Inside Nondemocracies: China Political Economy

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- Understanding the inner workings of autocracies.
- Introductory overview of the Chinese economy and political system.
- Application of our study of autocracy and informal/relational institutions (*guanxi*).
- Politico-economic challenges & CCP Factions.
- Chinese Democracy: Discussion
- Conclusions

Sources: Baron ch. 16; the CIA's World Factbook; Francois, Trebbi, Xiao (2017). Pardon my Chinese.

- The world's fourth largest country in terms of area (after Russia, Canada, and US)
- Most populous country in the world: 1,339,000,000 (2020 World Bank est.).
- Since 1978, the country has embarked on an economic path of reform ("open door"):
 - Real GDP growth rates have averaged 9% per year since 1978.
 - This implies the economy has roughly doubled every ten years.
- Communist state [one of the last five Communist states with Vietnam, North Korea, Laos, and Cuba].

People's Republic of China



Source: CIA World Factbook

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- Pre-Republican era (until the end of 19th century/beginning of 20th century)
- Republican era (1905-1948)
- Communist era (1949-1976)
- Reform era (1976-onwards)

Unfortunately, we do not have enough time for an adequate revision of China's history. We will quickly look at some important events and influential figures.

- Political turmoil and Feudal infighting until 221 BC (unification under the Qin Dynasty).
- Confucius (551-479 BC) writes during that period.
- The Qin Dynasty plants the seeds of a powerful bureaucracy. However, regional aristocracies continue to play an important role for the following millennium (at least).
- Pre-Ming Dynasties were generally economically successful and open to trade. Pre-colonial trade between Africa and China.
- Paradoxically, China's economic wealth peaked around the 12th-13th century, while Europe was undergoing some of its darkest hours (Middle Ages).
- Starting with the Ming Dynasty (1368-1644), progressive insulation and economic decadence. Intensification of military treats.

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60 Seconds History of China (cont.)



Chart 1: Major economies' share of global GDP, 0 - 2005

Source: Ian Bremmer, Eurasia Group

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- Imperial China collapsed under the call for modernization. The centuries old Mandarin examination system was abolished in 1905.
- January 1st, 1912: the Qing Dynasty was replaced by the Republic of China;
- Two rival movements contended for political authority:
 - Guomindang (GMD) under Chiang Kai-shek
 - Chinese Communist Party (CCP)
- 1934: Mao Zedong's Long March.
- A fragmented China is invaded by Japanese troops in 1937. Occupation lasts until the end of WWII.

- October 1st 1949: After 3 years of civil war between GMD and CCP, the People's Republic of China is established.
- Mao's economic policy pushes towards heavy industry (same as USSR under Stalin). Mixed results.
- **1958:** Great Leap Forward. Agricultural cooperatives become increasingly unproductive.
- 1962: Great Famine 20 Million people die.
 - See *"The Institutional Causes of Famine In China 1959-61"* by Qian, Meng and Yared (2013).

60 Seconds History of China (cont.)

Figure 1: Average and Spatial Variation in Famine Severity





(b) County-level Survivor Birth Cohort Sizes - Mean







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Qian, Meng and Yared (2013)

- High productivity areas were where starvation happened.
- Great Famine was due to the inflexible government procurement policy.
- Paradoxically, the country had enough resources to feed itself. However, the procurement policy (dues to the central government) hit the high-productivity provinces hard during a low-yield crop period it left those provinces starving.
- The **1962** great Famine induced social unrest, and subsequent crackdowns (ex: Great Cultural Revolution in **1966**). The army played a key rolein sedating internal uprisings.
- Deng Xiaoping assumed the leadership after Mao's death in 1976.
- **1978:** Beginning of the Open Door Policy. The road towards economic liberalizations begins (Four Modernizations: Agriculture, Defense, Science, and Technology).

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	China	Canada	USA	
GDP - per capita (PPP)	\$18,236	\$48,130	\$62,794	
GDP (USD)	\$13,608 trillion	\$1.713 trillion	\$20.54 trillion	
Share of GDP: Agriculture	7.2%	1.7%	0.9%	
Share of GDP: Industry	40.7%	24.8%	18.2%	
Share of GDP: Services	52.2%	66.7%	77.4%	
Labour Force %: Agriculture	26.77%	1.5%	1.41%	
Labour Force %: Industry	28.27%	19.39%	19.18%	
Labour Force %: Services	44.96%	79.11%	79.41%	

Note: World Bank Estimates ranging 2015-2019.

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China has a hybrid regime:

- Chief of state: President Xi Jinping (since 14 March 2013);
 - Vice President Wang Qishan (since 17 March 2018)
- Head of government: Premier Li Keqiang (since 16 March 2013);
 - Executive Vice Premier Han Zheng (since 19 March 2018);
 - Vice Premiers Sun Chunian, Hu Chunhua, and Liu He (since 19 March 2018);
- Cabinet is called the State Council and it's appointed by National People's Congress (NPC). About 100 members.

The president is also the chairman of the Party and the head of the Chinese army (People's Liberation Army).

Elections: the President and Vice President are elected by the National People's Congress for a five-year term (they *were* eligible for a second term);

- The Premier is nominated by president and confirmed by National People's Congress; elections last held in March 2018 (next to be held in 2023).
- However, in 2018, the NPC confirmed Xi Jinping as **President for** Life, thus removing the two-term limit on the presidency.

Note: President Xi was elected by the NPC with 2980 votes out of 2980 total seats (100%).

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- No direct elections.
- Unicameral National People's Congress or *Quanguo Renmin Daibiao* Dahui.
 - 2,980 seats.
 - Highest legislative body. Representation is geographic and corporatist.
 - Members elected by municipal, regional, and provincial people's congresses as well as the People's Liberation Army.
 - Five-year terms.
- Local People's Congresses elections were once considered mere formalities. They have become less so since.

- The legislative branch is composed of multiple parties: the Chinese Communist Party (CCP), and a multitude of small (irrelevant) parties controlled by the CCP.
- Non-CCP delegates: about 20-30% of the 3,000 delegates.
- Traditionally a weak organ, progressive decoupling from CCP has fostered more political weight for the **NPC**.
 - Notice that this trend follows local political trends, where the decoupling has been traditionally stronger (with party member representing central interests and non-party officials representing local interests).
- Elections: last held in 2018 (next election to be held in 2023 -fixed term).

- The role of the communist party is enshrined in the Constitution.
- The CCP is the primary source of political power in China. Party hierarchy mirrors state hierarchy.
- The People's Liberation Army is sworn to defend the party, not the state.
- It is represented in virtual all social and economic activities.
 - Organizes labor (other labor unions are illegal).
- Pervades all ministries and commissions.
- Only 6% of the population were members of the CCP in 2010.



- The party is organized through its National Party Congress, which meets every 5 years, and the Central Committee (198 members).
- The central party and local party members are represented together with members of the military.
 - Veto authority (e.g. local organizations acquired substantial weight through careful use of the veto threat in the Central Committee).
- The ordinary administration is exercised through majority rule by the Politburo (25 people addressing ordinary administration issues) and the Standing Committee of the Politburo (9 people: the agenda setters).



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- There are numerous factions within the party.
- Major policy areas (kous) define the factions.
 - Why? Because the patronage attached to the policy area is pertinence of that group.
 - Important kou ("entrance") include the Military Affairs and the Party Affairs.

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- The process of approval in the Central Committee is majority vote. Several veto players can obstruct policy.
- This implies that many different veto players can extract surplus along the process of approval of important legislation.
- Of course, this fosters particularistic interests and party unity through patronage to obtain access to rents.
- Essentially, Deng's reform had to lean in favor of local and provincial governments at the Central Committee level. He had to avoid vetoes.
- The party has also traditionally controlled the Judicial branch. No tradition of independent judiciary in China. *This is changing though.*

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- The Administrative branch of government is usually understudied.
 - It is extremely important in China by the time of the Tang Dynasty (AD 618-907), imperial bureaucracy played a fundamental political role.
 - Strong mechanism of social stability.
- Linked to the CCP since 1949. The first bureaucratic wave was composed of veteran revolutionaries from Mao's era.
 - Since the 1980's, several reforms introduced mandatory retirement of bureaucrats, the introduction of several new waves of more qualified bureaucrats.
 - By 1988, 90% of bureaucrats had been appointed after 1982 (Li, 1998).
 - 60% of bureaucrats had a college degree in 1988.
- The old SOE's (see next slide)have been partially replaced with semi-private enterprises from which bureaucrats profit.
- Finally, the "revolving door" operates in China as well. Officials use State connections for private profit upon leaving office. The 1990's saw the *boom of xiahai* (joining private businesses). This deliberately created a constituency for economic liberalization within the elite.

State Owned Enterprises. For a long time, the SOE was the most prominent type of company in mainland China (in terms of employment for the country until the 1990's).

- In 1997, SOEs employed over 112 million people (65% of the urban labor force).
- SOEs have the typically socialist dual role of employer and welfare provider.
- They're also the main provider of social security, health care, housing, etc. through the danwei (work unit) system.
- SOEs lost money, overinvested in capacity, while absorbing much of the country's available capital.
- Banks were also hooked to them through political (and underperforming) loans.

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Provincial governors and National ministers are equivalent in rank and appointed by the Politburo.

There is an interesting form of checks and balances between Beijing and the rest of the country.

"One indication of the rank equivalence between ministries and provinces is the fact that ministers and governors sometimes exchange positions. Jiang Zemin, for example, was the Minister of Electronics before he became the mayor of Shanghai, which was not considered a demotion."

(Huang, 2002, Pol. Studies)

See "Political turnover and economic performance: the incentive role of personnel control in China" (*Li and Li-An, JPubE 2005*).

- Employing the turnover data of top provincial leaders in China between 1979 and 1995, the authors find that the likelihood of promotion of provincial leaders increases with their economic performance
- The likelihood of termination decreases with their economic performance.
- There is very strong evidence supporting that this performance system continues to this day.

	Dependent variable: turnover (0=termination, 1=same level, 2=promotion)				
	(1)	(2)	(3)	(4)	
Annual GDP growth rate	1.615** (2.05)	1.581* (1.87)			
Average GDP growth rate			4.727*** (4.34)	4.540*** (3.90)	
Age		-0.026* (-1.91)		-0.023*	
Age65		-0.974***		-0.976***	
Education		0.154		0.187	
Central connection		0.384***		0.404***	
Tenure		-0.053*		-0.055*	
Lagged per capita GDP (million yuan)		0.080 (0.43)		0.010 (0.05)	
Cutoff point 1 (a1)	-1.320*** (-3.67)	-3.162*** (-2.98)	-2.850*** (-2.64)	-2.850*** (-2.63)	
Cutoff point 2 (a2)	1.621*** (4.63)	0.106 (1.01)	0.455 (0.43)	0.455 (0.43)	
Number of observations	864	864	864	864	
Log pseudo-li ke lihood	-468	-414	-462	-410	

Table 3 Ordered probit regressions estimating the effect of economic performance on the turnover of provincial leaders (whole sample)

The numbers in parentheses are t-mtios based on robust standard errors. The significance levels of 1%, 5% and 10% are noted by ***, ** and *. All regressions include the provincial and year indicators.

Source: Li and Li-An, JPubE 2005

SOME DISCUSSION THEMES





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Since Deng Xiaoping's call for modernization, reforming SOEs has been a priority in China.

Some of the reforms were implemented so to *not* create losers.

• See Lau, Qian, Roland (JPE 2000).

Starting in the 1990's, the government has retained some of the more competitive SOEs, but a substantial fraction were sold, merged, privatized, or closed. This left millions of workers without job, health coverage, or safety nets of sort.

Theme 1: What will be the consequences of this continuing trend? Is the constituency of dissatisfied losers going to be a destabilizing factor for China? Consider especially the current situation when the private sector will slow down in its absorption of cheap labor and medical costs are increasing.

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2. Inside the CCP

It is widespread opinion that the Chinese Communist party and the ruling Chinese elite are not unresponsive to citizens' and to minority parties' preferences.

How can this happen in an autocracy?

"I always insisted that people have the right to know what government is planning of, and what government is currently working on; and people should have critical opinions towards government policy; government should also listen to the people, and accept suggestions from the people, and improve transparency of policy, and have democracy in government policy making. "

- Wen Jiabao (Chinese premier, on CNN 2/23/08)

At the 17th NPC in October 2007, the General Secretary Hu Jintao used the word "**democracy**" over sixty times in his Work Report.

If this is credible, what are the implications for the process of democratization? Is it just for show?

- Single-party regimes are historically common (e.g. Falange in Spain; Communist Party of the Soviet Union in USSR; FRELIMO in Mozambique; KANU in Kenya; Ba'ath Party in Syria; Ba'ath Party in Iraq; National Liberation Front in Algeria; National Fascist Party in Italy).
- Many of these regimes are autocracies & such autocracies often play important economic & political roles internationally.
- But data is sparse; internal dynamics often opaque.

The case under consideration here is the Chinese Communist Party

- The founding & ruling political party of the People's Republic of China
- Political linchpin of the second largest economy & the most populous country in the world today
- One of the oldest (founded in 1921) and largest (89 million members in 2016) political party in the world

The Chinese Communist Party (CCP)



"A secretive, selective organization of about 65 million members who have positions of influence in all sectors of Chinese society"

- Nathan and Gilley (2003, p.7)

- Is there anything systematic we can say about this type of regime?
- What is the role of factions within the party?
- What are the incentives of individual politicians within a faction?
- Can economic theory guide us in producing reasonable predictions about current political equilibria in Chinese politics?

- We present novel stylized facts on internal organization of the CCP
- An economic model of a single-party regime with competing factions and career motivated politicians
- Quantitative exercise:
 - Structural estimation;
 - In-sample & out-of-sample model performance;
 - Model selection tests;
 - Counterfactual analysis;
 - Solution Forecasts for Fall 2017 critical juncture (19th Party Congress).

Literature Review

Politico-economic literature on Chinese elite politics:

Nathan (1973); Pye (1981); Dittmer and Wu (1995); Dittmer (1995); Nathan and Gilley (2003); Shih (2004); Shih, Shan, and Liu (2010); Li (2012); Li (2013); Shih (2016); Meyer, Shih, and Lee (2016); Shih and Lee (2017)

On provincial promotions:

• Li and Zhou (2005); Shih, Adolph, and Liu (2012); Jia et al. (2015)

Factions in parties:

• Persico, Rodriguez-Pueblita, and Silverman (2011); Dewan and Squintani (2015)

Internal organization of autocratic regimes:

• Tullock (1987); Bueno de Mesquita et al. (2003); Besley and Kudamatsu (2008); Francois, Rainer, and Trebbi (2015; 2016)

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Institutional Background: The CCP Hierarchy



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Position	Number 1	Number 2	
Politburo Standing Committee	General Secretary/ President	Premier	
Central Military Commission	Chairman	Executive Vice Chairman	
Supreme People's Court	President	Executive Vice President	
Provincial Government	Provincial Party Secretary	Governor	

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Institutional Background: Diarchic Structure (cont.)



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• Two biographical databases of Chinese politicians:

- China Vitae: 4,494 Chinese elites since 1992
- Shih, Shan, and Liu (2008): All CC and AC members since 1921

• Four affiliation indicators:

- Communist Youth League of China (CYLC or tuanpai)
- Shanghai Bang (Gang)
- Princelings
- Military

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Institutional Background: Factions in current PB

Shanghai Gang	CYLC	
Xi Jingping	Li Keqiang	
(General secretary/President of PRC)	(Premier)	
Yu Zhengsheng	Li Yuanchao	
(Chairman of CPPCC)	(Vice president of PRC)	
Wang Huning	Liu Qibao	
(Director of CCP Policy Research Center)	(Head of CCP Propaganda Department)	
Meng Jianzhu (Secretary of the Commission of Political Science and Law)	Liu <u>Yandong</u> (Vice Premier, State Council)	
Han Zheng	Hu Chunhua	
(Shanghai party secretary)	(Guangdong party secretary)	

Table: Faction of 18th Politburo Members (out of 25 members)

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Politburo Standing Committee

Xi Jinping	Li Keqiang	Zhang Dejiang	Yu Zhengsheng	Liu Yunshan	Wang Qishan	Zhang Gaoli
(b. 1953)	(b. 1955)	(b. 1946)	(b. 1945)	(b. 1945)	(b. 1948)	(b. 1946)
Party General Secretary	No. 2-ranked PSC member	No. 3-ranked PSC member	No. 4-ranked PSC member	No. 5-ranked PSC member	No. 6-ranked PSC member	No. 7-ranked PSC member
Chairman, Party and State Central Military Commissions State President	Premier and Party Secretary of the State Council	Chairman, Standing Committee of the 12th National People's Congress	Chairman, 12th National Committee of the Chinese People's Political Consultative Conference	Head, Party Secretariat President, Central Party School	Secretary of the Central Disciplinary Inspection Commission	Vice Premier and Deputy Party Secretary of the State Council
Portfolio: Party, military, and State; foreign affairs	Portfolio: government administration and economy	Portfolio: legislative affairs	Portfolio: relations with non-communist groups	Portfolio: Party affairs, including Party bureaucracy and ideology	Portfolio: Party discipline and fighting corruption	Portfolio: assisting the Premier with government administration and economy

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Factions Are National Political Actors (Avg. Percentage of Politicians in that Province per Congress)



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	(1) All	(2) All	(3) All	(4) All	(5) Provincial	(6) National
Dependent Variable:			CYLC1			
CYLC2	-0.139** [0.0568]	-0.185*** [0.0594]	-0.189** [0.0755]	-0.245*** [0.0723]	-0.136^{*} [0.0693]	-0.499** [0.143]
Year F.E. Position F E	N	Y	N	Y	Y	Y
	704	704	704	70.4	1 C 4 9	1.45
Adjusted R-	794	794	794	794	048	145
squared	0.016	0.070	0.193	0.254	0.242	0.180
Dependent Variable:			Shanghai1			
Shanghai2	-0.105*** [0.0319]	-0.132*** [0.0346]	-0.353* [0.180]	-0.378** [0.175]	-0.0319 [0.0466]	-0.802* [0.341]
Year F.E. Position F F	N	Y	N	Y	Y	Y
r osition F.E.			1	1	1	1
Observations Adjusted R-	773	773	773	773	627	145
squared	0.006	0.011	0.382	0.392	0.187	0.278

	(1) All	(2) All	(3) All	(4) All	(5) Provincial	(6) National
Dependent Variable:			Princelings	1		
Princelings2	-0.0535 [0.0505]	-0.0595 [0.0523]	-0.132^{**} [0.0571]	-0.134^{**} [0.0545]	-0.155^{*} [0.0806]	-0.0411 [0.114]
Year F.E.	N	Y	N	Y	Y	Y
Position F.E.	Ν	Ν	Υ	Υ	Υ	Υ
Observations Adjusted R-	794	794	794	794	648	145
squared	0.001	0.020	0.133	0.154	0.202	0.227

	(1)	(2)	(3)	(4)	(5)	(6)
	All	All	All	All	Provincial	National
Dependent Variable:	Shanghai1					
CYLC2	0.164^{**}	0.166^{*}	0.187^{**}	0.196^{**}	0.00169	0.779***
	[0.0810]	[0.0818]	[0.0747]	[0.0761]	[0.0241]	[0.169]
Year F.E.	Ν	Υ	Ν	Υ	Y	Υ
Position F.E.	Ν	Ν	Υ	Υ	Y	Υ
Observations	773	773	773	773	627	145
Adjusted R-squared	0.046	0.047	0.376	0.381	0.186	0.489
Dependent Variable:	CYCL1					
Shanghai2	0.368*	0.315	0.396^{*}	0.338^{*}	0.101	0.758^{*}
	[0.195]	[0.197]	[0.207]	[0.197]	[0.207]	[0.357]
Year F.E.	N	Y	Ν	Y	Y	Y
Position F.E.	Ν	Ν	Υ	Υ	Υ	Υ
Observations	773	773	773	773	627	145
Adjusted R-squared	0.043	0.069	0.207	0.239	0.232	0.200

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Stylized Fact 2: Why Not Party Strongholds?



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Stylized Fact 3: Leadership Premia in Power Scores



Source: Bo (2010)

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Source: Bo (2010)

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Stylized Fact 4: Anti-Corruption Campaign/Purge

Dependent Variable	Corruption
CYLC	0.0272 [0.0237]
Shanghai	-0.0229 [0.0237]
Princelings	0.0189 [0.0321]
Observations Adjusted R-squared	2240 0.032

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Stylized Fact 5: Post-Deng Era



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Stylized Fact 5: Post-Deng Era



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- *L* level hierarchy ($\ell = 1$ is the bottom)
- Each level ℓ has $M(\ell)/2$ leadership nodes
- Each leadership node has two positions, No.1 and No.2
- ullet Each individual politician "dies" with instantaneous probability, δ
- $\bullet\,$ The opening at level $\ell+1$ is filled by applicants from the level immediately below, $\ell\,$

- individuals are born into groups f with exogneous distribution Φ.
 Examples are B (Blue), R (Red), or N (Neutral)
- Factions are a quid-pro-quo "contract"
 - Let $\theta_f \in [0,1]$ denote how much a member of group f cares about other members' utilities (higher θ , more cohesive groups)
 - A faction member receives support in promotions by all members of the party, but especially by their own faction

• Cadre *i* has innate ability a_i , tenure τ_i , belongs to group *f*, and has an affiliation that can be mapped into a vector representing how much each individual *j* in the hierarchy cares about *i* (for example if *i* is in group *f* and *j* belongs to *f*, $c_{ij} = \theta_f$ and if people do not care at all about members of other groups and *j* is not in *f*, $c_{ij} = 0$)

- The local government is represented by two cadres i & -i at the node and they are jointly providing public goods $q = q_i + q_{-i}$; i.e. while politician i is in office, he supplies public goods $q_i \&$ the two cadres act as joint monopolists.
- From total q they are able to extract personal benefits (Shelifer and Vishny, 1993) $v^{\ell}(q_i, q_{-i})$ strictly concave, and that $v_1^{\ell}(0, \cdot) > 0$
- The private benefit to *i* is declining in the supply of public goods by -*i*:

$$v_2^\ell(q_i,q_{-i})<0$$

Model: Economic Performance

- Local politicians who do not belong to the same group act as Cournot competitors.
- In contrast, since co-factional members care about each other's utility to a degree c_{i,-i}, which we call cohesion, local politicians who belong to the same faction will take partial account of the decline in a cofactional's marginal benefit when they increase their own supply of public goods
- i.e. once in office *i* solves:

$$\max_{q_i}\left\{v^{\ell}(q_i,q_{-i})+c_{i,-i}v^{\ell}(q_{-i},q_i)\right\}$$

Their mutual concern allows cofactional politicians to collude in raising their own respective welfare by reducing total public goods provision q and hence curbing local economic performance (see next slide)

• If $c_{i,-i} = 1$, they act as joint monopolists

- Local economic performance *e* is function of both ability of the leaders and their public goods provision.
- Specifically the production function at the node is of the class:

$$e_{i,-i}^{\ell} = q_i + q_{-i} + \alpha \left(a_i + a_{-i} \right)$$

(e.g. the log of a Cobb-Douglas production function)



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- $\bullet\,$ The set of eligible candidates for a position at ℓ is drawn from the level below $\ell-1$
- Politician j (anywhere in the hierarchy) can express support for politician i to fill the opening next to politician -i. s_{i,-i,j}
- General idea that within CCP support for all levels matter (but higher levels will matter more

Support Incentives

- Support decision by j for candidate i to operate at a node next to -i is s_{i,-i,j}.
- If *i* is a member of the same group as *j* and *i* is promoted, *j* gets an utility gain of $b^{\ell} \times \theta_{f(j)} > 0$ (the promotion of a co-member benefits all members of the group by a utility gain $b^{\ell} > 0$ weighted by the coesiveness of the group and b^{ℓ} is increasing function of ℓ)
- j also cares about local output e^l_{i,-i}. We assume the cost of providing support is quadratic and the marginal benefit of supporting is proportional to the sum of economic performance and the extra utility gain. j solves:

$$\max_{\substack{s_{i,-i,j} \\ s_{i,-i,j}}} \pi(s_{i,-i,j}, e_{i,-i}^{\ell}, b^{\ell} c_{i,j}) - k(s_{i,-i,j}) \implies$$
$$\max_{\substack{s_{i,-i,j} \\ s_{i,-i,j}}} \left\{ \left(e_{i,-i}^{\ell} + b^{\ell} c_{i,j} \right) s_{i,-i,j} - \frac{1}{2} \left(s_{i,-i,j} \right)^{2} \right\}$$



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Proposition: The optimal amount of support given by politician j to candidate i contesting a position next to -i is: (i) increasing in the cohesion between j and i, $\frac{\partial s_{i,-i,j}^*}{\partial c_{i,j}} > 0$; (ii) decreasing in the cohesion between i and -i, $\frac{\partial s_{i,-i,j}^*}{\partial c_{i,-i}} < 0$; (iii) increasing in the utility gain from promotion, $\frac{\partial s_{i,-i,j}^*}{\partial b^{\ell}} > 0$, if and only if between cofactionals $c_{i,j} > 0$; (iv) higher for cofactionals vis-à-vis neutrals, the higher the position in the hierarchy, $\frac{\partial \left(\frac{\Delta s_{i,-i,j}^*}{\Delta \ell}\right)}{\partial c_{i,j}} > 0$.

- Holding ability *a_i* constant members lend more support to a cofactional candidate *i* than candidates from other factions because they directly gain from their cofactional promotions (**Direct effect**)
- Also, candidates from bigger factions will receive more support


- However, if the other position is controlled by a rival faction to *i*'s group $(c_{i,-i} = 0)$, politician *j* will support *i* more strongly than in the case where the other position is controlled by a cofactional of *i* $(c_{i,-i} > 0)$
- This implies an endogenous form of check and balances: if a faction already controls -*i*, the candidates from this faction will face additional opposition from all other politicians, wary of the negative effect of colluding politicians on local economic performance
- More cohesive factions (higher θ_f) will face stronger opposition from rivals (**Indirect effect**)
- An incohesive group $f(c_{i,-i} = \theta_f = 0$, neutral) will be opposed by no one (they do not collude and hence do not reduce performance), but they will also not support each other more in promotions.

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• The total support across the hierarchy is:

$$s_{i,-i} = \sum_{j} w_j s_{i,-i,j}$$

where weights w_j are determined by the ranking of j within the party hierarchy and we normalize $\sum_j w_j = 1$.

• For each candidate *i* in the set of possible candidates to the position at ℓ , $\mathcal{A}(\ell)$ with members indexed $1, ..., I(\ell)$, the probability of winning a promotion to the post next to -i is:

$$p_{i,-i}\left(s_{1,-i},...,s_{i,-i},...,s_{l(\ell),-i}\right) = \frac{\exp(s_{i,-i})}{\sum_{h=1}^{l(\ell)}\exp(s_{h,-i})}.$$

- The model features a stochastic Markov perfect equilibrium with the current distribution of factions and abilities in the party hierarchy as the state variable
- Given the current state, politicians optimally decide their support to candidates in promotions based on the candidate's ability faction affiliation, their own faction affiliations, and the contested positions
- The state variable then evolves as promotion outcomes are realized
- The candidates, once being promoted, optimally decide the supply of public goods in their local jurisdiction

Factional bargaining

- Decision maker is a faction
- Negotiation favours the faction holding paramount leadership
- Threat of revolt ensures relative balance
- Fear that the rival faction controls a node leads to cross-factional mix (*R*, *B*)
- Challenge of this explanation
 - No evidence of faction tries to control a node: reshuffling over time between R and B
 - If reshuffling is sufficient to avoid entrenchment, why not alternating (*R*, *R*) replaced by (*B*, *B*)?
 - Decisions within the faction are not microfounded

- The model is in continuous time
- The data is observed at low frequency, i.e. five CCP National Congresses from 1992 to 2012
- Promotion chains and their order are latent
- Simulation methods to link two subsequent state variables S^{T} , S^{T+1}
 - **(**) A group of individuals retired between two snapshots T, T + 1
 - 2 Randomly select one retired individual, start a promotion chain
 - **③** Update S^{T} to $S^{T'}$ at each move to reflect the promotion
 - Repeat step 2 and 3 for all retired individuals until $S^{T'} = S^{T+1}$
 - So Repeat step 4 for R_{K} times with randomized order of retirement

α_i ~ N(0, 1)

• Optimal support given by politician *j* to candidate *i* is:

$$s_{i,-i,j} = e_{i,-i}^{\ell} + b^{\ell}c_{i,j}$$

- Local economic performance is assumed to be a linear additive function of the total amount of public goods provided and the politicians' innate abilities, $e_{i,-i}^{\ell} \equiv q_i + q_{-i} + \alpha (a_i + a_{-i})$
- Assume promotion utility gains linear function of the level ℓ of the position, $b^\ell=\delta_0+\delta_1\ell$
- Support from the supreme leader and the Politburo Standing Committee members enter with additive (and potentially differing) weights in promotion contests, w_j = ω₀ + ω₁1_{j,[PBSC]} + ω₂1_{j,[Leader]}

The maximization problem at the node is:

$$\max_{q_i}(\nu_0 + \nu_1 \ell - q_i - q_{-i})q_i + c_{i,-i}\left((\nu_0 + \nu_1 \ell - q_i - q_{-i})q_{-i}\right)$$

This yields optimal solutions for i and -i:

$$q_i = q_{-i} = \frac{\nu_0 + \nu_1 \ell}{c_{i,-i} + 3}$$

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 Θ is the vector of parameters: four faction cohesion parameters $(\theta_1, \theta_2, \theta_3, \theta_4, \text{ for CYLC}, \text{Shanghai}, \text{Princelings}, \text{Military}), two support weight parameters <math>(\omega_1, \omega_2)$, two private benefit parameters (ν_0, ν_1) for v^ℓ , and two utility gain parameters, (δ_0, δ_1) for b^I Simulated Method of Moments (SMM) estimator chooses a set of parameters, Θ , to minimize the distance between the model simulated moments, $\hat{m}(\tilde{X}|\Theta)$, and the empirical moments, m(X).

$$\hat{\Theta} = rg\min_{\Theta} || \hat{m} \left(ilde{X} | \Theta
ight) - m \left(X
ight) ||_{W},$$

where W is the weighting matrix employed in the weighted distance $\|.\|_W$

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Targeted Moments

Table 6: Moments for Structural Estimation

This table shows moments used in the SMM estimation. "Faction premia: leader" are defined as the coefficients of the interaction between the faction of the candidate and the faction of the supreme leader, which are estimated in Table 3. "Faction premia: SC share" are defined as the coefficients of the interaction between the faction of the candidate and the share of seats in the Politburo Standing Committee, which are estimated in Table 3. "Faction premia: intercept" are defined as the coefficients of the faction of the candidate, which are estimated in Table 3. "Faction premia: CC/AC ratio" is defined as the ratio between promotion probability for a faction member in CC and a faction member in AC, normalized by the same ratio for the unclassified politicians, which are estimated in Table 2. "Same-faction discounts" are constructed as the ratio between the predicted probability of the No.1 politician being a member of faction f conditional on the No.2 politician is from the same faction over the predicted probability of the No.1 politician being a member of faction f conditional on the No.2 politician is from a different faction using the estimates in Table 5. "Ability R-squared" is estimated in Table 3.

Moments	Actual	Simulated
Faction premia: leader, CYLC	0.286	0.090
Faction premia: leader, Shanghai	0.108	0.106
Faction premia: leader, Military	0.177	0.009
Faction premia: leader, Princelings	0.033	0.011
Faction premia: SC share, CYLC	0.516	0.351
Faction premia: SC share, Shanghai	0.634	0.420
Faction premia: SC share, Princelings	-1.353	0.038
Faction premia: SC share, Military	-0.244	0.037
Faction premia: CC/AC ratio, CYLC	3.232	3.545
Faction premia: CC/AC ratio, Shanghai	2.206	2.409
Same-faction discount: national, CYLC	0.776	0.527
Same-faction discount: national, Shanghai	0.829	0.501
Same-faction discount: provincial, CYLC	0.936	1.003
Same-faction discount: provincial, Shanghai	0.946	0.974
Ability R-squared, total	0.020	0.024

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Symbol	Parameters	Value	S.E.
θ_1	Faction cohesion, CYLC	0.820	0.035
θ_2	Faction cohesion, Shanghai	0.850	0.039
θ_3	Faction cohesion, Princelings	0.000	0.040
θ_4	Faction cohesion, Military	0.038	0.047
ω_1	Support, SC members	0.080	0.007
ω_2	Support, top leader	0.165	0.003
δ_0	Utility gain, intercept	0.112	0.003
δ_1	Utility gain, slope	0.005	0.000
v_0	Private benefits, intercept	0.595	0.262
v_1	Private benefits, slope	13.360	4.350

 Table 7: Parameter Estimates

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Actual and Model Predicted Seat Shares



Note: Mean model seat share prediction in 100 simulations.

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Table 10: Out-of-sample Forecasting of 19th Party Congress This table shows the out-of-sample forecast of the composition of the 19th Party Congress. The upper panel shows the actual composition in the data. The lower panel shows the predicted composition.

		Data		
	CYLC	Shanghai	Princelings	Military
Top leader	0.500	0.500	0.000	0.000
SC	0.000	0.400	0.000	0.000
PB	0.053	0.158	0.053	0.105
CC	0.101	0.067	0.011	0.191
AC	0.047	0.052	0.006	0.145
	CYLC	Shanghai	Princelings	Military
Top leader				
TOP RELET	0.500	0.500	0.000	0.000
SC	$0.500 \\ 0.277$	$0.500 \\ 0.138$	$0.000 \\ 0.261$	0.000 0.016
SC PB	$0.500 \\ 0.277 \\ 0.263$	0.500 0.138 0.138	0.000 0.261 0.088	0.000 0.016 0.119
SC PB CC	$\begin{array}{c} 0.500 \\ 0.277 \\ 0.263 \\ 0.075 \end{array}$	0.500 0.138 0.138 0.042	0.000 0.261 0.088 0.034	0.000 0.016 0.119 0.166

Image: A matrix

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- Faction is more important for promotions at higher CCP levels than that at lower levels
- Magnitude of leadership premia are similar across factions



- Faction models
 - Baseline model
 - Adding individual covariates
- Alternative models
 - Random promotion
 - Pure seniority-based promotion
 - Meritocracy



- Faction model outperforms alternative models in fitting promotion dynamics both in-sample and out-of-sample
- Specification tests also reject alternative models against faction model



- We can study elite organization in a large & complex nondemocracy
- Stylized facts: Leadership premia; Cross-factional mix. Support a factional perspective
- Economic model of CCP internal organization and estimation
- Promotion mechanisms induce specific slow-moving dynamics of elite composition
- **Counterfactuals** of institutional changes under Xi. Relevant as 2017 is crucial turning point in Chinese political equilibria (Shih and Lee, 2017)
- Future applications to complex nondemocracies, such as Russia

- In China, the family members of the top politicians or the so-called "princelings" are found to be extraordinarily wealthy.
- The relatives of the former prime minister, Wen Jiabao, have controlled assets worth at least 2.7 billion USD. (NYT, 2014)
- Zhou Yongkang, one of the nine most senior politicians in China until 2012, was arrested unexpectedly in the anti-corruption campaign.
- Zhou's family had amassed a 14 billion USD fortune, primarily by purchasing state-owned land and coal mines from local governments at prices substantially below the market rate.

Family Connections Example





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- **Cronyism** refers to the exchange of favors between politicians and businesspeople to their mutual benefit (Shleifer and Vishny 1993)
- Example: A politician provides scarce, government-owned resources to princeling firms at a substantial discount from the market price in exchange for:
 - Direct pecuniary benefits (i.e. outright corruption)
 - Indirectly enhanced promotion prospects.
- Unique institutional features:
 - Decentralization of control rights over state-owned assets, such as land, mines, and industrial enterprises.
 - The one-level-up policy in the promotion of regional leaders.

- In 1998, the state passed a statutory bill that granted *de jure* ownership over land to local government in their geographical jurisdiction.
- The 1994 Tax-sharing Reform increased the reliance of local governments on the revenues obtained from selling land use rights.
- Local government essentially act as monopolists a unique position to practice price discrimination and prone to corruption.
 - Chen Ting and James Kung "Busting the Princelings: The campaign against corruption in China's primary land market" Quarterly Journal of Economics, 2019
 - Very related : Bai Chong-En, Chang-Tai Hsieh, Song Zheng, and Wang Xin "*The Rise of State-Connected Private Owners in China*" 2021

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China's Primary Land Market



Figure: Size of Land Revenue 2000-2016

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- Identify 64 Politburo members spanning four National Congresses.
- Identify 134 family members related to these political elites.
- Identify 3530 firms connected to these princelings.
- Sources include Western media (e.g. NYT), China's news groups, and the International Consortium of Investigative Journalists (ICIJ).
- Matching with Land Transaction data:
 - All land transaction records (N=1,628,635) between 2004 and 2016.
 - In total, 1.6% of the land parcels were purchased by princeling firms.

TABLE I

CHARACTERISTICS OF PRINCELINGS

Total	134								
By relation to the Politburo and Politburo Standing Committee members									
Son/daughter and son-/daughter-in-law	78	58.21%							
Wife and other in-laws	31	23.13%							
Brother and sister	18	13.43%							
Nephew and niece	7	5.22%							
By occupation									
SOE high executives	39	29.10%							
Private firm owners or investors	61	45.52%							
Government officials	13	9.70%							
Army officials	8	5.97%							
Others	13	9.70%							

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Data Construction

	Princeling	Princeling firms		Nonprinceling firms		
	Number of firms	% of firms	Number of firms	% of firms		
Sector						
Real estate	1,294	36.67	116,829	26.69		
Financial	660	18.70	4,985	1.14		
Information technology and computer	391	11.08	11,067	2.53		
Manufacturing	258	7.33	137,323	31.37		
Electricity, gas, and water supply	222	6.31	19,061	4.35		
Other	214	6.07	30,303	6.92		
Leasing and business services	183	5.20	737	0.17		
Environment and public facilities	105	2.99	371	0.08		
Wholesale and retail trade	68	1.93	22,671	5.18		
Transportation and storage	35	1.01	17,338	3.96		
Accommodation and catering services	25	0.72	8,918	2.04		
R&D	22	0.63	2,198	0.50		
Agriculture	15	0.43	22,913	5.23		
Service industry	13	0.39	37,696	8.61		
Mining	8	0.24	1,758	0.40		
News media and publisher	6	0.19	154	0.04		
Education	1	0.05	1,069	0.24		
Health and Social Services	1	0.05	2,385	0.54		
Of which:						
State-owned firms	834	23.64	151,733	34.66		
Large firms (annual revenue >0.3 billion yuan)	2,563	72.61	181,546	41.37		
Headquartered in national/provincial capital	2,305	65.29	107,562	24.57		
Total	3,530		437,776			

SECTORAL CHARACTERISTICS OF PRINCELING FIRMS

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Spatial Matching Approach



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Identification Assumption

Land parcels of similar size, sold within the same area, and in the same year are highly comparable in quality and therefore price.

- A sample of land transactions of **non-princelings firms** in the same year and within the same distance (500-meter or 1500-meter radius).
- *Idea*: treating land parcels purchased by firms unconnected to the princelings as the control group, and the price difference between the parcels by two type of firms can be attributed to the preferential treatment provided by the local government.

Price Discount Obtained by Princeling Firms

	Number of tra	nsactions	Average price			
	Commercial and residential land	Industrial land	Commercial and residential land	Industrial land		
All	586,974 (48,57%)	621,647 (51,43%)	1,383.99	280.28		
Princelings' land	16,717 (84.38%)	3,095 (15.62%)	812.1	270.42		
Nonprincelings' land in 500-meter radius	90,568 (48.24%)	97,184 (51.76%)	1,457.191	306.15		
Difference			-645.09	-35.73		

Land Parcels Purchased by Princeling and Nonprinceling Firms, 2004-2016

Figure: Princeling firms purchased at 44%-lower-than-market price

Price Discount Obtained by Princeling Firms

 $Price_{ickst} = \beta_0 + \beta_1 PrincelingPurchase_{ikjt} + \gamma X_i + T_{cst} + \varepsilon_{ickst}$

- A high-dimensional control of city-year-usage fixed effects, month fixed effects, industry fixed effects.
- Control variables include land area, land quality, sales method, firm size, and firm ownership.

	All (1)	$\leq 1,500$ meters (2)	≤ 500 meters (3)	All (4)	$\leq 1,500$ meters (5)	≤ 500 meters (6)	All (7)	$\leq 1,500$ meters (8)	≤ 500 meters (9)
Princeling firms	-0.808***	-0.904***	-0.844***	-0.545***	-0.666***	-0.620***	-0.808***	-0.894***	-0.835***
Duinacling forma * DSCM	(0.025)	(0.034)	(0.033)	(0.035)	(0.043)	(0.043)	(0.030)	(0.040)	(0.038)
Trincening irms * FSCM				(0.037)	(0.048)	(0.049)			
Princeling firms * Retired							-0.001	-0.051	-0.044
							(0.056)	(0.063)	(0.058)

Figure: a 57% price discount translates into 2,469 billion *yuan* or 370 billion USD. On average, a princeling firm gets to pocket about 2.8 billion USD.

$\begin{aligned} & \textit{Turnover}_{it} = \theta_0 + \theta_1 \textit{PrincelingPurchase}_{it} + \theta_2 \textit{FactionalTies}_{jt} \\ & + \theta_3 \textit{GDPGrowth}_{it} + \kappa X_{it} + \omega W_j + \lambda_i + T_t + \tau \textit{ijt} \end{aligned}$

	Provincial party secretaries					Provincial governors					
	Ordered probit		Binary	Ordered probit		Ordered probit		Binary	Ordered probit		
	(1)	(2)	(3)	(4)	(4) (5)		(6) (7)		(9)	(10)	
Princeling purchase (= 1)	0.652***	0.742***	0.114***			0.018	- 0.016	0.070			
	(0.229)	(0.262)	(0.040)			(0.288)	(0.314)	(0.067)			
Princeling discounts				0.814***					0.181		
-				(0.175)					(0.175)		
Area of land purchased					0.324^{***}					-0.068	
					(0.084)					(0.065)	
Factional ties		0.232	0.011	0.118	0.302		-0.034	-0.003	-0.031	-0.052	
		(0.209)	(0.033)	(0.212)	(0.213)		(0.208)	(0.045)	(0.205)	(0.206)	
GDP growth		-1.438	-0.195	-0.444	-0.032		6.188***	1.250^{***}	6.374***	6.061***	
		(2.484)	(0.381)	(2.554)	(2.530)		(1.977)	(0.443)	(1.981)	(1.983)	
Tax revenue growth		1.954	0.029	1.561	2.403^{*}		0.262	0.031	0.207	0.232	
		(1.230)	(0.195)	(1.241)	(1.262)		(1.070)	(0.229)	(1.058)	(1.059)	

Political turnover of:

		Log of land price								
	All	≤ 500 meters								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Princeling firms	-0.907*** (0.029)	-0.920*** (0.040)	-0.825*** (0.024)	-0.858*** (0.032)	-0.870*** (0.028)	-0.896*** (0.035)	-0.907*** (0.029)	-0.920*** (0.040)	-0.818*** (0.023)	-0.847*** (0.028)
Princeling firm *Transaction after 2012	0.318*** (0.047)	0.257*** (0.058)					0.140* (0.052)	0.093 (0.054)		
Princeling firm *Central inspection			0.819*** (0.124)	0.695**** (0.139)			0.504*** (0.079)	0.420*** (0.096)		
Princeling firm *Xi-appointed officials					0.614*** (0.055)	0.572*** (0.051)	0.449*** (0.064)	0.447*** (0.059)		
Princeling firms *Pre-2012 inspection									0.109 (0.074)	0.037 (0.070)

If the princeling firms were previously obtaining a discount of 60%, then

- it has be reduced by 11.7% after the campaign was introduced, or
- 32% where Xi replaced the provincial party secretary.
- "Central Inspection" would raise the land price by 42.6%.

The Anti-Corruption Campaign



Figure: The price discount had shrunk from 50-70% in 2007 to 7.5% in 2016.

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The Anti-Corruption Campaign



Figure: Upward trend of princelings' land purchases (quantity) had been reversed

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The Anti-Corruption Campaign



Figure: Event study of the high-profile arrest of Zhou Yongkang and his son

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- "Political systems should aim to select and promote public officials with above average ability and virtue by such means as examinations and performance evaluations at lower levels of government."
- Long history dates back to Confucius (BC 500). Constant effort to institutionalized this ideal.
- Large gap between ideal and reality: cronyism, corruption and the abuse of power.

- Political determinants of corruption (e.g. Olken and Pande 2012)
- Value of political connections (Fisman 2001)
- Dynastic political rents (e.g. Cruz, Labonne, and Querubin 2017)
- Promotion in nondemocratic setting (e.g. Li and Zhou 2005)
- Design of political institutions in curbing corruption (e.g. Ferraz and Finan 2008)