

RULING WITH IDEOLOGY: POLITICIANS' BELIEFS AND PRIVATIZATIONS

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Ideology

“A system of beliefs that some group collectively upholds and maintains rigidly, even though it involves a substantial degree of reality denial or ‘false consciousness’.”

——Roland Bénabou

Motivation

- ▶ Critical factor driving economic and financial decisions:
 - ▶ bailout mortgage crisis (Mian et al., 2010)
 - ▶ credit rating (Kempf and Tsoutsoura, 2021)
 - ▶ portfolio choice (Aiken et al., 2020)
 - ▶ stock market participation (Laudenbach et al., 2019)
 - ▶ ...
- ▶ Predominantly (all?) in democratic countries

What about in Authoritarian Regimes?

- ▶ Conventional belief: not driving decisions (Converse, 1964; Olson, 2000; White et al., 1997)
- ▶ But:
 - ▶ Left- and right- policy cycles in China (Cheremukhin et al., 2017)
 - ▶ Chinese firms' policies consistent with governing mayors' beliefs (Liang et al., 2022)
 - ▶ ...

This Paper

Does ideology motivate decisions in authoritarian regimes?

Testing Ground: Privatization in China

- ▶ Suitable empirical lab:
 1. Privatization in stark contrast to orthodox communism
⇒ different levels of communism belief have different opinions
 2. Designed and implemented by sub-national governments
⇒ map belief variation into decisions
- ▶ Also, an important event:
 - ▶ 75% to 85% SOEs in the country got privatized
 - ▶ Roughly 700 billion USD state-owned assets sold
 - ▶ >> half of worldwide total sales during the sample period
- ▶ Generally on privatization:
 - ▶ Extant drivers are mostly financial and career calculations (e.g., [Dinc and Gupta, 2011](#); [Huang et al., 2020](#); [Liu et al., 2006](#))
 - ▶ What about decision-making politicians' *beliefs*?

Ideology and Privatization

- ▶ Does provincial party secretary/governor ideology affect privatization within the province?
 - ▶ Top 2 sub-national leaders
 - ▶ Not sure who should matter more (or at all)
- ▶ **Alarm:** endogenous matching between provinces and politicians
 - ▶ extensive falsification and robustness tests

Hypotheses Development

- ▶ Pro-communism party secretaries/governors might:
 - ▶ Be reluctant to embrace privatization as a way to reform
 - ▶ Believe SOE to be a more efficient organizational form
 - ▶ Hold on to more SOEs to influence economy

- ▶ **HYPOTHESIS:**

Other things equal, pro-communism provincial leaders are less likely to privatize SOEs under their controls.

But How to Measure Ideology?

- ▶ Based on the *belief formation mechanisms* (Cantoni et al., 2017)
- ▶ Communism score as the 1st principal component of:
 1. *Revolutionary*: from family with communism tradition, parent-children channel (Bisin and Verdier, 2001; Cipriani et al., 2013)
 2. *Marxism*: hold degree in Marxism-related subjects, education channel (Cantoni et al., 2017; Lott, 1997)
 3. *Non-dissonance*: 1 - (severe famine + non-severe drought), experience channel (Chen and Yang, 2019; Giuliano and Spilimbergo, 2014) dissonance

Data

- ▶ Provincial Leader Information sum stats
 - ▶ Manually collected: *Baidu Encyclopedia*, *Xinhua*, *China Vitae*, etc.
 - ▶ Sample: 96 secretaries and 90 governors
- ▶ Annual Survey of Industrial Firms (ASIF) sum stats
 - ▶ Chinese analogue to the Census of Manufacturers
 - ▶ Sample: all manufacturers registered as stated-owned in 1998
 - ▶ 71,998 unique firms, 247,220 firm-year observations
- ▶ Province Level Data:
 - ▶ Provincial Statistical Yearbooks (1997-2007)
 - ▶ China Finance Yearbooks (1997-2007)
 - ▶ China Population Census (1990)
 - ▶ China Compendium of Statistics (1949-2008)
 - ▶ Report of the Damage Caused by Disasters in China (1949-1995)

Empirical Method

- ▶ Specification (We expect $\beta_1 < 0$):

$$\Pr(\text{Privatize}_{ijpt} = 1) = \Pr(\beta_1 \text{Communism}_{pt} + \gamma_1 X_{ijp,t-1} + \gamma_2 G_{pt} + \gamma_3 P_{t-1} + \alpha_j + \zeta_p + \delta_t + \varepsilon_{ijpt} > 0)$$

- ▶ Privatize_{ijpt} : change of registration type to non-state-owned (dummy)
- ▶ Communism_{pt} : pro-communism score over $[0, 1]$ (continuous)
- ▶ Controls: firm ($X_{ijp,t-1}$), province (P_{t-1}), politician (G_{pt}) control
- ▶ Fixed Effects: Industry (α_j), Province (ζ_p), and Year (δ_t)
- ▶ Standard Errors: clustered at province level
- ▶ Robust to other FE/clustering schemes

Main Result

$$Pr(\text{Privatize}_{ijpt} = 1) = Pr(\beta_1 \text{Communism}_{pt} + \gamma_1 X_{ijp,t-1} + \gamma_2 G_{pt} + \gamma_3 P_{t-1} + \alpha_j + \zeta_p + \delta_t + \varepsilon_{ijpt} > 0)$$

| | Party Secretary | | Governor | |
|-----------------------------------|-------------------|-------------------|---------------------|--------------------|
| | (1) OLS | (2) Hazard | (3) OLS | (4) Hazard |
| Communism Score | -0.027 (0.024) | 0.559* (0.197) | -0.048** (0.021) | 0.345** (0.154) |
| Firm/Province/Politician Controls | Y | Y | Y | Y |
| Industry/Year/Province FEs | Y | Y | Y | Y |
| Observations | 245,615 | 245,615 | 244,995 | 244,995 |

proxy

Ideology and Privatization: Economic Magnitude

- ▶ Governor communism score one σ (0.247) higher, 1.2 percentage point lower probability of being privatized
 - ▶ 17% of the sample mean (7.1%)
- ▶ Firms privatized in a province-year:
 - ▶ average non-communist governor privatizes: 215 SOEs
 - ▶ communism score one σ higher, privatize \sim 26 fewer

Ideology and Privatization: Channels

- ▶ Sub-sample analysis:
 - ▶ SOE controlled by provincial government: direct effect
 - ▶ SOE controlled by subordinate governments: indirect effect

| | Party Secretary | | Governor | |
|--|-------------------|-------------------|----------------------|---------------------|
| | (1) Direct | (2) Indirect | (3) Direct | (4) Indirect |
| Communism Score | -0.005 (0.013) | -0.032 (0.026) | -0.027*** (0.009) | -0.049** (0.022) |
| Firm/Province/Politician Controls | Y | Y | Y | Y |
| Industry/Year/Province FEs | Y | Y | Y | Y |
| Observations | 24,651 | 220,964 | 24,577 | 220,418 |

Secretary versus Governor

$$Pr(Privatize_{ijpt} = 1) = Pr(\beta_1 SECCom_{pt} + \beta_2 GOVCom_{pt} + \gamma_1 X_{ijp,t-1} + \gamma_2 G_{pt} + \gamma_3 P_{t-1} + \alpha_j + \zeta_p + \delta_t + \varepsilon_{ijpt} > 0)$$

| | (1) Overall | (2) Direct | (3) Indirect |
|--|---------------------|---------------------|---------------------|
| SEC Communism | -0.031 (0.020) | -0.003 (0.011) | -0.036* (0.021) |
| GOV Communism | -0.045** (0.019) | -0.028** (0.011) | -0.046** (0.019) |
| Firm/Province/Politician Controls | Y | Y | Y |
| Industry/Year/Province FEs | Y | Y | Y |
| Observations | 244,744 | 24,524 | 220,220 |

Robustness

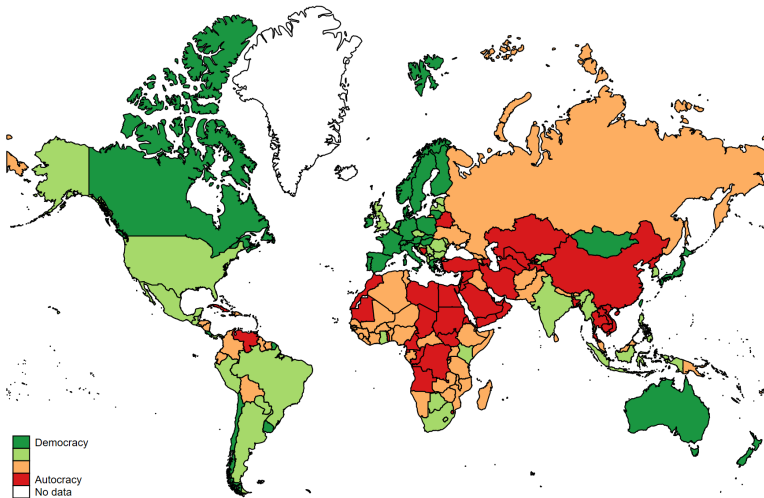
- ▶ No evidence supporting alternative explanations:
 - ▶ Different characteristics of politicians with different ideologies
 - ▶ Appointments of sub-national leaders related to factors driving privatization
 - ▶ Communist leaders receive more resources
- ▶ Survives various robustness checks:
 - ▶ randomization inference
 - ▶ selection-on-unobservable
 - ▶ alternative privatization definition
 - ▶ takes longer than one-year to privatize
 - ▶ placebo using central gov owned SOEs

robust

Conclusion

- ▶ Does political ideology matter in authoritarian regimes?
⇒ Yes!
- ▶ Utilizing China's decentralized privatization, I find that:
 - ▶ stronger communism belief, less privatization
 - ▶ governors make direct decision and influence subordinates
 - ▶ secretaries influence subordinates (but less than governors)
- ▶ Contributions:
 - ▶ Ideology does affect decisions even in authoritarian regimes
 - ▶ Identifies a new class of impetus for privatization
 - ▶ Quantifies the impact of ideology on privatization
 - ▶ Politician preferences affect corporate ownership

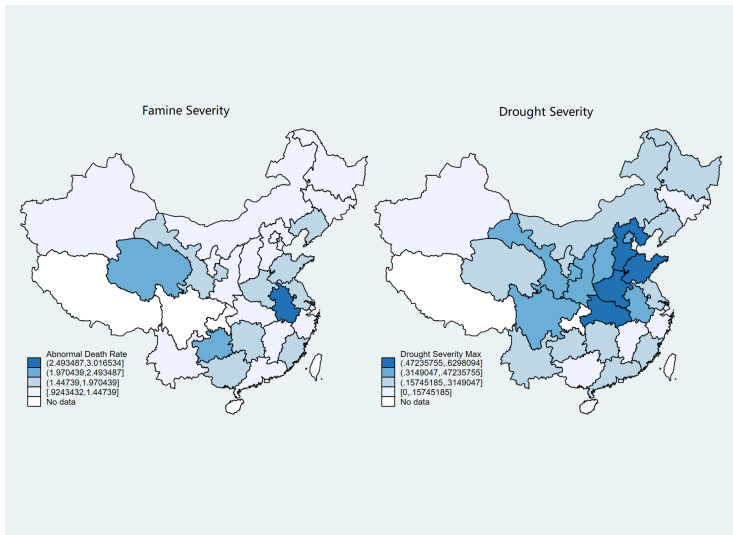
Democratic Countries are Not the Majority



Source: Polity V

[back](#)

Famine Dissonance



[back](#)

Multiple Correspondence Analysis

| Proxy | Pro-communism | Dimension 2 |
|------------------------|---------------|-------------|
| Revolutionary | 0.7646 | 0.0775 |
| Marxism-subject Degree | 0.5212 | -0.8055 |
| Famine non-Dissonance | 0.6674 | 0.5401 |

back

Summary Statistics: Secretary

Panel A: Party Secretary

| | N | Mean | SD | Min | Max |
|-----------------|----|--------|-------|-------|--------|
| Communism Score | 90 | 0.309 | 0.297 | 0 | 1 |
| Revolutionary | 90 | 0.233 | 0.425 | 0 | 1 |
| Marxism | 90 | 0.300 | 0.461 | 0 | 1 |
| non-Dissonance | 90 | 0.311 | 0.466 | 0 | 1 |
| Age Appointed | 90 | 55.956 | 3.681 | 46 | 63 |
| Tenure | 90 | 4.741 | 2.601 | 0.583 | 15.583 |
| College | 90 | 0.844 | 0.364 | 0 | 1 |
| Gender | 90 | 1 | 0 | 1 | 1 |
| Minority | 90 | 0.044 | 0.207 | 0 | 1 |

[back](#)

Summary Statistics: Governors

Panel B: Governor

| | N | Mean | SD | Min | Max |
|-----------------|----|--------|-------|-------|-------|
| Communism Score | 96 | 0.216 | 0.247 | 0 | 1 |
| Revolutionary | 96 | 0.115 | 0.320 | 0 | 1 |
| Marxism | 96 | 0.177 | 0.384 | 0 | 1 |
| non-Dissonance | 96 | 0.354 | 0.481 | 0 | 1 |
| Age Appointed | 96 | 55.177 | 3.578 | 42 | 61 |
| Tenure | 96 | 4.334 | 1.974 | 0.583 | 9.833 |
| College | 96 | 0.844 | 0.365 | 0 | 1 |
| Gender | 96 | 0.979 | 0.144 | 0 | 1 |
| Minority | 96 | 0.167 | 0.375 | 0 | 1 |

[back](#)

Summary Statistics: SOE-Year

| | N | Mean | SD | Min | Max |
|-----------------|---------|--------|-------|--------|--------|
| Privatize | 247,220 | 0.071 | 0.257 | 0 | 1 |
| Private Share | 247,220 | 0.209 | 0.377 | 0 | 1 |
| Size | 247,220 | 5.083 | 1.673 | 0 | 9.749 |
| Employee | 247,220 | 4.955 | 1.423 | 0 | 8.353 |
| Leverage | 247,220 | 0.645 | 0.271 | 0 | 1 |
| Profitability | 247,220 | -0.024 | 0.132 | -0.377 | 0.156 |
| Productivity | 247,220 | 1.441 | 1.791 | 0.018 | 10.793 |
| Firm Importance | 247,220 | 0 | 0.004 | 0 | 0.512 |
| Labour Share | 247,220 | 0 | 0.002 | 0 | 0.155 |

back

result

Ideology and Privatization: Model

- ▶ Firm controls ($X_{ijp,t-1}$):
 - ▶ size, profit, leverage, private share, employment, firm importance
- ▶ Province controls (P_{t-1}):
 - ▶ GDP growth, deficit, % staffs in SOEs, unemployment rate, % SOE asset, marketization index
- ▶ Politician controls (G_{pt}):
 - ▶ tenure, career perspective, locally promoted, business experience, personal connection

Ideology Proxies

Panel A: Panel Regression

| | Party Secretary | | | Governor | | |
|----------------|------------------|----------------------|-------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Revolutionary | 0.008 (0.013) | | | -0.041** (0.013) | | |
| Marxism | | -0.040*** (0.012) | | | -0.009** (0.004) | |
| non-Dissonance | | | -0.015 (0.013) | | | -0.005** (0.002) |
| Observations | 247,471 | 247,471 | 247,220 | 247,471 | 247,471 | 246,600 |

back

Appointment of Pro-communism Leaders

| | Party Secretary | | Governor | |
|---------------------------------|-------------------|--------------------|-------------------|-------------------|
| | (1) | (2) | (3) | (4) |
| Firm Characteristics | | | | |
| Δ Private Shares | 0.002 (0.006) | | -0.007 (0.007) | |
| $\Delta 3Y$ Private Shares | | -0.006 (0.013) | | -0.011 (0.016) |
| Assets | -0.198 (0.276) | -0.485* (0.285) | -0.119 (0.257) | 0.037 (0.263) |
| Profitability | 2.312 (2.443) | 5.584* (2.797) | -4.963 (3.847) | -2.111 (4.257) |
| Province Characteristics | | | | |
| Δ Private Assets | -0.007 (0.010) | | 0.004 (0.010) | |
| $\Delta 3Y$ Private Assets | | -0.018 (0.028) | | 0.006 (0.016) |
| GDP Growth Rate | -0.106 (0.609) | 0.564 (0.494) | 0.761 (0.556) | 0.621 (1.021) |
| GDP per capita | -0.011 (0.019) | 0.007 (0.018) | -0.006 (0.023) | 0.010 (0.016) |
| Fiscal Deficit | 1.054 (0.635) | 0.738 (0.665) | -0.081 (0.644) | -0.105 (0.612) |
| SOE Asset Share | 0.452 (0.923) | -0.407 (0.513) | -0.015 (0.896) | 0.328 (0.500) |
| SOE Employee Share | 0.002 (0.011) | -0.006 (0.015) | -0.012 (0.013) | -0.002 (0.012) |
| Unemployment | 0.023 (0.064) | 0.120 (0.079) | 0.031 (0.074) | -0.086 (0.090) |
| Market Index | 0.066 (0.107) | -0.021 (0.142) | -0.121 (0.089) | -0.107 (0.070) |
| Province/Year FEs | Y | Y | Y | Y |
| Observations | 270 | 210 | 270 | 210 |

[back](#)

Communist Leaders are NOT Preferably Treated

| | Party Secretary | | Governor | |
|--------------------------|--------------------|---------------------|--------------------|---------------------|
| | (1) Growth | (2) Log | (3) Growth | (4) Log |
| Communism | 0.029 (0.032) | -0.062 (0.056) | -0.007 (0.028) | -0.041 (0.032) |
| Unemployment | 0.039 (0.023) | -0.018 (0.022) | 0.039* (0.023) | -0.022 (0.021) |
| Fiscal Deficit | -0.002 (0.001) | 0.007*** (0.002) | -0.002* (0.001) | 0.007** (0.003) |
| GDP Growth Rate | 0.045 (0.219) | 0.239 (0.147) | 0.045 (0.213) | 0.238 (0.174) |
| Population Growth Rate | -0.804* (0.419) | -0.885 (0.575) | -0.814* (0.420) | -0.842 (0.631) |
| Share works in SOE | -0.001 (0.001) | 0.007*** (0.003) | -0.001 (0.001) | 0.007*** (0.002) |
| Province/Year FEs | Y | Y | Y | Y |
| Observations | 240 | 240 | 240 | 240 |

back

Balance Test

Panel A: Party Secretary

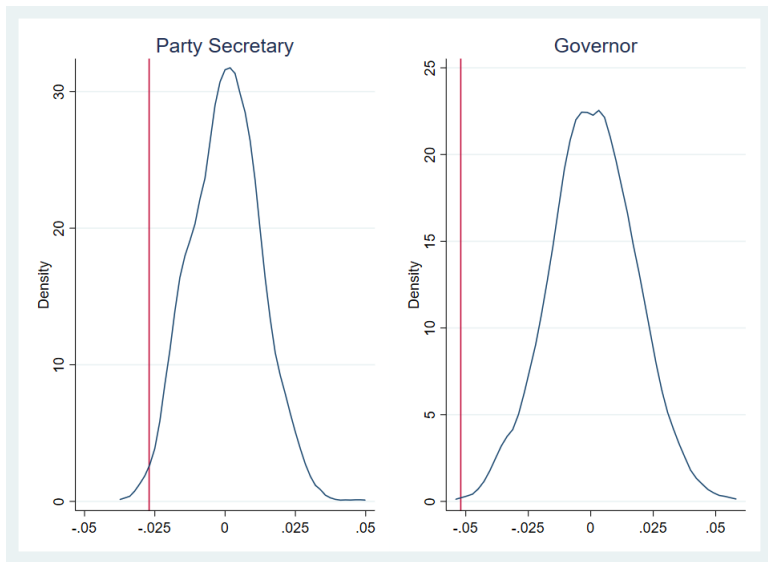
| | Less Communist | Pro-communism | Difference |
|------------------|----------------|---------------|------------|
| Age Appointed | 56.846 | 56.086 | 0.761 |
| Minority | 0.052 | 0.029 | 0.022 |
| College | 0.769 | 0.886 | -0.117 |
| Politburo | 0.179 | 0.257 | -0.077 |
| Promoted Locally | 0.538 | 0.457 | 0.082 |
| Connected | 0.179 | 0.286 | -0.106 |
| Promotion | 0.307 | 0.543 | -0.235** |

Panel B: Governor

| | Less Communist | Pro-communism | Difference |
|------------------|----------------|---------------|------------|
| Age Appointed | 55.353 | 54.822 | 0.530 |
| Minority | 0.196 | 0.134 | 0.063 |
| College | 0.843 | 0.845 | -0.002 |
| Politburo | 0 | 0.022 | -0.022 |
| Promoted Locally | 0.725 | 0.578 | 0.148 |
| Connected | 0.196 | 0.200 | -0.004 |
| Promotion | 0.176 | .267 | -0.090 |

back

Randomization Inference



back

Selection on Unobservable

Panel A: Selection-on-Unobservable (Governor)

| | Overall | Direct | Indirect |
|---------------------|-----------------|-----------------|-----------------|
| Communism Selection | -0.031 6.610 | -0.034 2.245 | -0.024 4.075 |

back

Alternative Definition of Privatization

Panel B: Alternative Privatization Definitions

| | Secretary | Governor | Joint |
|---------------|-------------------|--------------------|--------------------|
| SEC Communism | -0.014 (0.013) | | -0.015 (0.011) |
| GOV Communism | | -0.020* (0.010) | -0.021* (0.011) |

back

Using Lagged Ideology

Panel A: Lagged Ideology

| | Secretary | Governor | Joint |
|---------------|-------------------|---------------------|---------------------|
| SEC Communism | -0.003 (0.018) | | -0.014 (0.017) |
| GOV Communism | | -0.051** (0.024) | -0.055** (0.021) |

back

Leave-out Turnover Years

Panel C: Leave-out Turnover Years

| | Secretary | Governor | Joint |
|---------------|-------------------|--------------------|---------------------|
| SEC Communism | -0.013 (0.030) | | -0.037* (0.019) |
| GOV Communism | | -0.056* (0.029) | -0.068** (0.028) |

back

Privatization of Central SOEs

Panel D: Placebo Tests using Central SOEs

| | Secretary | Governor | Joint |
|---------------|------------------|-------------------|-------------------|
| SEC Communism | 0.009 (0.009) | | 0.005 (0.007) |
| GOV Communism | | -0.008 (0.007) | -0.007 (0.007) |

back