

Empowering through Courts: Judicial Centralization and Municipal Financing in China

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Motivation

- ▶ Classic literature on law and finance (Glaeser and Shleifer, 2002; Porta et al., 2008; Hayek, 2020).
 - ▶ Political influence over courts induces strategic govt default on debt (Dove, 2017).
 - ▶ Example: Iowa in 1858.
 - ▶ Only apply to high-level courts with substantial power in judicial interpretation.
- ▶ Majority of lawsuits handled by grassroots-level court with little power.
 - ▶ Political influence affects court favoritism in incomplete contract.
 - ▶ Political capture of local courts is very common.
- ▶ Question: how does political capture of local courts affect municipal financing?
 - ▶ Govt lawsuits are much more common with contractors and suppliers than creditors.
 - ▶ Court rulings contain useful information about municipal financial conditions.

Overview of Results

- ▶ Policy shock: a high-stakes judicial centralization reform aimed at alleviating court capture by local governments in China since 2014.
 - ▶ high decentralization and ubiquitous judicial local protectionism (Gong, 2004).

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 - ▶ high decentralization and ubiquitous judicial local protectionism (Gong, 2004).
- ▶ 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 margin and extensive margin adjustment.
 - ▶ Ex-ante responses of contracting prices and contractors.

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 - ▶ LGFVs' win rate ↓ by 17.2% against external, 11.6% against local plaintiffs.
 - ▶ Placebo tests; intensive margin and extensive margin adjustment.
 - ▶ Ex-ante responses of contracting prices and contractors.
- ▶ Adverse effect on municipal debt capacity.
 - ▶ Mechanism: increased lawsuit losses + information production by court.
 - ▶ Most lawsuits are against business partners, often around govt payment delays.
 - ▶ Losing lawsuits round payment delays leads to credit rating downgrading.
 - ▶ LGFVs' debt default increased, debt capacity tightened, and spending decreased.

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Judicial Reform and LGFVs' Lawsuits

LGFVs' Debt Capacity and Spending

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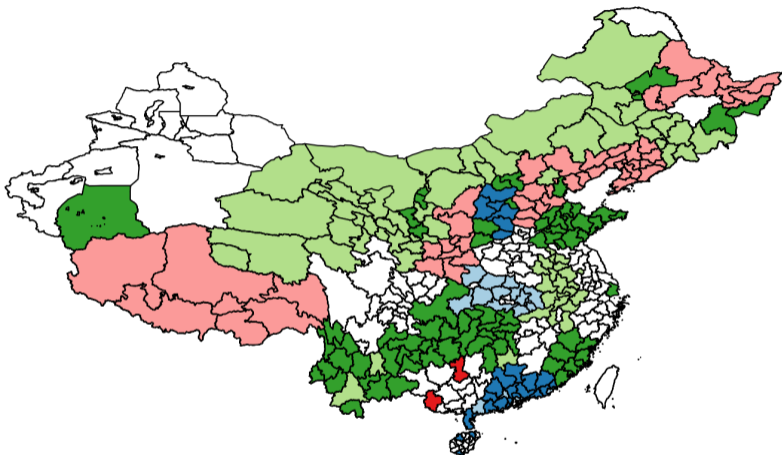
Literature

- ▶ 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.
 - ▶ Hierarchical system: local courts and judges managed by the same level of govt.
 - ▶ Concerns regarding local protectionism and interference by local officials.
- ▶ The Judicial Reform since 2014.
 - ▶ Segregate local courts and procuratorates from local govt.
 - ▶ Part of the increased centralization efforts since 2013.
 - ▶ Two components: personnel and budgetary.
- ▶ Staggered implementation.
 - ▶ Initial plan: 2014-2016.
 - ▶ Actual roll-out: 98 cities haven't initiated reform by 2020.
 - ▶ Obstacles: provincial govt fiscal capacity (Yang and Li, 2023).
 - ▶ In 2014, local court expenditure \approx 4.37% provincial govt budgetary expenditure.
 - ▶ Jiangsu, 2020: provincial income is 15B RMB; all court expenditure is 8.9B RMB.

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.
 - ▶ Backed by local govt fiscal and land sale revenues.
 - ▶ In 2015, the Budget Law was revised to authorize municipal bonds; yet LGFVs continued.
 - ▶ 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.

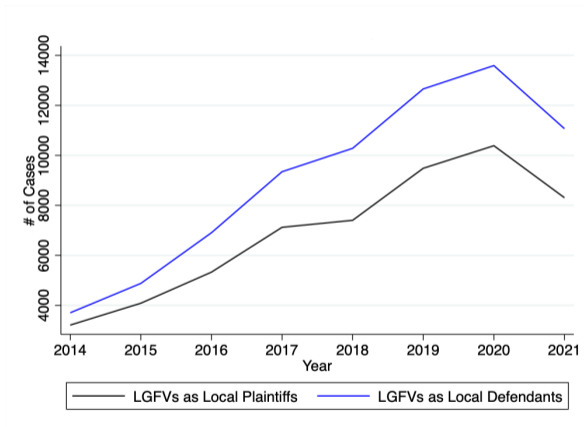


Figure: Number of LGFV Lawsuits

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 landchina.com.

Judicial Reform and LGFVs' Win Rate

- ▶ Identification: staggered roll-out of the reform during 2014-2021.
 - ▶ Key: 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

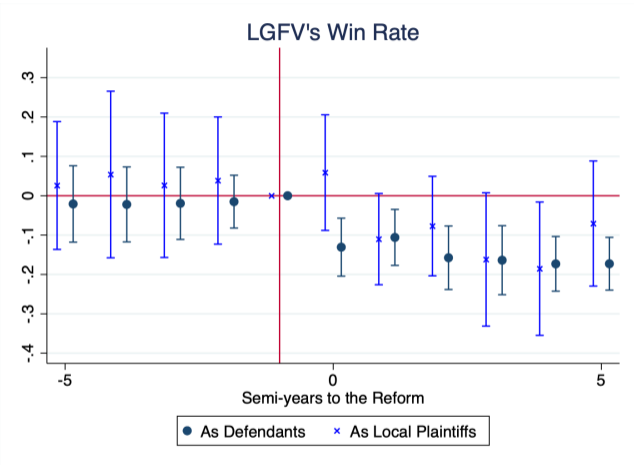


Figure: Baseline Event Study: LGFVs' Win Rate

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
Reform	-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?

Mechanisms

- ▶ Increased lawsuit losses.
 - ▶ Lawsuit Losses = Δ 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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- ▶ 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

Cases with LGFV Payment Delays:	Yes	Yes	No	No
Spec:	OLS	IV	OLS	IV
Dep Var: Rating Downgrading	(1)	(2)	(3)	(4)
Win Rate	-0.016*** (-3.04)	-0.171*** (-2.37)	-0.004 (-0.42)	0.003 (0.03)
Year FE	Yes	Yes	Yes	Yes
LGFV FE	Yes	Yes	Yes	Yes
Observations	6,687	6,972	8,63	1,265
F-statistics		14.15		2.57

LGFVs' Default Risk

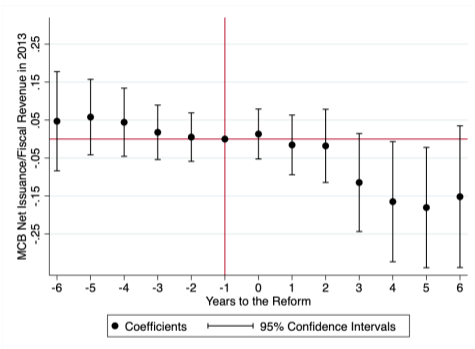
- ▶ $default_{ict}$: 1 if LGFV i defaults on non-standardized debt in year t ; 0 otherwise.
- ▶ $defaultn_{ict}$: # default events of LGFV i in year t .

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

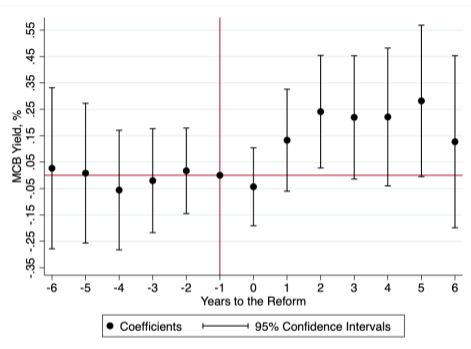
Table: Effect on LGFVs' Defaults

Dep Var:	(1) default	(2) 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' Asset Growth

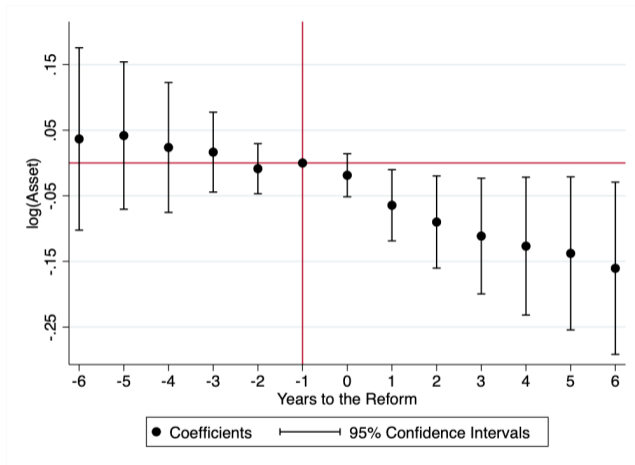


Figure: LGFV asset size after the judicial reform

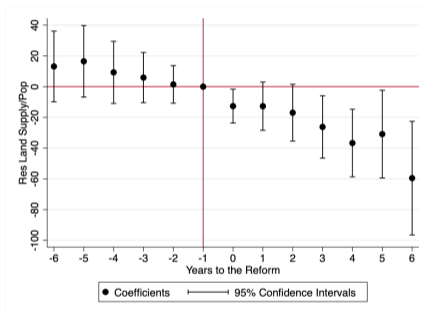
LGFVs' Balance Sheet

Table: Effect on LGFVs' Alternative Funding Sources

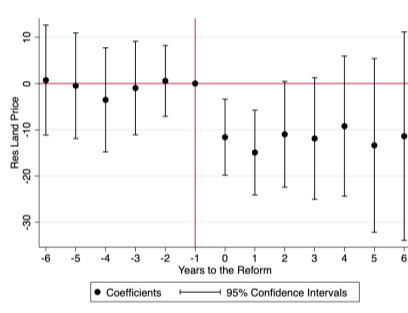
	(1)	(2)	(3)	(4)	(5)
Dep Var:	log(Asset)	borrowing rate	Bond/Asset	leverage	AccPayable/COGS
Reform	-0.0934** (-2.147)	0.325** (2.442)	-0.0116** (-2.376)	0.00981 (1.029)	0.0237** (2.319)
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	27,967	21,692	27,884	27,884	27,627
R-squared	0.8664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

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

- ▶ Local govt financing can be empowered by a court captured by local govt.
- ▶ Alleviating court capture reveals more information about municipal financial conditions and facilitates market forces to discipline govt debt use.
- ▶ A harder budget constraint on local governments!

Intensive margin effect of judge incentives

Table: Intensive Margin - Conditional on Case Composition

Dep Var: win rate	(1)	(2)
Reform	-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)
Reform	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.