Christine Benesch, Monika Bütler and Katharina Hofer Who Benefits from More Transparency in Parliamentary Voting¹



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INTRODUCTION

In a survey of 92 parliaments around the world, Hug (2010) reports that 23 do not publish any votes, 20 publish all votes, 43 publish selected votes, and 28 publish requested roll call votes. The striking differences beg the question of how transparency influences legislators' decision-making, and – more importantly-whether more transparency is in the voters' interest. At first sight, the answer seems clear: any additional information about legislators' actions improves accountability and thus increases the benefit for the voters. However, the case is not as clear-cut as it may sound: legislators are also accountable to their party, whose interests do not always align with those of the voters. Moreover, Prat (2005) and Fox and Van Weelden (2012) argue that transparency in legislator decisions can be detrimental to voters if legislators disregard private information to mimic "good" legislators.

Only a few studies have assessed the causal effect of voting transparency on legislative voting. This is not surprising, given that changes in the transparency of parliamentary decisions typically go hand in hand with other institutional changes or-more importantlychanges to a parliament's composition after elections.

We were fortunate to have the chance to analyze a change in transparency that was de facto imposed on one of Switzerland's chambers of parliament. As a consequence of a series of embarrassing counting errors, the Upper House of the Swiss Parliament was forced to switch quickly from a show-of-hands system to electronic voting in the middle of a legislative period. Together with the publication of name lists for a selection of votes, the reform led to a substantial increase in voting transparency, as well as an improvement in traceability.

Simply analyzing voting behavior before and after the transparency reform would not be informative, as other things may change over the legislative cycle. Luckily, both chambers of parliament vote on the same bills at the same time, and these votes can then be directly compared. Similar to a randomized control trial, the Lower House serves as a control group. This unique framework makes it possible to estimate the

1 This article is a non-technical summary of our paper, "Transparency in parliamentary voting," published in 2018 in the Journal of Public Economics. causal effect of increased transparency on legislators' choices and shed light on the transmission mechanism.

Since the reform, parties have gained influence over their members of parliament at the expense of voters. On average, legislators in the Upper House are less likely to deviate from the majority opinion of their party when their voting decisions are publicly observable. Electoral pressure reduces the effect of greater transparency to some extent: legislators holding marginal seats are less likely to adapt their voting behavior than those with safe seats. The reform also led to a decrease in aligned cantonal voting, a situation in which two legislators from the same canton but different parties cast the same vote. As aligned cantonal voting is usually in the median cantonal voter's interests, higher transparency is to the detriment of voters, at least in the short run.

LEGISLATION IN SWITZERLAND

Switzerland has a bicameral parliament composed of the National Council (Lower House; Nationalrat) and the Council of States (Upper House; Ständerat), as summarized in Table 1. Both chambers have equal legislative power. Four parties dominate Switzerland's political landscape, here ordered ideologically from left to right: the Social Democrats (SP), the Christian Democrats (CVP), the Free Democrats (FDP), and the Swiss People's Party (SVP). However, the dominance of the "big four" masks considerable ideological and leadership heterogeneity among the parties. All parties are deeply rooted in the country's federal structure and have their own cantonal branches, which are responsible among other things for putting forward candidates for parliamentary election.

The two chambers of the Swiss parliament have equal legislative power and take turns discussing new legislation. During the deliberation process, legislators vote on detailed amendments and then on the entire piece of legislation at the end of a round of deliberation. After both chambers have accepted a bill in separate deliberations, a final vote takes place. Bills become federal legislation only if passed by both chambers with a majority of votes. In the final passage vote (the reference point for our analysis), both chambers vote on exactly the same measure with identical wording and on the same day.

The Lower House has voted electronically since 1994 and has published all individual voting records online since 2007. The Upper House had traditionally voted by a show of hands. Electronic voting had been rejected for fear that it would compromise the open discussion culture and frequent collaboration of legislators across party lines. However, decision-making in the Upper House was not completely hidden: a number of seats in both chambers are reserved for the public, and video recordings of all parliamentary debates and votes have been publicly available on the parliament's website since 2006. Nonetheless, tracking the voting

Table 1 Swiss Parliamentary Chambers

| | Lower House | | | |
|-----------------------|---|------------|--|--|
| No. of seats | 200 | 46 | | |
| Distribution of seats | 1 seat per 37,500 inhabitants, min. 1 seat per canton | 2 s 1 s | | |
| Election procedure | Mostly proportional vote | Мс | | |
| Parties / groups | 14 parties 7 party groups | 7 p 7 p | | |
| Party composition | 79% share of 4 big parties | 93. | | |
| Transparency | Individual votes recorded and partly published since 1994, full online publication since 2007 | Vic | | |

records of individual legislators remained time-con-

suming and costly. In winter 2012, the discovery of critical counting errors in show-of-hands votes led to the first attempt at introducing electronic voting, which was unsuccessful. Only after another crucial counting error did the Upper House finally approve an electronic system in spring 2014. The move was quick and not entirely by choice, as it was precipitated by extensive media pressure. The transparency reform took place roughly halfway through the legislative period and left all other aspects of parliamentary business unchanged. The switch to electronic voting also included the automatic publication of individual voting records for several legally defined vote types, of which final passage votes was one.

HOW TO MEASURE THE IMPACT OF TRANSPARENCY

The introduction of electronic voting in the Swiss Upper House provides a unique opportunity to analyze the effect of transparency on individual decision-making. However, a simple before and after comparison is not enough to uncover the impact of the reform, as other factors may have changed over the legislative cycle. To account for changes in bill-specific characteristics before and after the reform as well as other time trends, we use the Lower House as a control group. The setup can be interpreted as a guasi-natural experiment in which the treatment—increased voting transparency for several vote types—exclusively affected members of the Upper House.

To evaluate the impact of higher transparency on legislator behavior, we need a useful indicator that is easily measurable and can be related to the utility of the legislators' principals, in particular the voters and the parties. We choose party discipline as our outcome variable and measure it by the probability that members of parliament will deviate from the party majority in final passage votes.

Votes of individual legislators allow us to control for individual characteristics that have a possible bearing on voting behavior. The party line is defined as

deviations.

REFORM MODEL

Upper House

e seats per canton, I seat per half cantor lostly majority vote

parties party groups

3.5% share of 4 big parties

ideo records since 2006, ndividual votes recorded and partly published since 2014

whatever the majority of party members votes for in a decision in the Lower House. As party discipline is measured using the Lower House as a reference, the outcome variable is not affected by the transparency reform. Moreover, the relatively high number of party members in the Lower House-ranging from nine to 54-also allows for a meaningful definition of party majority. While our measure of party line (i.e., whatever the majority of party members votes for) is conservative, we can also show that different cutoffs (67, 80, 90 percent majorities) do not affect our results.

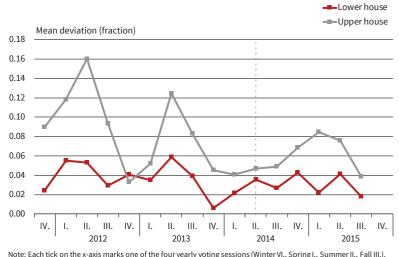
When the party line is either Yes or No, we do not classify abstention as a deviation from the party line, as it is less confrontational than opposing the party. In cases where abstention is the party line, for example to signal dissatisfaction, both Yes and No are coded as

We focus on final passage votes, which constitute the ultimate decision by both parliamentary chambers to accept or reject a bill. Legislative texts are identical for both chambers and final passage votes take place on the same day. Bills that reach the final voting stage represent only a portion of all bills debated. They usually pass the final passage vote with a large margin, with bills failing only in one percent of cases. What at first glance seems to be a drawback will in fact facilitate the interpretation of our results later on. Opposing the bill is not usually pivotal at this stage of the legislative process, and voting behavior by legislators is independent of strategic considerations regarding legislative outcomes. Legislators are more likely to deviate from the party line when they want to demonstrate ideology, commitment, or expertise.

Our data encompasses individual voting decisions by legislators of the seven parties represented in both chambers for the legislative period starting in December 2011 and ending in November 2015. The data set includes 298 final passage votes with around 68,000 individual legislator decisions. Individual voting data for the Lower House and (since summer 2014) for the Upper House was easily obtained. To derive individual voting decisions for the Upper House prior to the introduction of electronic voting, we handcollected data by watching the videos of final passage votes before 2014.

Figure 1

Mean Deviation from Party Line by Chamber



electronic voting, but it does not offer conclusive evidence. To analyze the reform's causal impact, we use a relatively straightforward econometric setup: we estimate the difference in deviations between the Upper and Lower House members both prior to and after the reform. This difference-in-difference technique can uncover the effect of higher transparency on deviations by members of the Upper House. We also control for vote and legislator fixed effects. Vote fixed effects encompass unobserved vote and bill characteristics and common changes over time. Legislator fixed effects include all time-invariant indi-

House after the introduction of

Around 86.2 percent of the legislators' votes are directly visible in the videos. Using aggregate published results, we were able to infer a further 10.8 percent of individual votes, and so only 3.1 percent of decisions remain unknown

Our quasi-experiment is not ideal for two reasons. First, the two chambers differ in terms of size, party representation, and election procedures. However, while these differences may affect party unity, they are time-invariant during our observation period. Second, the change also affected the internal visibility of voting decisions. Under the show-of-hands system, legislators sitting in the front row could be observed by their colleagues, while legislators in the last row were less visible. Under the electronic voting system, all individual votes are immediately and universally visible on a large, electronic board displaying the chamber's seating chart. We can show, however, that the change in internal visibility induced by the seating arrangements cannot explain our results.

Figure 1 shows the mean deviation from the party line by chamber for the seven largest parliamentary parties, tracked in each of the four annual voting sessions. For both chambers, the mean deviations were relatively noisy, but the two lines moved in tandem prior to the introduction of electronic voting (Spring Session 2014), with the exception of the Winter Session 2012. The collapse in the difference between the chambers coincided with increased media attention and additional screening due to counting errors. During this period, legislators were well aware that their voting decisions were under greater scrutiny.

EMPIRICAL EVIDENCE

Visual inspection of Figure 1 already suggests a drop in the difference between deviations in Upper and Lower vidual characteristics, such as party, canton, gender, education, and year of birth.

Obtaining econometrically meaningful estimates requires a number of assumptions. The most important of these is the common trend assumption: if electronic voting had not been introduced in the Upper House, the difference in deviation from the party line between the Upper House and the Lower House would have stayed the same throughout the period. One reason that may contradict this assumption is that voting behavior changes in a differential way over the legislative cycle for members of the Upper and Lower House, respectively. However, we can discard this possibility by using the preceding legislative period as an additional comparison (in a triple-difference regression).

We also assume stable preferences and behavior in the control chamber. The latter could be contested if lower monitoring costs in the Upper House allowed parties and voters to shift resources in order to step up vote monitoring in the Lower House. However, this is unlikely since all votes in the Lower House have been published since 2007 and monitoring costs were already low before the reform.

THE EFFECT OF TRANSPARENCY ON PARTY LINE DEVIATION

Before the reform, members of the Upper House were 5.8 percentage points more likely to break with the party majority than those in the Lower House. The increase in transparency reduced the probability that legislators would deviate from their party line by 1.9 percentage points (see Table 2). Coding the Winter Session 2012, which was closely watched by the media and recorded on video, as transparent increases the reform effect as well as its significance. In economic terms, the effect is sizable. The reform led to a drop in party line

Table 2 Transparency Reduces Deviation from Party Line

| | Baseline (1) | Winter Session 2012 treated (2) | Lame Ducks | |
|---------------------|--------------------|---------------------------------------|----------------------|-----------------------|
| | | | Retiring in 2015 (3) | Candidate in 2015 (4) |
| Upper House *Reform | -0.019* (0.011) | -0.029** (0.011) | 0.006 (0.017) | -0.027** (0.012) |
| Observations | 67,781 | 67,781 | 9,578 | 54,323 |

defined as deviation). Standard errors are two-way clustered at legislator and vote level Source: Authors' calculations, see Benesch, Bütler and Hofer (2018).

deviation on an order of magnitude of one-fifth (departing from a pre-reform share of deviations in the Upper House of 10 percent). On average, about one additional legislator in the Upper House toes the party line after the reform.

The increase in transparency did not affect all legislators in a uniform way. If our analysis were to demonstrate a genuine reaction of individual legislators to changing requests of voters or parties, we should observe an impact solely on legislators running for reelection. Indeed, we find no significant effect of the reform on parliamentary members in their final term. Legislators who plan to stay in office significantly reduce deviations from the party line, by an average of 2.7 percentage points (Table 2). The difference between outgoing legislators and those running for reelection is large and significant. Our findings are consistent with evidence on "lame duck" behavior (Besley and Case, 1995): in their last term, legislators are unaffected by institutional changes because their accountability is low.

WHO DRIVES THE RESULT: VOTERS OR PARTIES?

Legislators are measured according to the expectations of two different groups of stakeholders: voters and parties. Accordingly, the estimated decrease in average deviation from the party majority under greater transparency can have two (non-exclusive) reasons: a party channel and an electoral channel.

A party channel would be in effect if, under transparency, parties monitored their members more closely and enforced stricter voting discipline. Unified voting is in the parties' interests as it strengthens the party brand and pushes the legislative process in the desired direction (Carey 2007). Jenkins and Stewart (2003) provide an interesting example of a party channel in the 19th century: party leaders supported the introduction of open (instead of secret) elections of the Speaker of the U.S. House of Representatives, as the increase in transparency temporarily raised party pressure and partisanship.

But why should parties want to enforce voting discipline in the largely uncontested final passage votes? In these decisions, legislators can signal their commitment to local voters without compromising their parties' legislative goals. However, party interests extend beyond influencing legislative outcomes. Opposition to

Our empirical evidence speaks for the latter interpretation. We use the results of the 2011 elections to the Upper House as a proxy for expected electoral support, and compare legislators elected in first-round voting with legislators in closer races elected only in the second round. Legislators who had the strongest incentive to vote according to the interests of their constituency-i.e., legislators elected only in the second round and standing for re-election in 2015-exhibited a smaller move toward more party discipline. Legislators with safe seats reduced deviations from the party line by 2.5 percentage points more than their peers with uncertain prospects. The former had more leeway to vote the party line after the reform, even if this may have hurt voters' interests.

TRANSPARENCY: BOON OR BANE FOR VOTERS?

The electoral channel already suggests that adhering to the party line might be costly for voters. Another way to look at voters' benefits is the incidence of aligned

Note: *** p<0.01, ** p<0.05, * p<0.1. OLS (legislator and vote fixed effect). Dependent variable is 1 if the legislator deviated from the party line (abstention is not

an unchallenged decision can be an effective form of collective position-taking, amplified by transparency. It was precisely an increase in this type of party pressure that many legislators feared in the parliamentary debates: transparency potentially endangers the consensus-oriented political culture in the Upper House.

In support of the party channel, our results reveal that oppositional forces on both ends of the ideological spectrum have gained ground after the transparency reform. Voting No is observed significantly more often. The decline in deviations from the party line can be almost entirely explained by a higher probability of voting against a bill in line with the party majority.

On the other hand, if voters themselves valued party discipline, an electoral channel would prevail. Increased electoral pressure facilitated by voting transparency would then reduce deviations from the party line. To uncover an electoral channel, we compare representatives who face close re-election races to those expecting re-election with certainty. The former are more accountable to voters, on whose support they depend (List and Sturm 2006). If party discipline were in the interest of voters, legislators holding marginal seats should exhibit a greater decrease in party line deviation than legislators facing less fierce political competition. If adherence to the party line were costly for voters, we would expect the opposite.

The dashed vertical line marks the transparency reform in Spring 2014. Source: Authors' calculations, see Benesch, Bütler and Hofer (2018) © ifo Institute

voting of the two Upper House legislators in a canton. Out of a total of 26 Swiss cantons, 20 are represented by two legislators, of which 17 have legislators from two different parties.

We argue that aligned voting is beneficial for the canton. If we assign a "cantonal line" to each final passage vote and compare it to the legislators' choices, we find that aligned voting coincides with the cantonal line in 95.5 percent of the cases. If the party lines differ, one of the two legislators faces the problem of competing interests: those of their constituency versus those of their party. Voting transparency may influence their decision on which interests should carry more weight.

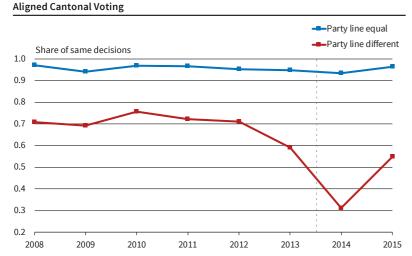
Figure 2 shows the evolution of aligned voting for decisions where party lines coincided and where they differed. Prior to electronic voting, the shares evolved in parallel. In 2014, the year of the reform, aligned voting for legislators with different party lines collapsed to roughly half of its pre-reform value. Afterwards, alignment recovered slightly, but remained lower than before.

The results from the econometric model confirm the impression from the graphical analysis. Aligned voting fell by 22.6 percentage points when parties were divided over the bill. As aligned voting seems to be beneficial for representation, the result provides further evidence that more transparency does not benefit voters. Since the reform, in situations with conflicting interests, legislators more often follow their party's demands.

DISCUSSION OF RESULTS

Our findings must be interpreted within the institutional context characterized by initially high monitoring costs for both parties and voters. Parties (and the politically interested public) were aware of "serial deviators," but there was no systematic tracking of "occa-

Figure 2



Note: The y-axis shows the share of decisions, aggregated by year, for which legislators from the same cantons vote aligned. The upper line represent votes for which the legislators' two parties had the same party line; the lower line when these party lines differed; the dashed vertical line marks the timing of the reform. Source: Authors' calculations, see Benesch, Bütler and Hofer (2018).

sional deviations." Routine monitoring of the Upper House was considered a political no-go. Because the media was slow to pick up the new information, at least in the short term, voting transparency for the public did not considerably increase. As a consequence, our results reflect the immediate, short-term impact of increased transparency on legislative voting. More intense media coverage may thus lead to different long-term effects.

In our setting, increased transparency and the availability of recorded votes improved party discipline. More consensus-oriented legislators from parties at either end of the political spectrum tended to close ranks with their more oppositional party majorities once their voting decisions were publicly disclosed, even if such actions could be detrimental to their voters. Opposing votes can be interpreted as position-taking in order to build a party brand without affecting legislative outcomes (Carey and Shugart 1995). The transparency reform facilitated parties' monitoring of their elected members while voters still faced considerable monitoring costs after the reform.

Stricter adherence to party lines as a consequence of higher transparency does not reflect better accountability toward voters. We find evidence that legislators holding marginal seats were influenced less by the reform. Moreover, aligned voting of the cantons' two legislators in the Upper House, which we show is beneficial for voter representation, significantly declined following the introduction of electronic voting. Anecdotal evidence supports the data: none of the members of parliament or party secretaries we interviewed cited voters as the beneficiaries of stricter party discipline. The widespread view in the debates leading up to the reform was that voters valued independent representatives.

Voters apparently prefer independent legislators in parliament, but they do not (yet) seem to sanction

their representatives for adhering to the party line. We do not find a significant change in vote shares in the first round of elections between 2011 and 2015 on the change in deviations from the party majority. Voters still seem to be unaware that they can now access information on their legislators' voting behavior—or they find it too costly.

Even though the results are derived within the particular setting of the Swiss parliamentary system, our research demonstrates that the impact of higher transparency and traceability elsewhere should not be underestimated. Transparency is relevant not only for voting, but also for other political outcomes such as legislators' effort (Grossman and Hanlon 2014), and decision-making within committees (Levy 2007). Transparency also plays a role in fields other than politics, such as monetary policy (Faust and Svensson 2001; Gersbach and Hahn 2004). Any change in the way policy decisions are reported to the public can have unintended consequences. Without careful evaluation, reforms might lead to—in the words of Prat (2005)—the wrong kind of transparency.

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REFORM MODEL