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Legislators in the Crossfire: The Effect of Transparency on Parliamentary Voting

Héloïse Cloléry*

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Abstract

Legislators are agents who serve two different principals: their constituents and their Party. Legislators are caught in the crossfire if their Party leaders' position contradicts the electorate's interests. Legislators care about their reputation with both principals as they are career-motivated. Making their votes public increases the incentive to use voting for reputation-building, and therefore distortion in group decision-making. This paper first shows that reputational concerns drive the decision to participate in a vote. Second, the French transparency reform of 2014 provides a quasi-natural setting for a Difference-in-Differences analysis. Greater transparency has led to less participation and more alignment to the Party line. As such, knowing that their behavior is more easily observable, legislators prefer not to take sides, and additional information benefits Party leaders more than constituents in the short term. The effect size is sufficient to switch results in 12 percent of the vote outcomes. *(JEL D72, D82, H11)*

Keywords: Voting, Transparency, Party discipline, Principal agent

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1 Introduction

Increasing transparency is achieved by rendering the decisions made by representatives public and more traceable. This phenomenon is typical in Parliaments, where the increased use of electronic voting has led to the automatic recording of legislators' votes. However, transparency may produce side effects, as it can change the incentives of decision-makers and lead to distortions in voting. The objective of this paper is to assess the impact of increasing transparency on Parliamentary voting. The outcomes of interest are the decision to take part in a vote and the voting decision itself.

The fourteenth French legislature[1] provides a quasi-natural framework in which to identify the effects of voting transparency. France is one of the countries (others are Switzerland, the UK and Australia) that have recently taken advantage of electronic votes to increase the visibility of Parliamentary decision-making.

In 2013 and 2014, French politics went through a series of reforms aiming at increasing the transparency of public life towards citizens, including a change in the method used to record votes in Parliament.[2] To improve representative democracy, the President of the French lower house of Parliament claimed that citizens should be able to find out how their representatives vote in the Assembly.[3] This reform was implemented at the end of February 2014, almost two years after the opening of the fourteenth legislative term. All of the other aspects of Parliamentary political life were identical pre- and post-reform during this legislature. This French reform is of interest, as transparency rose for votes on one of the two kinds of issue (those called "ordinary") but not on the other ("important"), producing a natural difference-in-differences setting with the latter serving as the control group.

My results are twofold. I first identify whether reputational concerns affect the decision to participate in a vote, especially in situations of conflict (when the Party position is opposed to constituents' interests). I use constituents' characteristics and the electoral results to estimate how likely each Member of Parliament (MP) is to be "caught in the crossfire", and find that a higher probability of such conflict reduces the

[1] French legislatures under the 5th Republic, which started in 1958, last for five years - unless they are dissolved by the *Président de la République* which happenned for the first, third, sixth, eighth, and tenth legislatures.

[2] Other innovations included the obligation for public officials to disclose all conflicts of interest, the creation of an institution to control financial transparency of political life (the *Haute Autorité pour la transparence de la vie publique*), and a ceiling on donations to political parties per donor.

[3] The motivation for this reform was presented in the New Year speech of the President of the Assemblée Nationale, at the time Claude Bartolone: http://presidence-14.assemblee-nationale.fr/le-president/discours/vaeux-de-claude-bartolone-aux-parlementaires-aux-forces-vives-et-aux-corps-constitues.

MP's participation probability. Non-participation is one way for legislators to reduce blame from their constituents or their Party. Reputational concerns thus matter for turnout, which latter can therefore be affected by transparency.

Second, I assess the impact of transparency on legislative outcomes. I use the quasi-natural setting of the fourteenth French legislature to carry out a difference-in-differences analysis on participation and alignment rates. Transparency reduces participation by 8 to 13 percentage points, and increases the alignment rate by 1 to 2 percentage points. As their behavior becomes more easily observable, MPs strategically prefer not to take sides in situations of conflict, and additional information benefits Party leaders more than constituents in the short term. Publishing the legislators' votes enables constituents to monitor their representatives, but surprisingly it gives more monitoring power to the political Parties. These changes are large enough to switch the vote outcomes of 12 percent of the issues. This impact is greater in size for larger and more-extreme parties.

The remainder of this paper is organized as follows. A review of the existing literature is presented in Section 2, and Section 3 describes the institutional context of the fourteenth French legislature. In Section 4, I show that the decision to participate in a vote is affected by conflict between the constituents and the Party. I then assess the impact of the reform on MPs' voting behavior in Section 5. Section 6 provides additional observations on legislative behavior and transparency. Section 7 concludes, and highlights the potential implications of the results on Presidential political systems and the use of information in Twenty-First Century democracies.

2 Review

2.1 Micro-foundations

Legislators can be thought of as agents who serve two principals: their electorate and their Party (see Longley (2003) for a model of legislative voting with multiple principals). Three different players are involved in this political agency game.

The constituents want their interests to matter in the legislative process. If the legislators do not vote accordingly, the citizens can punish them by not re-electing them. Gavoille (2018) has found evidence of such electoral punishment in France, where electorates do not vote for legislators when their attendance rate is too low.

Party discipline reflects the ability of political groups to obtain the support of their members. *Parties* wish to signal unity and a cohesive ideological position in order to build a political brand. Political groups use parliamentary votes to provide informative labels, and Party discipline increases the coherence of the information

given to the electorate (Snyder and Ting, 2002). Party leaders have a variety of means of imposing discipline (Bailer, 2011, Curto-Grau and Zudenkova, 2018), which can be explicit or implicit, incentive or coercive.

The legislators, or MPs, aim to maximize their policy influence over time. They care about not only their current but also their future impact. As such, MPs care about re-election, which is conditional on the approval of both their constituents and the Party leaders.

When the opinions of the two principals diverge, legislators are caught in the crossfire. Party leaders exert sufficient pressure for MPs to align their votes, but constituents can also punish their representatives by not re-electing them. The balance of these pressures will determine the legislators' votes. Greater voting transparency allows both principals to enhance their monitoring. The question I ask here is how this transparency changes the balance of pressure between the two principals.

2.2 Conflict and participation

My first contribution is to provide additional evidence that conflict produces non-participation in legislative voting. The existing literature (Cohen and Noll, 1991, Longley, 2003, Willumsen and Öhberg, 2013, Mühlböck and Yordanova, 2017, and Battaglini et al., 2020) explains abstention and non-participation in part by conflict inside the constituency or the Party, or between the constituents and the Party.

2.3 Transparency and group decision-making

My second contribution is then to investigate how Party discipline affects legislative outcomes as transparency rises. Vote information comes from roll-call data, which is often based on a sample of the votes. Carrubba et al. (2006) and Carrubba et al. (2008) show that there is selection bias here, as it is Party leaders who decide which vote records to request, and they are more likely to do so when they want to discipline their members. But even when this decision is not made by Party leaders, we cannot be sure that this information improves democratic representation. Many countries have recently decided to publish individual voting decisions in the various Houses of the government and Central Banks. However, the related theoretical literature has cast doubt on the efficiency of this reform. Decision-makers are career-motivated, and will thus prefer to use voting as a tool to build their reputations when their decisions are made public. As a result, they may vote against their prior beliefs (Levy, 2007), inefficient decision-makers will vote more often (Gersbach and Hahn, 2008; Mattozzi and Nakaguma, 2016), and committee members will focus on blame-avoidance if their decisions are under already close scrutiny (Name-Correa and Yildirim, 2019). The empirical literature on the effects of institutional transparency is limited to a small

number of contributions on Central Bank decision-making (Meade and Stasavage, 2008; Hansen et al., 2018), and one paper on legislative voting (Benesch et al., 2018). This latter is the closest to my current work, and shows that improving the visibility of legislators' votes in the Swiss Parliament increases Party alignment at the expense of the constituents. The novelty of my work here is to include distortions in participation, which play a major role in the legislative outcomes.

3 Institutional context

3.1 Transparency reform

The 2014 transparency reform had different effects on the two types of issues in French legislation[4]: ordinary and important issues. "Scrutin public ordinaire" refers to the typical votes that occur every weekday on part or the whole of a Bill. These votes were affected by the change in the recording process and constitute the treatment group. "Scrutin public solennel" refers to the more important votes that usually take place on Tuesdays or Wednesdays and are announced in advance to encourage MPs' participation. These votes have always been recorded for all MPs, and therefore make up the control group. Important issues also include "scrutins à la tribune", in which MPs do not vote electronically but have to state their position in front of the Assembly. These votes have also always been recorded for all MPs.

Before February 27th 2014, we thus know how each MP voted on all *important* issues. However, for *ordinary* issues only the *total* number of "Yes", "No" and "Abstention" votes were reported by Party. For *ordinary* issues, the names of the dissident MPs, i.e. those voting against the party line, and those voting "abstention" were listed. But it was not possible to know whether the MPs who were not listed had voted along Party lines or did not take part in the vote. An example of this partial recording is presented in Figure 1.

[4]Throughout the paper, the term "issue" is used to encompass both Bills and Amendments.

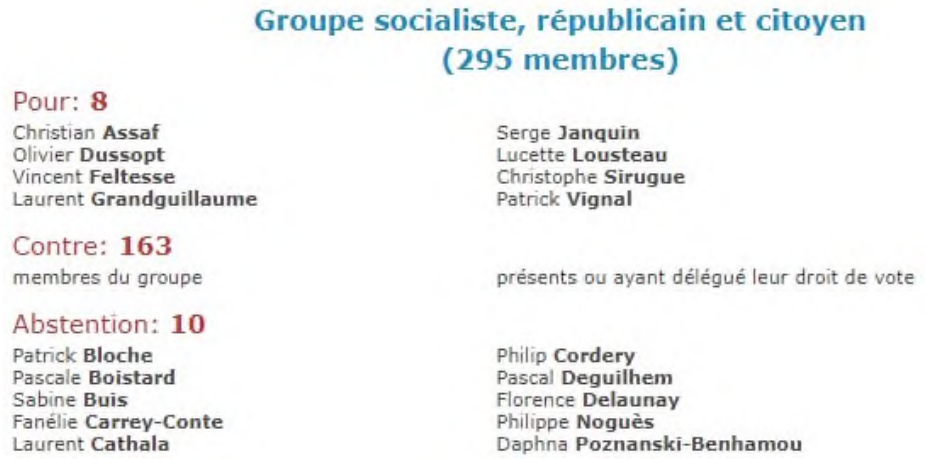

Figure 1: Example of dissident counting, Issue n°125: Amendment on Same-Sex Marriage Law.

Notes: At the time of the vote, 295 MPs were affiliated with the main (SER) Party. A majority (163) of the Party voted against this bill, and this was thus the Party's position. The names of all MPs who did not vote along the Party line are recorded: the 8 who voted Yes and the 10 who abstained. For the remaining 277 Socialist MPs, the document does not identify the 163 members who voted along Party lines and the 114 members who did not participate in this vote.

From 2014 onwards, votes of all types were recorded in the same way: one could see, for both important and ordinary issues and for each MP, whether they voted "Yes", "No" or "Abstention", or if they did not participate. If they voted "abstention", the MPs' position was not taken into account for the outcome of the vote. This change in recording renders the voting record of each MP in the Assembly fully observable by both the electorate and Party leaders. While full vote recording now became possible for ordinary issues, it is not automatic. Votes are recorded upon request (before the vote takes place) from the Chairman of the Assembly, the Government, the Committee responsible for the topic, or the Party leaders. If there is no such request, the votes on ordinary issues are by a show of hands and the identities are neither recorded nor published. There continued to be full automatic recording for votes on important issues.

This roll-call data is publicly-available from the French National Assembly website.[5] It covers the fourteenth legislature, which ran from June 20th 2012 to June 20th 2017.

90% of the votes concerned ordinary issues and 10% important issues (Table 1). These proportions are the same pre- and post-2014. Bills and Amendments are passed more often when the issue is important. Votes on important issues are typically held on Tuesdays, and sometimes on Wednesdays, while votes on ordinary issues are more spread over weekdays (and more rarely weekends). Important issues attract more voters than do ordinary issues. Issues can be put forward for vote by the Government - called projects - or by MPs - called propositions. The proportion of projects at the initiative of the Government is the same for both types of issues. None of the important votes are on Amendments but always on entire Bills. On the contrary, 82% of ordinary votes are on Amendments. The distributions of the two types of issues across topics are depicted in Figure A.1. Topics like Foreign Affairs, votes of Confidence, Defense, and Culture are always the least numerous, while Law, Budget, Economy, and Social Issues are always the most common.

3.2 Legislators' behavior

This legislature was composed of seven political groups, ranked from Left to Right as follows: the Democratic and Republican Left (GDR), the Green Party (ECOLO),[6] the Socialist Party (SER), the Radical Left (RRDP), the Centrists (UDI), the Republicans (UMP-LR), and the Republican Rally (R-UMP).[7] The descriptive statistics of individual behavior appear in Figure A.2; these refer to the issues with full nominative records only. Legislators participated in less than 20% of these votes on average. Sometimes MPs are present in the Assembly but leave the room at the time of the vote to avoid taking a position. By looking at whether the MP did vote on other issues during the same day, we can calculate the extent of this behavior. Over all votes, 16.5% of MPs could have voted (as they were present in the Assemblée Nationale that day) but did not. The attendance rate is the number of days in the legislature during which the MP cast at least one vote. MPs were present on average half of the time during this legislature. The geographical distance to Parliament does not explain this low attendance rate, as shown in Figure A.3 and the regression results presented in Section 4.3.

Another possible explanation for low attendance by MPs is the low probability that their vote be pivotal. On average in the fourteenth legislature, 24 legislators would have had to switch their vote in order to change the outcome; put another

[5] https://data.assemblee-nationale.fr/opendata-archives-xive/scrutins-xive-legislature. The data was downloaded on January 20th 2021.

[6] This group merged with the SER group in 2016.

[7] A group of MPs who left the Republican group for a period of three months.

	Ordinary issues	Important issues
Transparency		
Pre-reform	Dissident voters only	Full nominative record
Post-reform	Full nominative record	Full nominative record
Number of issues	1213	137
Share of issues passed	24%	96.4%
Distribution by day of the week		
Monday	15%	1%
Tuesday	17%	82%
Wednesday	20%	16%
Thursday	27%	1%
Friday	14%	
Saturday	3%	
Sunday	3%	
Av. no. of participants	92	533
Government initiative	86.7%	85.4%
Bills	18%	100%

Table 1: The comparison of ordinary and important issues

Note for the Reader: Over the fourteenth legislature, 15% of ordinary issues were voted on a Monday, while only 1% of important issues were voted on a Monday.

way, the attendance of 48 more legislators (with the opposing opinion) would be required to change the outcome.

For the issues with full recording, MPs aligned their votes on average 92% of the time when they participated, dissented 3% of the time, and abstained in 5% of cases.

Voting unity within a Party is commonly measured using the Rice Index:

$$Rice\ Index = \frac{|\#Yes\ in\ Party - \#No\ in\ Party|}{\#Yes\ in\ Party + \#No\ in\ Party}$$

There is almost perfect cohesion for each Party (see Table A.1). A high degree of voting unity can reflect the ideological proximity of the group members, or strict Party discipline. One of the challenges of this paper is to establish the extent to which this voting pattern comes from Party pressure or ideological proximity.

4 Non-participation as a strategy to avoid conflict under party discipline

The previous Section revealed that non-participation is widespread in the French Parliament. This Section will investigate whether conflict between the constituents and the Parties lies behind this low participation figure. I start by constructing three different measures of conflict, and then assess their impact on participation.

4.1 Measuring conflict

The position of the Party is defined by the majority of the members' votes on each issue. To measure conflict, we also need to infer the position of the constituents, for which I use three different strategies. The first two rely on constituency characteristics and the actual votes of the MPs, and the third on constituents' electoral choices.

4.1.1 Conflict using the actual votes of all MPs

When voting, legislators take into account their constituents' interests but are also subject to Party discipline: it is therefore difficult to use their actual votes in Parliament to untangle constituents' and Party preferences. This problem was first noted in Krehbiel (2000), and has led some authors to use Politician interview data instead (Bailer, 2011, and Willumsen and Öhberg, 2012). However, in addition to being costly and time-consuming, interview data are declarative and might be biased towards less discipline as Party leaders may not want to fully reveal the extent to which they monitor their members.

Were their decisions to be based only on the interests of their electorate, i.e. in the absence of Party discipline, two MPs from different Parties but with similar constituencies should vote similarly. I estimate the effect of constituency characteristics on legislators' voting decisions. MPs' votes likely also reflect discipline, so that the impact of constituency characteristics will potentially be biased due to endogeneity. To address this concern, I look at the positions of MPs not at the level of issues, but at the level of topics. I use the classification on the National Assembly website to sort issues into eight different topics that correspond to the Standing Committees in Parliament. The role played by constituency characteristics in voting decisions will be identified if the degree of discipline varies across issues within each topic. Although only a small number of issues were voted on the topics of Culture and Foreign Affairs, Table B.2 shows the same kind of alignment rates as for other topics. I, therefore, expect enough variation in discipline across issues for each topic.

I estimate a logistic regression on the decision to hold Leftist or Rightist positions for each Bill, for each topic s, with constituency characteristics as explanatory variables:

$$Left_{iv}^{s} = \alpha^{s} + \beta X_{i}^{s} + u_{p}^{s} + \epsilon_{iv}^{s} \quad (1)$$

The proponent of each issue put to vote reveals whether an issue is more Leftist or Rightist. If issue v was suggested by an MP from the Left (Right), it is said to be Leftist (Rightist). Any MP i who voted in favor of such an issue is considered to hold Left(Right)-wing positions, and the dependent variable $Left_{iv}$ subsequently takes the value of 1 (0).

This decision to support Left- or Right-Wing issues should depend to an extent on the characteristics of MP i's electorate: X_i. I obtained information from census data[8] on the electorate at the constituency level: the shares of children, women, foreigners, and the young and old; the shares of different occupational categories; and the region to which it belongs. I complemented this electorate information with variables at the level of Départements: median income, the poverty rate and the inequality ratio[9]. The variable $LeftNeighbors$ is the proportion of MPs in the same Département with Leftist positions on each issue, revealing Département electorate preferences. I also control for two MP individual characteristics that could affect their preferences: their gender and age.

As some of the constituency characteristics can be correlated with Party affiliation (Table B.1), I also add a Party fixed effect u_p.

The results appear in Table B.3 and are used to predict, for each topic, whether an MP is more likely to hold Leftist or Rightist positions depending on their constituency characteristics. I calculate an index of conflict (*conflict_all MPs*) between MP i and their Party regarding topic s:

$$Conflict_{i,s} = \begin{cases} \text{probability of holding a Leftist position} & \text{if i} \in \text{Rightist party} \\ \text{probability of holding a Rightist position} & \text{if i} \in \text{Leftist party} \end{cases}$$

4.1.2 Conflict using the actual votes of non-disciplined MPs

Some MPs might be more subject to discipline than others, and would therefore systematically align their votes to the Party position. Their votes in Parliament will thus not represent their constituents' interests and can bias downward the estimation

[8] 2013 census data: https://www.insee.fr/fr/statistiques/2542357#consulter, downloaded on November 2nd 2020.

[9] Data downloaded from the website for the National Statistics website on April 8th 2021: https://www.insee.fr/fr/statistiques/1895078.

of conflict. To obtain the second measure of conflict, I wish to identify the most-disciplined MPs.

Table C.1 shows how legislators' individual characteristics affect how often they aligned their votes with their Party position. These results determined my choice of two criteria to remove MPs who are more likely to be subject to Party discipline. The first is whether the MP is going to be a candidate for the following fifteenth legislature with the same Party: I expect legislators who will run for the following election with the same Party to care more about their reputation, and about their reputation *in the Party*. The 2017 election was marked by considerable change in the French political spectrum, with the advent of a new Center Party led by Emmanuel Macron that attracted MPs who previously belonged to different Parties. I therefore consider the effect of being a candidate for the 2017 election *with the same Party affiliation* and find that this significantly increases alignment frequency.

The second concerns alternate members. When an MP is nominated to Ministerial position in France, she is replaced by the alternate member who was designated at the time of the election. These alternate members were not then directly elected by constituents, and may therefore be considered by them to lack legitimacy. They could thus be more subject to discipline, as suggested by their greater alignment.

Experienced MPs who had already been elected in the previous legislature also aligned their votes more often. This may reflect selection, whereby the MPs who were closer to the Party position in the previous legislature are more likely to be supported during their campaigns and be elected for the fourteenth legislature. It does not necessarily mean that experienced MPs are more subject to discipline.

My second measure of conflict comes from the same strategy as in Section 4.1.1, but excluding the MPs who were candidates for the following legislature with the same affiliation, and MPs who were not directly elected but replacing a nominated MP. I obtain new coefficients on constituency characteristics (Table B.4), producing a new conflict indicator: *conflict_non-disciplined*.

4.1.3 Conflict using electoral results

The third measure of conflict (*conflict_electoral*) comes from two sets of electoral results that produce a proxy for constituents' preferences. I choose the first round of the 2012 Presidential election as a proxy for the constituents' preferences at the beginning of the legislature, and the first round of 2015 Département elections as a proxy for constituents' preferences after April 2015. The choice of these elections is based on the similarities in terms of the candidates Party affiliation (see Tables B.5 and B.6). This new measure of conflict is the share of votes for Parties other than

that to which the MP is affiliated: $1 - share\ of\ votes\ for\ the\ same\ party$. The more votes there were for different parties, the more conflict there is for the legislator.

4.2 The role of conflict on participation

I can now estimate a logistic regression for the decision of MP i to participate in a vote v:

$$NP_{iv} = \alpha_0 + \alpha_1 Conflict_{iv} + \alpha_2 Geographical\ distance + \alpha_3 X_{iv} + u_p + \epsilon_{ij} \qquad (2)$$

where NP_{iv} stands for "Not Participating", and takes on the value 1 whenever MP i did not participate in a vote v and 0 otherwise.

Rational legislators should participate in a vote whenever the benefit outweighs the cost. The coefficient α_1 will be positive if conflict between the interests of the constituents and the Party raises the cost of voting, and thus reduces participation.

The decision to participate likely also depends on other costs and benefits from voting. I control for these by adding the following variables.

Legislators might find it more costly to participate the more distant they are from Parliament (Rothenberg and Sanders, 1999, Brown and Goodliffe, 2017). *Geographical distance* is measured as the logarithm of the distance in meters from the Palais Bourbon to the centroid of the constituency.

Legislators may also benefit more from voting on issues in which they take a particular interest. The variable *worked on topic* is a measure of MPs' expertise, and takes on a value of 1 when the MP is a member of the Commission working on the topic that is being voted, and zero otherwise.

MPs may be more likely to vote on more salient issues. Projects proposed by the government might seem more important than propositions made by MPs themselves, and Amendments might seem less significant than entire Bills. The variable *Project* takes the value 1 whenever the Bill was proposed by the government itself, and zero when it was proposed by a Member of Parliament. I add a dummy variable *Amendment* for the issue put to vote being only an Amendment of the Bill (*Amendment* is thus zero when the vote is over an entire Bill).

MPs may vote more as their chances of being a pivotal voter rise, i.e. when the outcome of the vote is more uncertain. *Vote closeness* is a measure of division in Parliament over a given issue:

$$Vote\ closeness = 1 - \left| \frac{\#Yes\ in\ Parliament - \#No\ in\ Parliament}{\#Yes\ in\ Parliament + \#No\ in\ Parliament} \right|$$

In a very divided Parliament, roughly the same number of MPs will vote "Yes" and "No": the indicator of vote closeness is thus around 1 and each MP is more likely to cast a decisive vote.

The same variable is calculated at the Party level to measure conflict within each Party p:

$$Vote\ closeness\ in\ Party_p = 1 - \left| \frac{\#Yes\ in\ Party_p - \#No\ in\ Party_p}{\#Yes\ in\ Party_p + \#No\ in\ Party_p} \right|$$

I also expect the degree of Party discipline to depend on which Party called for the vote. $Party\ initiative_p$ is a dummy variable for the vote being requested by a member of the MP's own Party. When the issue was proposed by the government, Party initiative takes on the value of 1 if the MP belongs to the governing Party (the Socialist party, SER).

Last, participation may also depend on individual characteristics. The variable *Experience* is a dummy for the MP having already been elected in the previous legislature, and *Candidate 2017 same Party* a dummy for the MP having run for election with the same affiliation in the previous legislature.

I last control for Party fixed effects.

As I analyze individual data on MPs, I only retain information on the issues for which I have a full record of votes. This produces a sample of 644 issues for which I have the votes of 642 MPs[10].

4.3 Results

Irrespective of the conflict measure, the results in Table 2 show that the probability of non-participation rises significantly with conflict. Reputational concerns and blame avoidance therefore play a role in the decision to participate in a vote. The effect of conflict is not the first determinant of participation. This is consistent with Battaglini et al. (2020), who found that conflict has less impact than voting over key issues, and with Willumsen and Öhberg (2012), where the effect of MPs holding office was larger than that of conflict.

Table C.2 also shows that greater conflict plausibly reduces the probability of voting along Party lines, and raises the probability of abstention. The three measures of conflict therefore seem to play a central role in determining MPs' voting behavior.

While conflict plays a role in participation, its relative impact as compared to the other factors is smaller here than in the analysis of abstention or voting along Party lines. MPs distinguish between Amendments and Bills in their participation decision, but take this less into account for the voting decision itself, i.e. alignment, dissent or abstention (Table C.2).

[10]The Assemblée Nationale has 577 members. Resignations, nominations to Government and death led to a number of MPs being replaced during the legislature, bringing the total to 642 separate MPs.

	Not Participating (1)	Not Participating (2)	Not Participating (3)
Conflict_all MPs	0.681***		
	(16.97)		
Conflict_non-disciplined		0.588***	
		(15.42)	
Conflict_electoral			0.755***
			(6.96)
Geographical distance	-0.0912***	-0.0892***	-0.00551
	(-4.13)	(-4.04)	(-0.34)
Worked on Topic	-0.738***	-0.747***	-0.695***
	(-28.35)	(-28.39)	(-43.09)
Vote Closeness	-0.183***	-0.193***	-1.388***
	(-4.70)	(-4.93)	(-64.68)
Amendment	2.476***	2.464***	3.049***
	(66.44)	(65.57)	(256.41)
Party Initiative	-0.230***	-0.211***	0.0481***
	(-12.10)	(-11.10)	(3.74)
Experience	0.388***	0.398***	0.283***
	(5.63)	(5.77)	(5.58)
Candidate 2017 same Party	-0.164**	-0.165**	-0.0471
	(-2.59)	(-2.61)	(-1.04)
Project	-0.562***	-0.549***	-0.930***
	(-16.36)	(-15.88)	(-62.57)
N	93071	89461	272497
Party FE	✓	✓	✓

Table 2: Conflict reduces participation.

Notes: These are Logit estimates. t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The dependent variable is 1 if the MP did not participate in a vote, and 0 otherwise. Columns (1) to (3) refer respectively to conflict estimated from constituency characteristics in the full sample, constituency characteristics for legislators who were not candidates with the same Party and not replacements, and electoral results.

Conflict between the Party and the constituents therefore appears to be a significant determinant of MPs' decision to participate in a vote. Were legislators not to fear any reprisals from their Party leaders, they should vote in the interests of their

electorate. Party discipline thus not only affects legislative outcomes by increasing alignment, but also by changing the composition of the MPs who participate in the vote. The main takeaway is that the decision to participate in a vote should be taken into account when analyzing Party discipline. As such, I include the voting participation rate in the remainder of the analysis below.

In the following section, I use the change in the recording method to estimate the effect of Party pressure on voting decisions as the information available to the principals varies.

5 The effect of transparency on legislative voting

5.1 Identification strategy

The change in recording votes took place in roughly the middle of the fourteenth French legislature, and affected only "ordinary" issues. This quasi-natural experimental setting allows me to use important issues as the control group, and estimate the causal effect of transparency on voting outcomes via a difference-in-differences model for each issue put to vote v and for each Party p:

$$\begin{aligned} Y_{vp} = \alpha + \beta_0 + \beta_1 * Ordinary_v + \beta_2 * Post_v + \beta_3 * (Ordinary * Post)_v \\ + \beta_4 * X_{vp} + \epsilon_{vp} \end{aligned} \tag{3}$$

The variable *Ordinary* takes on the value of 1 when the issue is an ordinary vote and 0 when it is an important vote. This picks up any systematic differences between the two types of issue. *Post* is a dummy variable for dates after the change in vote recording (after February 27th 2014).

The identification of the effect of transparency relies on the common-trend assumption: this will be tested in Section 5.3.

Were there to be no conflict between a legislator's constituency and their Party, the legislator would have no interest in deviating from the Party line. We would then always observe alignment, and the reasons behind non-participation would be other than conflict. However, as noted above, voting participation does depend on conflict, and we also see vote deviations via abstention and dissent. These different voting outcomes reflect how MPs balance between satisfying their Party and answering to their constituents. Post-reform, both Party leaders and the electorate have more information about legislator behavior. I test the following three sets of hypotheses on the potential effect on Parliamentary voting.

Increasing transparency can jeopardize legislators' reputations by making their voting

decisions more visible. Therefore, the change in vote recording may increase blame-avoidance and reduce participation, unless one principal exerts sufficient pressure to increase compliance. In theory, it is hard to untangle which effect dominates. My empirical analysis will evaluate the following sub-hypotheses.

Hypothesis 1a (H1a): *Knowing that their behavior is more easily observable, MPs prefer not to take sides and participate less often:* $\beta_3^{participation} < 0$.

Hypothesis 1b (H1b): *Knowing that their behavior is more easily observable by one of the principals, the MPs participate more often in order to comply:* $\beta_3^{participation} > 0$.

Voting abstention is very similar to non-participation, in the sense that it does not affect the outcome. It is, however, different in that it was always observable (both pre- and post-reform) for both kinds of issues. The voting reform should not then have any impact on abstention:

Hypothesis 2 (H2): $\beta_3^{abstention} = 0$

Whether the MPs participate more or less, it is of interest to identify the principal who benefits the most. I do so by evaluating the impact of the reform on the alignment rate.

Hypothesis 3a (H3a): *Additional information benefits Party leaders more than constituents, and MPs align more often:* $\beta_3^{alignment} > 0$.

Hypothesis 3b (H3b): *Additional information benefits constituents more than the Party leaders, and MPs align less often:* $\beta_3^{alignment} < 0$.

To test these three hypotheses, I consider the effect of the reform on three outcome variables.

The *Participation Rate* is the total number of Party MPs participating in a vote, i.e. who vote either "Yes", "No", or "Abstention" on an issue, over the total number of members in the Party at the time.

The *Abstention Rate* is the total number of Party MPs who voted "Abstention" on an issue, over the total number of participants in their Party.

The *Alignment rate* is the total number of Party MPs who voted "Yes" (respectively, "No") when the position of their Party was "Yes" (respectively, "No"), over the total number of participants in their Party.

The X variables in Equation (3) are the variables that may also affect the decision to participate, abstain and align in a vote, and were described in the previous Section: *Vote Closeness*, *Amendment*, *Project*, *Party Initiative*, and *Vote closeness in party*. *Participants* is the total number of MPs participating in a vote.

5.2 Main results

Column (1) of Table 3 shows that transparency significantly reduces the participation rate by almost 13 percentage points. This finding supports Hypothesis H1a: as the voting behavior of MPs becomes more observable, they are less willing to take sides and prefer not to participate.

On the contrary, there is no effect of transparency on the abstention rate (column (4)), thus confirming hypothesis H2. As the reform did not affect the visibility of abstention, it had no effect on the abstention decision.

The first result revealed less participation, but did not identify who stops participating as transparency rises. Two mechanisms may be at play here. First, some MPs who followed the Party line might stop participating as they are subject to pressure from their electorate. Second, some MPs who used to vote in the constituents' interests now fear reprisals from their Party and so do not participate or even align their votes with Party position. Column (7) shows a positive treatment effect on the alignment rate, with a rise of 1 percentage point. As such, the second effect prevails, in support of Hypothesis H3a. Legislators, therefore, care about their reputation with their Party.

But this does not mean that they do not care about their reputation with the electorate. The initial alignment rate for issues voted pre-form was 98% on average. Hence, if 13 percentage points of legislators stop participating, at least some of them must have previously been aligned with the Party, but have stopped voting after the reform: these MPs care about their reputation with their constituents. In conclusion, the effect on participation is not fully driven by the fear of Party discipline, but also by blame-avoidance from the electorate, although the former effect is stronger.

Important and ordinary issues differ in many ways, which could potentially affect the validity of the control group. In particular, Table 1 shows that important issues are almost always voted on Tuesdays, and systematically concern entire Bills. I check the results by first changing the sample and include only votes that took place on Tuesdays for both kinds of issues (columns (2), (5), and (8)), and then dropping votes on Amendments (columns (3), (6), and (9)). The results are robust, except for the impact on the alignment rate that becomes insignificant when simultaneously dropping Amendments and days other than Tuesdays.

I use models (1), (4), and (7) to estimate what the legislative outcomes would have been had partial recording been retained for ordinary issues. Setting the β_3 coefficient to zero produces the implied numbers of participants, abstention votes, and alignment votes for each Party and each vote. This reveals that 52 issues would have passed that actually did not, and 7 issues would not have passed that actually did: 12% of ordinary issues post-reform would have had different outcomes had the change in vote recording not taken place.

	Participation Rate			Abstention Rate			Alignment Rate		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ord.*Post(β_3)	-0.127***	-0.126***	-0.077***	-0.00708	-0.0203	-0.0173	0.0118*	0.0195**	0.0097
	(-10.87)	(-7.98)	(-3.72)	(-0.83)	(-1.27)	(-0.61)	(2.43)	(2.81)	(0.92)
N	6551	1732	910	6551	1732	910	6447	1668	855
Tuesdays only		✓	✓		✓	✓		✓	✓
Bills only			✓			✓			✓

Table 3: Transparency reduces participation, does not affect abstention, and increases alignment.

Notes: t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. These are OLS estimates. The dependent variables are the rates of participation, abstention and alignment for each Party on each Bill. These coefficients show the effect of the transparency reform (i.e. post-2014) on voting on ordinary issues (the treatment group). The control group includes Amendments and Bills on all days of the week in columns (1), (4) and (7), Tuesdays only in columns (2), (5) and (8), and only entire Bills on Tuesdays in columns (3), (6) and (9).

5.3 Identifying assumptions and robustness checks

One potential problem for the common-trend assumption would be the electoral calendar affecting voting on important and ordinary issues differently. I check for this by estimating a placebo effect during the following legislature, during which votes on all types of issues were fully recorded. Table 4 shows that this placebo effect is never significant.

	(1) Participation Rate	(2) Abstention Rate	(3) Alignment Rate
Ordinary*Placebo	0.0127	0.0191	-0.00732
	(1.42)	(1.79)	(-1.03)
N	23029	23029	22489

Table 4: Placebo effect, fifteenth legislature

Notes: These are OLS regressions. t-statistics appear in parentheses. The issues are classified as ordinary or important. The data refers to issues that were put to vote between July 2017 and January 2021, and the placebo corresponds to issues voted during the second half of the legislature. None of the coefficients is significant, supporting the hypothesis of similar time trends for the two types of issues.

The event study presented in Figure 2 can also serve as a check of the parallel-trend assumption. The change in voting records occurred in 2014, so there should be

no change in the gap between ordinary and important issues in the preceding years. In Figure 2 the gap between ordinary and important issues is normalized to be zero in 2013; the figures for 2012 reveal no pre-trend in the gap between ordinary and important issues in terms of the participation and alignment rates.

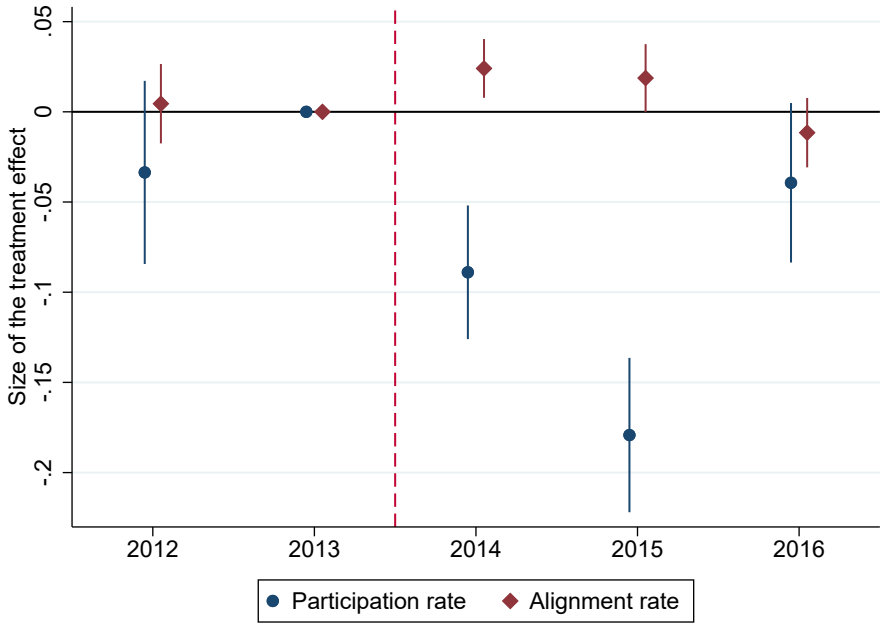

Figure 2: The effect of transparency over time.

Notes: These are OLS regressions, showing the treatment effect on the gap in voting behavior between ordinary and important issues for each year in the legislature. The baseline is 2013. The dots represent the coefficient estimates with their 95% confidence intervals. Insignificant coefficients before the reform (2012) support the common-trend assumption. Significant coefficients after the reform (from 2014 onwards) indicate the treatment effects over time.

The second assumption in the baseline regression is that the treatment effect is constant over time. The estimated effect on participation is always negative, although it becomes insignificant in 2016. This is however less the case for the alignment effect, which is significant only in 2014. The lack of significance in later years may reflect two different phenomena. Either the effect is only short-lived, with the constituents taking advantage of the reform later than do Party leaders. Alternatively the effect is longer-term, but with the two opposing effects canceling out at the end of the electoral cycle. Legislators may pay more attention to their reputation with constituents when approaching the end of their mandate, as they wish to please their electorate before the next election. This result is consistent with that in Switzerland in Benesch et al.

(2018), where the alignment effect was short-term and only at around 2 percentage points.

6 Additional observations

6.1 Heterogeneity across Parties

Not all Parties may react in the same way to increased transparency, and the heterogeneous effects across Parties are presented in Figure 3. The three Parties experiencing the largest drop in participation were the Socialist Party (SER), the Democratic Left (GDR), and the main Rightist party (the UMP), while the two Centrist parties (RRDP and UDI) experienced the smallest drop in participation. As they hold more moderate positions, the latter may experience less conflict between their constituents and their Party, and so be less affected by blame-avoidance. The two largest groups (SER and UMP) are amongst the Parties with the largest participation drops. This is consistent with Snowberg (2008) and Bailer (2011), where discipline increases with Party size. Moreover, larger Parties might have benefited more from the reform than smaller Parties as their cost of monitoring might have been larger before the change. Under partial recording, leaders in small Parties might have been able to infer their members' behavior by checking attendance at the moment of the vote. The same strategy would have been costlier for larger Parties with hundreds of MPs. Greater transparency then seems more beneficial to leaders as Party size rises.

The increase in the alignment rate is not significant at the 5% level for the two main Parties (SER and UMP), while it is larger and more significant for the smaller Parties. The effect is always smaller in size than that for the participation rate. I thus conclude that MPs avoid both Party discipline and electoral punishment. The reform is never to the advantage of the constituents, so that Party discipline prevails.

6.2 The costs and benefits of voting

There is disagreement in the literature regarding whether legislators are more likely to take sides as the outcome of the vote becomes tighter. Riker and Ordeshook (1968) argue that when the outcome is uncertain, voters are more likely to be pivotal and should thus participate more often. However, in Rothenberg and Sanders (2000) the expected closeness of the vote does not matter for the participation decision. And Brown and Goodliffe (2017) even found that, as MPs care more about their re-election than their policy influence, vote closeness reduces participation. In both Table C.2 and Table D.1, tighter votes *in Parliament* increase MPs' participation and reduce abstention. This is consistent with the rational theory of voting, in which

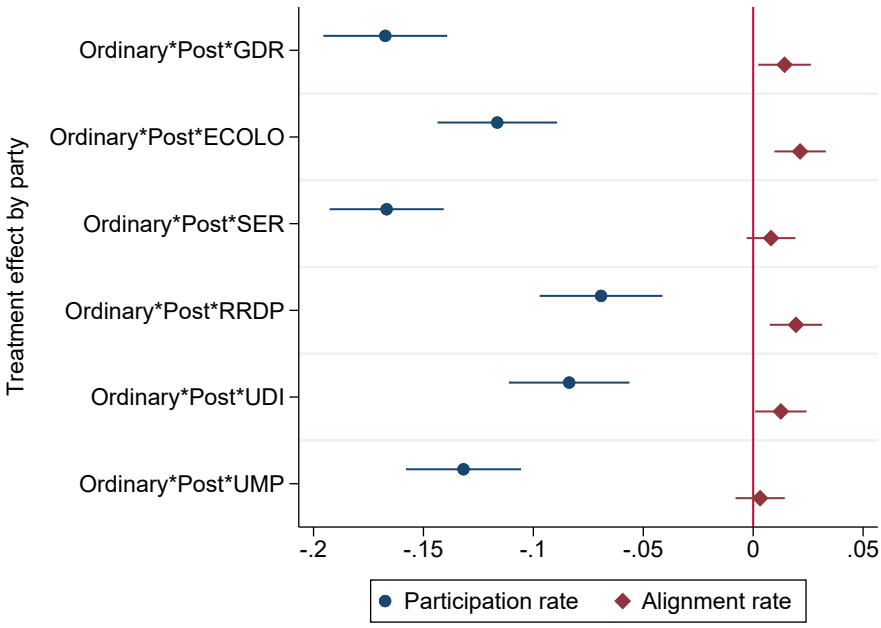

Figure 3: The heterogeneous effect of increased transparency across Parties

Notes: These are difference-in-difference regressions with an interaction term for each Party. The dots represent the coefficient estimates with their 95% confidence intervals. The Parties are ranked from Right to Left: the Republicans (UMP-LR), the Centrists (UDI), the Radical Left (RRDP), the Socialist Party (SER), the Green Party (ECOLO), and the Democratic and Republican Left (GDR).

MPs have a greater incentive to make their voice count if they are more likely to be pivotal. However, when there is less consensus at the *Party-level*, as represented by vote closeness within the party, MPs tend to abstain more and align less. Overall, greater Parliamentary conflict leads MPs to care about being influential and take sides, but greater Party conflict leads them to be careful and avoid taking sides.

I moreover expect legislators to participate more if their interest in the issue is stronger, e.g. if they belong to a Committee working on the topic. I also expect them to benefit more if the issue put to a vote is more important, e.g. voting on an entire Bill might seem more worthwhile than voting on an Amendment; and voting might be more valuable if their own Party is at the origin of the Bill. All of these intuitions are supported by the results in Tables C.2 and D.1. If their Party is at the initiative of the vote, MPs are less likely to abstain and more likely to align. We thus infer stronger discipline on the issues that were put to vote by the Party itself.

6.3 Potential spillovers from increased transparency

Greater transparency in Parliamentary votes is likely to have changed the incentives of the different players regarding behavior other than voting. In particular, Party leaders might want to ask for more records of the votes now that these records are more informative. We do indeed see a significant rise in the number of votes recorded in Parliament across legislatures on Figure E.1.

Considering the result that Party leaders benefited from more information, it seems that they took advantage of this by requesting more vote records, thus further increasing the discipline of their members.

However, legislators may also have reacted to this increased discipline by changing their behavior, in a way other than voting. In particular, MPs can fall back on alternative tools to affect the legislative process, for instance by deposing more Amendments or by proposing more Bills themselves. And we do indeed see a significant increase in these over the fourteenth legislature (Table E.1).

7 Discussion and conclusion

This paper has provided evidence that conflict between Party leaders and constituents reduces MPs' vote participation. This decision reflects legislators' reputational concerns for their two principals: MPs prefer not to take sides in order to avoid blame. Greater visibility has led to increased incentives for legislators to use voting as a tool with which to construct their reputations. Transparency translates into lower participation and greater alignment in the short term. Intuitively, Party leaders can put pressure on their members across the whole legislature period; on the contrary, pressure from the electorate on their representatives is more likely when new elections are impending. It would be of interest to carry out further analyses of how Parliamentary voting is affected by the electoral calendar. This may provide an explanation for the non-persistent effect on the alignment rate in this legislature.

The increased publicity of MPs' votes during the fourteenth French legislature allowed me to measure the impact of *increased* Party discipline. This, however, does not likely reflect the total disciplinary effect, as Parties might also exert pressure even under partial recording that was not affected by the reform.

In a Parliament without any Party discipline, the voting outcome should reflect the position of the median legislator in the Assembly, while perfect discipline produces an outcome reflecting the median voter in the majority Party. Making legislators' votes public increases discipline, drawing outcomes closer to the median of the majority Party. As such, transparency strengthens the system of Political Parties and fosters Executive-Legislative cooperation. When a single Party dominates both branches,

vote transparency produces a fusion of power that brings any political system closer to a Parliamentary system. Countries with semi-Presidential (e.g., France) or Presidential (e.g., the US) systems will experience reduced independence of power.

More generally, this paper questions whether providing more information is always beneficial. The digital age makes it easier to systematically and automatically publish information. My results provide an example in which revealing information changes policy-making. Any departure from the median voter in the Assembly may be detrimental to the electorate. In this case, democratic considerations should be taken into account when choosing to disclose voting information.

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Appendix

Appendix A: Descriptive Statistics

This Appendix A provides the descriptive statistics. Figure A.1 shows the distribution of ordinary and important issues across topics, and Figure A.2 the basic statistics on legislator behavior during the fourteenth legislature. Table A.1 lists the cohesion index for all political groups during the fourteenth legislature.

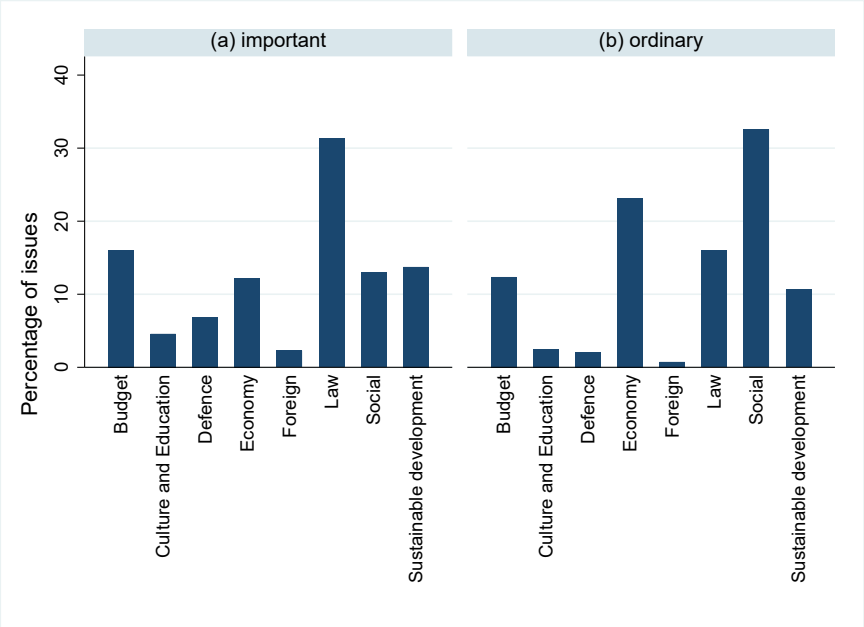

Figure A.1: The distribution of ordinary and important issues in terms of the topics covered

Note: For both important (left-hand side) and ordinary (right-hand side) issues, Law represents a large share of the topics put to vote: 30% and 16% respectively.

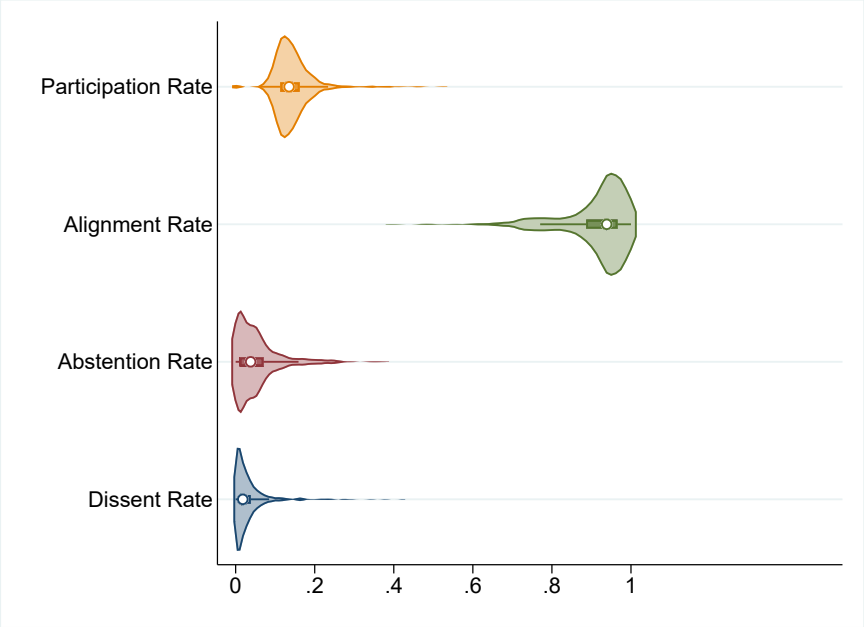

Figure A.2: The distribution of legislator voting behavior

Notes: On average, MPs aligned their votes 91% of the time. The MP who aligned their votes the least often did so 39% of the time, and the MP who aligned their votes the most often did so all the time. The position of the Party is defined by that of the majority of voters from the Party.

Party	Rice index
SER	.92
RRDP	.94
UDI	.95
UMP-LR	.95
ECOLO	.96
GDR	.97
R-UMP	1

Table A.1: The Rice index by Party during the fourteenth legislature

Note: On average across all issues, 92% of SER MPs aligned their votes with the Party position.

The map in Figure A.3 depicts the presence rate, calculated as the number of days for which the MP participated in at least one vote divided by the total number of days in the legislature.[11] Constituencies are represented by quartiles, ranging from light blue for the MPs with the lowest presence rate to dark blue for MPs with the highest presence rate. The darkest regions are not the closest to Paris. The vote-participation decision is not then determined by geographical distance.

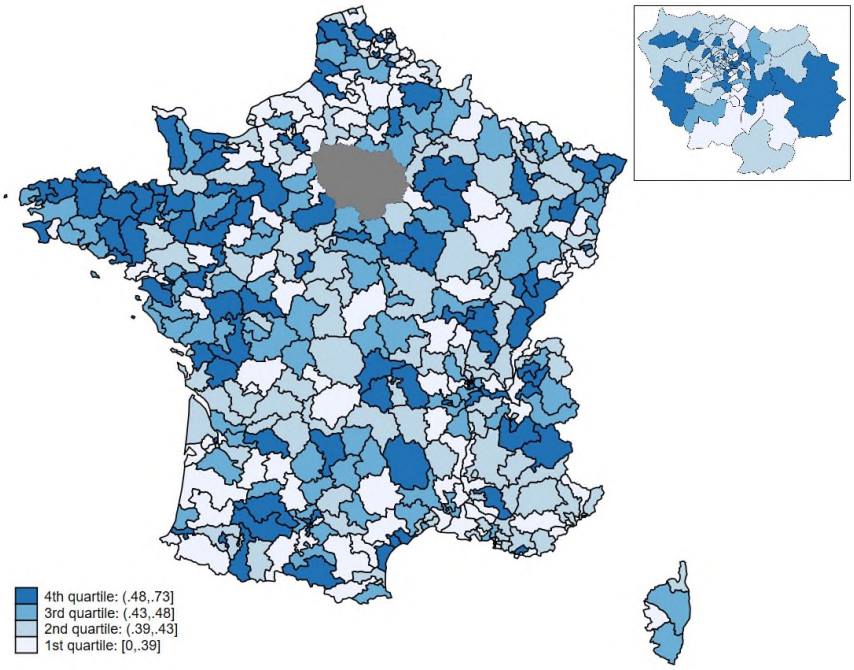

Figure A.3: Attendance rate by constituency

Notes: The attendance rate is calculated as the number of days in which the MP cast at least one vote over the number of days in the legislature. The bottom 25% of MPs in terms of attendance are represented in light blue, and the top 25% MPs in dark blue. The Parisian region is depicted in the top-right box.

[11] The base-map for constituencies' borders was created by SciencesPo and downloaded from https://www.data.gouv.fr/fr/datasets/carte-des-circonscriptions-legislatives-2012-et-2017/ on November 2nd 2020. 63 constituencies had more than one MP during the legislature due to resignation, Ministerial nomination and death. I then took the average presence rate over the different MPs in a given constituency

Appendix B: Measures of Conflict

This Appendix provides the details on the construction of the different conflict measures. Table B.1 shows the result of one-way MANOVA tests to see whether constituency characteristics are stable across Parties. Table B.2 checks that I have sufficient variation in the alignment rate across issues for all topics. Tables B.3 and B.4 display the regression results for the effect of constituency characteristics on MPs' voting decisions, using first all MPs and then only those who were not candidates with the same Party affiliation for the following legislature and who were not alternate members.

The third measure of conflict is constructed using two election results. The choice of these elections was based on the similarity in terms of Party affiliations of the candidates with the political groups in the Assembly, as shown in Tables B.5 and B.6.

Variable	F-statistic	Prob>F
Median income	5.02	0.0002***
Poverty rate	5.07	0.0002***
Inequality	1.44	0.2088
Unemployment rate	4.56	0.0004***
Share of children	4.88	0.0002***
Share of women	0.75	0.5868
Share of foreigners	0.88	0.4915
Share working in agriculture	0.73	0.6020
Share of craftsmen	6.91	0.0000***
Share of executives	3.24	0.0068**
Share of intermediate professions	0.76	0.5792
Share of employees	4.93	0.0002***
Share of blue collars	0.49	0.7856
Share of retired	2.16	0.0574
Share below 25 years old	4.99	0.0002***
Share above 65 years old	2.50	0.0296*
MP: woman	9.79	0.0000***
MP: age	2.19	0.0537

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table B.1: One-way MANOVA tests on the constituency characteristics

Sample: All MPs affiliated with a Party, 553 observations, 6 Parties.

Note: The F-statistic is for Wilks' Lambda. A significant p-value indicates that the variable differs significantly across at least two Parties.

I use two different elections to measure the electoral distance between constituents and the Party of their MP. The results are available at the constituency level. I chose the 2012 Presidential election and the 2015 Départmental elections as the candidates were affiliated with the same Parties as those represented in the National Assembly.

Topic	No. of issues voted	Mean alignment rate	SD alignment rate
Budget	99	.87	.11
Culture	15	.92	.11
Defence	24	.90	.09
Economy	86	.87	.11
Foreign	10	.94	.06
Law	176	.91	.10
Social	140	.94	.09
Sustainable Development	84	.91	.08

Table B.2: Variations in the alignment rate across issues, within each topic

Notes: Most topics exhibit large variations in alignment rates, with standard deviations of around .10. Even for topics with a small number of issues voted during the legislature, such as Culture or Foreign Affairs, there remains variation in the alignment rate with standard deviations of .11 and .06 respectively.

	(1) Budget	(2) Culture	(3) Defence	(4) Economy	(5) Foreign	(6) Law	(7) Social	(8) Sustainable
Left Neighbors	1.788***	2.015***	2.077***	2.201***	2.753***	1.980***	1.994***	2.097***
	(16.27)	(4.29)	(6.00)	(17.03)	(5.75)	(31.17)	(22.53)	(14.69)
Poverty Rate	0.0977	0.715*	0.0198	0.205	0.528	0.0359	-0.0604	0.0410
	(1.10)	(2.22)	(0.07)	(1.85)	(1.69)	(0.76)	(-0.84)	(0.39)
Unemployment Rate	-0.169	-0.663*	0.406	-0.141	0.0247	-0.00470	0.0194	-0.0886
	(-1.75)	(-2.28)	(1.30)	(-1.27)	(0.08)	(-0.11)	(0.29)	(-0.96)
Share Children	3.795	7.101	-8.692	-4.536	-7.784	1.462	-9.406*	13.34
	(0.73)	(0.37)	(-0.53)	(-0.69)	(-0.38)	(0.50)	(-2.09)	(1.94)
Share Foreign	-3.276	-2.630	-5.616	-7.867**	-1.374	-0.138	2.797	7.647**
	(-1.21)	(-0.32)	(-0.73)	(-2.73)	(-0.16)	(-0.11)	(1.45)	(2.72)
Share Farmers	-6.517	-15.55	-1.156	-5.259	3.651	6.746	8.609	22.00*
	(-0.60)	(-0.47)	(-0.03)	(-0.42)	(0.10)	(1.34)	(1.12)	(2.03)
Share Executive	2.844	-2.466	7.510	6.202	10.49	3.847	2.981	6.948
	(0.58)	(-0.15)	(0.52)	(1.01)	(0.58)	(1.54)	(0.76)	(1.25)
Share Intermediate	-1.936	25.83	11.87	-7.049	16.36	2.323	-6.541	17.19**
	(-0.33)	(1.37)	(0.74)	(-1.05)	(0.87)	(0.81)	(-1.48)	(2.79)
Share Employee	11.14	-2.977	24.72	16.67*	8.254	6.183*	5.912	8.400
	(1.78)	(-0.15)	(1.31)	(2.10)	(0.37)	(2.00)	(1.17)	(1.22)
Share BlueCollar	4.700	17.86	17.91	3.753	15.64	4.154	-0.713	8.092
	(0.85)	(1.01)	(1.06)	(0.58)	(0.88)	(1.61)	(-0.17)	(1.45)
Share Young	5.167	-2.119	-8.795	8.430	4.475	3.457	-3.838	11.69
	(0.87)	(-0.10)	(-0.49)	(1.17)	(0.19)	(1.15)	(-0.78)	(1.57)
Share Old	2.338	56.90	61.97	-7.601	20.47	3.123	-15.48	21.00
	(0.19)	(1.52)	(1.72)	(-0.55)	(0.51)	(0.51)	(-1.68)	(1.55)
Age	0.00218	-0.0435*	-0.0298*	0.0107	0.00453	-0.00509*	-0.00659	-0.0187***
	(0.46)	(-2.41)	(-2.09)	(1.86)	(0.26)	(-2.09)	(-1.73)	(-3.31)
N	2669	638	401	2450	564	10283	4144	3395

Table B.3: The effect of constituency characteristics on the probability of holding a Leftist position, by topic, using all MPs' recorded votes.

Notes: These are Logistic estimates the decision to hold a Leftist position. t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The regressions include Party and region fixed effects. Having neighboring MPs who hold Leftist positions increases the probability of voting Left for all topics.

	(1) Budget	(2) Culture	(3) Defence	(4) Economy	(5) Foreign	(6) Law	(7) Social	(8) Sustainable
Left Neighbors	1.649***	2.709***	3.306***	2.299***	3.387***	2.265***	2.126***	2.392***
	(9.54)	(3.76)	(4.76)	(11.84)	(4.48)	(23.38)	(14.97)	(10.64)
Poverty Rate	-0.0544	0.603	-0.0914	0.329	0.661	-0.0346	-0.309*	-0.0175
	(-0.32)	(1.20)	(-0.16)	(1.73)	(1.17)	(-0.46)	(-2.53)	(-0.09)
Unemployment Rate	-0.300*	-1.081*	0.138	-0.449*	-0.00845	0.0271	0.175	-0.0725
	(-2.05)	(-2.21)	(0.25)	(-2.39)	(-0.02)	(0.43)	(1.72)	(-0.51)
Share Children	-3.176	20.93	-15.48	-6.247	18.06	6.731	-5.670	38.14***
	(-0.37)	(0.63)	(-0.52)	(-0.57)	(0.53)	(1.55)	(-0.79)	(3.40)
Share Foreign	-0.246	-7.883	12.18	-1.133	-9.188	1.610	6.006*	8.399
	(-0.06)	(-0.51)	(0.84)	(-0.22)	(-0.52)	(0.83)	(2.02)	(1.83)
Share Farmers	3.586	-11.56	27.59	6.928	-0.391	20.54*	9.659	30.71
	(0.21)	(-0.21)	(0.40)	(0.31)	(-0.01)	(2.46)	(0.77)	(1.76)
Share Executive	3.569	15.37	62.64*	11.17	34.53	8.231	20.56**	20.43*
	(0.38)	(0.52)	(1.96)	(0.95)	(1.03)	(1.93)	(3.05)	(2.16)
Share Intermediate	-8.857	42.93	32.25	-14.21	33.24	13.25**	-0.774	23.97*
	(-0.85)	(1.20)	(0.97)	(-1.10)	(0.83)	(2.74)	(-0.10)	(1.99)
Share Employee	12.50	14.55	74.41	35.44*	26.34	6.578	18.29*	26.98*
	(1.15)	(0.45)	(1.88)	(2.51)	(0.69)	(1.34)	(2.24)	(2.43)
Share Blue Collar	-4.529	36.17	81.52*	-4.634	73.58	12.42**	12.34	20.20
	(-0.44)	(0.98)	(2.00)	(-0.35)	(1.80)	(2.58)	(1.53)	(1.83)
Share Young	-5.527	16.09	-0.130	9.718	62.64	8.289	1.027	35.71**
	(-0.54)	(0.48)	(-0.00)	(0.81)	(1.60)	(1.75)	(0.13)	(2.89)
Share Old	-44.10*	65.43	54.95	-77.95**	119.1	24.23*	-8.053	78.37**
	(-1.97)	(0.91)	(0.73)	(-2.75)	(1.51)	(2.28)	(-0.51)	(3.04)
Age	0.0124	-0.0611	-0.0379	0.00946	-0.0475	-0.00617	-0.0174**	-0.00851
	(1.45)	(-1.82)	(-1.30)	(0.92)	(-1.58)	(-1.58)	(-2.71)	(-0.92)
N	1129	274	171	1117	266	4494	1689	1501

Table B.4: The effect of constituency characteristics on the probability of holding a Leftist position, by topic, using the votes of MPs who were neither candidates with the same Party for the following legislature nor alternate members.

Notes: These are Logistic regressions for the decision to hold a Leftist position. t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The regressions include Party and region fixed effects. Having neighboring MPs who hold Leftist positions again increases the probability of voting Left for all topics.

Presidential candidate	Corresponding group in the National Assembly
François Hollande	SER
Nicolas Sarkozy	UMP
Jean-Luc Mélenchon	GDR
François Bayrou	UDI
Eva Joly	ECOLO

Table B.5: Presidential candidates and the corresponding groups in the National Assembly.

Notes: The 2012 Presidential election was held just before the legislative elections, on April the 22nd. The RRDP party supported François Hollande during the Presidential election, and therefore does not have any attributed candidate here.

Candidate classification in 2015	Corresponding group in the Assembly
COM: Parti communiste français	GDR
FG: Front de gauche	GDR
PG: Parti de gauche	GDR
RDG: Parti radical de gauche	RRDP
SOC: Parti socialiste	SER
UDI: Union des démocrates indépendants	UDI
UMP: Union pour un mouvement populaire	UMP
VEC: Europe Ecologie les Verts	ECOLO

Table B.6: Candidates' affiliations for the 2015 Départmental election and the corresponding groups in the National Assembly.

Notes: Departmental elections nominate representatives at the level just above the constituency. I use the results from the first round of the 2015 elections, on March 22nd, to measure the electorate preferences between this date and the end of the legislature.

Appendix C: The effect of conflict on participation

This Appendix shows the impact of my different conflict measures on the decision to participate in a vote. Table C.2 also displays the impact of conflict on the decision to align and to vote "Abstention".

	(1) Alignment On Participation
Candidate 2017 same Party	0.0130*
	(2.15)
Replacement	0.0274*
	(2.24)
Share Vote 1	0.0470
	(1.02)
Share Vote 2	0.0395
	(1.24)
Experience	0.0207**
	(2.87)
Male	-0.00403
	(-0.61)
Year Of Birth	-0.000705*
	(-2.21)
Constant term	Yes
N	589

Table C.1: MPs who were candidates with the same Party for the following legislature and MPs who were not directly elected but replaced nominated MPs are more likely to align their votes.

These are OLS regression of number of aligned votes over the total number of votes for each MP, for the fully-recorded issues. t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Share Vote 1 (resp. 2) is the share of votes the MPs won during the first (resp. second) round when elected. Experience is a dummy variable for the MP having already been elected in the previous legislature.

	Not Participating			Abstain			Align		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Conflict_all MPs	0.681***			1.572***			-2.655***		
	(16.97)			(7.36)			(-20.57)		
Conflict_non-disciplined		0.588***			1.465***			-2.188***	
		(15.42)			(7.46)			(-18.31)	
Conflict_electoral			0.755***			0.645			-2.13***
			(6.96)			(1.35)			(-6.64)
GeoDistance	-0.0912***	-0.0892***	-0.00551						
	(-4.13)	(-4.04)	(-0.34)						
Worked on Topic	-0.738***	-0.747***	-0.695***	0.119	0.119	0.118	-0.111	-0.111	0.0120
	(-28.35)	(-28.39)	(-43.09)	(1.03)	(1.03)	(1.75)	(-1.51)	(-1.51)	(0.26)
Vote Closeness	-0.183***	-0.193***	-1.388***	-1.150***	-1.155***	-0.254**	0.274*	0.285**	0.0952
	(-4.70)	(-4.93)	(-64.68)	(-6.95)	(-6.99)	(-2.77)	(2.48)	(2.59)	(1.46)
Amendment	2.476***	2.464***	3.049***	-0.409	-0.424	0.327**	-0.478**	-0.479**	-1.025***
	(66.44)	(65.57)	(256.41)	(-1.48)	(-1.53)	(2.85)	(-3.05)	(-3.05)	(-15.34)
Party Initiative	-0.230***	-0.211***	0.0481***	-0.772***	-0.782***	-0.117	-0.0287	-0.0296	0.0698
	(-12.10)	(-11.10)	(3.74)	(-7.90)	(-8.01)	(-1.67)	(-0.53)	(-0.55)	(1.73)
Experience	0.388***	0.398***	0.283***	0.121	0.125	-0.162	-0.0563	-0.0674	0.141
	(5.63)	(5.77)	(5.58)	(1.02)	(1.06)	(-1.34)	(-0.49)	(-0.58)	(1.25)
Candidate 2017 same Party	-0.164**	-0.165**	-0.0471	-0.209	-0.222*	0.0529	0.114	0.137	0.0129
	(-2.59)	(-2.61)	(-1.04)	(-1.90)	(-2.02)	(0.49)	(1.05)	(1.26)	(0.13)
Project	-0.562***	-0.549***	-0.930***	0.215	0.233	-0.271***	-0.301*	-0.346**	0.0764
	(-16.36)	(-15.88)	(-62.57)	(0.85)	(0.92)	(-4.05)	(-2.28)	(-2.61)	(1.54)
No. of voters				0.00143***	0.00137***	0.00126***	-0.000932***	-0.000782***	0.000547***
				(3.82)	(3.68)	(5.19)	(-4.00)	(-3.37)	(3.70)
Constant	0.794**	0.685*	0.266	-3.932***	-3.870***	-4.616***	4.329***	4.103***	5.238***
	(2.61)	(2.25)	(1.10)	(-10.31)	(-10.24)	(-8.49)	(14.50)	(13.82)	(13.60)
N	93071	89461	272497	20901	20705	83482	20901	20705	83482

Table C.2: Conflict reduces participation, increases abstention and reduces alignment.

Notes: These are Logistic estimates.t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Conflict in columns (1), (4) and (7) is in the full sample, and estimated from constituency characteristics for MPs who were neither candidate with the same Party nor alternate members in columns (2), (5) and (8). In columns (3), (6) and (9) conflict is measured by election results.

Appendix D: DiD. The effect of transparency on legislative voting

This Appendix shows the regression results of the Difference-in-difference analysis, with the estimates on the covariates.

	Participation Rate			Abstention Rate			Alignment Rate		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post	0.0338**	0.0217	0.0202	0.0134	0.0217	0.0188	-0.0207***	-0.0288***	-0.0275***
	(3.09)	(1.74)	(1.77)	(1.70)	(1.77)	(1.22)	(-4.61)	(-5.35)	(-4.69)
Ordinary	-0.650***	-0.594***	-0.616***	-0.0776***	-0.0563**	-0.0482	0.0206***	0.00231	0.00500
	(-71.96)	(-42.60)	(-41.51)	(-8.16)	(-2.75)	(-1.23)	(3.89)	(0.26)	(0.34)
Ordinary*Post	-0.127***	-0.126***	-0.0773***	-0.00708	-0.0203	-0.0173	0.0118*	0.0195**	0.00968
	(-10.87)	(-7.98)	(-3.72)	(-0.83)	(-1.27)	(-0.61)	(2.43)	(2.81)	(0.92)
Participants				-0.00000500	0.0000327	0.0000506	0.00000148	-0.0000311	-0.0000307
				(-0.27)	(0.68)	(0.50)	(0.14)	(-1.51)	(-0.83)
Vote Closeness	0.0551***	0.0430**	0.0520**	-0.0248***	-0.0319*	-0.0186	0.00866**	0.00522	-0.0114
	(6.83)	(2.79)	(2.79)	(-4.14)	(-2.09)	(-0.73)	(2.62)	(0.79)	(-1.17)
Amendment	-0.0347***	-0.0458***		-0.00810*	-0.00662		0.000962	0.00158	
	(-6.71)	(-4.17)		(-2.14)	(-0.61)		(0.46)	(0.34)	
Project	0.0245***	0.0511***	0.0337*	0.00575	0.0297*	0.0325	-0.00348	-0.00762	-0.00436
	(4.25)	(3.74)	(2.36)	(1.35)	(2.21)	(1.68)	(-1.49)	(-1.32)	(-0.60)
Party Initiative	0.0750***	0.0609***	0.0517***	-0.0198***	-0.0431***	-0.0609***	0.00690***	0.0113**	0.0132*
	(16.18)	(6.28)	(4.12)	(-5.89)	(-4.55)	(-3.61)	(3.76)	(2.81)	(2.13)
Vote Closeness In Party	0.0338**	0.107***	0.103***	0.0743***	0.157***	0.255***	-0.519***	-0.533***	-0.556***
	(3.10)	(5.41)	(3.83)	(9.39)	(8.09)	(6.96)	(-116.32)	(-59.68)	(-35.89)
Constant	0.825***	0.824***	0.835***	0.109***	0.0675*	0.0426	0.968***	0.997***	1.006***
	(76.48)	(45.71)	(44.26)	(9.63)	(2.36)	(0.79)	(154.31)	(81.29)	(50.45)
N	6551	1732	910	6551	1732	910	6447	1668	855
Tuesdays only		✓	✓		✓	✓		✓	✓
Bills only			✓			✓			✓

Table D.1: Increasing transparency reduces participation, does not affect abstention, and increases alignment.

Notes: These are OLS estimates of the participation, abstention and alignment rates for each party on each Bill. t-statistics appear in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. The sample is Tuesdays only in columns (2), (5) and (8), and entire Bills on Tuesdays only in columns (3), (6) and (9).

Appendix E: Potential spillover effects of the reform on MPs' behavior

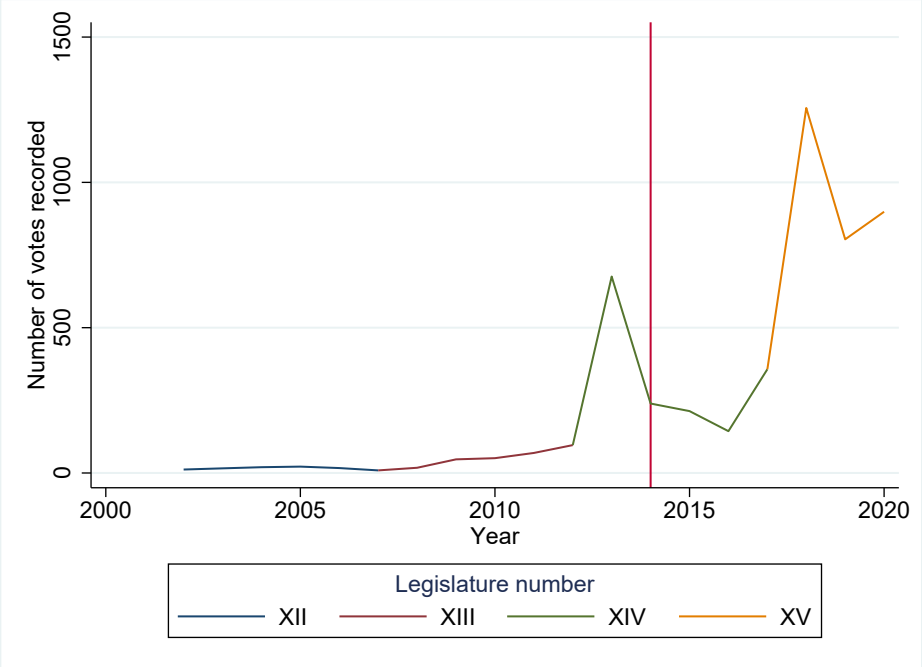

Figure E.1: The number of votes recorded has increased over recent years

Notes: This figure shows the number of votes recorded every year from the XIIth to the XVth legislature. The red line indicates 2014. The two peaks correspond to debates over controversial issues: labor-market flexibility and same-sex marriage (2013), and immigration (2018).

	Mean Pre-reform	Mean Post-reform	Diff.	|t|	Pr(|T| > |t|)
Amendments/Bills	3.86	4.51	.65	4.33	0.0000***
Propositions/Projects	.15	.37	.22	6.83	0.0000***

Table E.1: Potential spillover effects of the reform.

Notes: This table displays the monthly ratios of Amendments to Bills, and Propositions to Projects for ordinary issues. The pre-post difference is positive and significant for both, with a rise in the share of Amendments and of Propositions. Pre-reform, there were an average of 3.86 times as many Amendments as Bills each month; post-reform, this figure rose to 4.51.

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