Trust, Institutions and Economic Outcomes

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*"Virtually every commercial transaction has within itself an element of **trust** ...much of the economic backwardness in the world can be explained by the lack of mutual confidence."*

Kenneth Arrow (1972)
Nobel Laureate in Economics

Roadmap

1. What we mean by **trust** and why it matters
2. A **micro approach** of studying trust
3. *Trust Dynamics in Electoral Competition*, with Georgios Manalis (AUEB) and Dimitrios Xefteris (UCY), *European Economic Review* (2025)

What is trust?

Trust is the belief that an institution will **behave predictably** and in a way that **meets citizens' expectations**. Rules are applied predictably and fairly.

Two pillars of trust:

1. **Competence** ("Can do"): capacity to deliver and enforce effectively.
   - *Examples:* Can the Central Bank stabilize inflation? Do the police solve crimes? Can the tax authority collect taxes?

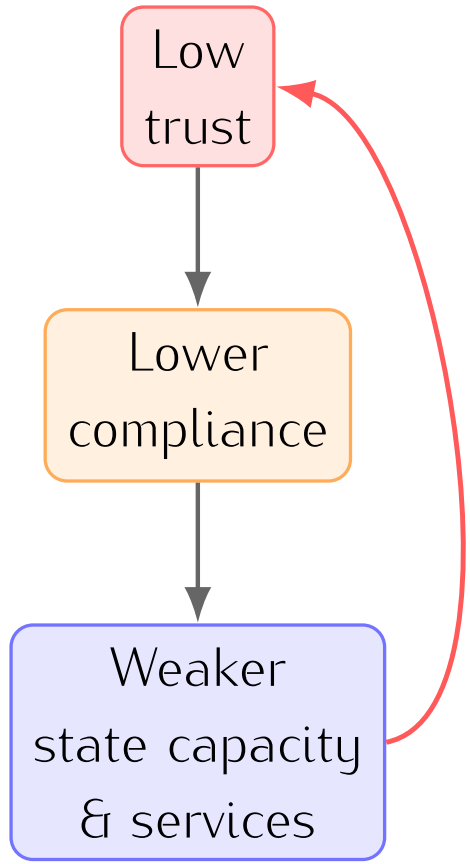
2. **Integrity/values** ("Will do"): willingness to act fairly, impartially, and in the public interest.
   - *Examples:* Are courts impartial? Are public decisions transparent? Is enforcement selective or equal?

Why does trust matter?

It shapes **compliance**, **investment**, and **political incentives**.

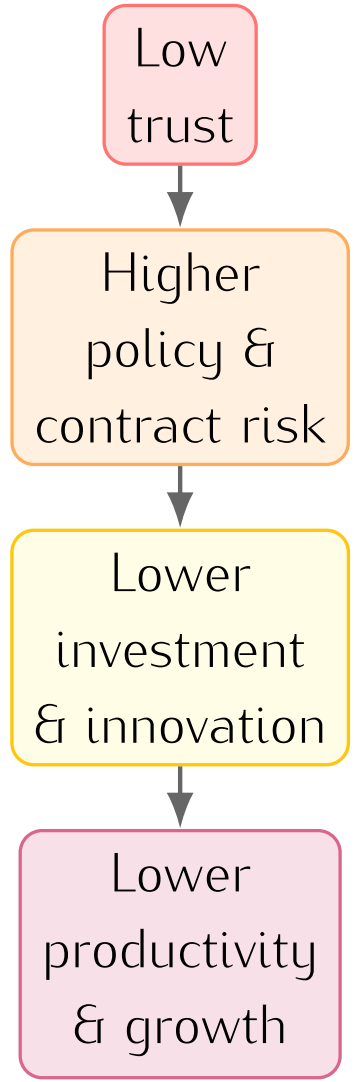
Compliance & enforcement

- Low trust ⇒ lower voluntary compliance (taxes, regulation)
- Lower compliance ⇒ weaker state capacity & worse services
- Worse services ⇒ even lower trust



Investment & growth

- Trust affects **credibility** of policy and **enforcement** of contracts/property rights
- Low trust ⇒ higher perceived risk ⇒ shorter horizons and lower investment
- Long-run outcomes: productivity, growth, and (often) inequality
- *Often,* prolonged low growth can also erode trust (via unemployment, austerity, and dissatisfaction), creating a feedback loop.



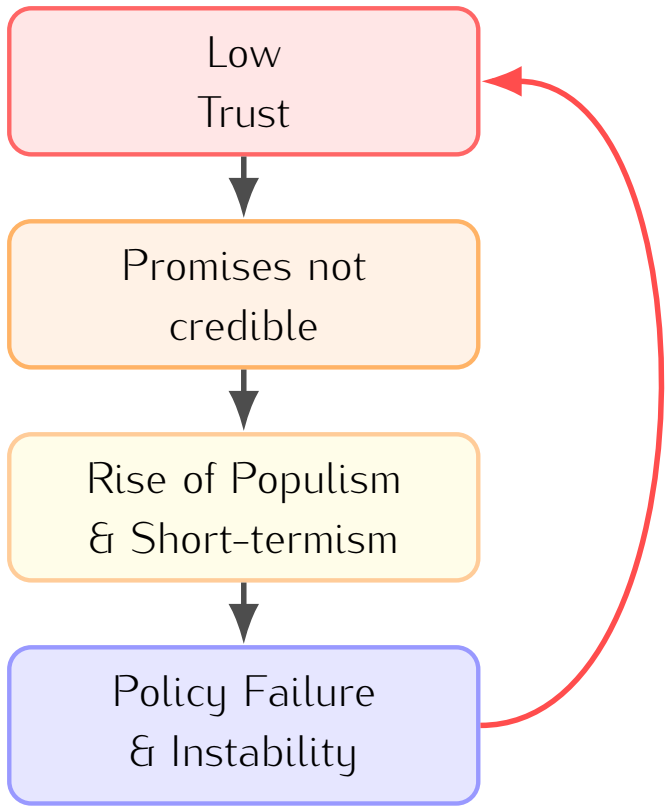
Mechanism: lower credibility ⇒ worse incentives to invest.

Political trust → political outcomes

- **Trust = credibility.**

  When trust is low, promises of future benefits are heavily discounted.

- **Incentives shift:**
  - **Voters:** Move from "policy voting" to "identity voting" or support anti-establishment outsiders.
  - **Politicians:** Substitute complex reforms with symbolic rhetoric and short-term handouts, polarisation.
  - **Result:** Weaker state capacity, policy volatility, and the "vicious cycle" of unmet expectations.



Feedback: Failure confirms cynicism.

Studying trust: The game theoretic approach

1. Specify **players**, **information**, **actions**, and **payoffs**
2. Solve for (Nash) **equilibrium** :
   - actions are optimal given beliefs
   - beliefs are consistent with what happens in equilibrium

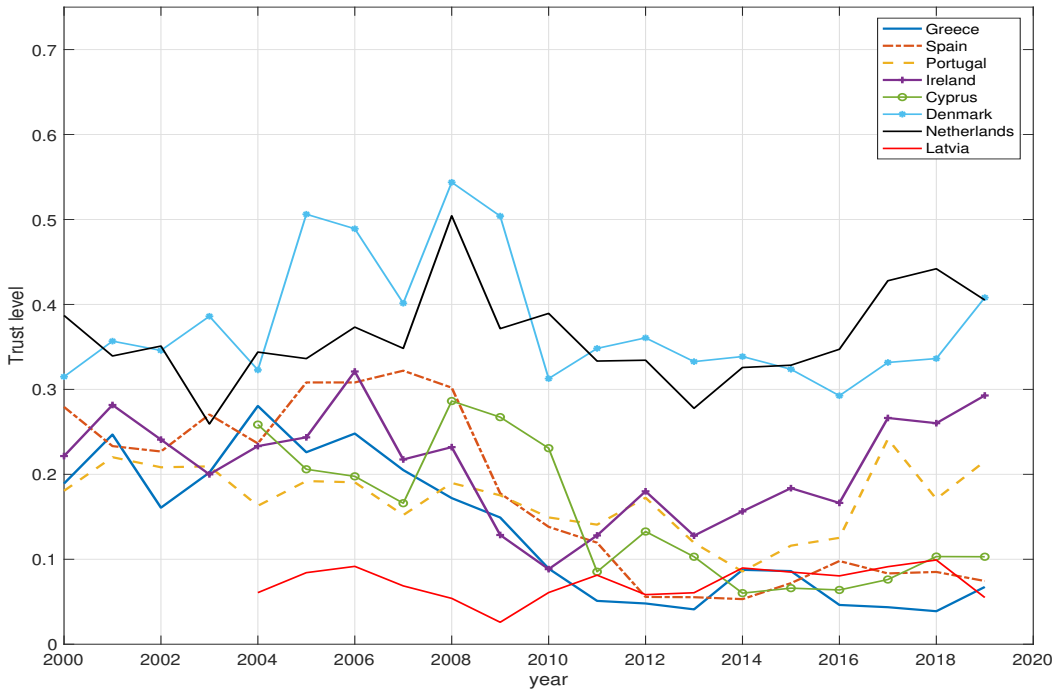
- Think: "who knows what, who chooses what, and what do they want?"
- Then: "what is credible, and what is not?"

In the next slides: we model trust considering a electoral competition model.

Trust Dynamics in Electoral Competition

with G. Manalis (AUEB) and D. Xefteris (UCY), *published in EER (2025)*.

Trust level in EU (2000-2020)

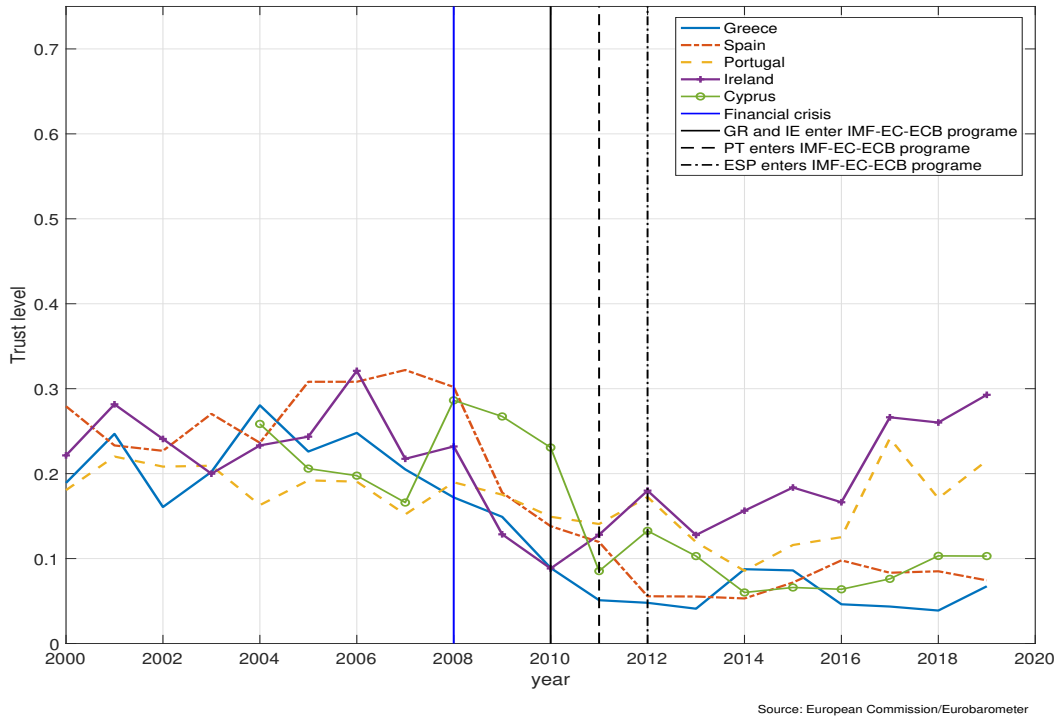


Source: European Commission/Eurobarometer

Notice:

- Existence of low, medium, high trust groups. Trust in EU
- They seem to belong always to same group: Steady-state trust levels

Trust Breaks in EU



- Countries reaching long-standing low equilibrium (Cyprus, Greece, Spain)
- Countries recovering trust (Ireland, Portugal)

This paper

- We study how **political trust** evolves over time, considering an election competition model.
- Key idea: voters **discount** what politicians say.
- Politicians anticipate this and choose how much to **stretch the truth** (lying is costly).
- **Main results:** There are two self-consistent "worlds"
  - **High-trust world:** voters believe promises more ⇒ politicians lie less.
  - **Low-trust world:** voters are more skeptical ⇒ politicians try to exaggerate more.

This paper

- Only the **high-trust world is stable**: small shocks tend to fade out.
- Low trust unstable. There is a **critical trust level**:
  - Above it: trust converges to a steady level with **moderate** lying and realistic expectations.
  - Below it: trust falls into a **crisis region** where politicians want to lie *more than voters expect*.
- A positive feature: **complete distrust is not an equilibrium** in the model.

Model: the basic setup

- One candidate runs for office.
- The candidate has a true policy position (her "type") $x \in [-K, K]$.
- If elected, she implements **exactly** x.
- There are many voters (n is odd).
- Voter i has an ideal policy $d_i \in [-K, K]$.
- Voters prefer policies closer to their ideal point:

$$u_i(x) = -(x - d_i)^2.$$

Communication stage: promises vs reality

- Before the election, the candidate announces a promise $y \in [-K, K]$.
- The candidate knows her true type x, but voters do **not**.
- Voters observe only the promise y and form a belief about what will really happen:

$$\hat{x} = f(y).$$

- Think of $f(\cdot)$ as the voter's "discounting rule":
  - If trust is high, $f(y)$ is close to y.
  - If trust is low, voters interpret the same promise as less informative / exaggerated.

Candidate's problem: why not always promise the median?

- Elections are decided by the **median voter** (normalize $d_m = 0$).
- The median voter evaluates the candidate using the belief $\hat{x} = f(y)$:

$$u_m(\hat{x}) = -(\hat{x} - 0)^2 = -(f(y))^2.$$

- The candidate would like voters to believe she is close to the median.
- But promises are not free: changing the announcement away from the truth is costly.

Trade-off

Promise what voters want to hear **vs** paying a cost for lying.

$$\max_y \; V(x) = -(f(y))^2 - c(x - y)^2.$$

Timing (one shot game)

1. Nature draws the candidate's true type x.
2. Candidate announces a promise y.
3. Voters observe y and form a belief $\hat{x} = f(y)$.
4. Election happens (median voter logic), and the winner implements x.

Two equilibria

There exist two strictly monotone PBE equilibria, each reflecting a different level of trust—high and low—between the voter and the candidate. In both equilibria, the strategy of voteris a linear function of the candidate's announcement, and the strategy of candidate is a linear function of her true type.

High-trust vs low-trust: what changes?

- A **trust level** is the voter's interpretation rule $f(\cdot)$:
  - **High trust:** voters take promises more literally (less discounting).
  - **Low trust:** voters are skeptical (stronger discounting).

- Given how voters interpret promises, the candidate chooses how much to exaggerate.
  - **High-trust equilibrium:** promises are relatively informative; lying is limited.
  - **Low-trust equilibrium:** promises are discounted; incentives to exaggerate are stronger.

Dynamic setting: trust updates over time

- Think of elections as repeated: each period a new candidate appears.
- In each period t, the voter observes the candidate's announcement, $y_{j,t}$, and discounts it by $(1 - b_t) \in [0, 1)$,

$$\hat{x}_{j,t} = \frac{y_{j,t}}{1 - b_t}.$$

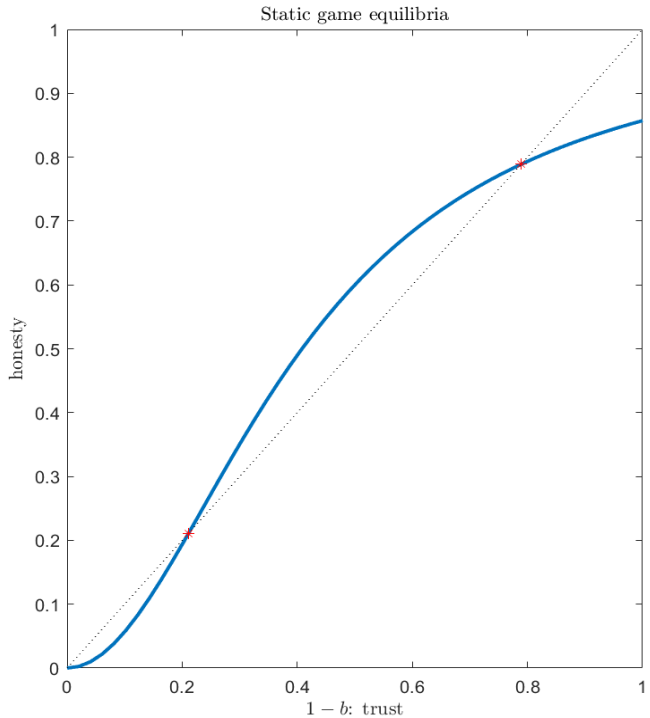
- Voters update trust based on past experience:
  - If politicians were **more misleading than expected**, trust falls.
  - If politicians were **more honest than expected**, trust rises.
- Simple updating rule (adaptive expectations): Trust moves gradually toward what would have been "correct" given observed behavior.

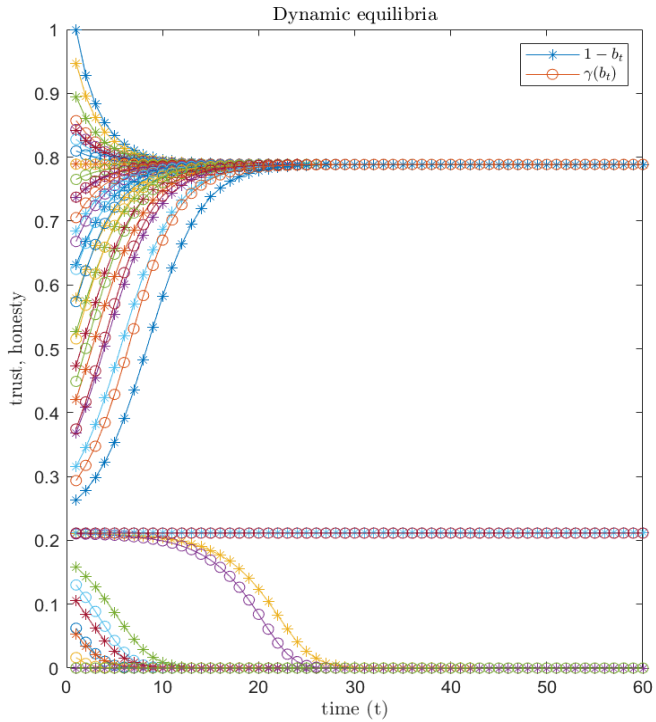
$$b_t = b_{t-1} + \alpha \left[\gamma(b_{t-1}) - b_{t-1} \right],$$

where $\alpha \in [0, 1]$ measures how quickly voters update. The term $\gamma(b_{t-1})$ captures the extent to which the candidate misrepresented her type in response to the voter's belief b_{t-1} in the previous period.

Problem

Steady-state





There are two steady states. The **high-trust** steady state is stable (small shocks fade out), while the **low-trust** steady state is unstable (small shocks can trigger a trust crisis).

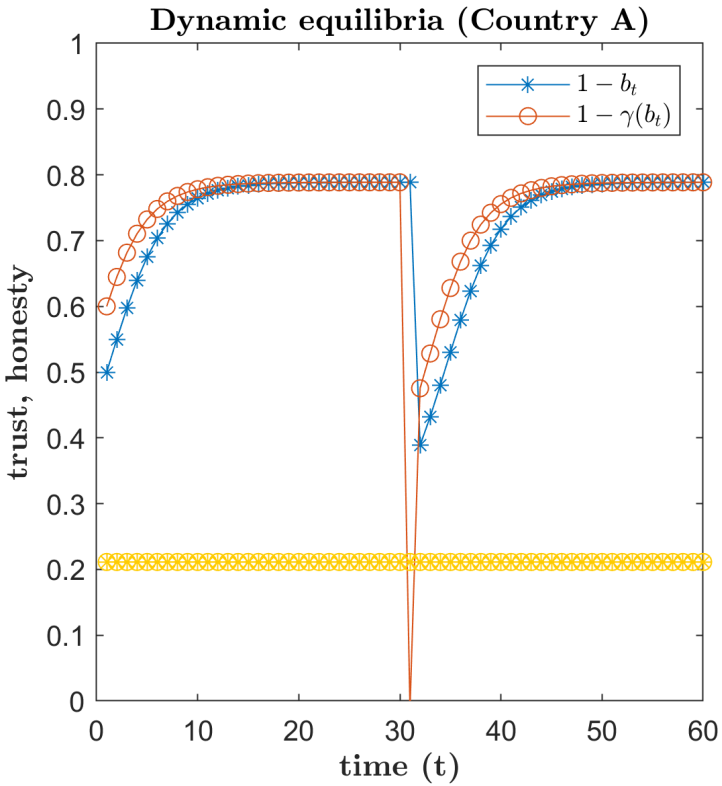
How institutions affect trust recovery

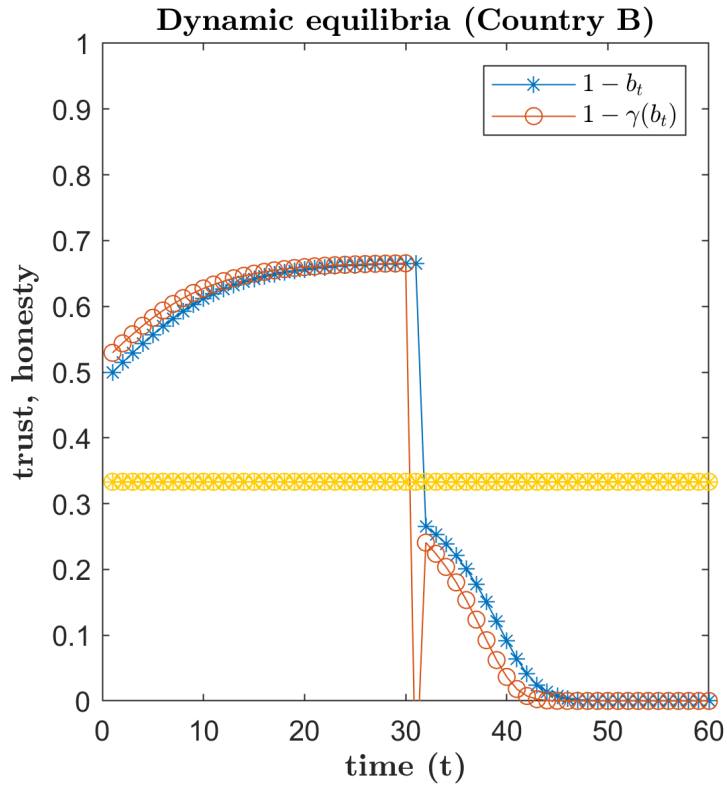
Lying cost c (discipline/accountability).

- Captures how costly it is for politicians to deviate from the truth.
- Higher c can reflect:
  - stronger transparency and monitoring (media freedom, fact-checking, audit capacity),
  - effective legal constraints and enforcement (courts, anti-corruption agencies),
  - stronger reputational penalties (credible scandal consequences, party discipline),
- *Economic intuition:* higher c makes exaggeration less attractive, helping trust recover after shocks.

An illustrative example of two countries I

The role of cost





Left panel: Country A with high lying cost, $c = 6$. Right panel: Country B,with low lying cost, $c = 4.5$. Parameter values: $b_0 = 0.5$, $\alpha = 0.5$

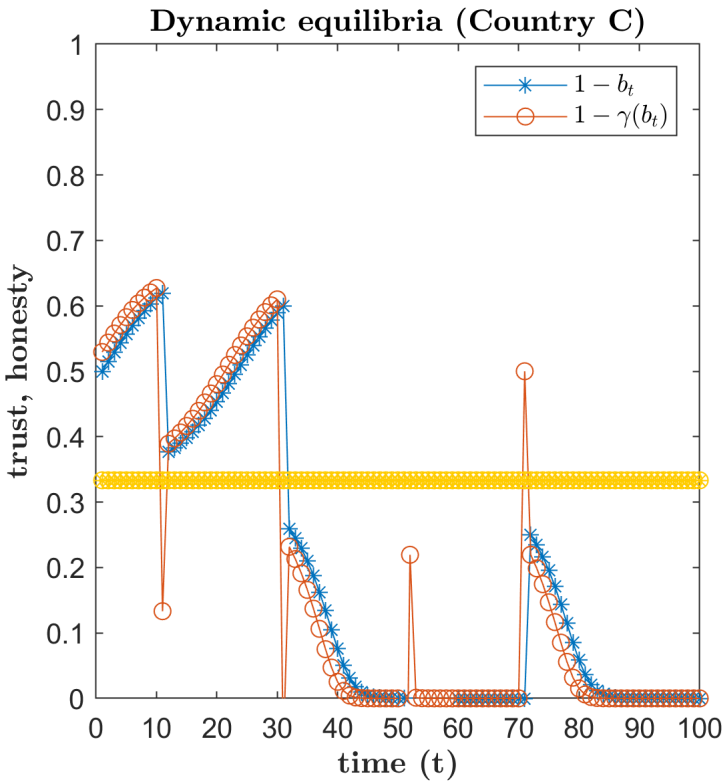
How institutions affect trust recovery

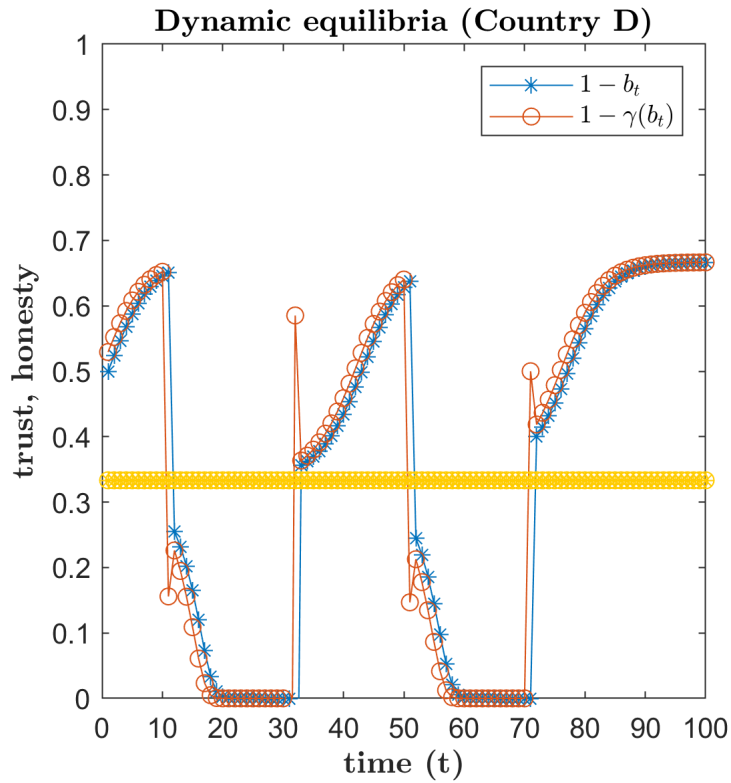
Responsiveness parameter α (speed of learning/sensitivity to experience).

- Captures how quickly voters update trust based on recent experience and perceived "surprises".
- Higher α can reflect:
  - more attention to politics and more informative news (high information flow),
  - stronger emotional or retrospective voting / recency bias,
  - less stable partisan identities (more swing voters),
  - faster diffusion of information through social media.
- *Economic intuition:* higher α means trust reacts more sharply—recoveries can be faster, but downturns can also accelerate.

An illustrative example of two countries II

The role of responsiveness parameter, α



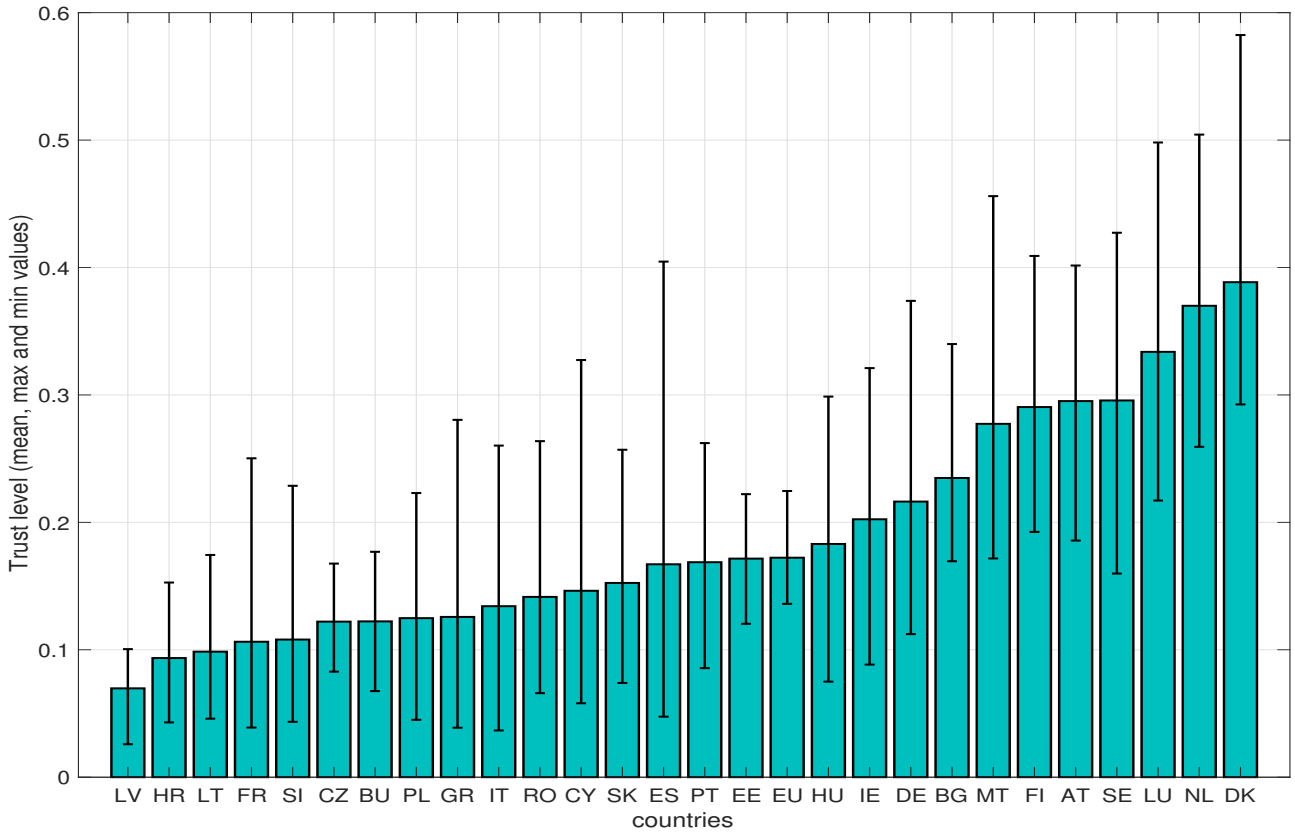


Left panel: Country C with $\alpha = 0.5$. Right panel: Country D with $\alpha = 0.8$. Parameter values: $c = 4.5$ and $b_0 = 0.5$.

Thank you!

Christmas activities: Paper, Replication Code

Trust in Political Parties



Source: European Commission/Eurobarometer

Back

Candidate's problem

The candidate's type is re-drawn in every period, and given voter's beliefs, the candidate solves the following problem,

$$\begin{aligned} \max_{y_{j,t}} \quad & V_{j,t} = u_m(\hat{x}_{j,t}) - c(x_{j,t} - y_{j,t})^2 \\ \text{s.t.} \quad & u_m(\hat{x}_{j,t}) = -(\hat{x}_{j,t})^2 \\ & \hat{x}_{j,t} = f(y_{j,t}) = \frac{y_{j,t}}{1 - b_t}. \end{aligned} \tag{II}$$

which gives candidate's optimal announcement,

$$y_{j,t} = \underbrace{\frac{c(1-b_t)^2}{c(1-b_t)^2 + 1}}_{1-\gamma(b_t)} x_{j,t}. \tag{4}$$

Back