

# DEMOCRACY

What is democracy?

- Voting
- Competing parties, free entry of new parties

Don't confuse issue with

- Anarchy (Somalia, Nigeria)
- <sup>(vs.)</sup> Functioning state (Imperial & modern China, not democratic)

Tricky: democracy with restricted franchise.

Today, income & democracy are correlated:

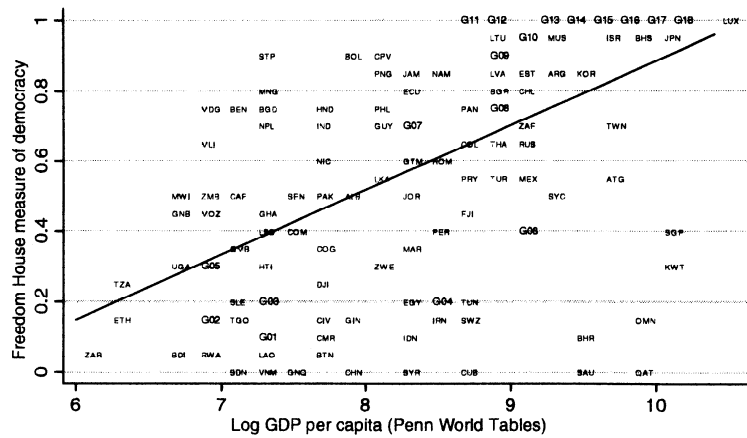


FIGURE 1. DEMOCRACY AND INCOME, 1990s

Notes: See Appendix Table A1 for data definitions and sources. Values are averaged by country from 1990 to 1999. GDP per capita is in PPP terms. The regression represented by the fitted line yields a coefficient of 0.181 (standard error = 0.019),  $N = 147$ , and  $R^2 = 0.35$ . The "G" prefix corresponds to the average for groups of countries. G01 is AGO and MRT; G02 is NGA and TCD; G03 is KEN and KHM; G04 is DZA and LBN; G05 is BFA, NER, and YEM; G06 is GAB and MYS; G07 is DOM and SLV; G08 is BRA and VEN; G09 is BWA, DMA, POL, and VCT; G10 is HUN and URY; G11 is CRI and GRD; G12 is BLZ and LCA; G13 is KNA and TTO; G14 is GRC and MLT; G15 is BRB, CYP, ESP, and PRT; G16 is FIN, GBR, IRL, and NZL; G17 is AUS, AUT, BEL, CAN, DEU, DNK, FRA, ISL, ITA, NLD, NOR, and SWE; and G18 is CHE and USA.

## DEMOCRACY (cont.)

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### Big questions

- Does high income cause democracy?
- Or does democracy promote development?
- Or do third factors cause both?

### Azizoglu, Johnson, Robinson & Yared (AER, 2008)

- 1) High income does not cause democracy, at least in short run (100 yrs)
- 2) Probably, third factors cause both.  
But could also be true that democracy promotes development.

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## ATRY (2008) cont.

### Time-series vs. cross-section

Data are panel.

At pt. in time, income & democracy vary across countries.

For any one country, income & democracy vary over time.

If income  $\rightarrow$  democracy or democracy  $\rightarrow$  income, correlation should be present not only in cross section but also over time for one country.

If both income & democracy caused by 3rd factor, third factor varies across countries but does not vary over time for a given country within sample examined,

then relationship won't hold over time for one country.

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## ATKY (2008)

### Time-series vs. cross-section (cont.)

In fact, relationship does not hold over time for given country within last hundred years.

Show this two ways: "fixed effects"  
instrument for  $\Delta Y$

### Fixed effects

Panel of countries.

put in dummy for a country (constant term shifts across countries).

Coeff on income (LHS is democracy) is zero.

1960-2000 large sample (5-year periods)

1875-2000 small sample (25 countries).

Note: in very long run, say 500 years,

$\Delta Y$  must be + correlated w/ democracy

because 500 yrs ago all countries poor

& none democratic.

DEMOCRACYAJRY (2002)Time-series vs...Instruments for  $\Delta Y$ 

Using 1960-2000 sample.

- 1) Savings rate in previous 5-year period
- 2) Income of other countries, weighted by trade shares.

Basic idea: "transmission of business cycles from one country to another through trade"

Footnote 20, p. 325:

"we also tested the overidentifying restriction that the savings rate instrument is valid conditional on the trade-weighted income instrument being valid, & vice versa."

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AJRY (2008)

Ultimate causes

At 500-year horizon, what caused income & democracy?

Remember AJR's story about extractive vs. property-rights-for-everybody societies, elites, etc.

As an example, let us contrast the development experience of the United States with those of Peru and Bolivia. The United States grew rapidly during the late eighteenth and nineteenth centuries and became gradually more democratic, while these Andean societies stagnated and did not show a tendency to become democratic. Nondemocracy and stagnation in the Andes cannot be separated; the hacienda system, based on labor repression and the control of the indigenous Indian communities, was not conducive to industrialization and rapid growth during the nineteenth century. This system and its continuation, even after the abolition of formal systems of Indian tribute and forced labor, were not consistent with democratic institutions and a relatively equal distribution of political power within the society. This contrasts with the small-holder society in the United States, which resulted from the process of European colonization based on settlements in relatively empty and healthy lands. This social structure dominated by small-holders was much more consistent with democratic representation,<sup>26</sup> which in turn was conducive to an environment where new industries and new entrepreneurs could flourish with relatively little resistance from established interests.<sup>27</sup> This description suggests that beyond the impact of income on democracy or the impact of democracy on income, we may want to think of political and economic development taking place jointly.<sup>28</sup>

So next:

Find variables arguably correlated with "historical determinants of divergent development paths," see if they can make correlation between democracy & income in cross-section disappear.

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## AJRY (2008) cont.

TABLE 8A—DEMOCRACY IN THE VERY LONG RUN

	Base sample, 1500–2000			
	OLS (1)	OLS (2)	OLS (3)	OLS (4)
Dependent variable is change in democracy over sample period				
Change in log GDP per capita over sample period	0.134 (0.021)	0.061 (0.023)	0.088 (0.020)	0.047 (0.023)
Constraint on the executive at independence		0.260 (0.120)		0.164 (0.064)
Independence year/100		-0.206 (0.063)		-0.133 (0.036)
Fraction Muslim			-0.299 (0.097)	-0.233 (0.083)
Fraction Protestant			0.191 (0.112)	0.180 (0.091)
Fraction Catholic			0.155 (0.073)	0.117 (0.069)
Historical factors <i>F</i> -test		[0.02]	[0.00]	[0.01]
Observations	135	135	131	131
<i>R</i> -squared	0.20	0.34	0.40	0.45

	Former colonies sample, 1500–2000						
	OLS (1)	OLS (2)	OLS (3)	OLS (4)	OLS (5)	OLS (6)	OLS (7)
Dependent variable is change in democracy over sample period							
Change in log GDP per capita over sample period	0.136 (0.019)	0.067 (0.012)	0.099 (0.012)	0.057 (0.013)	0.081 (0.027)	0.025 (0.024)	0.029 (0.026)
Constraint on the executive at independence		0.189 (0.072)		0.189 (0.075)		0.166 (0.089)	0.167 (0.087)
Independence year/100		-0.190 (0.032)		-0.105 (0.075)		-0.179 (0.023)	-0.128 (0.074)
Fraction Muslim			0.023 (0.101)	0.059 (0.105)			0.038 (0.088)
Fraction Protestant			0.508 (0.258)	0.491 (0.154)			0.411 (0.196)
Fraction Catholic			0.306 (0.130)	0.277 (0.229)			0.200 (0.221)
Log population density, 1500					-0.059 (0.021)	-0.049 (0.022)	-0.031 (0.027)
Historical factors <i>F</i> -test		[0.05]	[0.00]	[0.00]	[0.02]	[0.00]	[0.00]
Observations	87	87	87	87	83	83	83
<i>R</i> -squared	0.20	0.30	0.33	0.37	0.25	0.34	0.38