

# Chilling or Learning? Supplementary Materials

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Table A1: List of Variables

Variable name	Explanation	Type of Data	Source
Case <sub><i>i,t</i></sub> (Dependent variable)	Number of referrals per court <i>i</i> at time <i>t</i>	discrete	NA
Order <sub><i>i,t</i></sub> (Dependent variable)	Dummy variable which takes the value one if the reference submitted by referring court <i>i</i> in year <i>t</i> is disposed of by an order and zero otherwise	NA	
Lag Order <sub><i>i</i></sub> ( <i>t</i> - 1)	Number of dismissals per referring court <i>i</i> at time <i>t</i>	discrete	NA
Type Order <sub><i>i</i></sub> ( <i>t</i> - 1)	Categorical variable which takes the value 4 if the reference is dismissed as manifestly inadmissible, 3 when dismissed on the ground that the question has already been settled, 2 when dismissed for lack of jurisdiction, 1 when rejected for other reasons and 0 if ended in an preliminary ruling per court <i>i</i> at time <i>j</i>	categorical	NA
Peak Court <sub><i>i</i></sub>	Dummy variable which takes the value 1 if the referring court <i>i</i> is in the highest hierarchical position and 0 otherwise	categorical	NA
ECJ Workload <sub><i>t</i></sub>	Number of pending cases at time <i>t</i>	discrete	Eur-Lex
Intra-EU Trade <sub><i>i,t</i></sub>	Intra EU-trade (export plus import) per country of court <i>i</i> at time <i>t</i>	continuous	Ameco macro-economic database
Familiarity EU Law <sub><i>i,t</i></sub>	Difference between the request date of preliminary reference at time <i>t</i> and the year the country of the court <i>i</i> entered the European Union	continuous	NA
EU support <sub><i>t</i></sub>	Net political support per country at time <i>t</i> ; Percentage difference between respondents believing that EU membership is a good thing and those considering that EU membership is a bad thing.	continuous	Eurobarometer
Monism <sub><i>i</i></sub>	Dummy variable which takes the value one if the status of treaties is superior to ordinary legislation in the country of the referring court <i>i</i> and zero otherwise	categorical	NA
New Member <sub><i>i</i></sub>	Dummy variable which takes the value one if the country of the referring court <i>i</i> refers to new member states (accession from 1995) and zero otherwise	categorical	NA

Note: NA means that no data source is necessary to compile the variable

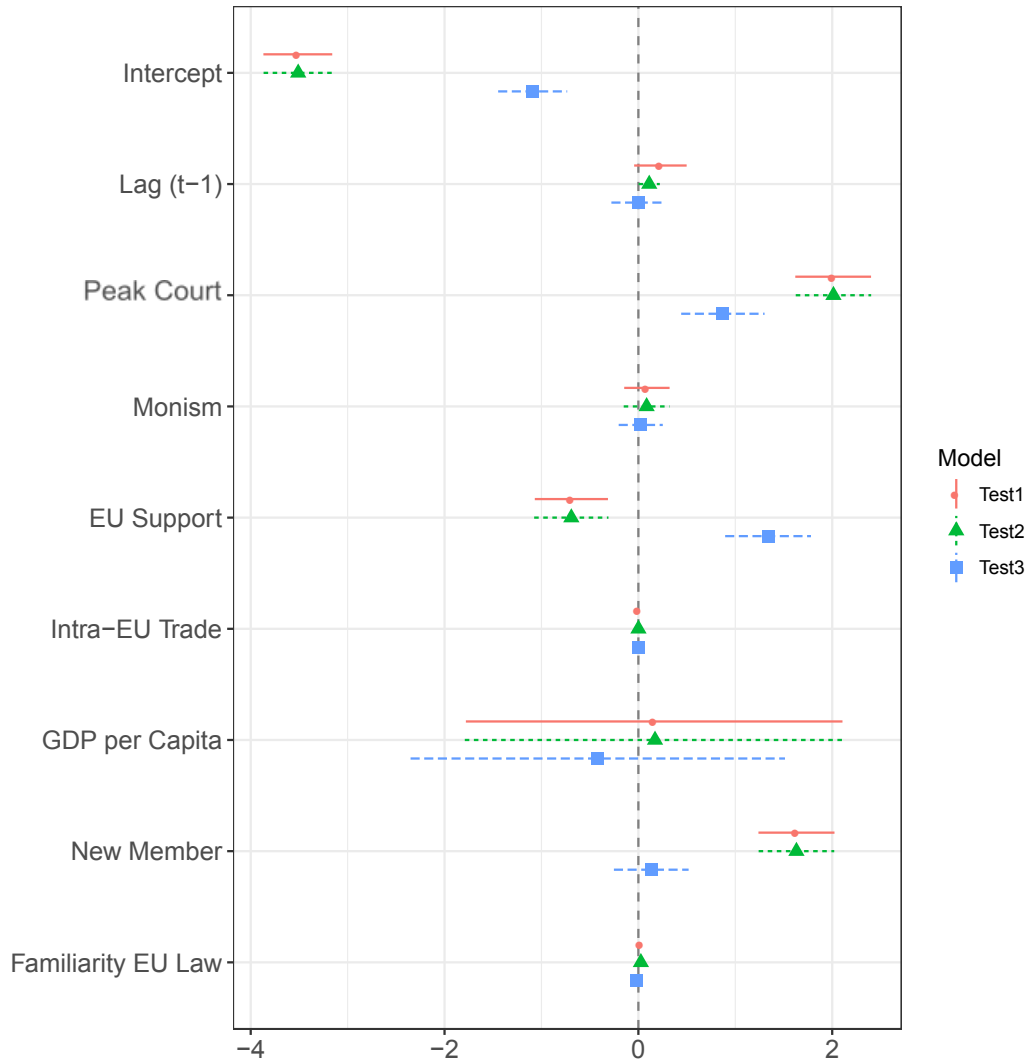


Figure A1: Assessment of the chilling hypothesis. Posterior distribution of model coefficients.

Note: Plot shows posterior estimates with 95% confidence intervals for all three tests of the chilling effect. Test

Table A2: Hierarchical Bayesian model

	Dependent variable: Referral rate in year $t$								
	Test 1			Test 2			Test 3		
	Post.mean	l-95% CI	u-95% CI	Post.mean	l-95% CI	u-95% CI	Post.mean	l-95% CI	u-95% CI
Intercept	-3.514	-3.874	-3.163	-3.510	-3.869	-3.153	-1.090	-1.442	-0.731
Order ( $t - 1$ )	0.227	-0.035	0.503	0.112	0.005	0.223	-0.002	-0.277	0.280
Peak Court	2.010	1.622	2.405	2.013	1.613	2.400	0.872	0.449	1.303
Monism	0.088	-0.145	0.322	0.085	-0.148	0.324	0.024	-0.202	0.250
EU Support	-0.691	-1.071	-0.310	-0.692	-1.075	-0.304	1.338	0.894	1.778
Intra-EU Trade	0.001	0.001	0.001	0.001	0.001	0.001	0.000	-0.001	0.000
GDP per Capita	0.163	-1.777	2.145	0.172	-1.780	2.142	-0.419	-2.350	1.519
New Member	1.631	1.243	2.019	1.631	1.242	2.019	0.133	-0.248	0.519
Familiarity EU Law	0.026	0.018	0.034	0.026	0.018	0.034	-0.016	-0.025	-0.007
$\sigma_{ij}$	1.240	1.160	1.330	1.240	1.160	1.33	0.840	0.760	0.940
$\psi$	0.930	0.680	1.230	0.940	0.690	1.240	0.930	0.780	1.110
$z_{ij}$	0.230	0.040	0.310	0.240	0.150	0.310	0.020	0.000	0.060
WAIC	17051.95			17689.89			8554.46		
$R^2_{gmm(m)}$	0.083			0.083			0.151		
$R^2_{gmm(c)}$	0.541			0.541			0.576		
Number of iterations	16000			16000			16000		
Number of court levels	729			729			640		
Number of country levels	27			27			27		
Original sample size	22502			22502			6118		

*Note:* Priors have been specified based on available information of parameter and response distribution corresponding to the zero-inflated negative binomial distribution.

Table A3: Maximum Likelihood Estimation of Hierarchical Distributed Lag Model

	<i>Dependent variable: ECJ admissibility decision</i>			
	<i>Learning Test 1</i>		<i>Learning Test 2</i>	
	<i>Linear Model (1a)</i>	<i>Non-linear Model (1b)</i>	<i>Linear Model (2a)</i>	<i>Non-linear Model (2b)</i>
Constant	-5.862*** (0.616)	-6.000*** (0.702)	-6.932*** (0.919)	-6.827*** (0.891)
Delayed Order Effect ( $s > 0$ )	-0.016*** (0.002)	-14.497*** (1.676)	-0.013*** (0.003)	-5.656*** (1.223)
Delayed Order Effect ( $s^2 > 0$ )		30.083*** (3.762)		9.424*** (3.082)
Delayed Order Effect ( $s^3 > 0$ )		-18.013*** (2.422)		-4.519** (2.098)
ECJ Workload	0.006*** (0.001)	0.005*** (0.001)	0.005*** (0.002)	0.005*** (0.002)
New Member	0.107 (0.536)	-0.219 (0.610)	0.723 (0.835)	0.293 (0.840)
Peak Court	-0.245 (0.293)	-0.492 (0.319)	0.048 (0.419)	0.021 (0.377)
Familiarity with EU Law	-0.003 (0.009)	-0.002 (0.010)	0.019 (0.014)	0.018 (0.014)
Country:Court	0.176 (0.420)	0.117 (0.343)	0.852 (0.923)	0.470 (0.685)
Observations	1.824	1.824	1.768	1.768
Log Likelihood	-362.177	-282.895	-248.903	-225.667
$R^2_{\text{marginal}}$	0.317	0.441	0.251	0.330
$R^2_{\text{conditional}}$	0.358	0.463	0.439	0.433
Akaike Inf. Crit.	742.355	587.791	515.805	473.333
Bayesian Inf. Crit.	791.673	648.069	564.835	533.259

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A4: Confusion Matrix of Table Fixed Effects Conditional Maximum Likelihood Model

		Predicted Class			
		Linear Model (1a)		Non-linear Model (1b&1c)	
		False	True	False	True
Observed Class	False	1643	76	1673	49
	True	8	45	8	72
Observations		N=1772			

		Predicted Class			
		Linear Model (2a)		Non-linear Model (2b&2c)	
		False	True	False	True
Observed Class	False	1641	50	1646	47
	True	8	17	3	20
Observations		N=1716			

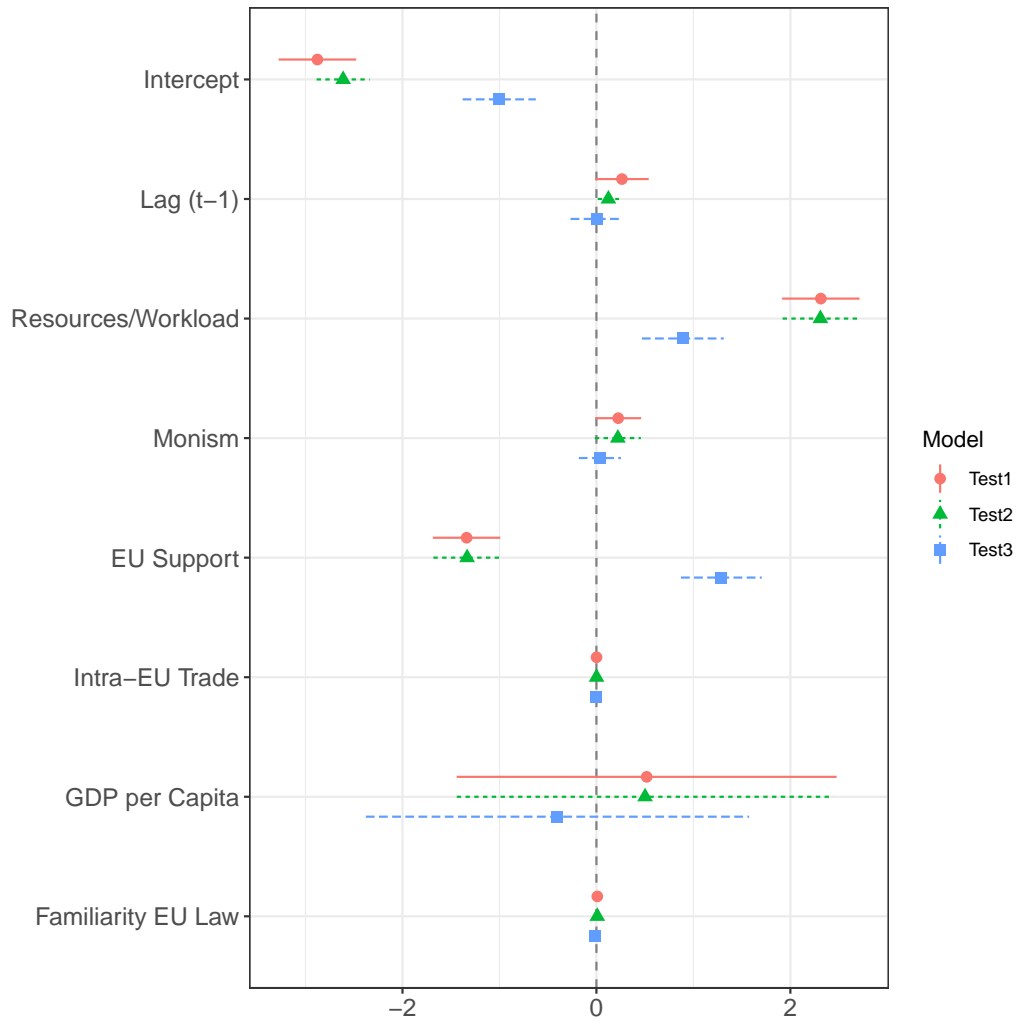


Figure A2: Alternative model specification for the test of the chilling hypothesis

Note. Plot shows posterior estimates with 95% confidence intervals for all three tests of the chilling effect.