

How Do Individual Politicians Affect Privatization? Evidence from China

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Motivation

- Political connections play an important role in economies across many countries (e.g., Fisman (2001); Faccio (2006)).
 - Especially, **patronage connections** among bureaucrats and politicians set the foundation of political systems in both democratic and autocratic countries (e.g., Grindle (2012); Xu (2019))
- Ambiguous theoretical arguments and limited empirical evidence on how patronage affects economic performance
 - Connections to patrons could disincentivize subordinates, which leads to worse performance (e.g., Prendergast and Topel (1996)).
 - Patrons have better private information to evaluate and select better - performed subordinates (Aghion and Tirole (1997)), who are thus incentivized to exert efforts for performance (e.g., Voth and Xu (2020)).
- In this paper, we document an underlying channel of how patronage induces local politicians' rent-seeking activities and hurts performance in the context of privatizations in China.

Main Findings

- Although privatizations, on average, increase firm efficiency and productivity, the efficiency gains are significantly lower if the local politicians are connected to top political leaders in China, i.e., Central Committee members
- Corruption is the fundamental channel underlying the worse performance of privatized SOEs under connected politicians
 - Connected local politicians engage in more rent-seeking activities by selling the SOE assets at substantial discounts
 - Connected local politicians are protected in the anti-corruption campaigns in China (e.g., less likely to be investigated and receive higher sentence even under investigation).
- Identification challenge: Patronage connections are not randomly assigned
 - Fuzzy RDD: compulsory retirement age cut offs of members of the Central Committee as the discontinuity to their connected local politicians' patronage connection

Contribution in the literature

- Our findings add to the on-going debate on whether patronage is “good” or “bad” for economic performance.
 - The literature has shown that patronage empowers discretions in public-sector (e.g., Colonnelli, Prem and Teso (2018); Fisman et al. (2018)) and private-sector (e.g., Bertrand (2009)) appointments, which introduce distortions and inefficiencies in economic activities (e.g., Xu (2018, 2019)).
 - We show that corruption is a fundamental mechanism underlying such negative effects.
- We also contribute to the privatization literature
 - Received wisdom; Efficiency gains (e.g., Boardman and Vining (1989); Megginson, Nash, Van Randenborgh (1994); La Porta and Les-de-Silanes (1999); Megginson and Netter (2001))
 - Not always the case, especially in transition economy. The outcomes of privatizations depend on the implementations (e.g., Barberis et al. (1996), Frydman et al. (1999), Estrin et al. (2009), Gan, Guo, and Xu (2011))
 - Fisman and Wang (2014) shows that corruption and rent-seeking in the privatization process are prevalent and lead to worse subsequent performance. We complement it by showing that the protection from the patron is underlying those rent-seeking activities

Data

- Chinese Industry Census Data (CIC)
 - CIC data is collected by Chinese National Bureau of Statistics (NBS). This data includes manufacturing firms in China with annual sales over 5 million RMB (\$700,000) from 1998 to 2009
 - We divide the firms into SOEs and private firms by registration type and the share holding. We exclude firms that are under central or provincial government.
 - 113,682 SOEs in the sample, and 28,411 of them are privatized (24.99%)
- Transaction Level Data
 - CCER Data: Negotiated transfer deals for listed SOEs
 - Date of transaction, transferred price, number of shares transferred, stock code of the company whose shares were transferred
- Politician Profile Data
 - Manually collect profiles (i.e., CV) of 1,746 city level politicians and 84 province level politicians from 1998 to 2009
 - The data record politician demographics (e.g., gender, age, education, place of birth, working history)

Political Patronage Connection

- When the senior politician becomes the city secretary or provincial secretary, she may pick her own subordinates. (Jia et al. 2015; Jiang, 2019)
- We define a junior politician as connected to the senior politician if the junior politician is working in the same city (province) as the senior politician. The rank difference between the senior and the junior is no more than 2.
- The junior politician should start her term after the senior politician starts hers.
 - The junior may be picked by the previous senior politician if the junior comes into the office first.
- When the senior politician becomes the Central Committee member, we think the connected junior politician becomes more political power. When the senior steps down, the political power of the junior politician decreases.
- We construct two variables: *Connection* and *Connection#*

Summary Statistics

Variable	Mean	N	S.D.	P25	P50	P75
<i>Private</i>	0.225	507446	0.418	0	0	0
<i>Private Share</i>	0.338	467015	0.448	0	0	1
<i>TFP</i>	1.421	495876	1.339	0.737	1.582	2.297
<i>ROA</i>	5.294	497223	15.562	-0.047	0.911	6.150
<i>OROA</i>	10.291	497299	17.838	0.962	3.744	10.670
<i>Log(Sale)</i>	8.932	506242	3.464	8.570	9.463	10.496
<i>MktShare</i>	0.017	506242	0.164	0.001	0.003	0.010
<i>Log(Asset)</i>	9.342	506246	2.671	8.563	9.506	10.564

Summary Statistics

Variable	Mean	N	S.D.	P25	P50	P75
<i>Connection</i>	0.593	3706	0.491	0	1	1
<i>Connection#</i>	0.659	3706	0.603	0	1	1
<i>Age</i>	51.171	3598	4.076	48	51	54
<i>Gender</i>	0.979	3706	0.142	1	1	1
<i>Minority</i>	0.076	3706	0.265	0	0	0
<i>Tenure</i>	3.090	3705	1.736	2	3	4
<i>Education</i>	0.535	3706	0.499	0	1	1
<i>FiscalExpense</i>	52.461	3691	69.458	16.290	30.800	62.590
<i>FiscalRevenue</i>	30.350	3687	58.504	6.660	13.120	29.310

Efficiency Gain of Privatization

Panel A: Registration Type

Variables	(1) <i>TFP</i>	(2) <i>ROA</i>	(3) <i>OROA</i>	(4) <i>LogSale</i>	(5) <i>MktShare</i>
<i>Private</i>	0.067*** (0.005)	0.828*** (0.077)	0.656*** (0.094)	0.181*** (0.009)	0.004*** (0.001)
Controls	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Observations	495,876	497,218	497,294	506,227	506,227
Adj. R-squared	0.068	0.039	0.052	0.384	0.001

Panel B: Private Ownership

Variables	(1) <i>TFP</i>	(2) <i>ROA</i>	(3) <i>OROA</i>	(4) <i>LogSale</i>	(5) <i>MktShare</i>
<i>Private Share</i>	0.082*** (0.004)	0.749*** (0.071)	0.558*** (0.088)	0.167*** (0.008)	0.003*** (0.001)
Controls	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Observations	462,052	466,784	466,863	467,014	467,014

Political Connection and Efficiency Gain

Panel A: Connection Dummy

Variables	(1) <i>TFP</i>	(2) <i>ROA</i>	(3) <i>OROA</i>	(4) <i>LogSale</i>	(5) <i>MktShare</i>
<i>Private</i>	0.090*** (0.007)	1.328*** (0.129)	1.204*** (0.155)	0.208*** (0.012)	0.004** (0.002)
<i>Connection</i> × <i>Private</i>	-0.038*** (0.009)	-0.828*** (0.160)	-0.908*** (0.195)	-0.043*** (0.013)	-0.001 (0.002)
Controls	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Observations	495,876	497,218	497,294	506,227	506,227
Adj. R-squared	0.068	0.039	0.052	0.384	0.001

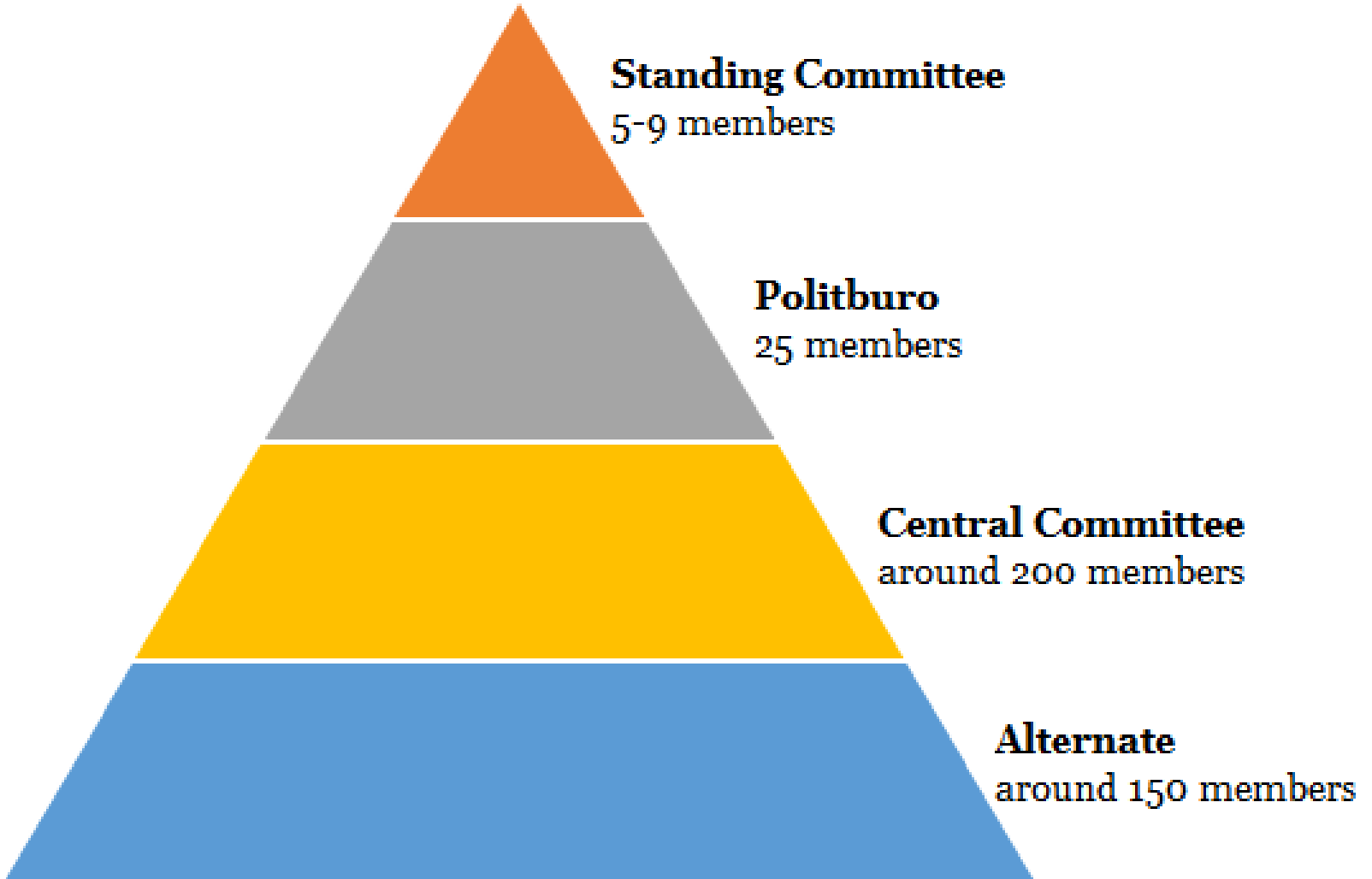
Panel B: Number of Connections

Variables	(1) <i>TFP</i>	(2) <i>ROA</i>	(3) <i>OROA</i>	(4) <i>LogSale</i>	(5) <i>MktShare</i>
<i>Private</i>	0.089*** (0.007)	1.267*** (0.119)	1.166*** (0.143)	0.204*** (0.011)	0.004** (0.002)
<i>Connection#</i> × <i>Private</i>	-0.031*** (0.007)	-0.622*** (0.118)	-0.723*** (0.144)	-0.032*** (0.010)	-0.001 (0.002)
Controls	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Observations	495,876	497,218	497,294	506,227	506,227
Adj. R-squared	0.068	0.039	0.052	0.384	0.001

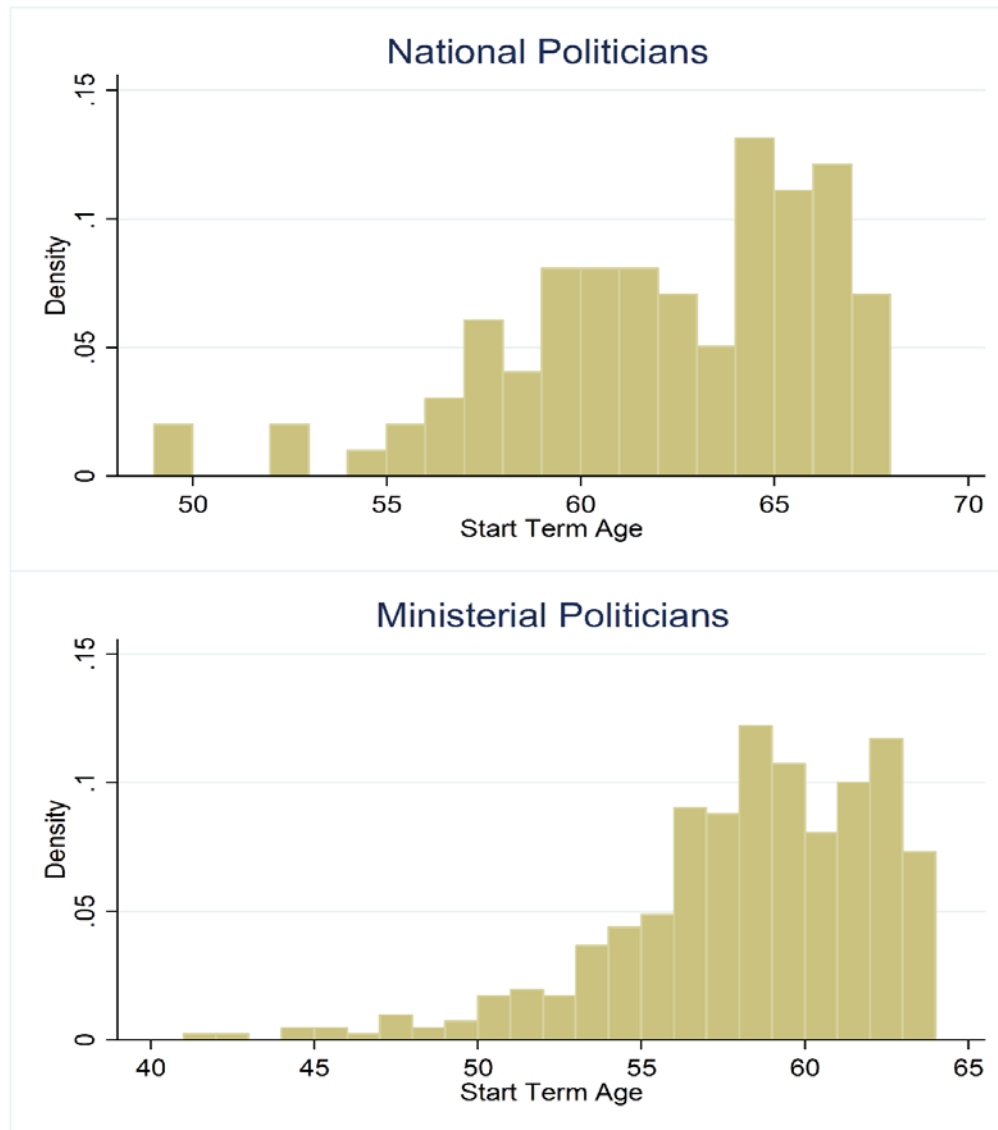
Identification

- Political connections are semi-exogenous based on past working history
 - Specifically, for individual local politicians, the change of their political power comes from their connected provincial leaders' getting promoted to or stepping down from the Central Committee.
- Fuzzy RDD: compulsory retirement age cut offs of members of the Central Committee as the discontinuity to their connected local politicians' political power
 - In China, as stated in the “Leading Cadres Retirement Provision”, the age limits for national-level politicians and ministerial-level politicians are 68 and 64 years old.
 - Jumps in the probability of step down at the cut-off age
 - Jumps in the efficiency gains of privatization at the cutoff age when local politicians lose their connections to the Central Committee

Structure of CPC Political System



Compulsory Retirement Age



Fuzzy RDD

- In the first stage, we regress the step down probability of Central Committee members on the age cut-offs

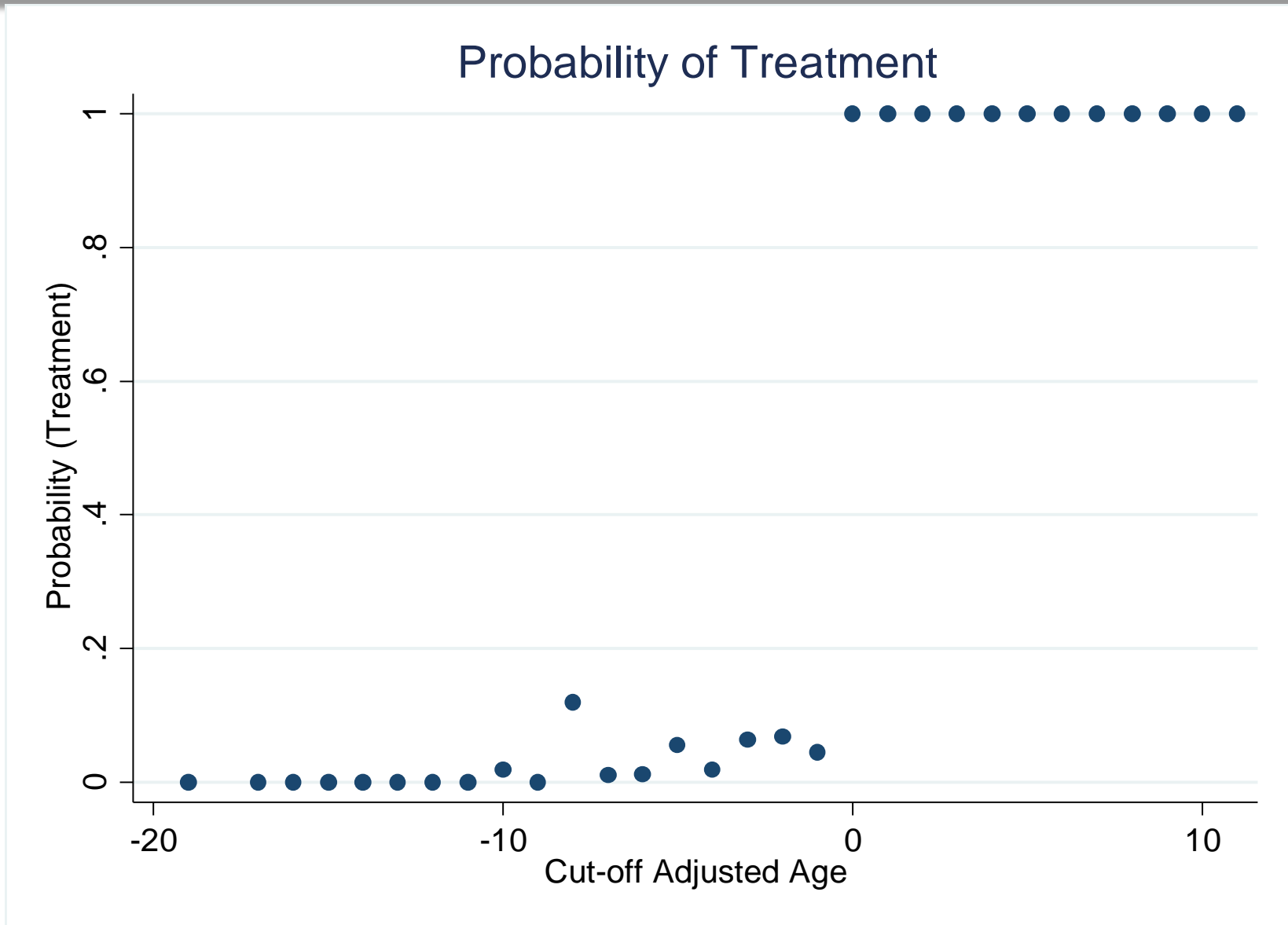
$$StepDown_{it} = \beta_{0r} + \beta_{1r} * EndAge_{it} + D_{it}[\beta_{0l} + \beta_{1l} * EndAge_{it}] + \varepsilon_{it}$$

- In the second stage, we regress the efficiency changes after privatization on the estimated step down probability

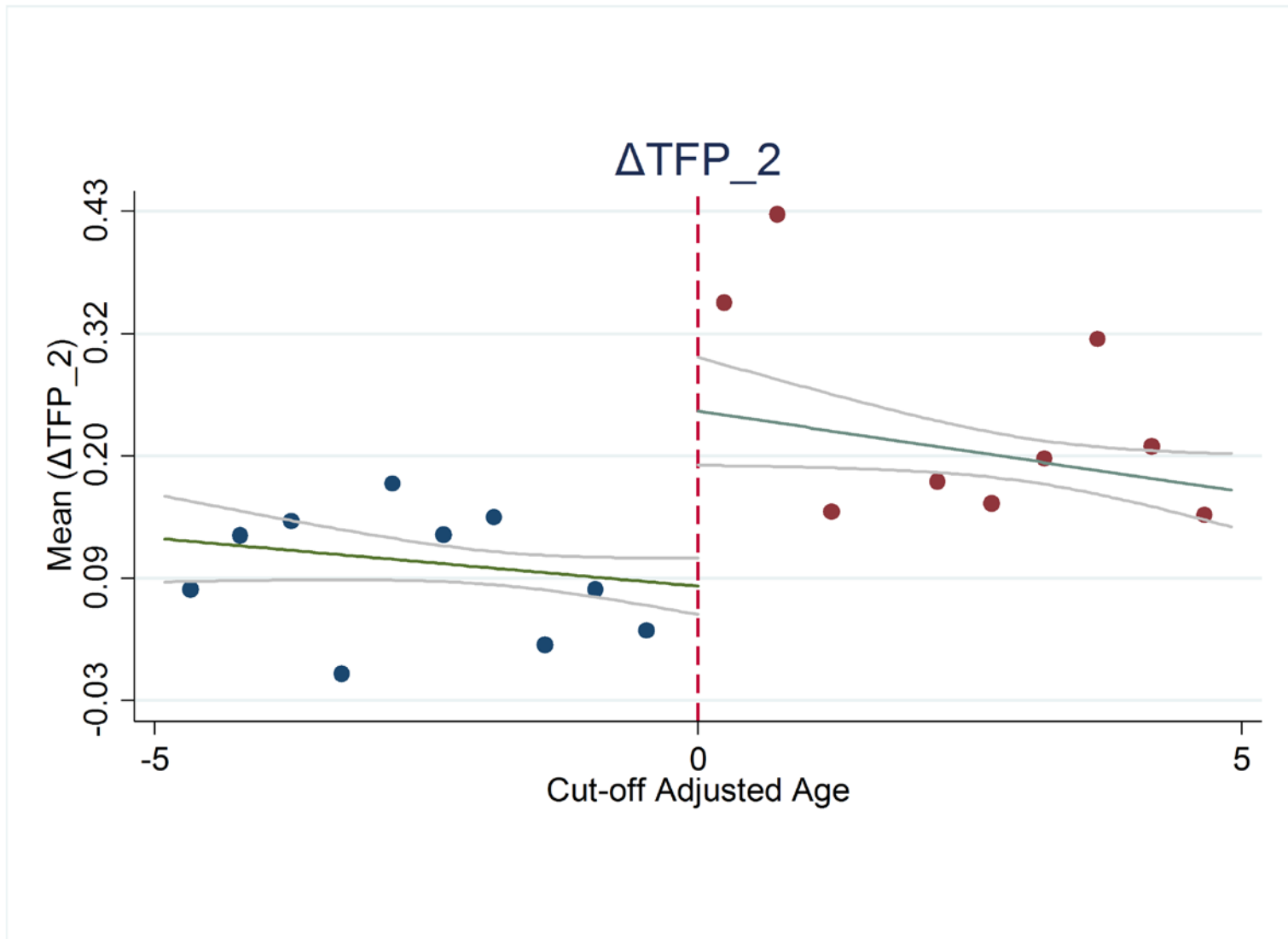
$$Privatization_{jit} = \beta_{0r} + \beta_{1r} * EndAge_{it} + Step\widehat{Down}_{it}[\beta_{0l} + \beta_{1l} * EndAge_{it}]$$

, where i denotes each city secretary, t denotes each term; each term is defined as the terms of Central Committee of the CPC; D_{it} is a dummy that takes the value of 1 if the Central Committee member of the city secretary i at the end of term t is older than or equal to 64 (68 for politburo members).

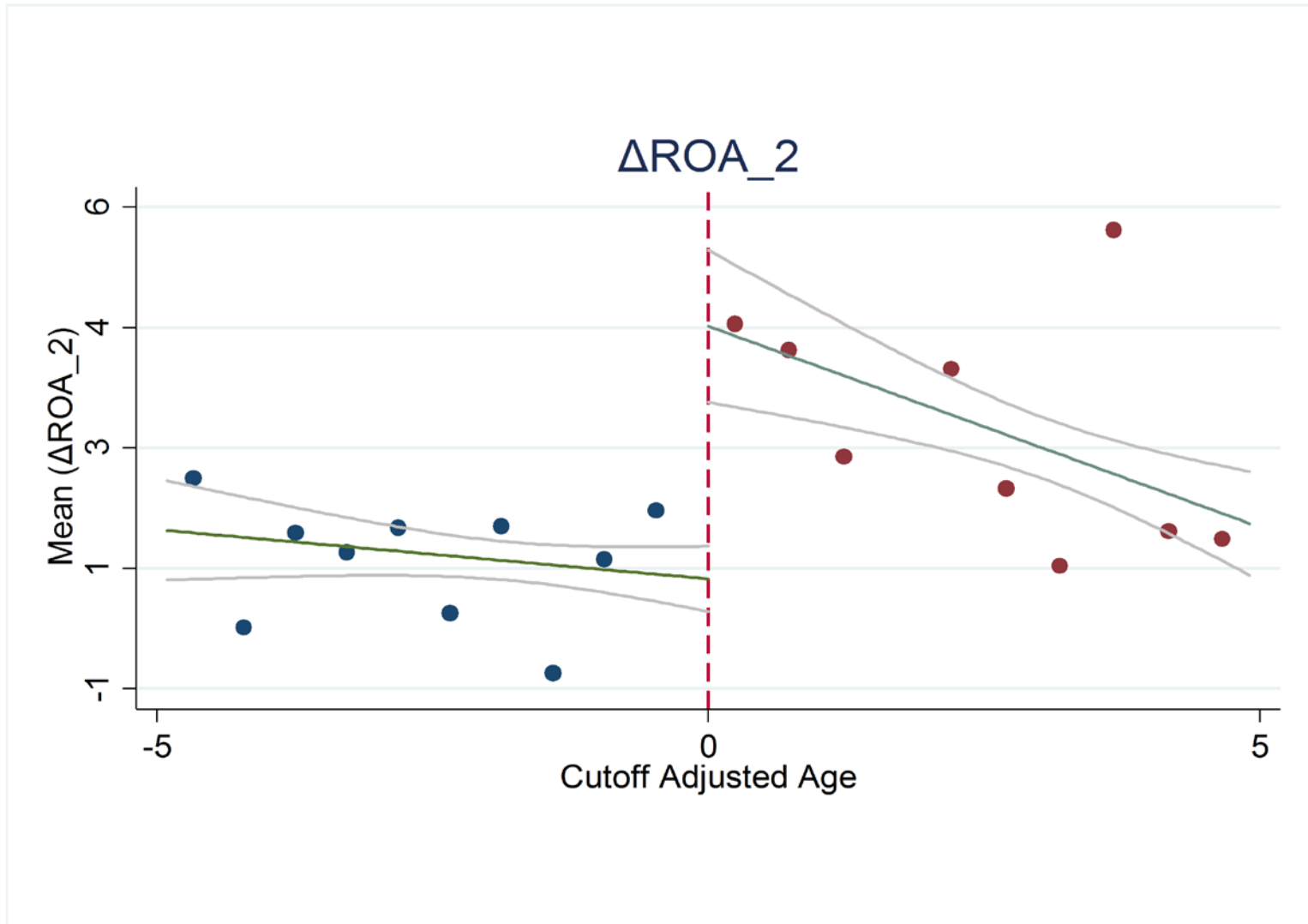
First Stage of the Fuzzy RDD



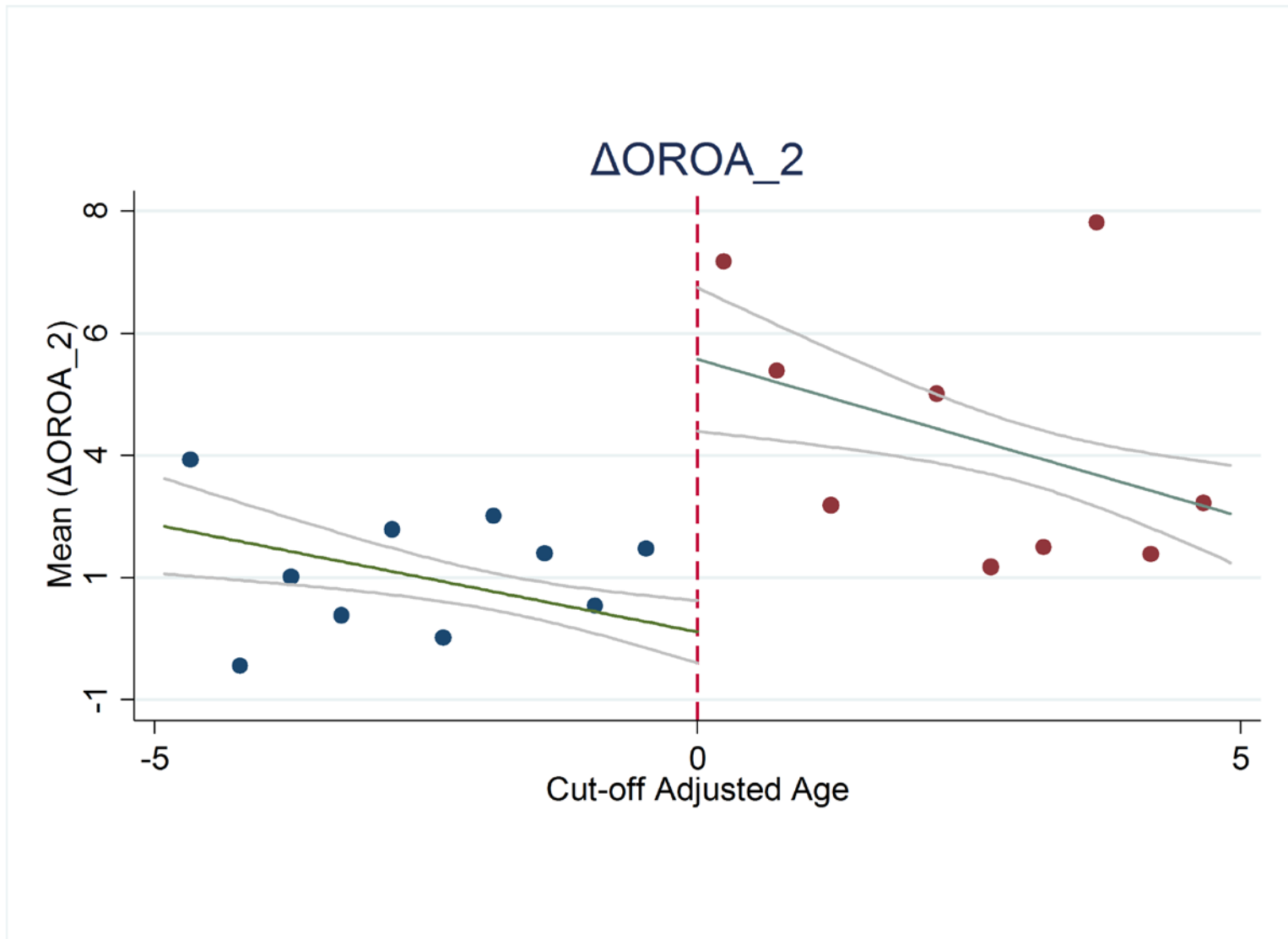
Second Stage of the Fuzzy RDD



Second Stage of the Fuzzy RDD



Second Stage of the Fuzzy RDD

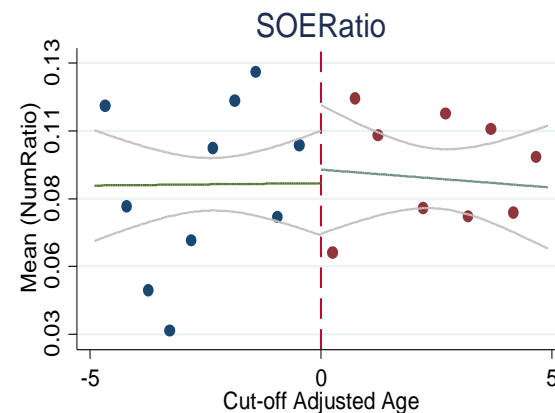
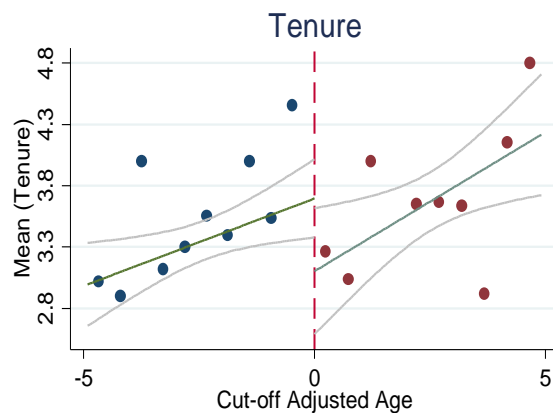
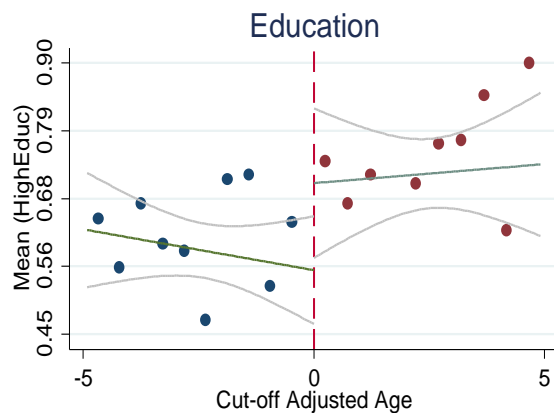
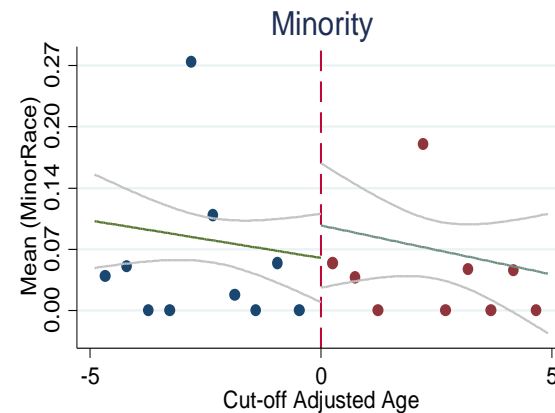
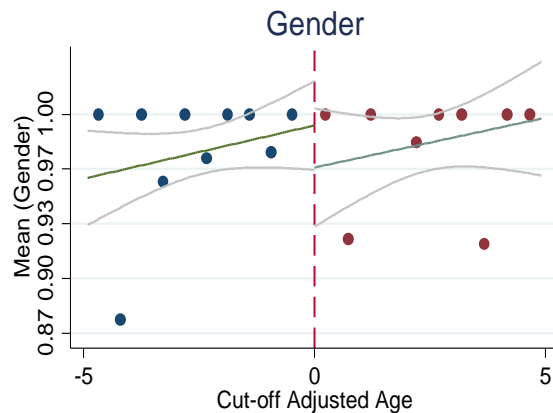
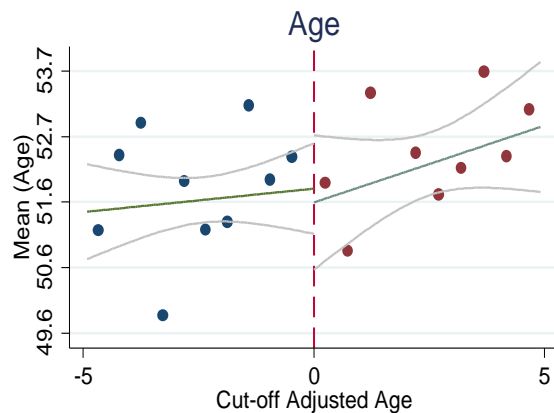


Second Stage of the Fuzzy RDD

Variable	(1) ΔTFP_2	(2) ΔROA_2	(3) $\Delta OROA_2$
Conventional	0.306** (0.139)	3.969** (1.940)	5.447* (3.269)
Bias-corrected	0.319** (0.139)	3.880** (1.940)	5.657* (3.269)
Observations	14,469	14,657	14,665

Local Continuity for RDD

Continuity Assumption



Incentives behind Bad Privatizations

- ***Hypothesis:*** *When local politicians have strong patronage connections (e.g., connection to top leaders), they are more protected in the system. Consequently, these politicians engage in more rent-seeking activities in privatization, which hurts privatized SOEs' performance.*
- We follow Fisman and Wang (2014) to calculate the value loss in the privatization deals, which measures rent-seeking
 - Subsample of listed SOEs
 - Value Loss = (Trading price – transfer price) * Number of Shares Transferred

Political Connection and Rent-seeking

Panel A: OLS Regression

Variables	(1) <i>ValueLoss</i> <i>Amount</i>	(2) <i>ValueLoss</i> <i>Amount</i>	(3) <i>ValueLoss</i> <i>Amount</i>	(4) <i>ValueLoss</i> <i>Amount</i>	(5) <i>ValueLoss</i> <i>Amount</i>	(6) <i>ValueLoss</i> <i>Amount</i>
<i>Connection</i>	0.236** (0.112)	0.200* (0.117)	0.314* (0.169)			
<i>Connection#</i>				0.304*** (0.098)	0.269*** (0.096)	0.333*** (0.122)
Controls	YES	YES	YES	YES	YES	YES
Politician FE	YES	YES	YES	YES	YES	YES
City FE	YES	YES	NO	YES	YES	NO
Industry FE	NO	YES	NO	NO	YES	NO
Firm FE	NO	NO	YES	NO	NO	YES
Observations	1,537	1,534	1,389	1,537	1,534	1,389
Adj. R-Squared	0.639	0.669	0.773	0.640	0.671	0.774

Panel B: Regression Discontinuity

Variables	(1) <i>ValueLossAmount</i>
Conventional	-2.316** (0.985)
Bias-corrected	-2.477*** (0.985)
Observations	568

Political Connection and Protection

Variables	(1) <i>Investigation</i>	(2) <i>Investigation</i>	(3) <i>Investigation</i>	(4) <i>Investigation</i>
<i>Connection</i>	-0.317** (0.161)		-0.420** (0.178)	
<i>Connection#</i>		-0.330*** (0.116)		-0.425*** (0.131)
Controls	YES	YES	YES	YES
Province FE	NO	NO	YES	YES
Observations	14,192	14,192	14,192	14,192
Chi-squared	22.310	24.980	64.070	66.870
Pseudo R-squared	0.012	0.013	0.033	0.035

Political Connection and Protection

Variables	(1) <i>Corruption</i>	(2) <i>Corruption</i>	(3) <i>Corruption</i>	(4) <i>Corruption</i>
<i>Connection</i>	0.637* (1.911)		0.546* (1.768)	
<i>Connection#</i>		0.429*** (2.682)		0.326** (2.159)
Controls	YES	YES	YES	YES
Province FE	NO	NO	YES	YES
Observations	124	124	124	124
Adj. R-squared	0.085	0.096	0.196	0.199

Variables	(1) <i>Ln(Sentence/ Corruption)</i>	(2) <i>Ln(Sentence/ Corruption)</i>	(3) <i>Ln(Sentence/ Corruption)</i>	(4) <i>Ln(Sentence/ Corruption)</i>
<i>Connection</i>	-0.805** (-2.382)		-0.679** (-2.173)	
<i>Connection#</i>		-0.486*** (-2.991)		-0.367** (-2.435)
Controls	YES	YES	YES	YES
Province FE	NO	NO	YES	YES
Observations	119	119	119	119
Adj. R-squared	0.112	0.119	0.213	0.213

Conclusion

- This study examines the role of politicians in privatization outcomes in the context of China. For the first time, we show that patronage connection leads to vast heterogeneity in outcomes of privatizations.
 - Patrons (i.e., Central Committee members) protect their clients (i.e., local politicians) from anti-corruption investigations, thus encourages clients' rent-seeking activities in privatization deals. This hurts the ex-post performance of the privatized SOEs.
- Given that patronage is widespread not only in China but also in many other countries across the globe, our findings have broad implications.