Going Bankrupt in China

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Motivation

- Bankruptcy institutions play an important role in financial development and in the reallocation of production factors across firms
- Numerous frictions, especially in emerging markets
  - congested courts, lack of specialization, pro-debtor/workers bias
- China:
  - Scarce empirical evidence on bankruptcy resolution
  - Additional friction: political influence
    - Local politicians: career incentive to keep financially distressed firms alive

    $\rightarrow$ slow down reallocation of resources, create “zombie” firms

This paper

- **Objectives:**
  - Use new data to provide stylized facts on bankruptcy resolution in China
  - How political influence on courts affect bankruptcy outcomes and local economy
- **Setting and Data:**
  - New case-level dataset covering 2,815 bankruptcies 2011-2020
  - Exploit introduction of courts specialized in bankruptcy
    - Better trained judges/less subject to political influence
- **Identification:**
  - Judicial outcomes:

  → compare cases filed in traditional vs specialized courts within city/year
  - Local economy:

  → exploit staggered introduction of courts across cities

Main Findings

1. Stylized Facts on Bankruptcy resolution in China
   - Large share of liquidations (83%)
   - Average time in court: 1.5 years
2. Effects of specialized courts on judicial outcomes
   - Faster resolution (36%, $\approx$200 days)
   - Better trained judges (27% more likely to be trained in elite schools)
   - Independence:
     - $\times 2$ larger decline in case duration for SOEs than private firms
     - $\times 2$ larger decline in case duration in late years of local party secretary's term
3. Effects of specialized courts on local economy
   - $\downarrow$ labor share in "zombie"-intensive industries, $\uparrow$ entry and productivity

Related Literature

- Law and Finance:

  La Porta et al. (1997), La Porta et al. (1998), Djankov et al. (2008), Claessens and Klapper (2005), Safavian and Sharma (2007), Qian and Strahan (2007), Haselmann, Pistor, and Vig (2010), Visaria (2009), Ponticelli and Alencar (2016), Vig (2013), Rodano et al. (2016)

- Political economy:

  Faccio et al. (2006), Sapienza (2004), Carvalho (2014), Agarwal et al. (2018), Mian, Sufi, and Trebbi (2010)

- China debt boom:

  Bai et al. (2016), Cong et al. (2018), Hachem and Song (2016), Chen et al. (2018), Jin et al. (2018), Gao et al. (2017).

Structure of the Talk

1. Institutional setting, Data and Stylized Facts
2. Empirical strategy
3. Results

Institutional Setting

- 2007: New Enterprise Bankruptcy Law (model: US law)
  - Covers private firms, strengthen creditors' rights, introduce reorganization
- Court enforcement
  - Standard frictions: lengthy procedures, lack of specialization
  - China-specific friction: local government officials incentives to avoid/delay liquidation of local firms
- Introduction of specialized courts: "gradualistic" approach
  1. 2007-2017: Specialized tribunals attached to existing courts (97)
  2. 2019-2020: New specialized courts (9)

  $\rightarrow$ Selection of (often new) judges with specialized training
  (Better judicial decisions, more efficient, lower political capture)

Figure: Number of first specialized courts over time

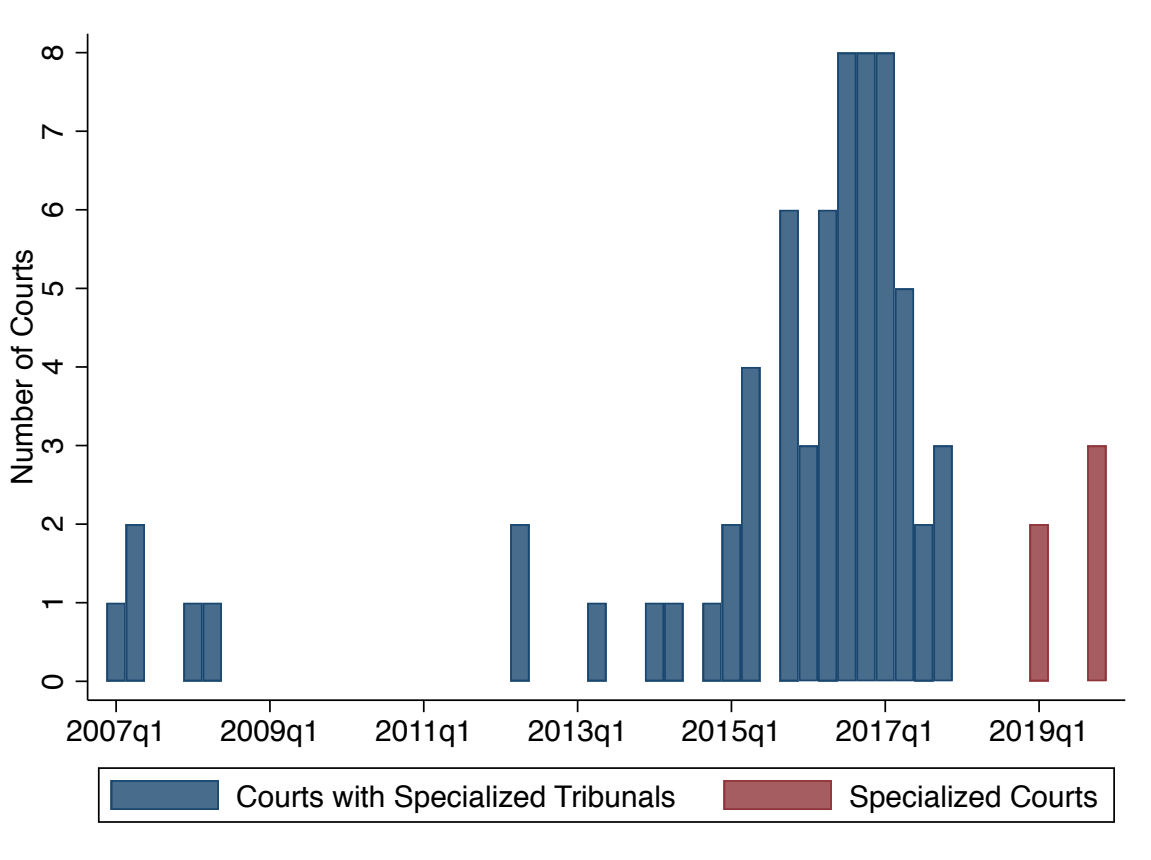
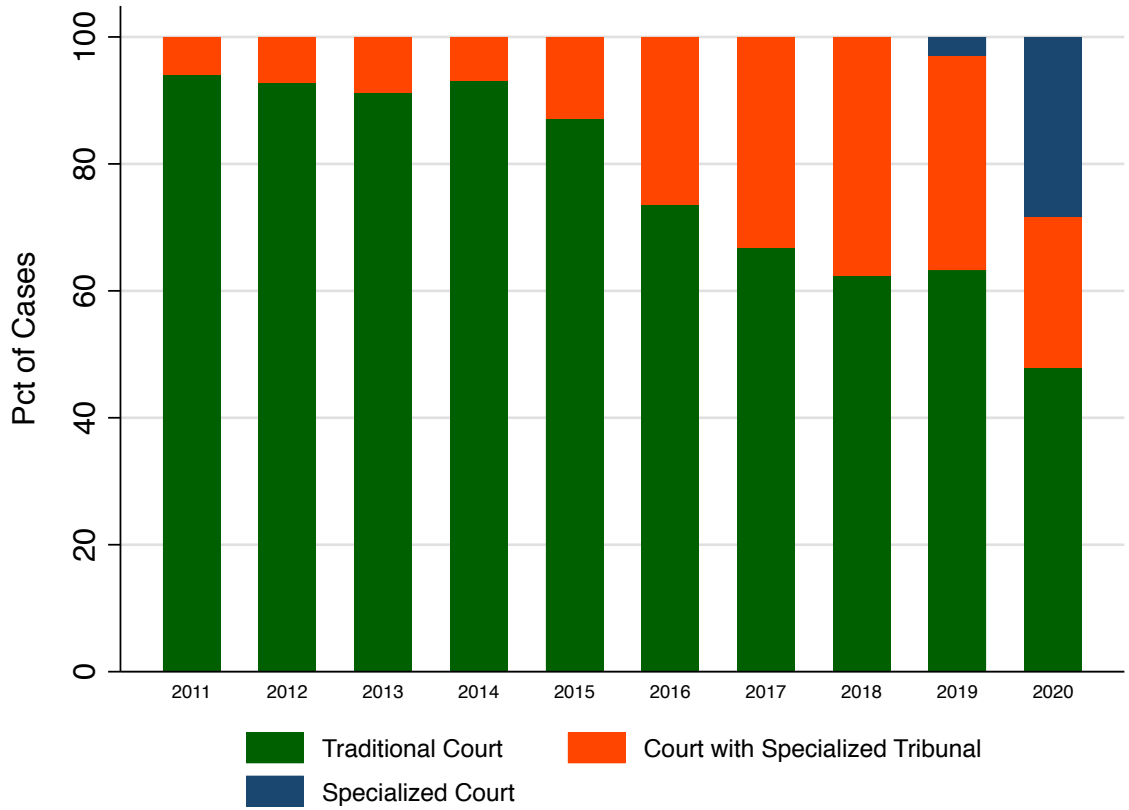


Figure: Cases in traditional vs specialized courts over time



Case-level Data

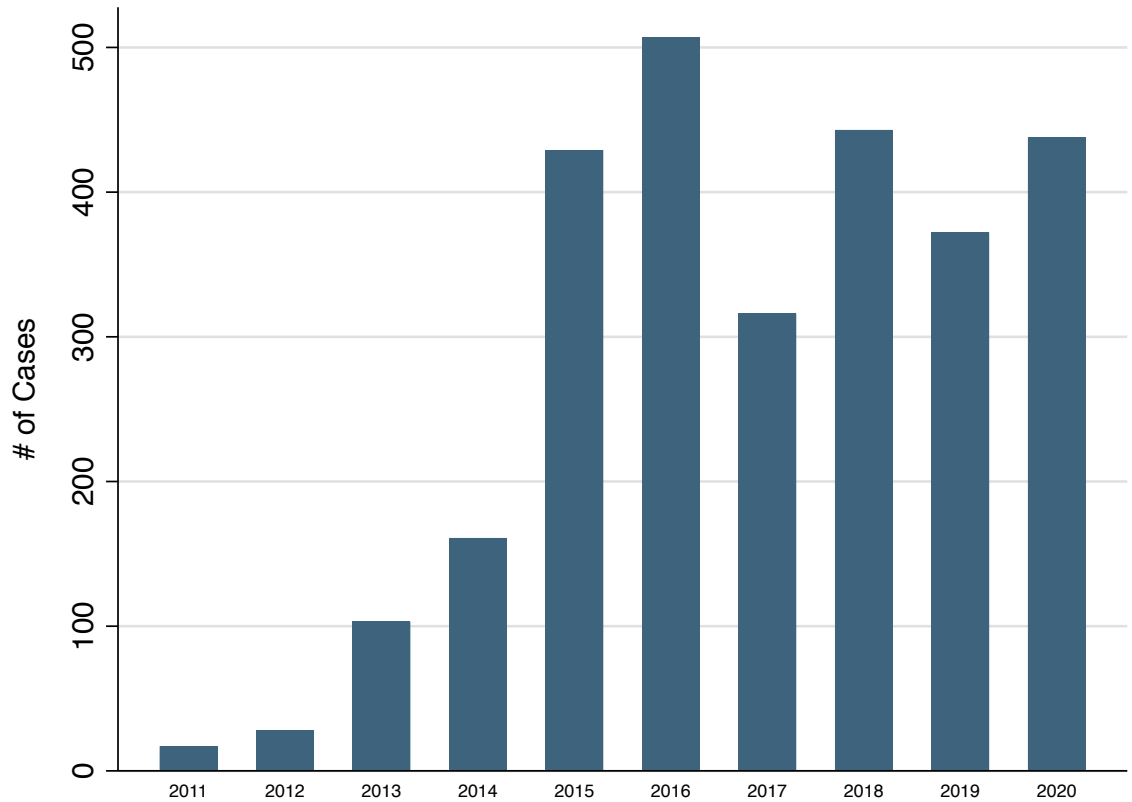
- Source: "National Enterprise Bankruptcy Information Disclosure Platform"

- Coverage: 2,815 bankruptcy cases filed 2011-2020
- Variables:
  - Firm name, court name, firm characteristics (sector, size, ownership)
  - Text analysis of court documents: dates, case type, judges
- Selection:
  - 10% of total cases (aggregate statistics from Supreme Court)

  → Selection on timing: platform launched in 2016

  → Selection on case type: larger cases with positive assets

Figure: Number of bankruptcy cases (2011-2020)

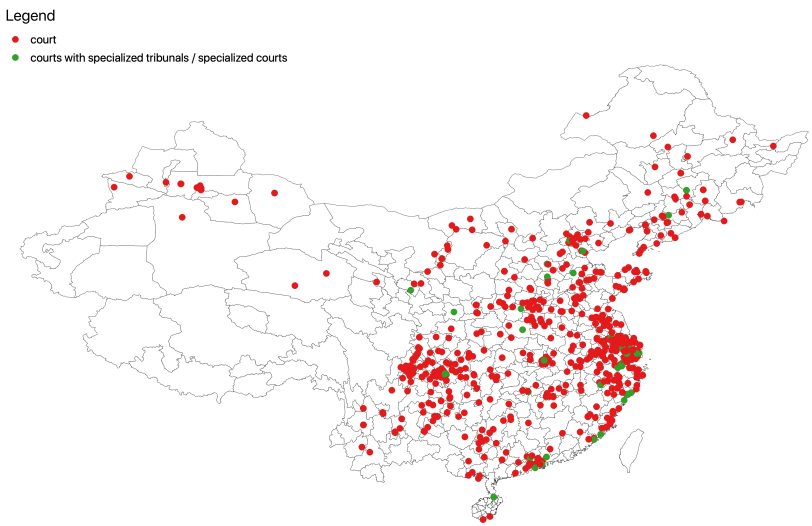


Notes: Source: “National Corporate Bankruptcy Information Disclosure Platform".

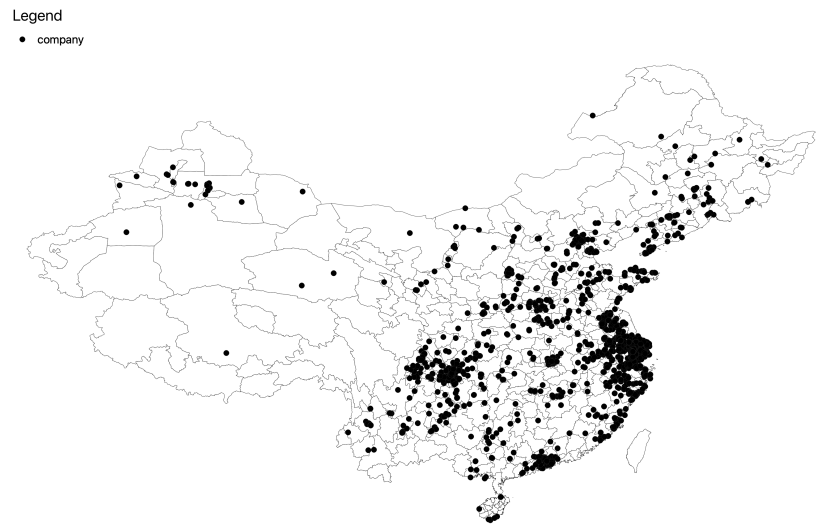
Geography of bankruptcy cases and courts

- collect geographical coordinates of all firms/courts in our sample

(a) courts



(b) firms



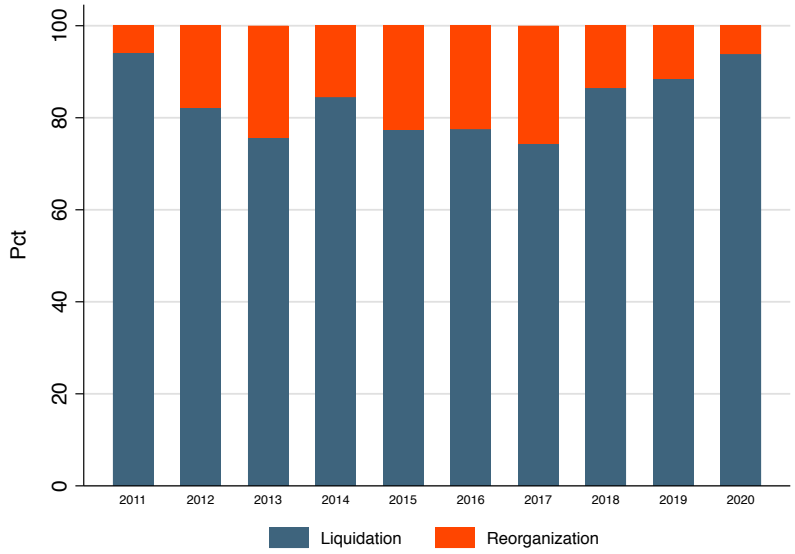
Case characteristics

Table: Number of cases by case type and firm characteristics

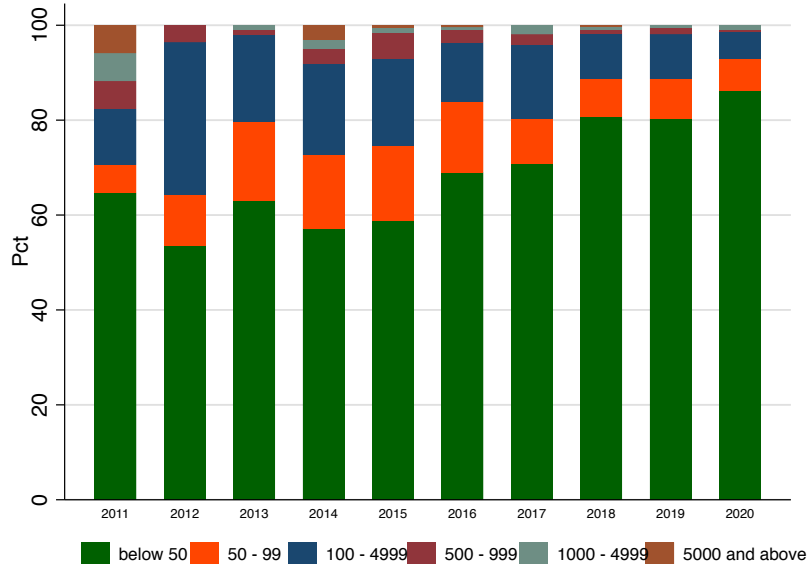
	Num of Cases	Percent
	Case Type	
Liquidation	2337	83.02
Reorganization	478	16.98
	Firm Type	
Number of employees:		
Below 50	2044	72.61
50 - 99	315	11.19
100 - 499	355	12.61
500 - 999	62	2.2
1000 - 4999	28	0.99
5000 and above	11	0.39
Ownership:		
Non-SOE	2635	93.61
SOE	180	6.39
Sector:		
Construction and Real Estate	565	20.07
Electricity, gas and water supply	73	2.59
Finance	73	2.59
Hotels and restaurants	67	2.38
Manufacturing	1166	41.42
Mining	66	2.34
Other	553	19.64
Wholesale and Retail	252	8.95
Total Number of Cases: 2815		

Figure: Number of bankruptcy cases by year and case/firm characteristics

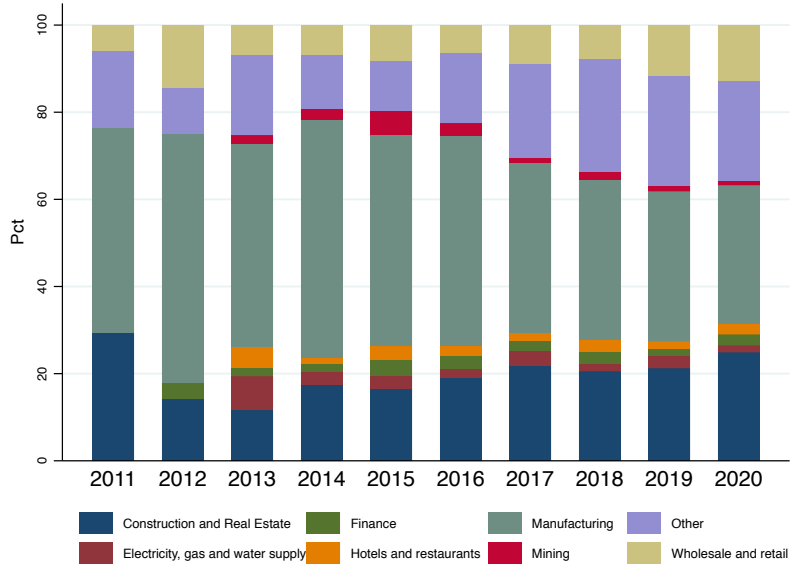
(a) by case type



(b) by firm size



(c) by sector



(d) by ownership

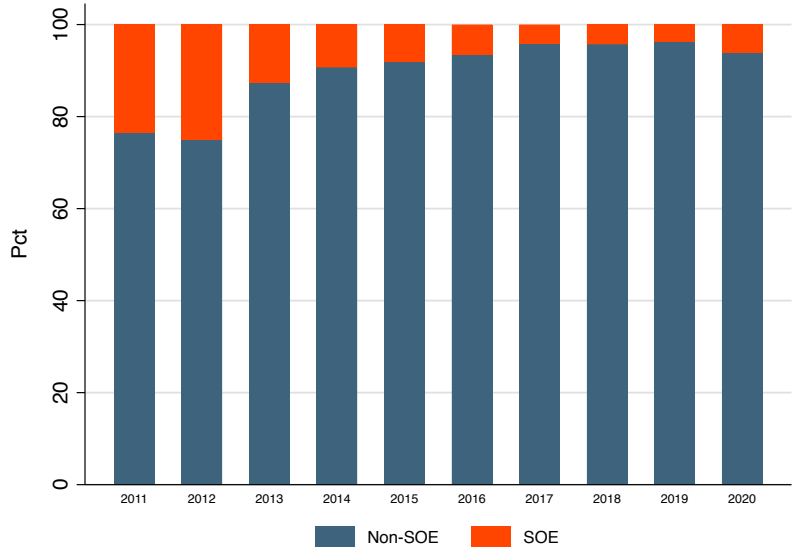
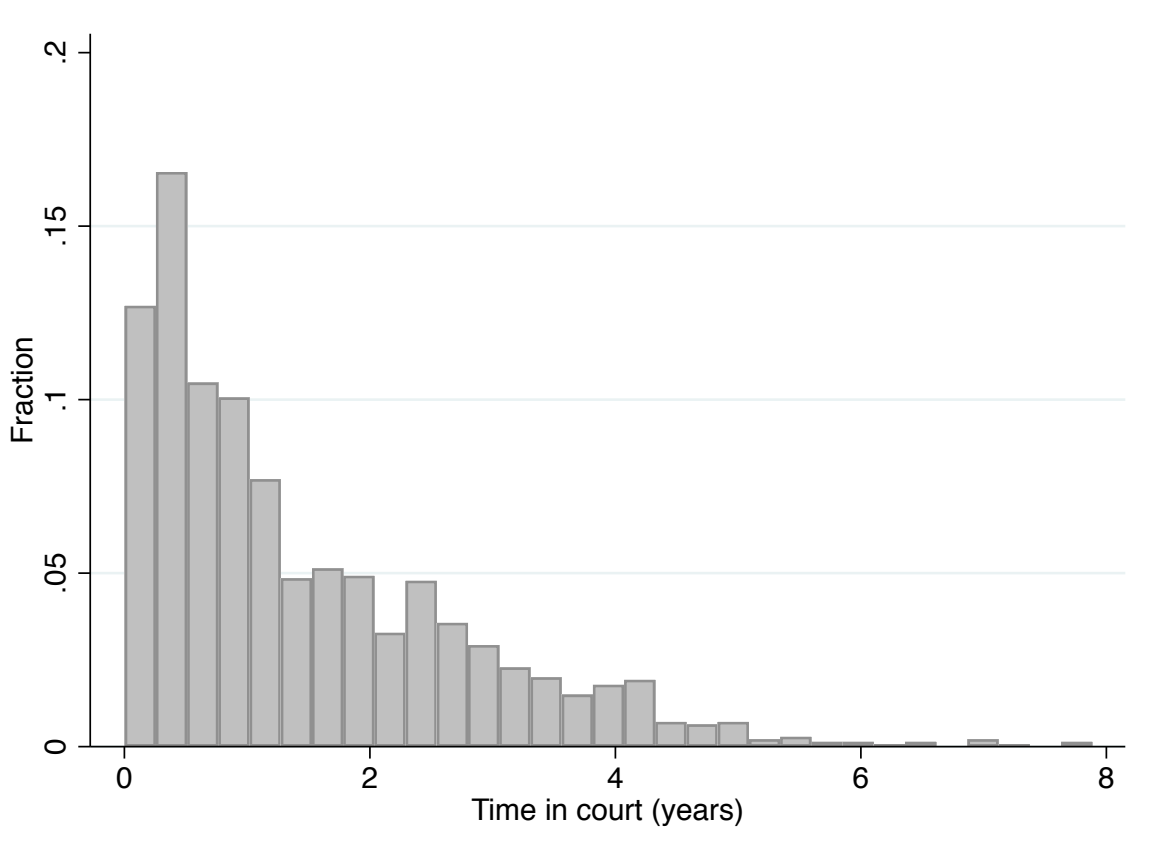


Figure: Distribution of Time in Court



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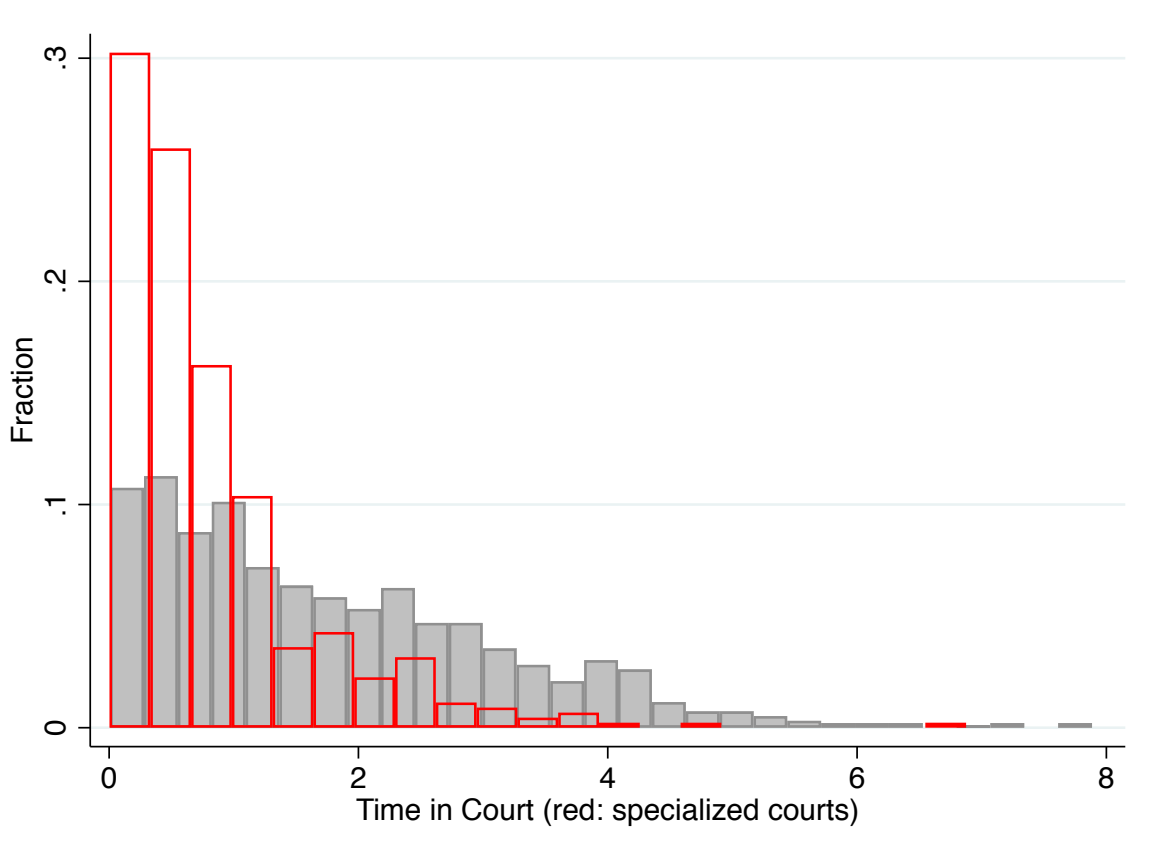


Structure of the Talk

1. Institutional setting, Data and Stylized Facts
2. **Empirical strategy**
3. Results

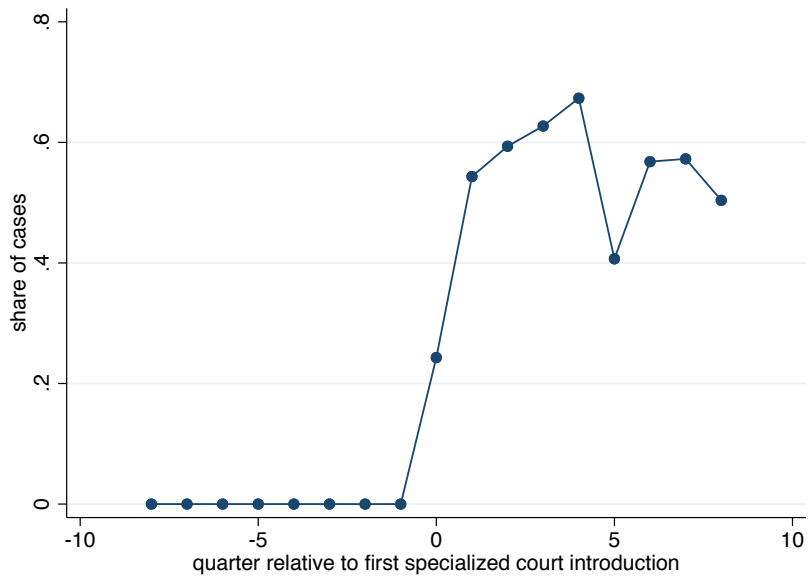
Empirical Strategy

- Identification challenge: endogeneity in court introduction

  e.g. cities with specialized courts affected by different economic shocks

- Exploit fact that specialized and traditional courts coexist in same city

Figure: Share of cases allocated to specialized courts around their introduction



Case-level Specification

→ Compare cases in different courts within same city/year:

$$y_{icjt} = \alpha_{jt} + \alpha_c + \beta 1(PostSpecialization)_{ct} + \varepsilon_{icjt} \qquad (1)$$

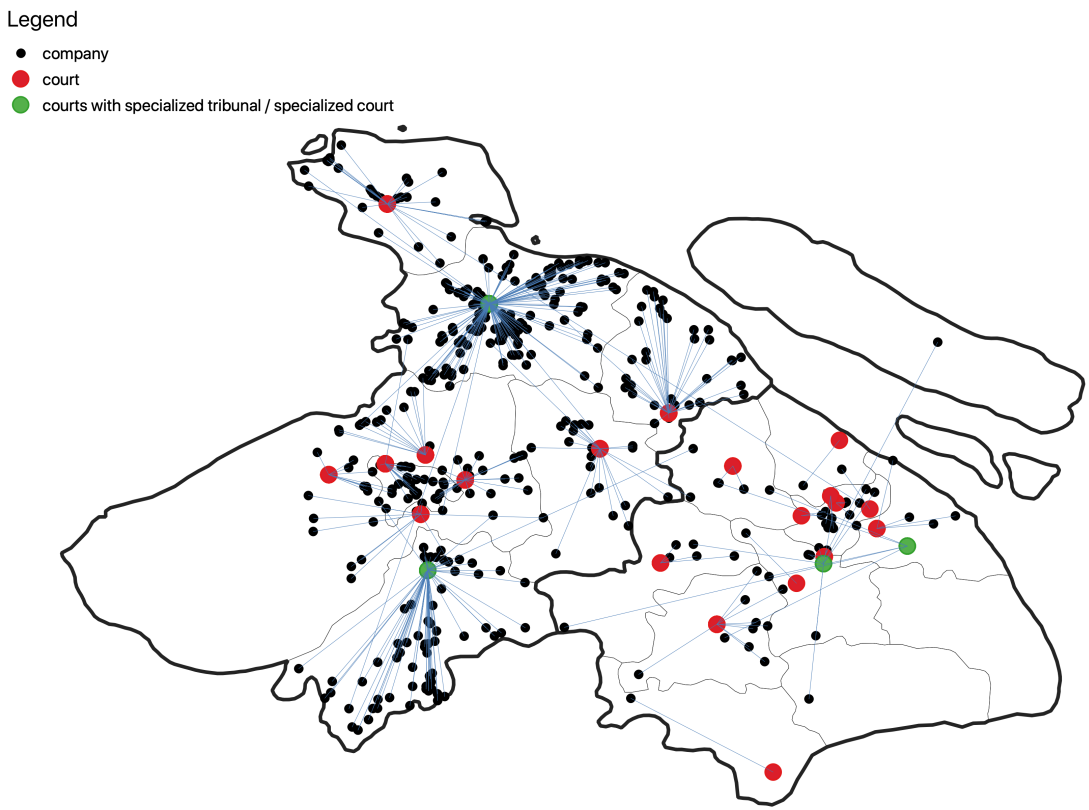
i: case c: court, j: city, t: year. Standard errors clustered at city-level

$$1(PostSpecialization)_{ct} = \begin{cases} 1 & \text{after introduction specialized tribunal} \\ 0 & \text{before} \end{cases}$$

- What drives allocation of cases within a city?

Case Allocation, cont.

Figure: Visual example: case assignment in Suzhou-Shanghai



→ Investigate role of county boundaries and distance to closest court

Case Allocation: role of distance

outcome	1(case filed)			
	(1)	(2)	(3)	(4)
1(Same county)	0.273**		0.175***	
	(0.100)		(0.0574)	
1(Same county) × 1(Specialized)			0.300**	
			(0.130)	
1(Closest court)		0.517***		0.478***
		(0.0725)		(0.0992)
1(Closest court) × 1(Specialized)				0.0450
				(0.114)
1(Specialized)			0.0967**	0.229***
			(0.0368)	(0.0363)
Observations	21,115	21,115	21,115	21,115
R-squared	0.235	0.103	0.327	0.195
City FE × Year Accept FE	y	y	y	y

Dataset with all firm-court potential matches in years in which specialized courts are active.

- Cases are 52% more likely to be filed in closest court

  ...independently from court specialization

- Geographical distance higher predictive power than county boundaries

Case Allocation: Case and Firm Characteristics

Case and firm characteristics	(1) 1(Case Filed in Specialized Court)
Ownership:	
1(SOE)	-0.0501
	(0.0343)
Case type:	
1(Reorganization)	-0.0714
	(0.0722)
Firm size dummies:	
Below 50	0.00754
	(0.0202)
50 - 99	-0.00785
	(0.0304)
500 - 999	0.0420
	(0.0479)
1000 - 4999	0.164
	(0.139)
5000 and above	0.225*
	(0.114)
Firm sector dummies:	
Electricity, gas and water supply	-0.106
	(0.0674)
Finance	-0.0421
	(0.0371)
Hotels and restaurants	-0.0743
	(0.0653)
Manufacturing	0.0352
	(0.0453)
Mining	0.0256
	(0.0632)
Other	0.0398
	(0.0289)
Wholesale and retail	0.0393
	(0.0335)
Observations	1,890
R-squared	0.526
City $\times$ Year Accept FE	y

- Case/firm characteristics do not explain allocation. Still, added as controls.

Structure of the Talk

1. Institutional setting, Data and Stylized Facts
2. Empirical strategy
3. **Results**
   - Time in court
   - Judges' education
   - Proxies of political influence

Results: Time in Court

$$(\text{days in court})_{icjt} = \alpha_{jt} + \alpha_c + \beta 1(PostSpecialized)_{ct} + \varepsilon_{icjt}$$

Table: Effect of Specialization on Time in Court for Bankruptcy Cases

outcome	Time in court (days)				
	(1)	(2)	(3)	(4)	(5)
1(Post Specialized)	-105.9***	-125.2***	-121.0***	-195.7***	-192.9***
	(24.59)	(44.59)	(41.68)	(35.45)	(29.55)
Observations	1,401	1,208	1,205	1,091	1,088
R-squared	0.515	0.724	0.730	0.750	0.754
Year Accept FE	y	y	y	n	n
Court FE	n	y	y	y	y
Sector FE	n	n	y	n	y
Firm size FE	n	n	y	n	y
City FE $\times$ Year Accept FE	n	n	n	y	y

- Cases dealt with by specialized courts:
  - $\rightarrow$ 193 days (36%) faster resolution than traditional courts

Results: Judge's Education

Table: Effect of Specialization on Judges' education

outcome	1(elite school)	
	(1)	(2)
1(Post Specialized)	0.146*	0.268***
	(0.0826)	(0.0769)
Constant	0.134***	0.102***
	(0.0206)	(0.0204)
Observations	3,492	3,466
R-squared	0.090	0.284
Year Accept FE	y	y
Sector FE	y	y
Firm size FE	y	y
City FE $\times$ Year Accept FE	n	y

- Judges in specialized courts:
  - $\rightarrow$ 27% more likely to have been trained in elite schools
- Elite schools include: top 5 law schools and Project 985 Universities

Results: Political influence

- Does specialization increase judicial independence?

  Measuring "independence" extremely challenging.

- We propose two tests:
  - Differences in judicial treatment of SOE vs POE

  → Party officials: higher incentive to delay liquidations of SOE

  - Different effects of specialization across the term of local politicians.

  → Incentive to delay cases/avoid liquidations: larger in late years local party secretary's term

Results: Political influence

outcome	Time in court (days)				
		Early term		Late term	
	(1)	(2)	(3)	(4)	(5)
1(Post Specialized)	-182.1***	-137.7**	-186.6***	-210.0**	-349.9***
	(63.92)	(58.75)	(38.56)	(98.98)	(95.46)
1(Post Specialized) × 1(SOE)	-218.8*				
	(131.3)				
1(SOE)	71.29				
	(102.1)				
Observations	1,088	586	538	338	304
R-squared	0.755	0.761	0.768	0.710	0.686
Year Accept FE	n	y	n	y	n
Court FE	y	y	y	y	y
Sector FE	y	y	y	y	y
Firm size FE	y	y	y	y	y
City FE × Year Accept FE	y	n	y	n	y

- Specialized courts:
  - $\times 2$ larger decline in case duration for SOE than for POE
  - $\times 2$ larger decline in case duration in late years of local party secretary's term

Structure of the Talk

1. Institutional setting, Data and Stylized Facts
2. Empirical strategy
3. **Results**
   - City-level outcomes

Empirical Strategy: City-level Specification

Exploit staggered introduction of specialized courts across cities

$$y_{jt} = \alpha_j + \alpha_t + \beta 1(PostSpecialization)_{jt} + \Gamma X_{jt} + \eta_{jt} \quad (2)$$

j: city, t: year. Standard errors clustered at city-level

$$1(PostSpecialization)_{jt} = \begin{cases} 1 & \text{after introduction first specialized tribunal} \\ 0 & \text{before} \end{cases}$$

- Main challenge: endogenous timing of introduction of specialized courts
  - Check if pre-existing economic trends explain timing of introduction
  - Analysis of pre-trends in city-level outcomes

  $\rightarrow$ Still: only suggestive evidence.

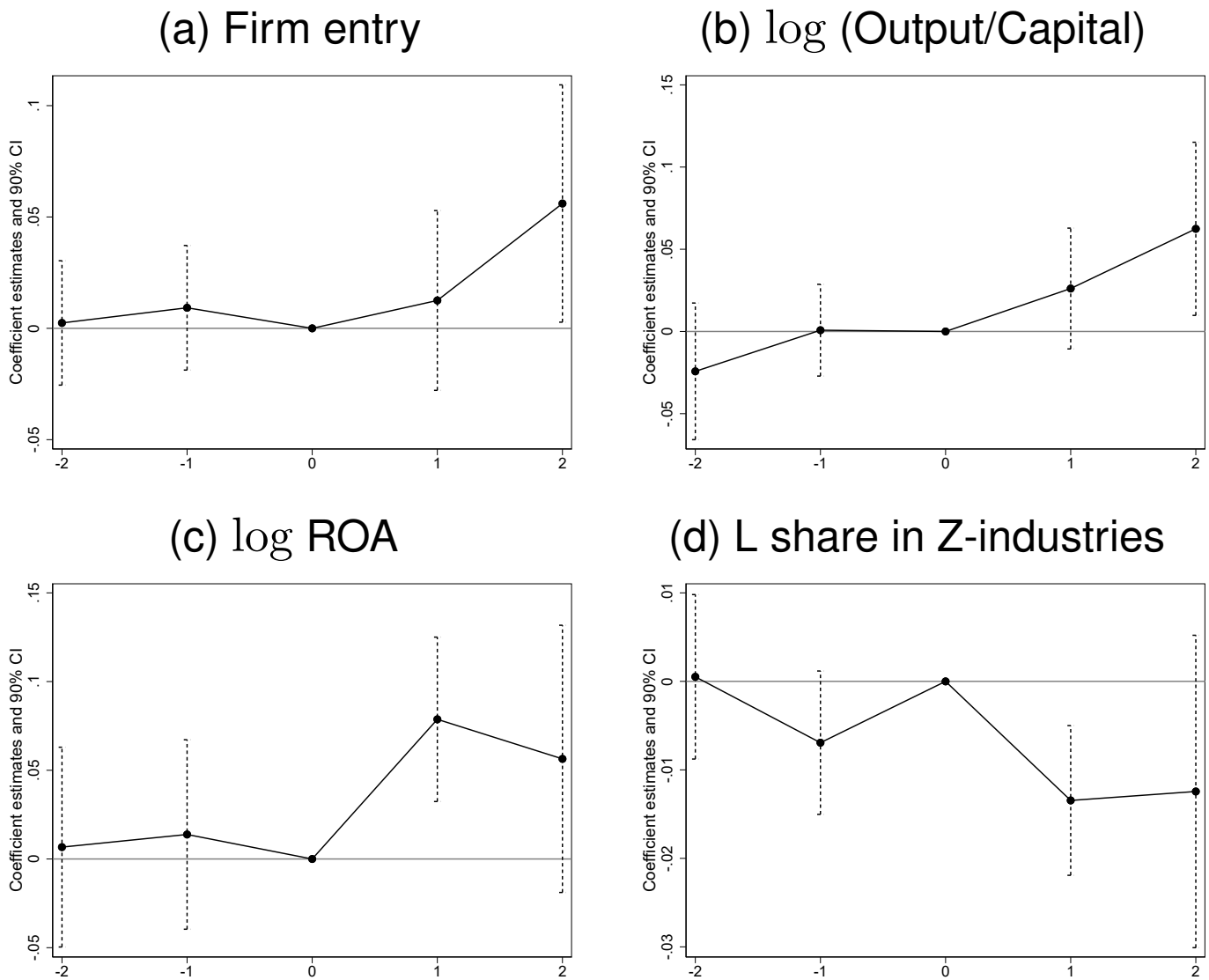
Results: City-level outcomes

$$y_{jt} = \alpha_j + \alpha_t + \beta 1(PostSpecialization)_{jt} + \Gamma X_{jt} + \eta_{jt}$$

outcome:	L share Z-Industries (1)	Firm Entry (2)	log(Output/Capital) (3)	log(ROA) (4)
1(Post Specialized)	-0.0174***	0.0310**	0.0449**	0.155***
	(0.00476)	(0.0137)	(0.0181)	(0.0357)
Observations	1,941	1,989	1,989	1,915
R-squared	0.906	0.691	0.892	0.771
Year FE	y	y	y	y
City FE	y	y	y	y
City-level controls	y	y	y	y

- Cities that introduced specialized tribunals experienced:
  - 1.7 p.p. larger reduction in employment share in sectors with higher diffusion of "zombie" firms (Caballero et al. 2008)
  - 3% faster firm entry, higher average productivity of local firms

Figure: Average Firm Productivity Relative to Court Introduction - Event Study



Notes: The sample is restricted to cities that introduced specialized courts at some point between 2011 and 2017.

Concluding Remarks

- Bankruptcy institutions are key for financial and economic development
- Characterized by frictions (e.g. congestion, lack of training) in most countries.
- Additional friction in the China context: political influence

Take home points from this paper:

1. Fist step in our understanding of bankruptcy resolution in China (so far unexplored due to lack of data)
2. Evidence that specialization can attenuate existing frictions (similar to findings in other countries, e.g. India), including political influence.

Thank you!