Supplementary Material (SM)

Agenda Control and Timing of Bill Initiation: A Temporal Perspective on Coalition Governance in Parliamentary Democracies

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Appendix I: Theory, Data, and Method

A Anecdotal Evidence

To illustrate our argument, below we describe two cases from the 2013-2017 coalition government in Germany. The cases illustrate how a minister's learning about the type of partner she faces affects subsequent late or immediate initiation of further bills.

In 2013, the German coalition government composed of the Union (CDU/CSU) and the Social Democrats (SPD) agreed in their coalition agreement to introduce a car toll for German highways. Although it was included in the coalition agreement, the proposal by the CSU Minister of Transport Alexander Dobrindt underwent lengthy parliamentary scrutiny in the Bundestag. The coalition controversy concerned introducing a toll in a way that should not lead to any additional burden on German car owners.[37] Following the protracted scrutiny of the car toll bill, the Transport Minister postponed the introduction of another important bill—the Autonomous Driving bill—to the very last year of the term.[38] After a period of heavy controversy in parliament, which opened the floor to opposition parties, the Bundestag approved the bill on 30 March 2017 in the Bundesrat on 12 May 2017. It entered into force on 21 June 2017, just 3 months before the next elections.[39] Arguably, Minister Dobrindt initiated late the Autonomous Driving bill to

[37]This was secured by an amendment to the government bill introducing a vehicle tax relief for German car owners. While the draft bill was approved by the coalition majority in the Bundestag in 2015, that very amendment led to subsequent legal proceedings by the European Commission on the grounds of discrimination against car owners from other EU countries. The verdict by the European Court of Justice in favor of the European Commission eventually prevented the CSU Transport minister from implementing his party's policy pledge to introduce a car toll.

[38]See https://www.bundesregierung.de/breg-de/aktuelles/faq-autonomes-fahren-1852070 (visited on 22-03-2021).

[39]See https://www.bundesregierung.de/resource/blob/975226/847984/

minimize further scrutiny and reputation losses after a rough experience with the car toll bill.

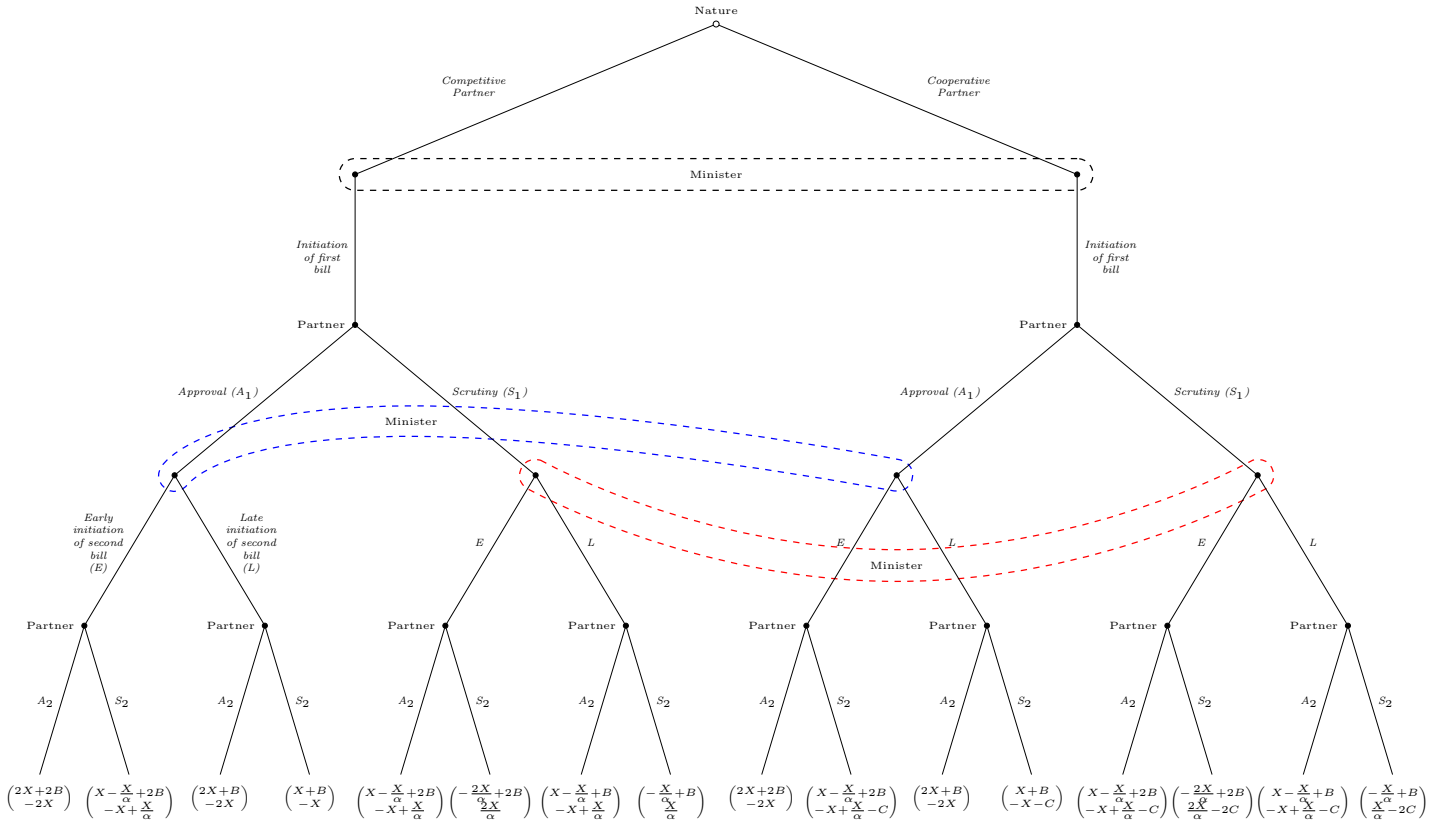
Conversely, in the same 2013-2017 term, the German Interior Minister Thomas de Maiziere (CDU) initiated and successfully passed a total of 8 bills on asylum, which were immediately approved without scrutiny in the Bundestag. The first bill was initiated on 26 May 2014, but was not concluded until 19 September 2014 (116 days). However, with the rise of the 2015 European migrant crisis, there was more consensus in the government coalition on refugee policies.[40] The second asylum bill initiated on 15 December 2015 took only 45 days to pass in the Bundestag. Having experienced lower scrutiny, the Interior Minister introduced early on two further relevant bills in April and June 2016, and four in February, March, and April 2017. This is in sharp contrast to experiences during the previous period when it took the Interior Minister 568 days to initiate the second proposal on the relevant topic. Arguably, this timing of bill initiation is due to the Interior Minister's experience of lower scrutiny of her bills as the SPD partner immediately approved the bills in the Bundestag. Indeed, after 2015, it took on average 65 days to pass a new asylum bill, compared to the 116 days it took to pass the first, pre-crisis bill in 2014.

5b8bc23590d4cb2892b31c987ad672b7/2018-03-14-koalitionsvertrag-data.pdf?download=1 (visited on 22-03-2021).

[40]This is evidenced in the news report by DW over parties' standards on refugee issues: https://www.dw.com/en/afd-cdu-spd-where-do-german-parties-stand-on-refugees-asylum-and-immigration/a-40610988, and the 2015 annual policy report from German Federal Office for Migration and Refugees: https://www.bamf.de/SharedDocs/Anlagen/DE/EMN/Politikberichte/emn-politikbericht-2015-germany.html?nn=282388 (visited on 09-03-2020).

B Formal Model Analysis

Figure B1. Game Tree



Minister's Strategies

The minister's strategy set is given by $\{(E|A_1, E|S_1), (E|A_1, L|S_1), (L|A_1, E|S_1), (L|A_1, L|S_1)\}$, where $(i|A_1, j|S_1)$ denotes a strategy of the minister to choose action $i \in \{E, L\}$ when the partner has approved the first bill (i.e., in the information set A_1) and action $j \in \{E, L\}$ when the partner has allowed for scrutinizing it (i.e., in the information set S_1). The strategy set of each partner type is given by $\{A_1A_2, A_1S_2, S_1A_2, S_1S_2\}$, where each strategy indicates his actions with regard to the first bill (A_1 or S_1) and second bill (A_2 or S_2).

Partner's choice regarding government bills

The *competitive* partner type has a dominant strategy of allowing for scrutiny of the second bill, S_2, while the *cooperative* partner type has a dominant strategy of approving the second bill, A_2. As for the first bill, the *competitive* type's overall payoff from approving it (and then subsequently allowing for scrutiny of the second bill) is given either by $-X + \frac{X}{\alpha}$ (in case the minister initiates the second bill early) or by $-X$ (in case the minister initiates it late). If the *competitive* type instead allows for scrutiny of the first bill (and then subsequently allows for scrutiny of the second) then his payoff accounts either to $\frac{2X}{\alpha}$ (in case of early initiation) or to $\frac{X}{\alpha}$ (in case of late initiation). It follows that the *competitive* partner type's payoff from allowing for scrutiny of the first bill (i.e., either $\frac{2X}{\alpha}$ or $\frac{X}{\alpha}$) is higher than from approving it (i.e., either $-X + \frac{X}{\alpha}$ or $-X$). The *competitive* type has thus a dominant strategy of allowing for scrutiny of the first bill, S_1.

We consider next the *cooperative* partner type's incentives. If he approves the first bill (and then subsequently approves the second one) then his payoff is equal to $-2X$ (independently of whether the minister initiates the second bill early or late). In turn, his payoff from allowing for scrutiny of the first bill (and then subsequently approving the second one) amounts to $-X + \frac{X}{\alpha} - C$ (again independently on the minister's decision about the second bill). Given that the challenging costs C are assumed to be large enough, it follows that the *cooperative* type's payoff from approving the first bill (i.e., $-2X$) exceeds that from allowing for its scrutiny (i.e., $-X + \frac{X}{\alpha} - C$). Therefore, the *cooperative* type has a dominant strategy of approving the first bill, A_1.

To sum up, the *competitive* type will allow for scrutiny of both bills, S_1S_2, while the *cooperative* type will approve both bills, A_1A_2. The minister realizes this and so learns that she faces a *competitive* (resp., *cooperative*) partner when her first bill has been scrutinized (resp., approved). The minister, therefore, learns the partner's type and so can anticipate the partner's reaction to her second bill.

Minister's decision about early or late initiation of the second bill

We consider first the case in which the minister observes that her first bill has been approved and so learns that her partner is *cooperative*, who will also approve her second bill. The minister's payoff from early initiating the second bill amounts to $2X + 2B$ in this case. In turn, her payoff from late initiation of the second bill is equal to $2X + B$. It follows that after endorsement of the first bill, the minister will early initiate the second bill, $E|A_1$.

Second, we turn to the case in which the minister observes that her first bill has been scrutinized and so realizes that she faces a *competitive* partner, who will also allow for scrutiny of her second bill. If the minister initiates the second bill early, then her payoff is given by $-\frac{2X}{\alpha} + 2B$. However, if she initiates the second bill late then the scrutiny process cannot be completed by the end of the term and she will get $-\frac{X}{\alpha}+B$. The minister therefore faces a trade-off between gaining position-taking benefit B and hindering the scrutiny process (and so avoiding policy loss $\frac{X}{\alpha}$). It follows that after scrutiny of the first bill, the minister will initiate her second bill early, $E|S_1$, whenever $B > \frac{X}{\alpha}$, and late, $L|S_1$, whenever $B \leq \frac{X}{\alpha}$.

This analysis results in the following proposition.

Proposition 1. *For sufficiently large challenging costs (i.e., for $C > X+\frac{X}{\alpha}$), there exists a perfect Bayesian equilibrium such that:*

- *the competitive partner allows for scrutiny of both bills, S_1S_2, while the cooperative partner approves immediately both bills, A_1A_2;*

- *the minister learns the partner's type, i.e., she learns that she faces a competitive (cooperative) partner after her first bill has been scrutinized (immediately approved);*

- *after the partner's immediate approval of the first bill, the minister initiates the second bill early,* $E|A_1$*;*

- *after scrutiny of the first bill, the minister initiates the second bill early,* $E|S_1$*, if* $B > \frac{X}{\alpha}$ *and late,* $L|S_1$*, if* $B \leq \frac{X}{\alpha}$*.*

C Descriptive Statistics, Passage Rate, and Experienced Scrutiny

Table C1. Overall Passage Rate

	Number	Percent
Non-Passage	4719	0.185
Passage	20758	0.815
Total	*25477*	*1.00*

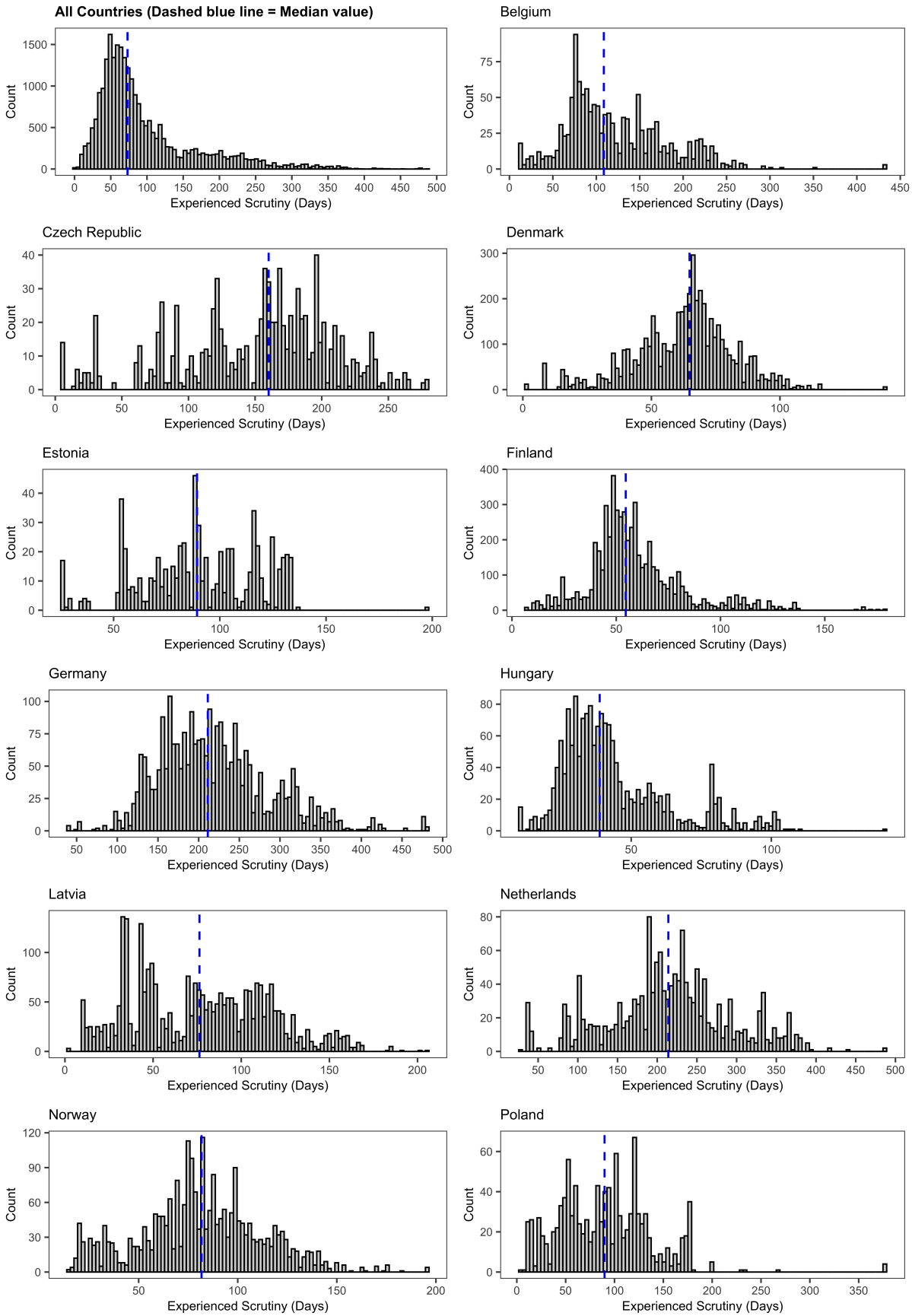
Table C2. Number of Proposals by Country

	Number	Percent
Estonia	671	0.03
Czech Republic	931	0.04
Poland	1084	0.04
Belgium	1299	0.05
Netherlands	1541	0.06
Hungary	1666	0.07
Norway	2458	0.10
Germany	2576	0.10
Latvia	2836	0.11
Denmark	4965	0.19
Finland	5450	0.21
Total	*25477*	*1.00*

Table C3. Passage Rates by Country

	# Non-Passage	# Passage	Passage Rate (%)
Norway	1292	1166	0.47
Poland	532	552	0.51
Estonia	260	411	0.61
Czech Republic	192	739	0.79
Latvia	578	2258	0.80
Finland	745	4705	0.86
Denmark	610	4355	0.88
Germany	259	2317	0.90
Belgium	95	1204	0.93
Netherlands	99	1442	0.94
Hungary	57	1609	0.97

Figure C1. Distribution of the Variable *Experienced Scrutiny* by Country



D A Brief Introduction to Circular Regression

We briefly introduce circular regression and refer our readers to Gill and Hangartner (2010), Mulder and Klugkist (2017), and Fisher and Lee (1992) for details of estimation. Note that the focus here is on a circular dependent variable.

In order to model circular data, we need to map our data into a circular space in the interval $[0, 2\pi]$ or any other continuous ranges with a length of 2π. A commonly-used distribution for this purpose is the von Mises distribution. The probability density function of the von Mises distribution is given by

$$f(z) = [2\pi I_0(\kappa)]^{-1} \exp\{\kappa \cos(z - \mu)\},$$

where z is a radius measure, $I_0(\kappa)$ is the modified Bessel function of the first kind with order 0, μ is the location parameter and κ is the scale parameter. A common way to reparameterize the distribution is to set the location parameter μ_i for each observation i to be

$$\mu_i = \mu_0 + g^{-1}(\boldsymbol{x_i}^T \boldsymbol{\beta})$$

where μ_0 is the circular intercept and $g^{-1}(\cdot)$ is a link function that is often assumed to equal $2\arctan(\cdot)$. Mulder and Klugkist (2017) show that when $\boldsymbol{x_i}$ contains discrete values, the above parameterization shifts not only location but also the shape of the prediction line which leaves the shape to be an arbitrary choice of the reference group. Therefore, in order to make the shape invariant of the discrete reference group, we need to separate the continuous and discrete variables (namely $\boldsymbol{x_{i,c}}$ and $\boldsymbol{x_{i,d}}$), and take the linear combination of the discrete variables out of the link function. Consequently, a generalized circular regression takes the following form:

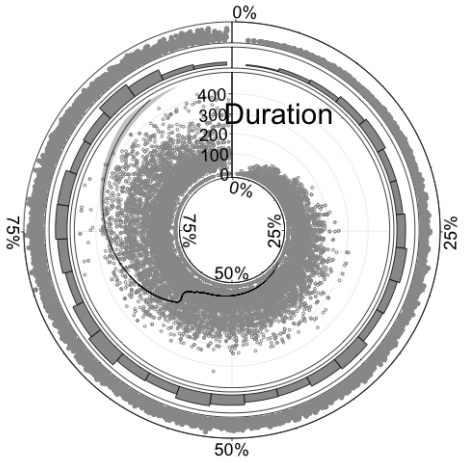
$$\mu_i = \mu_0 + \boldsymbol{x_{i,d}}^T \boldsymbol{\beta_d} + g^{-1}(\boldsymbol{x_{i,c}}^T \boldsymbol{\beta_c}).$$

The goal of the estimation is to recover the latent parameters $\{\mu_0, \beta_d, \beta_c\}$, corresponding to the intercept (μ_0), and the coefficients of the discrete (β_d) and the continuous

independent variables (β_c).

As an illustration, to describe circular outcomes and their relationship with the independent variable of interest, we depict a circular descriptive plot in Figure D1, considering the "location of the bill proposal" as the dependent variable and the "duration of passed bills" as the only independent variable.

Figure D1. Circular descriptions

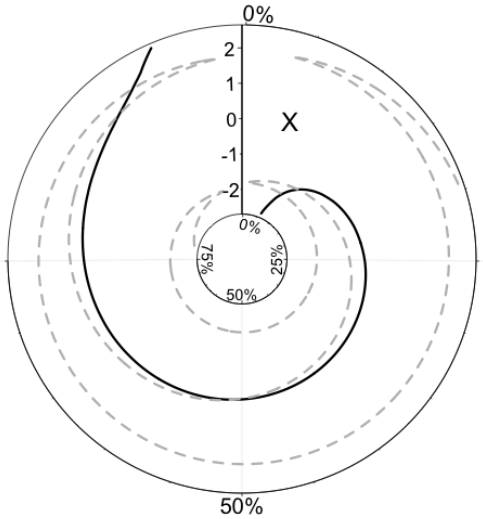


The annuli from outside to the inside of the circle depict global distribution and local distribution of the timing of bills, as well as the relationship between timing and the duration of bills in different policy areas. We can observe from the outer annulus of the figure that, in general, more bills are introduced at the middle and the end of the terms than at the beginning. However, due to the variation across parliamentary systems, the distribution of bills varies locally as the heights of bars in the circular histogram at the second annulus differ. The third annulus draws a scatter plot between duration and timing of bills, against which a locally weighted linear regression liner with 95% confidence interval is fitted. The fitted curve indicates that with the increasing duration of previous bills, subsequent bills are more likely to be introduced later in the term. Despite the general trend illustrated by the locally-weighted linear regression, using linear regression to fit the circular data leads to model misspecification. In this regard, circular regression remedies the shortcoming of linear regression by incorporating the resetting points at the start of each term in the estimation.

To demonstrate how linear regression fails to predict the true timing effect of a vari-

able, we consider the following simple case where a variable X influences the timing outcome Y by a factor of 2, i.e., $Y = g^{-1}(2 * X)$.[41] By having the link function $g^{-1}(\cdot) = 2\text{arctan}(\cdot)$, we can interpret the effect as delay by a quarter with one unit increase of X because $g^{-1}(2)/2\pi = 1/4$. This is shown by the solid black line in Figure D2. However, if we use a linear regression model to predict the timing effect of X, as shown by the dashed gray line in the figure, the predictions are largely incorrect: an increase of X may make an event occur later or earlier depending on the values of X. This is because the linear estimator extrapolates the estimation beyond the bounds of the dependent variable, i.e., the timing outcome within a range of 2π. In contrast, circular regression will correctly model the bounds of the dependent variable and thus yield valid estimates.

Figure D2. Effects of Variable X on Timing
Note: The solid black line represents changes of true timing with increasing values of X and the dashed gray line represents the predictions by a linear regression model.



[41] We simulate 100 observations assuming $X \sim N(0, 1)$.

Appendix II: Goodness of Fit, and Robustness Checks

E Convergence Diagnostics

We check the convergence of the MCMC sampler by estimating the Heidelberger and Welch's convergence diagnostics for each chain of each main model. We present the results in the following tables. The results in Table E1, E2 and E3 show that for all the variables we cannot reject the null hypothesis that the chains converge.

Table E1. Heidelberger and Welch's Convergence Diagnostic for Model 1

	Stationary Test	**p-value**	**Halfwidth Test**	**Mean**	**Halfwidth**
b0_chain	passed	0.730	passed	0.2149	1.82E-04
kp_chain	passed	0.989	passed	0.517	6.23E-05
bt_chain.1	passed	0.752	passed	0.4883	4.51E-04
bt_chain.2	passed	0.471	passed	0.1885	2.35E-04
bt_chain.3	passed	0.564	passed	-0.187	3.84E-04
bt_chain.4	passed	0.616	passed	-0.0294	1.93E-04
bt_chain.5	passed	0.934	passed	-0.0722	1.63E-04
bt_chain.6	passed	0.727	passed	-0.2639	2.71E-04
zt_chain.1	passed	0.754	passed	0.2891	2.32E-04
zt_chain.2	passed	0.474	passed	0.1186	1.45E-04
zt_chain.3	passed	0.563	passed	-0.1177	2.36E-04
zt_chain.4	passed	0.615	passed	-0.0187	1.23E-04
zt_chain.5	passed	0.935	passed	-0.0459	1.03E-04
zt_chain.6	passed	0.729	passed	-0.1643	1.61E-04
mu_chain	passed	0.730	passed	0.2149	1.82E-04

Note: MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.

Table E2. Heidelberger and Welch's Convergence Diagnostic for Model 2

	Stationary Test	**p-value**	**Halfwidth Test**	**Mean**	**Halfwidth**
b0_chain	passed	0.772	passed	0.2161	1.96E-04
kp_chain	passed	0.952	passed	0.5253	6.37E-05
bt_chain.1	passed	0.433	passed	0.3644	7.56E-04
bt_chain.2	passed	0.403	passed	-0.0391	9.94E-04
bt_chain.3	passed	0.579	passed	-0.2059	3.40E-04
bt_chain.4	passed	0.796	passed	-0.0242	1.77E-04
bt_chain.5	passed	0.233	passed	-0.0908	1.88E-04
bt_chain.6	passed	0.372	passed	-0.2571	2.76E-04
bt_chain.7	passed	0.429	passed	0.3071	1.29E-03
zt_chain.1	passed	0.439	passed	0.2224	4.25E-04
zt_chain.2	passed	0.403	passed	-0.0249	6.32E-04
zt_chain.3	passed	0.578	passed	-0.1293	2.07E-04
zt_chain.4	passed	0.796	passed	-0.0154	1.12E-04
zt_chain.5	passed	0.233	passed	-0.0576	1.19E-04
zt_chain.6	passed	0.37	passed	-0.1602	1.65E-04
zt_chain.7	passed	0.425	passed	0.1895	7.52E-04
mu_chain	passed	0.772	passed	0.2161	1.96E-04

Note: MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.

Table E3. Heidelberger and Welch's Convergence Diagnostic for Model 3

	Stationary Test	**p-value**	**Halfwidth Test**	**Mean**	**Halfwidth**
b0_chain	passed	0.6158	passed	0.4138	1.06E-02
kp_chain	passed	0.1679	passed	0.5324	8.05E-05
bt_chain.1	passed	0.1476	passed	0.575	2.13E-03
bt_chain.2	passed	0.1231	passed	0.2287	2.71E-04
bt_chain.3	passed	0.0907	passed	-0.1559	3.97E-04
bt_chain.4	passed	0.1495	passed	0.0721	1.73E-03
bt_chain.5	passed	0.0775	passed	-0.0764	2.56E-04
bt_chain.6	passed	0.104	passed	-0.2658	4.75E-04
bt_chain.7	passed	0.1012	passed	-0.1515	2.49E-03
bt_chain.8	passed	0.0726	passed	0.4871	2.08E-02
bt_chain.9	passed	0.0994	passed	0.1742	2.46E-03
bt_chain.10	passed	0.648	passed	-0.3705	1.15E-02
dt_chain	passed	0.5942	passed	-0.6716	3.47E-02
zt_chain.1	passed	0.1456	passed	0.332	1.02E-03
zt_chain.2	passed	0.1229	passed	0.1431	1.64E-04
zt_chain.3	passed	0.0913	passed	-0.0985	2.47E-04
zt_chain.4	passed	0.1487	passed	0.0458	1.09E-03
zt_chain.5	passed	0.0775	passed	-0.0486	1.62E-04
zt_chain.6	passed	0.1037	passed	-0.1654	2.82E-04
zt_chain.7	passed	0.1001	passed	-0.0956	1.55E-03
zt_chain.8	passed	0.0574	passed	0.2867	1.05E-02
zt_chain.9	passed	0.0989	passed	0.1097	1.52E-03
zt_chain.10	passed	0.641	passed	-0.2252	6.35E-03
mu_chain.Reference	passed	0.6158	passed	0.4138	1.06E-02
mu_chain.median_minister_parliament	passed	0.5796	passed	-0.2578	2.47E-02

Note: MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.

Check of Global Optimum

While the MCMC sampler is much more resistant to local optima, there is still a risk of getting stuck in local optima depending on the chosen step size of each MCMC iteration (Metropolis et al., 1953). To better explore the posterior, Gill and Hangartner (2010) adopted the iterative reweighted least squares algorithm and used different starting values. However, in the Bayesian case, using different starting values provides no guarantee of convergence at the global optimum (Gill, 2015, 477). Instead, we tweak the tuning parameter (step size) in the Metropolis-Hastings algorithm to adjust the space the sampler is going to explore around the current parameter value at each iteration. This is done via the *cicrcGLM* function of the R package *circGLM*, in which the default step size is 0.05.

At the cost of lower rates of convergence, increasing values of the tuning parameter make the sampler less likely to get struck in local optima. Our estimates are robust to the adoption of different values of the tuning parameter from 0.05 to 0.8. The convergence rate is very low once we exceed the value of 0.8. By varying the tuning parameters within a reasonable range, our results are robust and we are confident that our estimations are

likely to explore the global optimum rather than being trapped in local optima. In Table E4 below, we show the results from conducting our main models with tuning parameter at a value of 0.8; MCMC run for 100,000 iterations. Since the convergence is much slower, we increase the burn-in period and take the first 50,000 iterations as burn-ins. We also provide convergence diagnostic tests for each of the models included in Table E4. The results from these tests are in Table E5, E6 and E7, and indicate that we cannot reject the null hypothesis of convergence for all the variables in our models, making us confident that all chains have appropriately converged.

Table E4. Main Models with Tuning Parameter at 0.8

	Model 1 (Hypothesis 1)	**Model 2** (Hypothesis 2)	**Model 3** (Hypothesis 3)
Experienced Scrutiny	**0.324** **[0.321, 0.325]**	0.320 [0.308, 0.325]	0.323 [0.319, 0.325]
Experienced Scrutiny × Coal. Pol. Divergence		**0.31** **[0.29, 0.32]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.27** **[-0.31, -0.23]**
Minister Median Party			-0.45 [-0.59, -0.29]
Minister's Party Size	-0.15 [-0.37, 0.01]	-0.02 [-0.04, -0.01]	-0.10 [-0.14, -0.07]
Coalition Policy Divergence	0.17 [0.15, 0.19]	-0.05 [-0.08, -0.03]	0.20 [0.18, 0.23]
Policy Saliency	-0.11 [-0.13, -0.09]	-0.19 [-0.21, -0.16]	-0.14 [-0.16, -0.11]
Opposition Policy Divergence	-0.07 [-0.08, -0.05]	-0.09 [-0.11, -0.07]	-0.06 [-0.08, -0.04]
Government Duration	-0.21 [-0.24, -0.19]	-0.24 [-0.26, -0.22]	-0.25 [-0.28, -0.23]
Experienced scrutiny × Minister's Party Size			0.12 [0.08, 0.16]
Experienced scrutiny × Minister Median Party			0.31 [0.27, 0.32]
Minister's Party Size × Minister Median Party			0.18 [0.13, 0.23]
Intercept	0.29 [0.26, 0.33]	0.23 [0.19, 0.26]	0.35 [0.30, 0.41]

Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 50,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 25,477 government bills.

Table E5. Heidelberger and Welch's Convergence Diagnostic for Model 1 of Table E4

	Stationary Test	p-value	Halfwidth Test	Mean	Halfwidth
b0_chain	passed	0.0765	passed	0.29401	2.83E-04
kp_chain	passed	0.3942	passed	0.50603	6.21E-05
bt_chain.1	passed	0.4319	passed	0.32392	2.91E-04
bt_chain.2	passed	0.7252	passed	0.17134	9.22E-04
bt_chain.3	passed	0.3543	passed	-0.11088	8.39E-04
bt_chain.4	passed	0.0959	passed	-0.01548	7.37E-04
bt_chain.5	passed	0.4926	passed	-0.0679	6.71E-04
bt_chain.6	passed	0.2083	passed	-0.21526	8.52E-04
zt_chain.1	passed	0.4313	passed	0.19942	1.67E-04
zt_chain.2	passed	0.7241	passed	0.10801	5.70E-04
zt_chain.3	passed	0.3534	passed	-0.07029	5.28E-04
zt_chain.4	passed	0.096	passed	-0.00985	4.69E-04
zt_chain.5	passed	0.4933	passed	-0.04316	4.25E-04
zt_chain.6	passed	0.2162	passed	-0.13496	5.18E-04
mu_chain	passed	0.0765	passed	0.29401	2.83E-04

Note: MCMC run for 100,000 iterations; first 50,000 iterations as burn-ins.

Table E6. Heidelberger and Welch's Convergence Diagnostic for Model 2 of Table E4

	Stationary Test	p-value	Halfwidth Test	Mean	Halfwidth
b0_chain	passed	0.681	passed	0.2278	3.06E-04
kp_chain	passed	0.8665	passed	0.5249	6.25E-05
bt_chain.1	passed	0.5876	passed	0.32	7.15E-04
bt_chain.2	passed	0.7295	passed	-0.0553	1.05E-03
bt_chain.3	passed	0.8031	passed	-0.189	9.55E-04
bt_chain.4	passed	0.0593	passed	-0.0213	7.44E-04
bt_chain.5	passed	0.6994	passed	-0.0905	7.12E-04
bt_chain.6	passed	0.1898	passed	-0.2446	7.64E-04
bt_chain.7	passed	0.7088	passed	0.3135	1.02E-03
zt_chain.1	passed	0.5873	passed	0.1972	4.14E-04
zt_chain.2	passed	0.7294	passed	-0.0352	6.63E-04
zt_chain.3	passed	0.8019	passed	-0.1189	5.87E-04
zt_chain.4	passed	0.0593	passed	-0.0136	4.73E-04
zt_chain.5	passed	0.6989	passed	-0.0575	4.49E-04
zt_chain.6	passed	0.1898	passed	-0.1527	4.59E-04
zt_chain.7	passed	0.708	passed	0.1934	5.90E-04
mu_chain	passed	0.681	passed	0.2278	3.06E-04

Note: MCMC run for 100,000 iterations; first 50,000 iterations as burn-ins.

F Endogenous Government Duration

In this appendix, we evaluate the potential endogeneity (to the policymaking process) of government duration. We predict ex-ante government duration using the information available to the coalition at the start of the term. Specifically, we calculate *average policy distance among coalition parties across policy areas*, *average opposition conflict across policy areas*, *coalition government size*, *seat share of the coalition parties*, *total seats of the parliament*. These variables represent the best prior information available to coalition parties regarding conflict and composition of power at the beginning of a new term. In

Table E7. Heidelberger and Welch's Convergence Diagnostic for Model 3 of Table E4

	Stationary Test	**p-value**	**Halfwidth Test**	**Mean**	**Halfwidth**
b0_chain	passed	0.1556	passed	0.3553	2.14E-03
kp_chain	passed	0.7043	passed	0.5225	6.25E-05
bt_chain.1	passed	0.37	passed	0.3234	4.14E-04
bt_chain.2	passed	0.3816	passed	0.2043	9.06E-04
bt_chain.3	passed	0.6234	passed	-0.1391	1.23E-03
bt_chain.4	passed	0.7428	passed	-0.1031	2.55E-03
bt_chain.5	passed	0.8423	passed	-0.0619	6.57E-04
bt_chain.6	passed	0.8502	passed	-0.2521	9.53E-04
bt_chain.7	passed	0.974	passed	0.1181	3.52E-03
bt_chain.8	passed	0.3344	passed	0.3077	2.53E-03
bt_chain.9	passed	0.2896	passed	0.1768	4.67E-03
bt_chain.10	passed	0.3948	passed	-0.2753	4.60E-03
dt_chain	passed	0.0664	passed	-0.4466	7.39E-03
zt_chain.1	passed	0.3704	passed	0.1991	2.39E-04
zt_chain.2	passed	0.3835	passed	0.1283	5.54E-04
zt_chain.3	passed	0.6247	passed	-0.088	7.67E-04
zt_chain.4	passed	0.7408	passed	-0.0654	1.61E-03
zt_chain.5	passed	0.842	passed	-0.0393	4.17E-04
zt_chain.6	passed	0.8516	passed	-0.1572	5.71E-04
zt_chain.7	passed	0.9735	passed	0.0748	2.21E-03
zt_chain.8	passed	0.3357	passed	0.19	1.48E-03
zt_chain.9	passed	0.2896	passed	0.1114	2.88E-03
zt_chain.10	passed	0.391	passed	-0.1709	2.73E-03
mu_chain.Reference	passed	0.1556	passed	0.3553	2.14E-03
mu_chain.median_minister_parliament	passed	0.0857	passed	-0.0912	5.37E-03

Note: MCMC run for 100,000 iterations; first 50,000 iterations as burn-ins.

addition, we control for country, year, whether the duration of the government is low (< 500 days), middle (< 1000 days), or high (>1000 days), and whether the coalition is a minority, a minimal winning, or a surplus coalition. We regress the above variables on the observed government duration, and use the predicted values of government duration as an approximation to the ex-ante government duration. The relative locations of government bills are accordingly recalculated, which are then used to re-estimate our main models. Note that, by using ex-ante government duration we have to delete bills that were initiated after the predicted dates of government termination, which results in fewer observations (19,202).

The results are presented in Table F1. As we can see, our original results are consistent; increasing our confidence in the independence assumption of our statistical analyses regarding endogeneity of government duration to the policymaking process.

Table F1. Ex-ante Government Duration Test: Prior Information

	Model 1 (Hypothesis 1)	**Model 2** (Hypothesis 2)	**Model 3** (Hypothesis 3)
Experienced Scrutiny	**0.46** **[0.43, 0.49]**	0.27 [0.23, 0.31]	0.62 [0.55, 0.69]
Experienced Scrutiny × Coal. Pol. Divergence		**0.40** **[0.35, 0.45]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.38** **[-0.56, -0.24]**
Minister Median Party			-0.64 [-1.10, -0.25]
Minister's Party Size	-0.07 [-0.09, -0.04]	-0.05 [-0.07, -0.03]	0.12 [0.08, 0.17]
Coalition Policy Divergence	0.17 [0.15, 0.20]	-0.12 [-0.16, -0.08]	0.19 [0.16, 0.21]
Policy Saliency	-0.10 [-0.13, -0.08]	-0.09 [-0.11, -0.07]	-0.07 [-0.09, -0.04]
Opposition Policy Divergence	-0.01 [-0.02, 0.02]	-0.02 [-0.04, 0.01]	-0.02 [-0.04, 0.01]
Government Duration	-0.16 [-0.18, -0.13]	-0.17 [-0.19, -0.15]	-0.16 [-0.18, -0.13]
Experienced scrutiny × Minister's Party Size			-0.26 [-0.33, -0.19]
Experienced scrutiny × Minister Median Party			0.50 [0.32, 0.75]
Minister's Party Size × Minister Median Party			0.09 [0.02, 0.16]
Intercept	0.25 [0.22, 0.29]	0.27 [0.23, 0.30]	0.46 [0.34, 0.60]

Dependent Variable: Temporal location of government bill proposals within a term based on ex-ante government duration.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 19,202 government bills.

G Benchmark Models

Table G1. Benchmark Model: Experienced scrutiny
(MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.)

	Estimate	**Standard Deviation**	**Lower Bound**	**Upper Bound**
Experienced Scrutiny	**0.327**	**0.013**	**0.303**	**0.353**
Intercept	0.154	0.023	0.109	0.199

Dependent Variable: Temporal location of legislative proposals within a term.
N: 25,477 government bills.

Table G2. Benchmark Model: Experienced scrutiny × Coalition Policy Divergence
(MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.)

	Estimate	**Standard Deviation**	**Lower Bound**	**Upper Bound**
Exp. Scrutiny × Coal. Policy Divergence	**0.376**	**0.033**	**0.311**	**0.441**
Experienced scrutiny	0.242	0.017	0.208	0.275
Coalition Policy Divergence	-0.034	0.025	-0.083	0.016
Intercept	0.129	0.020	0.090	0.168

Dependent Variable: Temporal location of legislative proposals within a term.
N: 25,477 government bills.

Table G3. Benchmark Model: Powerful Ministers and Timing of Bill Initiation
Interactions: Experienced scrutiny × Minister's Party Size × Minister Median Party
(MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.)

	Estimate	**Standard Deviation**	**Lower Bound**	**Upper Bound**
Experienced Scrutiny × Min. Party Size × Min. Median Party	**-0.400**	**0.083**	**-0.572**	**-0.250**
Experienced scrutiny	0.517	0.039	0.442	0.593
Minister's Party Size	0.074	0.025	0.023	0.121
Minister Median Party	-1.052	0.240	-1.514	-0.568
Experienced scrutiny × Minister's Party Size	-0.251	0.037	-0.323	-0.176
Experienced scrutiny × Minister Median Party	0.647	0.132	0.411	0.923
Minister's Party Size × Minister Median Party	0.082	0.034	0.014	0.147
Intercept	0.446	0.085	0.285	0.618

Dependent Variable: Temporal location of legislative proposals within a term.
N: 25,477 government bills.

H Controls for Government Types, and Fixed-Effect Models

Table H1. The Effects of Experienced scrutiny, Coalition Policy Divergence, and Powerful Ministers on Timing of Bill Initiation, Adding Controls for Government Types (Minimum Winning Coalition and Minority Government, and Surplus-Party Coalition as the Baseline)

	Model 1 (Hypothesis 1)	**Model 2** (Hypothesis 2)	**Model 3** (Hypothesis 3)
Experienced Scrutiny	**0.51** **[0.49, 0.55]**	0.42 [0.39, 0.47]	0.61 [0.55, 0.67]
Exp. Scrutiny × Coal. Pol. Divergence		**0.21** **[0.14, 0.27]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.31** **[-0.45, -0.14]**
Minister Median Party			-0.47 [-0.90, 0.14]
Minister's Party Size	0.01 [-0.01, 0.04]	0.01 [-0.02, 0.03]	0.12 [0.07, 0.17]
Coalition Policy Divergence	0.13 [0.10, 0.15]	-0.03 [-0.08, 0.02]	0.17 [0.15, 0.20]
Policy Saliency	-0.13 [-0.16, -0.11]	-0.15 [-0.18, -0.12]	-0.09 [-0.12, -0.06]
Opposition Policy Divergence	-0.05 [-0.07, -0.03]	-0.06 [-0.08, -0.04]	-0.05 [-0.07, -0.03]
Government Duration	-0.28 [-0.31, -0.26]	-0.27 [-0.30, -0.25]	-0.28 [-0.31, -0.26]
Minimum Winning Coalition	-0.78 [-0.87, -0.68]	-0.69 [-0.79, -0.59]	-0.76 [-0.86, -0.66]
Minority Government	-0.39 [-0.50, -0.29]	-0.37 [-0.48, -0.27]	-0.31 [-0.42, -0.21]
Experienced scrutiny × Minister's Party Size			-0.15 [-0.22, -0.09]
Experienced scrutiny × Minister Median Party			0.39 [0.12, 0.62]
Minister's Party Size × Minister Median Party			0.16 [0.09, 0.22]
Intercept	0.61 [0.55, 0.68]	0.57 [0.50, 0.63]	0.72 [0.55, 0.86]

Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets.
N: 25,477 government bills.

Table H2. Analyses with Majority Governments Only

	Model 1 (Hypothesis 1)	**Model 2** (Hypothesis 2)	**Model 3** (Hypothesis 3)
Experienced Scrutiny	**0.67** **[0.63, 0.71]**	0.50 [0.45, 0.55]	0.56 [0.50, 0.62]
Experienced Scrutiny × Coal. Pol. Divergence		**0.31** **[0.26, 0.37]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.40** **[-0.51, -0.29]**
Minister Median Party			-0.49 [-0.72, -0.26]
Minister's Party Size	-0.11 [-0.14, -0.09]	-0.09 [-0.12, -0.07]	-0.17 [-0.22, -0.12]
Coalition Policy Divergence	0.10 [0.08, 0.13]	-0.11 [-0.15, -0.06]	0.15 [0.12, 0.18]
Policy Saliency	-0.37 [-0.40, -0.34]	-0.37 [-0.39, -0.34]	-0.36 [-0.39, -0.34]
Opposition Policy Divergence	-0.09 [-0.12, -0.07]	-0.11 [-0.14, -0.09]	-0.06 [-0.08, -0.04]
Government Duration	-0.35 [-0.38, -0.33]	-0.34 [-0.36, -0.31]	-0.37 [-0.39, -0.34]
Experienced scrutiny × Minister's Party Size			0.12 [0.05, 0.20]
Experienced scrutiny × Minister Median Party			0.55 [0.40, 0.70]
Minister's Party Size × Minister Median Party			0.11 [0.06, 0.17]
Intercept	0.20 [0.16, 0.23]	0.21 [0.18, 0.25]	0.31 [0.24, 0.39]

Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 17,950 government bills.

Table H3. Robustness Check (FE Models)
The Effect of Experienced Scrutiny on the Timing of Bill Initiation

	Model 1	**Model 2**	**Model 3**
Experienced Scrutiny	**1.04**	**1.08**	**0.52**
	[0.99, 1.09]	**[1.04, 1.13]**	**[0.49, 0.56]**
Coalition Policy Divergence	0.05	0.06	0.18
	[0.03, 0.08]	[0.04, 0.08]	[0.16, 0.21]
Policy Saliency	-0.03	-0.09	-0.20
	[-0.07, 0.01]	[-0.12, -0.06]	[-0.23, -0.18]
Minister's Party Size	0.03	0.05	-0.03
	[0.01, 0.06]	[0.03, 0.07]	[-0.06, -0.01]
Opposition Policy Divergence	-0.05	-0.02	-0.09
	[-0.07, -0.03]	[-0.04, -0.01]	[-0.11, -0.07]
Government Duration	-0.37	-0.77	-0.28
	[-0.40, -0.34]	[-0.81, -0.73]	[-0.30, -0.25]
Intercept	0.76	0.35	0.13
	[0.61, 0.90]	[0.08, 0.59]	[-0.01, 0.26]
Country FE	✓	X	X
Government FE	X	✓	X
Ministerial Area FE	X	X	✓

Dependent Variable: Temporal location of government bill proposals within a term.

MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.

Lower and upper bounds of 95% credible intervals in brackets.

N: 25,477 government bills.

Table H4. Robustness Check (FE Models)
Interaction: Experienced scrutiny × Coalition Policy Divergence

	Model 1	**Model 2**	**Model 3**
Experienced Scrutiny	0.90 [0.83, 0.96]	1.00 [0.94, 1.05]	0.36 [0.32, 0.40]
Exp. Scrutiny × Coal. Pol. Divergence	**0.21** **[0.14, 0.28]**	**0.14** **[0.08, 0.20]**	**0.43** **[0.37, 0.50]**
Coalition Policy Divergence	-0.09 [-0.14, -0.04]	-0.04 [-0.09, 0.01]	-0.12 [-0.17, -0.08]
Policy Saliency	0.02 [-0.02, 0.7]	-0.07 [-0.10, -0.04]	-0.23 [-0.25, -0.20]
Minister's Party Size	0.03 [0.01, 0.05]	0.05 [0.03, 0.07]	-0.03 [-0.05, -0.01]
Opposition Policy Divergence	-0.05 [-0.07, -0.02]	-0.02 [-0.03, 0.01]	-0.11 [-0.14, -0.09]
Government Duration	-0.39 [-0.42, -0.36]	-0.77 [-0.81, -0.74]	-0.27 [-0.29, -0.25]
Intercept	0.59 [0.44, 0.74]	0.24 [0.05, 0.42]	0.12 [-0.03, 0.25]
Country FE	✓	X	X
Government FE	X	✓	X
Ministerial Area FE	X	X	✓

Dependent Variable: Temporal location of government bill proposals within a term.

MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.

Lower and upper bounds of 95% credible intervals in brackets.

N: 25,477 government bills.

Table H5. Robustness Check (FE Models)
Powerful Ministers and Bill Initiation Timing
Interactions: Experienced scrutiny × Minister's Party Size × Minister Median Party

	Model 1	**Model 2**	**Model 3**
Experienced Scrutiny × Min. Party Size × Min. Median Party	**0.02 [-0.07, 0.11]**	**-0.11 [-0.17, -0.04]**	**-0.46 [-0.59, -0.36]**
Experienced scrutiny	1.26 [1.15, 1.38]	1.07 [1.01, 1.15]	0.58 [0.53, 0.62]
Coalition Policy Divergence	0.08 [0.06, 0.11]	0.07 [0.05, 0.10]	0.24 [0.21, 0.26]
Policy Saliency	0.01 [-0.02, 0.06]	-0.10 [-0.14, -0.06]	-0.16 [-0.19, -0.14]
Minister's Party Size	0.09 [0.02, 0.15]	0.08 [0.04, 0.12]	0.08 [0.04, 0.13]
Opposition Policy Divergence	-0.06 [-0.08, -0.03]	-0.03 [-0.05, -0.01]	-0.11 [-0.13, -0.08]
Government Duration	-0.39 [-0.42, -0.36]	-0.77 [-0.81, -0.67]	-0.29 [-0.32, -0.26]
Minister Median Party	0.49 [0.31, 0.65]	-0.07 [-0.17, 0.04]	-0.79 [-1.14, -0.51]
Exp. Scrutiny × Minister's Party Size	-0.20 [-0.33, -0.06]	-0.03 [-0.12, 0.05]	-0.16 [-0.22, -0.11]
Exp. Scrutiny × Minister Median Party	-0.16 [-0.24, -0.06]	0.15 [0.08, 0.21]	0.65 [0.49, 0.87]
Min. Party Size × Min. Median Party	0.05 [-0.01, 0.11]	0.02 [-0.01, 0.05]	0.17 [0.12, 0.23]
Intercept	0.50 [0.37, 0.66]	0.26 [0.16, 0.39]	0.37 [0.21, 0.54]
Country FE	✓	X	X
Government FE	X	✓	X
Ministerial Area FE	X	X	✓

Dependent Variable: Temporal location of government bill proposals within a term.

Due to computer processing power limitation, MCMC run for 10,000 iterations; first 1,000 iterations as burn-ins.

The results have converged with the reduced number of iterations.

Lower and upper bounds of 95% credible intervals in brackets.

N: 25,477 government bills.

Table H6. The Effects of Experienced scrutiny, Coalition Policy Divergence, and Powerful Ministers on Timing of Bill Initiation: Data Including the Zero Values for *experienced scrutiny*.

	Model 1	**Model 2**	**Model 3**
Experienced scrutiny	**0.51** **[0.47, 0.54]**	0.39 [0.35, 0.44]	0.64 [0.59, 0.70]
Experienced scrutiny × Coal. Pol. Divergence		**0.32** **[0.25, 0.39]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.43** **[-0.55, -0.32]**
Minister Median Party			-0.75 [-1.05, -0.44]
Minister's Party Size	-0.03 [-0.05, -0.01]	-0.02 [-0.04, 0.01]	0.09 [0.05, 0.14]
Coalition Policy Divergence	0.23 [0.20, 0.25]	-0.02 [-0.07, 0.03]	0.28 [0.25, 0.30]
Policy Saliency	-0.14 [-0.17, -0.11]	-0.19 [-0.22, -0.16]	-0.12 [-0.14, -0.09]
Opposition Policy Divergence	-0.09 [-0.11, -0.08]	-0.11 [-0.13, -0.09]	-0.10 [-0.12, -0.08]
Government Duration	-0.24 [-0.27, -0.22]	-0.24 [-0.26, -0.21]	-0.26 [-0.28, -0.23]
Experienced scrutiny × Minister's Party Size			-0.19 [-0.25, -0.13]
Experienced scrutiny × Minister Median Party			0.55 [0.39, 0.73]
Minister's Party Size × Minister Median Party			0.22 [0.17, 0.28]
Intercept	0.13 [0.09, 0.17]	0.11 [0.08, 0.15]	0.34 [0.24, 0.45]

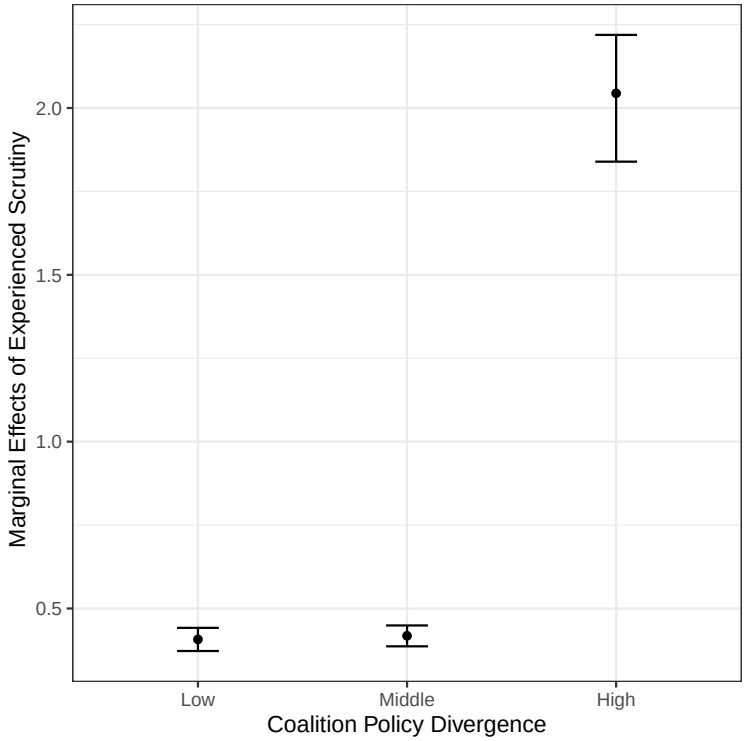
Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets.
N: 26,939 government bills.

I Alternative Estimation Strategy for the Conditional Effect of Coalition Policy Divergence on Bill Initiation Timing

We adopt a more flexible estimation strategy by binning the covariate that has been conditioned on into three equal-sized groups and estimating the nonlinear interaction effects (Hainmueller, Mummolo and Xu, 2019). The results are depicted in Figure I1. In the estimation, the covariate Coalition Policy Divergence is grouped into three equal-sized categories with low ($0 <$ divergence ≤ 1.30), middle ($1.30 <$ divergence ≤ 2.85) and high (divergence > 2.85) levels of policy divergence. Overall, the figure illustrates that

by adopting a more flexible estimation strategy, our results still hold.

Figure I1. Marginal Effects of Experienced Scrutiny on the Timing of Bill Initiation, Conditional on the Level of Coalition Policy Divergence



Notes: The greater the coalition policy divergence, the greater the effect of *experienced scrutiny* on late bill initiation.

J Analysis with Incumbent Coalition Parties

In this appendix, we check whether incumbent parties within coalition governments differ in their learning behavior. If parties in the current government know each other from governing together in the past (i.e. at least two party members of the current coalition were members of the previous coalition), then we might suppose that some learning has already taken place between these parties.

As we can see in Table J1, our original results are mainly consistent with this additional robustness check (i.e., same direction and statistical significance for our estimates in model 1 and model 2), with an estimate smaller in magnitude for our triple interaction in model 3 and now significant at 0.1 level (and not at 0.05 level). This result is probably a consequence of the smaller number of observations when conducting the analysis on

governments with at least two incumbent parties.

Table J1. Robustness Check: Analyses with Coalition Governments Formed with at Least Two Incumbent Parties

	Model 1 (Hypothesis 1)	**Model 2** (Hypothesis 2)	**Model 3** (Hypothesis 3)
Parliamentary Scrutiny	**0.35** **[0.32, 0.38]**	0.26 [0.22, 0.29]	0.49 [0.42, 0.57]
Parliamentary Scrutiny × Coal. Pol. Divergence		**0.21** **[0.15, 0.27]**	
Parl. Scrutiny × Min. Party Size × Min. Median Party			**-0.01** **[-0.15, 0.09]**
Minister Median Party			0.57 [-0.08, 0.99]
Minister's Party Size	-0.08 [-0.10, -0.06]	-0.07 [-0.09, -0.05]	-0.01 [-0.05, 0.04]
Coalition Policy Divergence	0.14 [0.11, 0.16]	-0.03 [-0.08, 0.02]	0.17 [0.15, 0.20]
Policy Saliency	-0.10 [-0.13, -0.07]	-0.12 [-0.15, -0.09]	-0.04 [-0.07, -0.01]
Opposition Policy Divergence	0.01 [-0.02, 0.02]	-0.01 [-0.03, 0.01]	-0.01 [-0.03, 0.01]
Government Duration	-0.35 [-0.37, -0.32]	-0.34 [-0.37, -0.32]	-0.35 [-0.37, -0.32]
Parliamentary Scrutiny × Minister's Party Size			-0.14 [-0.22, -0.07]
Parliamentary Scrutiny × Minister Median Party			-0.12 [-0.23, 0.08]
Minister's Party Size × Minister Median Party			0.13 [0.04, 0.25]
Intercept	0.55 [0.51, 0.59]	0.54 [0.50, 0.58]	0.41 [0.29, 0.58]

Dependent Variable: Temporal location of government bill proposals within a term.
Markov chain Monte Carlo (MCMC) run for 11000 iterations, 10000 used.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 18,039 government bills.

K Testing for Confounding Variables

In order to isolate even more the estimates of our predictions suggested in our hypotheses, we add to our models new control variables that might affect the timing of bill initiation. We give particular attention to possible confounders related to parliamentary workload, and external events such as economic crises. For the measurement of parliamentary workload, we include two new independent variables to our models: 1. "Number of partners," i.e., the number of parties that comprise the coalition government (from a minimum of 1 partner to 5 partners), and; 2. "Number of previous bills," depicting the number of bills initiated in the country's parliament at the moment a new bill is initiated by the minister. In both cases, a greater number implies a greater amount of work (heavier workload) the parliament (and review committees in particular) has to deal with, either because more partners increase the chance of more bills being initiated or because a great number of bills was already initiated and is being considered in the parliament.

For the measurement of external events, we focus on economic factors that might work as external event shocks to the coalition government, potentially increasing the pressure on the government for reforms and the approval of bills to mitigate the crises. We follow two strategies to measure external events:

1. From the Behavioral Finance and Financial Stability Project (BFFS), data released by the Harvard Business School (BFFS, 2021), we gathered information on financial and banking crises.[42]

2. In a more refined examination of the potential effects of particular economic indicators on the timing of bill initiation, we added to our original models quarterly data on GDP growth and inflation rate. These indicators are key measures of a country's economic performance and their variation usually increases (or decreases) the pressure on the government's legislative action to mitigate the crises. These data, sourced from the World Bank (2021), cover all our cases. We lag transformed these indicators in one quarter to preclude treatment bias.

[42]These data are an updated version of data originally collected by Reinhart and Rogoff (2009).

As presented in Table K1 and Table K2 below, our results are strengthened by these new control variables.

Table K1. Robustness Check 1: Parliamentary Workload and Financial Crises

	Model 1	**Model 2**	**Model 3**
Experienced Scrutiny	**0.55** **[0.51, 0.58]**	0.43 [0.39, 0.47]	0.58 [0.53, 0.64]
Experienced Scrutiny × Coal. Pol. Divergence		**0.30** **[0.24, 0.37]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.19** **[-0.30, -0.10]**
Minister Median Party			-0.49 [-0.78, -0.21]
Minister's Party Size	-0.01 [-0.04, 0.01]	-0.01 [-0.03, 0.02]	-0.04 [-0.10, 0.01]
Coalition Policy Divergence	0.22 [0.19, 0.26]	-0.07 [-0.13, -0.01]	0.26 [0.22, 0.29]
Policy Saliency	-0.06 [-0.09, -0.04]	-0.08 [-0.10, -0.05]	-0.06 [-0.09, -0.04]
Opposition Policy Divergence	-0.01 [-0.02, 0.02]	-0.02 [-0.04, -0.01]	-0.01 [-0.03, 0.01]
Government Duration	-0.31 [-0.33, -0.28]	-0.30 [-0.33, -0.28]	-0.33 [-0.36, -0.31]
Number of Partners	0.21 [0.18, 0.24]	0.24 [0.21, 0.27]	0.21 [0.18, 0.24]
Number of Previous Bills	0.28 [0.26, 0.31]	0.27 [0.24, 0.29]	0.29 [0.27, 0.32]
Currency Crises	0.01 [-0.08, 0.11]	0.10 [0.01, 0.19]	0.01 [-0.09, 0.09]
Banking Crises	-0.35 [-0.44, -0.27]	-0.17 [-0.26, -0.08]	-0.35 [-0.44, -0.27]
Experienced Scrutiny × Minister's Party Size			-0.02 [-0.09, 0.05]
Experienced Scrutiny × Minister Median Party			0.17 [0.05, 0.32]
Minister's Party Size × Minister Median Party			0.24 [0.18, 0.30]
Intercept	0.33 [0.29, 0.38]	0.24 [0.19, 0.29]	0.48 [0.38, 0.58]

Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 21,039 government bills.

Table K2. Robustness Check 2: Parliamentary Workload and External Events (Economic Indicators)

	Model 1	**Model 2**	**Model 3**
Experienced Scrutiny	**0.59** **[0.56, 0.61]**	0.42 [0.38, 0.45]	0.62 [0.57, 0.67]
Experienced Scrutiny × Coal. Pol. Divergence		**0.36** **[0.30, 0.41]**	
Exp. Scrutiny × Min. Party Size × Min. Median Party			**-0.15** **[-0.23, -0.07]**
Minister Median Party			-0.50 [-0.72, -0.27]
Minister's Party Size	-0.03 [-0.05, -0.01]	-0.03 [-0.05, -0.01]	0.02 [-0.03, 0.06]
Coalition Policy Divergence	0.03 [0.01, 0.06]	-0.20 [-0.25, -0.16]	0.06 [0.02, 0.09]
Policy Saliency	-0.13 [-0.15, -0.10]	-0.10 [-0.13, -0.07]	-0.13 [-0.16, -0.10]
Opposition Policy Divergence	0.02 [0.01, 0.04]	0.01 [-0.01, 0.03]	0.02 [0.01, 0.04]
Government Duration	-0.24 [-0.27, -0.21]	-0.21 [-0.24, -0.18]	-0.26 [-0.29, -0.22]
Number of Partners	0.25 [0.22, 0.28]	0.24 [0.21, 0.27]	0.23 [0.20, 0.26]
Number of Previous Bills	0.22 [0.19, 0.24]	0.22 [0.20, 0.25]	0.22 [0.19, 0.24]
GDP Growth	-0.18 [-0.20, -0.16]	-0.20 [-0.21, -0.18]	-0.18 [-0.19, -0.16]
Inflation Rate	-0.05 [-0.07, -0.03]	-0.04 [-0.06, -0.02]	-0.05 [-0.07, -0.03]
Experienced Scrutiny × Minister's Party Size			-0.08 [-0.15, -0.02]
Experienced Scrutiny × Minister Median Party			0.23 [0.12, 0.34]
Minister's Party Size × Minister Median Party			0.12 [0.05, 0.19]
Intercept	0.08 [0.05, 0.12]	0.08 [0.04, 0.12]	0.24 [0.17, 0.31]

Dependent Variable: Temporal location of government bill proposals within a term.
MCMC run for 100,000 iterations; first 1,000 iterations as burn-ins.
Lower and upper bounds of 95% credible intervals in brackets. *N:* 25,477 government bills.

Supplementary Material References

BFFS. 2021. "Global Crises Data. The Behavioral Finance and Financial Stability Project. Harvard Business School.".
URL: *https://www.hbs.edu/behavioral-finance-and-financial-stability/data/Pages/global.aspx*

Fisher, Nicholas and Alan Lee. 1992. "Regression Models for an Angular Response." *Biometrics* pp. 665–677.

Gill, Jeff. 2015. *Bayesian Methods: A Social and Behavioral Sciences Approach*. CRC Press.

Gill, Jeff and Dominik Hangartner. 2010. "Circular Data in Political Science and How to Handle It." *Political Analysis* 18(3):316–336.

Hainmueller, Jens, Jonathan Mummolo and Yiqing Xu. 2019. "How Much Should We Trust Estimates from Multiplicative Interaction Models? Simple Tools to Improve Empirical Practice." *Political Analysis* 27(27):163–192.

Mulder, Kees and Irene Klugkist. 2017. "Bayesian Estimation and Hypothesis Tests for a Circular Generalized Linear Model." *Journal of Mathematical Psychology* 80:4–14.

Reinhart, Carmen and Kenneth Rogoff. 2009. *This Time is Different: Eight Centuries of Financial Folly*. Princeton: Princeton University Press.

WB. 2021. "World Bank Open Data from The World Bank.".
URL: *https://data.worldbank.org*