

Going Bankrupt in China

Bo Li
Tsinghua University

Jacopo Ponticelli
Northwestern & CEPR

ABFER, Singapore
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Motivation

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 - Inefficiency
 - Political influence
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 - “zombie” firms and misallocation of resources

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- Political interference in bankruptcy:
 - Local politicians have incentive to keep financially distressed SOEs alive
 - Contain unemployment, avoid social unrest, promote political careers
 - “zombie” firms and misallocation of resources
- Scarce direct empirical evidence on:
 - Political influence on courts
 - Insolvency resolution in China

**JUDGES MUST BE
FREE FROM
POLITICAL
INTERVENTION
OR
INTIMIDATION.**



QUOTEHD.COM

Stockwell Day

Canadian Politician

Born 1950

This paper

- Objectives:

1. How political influence affects bankruptcy in China?
2. Study effect of introducing *courts specialized in bankruptcy* on judicial outcomes and the local economy

This paper

- Identification:
 - Staggered introduction of specialized courts (97)
 - different times in different cities (2007-2017)
 - timing uncorrelated with local economic conditions

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 - Staggered introduction of specialized courts (97)
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 - timing uncorrelated with local economic conditions
- Data:
 - New hand-collected data on bankruptcy cases
- Outcomes:
 - Judicial:
selection of judges' education/experience, time in court, liquidation of SOEs
 - Financial and Real:
capital productivity, zombie firms, credit, investment

Preview of Results

Prefecture-level cities introducing specialized courts experienced:

- Judicial outcomes (case and court-level):
 - Higher professionalization: better trained / more experienced judges
 - Faster resolution (21%, 100-120 days)
 - ↑ SOEs filings (local vs central). Consistent with more independence

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2 Financial and real effects (city-level):

- ↓ in share of “zombie” firms
- ↑ in average capital productivity
- ↓ in lending to local SOEs
- ↓ in investment of SOEs

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
- 2 Data
- 3 Empirical strategy
- 4 Results

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Institutional Setting

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Challenges (written law vs enforcement)

- Lengthy procedures, lack of professionalization, local gov influence

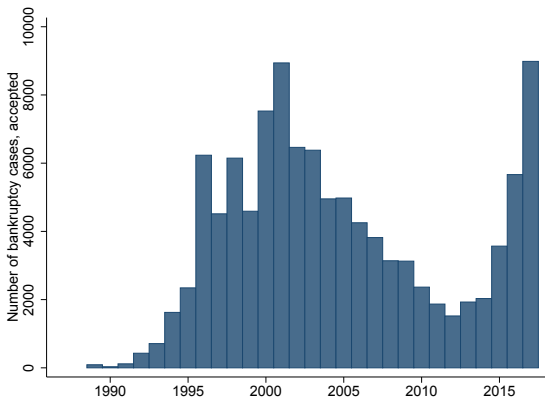
Institutional Setting

- 2007: New Enterprise Bankruptcy Law (model: US law)
 - Strengthen priority of secured creditors, introduce reorganization

Challenges (written law vs enforcement)

- Lengthy procedures, lack of professionalization, local gov influence
- 2007-2017: Introduction of specialized courts
 - Staggered introduction across cities (97)
 - Objective:
 - Professionalization: experienced judges, trustees
 - Streamline procedure, facilitate creditor coordination
 - Increase independence from local gov

Figure: Number of bankruptcy cases, accepted



Notes: The Figure shows the number of bankruptcy cases accepted in the country in each year between 1989 and 2017.

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Data

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 - source: Ministry of Justice/Supreme Court (SPC)

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- Case-level data [source: SPC]
 - Coverage: 1,285 bankruptcy cases filed between 2002-2017
 - Hand collected info on:
 - dates (filing, closing)
 - type (liquidation, reorganization)
 - firm characteristics (name, sector, size)
 - firm ownership: private, local vs central SOEs
 - judges and trustees' names

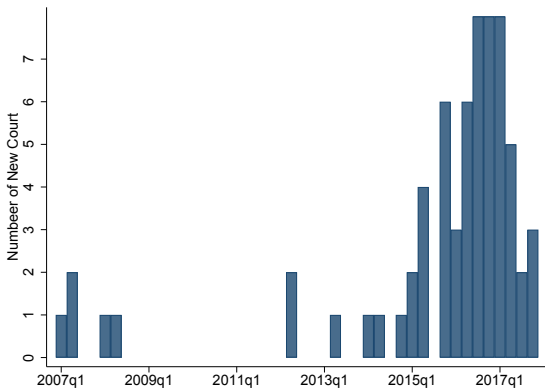
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- Judge-level data [source: *CNKI* and *SPC - China Judgments Online*]
 - Education: master from "Elite" school (Project 985, top-5 law schools)
 - Experience: bankruptcy cases previously handled

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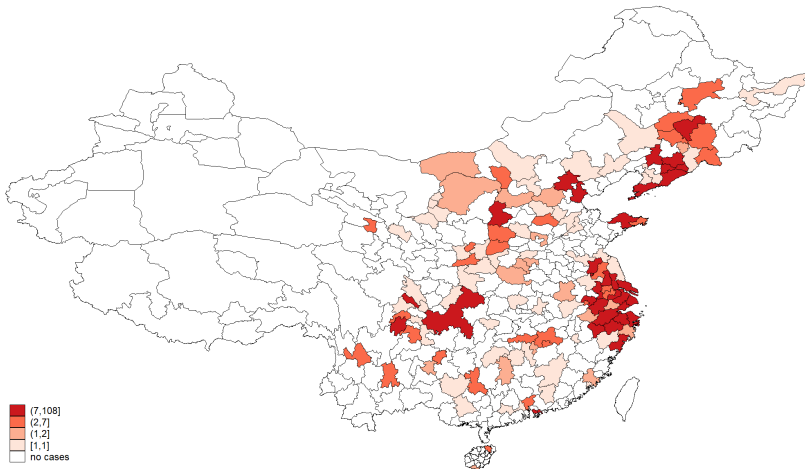
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 - Experience: bankruptcy cases previously handled
- Credit and Real outcomes:
 - Capital productivity [source: *China Statistical Yearbook*]
 - Loans, investment, cash reserves, zombie firms [source: *CSMAR*]

Figure: Number of first specialized court introduced by quarter



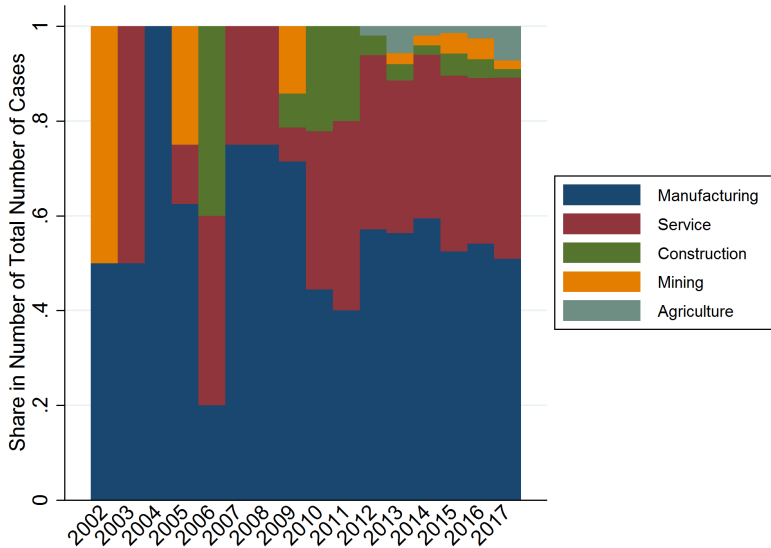
Notes: The Figure shows the number of courts specialized in bankruptcy introduced in each quarter between 2007Q1 and 2017Q4. We focus on the first court introduced in each city.

Figure: Distribution of bankruptcy cases by city



Notes: The Figure shows the geographical distribution of bankruptcy cases between 2005q1 and 2016q4 across Chinese cities.

Figure: Share of bankruptcy cases by sector



Notes: The Figure shows distribution of bankruptcy cases across sectors between 2002q1 and 2017q4.

Table: Summary statistics

Variable	Mean	Median	S.D.	Count
Court Level				
Total bankruptcy cases	1.605	1.000	1.362	615
Proportion of SOE	0.092	0.000	0.278	615
1(After Special Court)	0.111	0.000	0.314	615
Case-Judge Level				
1(Elite School)	0.125	0.000	0.330	2,031
log(N previous bankruptcy cases)	0.611	0.000	0.964	2,031
Share previous bankruptcy cases	0.045	0.000	0.131	1,651
Case Level				
Time in Court	580.538	492.000	487.222	1,157
1(SOE)	0.080	0.000	0.272	1,157
City Level				
log N firms	6.475	6.422	1.115	3,246
log(Output/Fixed assets)	0.979	1.071	0.526	3,246
Share of zombie firms	0.089	0.000	0.162	3,246
log(GRP per capita)	10.207	10.222	0.761	3,246
log(Population)	5.858	5.907	0.692	3,246
Share manufacturing GRP	0.490	0.494	0.109	3,246
Registered unemployment rate	0.032	0.030	0.020	3,246
Firm Level				
Log loan amount	13.878	18.198	8.490	91,587
Access to new loans	0.734	1.000	0.442	91,587
Cash ratio	0.179	0.137	0.145	87,622
Log investment	7.120	0.000	8.651	87,622
1(SOE)	0.525	1.000	0.499	91,587

Structure of the Talk

- 1 Institutional Setting
- 2 Data
- 3 **Empirical strategy**
- 4 Results

Empirical Strategy

Exploits staggered introduction of specialized courts across cities as follows:

$$y_{ct} = \alpha_c + \alpha_t + \beta(\textit{AfterSpecialCourt})_{ct} + \varepsilon_{ct} \quad (1)$$

c : city, t : time (quarters)

$$\textit{AfterSpecialCourt}_{ct} = \begin{cases} 1 & \text{if } t \geq \text{introduction first specialized court} \\ 0 & \text{otherwise} \end{cases}$$

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Main challenge: do city observable characteristics predict the timing of introduction of specialized courts?

Table: Introduction of Specialized Courts and City-level Characteristics

	Estimate
$\Delta \log (\text{GRP per capita})_t$	2.651 (3.391)
$\Delta \log (\text{GRP per capita})_{t-1}$	3.257 (3.339)
$\Delta (\text{Registered Unemployment})_t$	-4.571 (50.060)
$\Delta (\text{Registered Unemployment})_{t-1}$	29.192 (47.682)
$\Delta \log (\text{N Firms})_t$	-1.582 (3.650)
$\Delta \log (\text{N Firms})_{t-1}$	-5.165 (3.357)
$\Delta \log (\text{Average Firm Size})_t$	-0.640 (3.182)
$\Delta \log (\text{Average Firm Size})_{t-1}$	3.624 (2.754)
$\log (\text{GRP per capita})_t$	0.787 (0.606)
$(\text{Manufacturing GRP} / \text{Total GRP})_t$	-2.399 (3.963)
$\log (\text{Population})_t$	0.712 (0.506)
$(\text{Registered Unemployment Rate})_t$	-37.634 (32.011)

Structure of the Talk

- 1 Institutional Setting
- 2 Data
- 3 Empirical strategy
- 4 **Results**
 - **Judicial outcomes**

Table: Judge-Level Outcomes: Education and Experience

	(1)	(2)
	1(Elite School)	log(N previous bankruptcy cases)
1(After Special Court)	0.125** (0.0509)	0.378** (0.184)
City-level controls	y	y
Quarter FE	y	y
City FE	y	y
Observations	2,029	2,029
R-squared	0.177	0.455

Notes: The unit of observation is a case-judge. The time period is 2005Q1 to 2016Q4. City-level controls include: log GRP per capita, log population, industry share in GRP and unemployment rate. Standard errors in parentheses are clustered at court level. Significance level: *** p<0.01, ** p<0.05, * p<0.1

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Bankruptcy judges in specialized courts:

- 12.5 p.p. more likely to be from elite schools
- 37.8 percent more bankruptcy cases in past

Table: Time in Court for Bankruptcy Cases

outcome:	(1)	(2)
		Time in Court
1(After Special Court)	-103.5*	-122.0**
	(62.17)	(60.86)
1(After Special Court) × 1(SOE)		65.75
		(179.9)
1(SOE)		128.1
		(126.4)
City-level controls	y	y
Quarter FE	y	y
Court FE	y	y
Debtor Firm Sector FE	y	y
Debtor Firm Size FE	y	y
Reorganization FE	y	y
Observations	885	885
R-squared	0.577	0.579

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Average case duration in specialized courts:

- 100-120 days lower (21% of mean duration)

Table: Court Level Outcomes

VARIABLES	(1)	(2)	(3)	(4)
	Total bankruptcy cases	Share of SOE cases		
		All SOEs	Central gov SOEs	Local gov SOEs
1(After Special Court)	0.627** (0.312)	0.0939** (0.0384)	0.00902 (0.0191)	0.0612** (0.0298)
City-level controls	y	y	y	y
Quarter FE	y	y	y	y
City FE	y	y	y	y
Observations	615	615	615	615
R-squared	0.302	0.462	0.280	0.410

Notes: The unit of observation is a court. The time period is 2005Q1 to 2016Q4. Standard errors in parentheses are clustered at city level. City-level controls include: log GRP per capita, log population, industry share in GRP and unemployment rate. Significance level: *** p<0.01, ** p<0.05, * p<0.1

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Courts that became specialized experienced:

- ↑ in number bankruptcy cases filed (0.6)
- 9.4 p.p. larger increase in share of SOE cases
 - Effect driven by local SOEs (no effect on central SOEs)

Judicial Outcomes - Sum up and Discussion

Effect of introduction of specialized courts:

- 1 ↑ professionalization of Judges:
 - 12.5 p.p. more likely to be from elite schools
 - 37.8 percent more bankruptcy cases in past
- 2 ↓ time in court
 - 100-120 days (21% average duration)
- 3 ↑ bankruptcy filings local SOEs
 - Consistent with:
 - lower intervention of local politicians
 - change in local politicians' incentives
 - No effect on SOEs controlled by central government

Structure of the Talk

- 1 Institutional Setting
- 2 Data
- 3 Empirical strategy
- 4 **Results**
 - Judicial outcomes
 - **Real and Credit outcomes**

Table: City-Level Outcomes

	(1) log N firms	(2) log(Output/ /Fixed Assets)	(3) Share of Zombie Firms
1(After Special Court)	-0.0156 (0.0547)	0.0802** (0.0359)	-0.0219** (0.00918)
City-level controls	y	y	y
Quarter FE	y	y	y
City FE	y	y	y
Observations	3,246	3,246	3,246
R-squared	0.975	0.818	0.411

Notes: The unit of observation is a city. The time period is 2005 to 2016. Standard errors in parentheses are clustered at the city level. City-level controls include: log GRP per capita, log population, industry share in GRP and unemployment rate. Coefficient in column 3 is weighted by number of firms registered in a given city. Significance level: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

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Cities that introduced specialized courts experienced:

- 8 percent higher increase avg capital productivity (15% of a SD)
- 2 p.p. larger decrease in share of zombie firms (mean = 18.6%)

Table: Firm-level Outcomes: Credit and Investment

	(1)	(2)	(3)	(4)
	Log Loan Amount	Access to New Loans	Log Investment	Cash Ratio
1(After Special Court) × 1(SOE)	-0.770* (0.402)	-0.0371* (0.0211)	-2.086*** (0.377)	0.0284*** (0.00873)
1(After Special Court)	0.381 (0.343)	0.0194 (0.0179)	0.930** (0.373)	-0.0168** (0.00771)
1(SOE)	-0.183 (0.369)	-0.0161 (0.0191)	-0.435 (0.291)	-0.0102 (0.00685)
Firm and Quarter FE	y	y	y	y
Industry FE	y	y	y	y
Province × Quarter FE	y	y	y	y
City-level controls	y	y	y	y
Observations	90,308	90,308	86,400	86,400
R-squared	0.538	0.484	0.376	0.593

Notes: The unit of observation is a firm. The time period is 2005Q1 to 2016Q4. Standard errors in parentheses are clustered at city and industry level. Significance level: *** p<0.01, ** p<0.05, * p<0.1

SOEs in cities that introduced specialized courts

- ↓ loan size and investment relative to private firms

Table: Effects on Credit by Type of SOE

1(SOE) =	Log Loan Amount	
	Central SOEs	Local SOEs
1(After Special Court) × 1(SOE)	0.0459 (0.735)	-2.119*** (0.615)
1(After Special Court)	0.0145 (0.310)	0.262 (0.329)
1(SOE)	-0.106 (0.480)	0.0654 (0.417)
Firm and Quarter FE	y	y
Industry FE	y	y
Province × Quarter FE	y	y
City-level controls	y	y
Observations	90,308	90,308
R-squared	0.538	0.538

Notes: The unit of observation is a firm. The time period is 2005Q1 to 2016Q4. Standard errors in parentheses are clustered at city and industry level. Significance level: *** p<0.01, ** p<0.05, * p<0.1

- Effects on lending driven by local SOEs (prefecture city, county, village)

Real and Credit Outcomes - Sum up and Discussion

Effect of introduction of specialized courts:

- 1 ↑ average capital productivity
 - higher (weighted) value added - capital ratio (all firms)
 - lower share of “zombie” firms (publicly listed)
- 2 Heterogeneous effects Private vs SOE (central vs local)
 - Credit
 - Investment

Concluding Remarks

- Political influence in judicial system
- Evidence on bankruptcy and recent reforms increasing court specialization/independence

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- Evidence on bankruptcy and recent reforms increasing court specialization/independence
- Exploit staggered introduction of specialized courts across cities
- Main findings
 - (i) increase in judicial professionalization and court efficiency
 - (ii) Increase in (local) SOE liquidations
 - (iii) Evidence consistent with improved capital productivity

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- Evidence on bankruptcy and recent reforms increasing court specialization/independence
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- Main findings
 - (i) increase in judicial professionalization and court efficiency
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- More research needed:
Mechanism: role of government in judicial system