

Democracy in times of the pandemic:

Explaining the variation of COVID-19 policies across European democracies

Sarah Engler, Palmo Brunner, Romane Loviat, Tarik Abou-Chadi, Lucas Leemann, Andreas Glaser and Daniel Kübler, *University of Zurich, Switzerland*

ONLINE APPENDIX

Codebook: Variables, description and sources

THE QUALITY OF DEMOCRACY AND COMPONENTS		
DQ	Democratic quality: Final index of the quality of democracies. See codebook of the Democracy Barometer for more specific information on the conceptualization, aggregation and measurement.	Democracy Barometer Version 7
INDLIB	The protection of individual liberties based on - RIGHT TO PHYSICAL INTEGRITY (Constitutional provisions guaranteeing physical integrity, no transgressions by the state, mutual acceptance of right to physical integrity by citizens) - RIGHT TO FREE CONDUCT OF LIFE (Constitutional provisions guaranteeing right to freedom of conduct of life , freedom of conduct of life, effective property rights)	Democracy Barometer Version 7
RULEOFLAW	Rule of law based on - EQUALITY BEFORE THE LAW (Constitutional provisions for impartial courts, effective independence of the judiciary, effective impartiality of the legal system) - QUALITY OF THE LEGAL SYSTEM (Constitutional provisions for judicial professionalism, confidence in the justice system, confidence in the police)	Democracy Barometer Version 7
MUTUCONS	Mutual constraints of constitutional powers: - CHECKS BETWEEN THREE POWERS (Balance of checks between executive and legislative powers, balance between executive and legislative powers, judicial review) - VERTICAL CHECKS OF POWER (Degree of Federalism, subnational fiscal autonomy)	Democracy Barometer Version 7

RESTRICTION OF INDIVIDUAL FREEDOM (restrict_freedom_index) cross-sectional and cross-temporal		
C4_Restrictions.on.gatherings	0 - no restrictions 1 - restrictions on very large gatherings (>1000 people) 2 - restrictions on gatherings between 101-1000 people 3 - restrictions on gatherings between 11-100 people 4 - restrictions on gatherings of 10 people or less	OxCGRT
C6_Stay.at.home.requirements	0 - no measures 1 - recommended not leaving house 2 - require not leaving house with exceptions for daily exercise, grocery shopping, and 'essential' trips 3 - require not leaving house with minimal exceptions (e.g. allowed to leave once a week, or only one person can leave at a time, etc.)	OxCGRT
C7_Restrictions on internal movement	0 - no measures 1 - recommend not to travel between regions/cities 2 - internal movement restrictions in place	OxCGRT
C8_International travel controls	0 - no restrictions 1 - screening arrivals 2 - quarantine arrivals from some or all regions 3 - ban arrivals from some regions 4 - ban on all regions or total border closure	OxCGRT

POWER CONCENTRATION (power_concentration_index)		cross-sectional
emlimit	Does implementation of the legal instrument used as the main national-level response to Covid-19 have an officially declared time limit? (binary) 1=yes; 0=no; reversed in index	PanDem V4 March – June 2020
emlegapp	Did the legislature approve the implementation of the legal instrument used as the main national-level response to COVID-19? (binary) 1=yes; 0=no; reversed in index	PanDem V4 March – Sept 2020
leglimit	Legislature limitations: Since 11 March 2020, to what extent have any of the emergency measures with reference to Covid-19 limited the lawmaking role of the legislature? <ul style="list-style-type: none"> 0 - Not at all. The lawmaking role of the national legislature is not affected. 1 - Very little. The legislature has given the executive branch the power to relatively widely interpret COVID-19 related laws, but not to rule by decree. 2 - Somewhat. The executive branch has the right to rule by decree on several, narrowly Covid-19 related issues such as deciding on physical distance measures and measures to support the health system. 3 - To a large extent. The executive branch has the right to rule by decree on many issues, which may exceed Covid-19 related issues due to vague formulation in emergency laws. 4 - Completely. The legislature has been dissolved, suspended or equivalent with reference to Covid-19. 	PanDem V4 March – June 2020
melim	De jure Media limitations: Since 11 March 2020, to what extent do any emergency measures de-jure limit media freedom? (ordinal) <ul style="list-style-type: none"> 0 - Not at all. Media freedoms are not affected by the emergency measures. 1 - Somewhat. The emergency measures de-jure allow the government to put some limitations on how the media can report on Covid-19. These provisions are explicitly limited to stopping disinformation on Covid-19, such as closing news websites that misreport on the origins or how the disease spreads. 2 - To a large extent. The emergency measures de-jure put strict limitations on how the media can report on Covid-19. These provisions are not limited to stopping the spread of disinformation on Covid-19, but include any reporting on Covid-19 such as the prevalence of the virus and the government response. 	PanDem V4 March – June 2020
merefact	De facto Media limitations: Since 11 March 2020, has the government placed de-facto limitations on media reporting about the nature of the COVID-19 virus?? (binary) 1=yes; 0=no	PanDem V4 March – June 2020
meregov	De facto Media limitations about government response: Since 11 March 2020, has the government placed <u>de-facto</u> limitations on media reporting about the government response to the COVID-19 pandemic? (binary) 1=yes; 0=no	PanDem V4 March – June 2020
merepoth	De facto Media limitations about non-covid-19 related news: Since 11 March 2020, has the government placed de-facto limitations on media reporting about non-COVID-19 related news, but with reference to the pandemic? (binary) 1=yes; 0=no	PanDem V4 March – June 2020

PROBLEM PRESSURE AND OTHER VARIABLES

gdp_pc	Gross domestic product at purchasing power parity (constant 2011 international dollars), most recent year available	OWID COVID data (World Bank – World Development Indicators, source from World Bank, International Comparison Program database)
hospital_beds	Hospital beds per 1,000 people, most recent year available since 2010	OWID COVID data (OECD, Eurostat, World Bank, national government records and other sources)
population	Population in 2020	OWID COVID data (United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2019 Revision)
ConfirmedDeaths	Cumulative number of confirmed deaths due to COVID-19	OxCGRT (primary source: European Centre for Disease Control)
Libdem10	Backsliding: How did the V-Dem Liberal Democracy Index develop over the last 10 years? (ordinal) -1 Declined substantially and significantly. 0 No substantial and significant change. 1 Improved substantially and significantly.	PanDem V2 For more details see V-Dem Democracy Report 2020

Robustness checks: Replication of Table 2 to Table 4 with variables of democracy relying on 2017 values instead of 10-years average

Table A1: Linear regression models for individual freedoms restrictions and different aspects of democratic quality (cross-sectional)

	Model 1.1	Model 1.2	Model 1.3	Model 1.4
Quality of Democracy	-0.09 (0.07)			
Individual liberties		-0.17** (0.07)		
Rule of law			-0.04 (0.03)	
Mutual constraints				0.06*** (0.02)
# of hospital beds	0.49* (0.26)	0.30 (0.22)	0.41 (0.25)	0.45** (0.21)
GDP per capita	-0.00 (0.00)	-0.00* (0.00)	-0.00 (0.00)	-0.00*** (0.00)
Intercept	4.86 (5.34)	11.77** (5.10)	1.60 (2.58)	-2.59 (1.62)
R ²	0.36	0.46	0.38	0.48
Adj. R ²	0.29	0.41	0.32	0.42
Num. obs.	29	33	32	32

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A2: Linear regression models for power concentration measures and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.06 (0.08)			
Individual liberties		0.07 (0.08)		
Rule of law			-0.06 (0.04)	
Mutual constraints				0.02 (0.03)
# of hospital beds	0.36 (0.28)	0.34 (0.27)	0.14 (0.28)	0.25 (0.24)
GDP per capita	-0.00 (0.00)	-0.00*** (0.00)	-0.00 (0.00)	-0.00*** (0.00)
Intercept	3.70 (6.01)	-1.94 (6.15)	5.62* (2.85)	1.55 (1.90)
R ²	0.31	0.48	0.49	0.45
Adj. R ²	0.21	0.42	0.43	0.39
Num. obs.	25	30	29	29

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A3: Time-series cross-sectional analysis of prior democratic quality
(DV: Restriction of freedom index)

	Model 3.1	Model 3.2	Model 3.3	Model 3.4
Quality of Democracy	-0.50 (0.49)			
Individual Liberties		-1.53 ^{***} (0.55)		
Rule of Law			-0.80 (0.62)	
Mutual Constraints				0.23 (0.41)
Confirmed Deaths (rel.)	0.78 ^{***} (0.27)	1.04 ^{***} (0.27)	1.07 ^{***} (0.27)	0.93 ^{***} (0.28)
# of Hospital Beds	0.05 (0.41)	-0.23 (0.38)	-0.13 (0.44)	0.06 (0.42)
GDP pc	-0.67 (0.52)	-1.07 ^{***} (0.40)	-0.95 (0.58)	-1.60 ^{***} (0.43)
Spatial Lag (Neighbors)	0.09 ^{***} (0.01)	0.07 ^{***} (0.01)	0.06 ^{***} (0.01)	0.08 ^{***} (0.01)
Lagged Outcome (Y_[t-7])	0.74 ^{***} (0.01)	0.74 ^{***} (0.01)	0.75 ^{***} (0.01)	0.73 ^{***} (0.01)
Time	-11.77 ^{***} (0.64)	-12.47 ^{***} (0.63)	-12.23 ^{***} (0.64)	-11.66 ^{***} (0.62)
Time^2	-5.78 ^{***} (0.36)	-6.40 ^{***} (0.36)	-6.36 ^{***} (0.37)	-6.28 ^{***} (0.36)
Time^3	6.15 ^{***} (0.31)	6.42 ^{***} (0.30)	6.33 ^{***} (0.31)	6.12 ^{***} (0.30)
Intercept	6.92 ^{***} (0.50)	8.07 ^{***} (0.47)	7.89 ^{***} (0.50)	7.83 ^{***} (0.52)
Num. obs.	3822	4272	4162	4159
Num. groups: CountryName	28	32	31	31
Var: CountryName (Intercept)	2.92	2.67	3.43	4.16
Var: Residual	125.18	135.89	134.50	128.02

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness checks: Replication of Table 2 to Table 4 without GDP per capita

Table A4: Linear regression models for individual freedoms restrictions and different aspects of democratic quality (cross-sectional)

	Model 1.1	Model 1.2	Model 1.3	Model 1.4
Quality of Democracy	-0.13** (0.05)			
Individual liberties		-0.35*** (0.09)		
Rule of law			-0.07*** (0.02)	
Mutual constraints				0.02 (0.03)
# of hospital beds	0.42 (0.25)	0.31 (0.22)	0.32 (0.23)	0.63** (0.25)
Intercept	7.82 (4.87)	22.62*** (6.70)	2.93 (2.04)	-4.14* (2.08)
R ²	0.41	0.46	0.42	0.19
Adj. R ²	0.36	0.42	0.38	0.13
Num. obs.	29	33	33	32

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A5: Linear regression models for power concentration measures and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.08 (0.06)			
Individual liberties		-0.25* (0.13)		
Rule of law			-0.10*** (0.03)	
Mutual constraints				-0.03 (0.04)
# of hospital beds	0.42 (0.29)	0.35 (0.32)	0.14 (0.28)	0.46 (0.29)
Intercept	3.63 (5.58)	15.39 (9.71)	5.38** (2.45)	-0.87 (2.50)
R ²	0.26	0.20	0.42	0.12
Adj. R ²	0.19	0.15	0.38	0.05
Num. obs.	25	30	30	29

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A6: Time-series cross-sectional analysis of prior democratic quality
(DV: Restriction of freedom index)

	Model 3.1	Model 3.2	Model 3.3	Model 3.4
Quality of Democracy	-0.89** (0.43)			
Individual Liberties		-2.25*** (0.53)		
Rule of Law			-1.57*** (0.42)	
Mutual Constraints				-0.34 (0.49)
Confirmed Deaths (rel.)	0.76*** (0.27)	0.96*** (0.27)	1.13*** (0.27)	0.88*** (0.28)
# of Hospital Beds	0.04 (0.42)	-0.15 (0.39)	-0.16 (0.42)	0.38 (0.49)
Spatial Lag (Neighbors)	0.09*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.08*** (0.01)
Lagged Outcome (Y_[t-7])	0.74*** (0.01)	0.74*** (0.01)	0.74*** (0.01)	0.73*** (0.01)
Time	-11.73*** (0.64)	-12.41*** (0.63)	-12.53*** (0.63)	-11.65*** (0.62)
Time^2	-5.80*** (0.36)	-6.43*** (0.36)	-6.40*** (0.36)	-6.28*** (0.36)
Time^3	6.15*** (0.31)	6.42*** (0.30)	6.42*** (0.30)	6.13*** (0.30)
Intercept	6.77*** (0.49)	8.08*** (0.49)	7.96*** (0.50)	7.72*** (0.58)
Num. obs.	3822	4272	4272	4159
Num. groups: CountryName	28	32	32	31
Var: CountryName (Intercept)	2.96	3.12	3.59	6.42
Var: Residual	125.18	135.91	135.90	128.03

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness checks: Replication of Table 2 to Table 4 with different sample (instead of polity \geq 6, only liberal democracies and electoral democracies according to V-Dem: v2x_regime)

Table A7: Linear regression models for individual freedoms restrictions and different aspects of democratic quality (cross-sectional)

	Model 1.1	Model 1.2	Model 1.3	Model 1.4
Quality of Democracy	-0.12** (0.06)			
Individual liberties		-0.34*** (0.11)		
Rule of law			-0.06* (0.03)	
Mutual constraints				0.03 (0.03)
# of hospital beds	0.45* (0.26)	0.42* (0.22)	0.43 (0.25)	0.60** (0.25)
GDP per capita	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00** (0.00)
Intercept	7.81 (4.95)	21.45*** (7.23)	1.90 (2.30)	-2.53 (2.35)
R ²	0.45	0.54	0.43	0.38
Adj. R ²	0.38	0.48	0.36	0.31
Num. obs.	28	30	30	30

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A8: Linear regression models for power concentration measures and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.02 (0.07)			
Individual liberties		-0.01 (0.13)		
Rule of law			-0.05 (0.03)	
Mutual constraints				0.03 (0.03)
# of hospital beds	0.27 (0.26)	0.15 (0.25)	0.05 (0.25)	0.15 (0.24)
GDP per capita	-0.00 (0.00)	-0.00** (0.00)	-0.00 (0.00)	-0.00*** (0.00)
Intercept	0.84 (5.23)	3.25 (8.61)	4.34* (2.23)	1.26 (2.18)
R ²	0.25	0.43	0.47	0.45
Adj. R ²	0.14	0.36	0.40	0.38
Num. obs.	24	27	27	27

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A9: Time-series cross-sectional analysis of prior democratic quality
(DV: Restriction of freedom index)

	Model 3.1	Model 3.2	Model 3.3	Model 3.4
Quality of Democracy	-0.59 (0.49)			
Individual Liberties		-2.08*** (0.62)		
Rule of Law			-0.79 (0.66)	
Mutual Constraints				-0.09 (0.43)
Confirmed Deaths (rel.)	0.75*** (0.27)	0.74*** (0.27)	0.81*** (0.28)	0.81*** (0.28)
# of Hospital Beds	-0.05 (0.43)	-0.14 (0.39)	-0.09 (0.47)	0.10 (0.46)
GDP pc	-0.66 (0.50)	-0.49 (0.47)	-0.88 (0.64)	-1.43*** (0.46)
Spatial Lag (Neighbors)	0.10** (0.01)	0.10*** (0.01)	0.10** (0.01)	0.10** (0.01)
Lagged Outcome (Y_[t-7])	0.74*** (0.01)	0.73*** (0.01)	0.73*** (0.01)	0.73*** (0.01)
Time	-11.68*** (0.65)	-11.92*** (0.64)	-12.03*** (0.64)	-12.04*** (0.64)
Time^2	-5.76*** (0.37)	-5.80*** (0.36)	-5.75*** (0.36)	-5.74*** (0.36)
Time^3	6.04*** (0.31)	6.18*** (0.31)	6.20*** (0.31)	6.21*** (0.31)
Intercept	6.89*** (0.51)	7.36*** (0.48)	7.29*** (0.53)	7.27*** (0.54)
Num. obs.	3705	3928	3928	3928
Num. groups: CountryName	27	29	29	29
Var: CountryName (Intercept)	3.02	2.72	4.08	4.36
Var: Residual	126.74	127.39	127.40	127.41

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness checks: Replication of Table 2 to Table 4 with democratic backsliding dummy [1 backsliding, 0 no backsliding]

Table A10: Linear regression models for individual freedoms restrictions and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.12*			
	(0.06)			
Individual liberties		-0.29**		
		(0.11)		
Rule of law			-0.06*	
			(0.03)	
Mutual constraints				0.03
				(0.03)
Backsliding	-0.26	0.33	0.03	0.13
	(1.23)	(1.02)	(1.08)	(1.22)
# of hospital beds	0.42	0.26	0.33	0.47*
	(0.28)	(0.25)	(0.26)	(0.27)
GDP per capita	-0.00	-0.00	-0.00	-0.00**
	(0.00)	(0.00)	(0.00)	(0.00)
Intercept	7.61	19.25**	2.70	-1.65
	(5.19)	(7.39)	(2.16)	(2.15)
R ²	0.41	0.49	0.43	0.35
Adj. R ²	0.31	0.41	0.34	0.26
Num. obs.	29	33	33	32

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A11: Linear regression models for power concentration measures and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.01			
	(0.07)			
Individual liberties		-0.01		
		(0.13)		
Rule of law			-0.04	
			(0.04)	
Mutual constraints				0.03
				(0.03)
Backsliding	3.52***	2.55**	2.51**	2.15*
	(1.22)	(1.19)	(1.15)	(1.21)
# of hospital beds	0.08	-0.04	-0.11	0.01
	(0.27)	(0.29)	(0.28)	(0.27)
GDP per capita	-0.00	-0.00***	-0.00	-0.00***
	(0.00)	(0.00)	(0.00)	(0.00)
Intercept	-0.59	3.90	4.68**	1.65
	(5.12)	(8.59)	(2.26)	(2.04)
R ²	0.50	0.55	0.57	0.51
Adj. R ²	0.40	0.48	0.50	0.43
Num. obs.	25	30	30	29

*** p < 0.01; ** p < 0.05; * p < 0.1

Table A12: Time-series cross-sectional analysis of prior democratic quality
(DV: Restriction of freedom index)

	Model 3.1	Model 3.2	Model 3.3	Model 3.4
Quality of Democracy	-0.68 (0.49)			
Individual Liberties		-1.55*** (0.58)		
Rule of Law			-0.92 (0.61)	
Mutual Constraints				-0.30 (0.41)
Confirmed Deaths (rel.)	0.76*** (0.27)	1.04*** (0.27)	1.14*** (0.27)	0.97*** (0.28)
# of Hospital Beds	0.10 (0.45)	0.09 (0.42)	0.20 (0.45)	0.36 (0.48)
GDP pc	-0.74 (0.51)	-1.06** (0.43)	-1.03* (0.58)	-1.69*** (0.44)
Spatial Lag (Neighbors)	0.09*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.08*** (0.01)
Lagged Outcome (Y_[t-7])	0.74*** (0.01)	0.74*** (0.01)	0.74*** (0.01)	0.73*** (0.01)
Time	-11.73*** (0.64)	-12.46*** (0.63)	-12.54*** (0.63)	-11.70*** (0.62)
Time^2	-5.79*** (0.36)	-6.41*** (0.36)	-6.39*** (0.36)	-6.27*** (0.36)
Time^3	6.15*** (0.31)	6.41*** (0.30)	6.42*** (0.30)	6.13*** (0.30)
Backsliding	-0.84 (1.17)	-1.34 (1.01)	-1.56 (1.09)	-1.60 (1.27)
Intercept	7.11*** (0.56)	8.35*** (0.52)	8.29*** (0.54)	8.16*** (0.57)
Num. obs.	3822	4272	4272	4159
Num. groups: CountryName	28	32	32	31
Var: CountryName (Intercept)	2.92	2.60	3.23	4.05
Var: Residual	125.18	135.90	135.90	128.02

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness checks: Replication of Table 3: power concentration index without media control

Table A13: Linear regression models for individual freedoms restrictions and different aspects of democratic quality (cross-sectional)

	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Quality of Democracy	-0.03 (0.06)			
Individual liberties		-0.01 (0.09)		
Rule of law			-0.04 (0.03)	
Mutual constraints				-0.00 (0.02)
# of hospital beds	0.22 (0.21)	0.25 (0.18)	0.17 (0.18)	0.25 (0.18)
GDP per capita	-0.00 (0.00)	-0.00* (0.00)	-0.00 (0.00)	-0.00* (0.00)
Intercept	2.54 (4.17)	0.67 (6.25)	1.83 (1.64)	0.32 (1.60)
R ²	0.29	0.27	0.32	0.25
Adj. R ²	0.18	0.18	0.24	0.16
Num. obs.	25	30	30	29

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness check: Time-series cross-sectional analysis with pandemic-related factors only (without measures of democratic quality)

Table A14: Time-series cross-sectional analysis of pandemic-related factors (DV: Restriction of freedom index)

	Baseline Model
Confirmed Deaths (rel.)	1.16 ^{***} (0.27)
# of Hospital Beds	0.11 (0.39)
GDP pc	-1.54 ^{***} (0.40)
Spatial Lag (Neighbors)	0.07 ^{***} (0.01)
Lagged Outcome (Y_[t-7])	0.74 ^{***} (0.01)
Time	-12.57 ^{***} (0.63)
Time^2	-6.38 ^{***} (0.36)
Time^3	6.43 ^{***} (0.30)
Intercept	7.93 ^{***} (0.50)
Num. obs.	4272
Num. groups: CountryName	32
Var: CountryName (Intercept)	3.52
Var: Residual	135.90

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness check: Time-series cross-sectional analysis with diffusion moderated by democracy measures

Table A15: Time-series cross-sectional analysis of pandemic-related factors (DV: Restriction of freedom index)

	Model 3.1	Model 3.2	Model 3.3	Model 3.4
Quality of Democracy	-0.93 (0.60)			
Quality of Democracy X Sp Lag	0.00 (0.02)			
Individual Liberties		-1.87** (0.78)		
Individual Liberties X Sp Lag		0.00 (0.03)		
Rule of Law			-1.32 (1.62)	
Rule of Law X Sp Lag			0.02 (0.02)	
Mutual Constraints				-0.41 (0.55)
Mutual Constraints X Sp Lag				0.00 (0.02)
Spatial Lag (Neighbors)	0.15*** (0.03)	0.12*** (0.02)	0.12*** (0.02)	0.14*** (0.03)
Confirmed Deaths (rel.)	0.63* (0.32)	1.01*** (0.32)	1.10*** (0.35)	0.80** (0.33)
# of Hospital Beds	0.00 (0.52)	-0.20 (0.49)	-0.19 (1.09)	0.03 (0.56)
GDP pc	-0.49 (0.61)	-1.09* (0.57)	-0.94 (1.56)	-1.89*** (0.58)
Lagged Outcome (Y_ _[t-7])	0.65*** (0.01)	0.68*** (0.01)	0.67*** (0.01)	0.65*** (0.01)
Time	-11.21*** (0.64)	-12.07*** (0.63)	-12.09*** (0.64)	-11.05*** (0.62)
Time ²	-6.02*** (0.37)	-6.47*** (0.37)	-6.45*** (0.37)	-6.36*** (0.36)
Time ³	5.89*** (0.30)	6.08*** (0.30)	6.05*** (0.30)	5.75*** (0.30)
Intercept	7.22*** (0.58)	8.48*** (0.56)	8.41*** (1.03)	8.29*** (0.63)
Num. obs.	3822	4272	4272	4159
Num. groups: CountryName	28	32	32	31
Var: CountryName (Intercept)	5.24	5.49	29.85	8.29
Var: CountryName spa.lag.z.restrict_freedom_index	0.01	0.01	0.01	0.01
Cov: CountryName (Intercept) spa.lag.z.restrict_freedom_index	0.06	-0.01	-0.01	0.00
Var: Residual	116.03	127.62	126.89	118.80

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness check: Replication of Table 3: Political system as control variable

Table A16: Linear regression models for power concentration and different aspects of democratic quality (cross-sectional)

	Model 2.0	Model 2.1	Model 2.2	Model 2.3	Model 2.4
Semi-pres. with strong parliament (<i>ref.: parliamentarian</i>)	0.10 (1.03)	-0.39 (1.13)	0.11 (1.04)	0.00 (1.05)	-0.15 (1.04)
Semi-pres. with strong president (<i>ref.: parliamentarian</i>)	1.56 (1.52)	1.23 (1.87)	1.67 (1.57)	1.18 (1.64)	1.62 (1.52)
Quality of Democracy		-0.04 (0.08)			
Individual liberties			0.05 (0.14)		
Rule of law				-0.03 (0.04)	
Mutual constraints					-0.00 (0.04)
# of hospital beds	0.27 (0.28)	0.36 (0.31)	0.29 (0.29)	0.22 (0.29)	0.28 (0.26)
GDP per capita	-0.00 ^{***} (0.00)	-0.00 (0.00)	-0.00 ^{***} (0.00)	-0.00 [*] (0.00)	-0.00 ^{***} (0.00)
Intercept	2.62 (1.84)	3.05 (6.47)	-0.97 (9.38)	3.89 (2.64)	2.22 (2.34)
R ²	0.49	0.32	0.49	0.50	0.47
Adj. R ²	0.41	0.14	0.38	0.39	0.36
Num. obs.	30	25	30	30	29

*** p < 0.01; ** p < 0.05; * p < 0.1

Robustness check: Cross-sectional and time-series cross-sectional analysis with excluding individual countries

Figure A1: We show here the coefficient estimate and the 95% (and 90%) confidence interval for the coefficient on *Quality of Democracy*. We re-estimate the model 29 times and each time we exclude one country. The figure shows the excluded country on the x-axis. We find that the results are very sensitive to the exclusion of single countries and in more than half of the cases the estimate fails significance at the 10%-level.

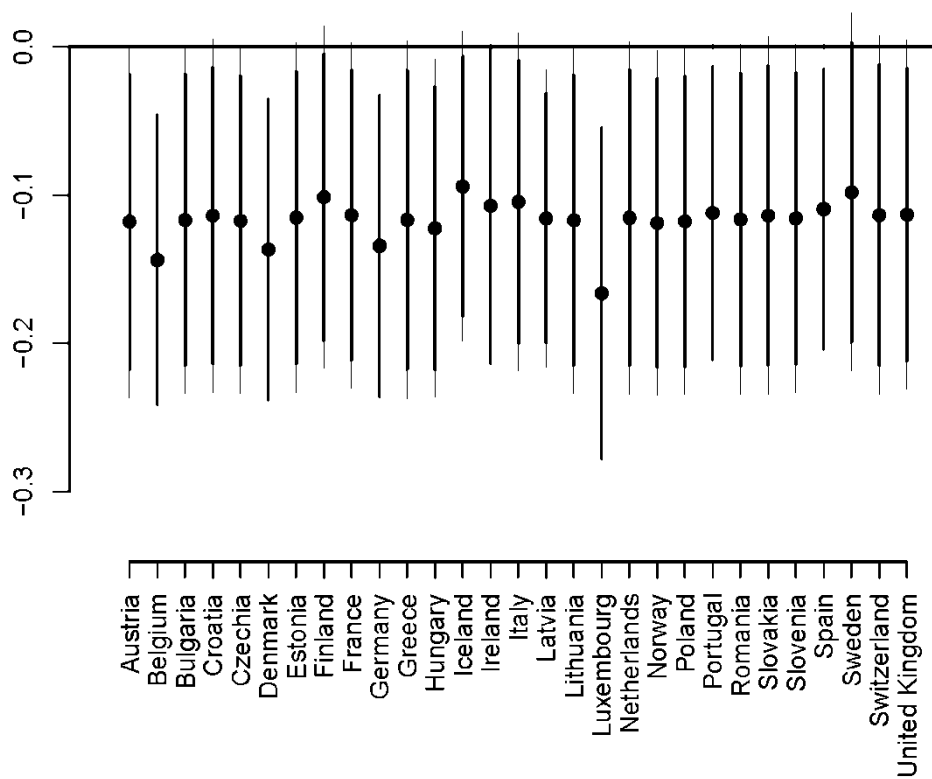


Figure A2: We show here the coefficient estimate and the 95% (and 90%) confidence interval for the coefficient on *Individual Freedoms*. We re-estimate the model 33 times and each time we exclude one country. The figure shows the excluded country on the x-axis. We find a clear negative effect of all 33 combinations.

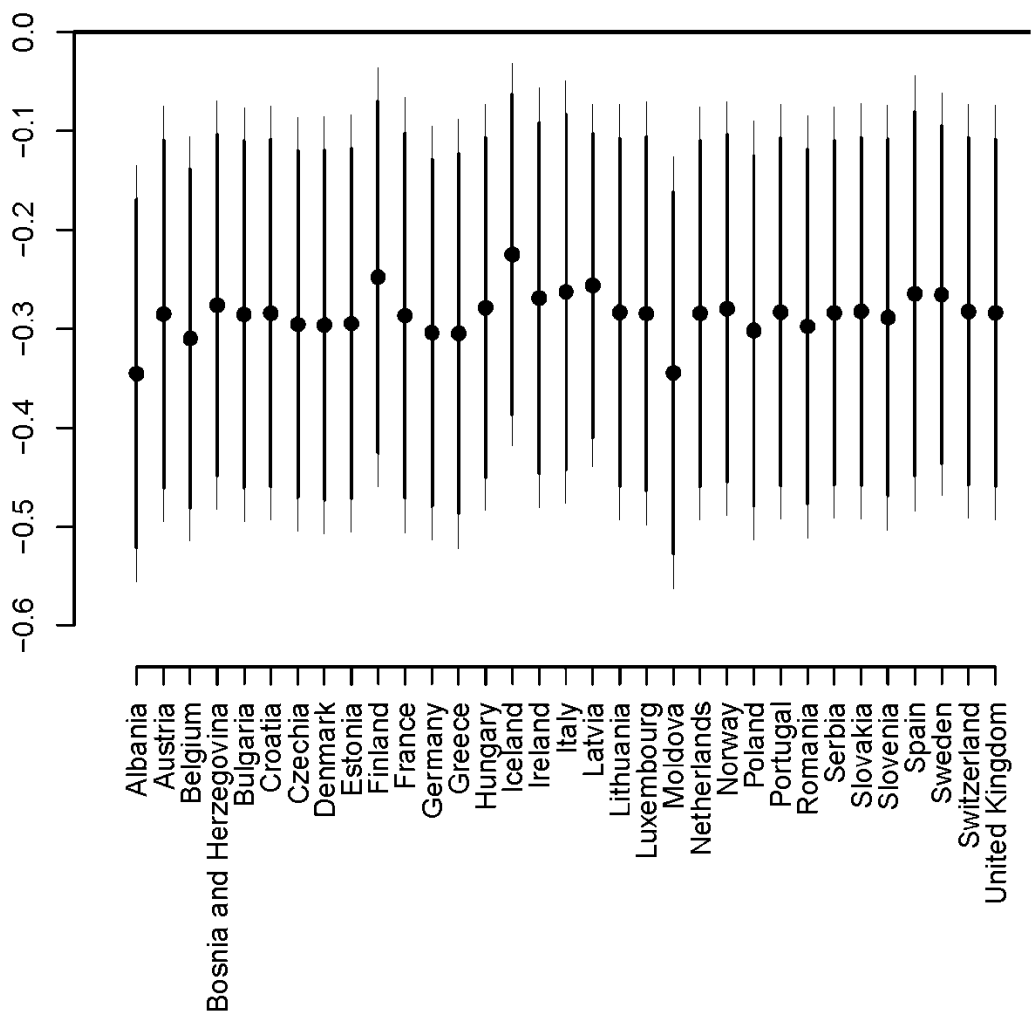


Figure A3: We show here the coefficient estimate and the 95% (and 90%) confidence interval for the coefficient on *Rule of law*. We re-estimate the model 33 times and each time we exclude one country. The figure shows the excluded country on the x-axis. We find that the results are very sensitive to the exclusion of single countries and in most cases the estimate fails significance at the 10%-level.

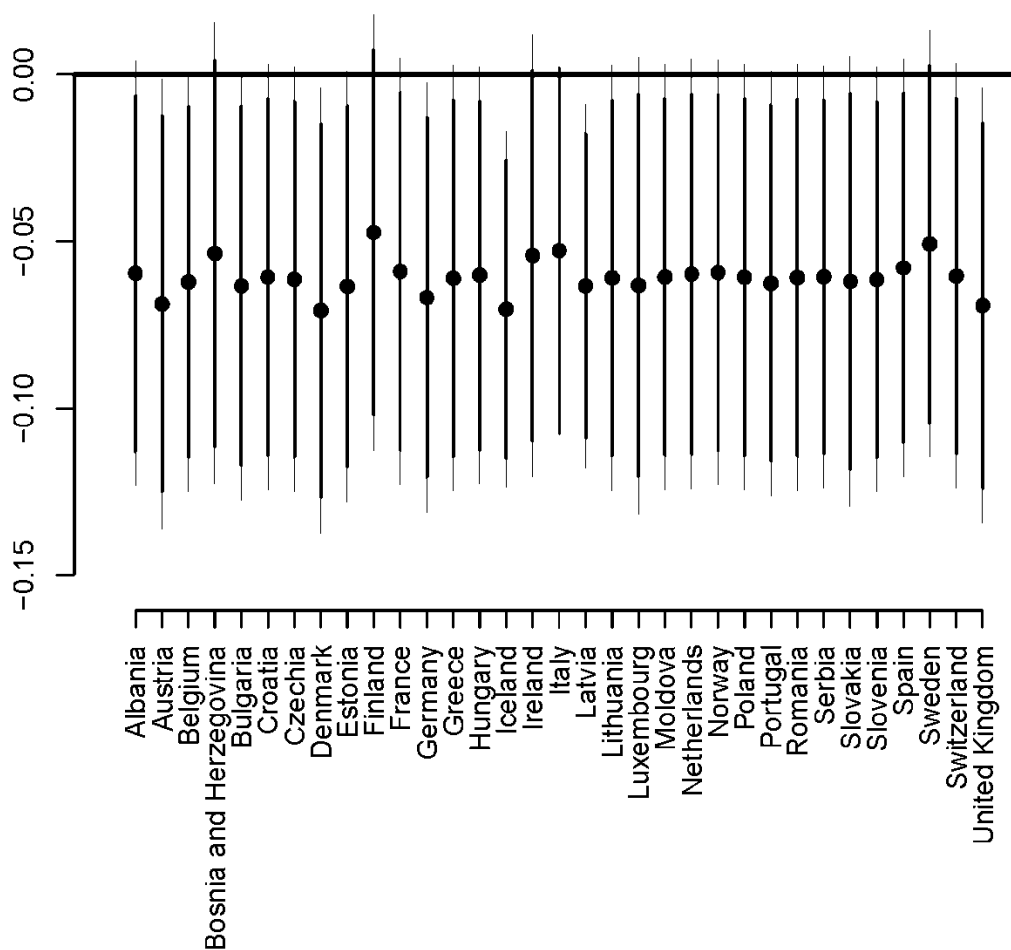


Figure A4: We show here the coefficient estimate and the 95% (and 90%) confidence interval for the coefficient on *Individual Freedoms*. We re-estimate the model 32 times and each time we exclude one country. The figure shows the excluded country on the x-axis. We find a clear negative effect in 31 out of 32 combinations. Only when deleting Moldova does the estimate fail significance at 5% but is still significant on 10%.

