0.270	0.282	0.341	0.321

Next, we address the role played by an MP's profession. Indeed, the socio-professional status may influence the choice to be a candidate and affect their performance once elected. Some professions are considered unusual for pursuing a political career; still, their election to office may open new opportunities for the MP once they leave parliament. If not adequately considered, the lower survival we are documenting for the transformists may depend upon their profession. Following Fedeli et al. (2014), we grouped professions into eight classes: (1) "manual workers and farmers"; (2) "medical doctors, pharmacists, veterinary doctors"; (3) "journalists and writers"; (4) "artisans, traders, army officers, architects, engineers, accountants, consultants, others"; (5) "managers, industrialists, entrepreneurs"; (6) "political managers"; (7) "lawyers, judges, notaries"; and (8) "white-collar workers and teachers, including university professors." We have added these groups of professions to our set of regressors. Results for the test for joint exclusion are reported in column (d), suggesting that groups of professions are jointly statistically significant. Our main conclusions are unchanged.

Finally, column (e) accounts for the role of the parliamentary committees. These may offer different degrees of prestige/power and clientelism, thus giving MPs either heterogeneous career opportunities or the chance to switch affiliation, affecting the probability of transformism. To deal with this issue, we collected data on the committee names and membership for each MP over time. We identified 43 committees, from which we grouped the 15 permanent committees.[16] We added these variables to the set of regressors, and our main

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[16] Some of these parliamentary committees change their name over time but serve the same purpose. For instance, the Industry Committee becomes the Committee for Industry and Commerce. We grouped these committees into 15 classes related to "constitutional affairs," "justice," "foreign affairs," "defense," "budget," "finance," "culture and education," "public works," "agriculture," "industry," "environment," "EU policies," "social affairs," "transportation," and "the Presidency of the Council of Ministers."

conclusions are largely unaffected. Our results are robust even if we fully saturate our model by jointly accounting for parties, professions, and committees, as shown in column (f).

Appendix 4: Causality

This section relates to causality. While the Cox model associated with the survival analysis has several clear advantages given our research question, causality is typically not easy to handle unless one identifies some exogenous source of variation at the individual level that can be safely exploited as an external instrument. This is far from obvious in our empirical setup. We, therefore, opt for an extensive set of alternative approaches to assuage concerns about causality. We begin by employing a difference-in-differences (DID) estimator to test the effect of political transformism on the probability of re-election in the near future (i.e., over two linked periods). Columns (a) and (b) of Table 9 show the results for a binary measure, *Re-elected*, which is coded 1 if the MP is re-elected in the following legislature, and zero otherwise. In so doing, we compare the change over time in the probability of re-election in the legislature after the transformism took place, with the average change over time for the control group of non-transformist MPs. This is captured by our main coefficient of interest, defined as the interaction between political transformists and "After," a dummy variable coded 1 for the period that follows the change in party, and zero otherwise. To deal with possible omitted variable bias, the panel structure of the data accounts for MP-specific fixed effects. The demeaning process at the individual level allows us to effectively deal with any persistent heterogeneity that is constant over time, whether it is observable or not. In other words, we fully exploit the panel dimension of our sample to eliminate any persistent omitted factor (i.e., time-invariant) that may simultaneously drive an MP's probability of re-election and their transformist behavior.

The results point to a substantial effect of transformism, ranging between a 16- and 19-percentage-point lower probability of re-election in the following legislature, as shown in columns (a) and (b), respectively. Note that in terms of both specification and outcome, column (b) represents the closest counterpart to our baseline analysis in Table 2. Unlike the estimates of the Cox model, the DID approach omits any MP's characteristic that is time-invariant so that we expect some of the effects to be absorbed by such a demeaning process. Nevertheless, the results in Table 9 are not that different from those of our baseline model. In Table 2, we documented a −25.9-percentage-point reduction in the probability of survival for transformists, while the estimated coefficient of the DID implies a reduction of about −19 percentage points. The only significant difference emerges for other forms of affiliation change that, once unobserved heterogeneity is accounted for, are found to decrease the probability of re-election, although to a lesser extent than transformists.

As an additional robustness check, we even imposed a fake treatment to non-transformists after the average number of legislatures (from their first appointment) in which the actual transformism occurs. Because the average (and median) transformist changes parties after their second term as an MP, we want to avoid our effect being driven only by this factor. Therefore, we compare the probability of re-election of transformists with that of our control group (i.e., non-transformists; *Control* in our notation) after the second legislature (a dummy variable called *After2*). Column (c) of Table 9 shows that the estimate for transformists is 8 percentage points lower than this counterfactual effect (−39.3 vs. −31.5%,

Table 10 Balancing properties of the matching procedure on transformists

Variable	Unmatched/ matched	Mean		% bias	% reduct bias	t-test	
		Treated	Control			t-test	p >|t|
Legislation	U	11.905	8.992	72.6		14.89	0.000
	M	11.905	11.923	−0.4	99.4	−0.08	0.939
N previous elections	U	2.6775	2.2624	23.8		5.76	0.000
	M	2.6775	2.7034	−1.5	93.7	−0.21	0.835
Senate	U	0.41176	0.33394	16.1		3.59	0.000
	M	0.41176	0.39919	2.6	83.8	0.40	0.688
Age	U	3.9621	3.9273	17.8		3.87	0.000
	M	3.9621	3.9571	2.6	85.5	0.41	0.681
Education	U	2.4544	2.4293	3.0		0.65	0.517
	M	2.4544	2.4312	2.8	7.8	0.44	0.661
Commission	U	14.523	16.863	−20.5		−4.44	0.000
	M	14.523	14.778	−2.2	89.1	−0.36	0.721
Parliamentary group	U	39.01	34.843	17.5		3.66	0.000
	M	39.01	39.428	−1.8	90.0	−0.27	0.784
Gender	U	39.01	0.92698	0.92785		−0.07	0.942
	M	39.01	0.92698	0.92617	6.8	0.05	0.961
Government	U	0.39554	0.46527	−14.1		−3.05	0.002
	M	0.39554	0.38661	1.8	87.2	0.29	0.774
Opposition	U	0.32657	0.34169	−2.3		−0.69	0.492
	M	0.32657	0.35132	−5.2	−63.7	−0.81	0.416

Table 11 Transformism and probability of re-election: average treatment effect

	Nearest neighbor matching (N)				
N:	1	2	3	4	5
	(a)	(b)	(c)	(d)	(e)
ATT	− 0.185***	− 0.214***	− 0.197***	− 0.196***	− 0.202***
	(0.0452)	(0.0388)	(0.0359)	(0.0344)	(0.0344)
	Radius matching (Caliper stdev)				
SD:	0.01	0.05	0.1	0.25	0.5
	(a)	(b)	(c)	(d)	(e)
ATT	− 0.198***	− 0.217***	− 0.219***	− 0.237***	− 0.268***
	(0.0300)	(0.0302)	(0.0307)	(0.0283)	(0.0266)

$p < 0.05$). Our estimates are fairly similar and somewhat stronger if we allow transformism to have long-lasting effects and explore the impact over a wider time span.[17]

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[17] We sincerely thank an anonymous referee for suggesting these sets of exercises.

Table 12 Transformism and probability of re-election (longer run): difference-in-differences

	(a)	(b)	(c)	(d)
Political transformists × ever after	−0.177***	−0.190***	−0.362***	−0.223**
	(0.0443)	(0.0442)	(0.0429)	(0.100)
Political transformists				
Age			−0.0227***	−0.0176***
			(0.00251)	(0.00242)
Government			−0.0817***	−0.0598***
			(0.0160)	(0.0153)
Education			0.189***	0.147**
			(0.0684)	(0.0657)
Changes			−0.0936***	−0.0154
			(0.0206)	(0.0200)
Gender				
Control × ever after			−0.307***	
			(0.0118)	
Time FE	Yes	Yes	Yes	Yes
MP FE	Yes	Yes	Yes	Yes
Estimator	DID	DID	DID	Matching-DID
R^2	0.270	0.282	0.339	0.188
Number of observations	14,388	13,835	13,835	1991

One possible concern with the DID approach is related to the parallel-trend assumption. In our framework, this translates into asking whether treated and control groups in the absence of transformism actually exhibited the same ex ante probability of re-election. The aforementioned argumentations suggest this may not be the case, possibly entailing some bias in the DID estimates. To deal with this issue, we perform one last robustness test in column (d) of Table 9 and present the estimates of a matching DID exercise. In essence, we first match the treated (i.e., transformists) and control groups (non-transformists) to recover a subsample of MPs with the same ex ante probability of transforming.[18]

Table 10 reports the balancing properties of our matching exercise. In essence, the procedure works as follows. First, we run a logit model on the probability of treatment (becoming a transformist) along with the set of measures listed in the first column. As a second step, we compute the underlying probability of transformation, as implied by the previous estimation, and recover the propensity score (PS). Finally, for each transformist in the sample, we match one (or more) non-treated MPs to minimize the difference in the PS within each pair. In other words, matching techniques allow us to select a balanced sample of treated and control MPs that are fairly similar in the probability of transforming (and on each dimension considered), but that only differ in terms of whether or not the transformism took place. In this table, we report the mean for treated and control groups for both the raw (unmatched = U) and matched (M) samples. The term "% reduct bias" synthesizes the

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[18] For the sake of brevity, column (d) only reports results from propensity score nearest neighbor matching, with *N = 3*. However, our results are virtually insensitive to the choice of alternative matching algorithms (see the notes in the Appendix for some details).

reduction in the bias across groups induced by the matching. We also report the *t*-tests for the mean differences between subgroups and their associated *p* values (last column).

As shown in Table 10, transformists and non-transformists display significant ex ante heterogeneity along most of the dimensions considered (as suggested by the *p* values in the unmatched samples). After the matching, however, we are always unable to reject the null of equality between the treated and control groups for each measure. This suggests that the propensity score matching is correctly balancing the two sets of MPs along all of the variables of interest (the *p* value never entails a significant difference in the post-distributions). Thus, our matching approach allows us to recover a sample composed of MPs that are identical on all of the dimensions observed and that have a similar probability of treatment, but that differ in terms of their actual transformism choices. For the sake of brevity, balancing properties only refer to the nearest neighbor matching ($N=3$) employed in Table 10, column (d). The balancing properties of the other matching algorithms employed in Table 9 are, however, virtually identical.

Table 11 reports the average treatment effect on treated (ATT) estimate from several matching procedures. In the top panel, we employ nearest neighbor matching, whereby each transformist is paired with non-transformist MPs that are the closest in terms of propensity scores (independent of the actual distance between observations). The number of matched MPs from the control group is specified in the top row and ranges from 1 to 5 MPs per single transformist, as displayed in columns (a) through (e), respectively. In the bottom panel, we employ a different matching algorithm (radius matching) based on a maximum distance between treated units and controls. The caliper has been set in units of standard deviations of the propensity score, ranging between 0.01 and 0.50 standard deviations. In all cases, the estimated ATT largely confirms our results on the lower probability of re-election attached to political transformists.

Finally, Table 12 replicates the analysis in Table 9 while allowing for longer-run effects. Unlike before, the dummy variable identifying post-treatment ("ever after," in our notation) is permanently set to be equal to 1 for any period after the transformism occurs (and not just for the following legislature). The results are largely in line with those presented in Table 9. In column (f) we report the results from the matching DID model using nearest neighbor matching ($N=3$); the results are robust to the choice of alternative matching algorithms.

References

Banks, J., & Sundaram, R. (1998). Optimal retention in agency problems. *Journal of Economic Theory, 82*, 293–323.

Barro, R. (1973). Control of politicians: An economic model. *Public Choice, 14*, 19–42.

Barrow, L. K. (2007). Party on? Politicians and Party-Switching in Mexico. *Politics, 27*(3), 165–173.

Besley, T. (2006). *Principled agents?* Oxford University Press.

Besley, T., & Case, A. (1995). Incumbent behavior: vote-seeking, tax setting, and yardstick competition. *American Economic Review, 85*, 25–45.

Besley, T., & Coate, S. (1997). An economic model of representative democracy. *Quarterly Journal of Economics, 112*(1), 85–114.

Boeri, T., Merlo, A., & Prat, A. (2010). *The ruling class: Management and politics in modern Italy*. Oxford University Press.

Box-Steffensmeier, J. M., & Zorn, C. J. W. (2001). Duration models and proportional hazards in political science. *American Journal of Political Science, 45*(4), 972–988.

Buchanan, J. M. (1954). Individual choices in voting and the market. *Journal of Political Economy, 62*, 334–343.

Buchanan, J. M. (1986). Can policy activism succeed? A public choice perspective. In R. W. Hafer (Ed.), *The monetary versus fiscal policy debate: Lessons from two decades* (pp. 139–150). Rowman and Allanheld.

Buchanan, J. M. (1996). Society and democracy. In N. Kuenssberg & G. Lomas (Eds.), *The David Hume Institute—The first decade* (pp. 25–33). David Hume Institute.

Carothers, T. (2006). *Confronting the weakest link: Aiding political parties in new democracies*. Carnegie Endowment for International Peace.

Castle, D., & Fett, P. J. (2000). Member goals and party switching in the U.S. Congress. In W. T. Blanco (Ed.), *Congress on display Congress at work* (pp. 231–241). University of Michigan Press.

Coate, S., & Morris, S. (1995). On the form of transfers to special interests. *Journal of Political Economy, 103*(6), 1210–1235.

Cox, D. (1972). Regression Models and Life Tables. *Journal of the Royal Statistical Society, Serial B, 34*, 187–222.

Cox, G. W. (1987). Electoral equilibrium under alternative voting institutions. *American Journal of Political Science, 31*(1), 82–108.

Cox, G. W., & McCubbins, M. D. (1994). Bonding, structure, and the stability of political parties: Party government in the House. *Legislative Studies Quarterly, 19*(2), 215–231.

Dal Bó, E., & Rossi, M. A. (2011). Term length and the effort of politicians. *Review of Economic Studies, 78*(4), 1237–1263.

Desposato, S.W. 2005. The impact of party-switching on legislative behavior in Brazil. http://faculty.virginia.edu/partyswitching/papers/cv05-desposato.pdf

Desposato, S. W. (2006). Parties for rent? Ambition, ideology, and party switching in Brazil's Chamber of Deputies. *American Journal of Political Science, 50*(1), 62–80.

Fearon, J. (1999). Electoral accountability and the control of politicians: Selecting good types versus sanctioning poor performance. In A. Przeworski, S. Stokes, & B. Manin (Eds.), *Democracy, accountability and representation.* Cambridge University Press.

Fedeli, S., Forte, F., & Leonida, L. (2014). The law of survival of the political class: An analysis of the Italian parliament (1946–2013). *European Journal of Political Economy, 35*, 102–121.

Ferejohn, J. (1986). Incumbent performance and electoral control. *Public Choice, 50*, 5–26.

Ferraz, C. A., & Finan, F. (2008). Exposing corrupt politicians: The effects of Brazil's publicly released audits on electoral outcomes. *Quarterly Journal of Economics, 123*(2), 703–745.

Fraenkel, J. (2005). Political consequences of Pacific Island electoral laws. In L. Hambly & M. Rich (Eds.), *Political parties in the Pacific Islands* (pp. 43–68). ANU Press.

Gramsci, A. (1975). Quaderni del carcere. Einaudi, G., Torino.

Heller, W. B., & Mershon, C. (2005). Party switching in the Italian Chamber of Deputies, 1996–2001. *Journal of Politics, 67*(2), 536–559.

Heller, W. B., & Mershon, C. (2008). Dealing in discipline: Party switching and legislative voting in the Italian Chamber of Deputies, 1988–2000. *American Journal of Political Science, 52*(4), 910–925.

Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard University Press.

Janda, K. 2009. Laws against party switching, defecting, or floor-crossing in national parliaments. The legal regulation of political parties. Working Paper 2. http://www.partylaw.leidenuniv.nl/uploads/wp0209.pdf

Kamath, P. M. (1985). Politics of defection in India in the 1980s. *Asian Survey, 25*(10), 1039–1054.

Kato, J., & Laver, M. (1998). Theories of government formation and the 1996 general election in Japan. *Party Politics, 4*, 229–252.

Kleinbaum, D. G., & Klein, M. (2005). *Survival analysis*. Springer.

Laver, M., & Benoit, K. (2003). The evolution of party systems between elections. *American Journal of Political Science, 47*(2), 215–233.

Levitsky, S., & Cameron, M. A. (2003). Democracy without parties? Political parties and regime change in Fujimori's Peru. *Latin American Politics and Society, 45*(3), 1–33.

Mainwaring, S. (1991). Politicians, parties, and electoral systems: Brazil in comparative perspective. *Comparative Politics, 24*(1), 21–43.

Mainwaring, S. (1998). Party systems in the third wave. *Journal of Democracy, 9*(3), 67–81.

Malhotra, G. C. (2006). *Anti-defection law in India and the Commonwealth*. Metropolitan Book Co.

McElroy, G., & Benoit, K. (2009). Party group switching in the European Parliament. In W. B. Heller & C. Mershon (Eds.), *Political parties and legislative party switching* (pp. 147–172). Palgrave Macmillan.

Montinola, G. R. (1999). Parties and accountability in the Philippines. *Journal of Democracy, 10*(1), 126–140.

Nokken, T. P. (2000). Dynamics of congressional loyalty: Party defection and roll-call behavior, 1947–97. *Legislative Studies Quarterly, 25*(3), 417–444.

Osborne, M. J., & Slivinski, A. (1996). A model of political competition with citizen-candidates. *Quarterly Journal of Economics, 111*(1), 65–96.

Pareto, W. (1916/1954). *Trattato di sociologia generale*. Comunità.

Parker, G. R. (2004). *Self-policing in politics: The political economy of reputational controls on politicians*. Princeton University Press.

Rakner, L., & Svåsand, L. (2004). From dominant to competitive party system: The Zambian experience, 1991–2001. *Party Politics, 10*(1), 49–68.

Rogoff, K. (1990). Equilibrium political budget cycles. *American Economic Review, 80*, 21–36.

Samuels, D. (2000). Ambition and competition: Explaining legislative turnover in Brazil. *Legislative Studies Quarterly, 25*(3), 481–497.

Sciolino, E. (2007). Socialist quits French left to join right. *New York Times*.

Shabad, G., & Slomczynski, K. M. (2004). Inter-party mobility among parliamentary candidates in post-Communist East Central Europe. *Party Politics, 10*(2), 151–176.

Singer, J. D., & Willett, J. B. (1993). It's about time: Using discrete-time survival analysis to study duration and the timing of events. *Journal of Educational Statistics, 18*(2), 155–195.

Ufen, A. (2008). Political party and party system institutionalization in Southeast Asia: Lessons for democratic consolidation in Indonesia, the Philippines and Thailand. *Pacific Review, 21*(3), 327–350.