

# Empowering through Courts: Judicial Centralization and Municipal Financing in China

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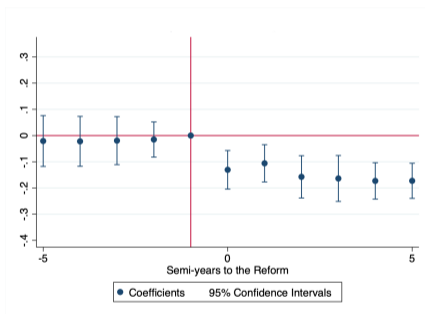
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# Motivation

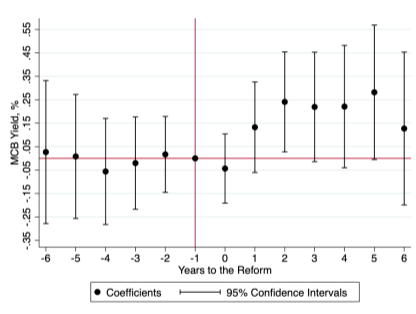
- ▶ Law and finance (Glaeser and Shleifer, 2002; Porta et al., 2008; Hayek, 2020).
  - ▶ Judicial system is crucial for contract enforcement.
  - ▶ Political influence over courts signals govt lack of commitment to respect contractual obligations.
  - ▶ Induce strategic govt default on debt (Dove, 2017).
    - ▶ Example: Iowa in 1858.
  - ▶ Prediction: political influence over courts reduce govt borrowing capacity.
- ▶ Discussion centered around high-level courts with substantial power.
- ▶ Majority of lawsuits handled by grassroots-level court with little power.
- ▶ Question: how does political capture of local courts affect municipal financing?

# Motivation

- ▶ Opposite effect - reducing local court capture increases local govt borrowing cost.
- ▶ Local courts have little power in judicial interpretation and cannot affect govt adherence to contractual obligations.



(a) Local Government Win Rates



(b) Municipal Corporate Bond Yield

Figure: Local Court Capture and Municipal Financing Cost

## Overview of Results

- ▶ Policy shock: a high-profile judicial centralization reform aimed at alleviating court capture by local governments in China since 2014.

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- ▶ Reduced court favoritism towards local govt financing vehicles (LGFVs).
  - ▶ LGFVs' win rate ↓ by 17.2% against external, 11.6% against local plaintiffs.
  - ▶ Placebo tests; intensive and extensive margin; ex-ante contracts.

# Overview of Results

- ▶ Policy shock: a high-profile judicial centralization reform aimed at alleviating court capture by local governments in China since 2014.
- ▶ Reduced court favoritism towards local govt financing vehicles (LGFVs).
  - ▶ LGFVs' win rate ↓ by 17.2% against external, 11.6% against local plaintiffs.
  - ▶ Placebo tests; intensive and extensive margin; ex-ante contracts.
- ▶ Adverse effect on municipal debt capacity.
  - ▶ LGFVs' debt default increased, debt capacity tightened, and spending decreased.
  - ▶ Mechanism: increased lawsuit losses + information production by court.
    - ▶ Most lawsuits are against business partners, often around govt payment delays.
    - ▶ Losing lawsuits around payment delays leads to credit rating downgrading, especially in less fiscal transparent cities.

# Content

Literature

Institutional Background and Data

Judicial Reform and LGFVs' Lawsuits

LGFVs' Debt Capacity and Spending

Conclusion

# Literature

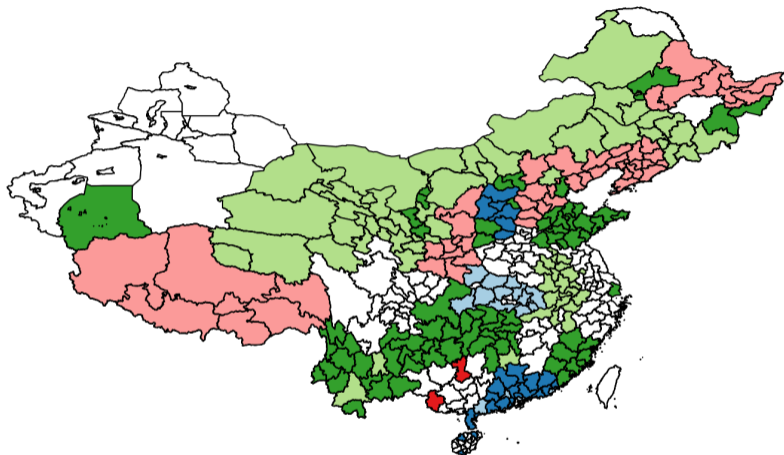
- ▶ Economic consequences of the judicial system, especially the degree of political influences over courts.
  - ▶ Advantages of judicial independence (Hayek, 2020; Glaeser and Shleifer, 2002).
  - ▶ Relatively little on local courts and study judicial outcomes and firm/govt behaviors (Liu et al., 2022; Tabarrok and Helland, 1999; Mehmood, 2022).
  - ▶ Much less on municipal financing (Dove, 2018; Mughan, 2021).
- ▶ Literature on debt capacity and borrowing constraints.
  - ▶ Adverse impact of information disclosure on credit supply (Hirshleifer, 1971).
  - ▶ Information disclosure of banks in financial crises (Allen and Gale, 2000) and stress tests (Faria-E-Castro et al., 2017; Goldstein and Leitner, 2018; Dai et al., 2024).
- ▶ Local govt financing and debt management in China.
  - ▶ Concern on default risk (Gao et al., 2021), knock-on effect on private credit (Huang et al., 2020; Zhang et al., 2022), land zoning (He et al., 2023), and so on.



# Institutional Background

- ▶ The judiciary system in China.
  - ▶ Local courts and judges managed by the same level of govt.
  - ▶ Concerns regarding local protectionism and interference by local officials.
- ▶ The Judicial Centralization Reform since 2014.
  - ▶ Segregate local courts and judges from local govt.
  - ▶ Two components: personnel and budgetary.
- ▶ Staggered implementation.
  - ▶ 98 cities haven't initiated reform by 2020.
  - ▶ Obstacles: provincial govt fiscal capacity (Yang and Li, 2023).
    - ▶ Country-wide, 2014: local court expenditure  $\approx$  4.37% provincial govt expenditure.
    - ▶ Jiangsu, 2020: all court expenditure  $\approx$  60% provincial budgetary income.

# Timeline of the Reform



# Institutional Background

- ▶ China's local government debt system.
  - ▶ The Budget Law of 1994 prohibits local govt debt issuance.
  - ▶ Open backdoor since 2008 through the Local Govt Financing Vehicles (LGFVs).
    - ▶ Finance govt projects through municipal corporate bonds (MCBs), loans and other debt instruments.
  - ▶ Lawsuits with LGFVs surged in recent years.

## Lawsuits of LGFVs

- ▶ 2,144 out of the 3,201 LGFVs are matched to at least one court verdict.
- ▶ Average number of verdicts per matched LGFV: 33.

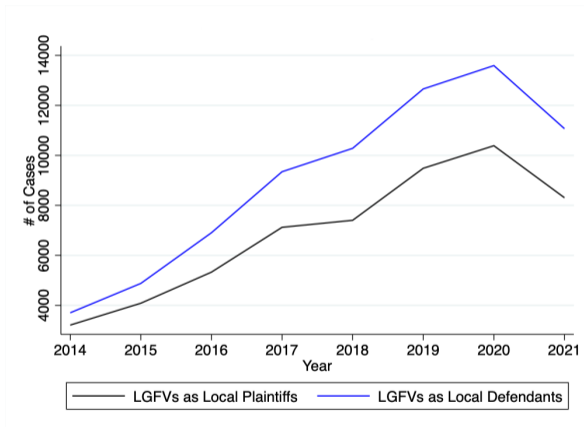


Figure: Number of LGFV Lawsuits

# Data

- ▶ LGFVs and MCBs from WIND.
  - ▶ All bonds issued by 2023 and classified by both WIND and Rating Dog as MCBs.
  - ▶ Annual financial statements for 3,201 unique LGFVs.
  - ▶ Default and rating downgrading events from the Enterprise Alert System.
- ▶ Universe of Court Verdicts from China Judgment Online (CJO).
  - ▶ 70,364 verdicts during 2014-2021 involving LGFVs.
  - ▶ variable: court, dates, names of plaintiffs and defendants, win rate.
  - ▶  $WinRate_j = \frac{CourtFee_i}{CourtFee_i + CourtFee_j}$ .
- ▶ Value-added tax Invoices.
  - ▶ Cover 400 conglomerates with about 27,000 unique subsidiaries.
  - ▶ 1,688 LGFVs are matched with one of these contractors and suppliers.
- ▶ Land supply data from the Ministry of Natural Resources.

# Judicial Reform and LGFVs' Win Rate

- ▶ Identification: staggered roll-out of the reform during 2014-2021.
  - ▶ Cases are handled by courts in the defendants' city.
  - ▶ Sample: all lawsuits with LGFVs as the defendants or against local defendants.
  - ▶ Heterogeneous treatment effect following Sun and Abrahm (2021).

$$WinRate_{ict} = \beta \cdot Reform_{ct} + \alpha_c + \theta_t + \epsilon_{ict}$$

$$WinRate_{ict} = \sum_{\tau \neq -1} \beta_{\tau} \cdot \mathbf{1}_{t-T_c=\tau} \cdot Reform_{ct} + \alpha_c + \theta_t + \epsilon_{ict}$$

# Judicial Reform and LGFVs' Win Rate

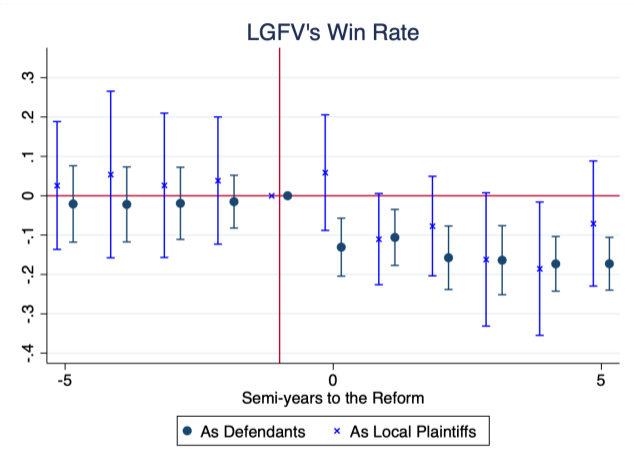


Figure: Baseline Event Study: LGFVs' Win Rate

# Judicial Reform and LGFVs' Win Rate

Table: Judicial Centralization Reform and LGFVs' Win Rate

	(1)	(2)	(3)	(4)	(5)	(6)
LGFVs as	Defendants					Local PLTF
	All	External Plaintiffs	Local Plaintiffs	High-stakes	Low-stakes	All Cases
<b>Reform</b>	-0.140*** (-4.67)	-0.172*** (-3.74)	-0.116*** (-3.52)	-0.268*** (-8.93)	-0.084** (-2.33)	-0.078 (-1.39)
Mean of Outcome	0.55	0.55	0.55	0.55	0.55	0.60
Court FE	Y	Y	Y	Y	Y	Y
Semi-year FE	Y	Y	Y	Y	Y	Y
Observations	45,681	14,389	31,292	14,355	31,326	16,951
R-Squared	0.231	0.322	0.254	0.263	0.301	0.279



# Judicial Reform and LGFVs' Win Rate

- ▶ Placebo tests.
  - ▶ No significant effect when LGFVs are external plaintiffs.
  - ▶ No significant effect for provincial and central government financing vehicles.
- ▶ Intensive margin vs Extensive margin.
  - ▶ Intensive margin: changes of judge incentives.
  - ▶ Extensive margin: changes of case composition.
- ▶ Responses of Contracting Prices and Contractors.
  - ▶ Suppliers and contractors may respond to favorable legal environment ex-ante.
  - ▶ Result: lower contracting prices and more external suppliers.

▶ Placebo Tests

▶ Intensive Margin

▶ Extensive Margin

▶ Ex-ante Contracts

# LGFVs' Debt Capacity and Spending

- ▶ Little direct effect on creditors as 93% of LGFVs' lawsuits are against their business partners.
- ▶ Reverse causality?
  - ▶ Could local financial conditions drive the reform in the first place?
  - ▶ In 2014, local court expenditure/city government budgetary expenditure = 0.69%.
  - ▶ None of the outcome variables in 2013 predicts the reform status.

▶ What cities went through the reform?

## LGFVs' Default Risk

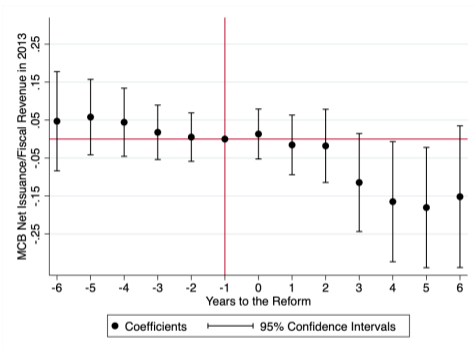
- ▶  $default_{ict}$ : 1 if LGFV  $i$  defaults on non-standardized debt in year  $t$ ; 0 otherwise.
- ▶  $defaultn_{ict}$ : # default events of LGFV  $i$  in year  $t$ .
  - ▶  $\text{Mean}(default_{ict})=0.3\%$ ,  $\text{Mean}(defaultn_{ict})=0.5\%$ .

$$y_{ict} = \beta \cdot Reform_{ct} + \alpha_i + \theta_t + \epsilon_{ict}$$

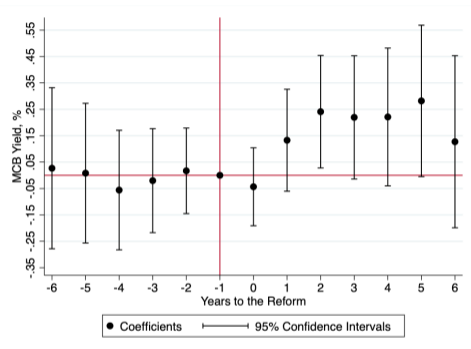
Table: Effect on LGFVs' Defaults

	(1)	(2)
Dep Var:	default	defaultn
Reform	0.00511** (2.237)	0.00918** (2.408)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	24,381	24,381
R-squared	0.2779	0.2175

# LGFVs' MCB Issuance



(a) Net Issuance/Budgetary Revenue



(b) Average Yield, %

Figure: MCB Issuance and Yield after the judicial reform

# LGFVs' Balance Sheet

Table: Effect on LGFVs' Alternative Funding Sources

Dep Var:	(1)	(2)	(3)	(4)	(5)
	log(Asset)	borrowing rate	Bond/Asset	leverage	AccPayable/COGS
Reform	-0.0934** (-2.147)	0.325** (2.442)	-0.0116** (-2.376)	0.00981 (1.029)	0.0237** (2.319)
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	27,967	21,692	27,884	27,884	27,627
R-squared	0.8664	0.6257	0.5833	0.7153	0.5193

# Mechanisms

- ▶ Increased lawsuit losses.
  - ▶ Lawsuit Losses =  $\Delta$ LGFVs' Win Rate  $\times$  Total Disputed Amount = 14.37 mil. RMB
  - ▶ Roughly 0.18% of the LGFV's accumulated cash paid for goods, services, fixed assets, intangible and other long-term investment during 2014-2021.
  - ▶ Lower bound as many disputes do not reach the court.

▶ Increased Lawsuit Losses vs Lower Contracting Prices

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  - ▶ Lower bound as many disputes do not reach the court.
  
- ▶ Information production of courts.
  - ▶ Most lawsuits with LGFVs as defendants revolve around payment delays.
  - ▶ Two drivers: (1) liquidity constraint of LGFVs, (2) misconduct of contractors.
  - ▶ Losing lawsuits around LGFV payment delays signals LGFVs' liquidity constraint.
  - ▶ Test: losing lawsuits around payment delays can lead to credit rating downgrading.

▶ Increased Lawsuit Losses vs Lower Contracting Prices

## Mechanisms

- ▶ Changes in win rates induced by the reform, holding information collection from other sources constant, can affect the credit rating downgrading.
- ▶ No such relationships for non-informative cases.
- ▶ Magnitude: reform increases rating downgrading by 2.38% (mean is 2.1%).

Table: Response of Credit Rating to LGFV's Win Rate

Dep Var: Rating Downgrading	(1)	(2)	(3)	(4)
Spec.	OLS	IV	OLS	IV
Cases with LGFV Payment Delays:	Yes	Yes	No	No
Win Rate	-0.016*** (-3.04)	-0.171*** (-2.37)	-0.004 (-0.42)	0.003 (0.03)
		First Stage		First Stage
Reform		-0.140*** (-7.43)		-0.160*** (-2.54)
F-statistics		71.05		12.39
Observations	6,687	6,972	8,63	1,265
Mean of Outcome	0.021	0.021	0.009	0.009
Year FE	Yes	Yes	Yes	Yes
LGFV FE	Yes	Yes	Yes	Yes



## Mechanisms

- ▶ Court information production is more important in less transparent cities.
  - ▶ Fraction of MCBs with bond rating.
  - ▶ *City Government Fiscal Transparency Index* developed by the Center for Public Economics, Finance, and Governance Research in Tsinghua University.

Table: Heterogeneity by City Fiscal Transparency

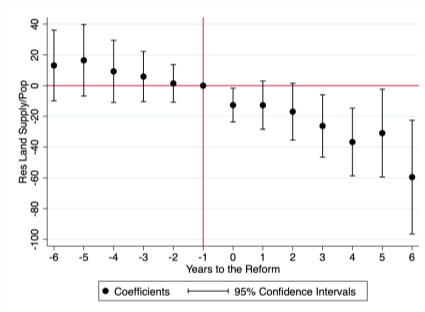
Dep Var: Rating Downgrading	(1)	(2)	(3)	(4)
Cities with Higher Fiscal Transparency:	High	Low	High	Low
Win Rate	-0.092 (-3.04)	-0.212** (-2.37)	-0.110 (-1.29)	-.183* (-1.81)
	First Stage			
Reform	-0.160*** (-5.90)	-0.125*** (-5.13)	-0.145*** (-5.09)	-0.134*** (-5.45)
F-statistics	41.88	30.35	28.78	42.27
Observations	3,068	3,619	2,766	4,355
Year FE	Yes	Yes	Yes	Yes
LGFV FE	Yes	Yes	Yes	Yes

# Judicial Reform and Court Information Production

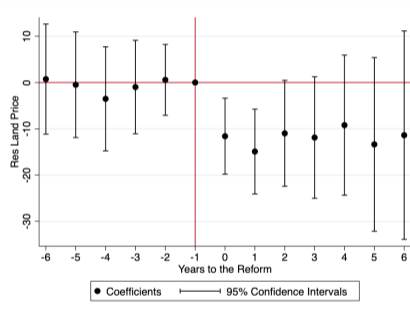
- ▶ How does the court information production role explain the effect of the reform?
- ▶ The reform allocates more LGFVs from lawsuit-winning to lawsuit-losing group, tightening credit conditions to these marginally affected LGFVs.
- ▶ Better information production and less information asymmetry?
  - ▶ Not necessarily “better”.
  - ▶ Marginally affected LGFVs can include both safe and risky type.

## Real Impact

- ▶ Annual spending decreases by 22.2% after the reform.
- ▶ Main role of LGFVs: prepare land for sale for residential development.
- ▶ Undermined functioning: land supply  $\downarrow$  by 20%, price  $\downarrow$  by 10%.



(a) Quantity



(b) Price

Figure: Residential land supply after the judicial reform

## Conclusion

- ▶ Unlike the case with high-level courts, local govt financing can be empowered by a court captured by local govt.
- ▶ Alleviating local court capture reduces court protectionism and leads to more LGFVs perceived to be risky by outside investors.
  - ▶ But those that are marginally affected by the reform are not necessarily riskier.
  - ▶ Not necessarily improve information production.
- ▶ A harder budget constraint on local governments!

# Judicial Reform and LGFVs' Win Rate: Placebo Tests

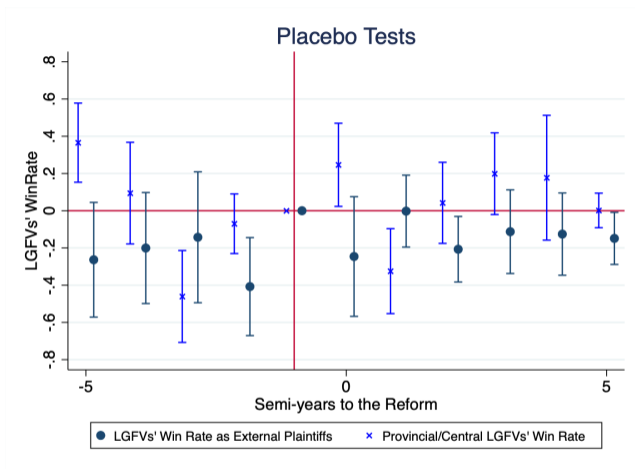


Figure: Placebo Tests

# Intensive margin effect of judge incentives

Table: Intensive Margin - Conditional on Case Composition

Dep Var: win rate	(1)	(2)
<b>Reform</b>	-0.159** (-2.24)	-0.189** (-2.33)
Mean of Outcome	0.55	0.55
Court FE	Y	N
Semi-Year FE	Y	Y
Judge FE	N	Y
Observations	1,588	1,554
R-Squared	0.579	0.615

## Extensive margin effect of case composition

Table: Extensive Margin - Changes in Case Compositions After Reform

	LGFV's lawsuits	Plaintiff's Characteristics		
	% of being sued	Regis. Capital (M)	# of Employees	Firm Age
	(1)	(2)	(3)	(4)
<b>Reform</b>	0.042*** (3.50)	-18.196** (-1.99)	-87.370** (-1.99)	-0.983* (-1.91)
Mean of Outcome	0.76	71.29	157.74	12.18
Court FE	Y	Y	Y	Y
Seimi-year FE	Y	Y	Y	Y
Observations	16,773	16,133	17,602	17,857
R-Squared	0.608	0.260	0.272	0.264

# Responses of Contracting Prices and Contractors

- ▶ Price response.
  - ▶ Suppliers and contractors may lower prices after the reform.
  - ▶ Challenge: observe price for the same product with same quality.
  - ▶ Relative price: use prices paid by non-LGFVs for the same product from same sellers as benchmark.

$$rp_{i,j,k,t} = P_{i,j,k,t} / \sum_{i' \notin \mathbf{L}} P_{i',j,k,t} \frac{Q_{i',j,k,t}}{\sum_{i' \notin \mathbf{L}} Q_{i',j,k,t}}$$
$$rp_{i,j,k,t} = \beta \cdot \text{Reform}_{c(i),t} + \alpha_i + \theta_t + \varepsilon_{i,j,k,t}$$

- ▶ Change of contractors.
  - ▶ Those unwilling to do business with the LGFVs may be open to it now.



# Responses of Contracting Prices and Contractors

Table: Impact of Judicial Reform on Ex-ante Contracts

Dep Var	(1) relative price, %	(2) supexternal
Reform	-0.0947*** (-5.991)	0.0366* (1.671)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Observations	2623	4493
R-squared	0.9108	0.7726

## What cities went through the reform?

$$\text{Spec} : y_{i,2013} = \beta \cdot \text{Reform}_c + \epsilon_i$$

Table: Judicial Reform and City/LGFV Characteristics

Dep Var	(1) $\frac{\text{NetIssue}}{\text{FisRev}}$	(2) MCB Yield	(3) $\log(\text{Asset})$	(4) borrowing rate	(5) $\frac{\text{Bond}}{\text{Asset}}$	(6) $\frac{\text{ResLand}}{\text{Pop}}$
Reform	-0.0403 (-1.057)	-0.0478 (-0.520)	0.122 (1.206)	0.153 (0.648)	0.00119 (0.371)	12.96 (0.937)
Constant	0.199*** (5.775)	7.014*** (98.50)	4.405*** (69.42)	2.631*** (14.25)	0.0389*** (14.89)	189.5*** (17.96)
Observations	266	264	1,760	1,042	1,740	312
R-squared	0.005	0.001	0.002	0.001	0.000	0.002

## Further Discussion on Mechanism

- ▶ Would the decrease of contracting price fully offset the direct effect?
  - ▶ Suppliers have higher discount rate, while bond investors are more risk averse.
  - ▶ Worsened moral hazard problems by the contractors.
    - ▶ Identify moral hazard using key words: quality, illegal outsourcing, delay, etc.
    - ▶ 40% of cases involved contractor moral hazard.
    - ▶ Increased cases featuring contractor moral hazard after the reform.

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    - ▶ Identify moral hazard using key words: quality, illegal outsourcing, delay, etc.
    - ▶ 40% of cases involved contractor moral hazard.
    - ▶ Increased cases featuring contractor moral hazard after the reform.
- ▶ General equilibrium effect.
  - ▶ Alleviating court capture typically brings economic advantages (Liu et al., 2022).
  - ▶ More firm entry increase demand for public facilities.
  - ▶ Private demand for credit may not crowd out bond issuance in the national financial market.