Online Appendix

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This appendix provides supporting information for the paper "*Breaking the Link? How European Integration Shapes Social Policy Demand and Supply*". We present both descriptive statistics with a focus on the variables of interest and full model results, diagnostics, and robustness tests.

1 Descriptive statistics

This section provides more details on the data. Tables A1 and A2 report summary statistics for the standardized data used in the mixed-effects models (A1) and the unstandardized data used in the time-series cross-section (TCSC) models (A2). Table A3 summarizes the indicators and weights used to construct the index of European integration. Figures A1-A9 show trends for the theoretically most relevant variables across time and space.

Table A1: Standardized data in mixed-effects models.

Variable	Minimum	Median	Mean	Maximum	SD
Support for social policy (1=strong support)	0	0	0.29	1	0.45
Economic integration (W)	−2.08	−0.05	0	1.79	0.50
Economic integration (B)	−0.86	−0.19	0	1.79	0.50
Political integration (W)	−1.27	0.04	0	1.48	0.50
Political integration (B)	−1.23	0.06	0	0.69	0.50
Age	−0.94	−0.01	0	2.06	0.50
Gender	0	1	0.52	1	0.50
Years in education	−1.53	−0.06	0	5.33	0.50
In education	0	0	0.09	1	0.29
In paid work	0	1	0.53	1	0.50
Unemployed	0	0	0.06	1	0.24
Religiosity	−0.78	0.06	0	0.89	0.50
Union membership	0	0	0.44	1	0.50
Left-Right scale	−1.18	−0.02	0	1.13	0.50
Income	0	1	0.76	1	0.43
Social Spending (W)	−1.36	−0.04	0	0.96	0.50
Social Spending (B)	−1.02	0.27	0	0.68	0.50
GDP per capita (W)	−3.74	0.01	0	3	0.50
GDP per capita (B)	−0.17	−0.15	0	2.30	0.50
Market inequality (W)	−1.34	0.01	0	1.16	0.50
Market inequality (B)	−1.26	0.02	0	0.87	0.50

Table A2: Unstandardized data in TSCS models.

Variable	Minimum	Median	Mean	Maximum	SD
Social spending	10.30	22.40	22.45	31.70	5.21
Political integration	46.79	77.62	77.27	97.96	11.55
Compliance	23.51	86.34	81.45	98.48	14.76
Participation	0	68.22	68.77	100	35.12
Economic integration	21.68	38.02	41.10	75.89	10.42
GDP growth	−14.80	2.25	1.72	11.60	4.12
Unemployment	3.10	7.80	8.65	24.80	3.95
Left government	1	2	2.45	5	1.42
Debt	3.70	53.45	57.64	172.10	30.25
Deficit	-32.13	-3.09	-3.29	5.13	4.07
Market inequality	27.30	34.65	35.28	46.80	3.72
Preferences (all)	2.99	3.93	3.88	4.43	0.33
Preferences (lower)	3.14	4.16	4.11	4.54	0.26
Preferences (higher)	2.98	3.87	3.82	4.42	0.33
Preferences (top)	2.77	3.63	3.62	4.38	0.38

Table A3: Index of European integration (König and Ohr 2013): Weights of indices and indicators.

Indices	**Indicators**	**Weights in the indices (%)**
Economic Integration		
Openness		*(56)*
	Goods	(33)
	Services	(16)
	Capital	(27)
	Labor	(25)
Importance		*(44)*
	Goods	(29)
	Services	(31)
	Capital	(11)
	Labor	(28)
Political Integration		
Participation		*(33)*
	EMU membership	(64)
	Schengen participation	(36)
Compliance		*(67)*
	Infringement proceedings	(20)
	ECJ verdict: Single Market	(38)
	ECJ verdict: Environment and consumer	(19)
	ECJ verdict: Other sectors	(23)

Figure A1: Economic integration across countries and time.

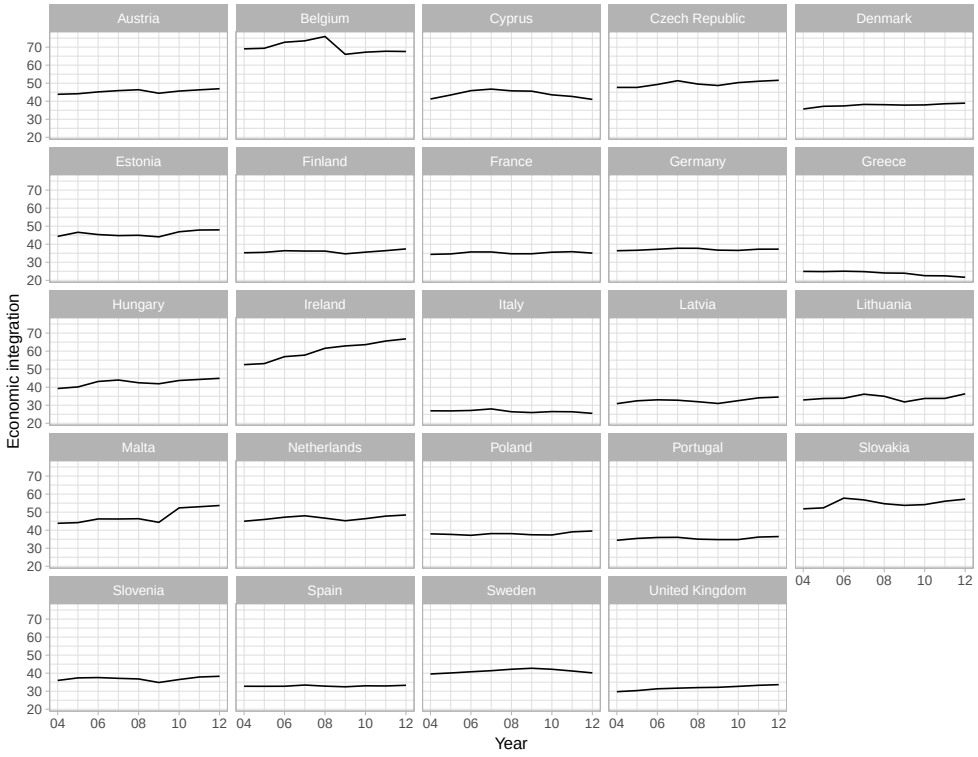


Figure A2: Political integration across countries and time.

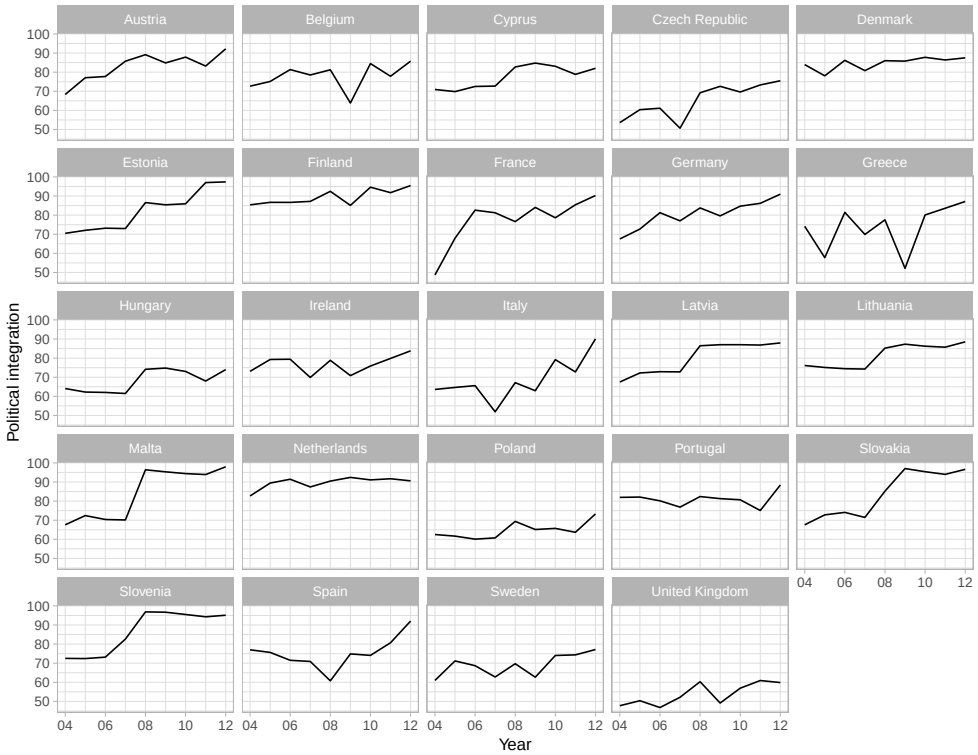


Figure A3: Openness to EU trade across countries and time.

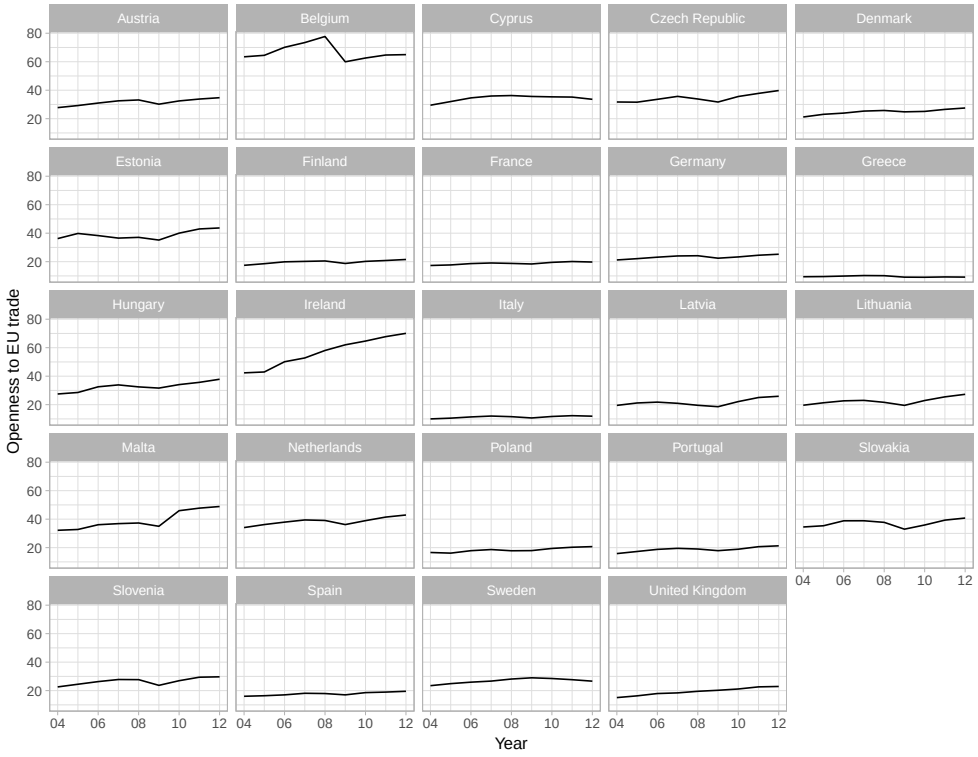


Figure A4: Importance of EU trade across countries and time.

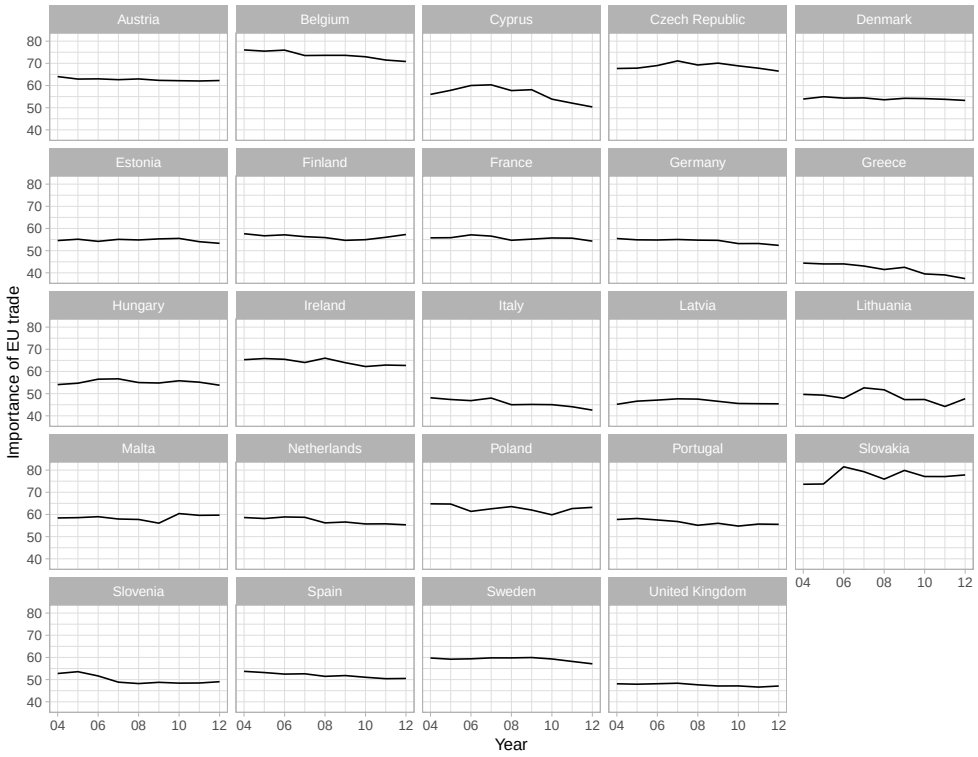


Figure A5: Political participation across countries and time.

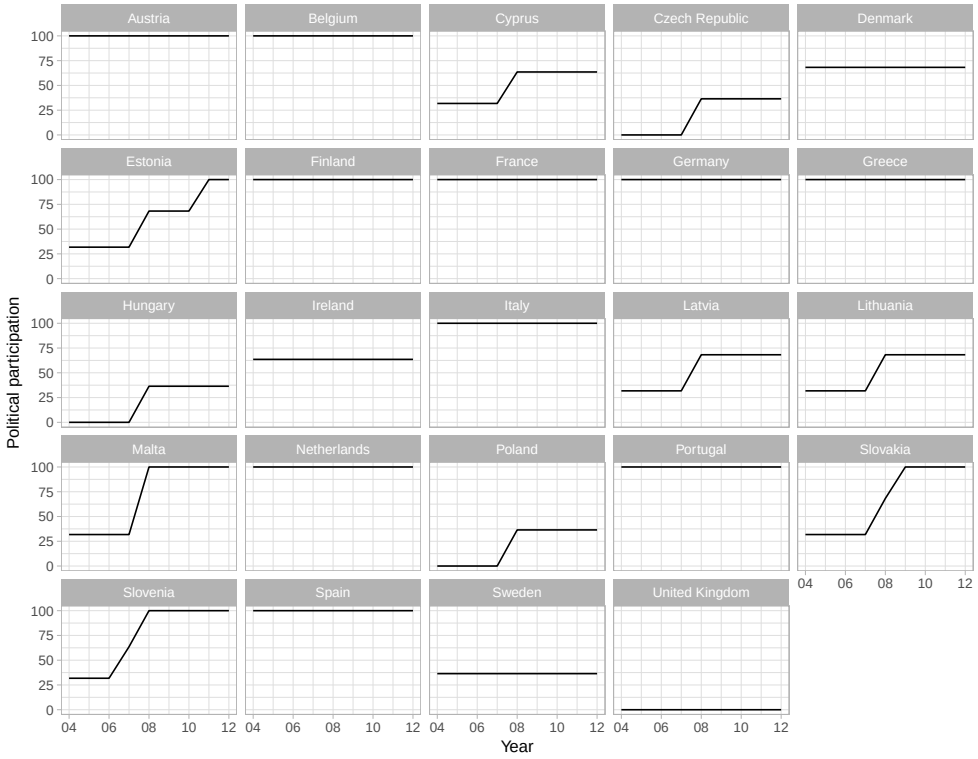


Figure A6: Political compliance across countries and time.

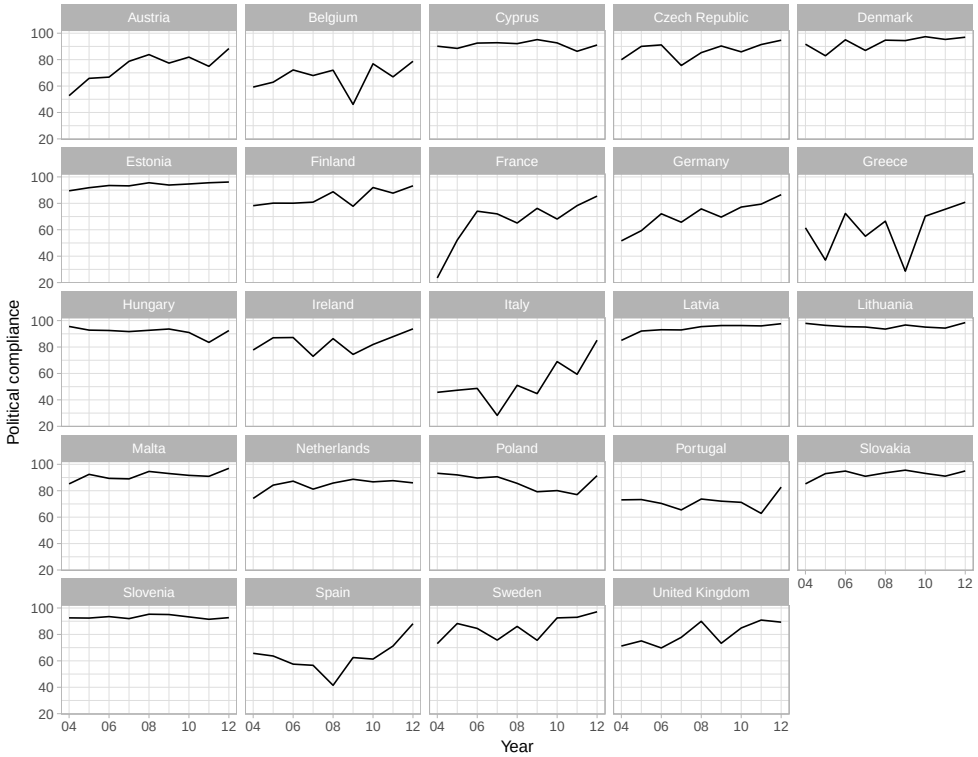


Figure A7: Density of social policy preferences across countries.

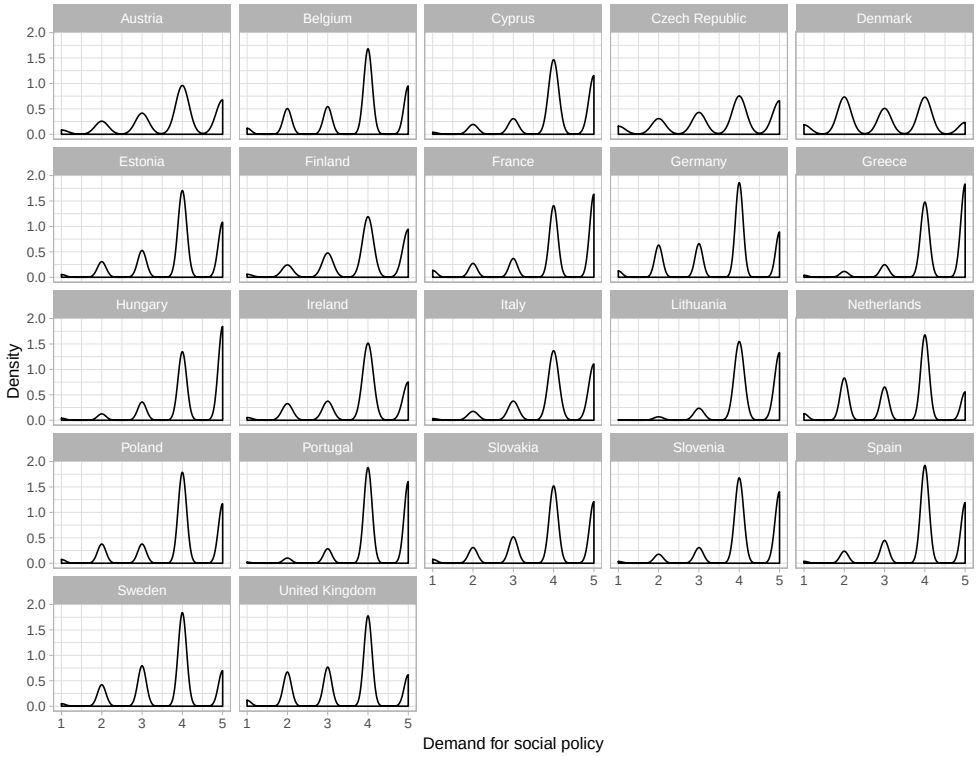


Figure A8: Average demand for social policy across countries and time.

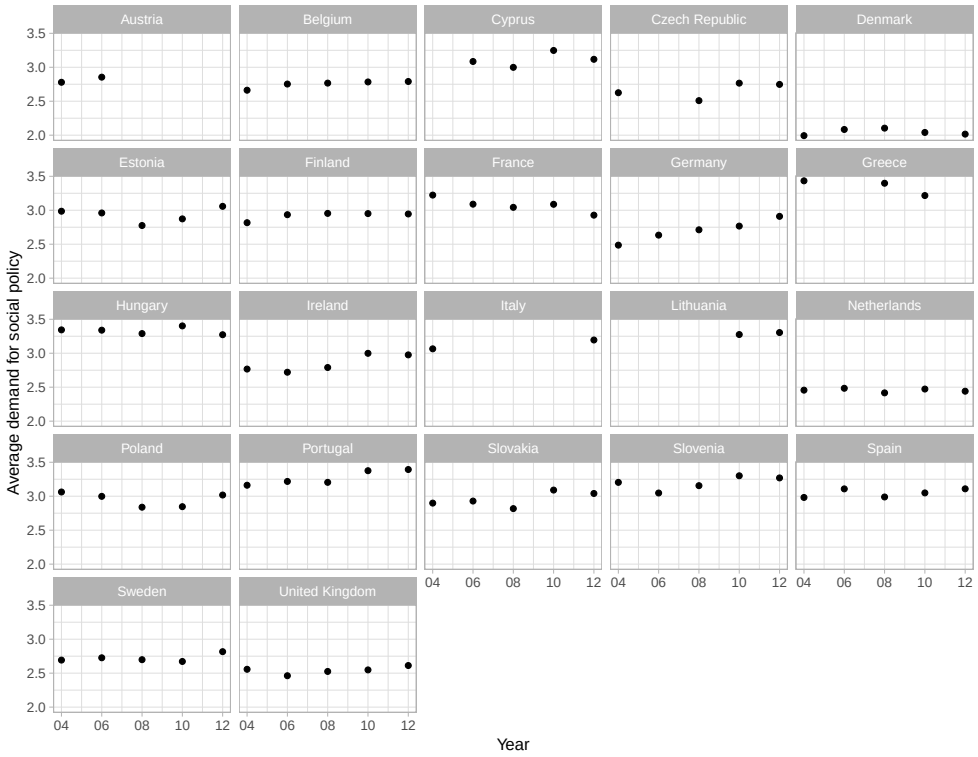
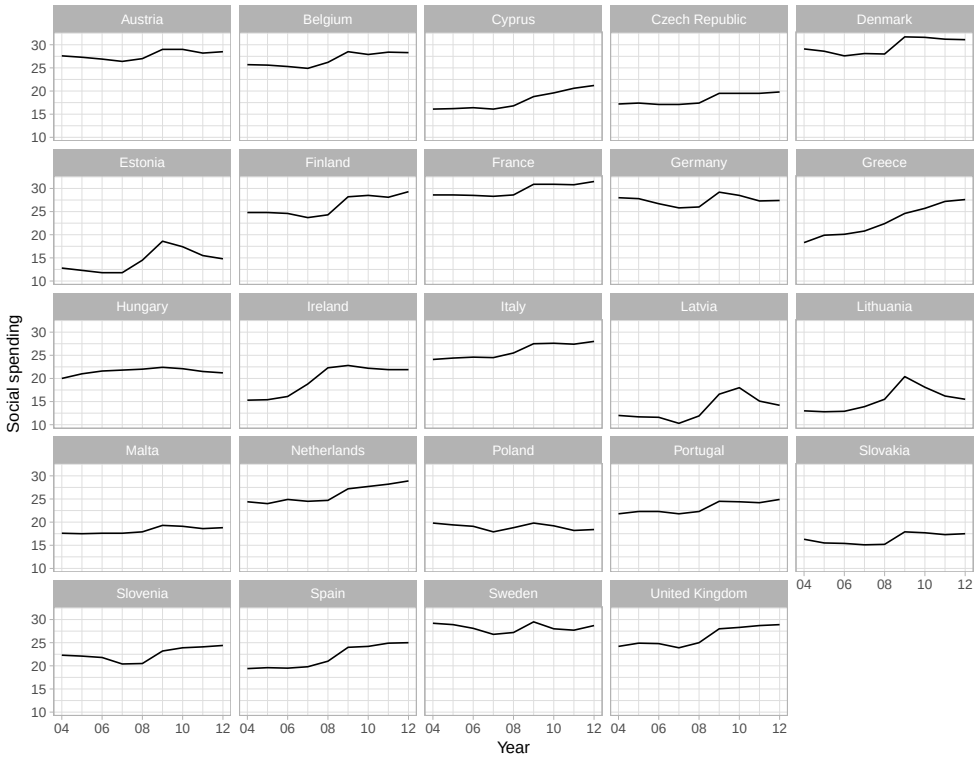


Figure A9: Social spending across countries and time.



2 Full Model Results, Diagnostics, and Sensitivity

2.1 Mixed-effects models

Full model results of Table 1 in the main text. To save space, Table 1 in the main text does not present intercepts and control variables. Table A4 contains information on these estimates for each of the four model specifications.

Table A4: Bayesian logistic mixed-effects estimation of the impact of European integration on demand for social policy. Intercepts and individual-level control variables.

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	−0.63*	−0.67*	−0.65*	−0.67*	−0.64*
	(0.13)	(0.13)	(0.13)	(0.14)	(0.14)
Age	0.16*	0.16*	0.16*	0.16*	0.16*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Gender	0.09*	0.09*	0.09*	0.10*	0.09*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Years in education	−0.22*	−0.22*	−0.22*	−0.21*	−0.22*
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
In education	−0.36*	−0.36*	−0.36*	−0.34*	−0.36*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
In paid work	−0.07*	−0.07*	−0.07*	−0.06*	−0.07*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Unemployed	0.17*	0.17*	0.17*	0.18*	0.18*
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Religiosity	−0.04*	−0.05*	−0.04*	−0.05*	−0.05*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Union membership	0.23*	0.23*	0.23*	0.23*	0.23*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Left-right scale	−0.57*	−0.57*	−0.57*	−0.58*	−0.57*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Subjective income	−0.49*	−0.49*	−0.49*	−0.49*	−0.49*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Social spending (B)		−0.35			
		(0.22)			
Social spending (W)		−0.01			
		(0.06)			
GDP per capita (B)			0.30		
			(0.23)		
GDP per capita (W)			0.00		
			(0.04)		
Market inequality (B)				−0.15	
				(0.24)	
Market inequality (W)				0.05	
				(0.04)	

* Zero outside the credible interval. Estimates (posterior means) with standard errors (posterior standard deviations) in parentheses. Based on two chains run for 3000 iterations after a burn-in of 1000.

Table A5: Bayesian logistic mixed-effects estimation of the impact of European integration on demand for social policy. Sensitivity tests.

	t-priors on betas	uniform priors on variances	ordered logit
Economic integration (B)	−0.28	−0.28	−0.32
	(0.24)	(0.24)	(0.25)
Economic integration (W)	0.11*	0.12*	0.08*
	(0.04)	(0.04)	(0.04)
Political integration (B)	0.04	0.03	0.02
	(0.26)	(0.26)	(0.27)
Political integration (W)	0.14*	0.14*	0.12*
	(0.05)	(0.05)	(0.05)
Individual-level controls	✓	✓	✓

* Zero outside the credible interval. Estimates (posterior means) with standard errors (posterior standard deviations) in parentheses. Based on two chains run for 3000 iterations after a burn-in of 1000.

Results are not sensitive to prior choice and coding of dependent variable. Table A5 performs three sensitivity tests. First, Gelman et al. (2008) suggest to put independent *t*-priors on the coefficients of logistic regressions in order to prevent potential problems associated with complete separation[1]. Hence, we place *t*-prior distributions, $t(4, 0, 1)$, on the regression-type parameters (see the first column). The resulting coefficients do not differ from the estimates in the main text.

Second, we replace the *t*-priors on the variance components, which are weakly informative in the sense that they supply some direction but still allow inference to be driven by the data, with noninformative uniform priors $(-1000, 1000)$ (see the second column). Again, the results are unaffected.

Third, we test whether the main findings depend on our coding of the dependent variable by estimating a Bayesian mixed-effects ordered logit model with flexible thresholds (see the third column). The findings remain substantially unchanged. The within effects of both economic and political integration continue to be positive and statistically different from zero.

[1]We speak of complete separation when the dependent variable separates an explanatory variable or a combination of explanatory variables completely.

Table A6: Bayesian logistic mixed-effects estimation of the impact of European integration on demand for social policy. Reduced samples.

	Greece	Portugal	Czech Republic	Denmark
Economic integration (B)	−0.19	−0.27	−0.27	−0.36
	(0.25)	(0.25)	(0.25)	(0.20)
Economic integration (W)	0.11*	0.12*	0.12*	0.12*
	(0.04)	(0.04)	(0.04)	(0.04)
Political integration (B)	0.04	0.03	0.03	0.17
	(0.25)	(0.26)	(0.26)	(0.21)
Political integration (W)	0.14*	0.15*	0.15*	0.14*
	(0.05)	(0.05)	(0.05)	(0.05)
Individual-level controls	✓	✓	✓	✓

* Zero outside the credible interval. Estimates (posterior means) with standard errors (posterior standard deviations) in parentheses. Based on two chains run for 3000 iterations after a burn-in of 1000.

Dropping "extreme" cases does not affect the results. Table A6 replicates the estimates of Model 1 of Table 1 in the main text by dropping those countries that either show the highest average levels (i.e., Greece and Portugal) or the lowest average levels (i.e., Czech Republic and Denmark) of support for more social policy. One country is dropped at a time. The procedure does not change the results in a substantial manner.

2.2 Time-series cross-section models

Table A7: TSCS two-way fixed-effects training model.

	Training
Political integration	−0.02*
	(0.01)
Economic integration	−0.03
	(0.04)
GDP growth	−0.13*
	(0.02)
Unemployment	0.15*
	(0.02)
Left government	0.10*
	(0.04)
Debt	0.02
	(0.01)
Deficit	−0.05
	(0.03)
Market inequality	0.02
	(0.05)
Constant	26.78*
	(2.36)
Observations	202
Countries	24

* Zero outside the confidence interval

Training model. As briefly mentioned in the paper, the TSCS analysis (see Tables 1 and 2 in the paper) was preceded by the estimation of a training model, which contains a number of potentially relevant explanatory factors. Table A7 shows the results of this training model. Since the levels of debt, the annual deficit, and market inequality seem not to exhibit a statistically detectable relationship with social spending, we excluded these variables from the subsequent analysis.

Table A8: Jackknife TSCS two-way fixed-effects estimation of impact of political integration on supply of social policy.

	Model 1	Model 2
Political integration	−0.03*	
	(0.01)	
Participation		−0.02*
		(0.01)
Compliance		−0.01
		(0.01)
Economic integration	0.00	0.02
	(0.09)	(0.08)
GDP growth	−0.15*	−0.17*
	(0.03)	(0.04)
Unemployment	0.20*	0.19*
	(0.03)	(0.03)
Left government	0.18	0.19
	(0.11)	(0.11)
Constant	21.77*	20.79*
	(3.34)	(3.30)
Observations	213	213
Countries	24	24
Within R^2	0.83	0.84

* Zero outside the confidence interval. The table reports jackknife coefficients and jackknife standard errors.

Jackknife analysis. Table A8 replicates Models 1 and 2 of Table 2 in the paper based on a jackknife analysis, dropping one country at a time. The results largely corroborate the initial findings. In Model 1, the association between political integration and social spending remains statistically significant and negative. Model 2 underscores the fact that institutional participation—and not compliance with EU law—is the driving force behind this relationship. The control variables perform as previously reported, with the exception that left control of government is no longer a statistically significant predictor in these models.

Table A9: TSCS two-way fixed-effects estimation of impact of political integration on supply of social policy. Types of social spending.

	Sickness & Healthcare	Disability	Old Age	Family & Children	Unemployment	Housing
Political integration						
Participation	$-.002^{*}$	$-.002^{*}$	$-.002^{+}$	$-.002^{*}$	$-.002^{*}$	$-.001^{\#}$
	(.001)	(.000)	(.001)	(.001)	(.001)	(.000)
Compliance	$-.000$	$-.001$	$.005^{*}$	.002	$-.004$	.001
	(.002)	(.000)	(.002)	(.001)	(.002)	(.000)
Controls	✓	✓	✓	✓	✓	✓
Observations	213	213	213	213	213	213
Countries	24	24	24	24	24	24

* Zero outside the confidence interval (CI), $^{+}$ CI = $[-.004, .000]$, $^{\#}$ CI = $[-.002, .000]$.

Political integration and types of social spending. Table A9 replicates Model 2 of Table 2 in the paper by looking at different types of social spending instead of total social spending. The results show that the estimated coefficients for institutional participation are negative in all cases and either statistically significant (sickness and healthcare, disability, family and children, unemployment) or close to statistically significant (old age, housing). This suggests that institutional participation has a structurally depressing effect on social spending across different social policy areas.

Table A10: Institutional participation and policy responsiveness.

	All	Lower	Higher
Participation	0.25*	0.28*	0.18*
	(0.11)	(0.12)	(0.09)
Popular support for social policy$_{t-1}$	5.25		
	(2.65)		
Interaction (all)	−0.07*		
	(0.03)		
Support, lower income groups$_{t-1}$		4.26	
		(2.67)	
Interaction (lower)		−0.07*	
		(0.03)	
Support, higher income groups$_{t-1}$			4.19
			(2.19)
Interaction (higher)			−0.05*
			(0.02)
Support, top income groups$_{t-1}$			
Interaction (top)			
Constant	6.71	10.25	11.56
	(10.77)	(11.36)	(8.60)
Controls	✓	✓	✓
Observations	77	76	76
Countries	22	22	22

* Zero outside the confidence interval.

Institutional participation and policy responsiveness. Figure 4 of the paper depicts the marginal effect of social policy preferences across income groups on social policy output conditional on institutional participation. Table A10 reports the underlying regression estimates.

Table A11: Political integration, compliance, and policy responsiveness.

	Political integration	Compliance
All_{t-1}	2.19	−1.96
	(4.69)	(2.96)
Political integration	0.10	
	(0.24)	
$\text{All}_{t-1} \times$ Political integration	−0.04	
	(0.06)	
Compliance		−0.15
		(0.16)
$\text{All}_{t-1} \times$ Compliance		0.04
		(0.04)
Constant	20.70	33.87*
	(19.25)	(12.38)
Two-way FEs	✓	✓
Controls	✓	✓
Observations	77	77
Countries	22	22

* Zero outside the confidence interval

Political integration, compliance, and policy responsiveness. Table A11 repeats the same statistical exercise as in Model 1 of Table A10 using both our overall measure of political integration and the compliance dimension of political integration instead of institutional participation. In both cases the interaction coefficients are indistinguishable from zero. This corroborates our argument that institutional integration is the main reason for the lack of policy responsiveness and not other aspects of the political integration process.

Table A12: EMU membership and policy responsiveness.

	All	Lower	Higher
All_{t-1}	0.48		
	(1.55)		
$\text{All}_{t-1} \times \text{EMU}$	-0.42^*		
	(0.16)		
Lower_{t-1}		-0.44	
		(0.96)	
$\text{Lower}_{t-1} \times \text{EMU}$		-0.32^*	
		(0.10)	
Higher_{t-1}			0.54
			(1.20)
$\text{Higher}_{t-1} \times \text{EMU}$			-0.35^*
			(0.10)
Constant	27.00^*	28.03^*	25.16^*
	(4.29)	(3.08)	(3.41)
Two-way FEs	✓	✓	✓
Controls	✓	✓	✓
Observations	115	113	113
Countries	22	22	22

* Zero outside the confidence interval.

Negative association between political participation and policy responsiveness robust to alternative indicator. The measure of political participation in the paper does not only capture membership of the EMU, but also counts whether a country is in the Schengen area or enters the European Exchange Rate Mechanism (ERM). We consider this feature useful because it reflects other institutional manifestations of negative integration besides EMU membership, which—as we argue—may also affect social spending. Nevertheless, our main argument centers on the depressing effect of EMU on social policy. Thus, Table A12 uses a simple dummy indicator for EMU membership in order to single out the fiscal implications of EMU and to check the robustness of the initial results.

Since this indicator is not limited across time (as compared to the original measure of political participation), it allows us to take advantage of the full range of social policy preferences—including the 2002 ESS wave. Following the practice for slow moving or time-invariant institutional covariates in interactions pioneered by Blanchard and Wolfers (2000), we omit the constitutive term of EMU from the right hand side of the regression equation, as the effect of this term is already captured by the fixed effects. The results corroborate our previous find-

ings. The interaction term is consistently negative and statistically significantly different from zero.

References

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Gelman, Andrew, Aleks Jakulin, Maria Grazia Pittau, and Yu-Sung Su. 2008. "A weakly informative default prior distribution for logistic and other regression models." *The Annals of Applied Statistics* 2(4): 1360–1383.

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