Democracy Does Cause Growth

Presentation of the ANRR (2019) Paper

Marten Walk

Empirical Economics

Introduction

Publication:

- Journal of Political Economy (JPE)
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Authors

- Daron **A**cemoglu (MIT)
- Suresh **N**aidu (Columbia)
- James **R**obinson (U. of Chicago)
- Pascual **R**estrepo (Boston U.)

Figure 1: Cover of JPE

Literature on Growth and Democracy

Table 1: Literature Examples

Authors	Relationship
Lipset (1959)	growth $\rightarrow$ democracy
Barro (1996)	democracy $\rightarrow\ \downarrow$ growth
Giavazzi and Tabellini (2005)	democracy $\rightsquigarrow$ growth
Acemoglu et al. (2019)	democracy $\implies$ growth

Data

Democracy Measure

- constructed from different sources
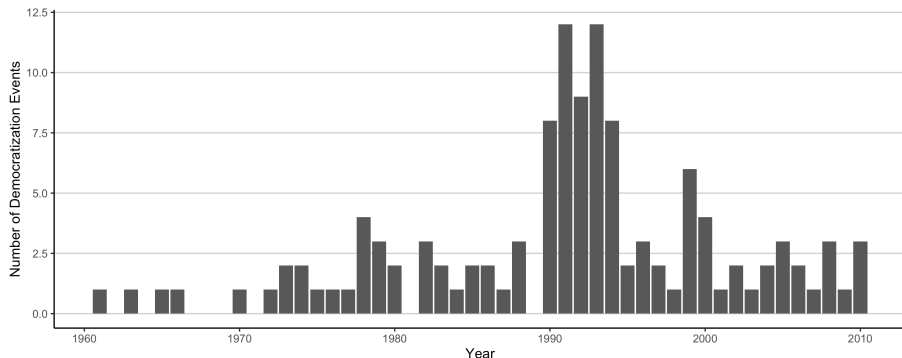- dichotomous
- 1960 - 2010, 184 Countries

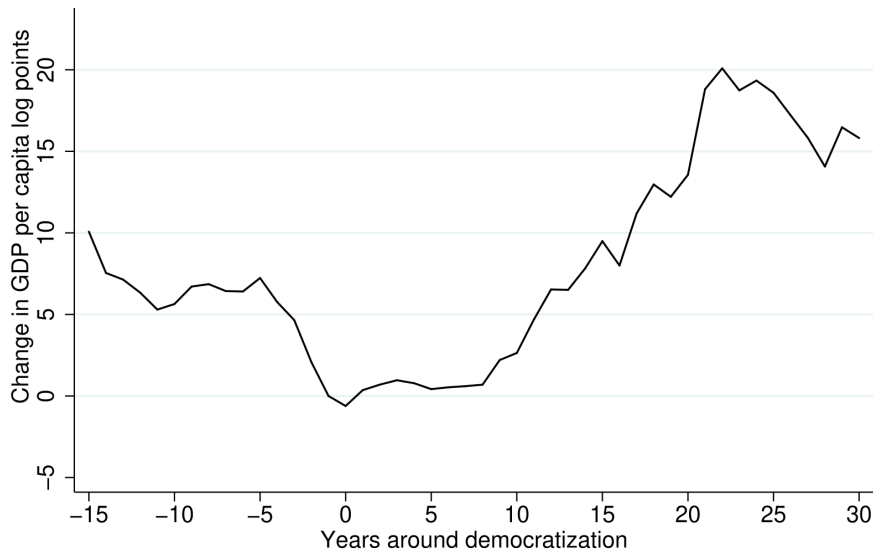Figure 2: Democratization Events 1960-2010

Problem: GDP Diversity and Dip

Figure 3: GDP Movement around Democratization

Method

3 Approaches

1. **Dynamic Linear Panel Model** with *Within Estimator*
2. Semiparametric Estimation (*Appendix*)
3. Instrument Variable Regression (*Appendix*)

Panel Formula

$$\mathbf{y}_{ct} = \beta \, \mathbf{D}_t + \sum_{j=1}^{p} \gamma_j y_{ct-j} + \alpha_c + \delta_t + \epsilon_{ct}$$

with $p = \{1, 2, 4, 8\}$

Fixed Effects Model

Table 2: Effect of Democracy on (Log) GDP per Capita

			Dependent variable:	
			Log GDP per Capita	
	(1)	(2)	(3)	(4)
Democracy	0.973^{***}	0.651^{***}	0.787^{***}	0.887^{***}
	(0.240)	(0.229)	(0.228)	(0.239)
lag1	0.973^{***}	1.266^{***}	1.238^{***}	1.233^{***}
	(0.003)	(0.012)	(0.013)	(0.013)
lag2		-0.300^{***}	-0.207^{***}	-0.214^{***}
		(0.012)	(0.020)	(0.021)
lag3			-0.026	-0.021
			(0.019)	(0.021)
lag4			-0.043^{***}	-0.039^{*}
			(0.012)	(0.020)
lag5				-0.019
				(0.020)
Persistence:	0.973	0.967	0.963	0.96
Long run effect:	35.587	19.599	21.24	22.008
Effect after 25 years:	17.791	13.8	16.895	17.715
Observations	6,790	6,642	6,336	5,688

Note: Coefficient on democracy is multiplied by 100
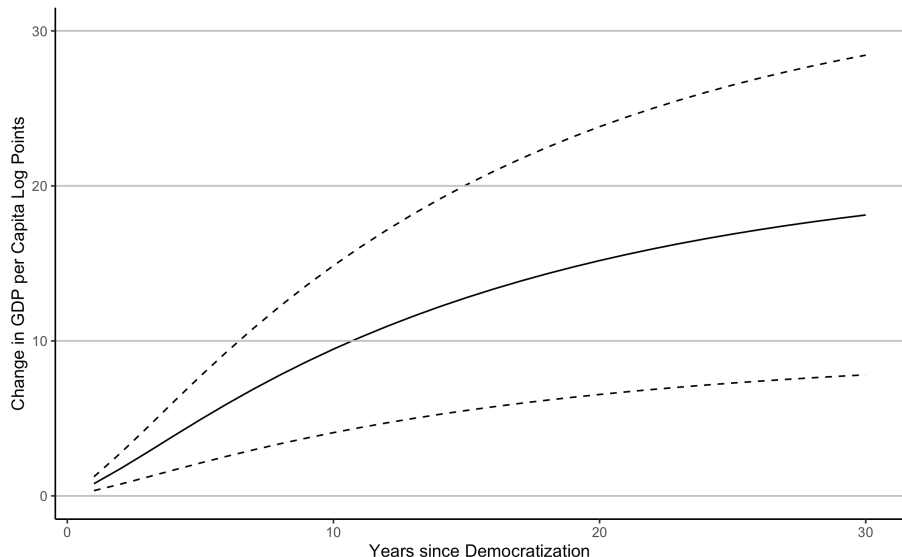
Trend Estimate

Figure 4: Over-Time Estimate of Democratization Effects

Interlude: Replication in R

- Figure Democratizations
- Model Specification
- Results Table
- Figure Trend
- Channels

Channels

Table 3: Effects of Democracy on Potential Mechanisms

					Dependent variable:				
	Log Investment	Log TFP	Index Economic Reforms	Log Trade Share	Log of Gov. Exp.	Log Primary Enrollment	Log Secondary Enrollment	Log Child Mortality	Dummy Unrest
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Democracy	2.391***	-0.205	0.687**	0.689	3.311***	1.042***	1.345***	-0.253***	-7.832***
	(0.928)	(0.255)	(0.282)	(0.503)	(1.078)	(0.230)	(0.393)	(0.051)	(1.764)
Long Run Effect	9.11	-2.88	5.58	5.45	16.06	21.91	18.96	-34.26	-11.94
Persistence	0.74	0.93	0.88	0.87	0.79	0.95	0.93	0.99	0.34
Observations	5,665	3,879	4,692	5,738	4,511	3,714	2,883	6,084	5,646

Democratization $=>$ **state capacity & human capital building**

see online Appendix for Replication

Critique

- Dichotomous Measure of Democracy (Pelke 2023)
- Short Time Frame
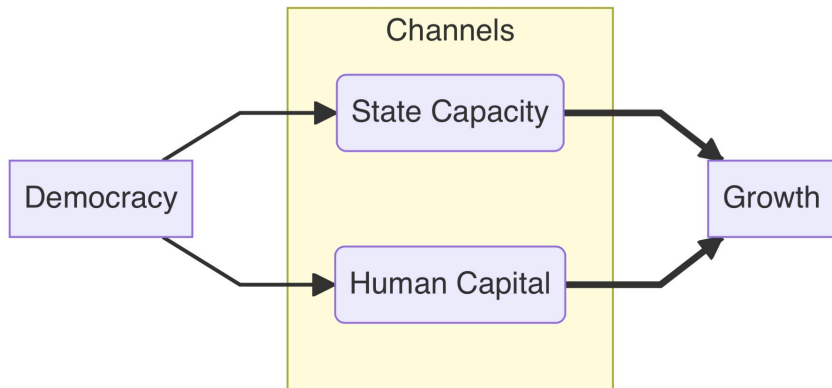- Sensitivity to Sample Selection (Eberhardt 2019)

Summary

Figure 5: Effects of Democracy

Discussion

1. Are there **alternative political frameworks** that could also facilitate these mechanisms (state capacity and education expansion) or is it easier in democracies?
2. What actionable **policy recommendations** can be drawn from the observed link between democracy and economic growth?

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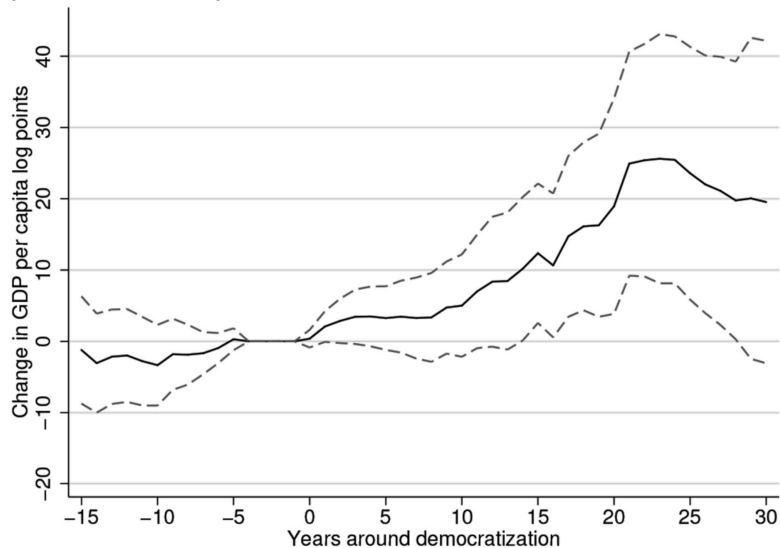
Appendix: Semiparametric

Figure 6: Semiparametric Estimates

Appendix: IV

First Stage:

$$y_{ct} = \beta D_{ct} + \sum_{j=1}^{p} \gamma_j y_{ct-j} + \alpha_c + \delta_t + \epsilon_{ct}$$

Second Stage: with D as IV:

$$D_{ct} = \sum_{j=1}^{p} \pi_j Z_{ct-j} + \sum_{j=1}^{p} \phi y_{ct-j} + \Phi_c + \mu_t + v_{ct}$$

Z = average of democracy in Region $\times$ initial regime cell

Results see Online Appendix