

Appendix for Consolidating Progress: The Selection of Female Ministers in Autocracies and Democracies

For Online Publication

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A *Classification of portfolios and prestige*

Table A1: List of Portfolios

Portfolio	Prestige	Portfolio	Prestige
Defense, Military & National Security ¹	High	Foreign Relations ¹	High
Government, Interior & Home Affairs	High	Finance, Budget & Treasury ¹	High
Agriculture, Food, Fisheries & Livestock	Medium	Audit, Oversight & Internal Affairs	Medium
Civil Service	Medium	Communications & Information	Medium
Construction & Public Works	Medium	Correctional Services & Police	Medium
Culture & Heritage	Medium	Education, Training & Skills	Medium
Energy	Medium	Enterprises, Companies & Business	Medium
Environment	Medium	Executive & Legislative Relations	Medium
Foreign Economic Relations	Medium	General Economic Affairs	Medium
Health & Social Welfare	Medium	Housing	Medium
Industry & Commerce	Medium	Justice & Legal Affairs	Medium
Labor, Employment & Social Security	Medium	Local Government	Medium
Natural Resources ¹⁰	Medium	Planning & Development	Medium
Political Reform	Medium	Properties & Buildings	Medium
Religion ¹¹	Medium	Regional	Medium
Tax, Revenue & Fiscal Policy	Medium	Transport	Medium
Ageing & Elderly	Low	Children & Family	Low
Immigration & Emigration	Low	Minorities	Low
Science, Technology & Research	Low	Sports	Low
Tourism	Low	Veterans	Low
Without Portfolio	Low	Women	Low
Youth	Low		
Other	Low		

¹There can be several ministers in charge of, for example, defense. We only include the highest ranked minister as high prestige, while the rest are downgraded to medium prestige.

²For OPEC+ members, any ministry having to do with natural resources, oil, or energy is considered to be high prestige.

³For the Islamic Republics, Afghanistan, Mauritania, Iran and Pakistan religion is considered a high prestige portfolio.

B Description of variables

Dependent variables

Share female ministers The share of female ministers calculated. When calculating this variable we only include full cabinet members, the deputy prime minister, and, in the cases where the prime minister is not the leader, the prime minister. Source: Within-country dataset from WhoGov 2.0 (Nyrup and Bramwell 2020).

Share female ministers - weighted The weighted share of female cabinet members. We give high prestige portfolios the score 3, medium prestige portfolios the score 2 and low prestige the score 1. Then we sum all scores that are held by women in a given year and divide it with the total sum for the cabinet in a given year. For example, Sweden in 2016 had 23 different ministers (excluding the prime minister). 12 were women, where 3 had high-prestige posts, 8 had medium-prestige portfolios, and 1 had low prestige portfolios. Likewise, there are 11 men, where 2 had high-prestige portfolios, 8 had medium prestige portfolios and 1 had low-prestige portfolios. The weighted share of female ministers is then;

$$\frac{3 * 3 + 8 * 2 + 1 * 1}{5 * 3 + 16 * 2 + 2 * 1} = 0.53 \quad (1)$$

Source: Within-country dataset from WhoGov 2.0 (Nyrup and Bramwell 2020).

Share female ministers - high prestige The share of high prestige cabinet members who are female using the within dataset. The classifications are seen in Appendix A. Source: Within-country dataset from WhoGov 2.0 (Nyrup and Bramwell 2020).

Measures of democracy

Polyarchy The $v2x_polyarchy$ index. The index is formed by taking the average of, on the one hand, the sum of the indices measuring freedom of association ($v2x_frassoc_thick$), suffrage ($v2x_suffr$), clean elections ($v2xel_freair$), elected executive (de jure) ($v2x_accex$) and freedom of expression ($v2x_freexp_thick$); and, on the other, the five-way interaction between those indices. Source: V-Dem (Coppedge et al. 2022).

Stock of Polyarchy The variable is derived by summing each country's score of democracy from 1900 (or, if the measure starts after year 1900, the earliest year) to the present year, applying an annual depreciation rate. We vary the depreciation rate to show that the results are consistent, but mainly rely on a rate of 95 percent. We also use similar stock measures for the other democracy measures.

Polity IV An aggregated democracy measure created using a weighted additive aggregation procedure across five sub-components: competitiveness and openness of executive recruitment, competitiveness and regulation of political participation, and constraints on the chief executive. We have standardized the measure, so it ranges from 0 to 1. Source: Polity IV database (Marshall, Gurr and Jaggers 2019).

Boix, Miller, and Rosato democracy index Dichotomous measure of democracy. A country is coded as democracy (1) if it has 1) political leaders that are chosen through free and fair elections and 2) a minimal level of suffrage. The index measures this at the end of the year. In Figure 5 we manually merge WhoGov (which is coded in July) with this index, so the year of democratization corresponds to the first democratic cabinet. In the remaining analyses where this measure of democracy is used, we use the original measure. Source: Boix, Miller and Rosato (2013).

DD index Dichotomous measure of democracy put forward by Cheibub, Gandhi and Vreeland (2010). For a regime to be considered as a democracy (1) by the DD scheme, it must meet the requirement of these four rules; 1) the chief executive must be chosen by popular election or by a body that was itself popularly elected, 2) the legislature must be popularly elected, 3) there must be more than one party competing in the elections, and 4) an alternation in power under electoral rules identical to the ones that brought the incumbent to office must have taken place. We also use the *electoral* variable from this dataset to distinguish between electoral autocracies and closed autocracies in Figure 1. Source: Bjørnskov and Rode (2020).

Stock of Clean Elections A stock variable for the index of whether there are free and fair elections (*v2xel_frefair*). Free and fair elections are characterized by an absence of registration fraud, systematic irregularities, government intimidation of the opposition, vote buying, and election violence. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Stock of Freedom of Expression A stock variable for the index of freedom of expression (*v2x_freexp*). The index is formed by combining measures on the indicators for print/broadcast censorship effort, harassment of journalists, media self-censorship, freedom of discussion for men/women, and freedom of academic and cultural expression. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Stock of Associational Autonomy A stock variable for the index of freedom of association (*v2x_frassoc_thick*). The index combines indicators for party ban, barriers to parties, opposition parties autonomy, elections multiparty, CSO entry and exit and CSO repression. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Stock of Elected Officials A stock variable for the index of elected officials (*v2x_elecoeff*). Measure whether the chief executive and legislature appointed through popular elections. Popular election is minimally defined and also includes sham elections with limited suffrage and no competition. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Stock of Suffrage Stock of the share of population with suffrage. Measures the share of adult citizens as defined by statute has the legal right to vote in national. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Control variables

Log of GDP per capita Logged GDP per capita. Source: Penn World Table 10.0 (Feenstra, Inklaar and Timmer 2015).

Oil rents (% of GDP) Oil rents as a share of GDP from the World Bank (NY.GDP.PETR.RT.ZS). Source: World Bank (2022).

Urbanization Ratio of urban population to total population (e_miurbani). Constructed using the data from CLIO Infra. Source: V-Dem (Coppedge et al. 2022).

Log of Population Log of population size. Source: Penn World Table 10.0 (Feenstra, Inklaar and Timmer 2015).

Life expectancy Expected life expectancy at birth (e_pelifeex). The data is based on data from Gapminder (gapminder.org), with additional data imputed from Clio Infra. Source: V-Dem (Coppedge et al. 2022).

Infant mortality The infant mortality rate is measured as the number of deaths prior to age 1 per 1000 live births in a year (SP.DYN.IMRT.IN). Source: World Bank (2022).

Primary school enrolment Percentage of the primary school-aged population is enrolled in primary school (NY.GDP.PETR.RT.ZS). Source: World Bank (2022).

Women political empowerment index An index of women's political empowerment (v2x_gender). Women's political empowerment is defined as a process of increasing capacity for women, leading to greater choice, agency, and participation in societal decision-making. The index incorporates three equally-weighted dimensions: fundamental civil liberties, women's open discussion of political issues and participation in civil society organizations, and the descriptive representation of women in formal political positions. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Lower chamber female legislators The share of of the lower (or unicameral) chamber of the legislature that is female (v2lgefemleg). Source: V-Dem (Coppedge et al. 2022).

Women's Political Rights A score indicating women's political rights (ciri_wopol). A score of 0 indicates that women's political rights were not guaranteed by law during a given year. A score of 1 indicates that women's political rights were guaranteed in law, but severely prohibited in practice. A score of 2 indicates that women's political rights were guaranteed in law, but were still moderately prohibited in practice. Finally, a score of 3 indicates that women's political rights were guaranteed in both law and practice. Source: The CIRIGHTS Dataset and the QoG Standard dataset (Cingranelli and Richards 2010; Teorell et al. 2022).

Women's Economic Rights A score indicating women's economic rights (ciri_wopol). A score of 0 indicates that there were no economic rights for women in law and that

systematic discrimination based on sex may have been built into law. A score of 1 indicates that women had some economic rights under law, but these rights were not effectively enforced. A score of 2 indicates that women had some economic rights under law, and the government effectively enforced these rights in practice while still allowing a low level of discrimination against women in economic matters. Finally, a score of 3 indicates that all or nearly all of women's economic rights were guaranteed by law and the government fully and vigorously enforces these laws in practice. Source: The CIRIGHTS Dataset and the QoG Standard dataset (Cingranelli and Richards 2010; Teorell et al. 2022).

Female leader Takes the value 1 if the leader of the country is female. Source: Within-country dataset from WhoGov 2.0 (Nyrup and Bramwell 2020).

Individual liberties An index of equality before the law and individual liberty (v2xcl_rol). The index indicates whether laws are transparent and rigorously enforced and public administration is impartial, and to what extent do citizens enjoy access to justice, secure property rights, freedom from forced labor, freedom of movement, physical integrity rights, and freedom of religion. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Property Rights An index of whether citizens enjoy the right to private property (v2xcl_prpty). Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Rule of law An index of the rule of law (v2x_rule). It measures to what extent laws are transparently, independently, predictably, impartially, and equally enforced, and to what extent government officials comply with the law. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Judicial Constraints An index of the judicial constraints on the executive (v2x_jucon). It measures the extent to which the executive respects the constitution and complies with court rulings, and the extent to which the judiciary is able to act in an independent fashion. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022). Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Legislative Constraints An index of the legislative constraints on the executive (v2xlg_legcon). It measures the extent to which the legislature and government agencies e.g., comptroller general, general prosecutor, or ombudsman are capable of questioning, investigating, and exercising oversight over the executive. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Political Corruption An index of the pervasiveness of political corruption (v2x_corr). Contrary to the other indices directionality of the V-Dem corruption index runs from less corrupt to more corrupt, and scoring higher on this index is therefore worse. The corruption index includes measures of six distinct types of corruption that cover both different areas and levels of the polity realm, distinguishing between executive, legislative, and judicial corruption. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

State ownership of economy A measure of the state ownership of economy (v2clstown). It gauges the the degree to which the state owns and controls capital (including land) in the industrial, agricultural, and service sectors. It is measured on a reverse scale, so high values means less state ownership. Source: V-Dem (Coppedge et al. 2022).

Core civil society A measure of core civil society (v2xcs_ccsi). The index is designed to provide a measure of a robust civil society, understood as one that enjoys autonomy from the state and in which citizens freely and actively pursue their political and civic goals, however conceived.. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Party institutionalization An index of party institutionalization (v2xps_party). A high score indicates a more institutionalized party system. Interval from 0 to 1. Source: V-Dem (Coppedge et al. 2022).

Lagged dependent The lagged share of share female ministers. Source: Within-country dataset from WhoGov 2.0 (Nyrup and Bramwell 2020).

Latitude (ln) The absolute value of the latitude of the capital city, divided by 90, so it takes the value between 0 and 1 (lp_lat_abst). Source: La Porta et al. (1999) and the QoG Standard dataset (Teorell et al. 2022).

Muslim Share of the population that is muslim (lp_muslim80). Source: La Porta et al. (1999) and the QoG Standard dataset (Teorell et al. 2022).

Protestant Share of the population that is protestant (p_protmg80). Source: La Porta et al. (1999) and the QoG Standard dataset (Teorell et al. 2022).

Ethnic fractionalization The likelihood that two randomly chosen individuals within a society are members of different ethnic groups, calculated using the Herfindahl index (al_ethnic). Source: Alesina et al. (2003) and the QoG Standard dataset (Teorell et al. 2022).

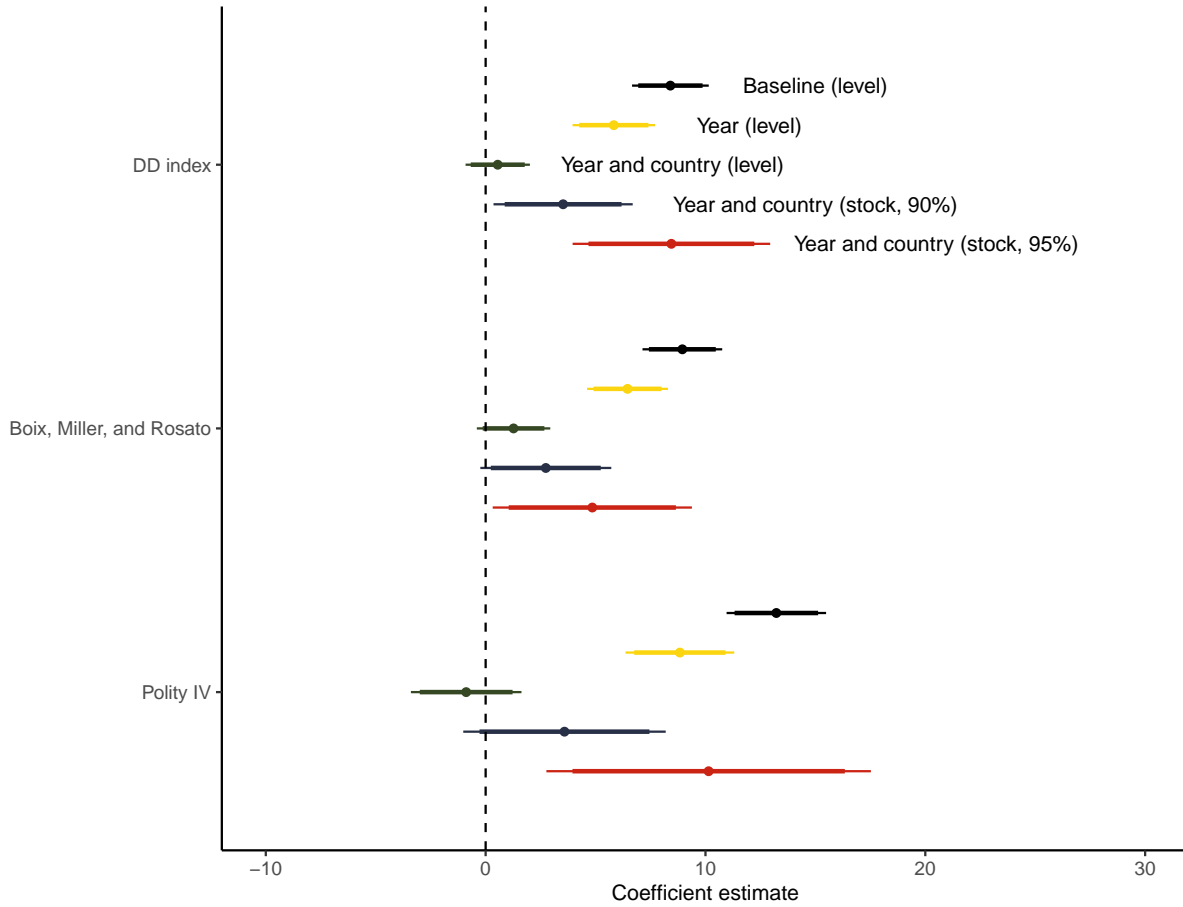
Land area Land area in square kilometers. Source: WDI (World Bank 2022) and the QoG Standard dataset (Teorell et al. 2022).

State history The age of the state in years. Source: Borcan, Olsson and Putterman (2018) and the QoG Standard dataset (Teorell et al. 2022).

Continent Countries according to the continent they are located at. The continents are "Africas", "Americas", "Asia", "Europe", and "Oceania". Source: Magaloni, Chu and Min (2013).

C Alternative measures of democracy

Figure C1: Effect sizes for different types of democracy indices



Note: Dependent variable is the share of female ministers. The models are based on OLS with country-clustered standard errors. The thin bars show the 95 percent confidence intervals, while the thick bars show the 90 percent confidence intervals. The measure of democracy is lagged by one year, and no other controls are included. It should be noted that there are missing data for Polity when countries are occupied (for example Denmark 1940-1945). We replace these years with the nearest year with a non-empty value. For full model results, see Table C1 for DD index, Table C2 for Boix, Miller, and Rosato, and Table C3 for Polity IV.

Table C1: Table for Figure C1 - DD index

	Dependent variable: Share of female ministers				
	(1)	(2)	(3)	(4)	(5)
Intercept	6.39*				
	(0.44)				
Polyarchy	8.40*	5.83*	0.55		
	(0.89)	(0.96)	(0.75)		
Stock of Polyarchy (90%)				3.52*	
				(1.62)	
Stock of Polyarchy (95%)					8.45*
					(2.29)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	8307	8307	8307	8298	8298
R-squared	0.13	0.38	0.64	0.64	0.64
Years		55	55	55	55
Countries			168	167	167

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

Table C2: Table for Figure C1 - Boix, Miller, and Rosato

	Dependent variable: Share of female ministers				
	(1)	(2)	(3)	(4)	(5)
Intercept	6.27*				
	(0.42)				
Polyarchy	8.95*	6.46*	1.27		
	(0.92)	(0.94)	(0.85)		
Stock of Polyarchy (90%)				2.74	
				(1.52)	
Stock of Polyarchy (95%)					4.85*
					(2.31)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	8259	8259	8259	7821	7821
R-squared	0.14	0.39	0.64	0.65	0.65
Years		55	55	55	55
Countries			169	158	158

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

Table C3: Table for Figure C1 - Polity IV

	Dependent variable: Share of female ministers				
	(1)	(2)	(3)	(4)	(5)
Intercept	2.27*				
	(0.51)				
Polyarchy	13.22*	8.84*	-0.89		
	(1.15)	(1.26)	(1.28)		
Stock of Polyarchy (90%)				3.59	
				(2.35)	
Stock of Polyarchy (95%)					10.14*
					(3.77)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	7909	7909	7909	7909	7909
R-squared	0.19	0.39	0.63	0.64	0.64
Years		53	53	53	53
Countries			169	169	169

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

D Stock of democracy

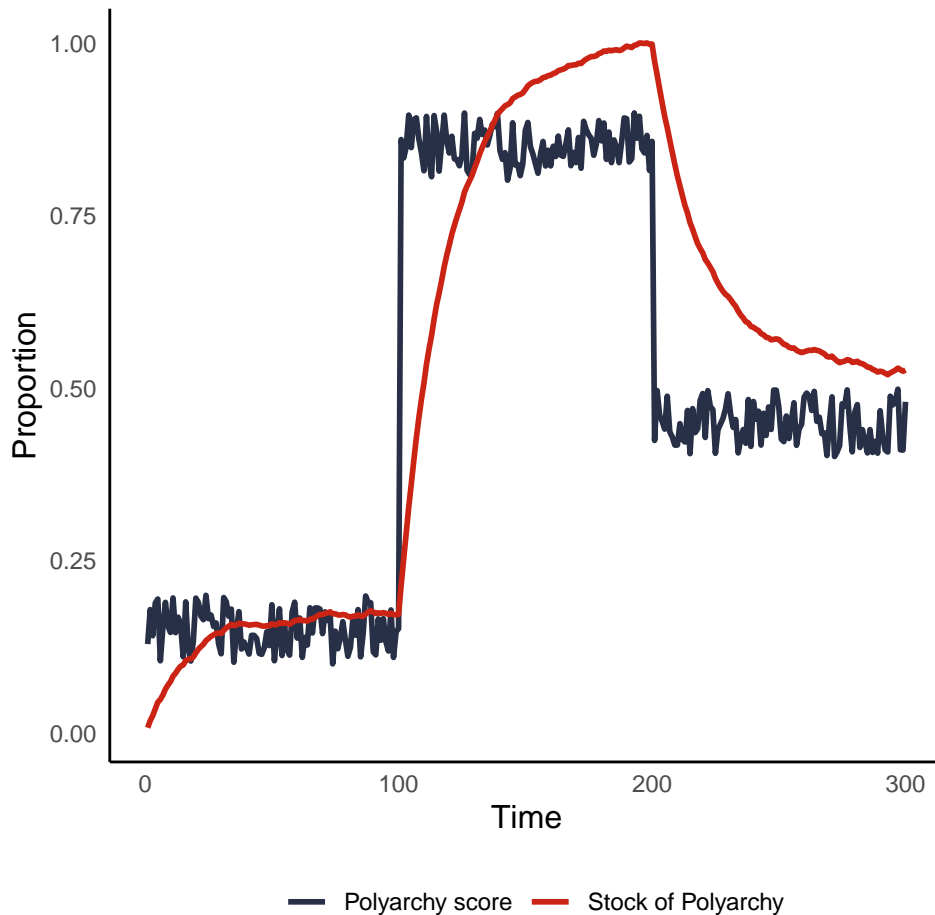
To calculate the stock of democracy s at time t , we employ a function that applies a fixed user-specified inverse depreciation rate α to the value of polyarchy p in the previous year and adds it to the current year.

$$s_t = p_{t-1}\alpha + p_t \quad (2)$$

We then rescale s_t to be bounded between 0 and 1 by dividing s_t the maximum value of s in the sample. Note that when $\alpha = 0$, $s_t = p_t$.

To understand the temporal relationship between polyarchy and the stock of polyarchy over the long run, we create simulated data of a country over 300 time periods. We create three separate regime equilibria using uniform distributions U that mimic exclusive hegemonies $\sim U(0.1, 0.2)$, polyarchies $\sim U(0.8, 0.9)$ and inclusive hegemonies $\sim U(0.4, 0.5)$. We then employ s_t , setting α to 95% (indicating a 5% depreciation rate).

Figure D1: The relationship between polyarchy and stock of polyarchy (95%)

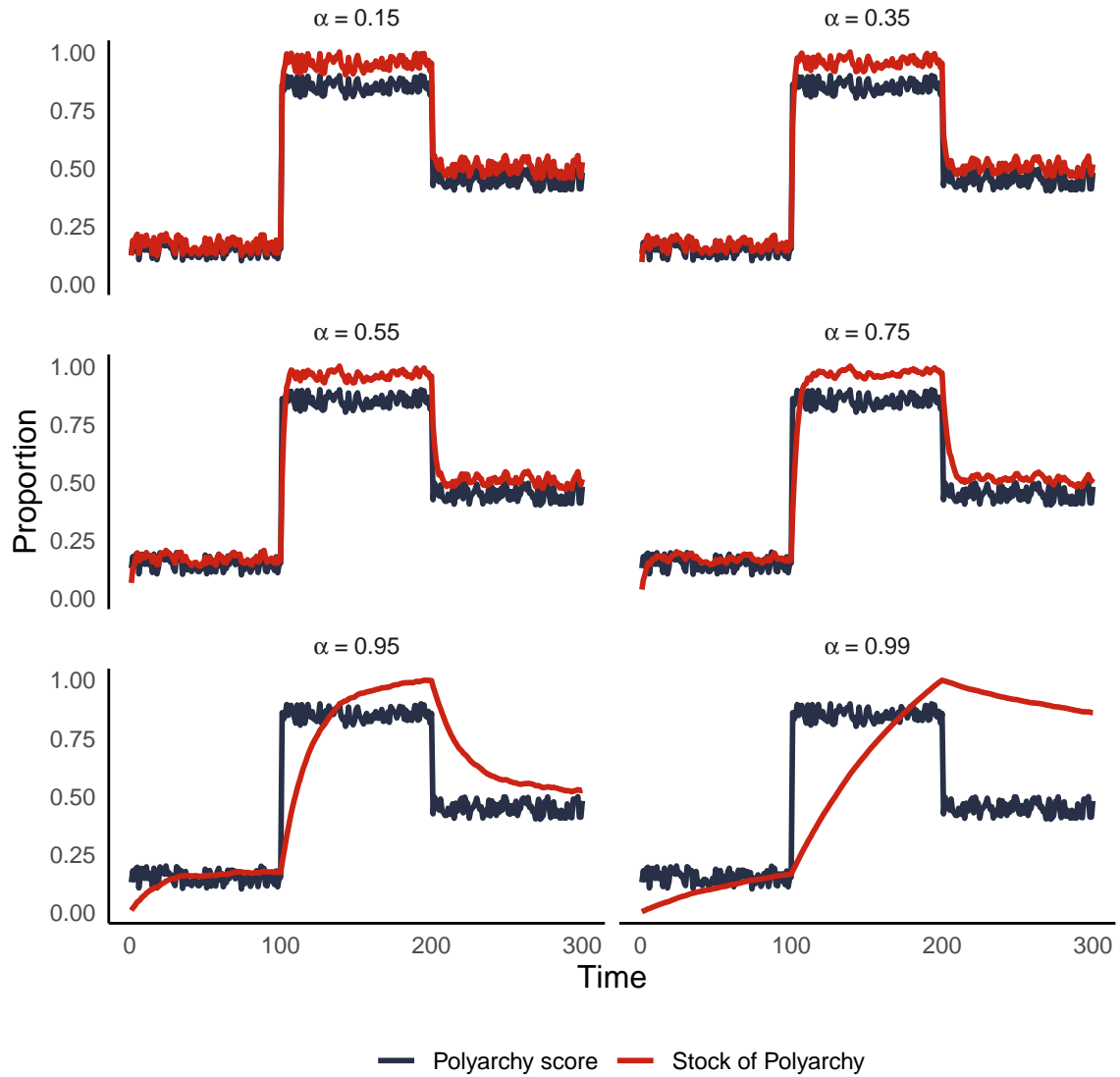


We observe the following behaviour:

- s stabilises despite minor fluctuations in p ;
- s increases/decreases more rapidly in the early years of democratization/autocratization.

In order to understand how α affects the relationship between s and p , we calculate stock over a range of α .

Figure D2: The relationship between polyarchy and stock of polyarchy over different α



E Descriptive statistics

Table E1: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Max
Share of female ministers	8,768	9.99	11.65	0.00	64.71
Share of female ministers (Weighted)	8,768	9.13	11.10	0.00	66.67
Share of female ministers (High prestige)	8,737	4.70	12.86	0.00	100.00
Polyarchy	8,593	0.44	0.29	0.01	0.93
Stock of Polyarchy (90 percent)	8,593	0.44	0.29	0.01	1.00
Stock of Polyarchy (95 percent)	8,593	0.40	0.27	0.02	1.00
Stock of Polyarchy (99 percent)	8,593	0.41	0.20	0.11	1.00
Polity IV	7,947	0.55	0.37	0.00	1.00
BMR Index	8,293	0.46	0.50	0	1
DD index	8,512	0.46	0.50	0	1
Stock of Freedom of Expression	8,507	0.47	0.29	0.01	1.00
Stock of Suffrage	8,457	0.80	0.23	0.00	1.00
Stock of Clean Elections	8,344	0.38	0.31	0.00	1.00
Stock of Elected Officials	8,280	0.61	0.33	0.00	1.00
Stock of Associational Autonomy	8,569	0.47	0.30	0.004	1.00
Log of GDP per capita	7,869	8.89	1.26	5.46	12.15
Oil rents (percent of GDP)	7,087	4.28	10.47	0.00	87.18
GDP Growth	7,851	3.84	6.39	-66.12	106.28
Urbanization	8,333	51.34	24.18	2.40	100.00
Log of Population	7,869	15.87	1.71	11.33	21.08
Life expectancy	8,540	66.49	10.06	9.50	85.10
Infant mortality	8,441	48.41	44.16	1.60	257.40
Primary school enrolment	6,733	96.43	22.04	2.83	177.58
Women political empowerment index	8,475	0.62	0.23	0.05	0.97
Lower chamber female legislators	7,683	13.31	11.18	0.00	63.75
Women's Political Rights	4,610	1.79	0.65	0	3
Women's Economic Rights	4,560	1.30	0.69	0	3
Female leader	8,795	0.04	0.19	0	1
Individual liberties	8,593	0.60	0.30	0.00	0.99
Property Rights	8,593	0.65	0.26	0.001	0.97
Rule of law	8,593	0.52	0.31	0.004	1.00
Judicial Constraints	8,562	0.54	0.31	0.003	0.99
Legislative Constraints	8,267	0.52	0.33	0.02	0.99
Political Corruption	8,559	0.49	0.30	0.002	0.97
State ownership of economy	8,593	0.16	1.29	-4.11	2.78
Core civil society	8,593	0.57	0.32	0.01	0.98
Party institutionalization	7,904	0.59	0.27	0.01	1.00
Latitude (ln)	7,569	0.26	0.18	0.00	0.72
Muslim	7,569	24.25	36.52	0.00	99.90
Protestant	7,569	11.72	20.30	0.00	97.80
Ethnic fractionalization	8,385	0.45	0.26	0.00	0.93
Land area	8,624	763,604.20	1,835,032.00	300.00	16,376,870.00
State history	7,971	988.38	850.59	56.25	4,116.34

Table F1: Table for Figure 3

	Dependent variable: Share of female ministers				
	(1)	(2)	(3)	(4)	(5)
Intercept	1.94*				
	(0.58)				
Polyarchy	18.89*	13.69*	1.99		
	(1.58)	(1.77)	(2.27)		
Stock of Polyarchy (90%)				8.58*	
				(3.32)	
Stock of Polyarchy (95%)					15.65*
					(4.47)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	8388	8388	8388	8388	8388
R-squared	0.22	0.43	0.64	0.64	0.64
Years		55	55	55	55
Countries			169	169	169

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

Table F2: Table for Figure 3

	Dependent variable: Weighted share of female ministers				
	(1)	(2)	(3)	(4)	(5)
Intercept	1.54*				
	(0.54)				
Polyarchy	17.79*	12.95*	1.85		
	(1.50)	(1.65)	(2.25)		
Stock of Polyarchy (90%)				8.24*	
				(3.21)	
Stock of Polyarchy (95%)					15.14*
					(4.24)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	8388	8388	8388	8388	8388
R-squared	0.21	0.42	0.62	0.62	0.62
Years		55	55	55	55
Countries			169	169	169

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

Table F3: Table for Figure 3

	Dependent variable:				
	Share of female ministers in high prestige portfolios				
	(1)	(2)	(3)	(4)	(5)
Intercept	0.48 (0.53)				
Polyarchy	9.95* (1.42)	6.71* (1.37)	2.95 (2.65)		
Stock of Polyarchy (90%)				8.37* (3.84)	
Stock of Polyarchy (95%)					13.79* (4.93)
Within country:	No	No	Yes	Yes	Yes
Within year:	No	Yes	Yes	Yes	Yes
Observations	8365	8365	8365	8365	8365
R-squared	0.05	0.12	0.25	0.26	0.26
Years		55	55	55	55
Countries			169	169	169

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares).

G Table 1 with weighted share of female ministers

Table G1: Specification tests

	Dependent variable: Weighted share of female ministers							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Stock of Polyarchy (95%)	15.14 (4.24)*	17.43 (4.14)*	14.74 (4.78)*	15.13 (4.47)*	15.79 (5.17)*	16.25 (4.44)*	4.15 (1.15)*	13.10 (1.15)*
Trend		0.32 (0.03)*						0.36 (0.01)*
Log of GDP per capita			-3.75 (1.10)*					
Oil rents (% of GDP)			0.06 (0.02)*					
GDP growth			-0.00 (0.02)					
Urbanization			-0.10 (0.07)					
Log of Population			-6.99 (1.97)*					
Life expectancy				0.04 (0.13)				
Infant mortality				0.10 (0.03)*				
Primary school enrolment				0.05 (0.02)*				
Women political empowerment index					-7.23 (5.31)			
Lower chamber female legislators					0.39 (0.05)*			
Women's Political Rights					1.38 (0.57)*			
Women's Economic Rights					-0.35 (0.47)			
Female leader					0.96 (1.19)			
Individual liberties						10.93 (4.44)*		
Property Rights						1.48 (3.87)		
Rule of law						-18.29 (7.62)*		
Judicial Constraints						3.81 (4.67)		
Legislative Constraints						-3.03 (3.02)		
Political Corruption						-17.09 (5.05)*		
State ownership of economy						-0.23 (0.58)		
Core civil society						-5.54 (2.43)*		
Party institutionalization						-4.06 (3.03)		
Lagged dependent							0.75 (0.02)*	
Constant								-711.99 (23.44)*
Latitude (ln)								-5.29 (3.13)
Muslim								0.02 (0.01)
Protestant								0.06 (0.02)*
Ethnic fractionalization								0.07 (1.49)
Land area								0.00 (0.00)
State history								-0.00 (0.00)
Americas (ref: Africa)								0.21 (0.95)
Asia (ref: Africa)								0.09 (1.04)
Europe (ref: Africa)								1.68 (1.56)
Oceania (ref: Africa)								-7.20 (1.85)*
Estimation method:	FE	FE (only country)	FE	FE	FE	FE	FE	RE
Observations	8388	8388	6596	6480	4173	7691	8369	6632
R-squared	0.62	0.62	0.65	0.66	0.67	0.63	0.83	
Years	55		50	51	31	55	55	
Countries	169	169	159	166	168	169	169	123

* $p < 0.05$. All right-side variables lagged by one year. Country-clustered standard errors in parentheses. Estimator: OLS (ordinary least squares). FE = Fixed effects (country and year), RE = Random effects.

H Table 1 with share of female ministers in high prestige positions

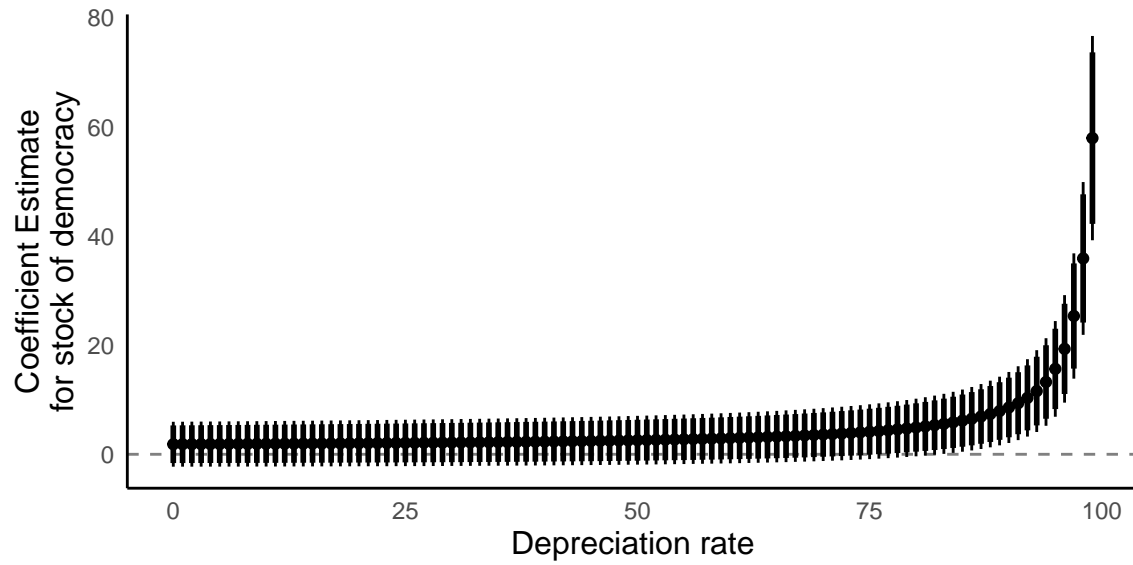
Table H1: Specification tests

	Dependent variable: Share of female ministers in high prestige portfolios							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Stock of Polyarchy (95%)	13.79 (4.93)*	15.29 (4.87)*	13.32 (6.24)*	14.09 (5.45)*	16.37 (7.02)*	12.72 (5.38)*	5.07 (1.83)*	8.98 (1.43)*
Trend		0.17 (0.03)*						0.22 (0.01)*
Log of GDP per capita			-2.80 (1.27)*					
Oil rents (% of GDP)			0.02 (0.04)					
GDP growth			0.02 (0.03)					
Urbanization			-0.04 (0.08)					
Log of Population			-8.11 (2.51)*					
Life expectancy				0.06 (0.19)				
Infant mortality				0.05 (0.04)				
Primary school enrolment				-0.00 (0.03)				
Women political empowerment index					2.95 (7.22)			
Lower chamber female legislators					0.35 (0.07)*			
Women's Political Rights					0.12 (0.80)			
Women's Economic Rights					0.17 (0.77)			
Female leader					0.85 (2.37)			
Individual liberties						6.14 (5.35)		
Property Rights						1.98 (5.08)		
Rule of law						-6.82 (8.52)		
Judicial Constraints						7.65 (4.73)		
Legislative Constraints						-4.65 (3.49)		
Political Corruption						-6.34 (5.78)		
State ownership of economy						-0.30 (0.76)		
Core civil society						-2.71 (3.18)		
Party institutionalization						-5.99 (3.50)		
Lagged dependent							0.66 (0.02)*	
Constant								-433.97 (22.98)*
Latitude (ln)								-0.87 (3.67)
Muslim								-0.00 (0.01)
Protestant								0.03 (0.02)
Ethnic fractionalization								1.50 (1.75)
Land area								-0.00 (0.00)
State history								-0.00 (0.00)
Americas (ref: Africa)								-0.54 (1.11)
Asia (ref: Africa)								-0.78 (1.22)
Europe (ref: Africa)								0.12 (1.82)
Oceania (ref: Africa)								-5.62 (2.16)*
Estimation method:	FE	FE (only country)	FE	FE	FE	FE	FE	RE
Observations	8365	8365	6582	6466	4171	7679	8336	6621
R-squared	0.26	0.25	0.27	0.28	0.31	0.27	0.57	
Years	55		50	51	31	55	55	
Countries	169	169	159	166	168	169	169	123

* $p < 0.05$. All right-side variables lagged by one year. Country clustered standard errors in parentheses. Estimator: OLS (ordinary least squares). FE = Fixed effects (country and year), RE = Random effects.

I Different depreciation rates

Figure I1: Effect sizes for different depreciation rates



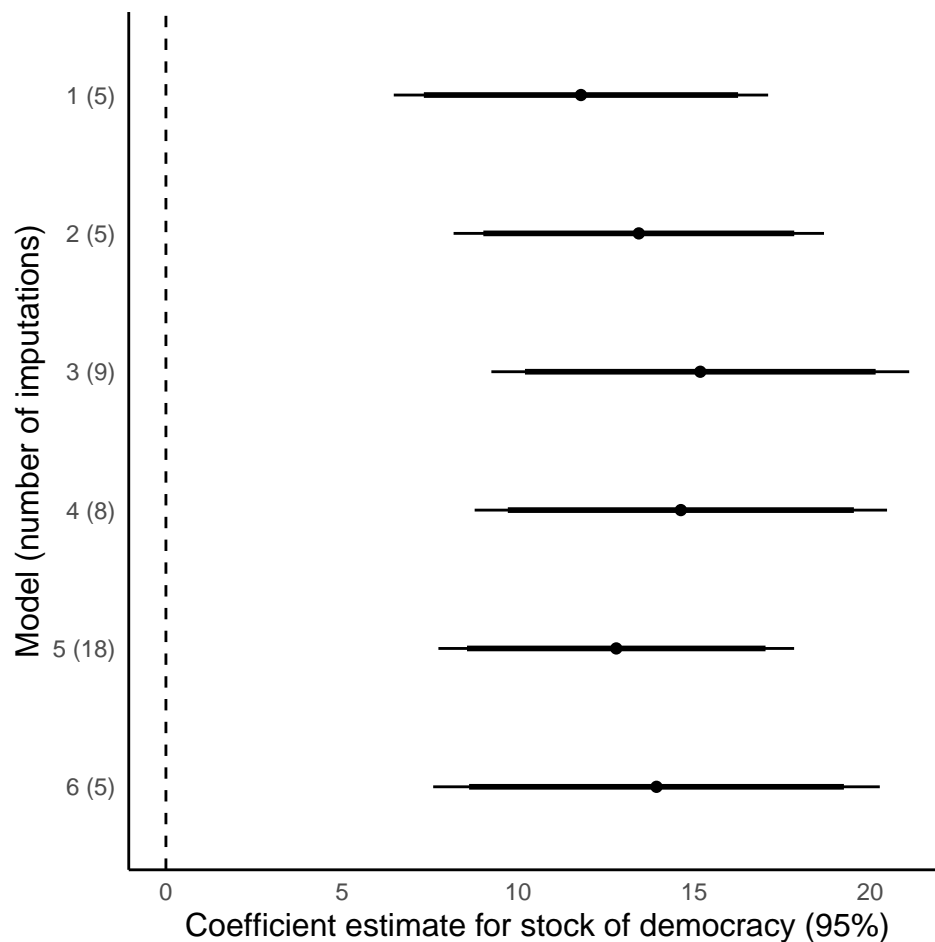
Note: The thin lines represent 95 percent confidence intervals, and the thick lines represent 90 percent confidence intervals.

J Table 2 with imputed data

We estimate identical model specifications of models 1 to 6 in table 2, using *Amelia II* to predict missing values. Following the recommendations of Lall (see Lall 2016, 2017), we:

- Set the number of imputations to the average percent of missing values across dependent/independent variables.
- Include a cubic polynomial of time to create smoothed estimates.
- Include 1 percent ridge prior to shrink variances between estimates.

Figure J1: Coefficient plots of models 1 to 6 using imputed data



Note: The thin bars show the 95 percent confidence intervals, while the thick bars show the 90 percent confidence intervals. See Table J1 for corresponding model results.

Table J1: Table for Figure J1

	(1)	(2)	(3)	(4)	(5)	(6)
Stock of Democracy (95%)	11.8*	13.4*	15.2*	14.6*	12.8*	13.9*
	(2.71)	(2.68)	(3.03)	(2.99)	(2.58)	(3.23)
N Imputations	5	5	9	8	18	5

* $p < 0.05$. Dependent variable: Share of female ministers (WhoGov). Estimates use imputed data from *Amelia II* and identical model specifications of models 1 to 6 in Table 2. For more on imputation procedure, see description at the beginning of this section (Appendix J).

K Table for Figure 4

Table K1: Table for Figure 4 - Components of polyarchy

	(1)	(2)	(3)	(4)	(5)
Stock of Clean Elections	8.93*				
	(3.73)				
Stock of Freedom of Expression		8.85*			
		(3.52)			
Stock of Associational Autonomy			6.17		
			(3.59)		
Stock of Elected Officials				-3.65	
				(2.68)	
Stock of Suffrage					-8.40*
					(3.81)
Observations	8144	8304	8365	8082	8255
R-squared	0.64	0.64	0.64	0.64	0.64
Years	55	55	55	55	55
Countries	164	167	168	162	166

. * $p < 0.05$. Dependent variable: Share of female ministers (WhoGov). All right-side variables lagged by one year. Country clustered standard errors in parentheses. Estimator: OLS (ordinary least squares) with country and year fixed effects.

L Table for Figure 5

Table L1: Table for Figure 5 - Democratic transitions and the share of female ministers

Years to democratization	Share female (relative to transition)	Standard error	N
-3.00	-2.88	0.69	88
-2.00	-2.71	0.67	89
-1.00	-2.00	0.68	90
0.00	0.00	0.00	90
1.00	0.28	0.49	90
2.00	0.42	0.56	88
3.00	-0.25	0.66	87
4.00	0.98	0.81	85
5.00	1.90	0.91	83
6.00	2.65	1.02	82
7.00	2.55	1.03	75
8.00	4.17	1.12	73

It should be noted that the table is not balanced. This is, for example, because some countries democratized shortly after independence, because some countries reverted back to autocracy, or because some have democratized recently, and therefore have not had 8 years post-transition.

Table M1: Table for Figure 6 - Split sample tests

	(1)	(2)	(3)	(4)	(5)	(6)
	OECD	Non-OECD	GDP high	GDP low	Pre-1993	Post-1993
Stock of Polyarchy	-8.65 (10.39)	20.43* (4.98)	10.82 (6.14)	23.01* (7.02)	8.26* (3.69)	16.98* (4.84)
Observations	1734	6654	4000	3616	3551	4837
R-squared	0.75	0.59	0.69	0.59	0.55	0.69
Years	55	55	53	53	26	29
Countries	33	136	112	107	144	169

* $p < 0.05$. Dependent variable: Share of female ministers (WhoGov). The stock of polyarchy measure is lagged by one year. Column 3 is a split sample of countries with GDP per capita over USD 7000. Column 4 is a split sample of countries with GDP per capita under USD 7000. Country clustered standard errors in parentheses. Estimator: OLS (ordinary least squares) with country and year fixed effects.

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