Political Factions, Local Accountability and Economic Performance: Evidence from Chinese Provinces

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Introduction

- There is a large literature aimed to understand the causes of the cross-country differences in economic growth rates, emphasizing the roles of:
  - institutions (North, 2005), La Porta et al (1998a, 1998b) and Acemoglu, Johnson and Robinson, 2001, 2002);
  - human capital and capital market imperfection (Lucas, 1990);
  - culture (Barro, 1991; Barro and Lee 1994)
- With few exceptions, literature does not explain vast differences in the economic performances within much smaller geographical units in the same country or even in the same province.
- We consider the within-provincial growth differences in Chinese provinces after the Communist took power in 1949.
  - E.g., within Fujian province between 1978 to 1998, county growth rates ranged from 1.5 to 22.5 percent per year.
  - wihin Zhejiang province, 3.68 to 15.01 percent per year.

Introduction

- Same legal system, arguably similar culture.
- What explains the differences?
  - Promotional incentives: similar across countries (though at provincial leader level, Jia, Kudamatsu and Seim (2015) found factions matter for promotion besides GDP growth).
  - Geography and regional policies?
  - Official ability?
- Here we propose an alternative explanations: history-based local accountability coupled with career incentives – political survival and possibility of promotion – of county officials.
- We investigate, both theoretically and empirically, the role of **political factions** and **local accountability** in explaining the variations in economic performance **across counties** in different provinces (Fujian and Zhejiang Provinces) in China.

Introduction: Mechanism

- Fujian For Example:
- When the Communist armies took over Fujian from the Nationalist control circa 1949, cadres from different *army factions*, in particular the Third Field Army (FA3, henceforth) led by Ye Fei and the Yangtze-River Detachment (YRD), were assigned to different counties in Fujian.
- The provincial CCP Standing Committee was always dominated by FA3;
- For exogenous reasons due to revolutionary history, counties differ in the assigned local *leaders' army faction* and the strength of *local participation*.
- Many "political movements" in China after 1949 –> Political survival was an important consideration for the local leader.

Introduction: Mechanism

- We argue that the local leaders' incentives regarding economic development depend on whether they are from the same army faction as the **dominant faction** in the provincial CCP Standing Committee
  - If they are from the same faction, then the local leader is less likely to pursue policies that are friendly to local economic development, because their political survival depends more on their royalty to the provincial leader.
  - If the local leader is from a different faction than the provincial leader, then his political survival is more based on the local grass-root support, which can best secured if he focuses on local economic development.

Political Movements and Political Survival in Post-1949 China: Deng Xiaoping as an Illustration

- July 1952: Vice Premier and Deputy Chair of the Committee on Finance (shortly after, Minister of Finance and Director of the Office of Communications)
- In 1954, removed from all these positions except for the post of Deputy Premier.
- In 1956, became Head of the Communist Party's Organization Department and member of the Central Military Commission.
- In Anti-Rightist Movement (1957): acted as Secretary General of the Secretariat;
- During Great Leap Forward (1957-1960): ran daily affairs with President Liu Shaoqi and Premier Zhou Enlai;

Political Movements and Political Survival in Post-1949 China: Deng Xiaoping as an Illustration

- During the Cultural Revolution (1966-1976), twice purged from the central power aparatus.
  1. In October 1969: Deng was sent to rural Jiangxi province to work as a regular worker; but in 1974 when Premier Zhou Enlai fell ill with cancer, Deng was brought back to politics as First Vice-Premier.
  2. Purged yet again in 1976 after the death of Premier Zhou Enlai when he was removed from all positions following the Tiananmen Incident of April 5, 1976.
- Deng re-emerged as the de facto leader of China followng the death of Chairman Mao on September 9, 1976 and the purge of the Gang of Four in October 1976.

Simple Theory: Static Model

- There are two factions:
  - w, standing for the *weak* YRD faction;
  - s, standing for the *strong* FA3 faction.
- We distinguish officials at two levels of the government, those at the provincial level and those at the county level.
  - At the provincial level, dominant faction is FA3, s.
- We analyze the incentives of the officials in the county level.

Simple Theory: Static Model

- County official faces possible shocks that may lead to their dismissal.
- Probability that a faction-f county official will be dismissed is given by

$$\rho_f(z,T) = \rho_f^0 \exp\left(-\alpha_f z - \beta_f T\right) \in (0,1), \tag{1}$$

  - $\rho_f^0 \in (0,1)$: baseline probability of a local official from faction f being purged from power;
  - z : support that faction-f county official enjoys from the citizens in the county;
  - T : amount of tax revenue he collects from the citizens and sends to the higher ups in the provincial government.

Simple Theory: Static Model

- **Assumption 1:** α_f and β_f are both positive, for both $f \in \{w, s\}$:
  - A local official's chance political survived can be improved either by building strong local support or by currying favors from the provincial leaders.
- **Assumption 2: (Comparative Advantages of Strong vs. Weak Factions)** $\alpha_s/\beta_s < \alpha_w/\beta_w$.
  - local leaders from the strong factions have comparative advantage relative to the local leaders from the weak faction to use upward transfers to reduce the probability of purges

Simple Theory: Static Model

- Now we specify how z and T are affected by the policy choices of the local leader.
- We proxy z by the local economic outcomes.
- Local citizens have an endowment (which could be interpreted either as financial or labor resources) equal to E.
- Local citizens can choose to allocate their endowment E between investment (or labor supply for the market) I which produces $f(I) > I$ and keeping it under a mattress which represents a storage technology (or working in their own backyard).
- Output produced from investment I can be taxed by the local government, while the storage technology is secret and not subject to taxation.

Simple Theory: Static Model

- Local citizen's wellbeing will be measured by their after-tax income:

$$z = (1 - \tau) f(I) + (Y - I). \tag{2}$$

  where τ is the tax rate chosen by the county official.
- Tax revenue that the local leader can send to the provincial leader, T, is given by

$$T = (1 - \tau) f(I). \tag{3}$$

Simple Theory: Static Model

- If a local leader chooses tax rate τ, the citizens will choose I to maximize (2):

$$(1-\tau) f'(I^*) = 1. \tag{4}$$

- For a given level of tax rate τ, available tax revenue that the local leader can collect and transfer to the provincial level officials is:

$$T^*(\tau) = \tau f(I^*(\tau)) \tag{5}$$

  - "Laffer Curve"

- **Assumption 3:** The production function $f(\cdot)$ is such that $T^*(\cdot)$ is a globally concave function.

Simple Theory: Static Model

- For a given level of tax rate τ, local citizens' economic outcome is:

$$z^{*}(\tau) = (1-\tau) f\left(I^{*}(\tau)\right) + \left[Y - I^{*}(\tau)\right] \tag{6}$$

- The county officials from faction f choose τ_f to solve

$$\min_{\tau_f \in [0,1]} \rho_f\left(z^{*}(\tau_f), T^{*}(\tau_f)\right) \tag{7}$$

where $z^{*}(\tau_f)$ and $T^{*}(\tau_f)$ are respectively given by (6) and (5).

Simple Theory: Static Model

Proposition

Under Assumptions 1-3, we have the following predictions:

1. *Local leaders from the strong faction will choose higher tax rates:* $\tau_s^* > \tau_w^*$;
2. *Citizens in counties whose leader belongs to the strong faction will have lower after tax income:* $z^*(\tau_s^*) < z^*(\tau_w^*)$;
3. *More taxes are collected from counties whose leaders belong to the strong faction:* $T^*(\tau_s^*) > T^*(\tau_w^*)$.

Institutional Background

- During the early periods of the Chinese Civil War (July 1946- October 1949), there were local Communist guerilla presences in both provinces despite the fact that both were under the formal rule of the Kuomintang government.
- The presence and the power of the guerilla forces varied significantly across the counties within Fujian province.
- After the decisive Huaihai Campaign in late 1948 and early 1949, the Communist army took control over the east and central China.

Institutional Background

- General Chen Yi's Third Field Army (FA3) became the major military force to attack the KMT forces then controlling Zhejiang and Fujian Provinces.
- Also, between May-July 1949, FA2 (led by Liu Bocheng and Deng Xiaoping) entered Fujian province from Southwest of Zhejiang province and Northeast of Jiangxi province, and played an important role in liberating 10 counties in northern Fujian.
- But then FA2 was mobilized to fight in Southwestern China.
- Local guerrillas, which tended to be most active in borders with neighboring provinces (Zhejiang, Jiangxi and Guangdong), played important assistance role.
- By May 1950, the communist took control of the Fujian province except for the outpost islands of Jing Men and Ma Zhu which are till today under the control of the Taiwan forces.

PLA Army Movement: April - October 1949

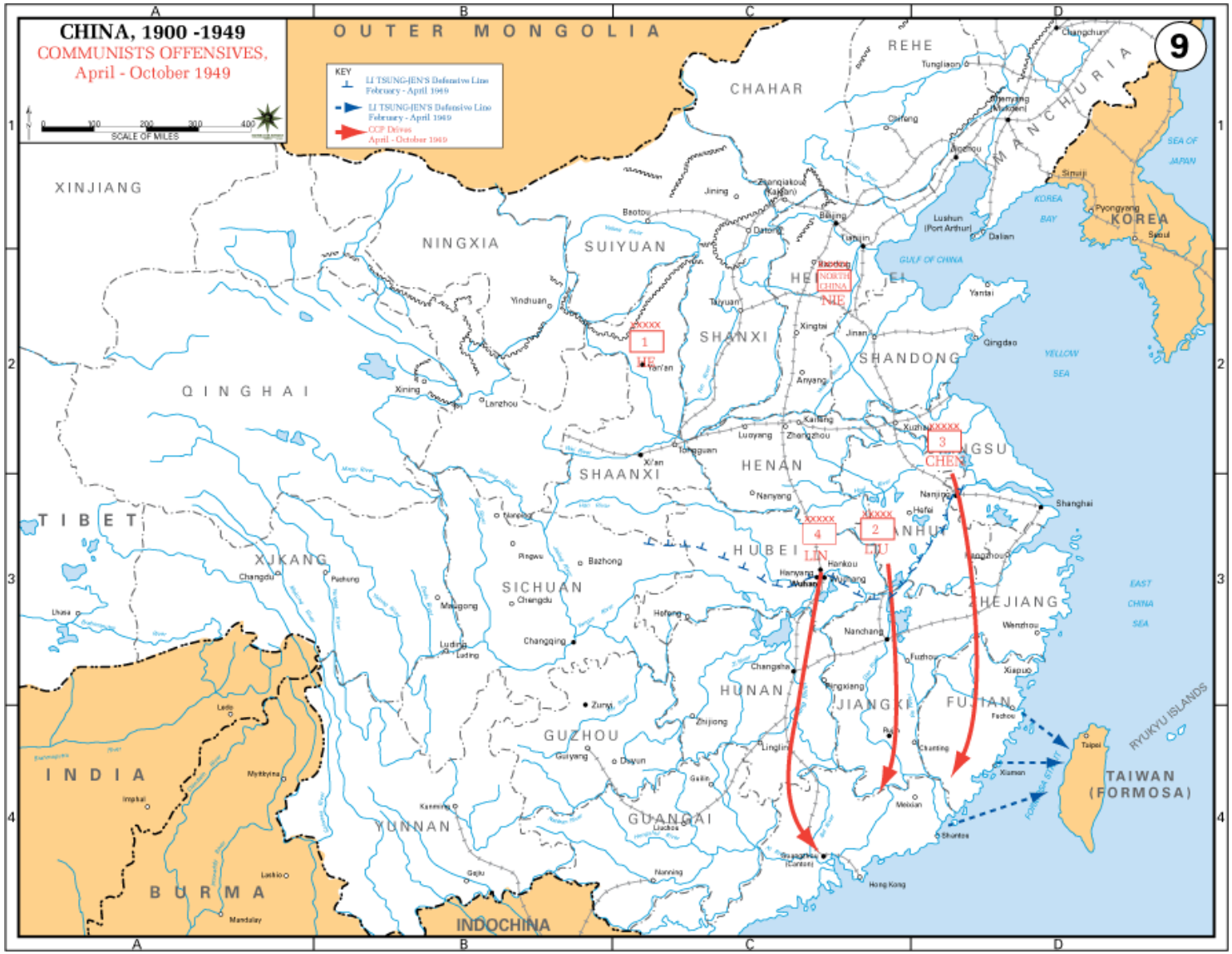


Figure: Map of the Chinese Civil War: April - October 1949.
Source: US Military Academy.

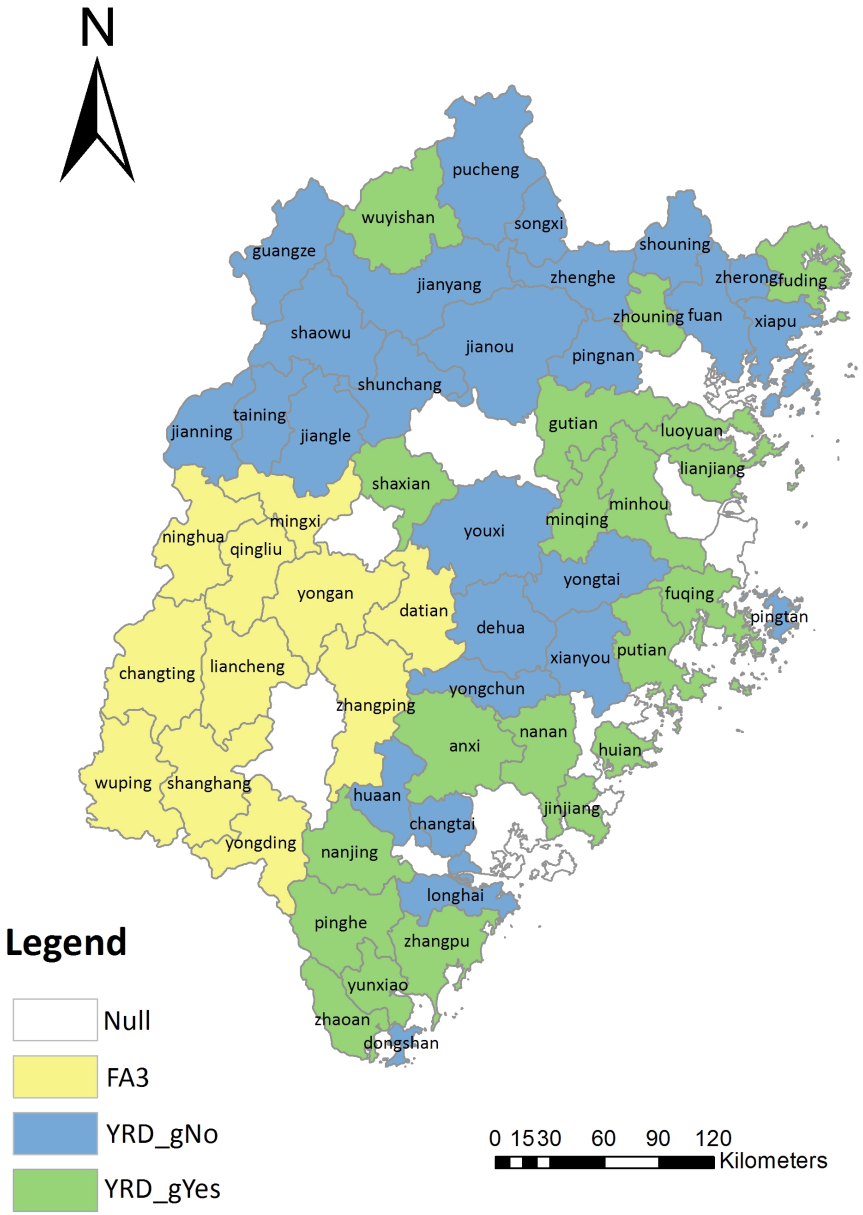
Assigning Local Cadres at County Level

- As in any takeover of power, the new Communist government needed to quickly install cadres at all levels of the bureaucracy.
- At both the provincial and the county level, the Communist Party organization is headed by a Communist Party Secretary; and the People's Government is headed by a chief (Governor at the provincial level and County Chief at the county level).
- There were hundreds of other positions at lower levels to fill, a huge task.

Southbound Cadres

- These cadres, who were commonly known as "Southbound Cadres," were mainly drawn from the military men and women from the armies that liberated Fujian.
- Two major army factions from which the cadres were drawn:
  - Third Field Army (FA3);
  - Yangtze-River Detachment (YRD): YRD was assembled in early 1949 with members mainly drawn from Communist bases in Hebei, particularly in Tai Hang and Tai Yue Communist revolutionary base.

County Government in 1950: Fujian



Provincial Level Government

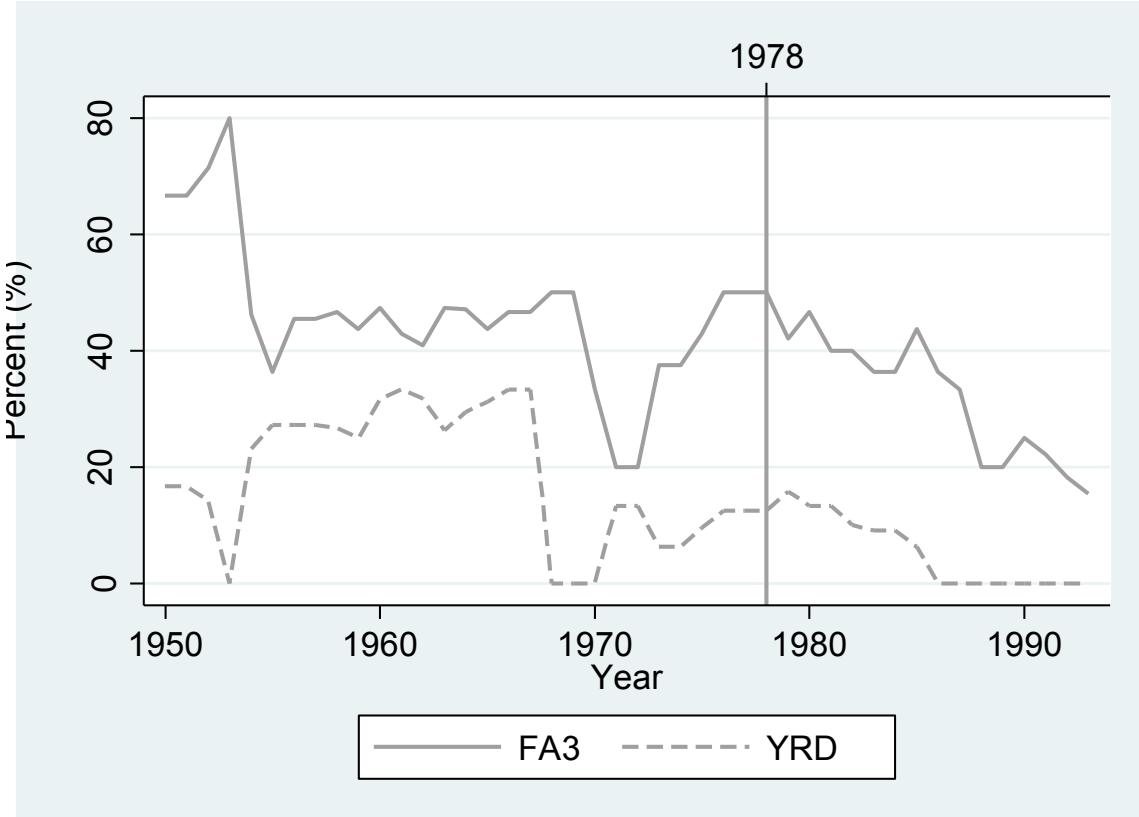


Figure: Share of FA3 and YRD in Provincial Party Standing Committee in Fujian Province During 1950-1993.

Factional Conflicts in Fujian

- A lot of conflicts, resembling the frequent movements and purges at the national level;
- Given the constant power struggles, local leaders faced serious risks of being purged.
- Local leaders from the relatively weak YRD tended to adopt economic policies that were more protective of local economic development in their areas of jurisdiction.
- Many of these decisions were driven to mobilize the grassroot support in order to increase the chances of local survival.

Data Sources

- Leaders' political faction affiliations, from two primary sources: "History of the Communist Party in Fujian Province, 1926-1987" and "Recollections on Yangtz-River Detachment".
  - Determine whether a county was led by the cadres from FA3 or from YRD.
  - Determine whether a local guerrilla force had strong presence during the pre-Communist liberation period by checking various county gazettes (as of May 1948).
- Second dataset: hand collected the resume of every member of the Fujian Provincial Communist Party Standing Committee from 1950-1993.
  - We are able to identify if a member belongs to the FA3 faction or the YRD faction based on their working experiences listed on their resumes.

Data Sources

- "Statistical Information on 50 Years of Fujian Province," which covers the period from 1952 up to 1998 for all 59 counties in Fujian.
  - construct the average annual real growth rate of gross value of output for agriculture and industries, separately for 1952-1998 (whole sample period) and for 1978-1998 (the post-reform period).
- Census Data (1990):
  - construct a measure of famine control during the Great Leap Forward period in 1959-1961.

Descriptive Evidence: Factions and Annual Growth

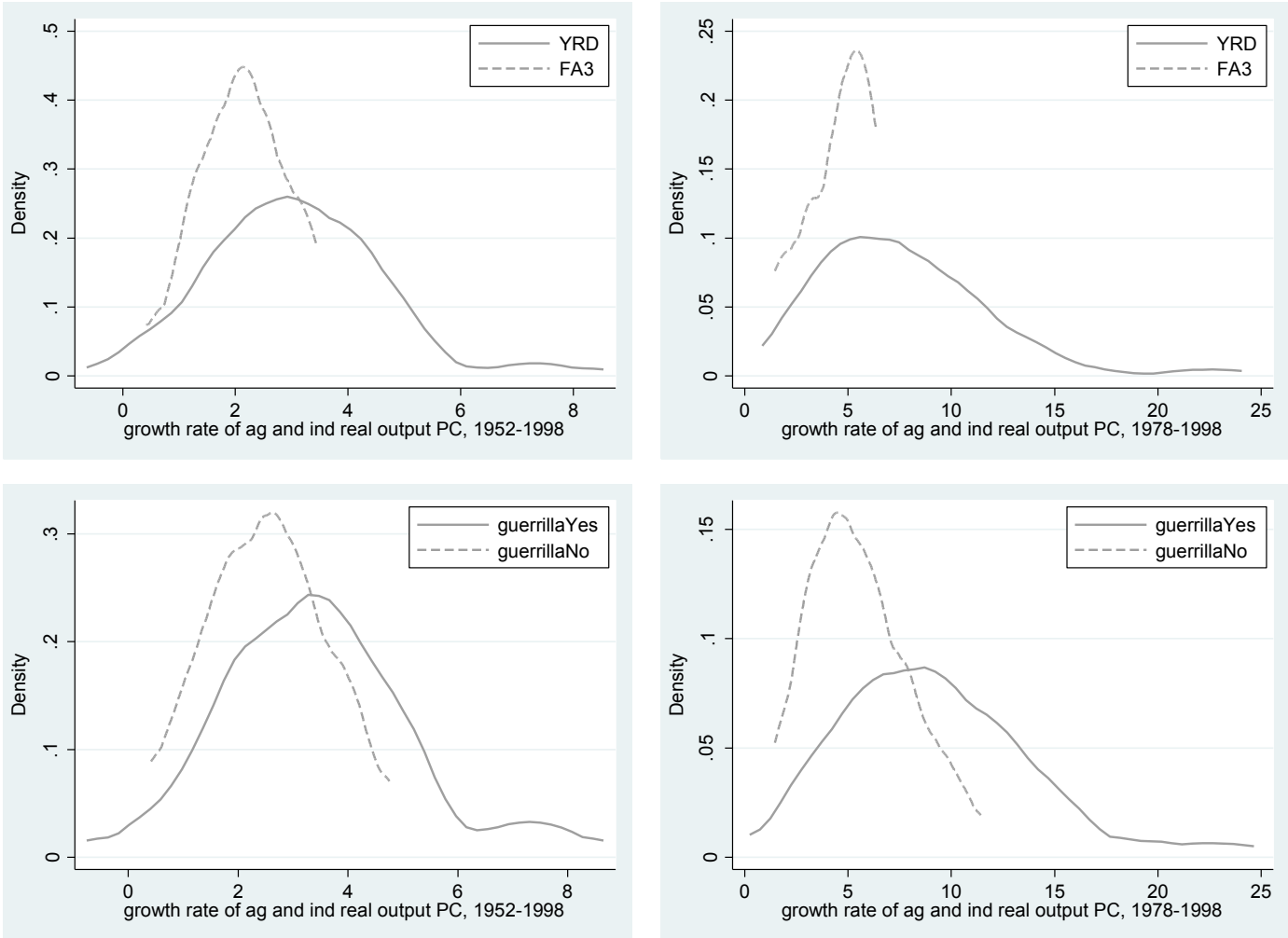


Figure: Kernel Density of Annual Growth Rate of Agriculture and Industrial Real Output per Capita: YRD vs. FA3 (Top) and Guerrilla vs. No Guerrilla (Bottom).

Note: The top left panel is kernel density of the the annual growth rate of agriculture

Descriptive Evidence: Factions and Annual Growth

- Table 2
- 1952 –1998: average real annual growth rates for FA3 counties was 2.10 percent, that for YRD counties was 3.08 percent, and the difference between YRD and FA3 counties was 0.99 percentage points (or 0.67 standard deviations (SDs) of the mean growth rate of 2.91 percent).
- 1978-1998: average real annual growth rate for FA3 counties was 4.37 percent, that for YRD counties was 7.72 percent. The 3.17 percentage points per year YRD advantage in growth rate or 0.82 SDs, is statistically significant at 1.4% level.

Table 2. Comparisons of Growth Rates across Counties in Fujian, by Faction and Guerrilla Presence (1952-1998 and 1978-1998)

Panel A: FA3 vs. YRD, and Guerrilla vs. No Guerrilla

County	Growth Rate (%) 1952-1998	Growth Rate (%) 1978-1998	Sample
FA3	2.10 (0.86)	4.37 (1.60)	11
YRD	3.08 (1.54)	7.72 (4.03)	48
YRD-FA3	0.99* (0.50)	3.17** (1.25)	
No Guerrilla	2.51 (1.16)	5.52 (2.44)	25
Yes Guerrilla	3.43 (1.72)	9.26 (4.52)	34
Yes-No	0.89** (0.38)	3.72** (0.93)	

Panel B: Interactions of FA3, YRD with Guerrilla Presence

County	Growth Rate (%) 1952-1998			Growth Rate (%) 1978-1998			Sample	
	Yes Guerrilla	No Guerrilla	Yes-No	Yes Guerrilla	No Guerrilla	Yes-No	Yes Guerrilla	No Guerrilla
FA3	2.05	2.11	0.06	5.82	4.08	1.7	3	8
	(0.69)	(0.97)	(0.63)	(0.125)	(1.69)	(1.01)		
YRD	3.63	2.65	0.98**	9.75	6.01	3.74**	22	26
	(1.74)	(1.18)	(0.43)	(4.63)	(2.44)	(1.07)		

Note: Standard errors in parenthesis. *, ** and *** denote significance at 10, 5 and 1 percent, respectively.

Descriptive Evidence: Factions and Famine Control (1959-1961)

- We follow Meng et al (2015):

$$\text{Famine Control}_C = \frac{\text{Surviving Births per Year from 1959-1961 in County } C}{\text{Surviving Births per Year from 1954-1957 in County } C}. \tag{8}$$

- The *higher* the measure, the *less severe* the famine was in county C.

Descriptive Evidence: Factions and Famine Control (1959-1961)

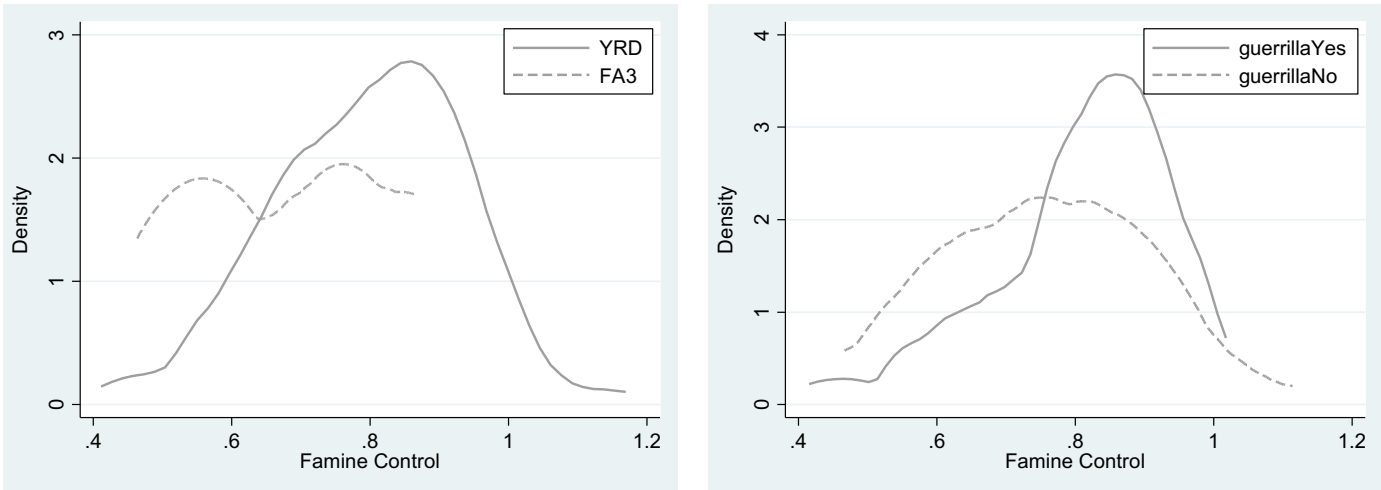


Figure: Kernel Density of the Birth Cohort Measure of Famine Control at the County Level During the Great Chinese Famine of 1959-1961: YRD vs. FA3 (Left Panel) and Guerrilla vs. No Guerrilla (Right).

Descriptive Evidence: Factions and Famine Control (1959-1961)

- Table 3

Table 3. Comparisons of Famine Control across Counties in Fujian, by Faction and Guerrilla Presence (1959-1960)

Panel A: FA3 vs. YRD, and Guerrilla vs. No Guerrilla					
County	Famine Control	Sample	County	Famine Control	Sample
FA3	0.69	11	No Guerrilla	0.75	25
	(0.16)			(0.15)	
YRD	0.80	48	Yes Guerrilla	0.81	34
	(0.13)			(0.13)	
YRD-FA3	0.11**		Yes-No	0.05	
	(0.046)			(0.038)	

Panel B: Interactions of FA3, YRD with Guerrilla Presence					
County	Guerrilla Presence			Sample	
	Yes	No	Yes-No	Yes	No
FA3	0.56	0.73	-0.17	3	8
	(0.09)	(0.16)	(0.097)		
YRD	0.84	0.76	0.08**	22	26
	(0.09)	(0.15)	(0.037)		

Note: Standard errors in parenthesis. *, ** and *** denote significance at 10, 5 and 1 percent, respectively.

Initial Assignment: Testing for Randomness

- Table 5:
- Examine how YRD counties and guerrilla counties differ from other counties in terms of basic characteristics.
- This would shed light on what variables we should control for, and whether selection issues are serious.

Table 5. Correlations of the Factions of Local Leaders in 1949 with County Characteristics in 1952

	OLS		Multinomial	
	YRD	Guerrilla	YRD_GuerrillaNo	YRD_GuerrilaYes
Initial Condition				
Ln_GVOPC$_{52}$	0.052	-0.048	0.586	0.317
	(0.565)	(0.651)	(0.579)	(0.776)
Lnpop$_{52}$	0.053	0.303***	-0.122	1.374*
	(0.472)	(0.000)	(0.870)	(0.100)
Geography				
Share of Plain (%)	0.009*	0.001	0.062	0.084
	(0.076)	(0.891)	(0.331)	(0.183)
Distance to Xiamen (KM)	0.001*	-0.001	0.008	0.005
	(0.067)	(0.353)	(0.123)	(0.353)
Intercept	-0.012	0.126	-5.534	-7.334
	(0.987)	(0.897)	(0.558)	(0.468)
Observations	58	58	58	
R^2 / Pseudo R^2	0.070	0.253	0.159	

Note: FA3 is taken as reference group in multinomial regression.
White standard errors are in parenthesis.

Empirical Results: Factions, Local Accountablity and Growth

- Tables 6, 8 and 9

Table 6. Effect of YRD vs. FA3 Factions on Local Growth Rates, Fujian

Variable	Full Sample								Trimming Tail 5%	
	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Power Structure										
YRD	0.987***	3.166***	0.972***	2.216***	0.925***	2.103***	0.907***	2.102***	0.767***	2.007***
	(0.004)	(0.000)	(0.002)	(0.001)	(0.004)	(0.003)	(0.003)	(0.002)	(0.008)	(0.000)
Initial Condition										
$LnGVOPC_{52}$			-1.931***		-1.876***		-2.127***		-1.985***	
			(0.000)		(0.000)		(0.000)		(0.000)	
$LnGVOPC_{78}$				-5.113***		-4.634***		-4.506***		-3.358***
				(0.000)		(0.000)		(0.000)		(0.000)
$Lnpop_{52}$					0.217		-0.417		-0.193	
					(0.464)		(0.136)		(0.349)	
$Lnpop_{78}$						0.839		-0.842		-0.864
						(0.299)		(0.282)		(0.208)
Geography										
Share of Plain (%)							0.055**	0.143***	0.046*	0.081*
							(0.015)	(0.007)	(0.064)	(0.060)
Distance to Xiamen							-0.004***	-0.010***	-0.004**	-0.012***
							(0.008)	(0.005)	(0.012)	(0.001)
Observations	57	57	57	57	57	57	57	57	53	52
R^2	0.049	0.089	0.404	0.482	0.403	0.490	0.580	0.645	0.432	0.528

Note: White standard errors are in parenthesis. Intercept not reported.

Table 8. Separate Effects of YRD and Guerrilla on Growth Rate in Fujian

Variable	Full Sample								Trimming Tail 5%	
	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Power Structure										
YRD	0.867**	2.537***	0.879***	2.009***	0.879***	1.981***	0.857***	1.929***	0.741**	1.890***
	(0.015)	(0.000)	(0.006)	(0.004)	(0.007)	(0.004)	(0.004)	(0.002)	(0.012)	(0.000)
Guerrilla	0.818**	3.420***	0.641**	1.829**	0.642**	1.652**	0.524**	1.517**	0.472*	1.488**
	(0.036)	(0.000)	(0.032)	(0.014)	(0.035)	(0.026)	(0.048)	(0.018)	(0.074)	(0.010)
Initial Condition										
$LnGVOPC_{52}$			-1.859***		-1.860***		-2.096***		-1.975***	
			(0.000)		(0.000)		(0.000)		(0.000)	
$LnGVOPC_{78}$				-4.415***		-4.278***		-4.150***		-2.973***
				(0.000)		(0.000)		(0.000)		(0.000)
$Lnpop_{52}$					-0.001		-0.576**		-0.337	
					(0.997)		(0.045)		(0.116)	
$Lnpop_{78}$						0.358		-1.248		-1.247*
						(0.671)		(0.112)		(0.077)
Geography										
Share of							0.055**	0.149***	0.047**	0.091**
Plain (%)							(0.010)	(0.003)	(0.049)	(0.016)
Distance to							-0.004**	-0.009***	-0.003**	-0.010***
Xiamen							(0.014)	(0.009)	(0.019)	(0.001)
Observations	57	57	57	57	57	57	57	57	53	52
R^2	0.110	0.266	0.441	0.522	0.430	0.515	0.598	0.668	0.459	0.571

Note: White standard errors are in parenthesis. Intercept not reported.

Table 9. The Joint Effect of YRD and Guerrilla on Growth Rate in Fujian

Variable	Full Sample										Trimming Tail 5%	
	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998	1952-1998	1978-1998
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Power Structure												
FA3_GuerrillaYes									0.058	0.376		
									(0.453)	(0.852)		
YRD_GuerrillaNo	0.551	1.458**	0.622*	1.330*	0.620*	1.352*	0.674**	1.455**	0.690*	1.547*	0.535*	1.372***
	(0.118)	(0.034)	(0.052)	(0.056)	(0.055)	(0.054)	(0.029)	(0.032)	(0.410)	(0.818)	(0.062)	(0.002)
YRD_GuerrillaYes	1.528***	5.198***	1.407***	3.546***	1.424***	3.422***	1.288***	3.180***	1.306***	3.289***	1.160***	3.086***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.455)	(0.959)	(0.001)	(0.000)
Initial Condition												
$LnGVOPC_{52}$			-1.850***		-1.855***		-2.098***		-2.097***		-1.968***	
			(0.000)		(0.000)		(0.000)		(0.240)		(0.000)	
$LnGVOPC_{78}$				-4.436***		-4.325***		-4.243***	-0.576**			-3.089***
				(0.000)		(0.000)		(0.000)	(0.294)			(0.000)
$Lnpop_{52}$					-0.028		-0.572**			-4.210***	-0.345*	
					(0.929)		(0.042)			(0.980)	(0.096)	
$Lnpop_{78}$						0.272		-1.245		-1.261		-1.252*
						(0.745)		(0.108)		(0.795)		(0.075)
Geography												
Share of Plain (%)							0.052**	0.140***	0.053**	0.142***	0.044*	0.084**
							(0.016)	(0.005)	(0.023)	(0.051)	(0.063)	(0.027)
Distance to Xiamen							-0.004**	-0.009***	-0.004**	-0.009***	-0.003**	-0.010***
							(0.010)	(0.007)	(0.002)	(0.003)	(0.016)	(0.001)
Observations	57	57	57	57	57	57	57	57	57	57	53	52
R^2	0.127	0.267	0.454	0.535	0.444	0.528	0.603	0.672	0.595	0.666	0.479	0.580
YRD_GuerrillaYes =YRD_GuerrillaNo	0.033	0.002	0.026	0.012	0.024	0.018	0.049	0.023	0.051	0.024	0.042	0.015

Note: White standard errors are in parenthesis. Intercept not reported.

Empirical Results: Factions, Local Accountablity and Famine Control in 1959-1961

- Tables 10 and 11

Table 10. Effect of YRD and Upper Connection on Famine Control during 1959-1960 in Fujian

Variable	Full Sample				Trimming Tail 5%	Bottom 25%	Full Sample				Trimming Tail 5%	Bottom 25%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Power Structure												
YRD	0.109**	0.128**	0.116**	0.119**	0.087	-0.419**						
	(0.050)	(0.050)	(0.054)	(0.056)	(0.053)	(0.182)						
Upper Connection$_{50\text{-}58}$							-0.383**	-0.446**	-0.406**	-0.416**	-0.304	1.468**
							(0.176)	(0.174)	(0.189)	(0.196)	(0.187)	(0.636)
Initial Condition												
LnGVOPC52		0.022	0.033	0.028	0.031	-0.081		0.022	0.033	0.028	0.031	-0.081
		(0.034)	(0.036)	(0.039)	(0.038)	(0.101)		(0.034)	(0.036)	(0.039)	(0.038)	(0.101)
Lnpop$_{52}$			0.048**	0.041	0.032	-0.152*			0.048**	0.041	0.032	-0.152*
			(0.022)	(0.026)	(0.024)	(0.076)			(0.022)	(0.026)	(0.024)	(0.076)
Geography												
Share of Plain (%)				0.000	0.001	0.002				0.000	0.001	0.002
				(0.002)	(0.002)	(0.007)				(0.002)	(0.002)	(0.007)
Distance to Xiamen				-0.000	-0.000	0.001				-0.000	-0.000	0.001
				(0.000)	(0.000)	(0.001)				(0.000)	(0.000)	(0.001)
Observations	58	57	57	57	53	58	58	57	57	57	53	58
R^2	0.075	0.088	0.125	0.095	0.089	0.172	0.075	0.088	0.125	0.095	0.089	0.172

Note: White standard errors are in parenthesis. Intercept not reported. In Columns (6) and (12), the dependent variable is a dummy variable, which take the value of 1, if the county was in the bottom 25 percent of famine control (25 percent counties suffering the most severe famine during 1959-1960), and take the value of 0, otherwise.

Table 11. Effect of YRD and Guerrilla on Famine Control during 1959-1960 in Fujian

Variable	Separate Effect						Joint Effect						
	Full Sample				Trimming Tail 5%	Bottom 25%	Full Sample					Trimming Tail 5%	Bottom 25%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Power Structure													
YRD	0.101*	0.120**	0.114**	0.117**	0.077	-0.422**							
	(0.055)	(0.055)	(0.056)	(0.058)	(0.055)	(0.182)							
Guerrilla	0.041	0.047	0.021	0.018	0.052	0.023							
	(0.036)	(0.036)	(0.040)	(0.042)	(0.037)	(0.111)							
FA3_GuerrillaYes											-0.178**		
											(0.077)		
YRD_GuerrillaNo							0.072	0.089	0.091	0.094	0.046	0.055	-0.369*
							(0.056)	(0.056)	(0.057)	(0.060)	(0.067)	(0.055)	(0.189)
YRD_GuerrillaYes							0.152***	0.172***	0.154***	0.157***	0.103	0.134**	-0.499**
							(0.050)	(0.049)	(0.056)	(0.058)	(0.069)	(0.056)	(0.189)
$LnGVOPC_{52}$		0.026	0.033	0.029	0.032	-0.079		0.029	0.034	0.031	0.028	0.034	-0.086
		(0.035)	(0.037)	(0.039)	(0.038)	(0.102)		(0.036)	(0.038)	(0.039)	(0.040)	(0.038)	(0.102)
$Lnpop_{52}$			0.041	0.036	0.017	-0.159**			0.029	0.027	0.038	0.012	-0.120
			(0.025)	(0.029)	(0.024)	(0.076)			(0.024)	(0.028)	(0.029)	(0.023)	(0.078)
Share of Plain (%)				0.000	0.001	0.002				-0.000	-0.001	0.001	0.003
				(0.002)	(0.002)	(0.007)				(0.002)	(0.002)	(0.002)	(0.007)
Distance to Xiamen				-0.000	-0.000	0.001				-0.000	-0.000	-0.000	0.001
				(0.000)	(0.000)	(0.001)				(0.000)	(0.000)	(0.000)	(0.001)
Observations	58	57	57	57	53	58	58	57	57	57	57	53	58
R^2	0.079	0.099	0.113	0.080	0.104	0.156	0.126	0.143	0.143	0.110	0.153	0.144	0.172
YRD_GuerrillaYes =YRD_GuerrillaNo							0.031	0.03	0.136	0.142	0.180	0.035	0.238

Note: White standard errors are in parenthesis. Intercept not reported. In Columns (6) and (13) the dependent variable is a dummy variable, which take the value of 1, if the county is in the bottom 25 percent of famine control (25 percent counties suffering the most severe famine during 1959-1960), and take the value of 0, otherwise.

Robustness Checks: Border Counties

- Tables 12-13

Table 12. Effect of Power Structure on Growth Rate in Fujian, Border-sharing Counties Only

Variable	1952-1998 (1)	1978-1998 (2)	1952-1998 (3)	1978-1998 (4)	1952-1998 (5)	1978-1998 (6)	1952-1998 (7)	1978-1998 (8)	1952-1998 (9)	1978-1998 (10)
Power Structure										
YRD	0.972***	1.961**			0.684**	1.545**				
	(0.351)	(0.782)			(0.309)	(0.635)				
Upper Connection$_{50\text{-}78}$			-4.172***	-8.415**						
			(1.505)	(3.356)						
Guerrilla					0.468*	1.374**				
					(0.277)	(0.670)				
FA3_GuerrillaYes							-0.170	-0.119		
							(0.488)	(0.906)		
YRD_GuerrillaNo							0.406	0.943	0.465	0.980
							(0.451)	(0.863)	(0.309)	(0.657)
YRD_GuerrillaYes							0.995**	2.604**	1.058***	2.645***
							(0.492)	(1.016)	(0.364)	(0.820)
Other Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observation	15	15	15	15	51	51	51	51	51	51
R^2	0.233	0.424	0.233	0.424	0.589	0.662	0.590	0.662	0.598	0.669
YRD_GuerrillaYes =YRD_GuerrillaNo							0.075	0.039	0.071	0.037

Note: White standard errors are in parenthesis. Intercept not reported. Column 1-4 use subsample of FA3 counties and their borders sharing counties. Column 5-10 use subsample of guerrilla counties and their borders sharing counties. Other control variables include $LnGVOPC_{52}$ ($LnGVOPC_{78}$), $Lnpop_{52}$ ($Lnpop_{78}$), Share of Plain (%) and Distance to Xiamen.

Table 13. Effect of Power Structure on Famine Control during 1959-1960 in Fujian, Border-sharing Counties Only

	(1)	(2)	(3)	(4)	(5)
Power Structure					
YRD	0.176**		0.171***		
	(0.062)		(0.060)		
Upper Connection$_{50\text{-}58}$		-0.755**			
		(0.266)			
Guerrilla			0.018		
			(0.040)		
FA3_GuerrillaYes				-0.131	
				(0.086)	
YRD_GuerrillaNo				0.105	0.151**
				(0.078)	(0.063)
YRD_GuerrillaYes				0.152*	0.200***
				(0.079)	(0.060)
Other Control Variable	Yes	Yes	Yes	Yes	Yes
Observations	15	15	51	51	51
R^2	0.485	0.485	0.171	0.207	0.191
YRD_GuerrillaYes =YRD_GuerrillaNo				0.274	0.244

Note: White standard errors are in parenthesis. Intercept not reported. Column 1 and 2 use subsample of FA3 counties and their borders sharing counties. Column 3-5 use subsample of guerrilla counties and their borders sharing counties. Other control variables include LnGVOPC$_{52}$, Lnpop$_{52}$, Share of Plain (%) and Distance to Xiamen.

Are Counties with Strong Faction Leaders Starved of Resouces from the Higher Government?

- No.
- We examine the average fiscal expenditure/fiscal revenue ratio for 1950 and 1957, two years for which these statistics are available.
- A ratio larger than 1 indicates that the county received net transfers from the higher level government (as local debt was prohibited then);
- The ratio is about 26.8 percentage point lower (Column 4) for YRD counties than for FA3 counties when we include all the controls.

Skill Difference of FA3 and YRD leaders?

- A concern might arise due to the fact that FA3 and YRD county leaders may be very different in terms of their skills in managing economic affairs.
  - FA3 cadres specialized in fighting wars because they spent most of their careers in formal troop led by the Chinese Communist Party.
  - In contrast, YRD cadres may be more experienced in working with locals because they originated from revolutionary bases in Hebei and Shanxi province.
- If so, we expect the growth gaps between locals and outsiders to decrease (and eventually disappear) over time, as FA3 secretaries get experience on the position.

Skill Difference of FA3 and YRD leaders?

- Table 15

Table 15. Effects of YRD and Upper Connection on Growth Rate in Fujian (1984-1998)

Variable	Full Sample				Trimming Tail 5%	Full Sample				Trimming Tail 5%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Power Structure										
YRD	4.297***	3.061***	2.864***	3.072***	2.844***					
	(1.027)	(1.018)	(1.024)	(0.932)	(0.723)					
Upper Connection$_{50\text{-}78}$						-18.444***	-13.139***	-12.292***	-13.185***	-12.206***
						(4.407)	(4.371)	(4.395)	(3.999)	(3.101)
Initial Condition										
LnGVOPC$_{78}$		-6.352***	-5.515***	-5.425***	-3.474***		-6.352***	-5.515***	-5.425***	-3.474***
		(1.533)	(1.752)	(1.478)	(0.900)		(1.533)	(1.752)	(1.478)	(0.900)
Lnpop$_{78}$			1.466	-1.138	-0.001			1.466	-1.138	-0.001
			(1.238)	(1.297)	(0.907)			(1.238)	(1.297)	(0.907)
Geography										
Share of Plain (%)				0.193***	0.150***				0.193***	0.150***
				(0.066)	(0.056)				(0.066)	(0.056)
Distance to Xiamen				-0.018***	-0.019***				-0.018***	-0.019***
				(0.005)	(0.005)				(0.005)	(0.005)
Observations	58	57	57	57	53	58	57	57	57	53
R^2	0.083	0.389	0.405	0.597	0.623	0.083	0.389	0.405	0.597	0.623

Connections and Grassroot Support in Power Struggle: Direct Evidence

- Table 18
- We exploit the unique historical event of the Cultural Revolution (1966-1976).
- After the inception of the Cultural Revolution in 1966, county CCP Party Committees gradually lost power amid the chaos.
- To sustain political order, the central authority launched the so-called "Three Support, Two Military" Movement in 1967, which facilitate military cadres to organize the County Revolutionary Committee CCP Core Leading Group to implement administration.
- The county Core Leading Group stayed in power until late in 1970, when the county party committees were reestablished and military cadres gradually retreat from county leadership.

Table 18. Effect of FA3 and Famine Control on Retaking Power during 1971 and 1979

Variable	OLS		Logit	
FA3	-3.238**	-6.042	-1.892*	6.362
	(1.254)	(6.308)	(1.139)	(6.800)
Famine Control	-6.224**	-7.078**	-5.068**	-4.443*
	(3.070)	(3.337)	(2.495)	(2.511)
FA3*Famine Control		4.019		-15.103
		(8.863)		(11.301)
Intercept	9.609***	10.292***	2.883	2.406
	(2.553)	(2.782)	(2.034)	(2.053)
Observation	53	53	53	53
R^2/Pseudo R^2	0.116	0.103	0.095	0.110

Conclusion

- We provide robust evidence that counties led by minority faction and counties with local guerrilla presence tend to have less famine during the Great Famine period of 1959-1961 and have stronger economic growth in 1978 to 1998.
- This suggests the role of political factions, political survival and local accountability in explaining variations in outcomes at sub-national level.
- The beneficial effect for local residents was especially strong when the county was both liberated by minority faction and had guerrilla presence and therefore local participation in the county government. This is true even when we use significantly smaller samples of neighboring counties.