

ORIGINAL ARTICLE

Perceptions, Contagion, and Civil Unrest

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When Perceptions and Contagion Matter

- Objective indicators might be poor predictors of socio-economic outcomes
- Multiple equilibria are plausible for a given set of objective indicators... expect heterogeneity
- In various settings and markets: peaceful protests in this case ... two other examples

Perceptions of Public Debt and Policy Expectations

Evidence from Cross Country Surveys

Francesco Bianchi, Era Dabla-Norris, Salma Khalid

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Misperceived Social Norms: Women Working Outside the Home in Saudi Arabia

Leonardo Bursztyn

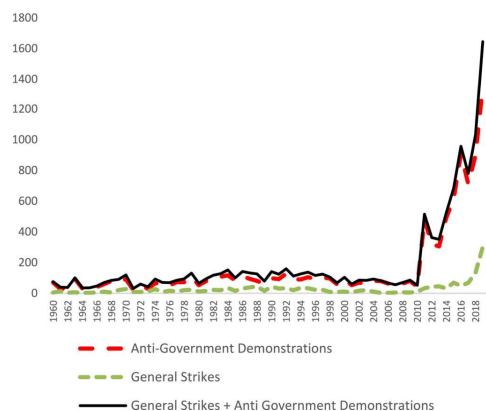
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David Yanagizawa-Drott

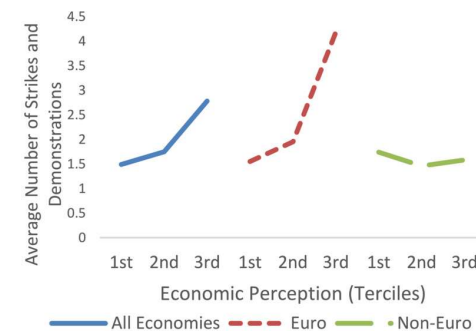
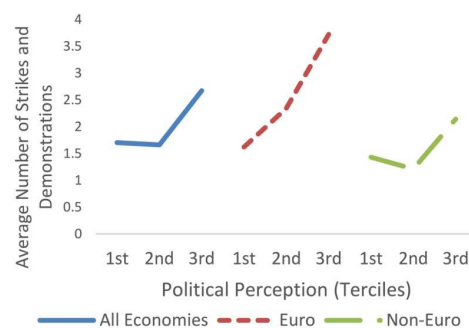
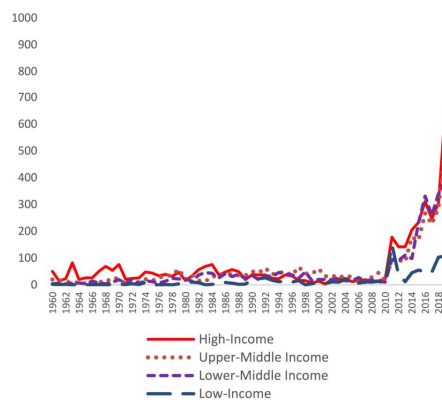
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Regarding Peaceful Protests – A Couple of Pictures

General Strikes and Anti-Government Demonstrations



By Income Group



Note: Perception data is obtained from the barometer surveys. Protest data is obtained from the National Domestic Conflict Database. The x-axis presents terciles of perceptions. The data covers 742 country-year observations. Appendix 2C provides details on the sample.

Roadmap

- Theories of Unrest in the Social Sciences
- Variables and Data Sources
- Estimation Models
- Robustness
- Summary of Findings
- Speculative Implications by an Amateur

Theories of Nonviolent Unrest



Grievance-Based Approaches

Nonviolent uprisings often stem from **perceived** injustices in political or economic conditions causing public grievances.

Resource Mobilization Theory

Access to human and physical resources facilitates mobilization of populations for nonviolent uprisings [but, in digital age, collective action requires fewer resources].

Political Opportunity Theory

Vulnerabilities in regimes, such as transitions or reduced state capacity, lower mobilization costs and enable protests.

Newer: Protest Contagion Effect

Uprisings in one region can inspire protests in neighboring regions through information flow [thus reducing collective action costs and thus resource mobilization needs] and shared grievances.

Dependent Variables



Non-violent Unrest

Available from the National Domestic Conflict Database through the **Cross-National Time-Series (CNTS) Data Archive**.

Used in **literature** because of coverage of countries and time (Braha 2024; Witte, Burger, and Ianchovichina 2020; Chenoweth and Ulfelder 2017; Braha 2012; Davenport 1995).

Nonviolent uprisings (aka, civil resistance or civil unrest):
General strikes + anti-government demonstrations.

Anti-government **demonstrations**: any peaceful public gathering of at least 100 people for the purpose of displaying or voicing opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature.

The CNTS data: **only general strikes** defined as any strike with 1000 or more industrial or service workers that involves more than one employer and is aimed at national government policies or authority.

For **robustness**: estimations separating general strikes from demonstrations.

Explanatory Variables



Perceptions

Six regional barometer surveys (Europe, SAR, EAP, SSA, MENA, LAC): Arab Barometer, Afrobarometer, Latinobarómetro, Eurobarometer, the Asian Barometer, South Asian Barometer.

“How would you describe (evaluate) the present economic conditions (situation) of your country?” → % “Bad” or “Very Bad”

“How satisfied are you with the way democracy works in your country?” → % “Quite dissatisfied or totally dissatisfied”

Objective Indicators (i.e., not from Barometer respondents)

Economy: $\ln(\text{GDPpc})$, growth, inflation, unemployment, oil rents (% of GDP) ... plus infant mortality

Governance: Polity5, Political Terror Scale, and Worldwide Governance Indicators .

Estimation Sample

Unbalanced panel of 742 country-year observations, 88 countries, 1996-2017

Estimation Models

$$\text{Nonviolent Uprisings}_{it} = \beta_0 + \beta_1 \text{PEC}_{it} + \beta_2 \text{PPC}_{it} + \beta_x X_{it} + FE_i + FE_t + \mu_{it}$$

- Main OLS model, using ln of transformed (hyperbolic inverse sine) number of “uprisings”
- Robustness
 - International contagion: Control for distance-weighted uprisings of other countries
 - Count-data estimators: Conditional mean Poisson & Negative Binomial with FEs. OLS biased due to transformation and ln. Correlation between error term and the number of incidents.
 - Reverse causality. TSLS. Instrumental Variables:
 - Lagged economic growth, economic perceptions, and political perceptions
 - Economic and political perception contagion from neighbors that may influence perceptions at home.
 - Instruments supported by “criticality theory” [Braha (2012)]: Society tends to move between phases of low and high civil unrest. Societies may build stress over time beyond a threshold that leads to eruption of unrest.
 - Specification tests: Instruments appear both “relevant” and “valid”; TSLS > OLS
 - Omitted variables bias: Oster tests
 - Interactions between political and economic perceptions

A Taster of Regression Results: Interactions & Contagion across Estimators

TABLE 6 | Interaction between economic perceptions and political condition perceptions.

Outcome variable	Civil resistance (count) Consists of the number of general strikes and anti-government demonstrations						
	OLS with country and year fixed effects			Conditional-mean Poisson		Negative Binomial with country dummies	
	(1)	(2)	(3)	(6)	(7)	(4)	(5)
Economic perceptions × political condition perceptions		2.425** (1.051)	1.139 (0.816)	4.642*** (1.457)	1.557 (1.281)	4.704*** (1.703)	1.799 (1.497)
Distance-weighted protest contagion			0.943*** (0.117)		0.763*** (0.106)		0.914*** (0.085)
% of citizens thinking current economic conditions are bad or very bad	-0.142 (0.467)	-1.069* (0.649)	-0.202 (0.502)	-2.236*** (0.755)	0.409 (0.899)	-1.514* (0.901)	0.578 (0.822)
% of citizens generally not satisfied with how democracy works in their country	1.923*** (0.572)	0.385 (0.757)	0.166 (0.522)	1.084 (1.117)	0.346 (0.863)	0.366 (1.326)	0.211 (1.168)
Overdispersion						-1.039*** (0.176)	-1.870*** (0.264)
Constant	14.759 (22.489)	11.530 (22.366)	-11.028 (13.307)			-3.445 (27.654)	-23.868 (24.541)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	742	742	742	675	675	742	742

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Table 6 provides the estimates of the interaction between economic and political condition perceptions over an array of empirical models. Control variables include log of GDP per capita (constant 2010 US\$), GDP per capita growth (annual %), log of total population, inflation (CPI) (annual %), unemployment, total (% of total labor force), oil rents (% of GDP), infant mortality rate (per 1000 live births), Polity5—institutionalized autocracy score, political terror scale (average), mobile cellular subscriptions (per 100 people), urban population (% of total population), World Governance Indicators (average of sub-indices).

A Taster of Regression Results: OVB Oster Tests

TABLE 7 | Oster tests.

		β	δ	Observations (N)
	Base estimations	(Selection on observables equal to selection on unobservables)		
Main specification				
% of citizens generally not satisfied with democracy in their country	1.923*** (0.572)	1.623** (0.701)	2.04	742

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Bootstrap standard errors in square brackets based on 1000 repetitions. The max R^2 value is set at 0.52676.

General Summary of Findings

- For a global sample of high-income (Europe) and developing economies (Sub-Saharan Africa, South Asia, East Asia and the Pacific, Latin America, and Middle East and North Africa), after accounting for a host of factors, on average, negative perceptions of **political** conditions have a significant positive effect on the number of anti-government protests and general strikes while negative perceptions of **economic** conditions do not.
 - **Most conservative estimates:** a one-percentage-point increase in the percentage of people who are either quite dissatisfied or very **dissatisfied with how democracy** works leads to a 1.9% increase in the number of nonviolent civil resistance events. [1.6% under OVB assumption – Oster Test]
 - **Heterogeneity** by income and region: Negative **perceptions of economic conditions seemed to matter for developing economies and non-European economies (in OLS, excluding contagion)**, but not for European economies or high-income economies. However, negative perceptions of political conditions are associated with nonviolent protests for both developing and high-income economies
 - **Protest contagion attenuates heterogeneity** between political perceptions and protest. This may suggest that in Europe, the incidence of uprisings in nearby countries tend to generate protests at home through its effect on political perceptions.

(Speculative) Implications from an Amateur

- Perceptions matter as (conditional) predictor of social unrest, especially political dissatisfaction after controlling for objective socio-economic and political indicators
- Existing evidence related to other socio-economic phenomena (FLFP in Saudi; debt sustainability expectations)
- Multiple equilibria are possible
- Key implications: importance of managing perceptions
 - Transparency. Evidence that lack of data transparency produces large forecast errors (Gatti et al. 2024, JIMF)
 - Strategic communications
 - Systematic dialogue with civil society...