Does corruption undermine support for democracy?

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The value of democracy

— Democracy has instrumental value: higher growth, less violence, more accountability of government (Acemoglu et al 2019, and many others– Besley / Miguel / etc).

— Democracy in itself has desirable normative properties: equal treatment of citizens, freedom to elect representatives, etc.

— We will not define democracy ourselves in the paper but work with peoples's own definition as declared in surveys (e.g. "are you satisfied with your country's democracy").

Preference for democracy

Since the year 1995 Latinobarometro survey has been measuring preference for democracy in Latin America (LA). We will use data from 2008-2018 (as we merge with Twitter).

3 questions about democracy:

— **Satisfied with democracy:** (Intensive) *"En general, ¿diría Ud. que está muy satisfecho, más bien satisfecho, no muy satisfecho o nada satisfecho con el funcionamiento de la democracia en el país?"*

— **Support for democracy:** (Extensive) *"¿Con cuál de las siguientes frases está Ud. más de acuerdo? La democracia es preferible a cualquier otra forma de gobierno, o En algunas circunstancias un gobierno autoritario puede ser preferible a uno democrático, o ninguna de las dos.*

— **Democratic Scale:** (Factual) *"Con una escala de 1 a 10, le pedimos evaluar cuán democrático es su país. ¿Dónde pondría Ud. a su país?"*

For all these questions preference for democracy has steadily decreased: by **21, 5, and 10 percentage points** in Latin America (13, 4 and 12 pp in Mexico).

Diminished preference for democracy
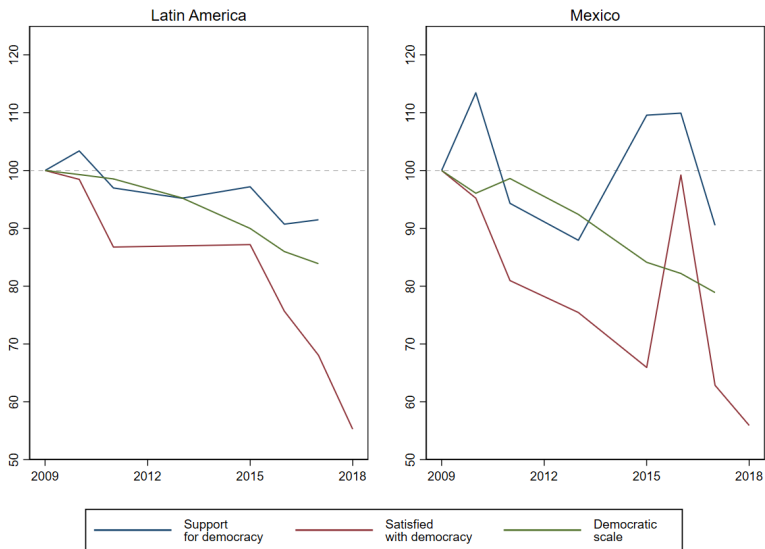
Increased perception of corruption

Corruption —measured using the questions– below has increased.

— **No progress fighting corruption:** *"¿Cuánto cree Ud. que se ha progresado en reducir la corrupción en las instituciones del Estado en estos últimos 2 años? (Mucho, Algo, Poco o Nada)"*

— **Witnessed corruption:** *"¿Ha sabido Ud., o algún pariente de algún acto de corrupción en los últimos doce meses?" (SI/NO)*

— **Corruption main problem:** *"En su opinión, ¿Cuál considera Ud. que es el problema más importante en el país?"* (dummy=1 if they list Corruption)

These three have increased by **5, 6 and 6 percentage points** in Latin America (6, 8 and 9 pp in Mexico).

Increased perception of corruption
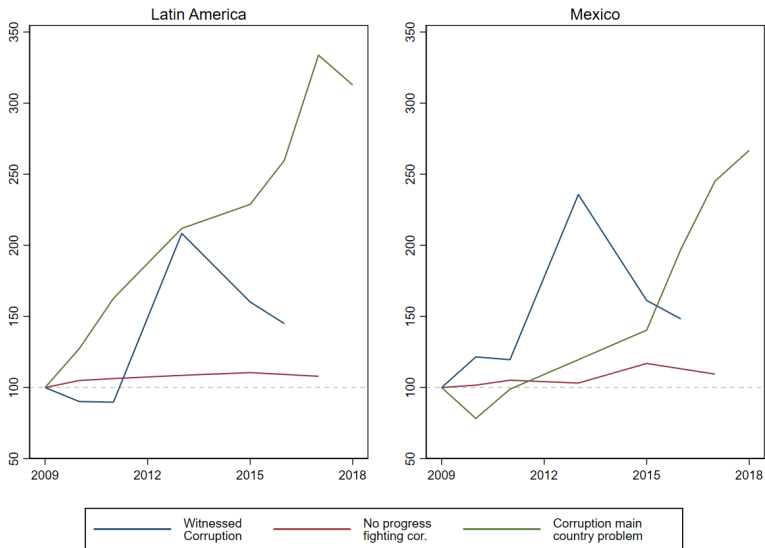
Can these two trends be causally linked?

— We conjecture that corruption does undermine democracy.
  ○ Note: it may undermine other governing systems as well. We are not studying this... yet.

— To test for causality we propose to use two methods:
  ○ Use corruption scandals as shocks.
  ○ Use a survey experiment.

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Negative correlation between Corruption and Democracy

— There is a robust negative correlation <u>at the person level</u> between preference for democracy and the perception of corruption.

— We estimate the following regression:

$$Dem_{ict} = \alpha + \beta Corrupt_{ict} + \gamma' X_{ict} + \epsilon_{ict}$$

— **Basic Controls:** gender, age, religion, personal and parents' schooling, employment, asset dummies (cell phone, house, car, washing machine and computer), socioeconomic level, city size, family income covers needs dummies, past, actual and expected future personal economic situation, and year and country FE.

— **Extensive controls:** life satisfaction, satisfaction with the economy, trust in the government, trust in the president and presidential approval dummies.
  ○ The idea is to control for other attitudes (personal and political), as well as how well you are doing.

Negative correlation between Corruption and Democracy

Table 1: Sociodemographic controls

	I(Satisfied with democracy)			Democratic scale			I(Supports democracy)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Witnessed cor.	-0.04***			-0.29***			-0.01		
	(0.01)			(0.06)			(0.01)		
No progress fighting cor.		-0.15***			-0.59***			-0.02*	
		(0.01)			(0.08)			(0.01)	
Corruption main country problem			-0.05***			-0.28***			0.03**
			(0.01)			(0.05)			(0.01)
Observations	58,831	58,820	59,045	58,463	58,544	58,724	57,110	57,118	57,403
R-squared	0.16	0.18	0.16	0.13	0.14	0.13	0.08	0.08	0.08
Country#Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sociodemographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Extensive Controls	No	No	No	No	No	No	No	No	No
Mean dep. var.	0.428	0.552	0.387	6.254	6.718	6.103	0.627	0.652	0.621
SD dep. var.	0.486	0.486	0.486	2.509	2.509	2.509	0.486	0.486	0.486
SD indep. var.	0.380	0.483	0.247	0.380	0.483	0.247	0.380	0.483	0.247

— The correlations survive including extensive controls.

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Sources of Data

Surveys:

— Latinobarometro survey: 18 countries, for the years 2008-2018

Twitter:

— We scrapped the twitter account for the 4 main news channels or newspapers in each country for the period 2008-2019.

— We looked for the words: *Corrupt, Corruption, Bribery, Influence peddling, Money laundering, Arrest warrant, Diversion of resources, Diversion of funds, Illicit enrichment, Impunity, Corruption scandal, Prison ex-president, Ex-president investigated, Corrupt politician, Prison president, President investigated, President corrupt.*

— We got 134,000+ Tweets/News related to corruption.

— We merge those news with our Latinobarometro database, to check which news were reported during the survey, we end up with 9,500.

Corruption scandals

We defined a Twitter news event as "**corruption scandal**" if:

— It was covered by at least two different news agencies.

— Those involved were: Presidents, former presidents, Ministers, former Ministers, Opposition leaders, Governors or Federal Congressmen.
  ○ Hand coded finding out who was named, and searching for him/her in the internet.

— It was a scoop (not a verdict or a follow up).
  ○ Again, hand coding if this is a new even and not mentioned before.

— Re-check: we checked if that news date coincided with spikes in google trends for that country using the word "corruption".
  ○ ...We still need to go back to this to put an objective threshold.

— Only two country-years have more than one scandal in the year that intersects with the survey. We are ignoring the second one for now...

Scandals: examples

— We ended up with 51 corruption scandals that intersect with the survey field work of Latinobarometro.

— Examples of scandals include:

- Former president of Brazil Lula Da Silva was declared guilty for corruption.

- Order the capture of former president Mauricio Funes for money laundering.

- Keiko Fujimori was declared under investigation by the DEA for money laundering. (Peru)

- Jose Lopéz (person close to the Krishner couple) was recorded hiding millions of dollars in a convent. (Argentina)

- Caso SQM (Chile)

- Pegassus (Mexico)

Scandals: Waves and Countries

Country/Wave	2008	2009	2010	2011	2013	2015	2016	2017	2018
ARG						✔	✔	✔	
BOL	✔				✔		✔	✔	
BRA					✔		✔	✔	
CHI					✔	✔			
COL		✔		✔		✔		✔	
COS						✔		✔	✔
ECU							✔	✔	
GUA							✔	✔	
MEX								✔	
NIC									✔
PAN						✔			
PAR		✔		✔	✔		✔		✔
PER							✔		✔
REP								✔	
SAL									✔
VEN					✔	✔	✔	✔	✔
URU									

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Identification

- We rely on a discontinuity comparing opinions about democracy and about corruption **within country and within survey round**, using which day d exactly the corruption scandal happened.

- The identification assumption is that within a window of the event (15 days plus/minus), interviewed people have the same potential preference for democracy (conditional on observables).

  ○ Logistics involved in the implementation of the Latinobarometer survey requires many months of preparation, and hardly change with the occurrence of corruption scandals.

Reduced form: $Dem_{icd} = \alpha + \beta_1 I(AfterScandal)_{icd} + \delta d + \gamma' X_{icd} + \epsilon_{icd}$

IV:

- 2SLS: $Dem_{icd} = \alpha + \beta_2 I(Corruption\ Main\ Prob)_{icd} + \delta d + \gamma' X_{icd} + \epsilon_{icd}$
- Instrument: $I(Corruption\ Main\ Prob)_{icd}$ with $I(AfterScandal)_{icd}$

Balance

– We use the reduced from specification to asses balance, where the dependent variable Y_{ict}
 is a set of predetermined variables: age, gender, has university degree, etc. We control for
 country x year FE, day trend and clustered by day relative to the event.

– Treatment = 1 to 15 days after; control= 1 to 15 days before.

Covariate	N	Estimate	Std. Errors
Male	37,334	0.0015	0.0087
Age	37,334	-0.0870	0.2802
Married	37,237	-0.0158	0.0103
High education or more	37,334	0.0126	0.0139
I(Population>100,000)	37,334	0.0163	0.021
Unemployed	37,334	-0.0054	0.0045
Catholic	37,077	-0.0025	0.0096
Good socioeconomics status	37,334	-0.0170	0.0113
National Economy Satisfaction (1-4)	37,112	-0.0054	0.0201
Personal Economy Satisfaction (1-4)	13,418	0.0347	0.0273

Robust standard errors in parentheses clustered at day relative to the scandal

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Results: Reduced Form

— I(Satisfied with democracy)=1 if "Muy Satisfecho" or "Satisfecho"

— After scandal **Satisfaction with democracy drops 2pp (or 6.6% of mean).**

| | I(Satisfied with democracy) | | | |
	(1)	(2)	(3)	(4)
Treatment	-0.0225***	-0.0227***	-0.0173**	-0.0620***
	(0.0076)	(0.0078)	(0.0064)	(0.0150)
Observations	36,015	35,678	34,244	8,942
R-squared	0.0726	0.0796	0.1541	0.1644
Country x Year FE	Yes	Yes	Yes	Yes
Sociodemographic Controls	No	Yes	Yes	Yes
Extensive Controls	No	No	Yes	Yes
Gov. Efficiency Controls	No	No	No	Yes
Mean dep. var	0.334	0.334	0.334	0.334

Errors clustered by the relative day to the scandal
Sociodemographic Controls: Age, Gender, Schooling, Employment, Religion, Civil Status, Size of town, "Income"
Extensive Controls: Trust in Congress and Political Parties, I(Suffered a crime)
Gov. Efficiency Controls: Satisfied with public services (Roads, Public Health and Schooling)

Event study
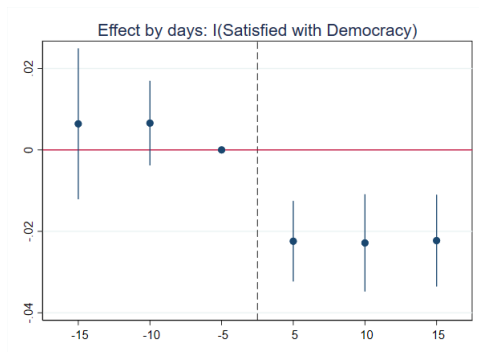
The figure plots the coefficients and the 95% confidence intervals for five dummies indicating 5-day blocks from 15 days before to 15 days after the corruption scandals. The coefficient for the period between 5 to 1 days before the scandals is normalized to zero. Confidence intervals are based on heteroskedasticity-robust standard errors clustered by day relative to the event

— Before the corruption scandal there are no changes. The decrease on satisfaction occurs exactly after the event.
  ◦ 43 scandals have at least plus/minus 10 intersection days with the survey dates. While 22 scandals have at least 15.

Is this large?

— 2pp is equivalent to 9.3 million adults in Latin America getting dissatisfied per scandal.

— This is the effect of one scandal. If the effect were linear: 10.5 scandals would be enough to explain the 21pp decrease in satisfaction with democracy.

— Correlationally, the effect is equivalent to:
  ○ Being 20 years younger
  ○ Having university education
  ○ Owning a car o a computer
  ○ Being in high socioeconomic level (self reported top 1/4)

Placebos

— The effect we find is concentrated on preference for democracy, not on government effectiveness or satisfaction with economy, or trust in church, etc.

	Current National Econ. Situation[1] (1)	Current Personal Econ. Situation[2] (2)	Satisfied with Roads[3] (3)	Trust in Crurch[4] (4)	Victim of a crime[5] (5)
Treatment	-0.0058 (0.0212)	0.0369 (0.0254)	0.0801 (0.0831)	0.0088 (0.0194)	0.0040 (0.0061)
Observations	36,766	13,289	9,766	36,524	36,577
R-squared	0.1829	0.0976	0.0413	0.1121	0.1832
Country x Year FE	Yes	Yes	Yes	Yes	Yes
Sociodem. Controls	Yes	Yes	Yes	Yes	Yes
Extensive Controls	No	No	No	No	No
Gov. Efficiency Controls	No	No	No	No	No
Mean dep. var	3.378	2.746	2.725	1.992	0.205

Errors clustered by the relative day to the scandal
1: In general, how would you describe the country's present economic situation?
2: In general, how would you describe your present economic situation and that of your family?
3: Would you say you are very satisfied, fairly satisfied, not very satisfied or not satisfied at all with? Roads and paving
 or don't you have these services where you live?
4: How much trust you have in each of the following groups/institutions, Church?
5: Have you or a relative been assaulted, attacked, or the victim of a crime in the last 12 months?

Results: The effect "thruogh" corruption is large

— Using Regress Satisfaction with Democracy against "'Corruption main problem", and instrument corruption with scandal shocks."

— Under the typical exclusion restriction (that the corruption scandal affects democracy only through corruption perceptions, we get the following result:

— **Result:** Using logit and a control function approach to deal with endogeneity, we get that **satisfaction with democracy decreases 36% with one scandal!**

  ○ Scandal may affect democracy through channels other than corruption however... we would like to control for more measures of government effectiveness.

Effects on "social capital"

- People say they are 4.3 percentage points less likely to vote in next election.
- 3.1 pp less likely to identify with a political party. The president also blamed.
- However the concept of democracy has "some protective coating": people are 9pp less likely to think that their country is democratic. The thinking could be "if it is corrupt the system must not be a democracy".
- They still believe however that democracy is the best system, and that the market economy too... but start thinking more that corruption is acceptable!

	Go to vote[1]	Identify with a pol. party[2]	Dem. scale[3]	Trust in president[4]	Trust in gov.[5]	Dem. best system[6]	Mkt. Econ. best syst.[7]	Some cor. is admisible[8]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment	-0.0434***	-0.0317**	-0.0935	-0.0435*	-0.0119	0.0102	-0.0038	0.0178
	(0.0119)	(0.0117)	(0.0682)	(0.0241)	(0.0079)	(0.0070)	(0.0087)	(0.0153)
Observations	28,480	10,869	28,309	3,336	36,215	35,017	27,963	22,385
R-squared	0.1272	0.1094	0.0768	0.0374	0.0762	0.0604	0.0290	0.0535
Country x Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sociodem. Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var	0.660	0.432	5.729	0.539	0.306	0.758	0.737	0.476

1: If elections were held this Sunday, which party would you vote for?
2: Is there any political party you feel closer to tan others?
3: Here is a scale: 1 means completely undemocratic and 10 means completely democratic. Where would you place (country)?
4: How much trust you have in each of the following groups/institutions, the president?
5: How much trust you have in each of the following groups/institutions, the national government?
6: Democracy may have problems but it is the best system of government
7: Market economy is the only system with which the country can become a developed country
8: One can allow some corruption if that is the price to pay to solve problems

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Get more and better outcomes

— We would like to get measures of actual rather than declared behavior.
  - Actual turnout to vote
  - Contribution to taxes
  - Donations to the red cross or other organizations

— We would like to distinguish if the effect is larger when the scandal is about the current government.

— Is there international spillovers? That is: does a Scandal in Brazil impact perceptions about democracy in Mexico?

— Are the effect larger in countries where corruption is less tolerated? Or outside Latin America?

— Do the effects of scandals accumulate?

Survey experiment

— Rely on RCT variation of videos.

— But videos have to be powerful and mostly unseen. We will ask if they believe the videos and if they have seen them.

  o We are creating one video relying on INEGI information, not widely known.

— We will run a pilot before going to the field. Here are some drat videos

  o Video 1: Current Government Scandals
  o Video 2: Opposition Scandals.
  o Video 3: INEGI data video (in progress).

— Most importantly: explore **longer run effects** in comparing baseline vs follow up survey 6 months later for the same people.

— Include more questions about effectiveness of government as controls, and questions to understand what they have in mind when they say democracy (elections? Freedom of press?, etc).

— **Motivated reasoning:** We will ask what video they will like to see to test if they avoid info that goes against their priors (even if we randomize most videos later)

— **Revealed preference:** we will give them money, and ask to donate part: they can donate to a pro-democracy v pro-army NGO (Which?).

Financing for next steps

— We need to hire at least 1 research analyst to work on scrapping more data, and searching for **data on: voting, donations, tax payments, conflict...**

— Doing baseline and follow up survey to 2,500 people.

— Pay for the $100 peso incentive for donations for the 2,500 surveyed.