

Property rights, Fiscal Capacity, and Social Capacity: The Lasting Impact of the Taiping Rebellion

Forthcoming @JOURNAL OF ECONOMIC GROWTH

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September 2026

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- Existing economic research on war mostly focus on *inter-state war*, especially in Europe (Tilly 1992; Besley and Persson, 2009).
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 - “*The social and institutional legacies of conflict are arguably the most important but least understood of all war impacts.*” (Blattman and Miguel, 2010, “Civil Wars”)
- **This paper:** provides evidence on **institutional and development effects** of the Taiping Rebellion in Qing China (1851-1864) over a long run.

Taiping Rebellion (1850-1864)

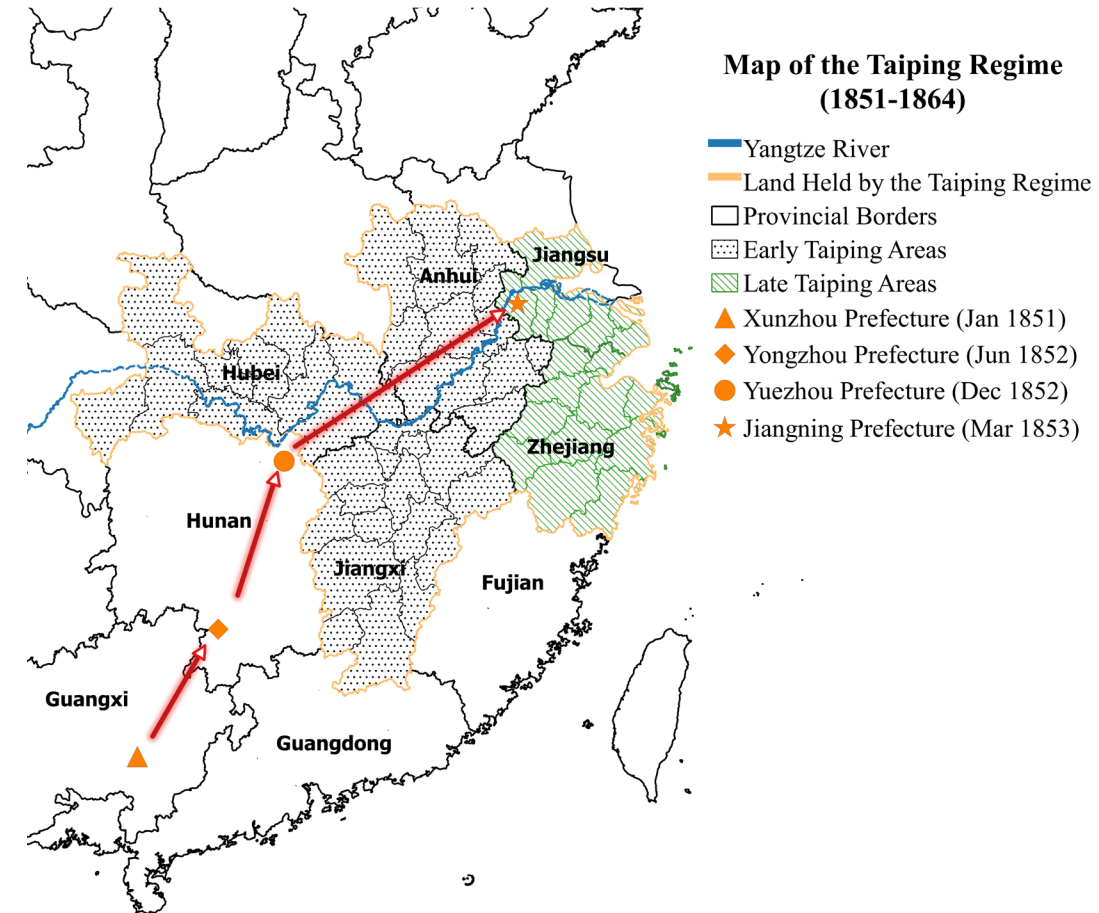
- Deadliest civil war in human history (Ho, 1959)
 - Aside: “Taiping” means “great peace” in Chinese.

	War ⇅	Death range ⇅	Date ⇅
1	World War II	70–85 million ^{[2][3][4]}	1939–1945
2	Taiping Rebellion	20–70 million ^{[5][6][7][8]}	1850–1864
3	Mongol invasions and conquests	20–60 million ^{[9][10][11][12]}	1206–1368

Wikipedia: List of wars by death toll

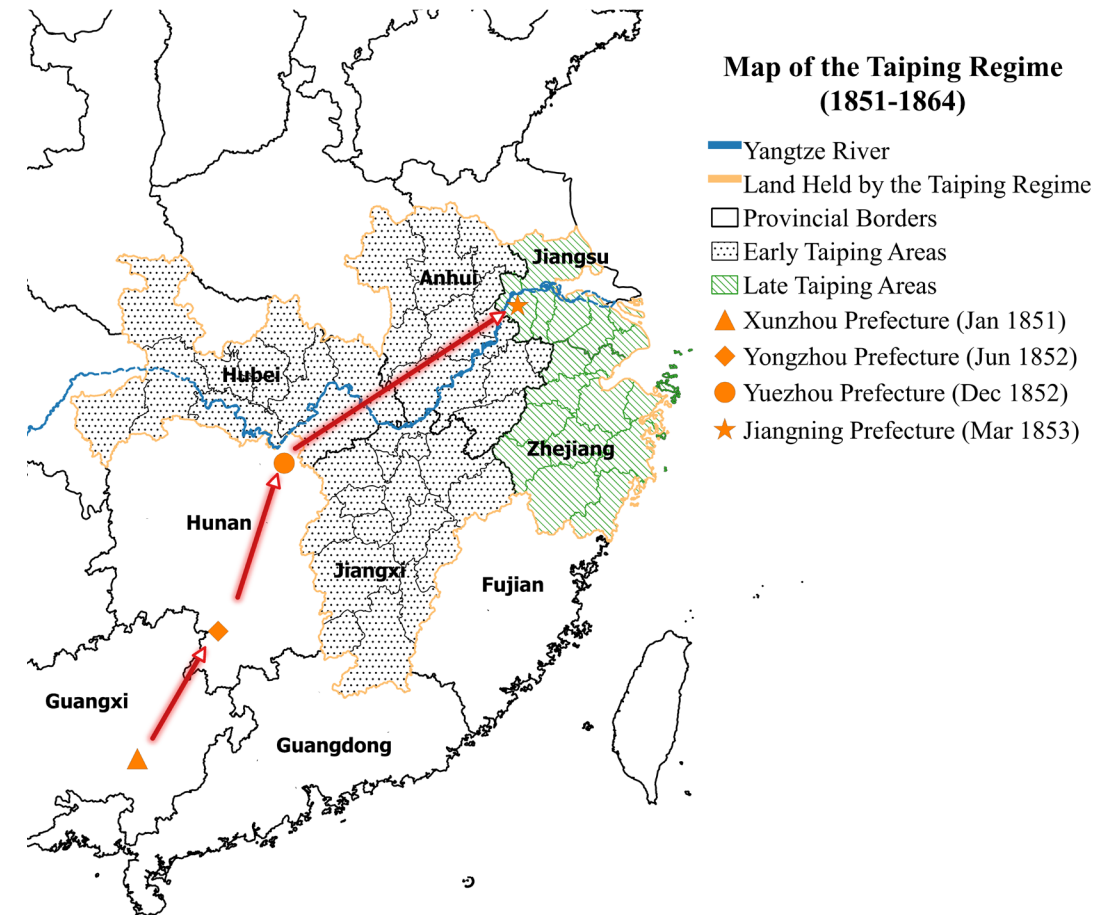
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- Rebels seized one third of Qing China's territory and established the Taiping Heavenly Kingdom.



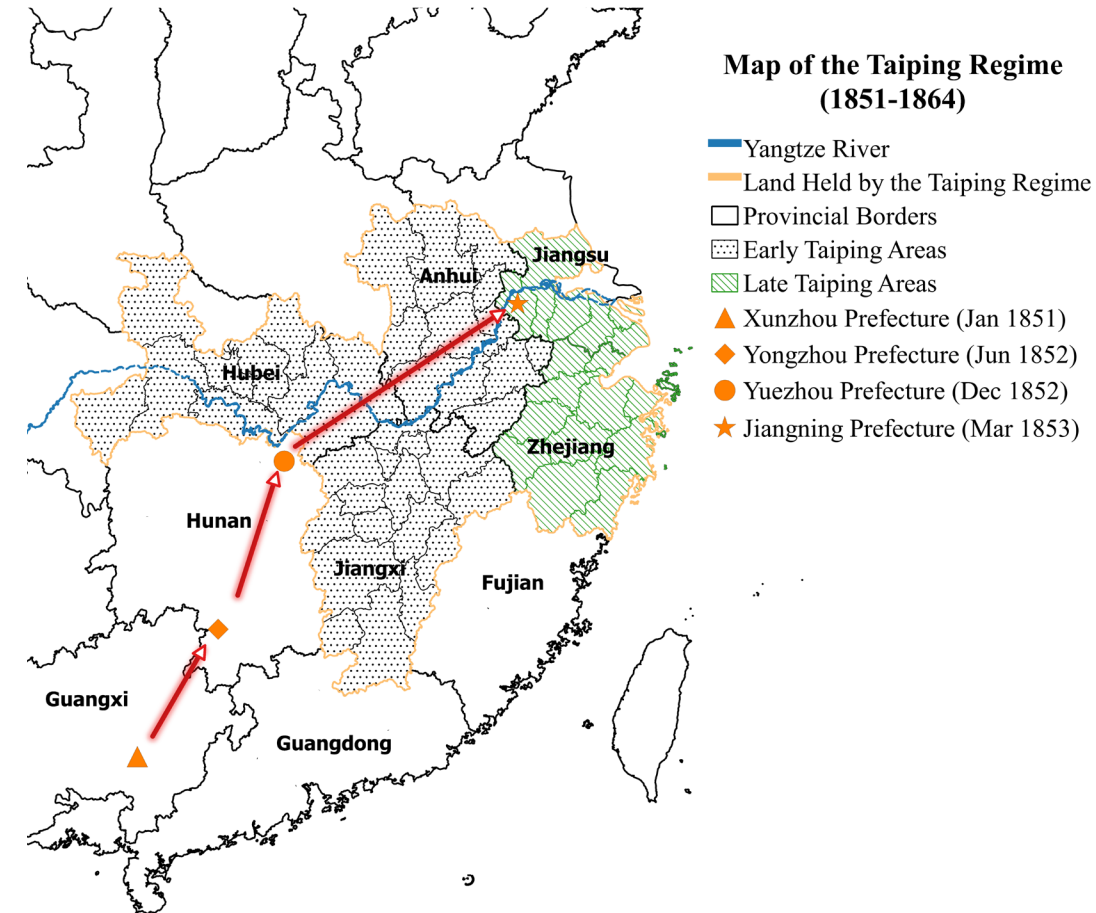
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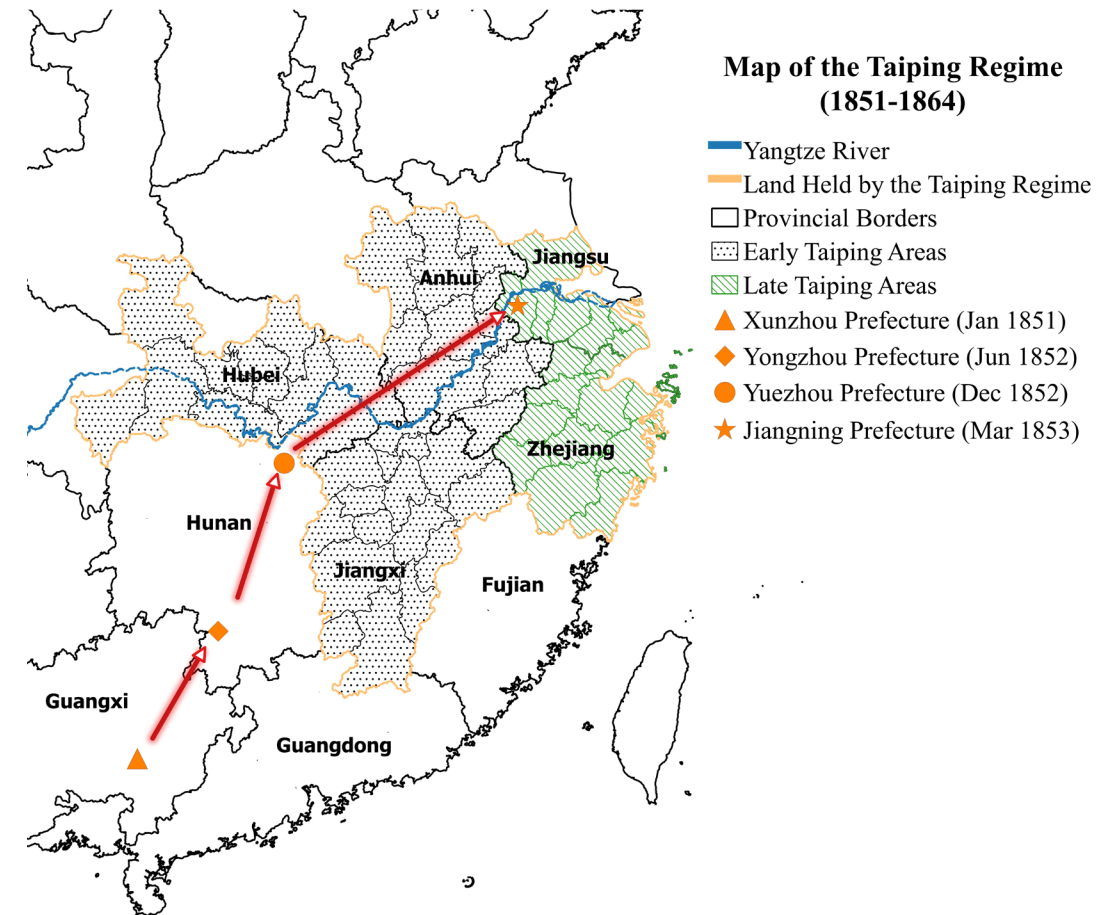
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 - The regime established its capital here (Nanjing today).
 - Much more fierce battles.



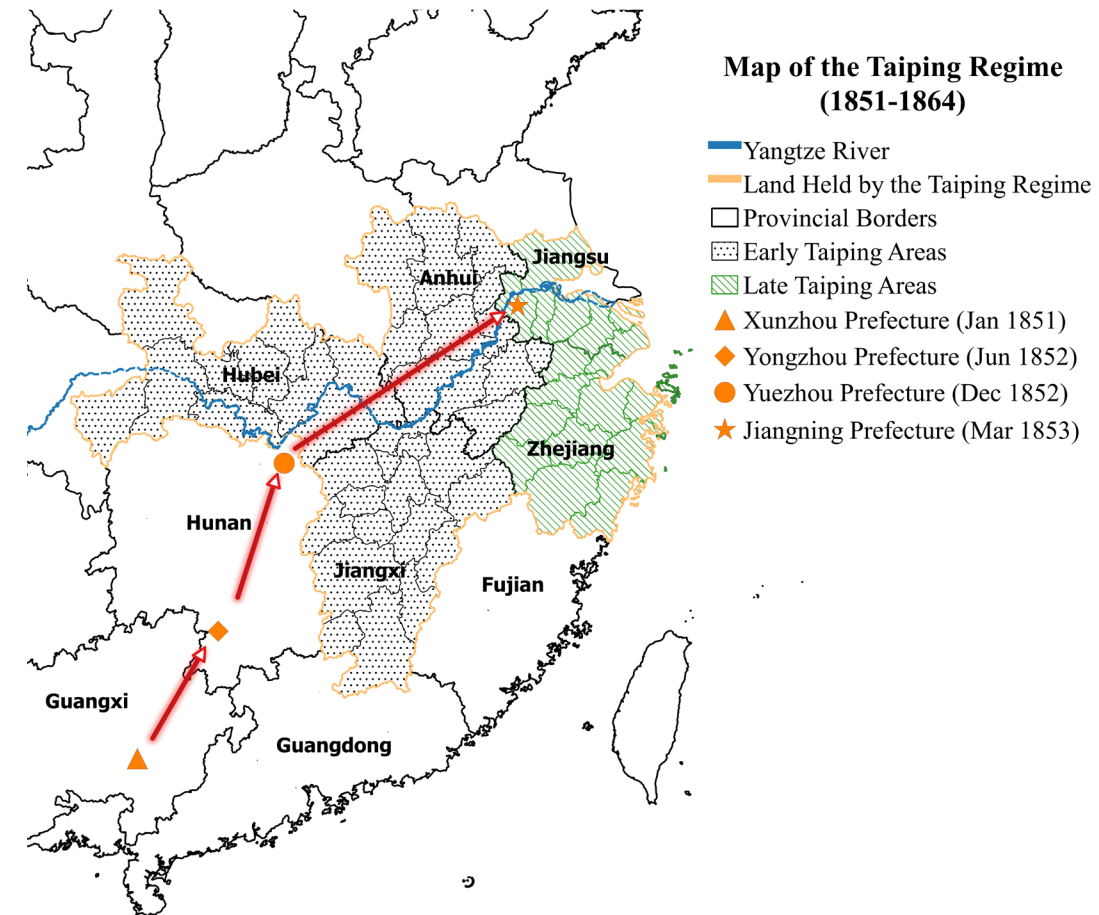
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- **The Taiping regime's territorial control was *incomplete*.**
 - Some areas remained under the Qing forces, and the control frequently changed hands between the two sides.



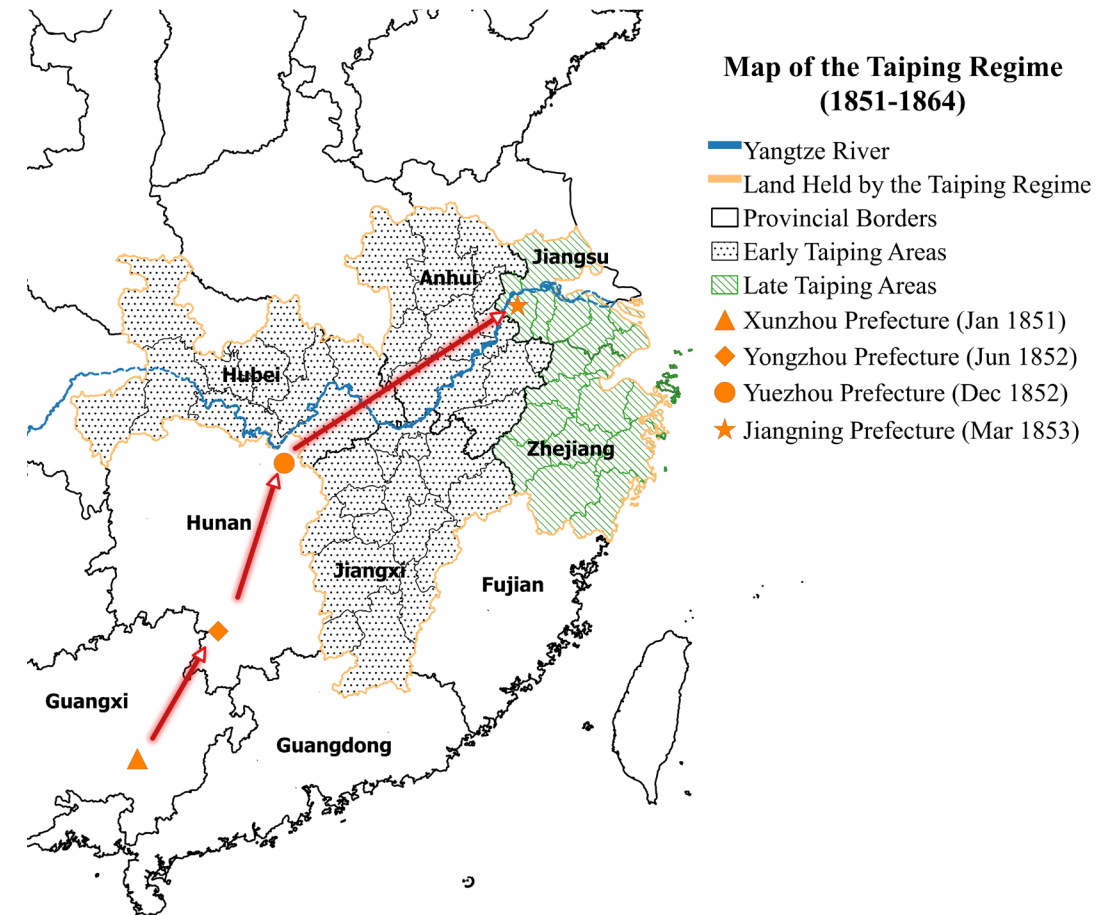
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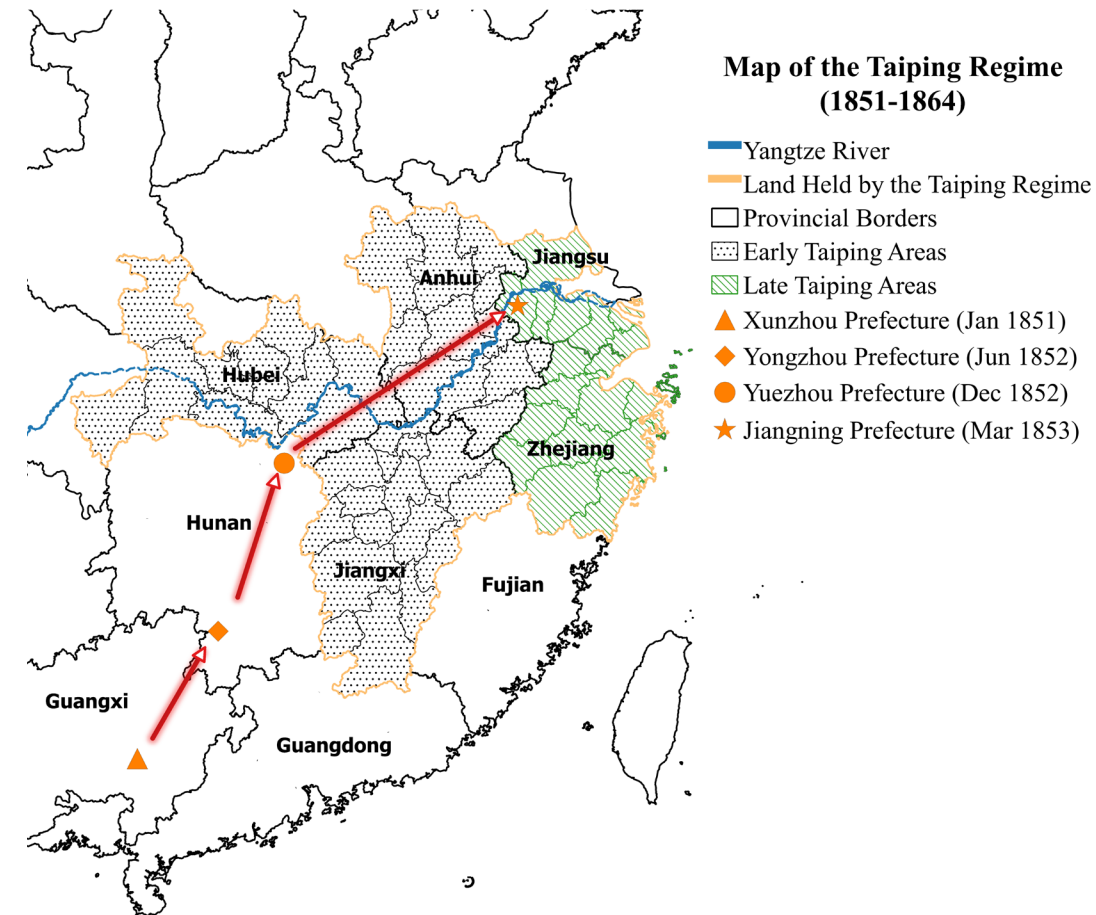
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 - In **Late Taiping areas**, the Taiping regime redistributed land to farmers to finance war, and the redistribution was largely respected after the fall of the regime.



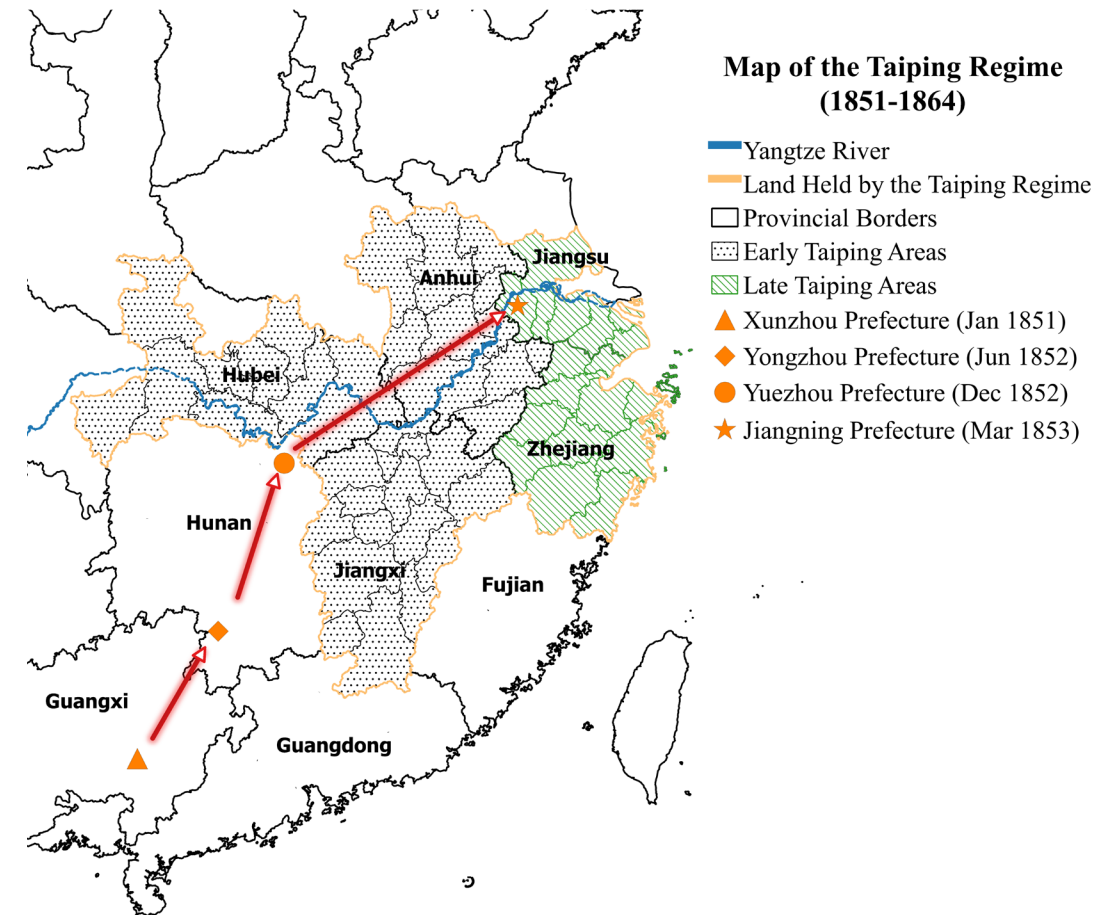
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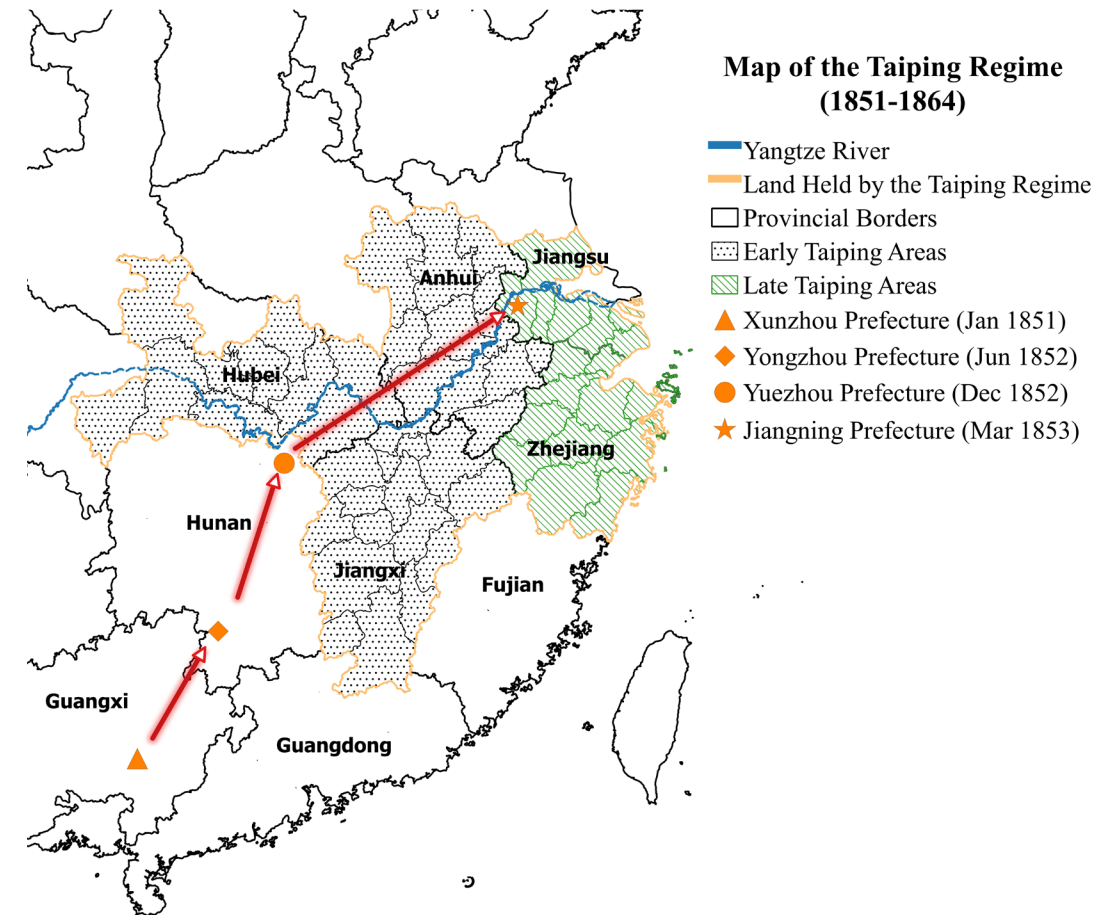
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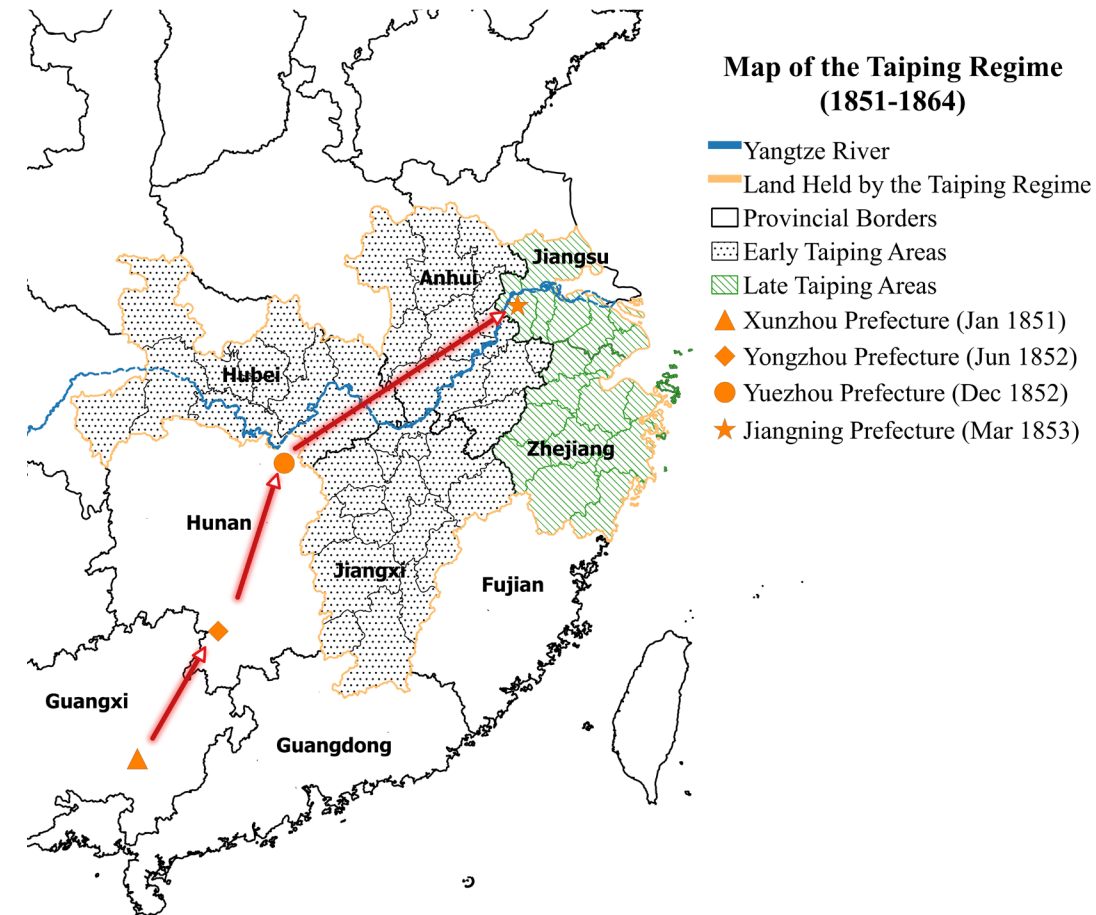
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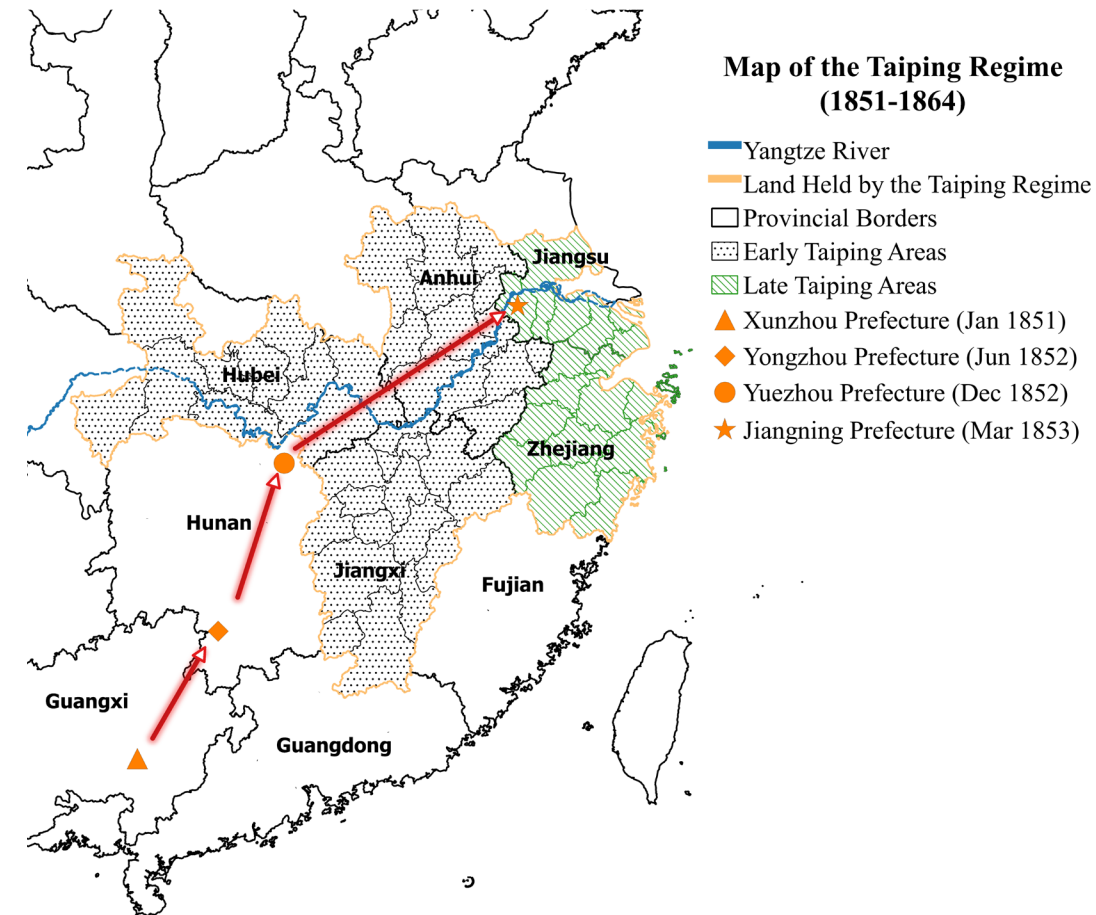
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 - **SOCIAL CAPACITY HYPOTHESIS:** The Rebellion would lead to stronger social cohesion (e.g., ↑interpersonal trust & political engagement)
 - (e.g., Acemoglu and Robinson. 2019; Woolcock and Narayan. 2000; Gittel and Vidal, 1998)



Research Design

- We construct a panel of 266 Chinese prefectures from 1820-2000.
- We estimate the following panel regression model:

$$Y_{it} = \sum_{\tau \neq \text{reference yr. before rebellion}} \beta_{\tau} (Taiping_i \times T_{\tau}) + X_i' \gamma_t + \lambda_i + \mu_t + \varepsilon_{it}$$

Taiping dummy Year dummy Baseline covariates Prefecture & Year FEs Clustered by prefecture

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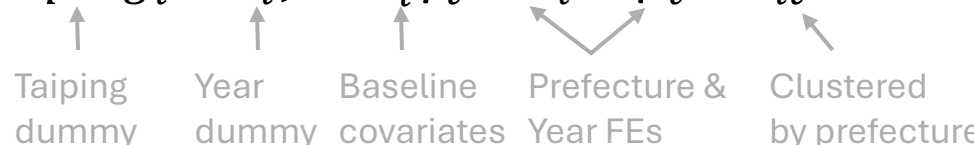
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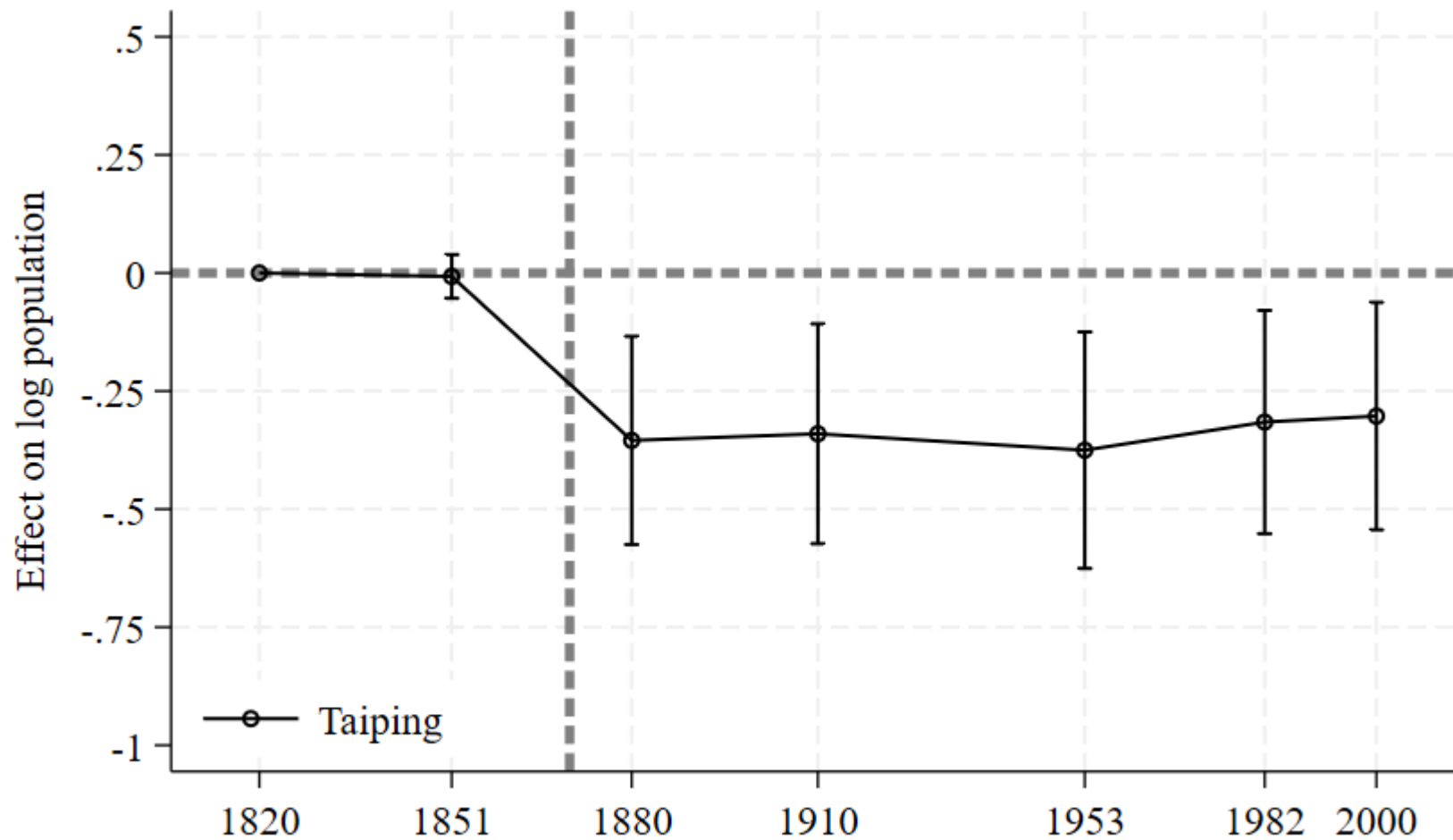


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- Sometime also run a cross-section regression (with matching):

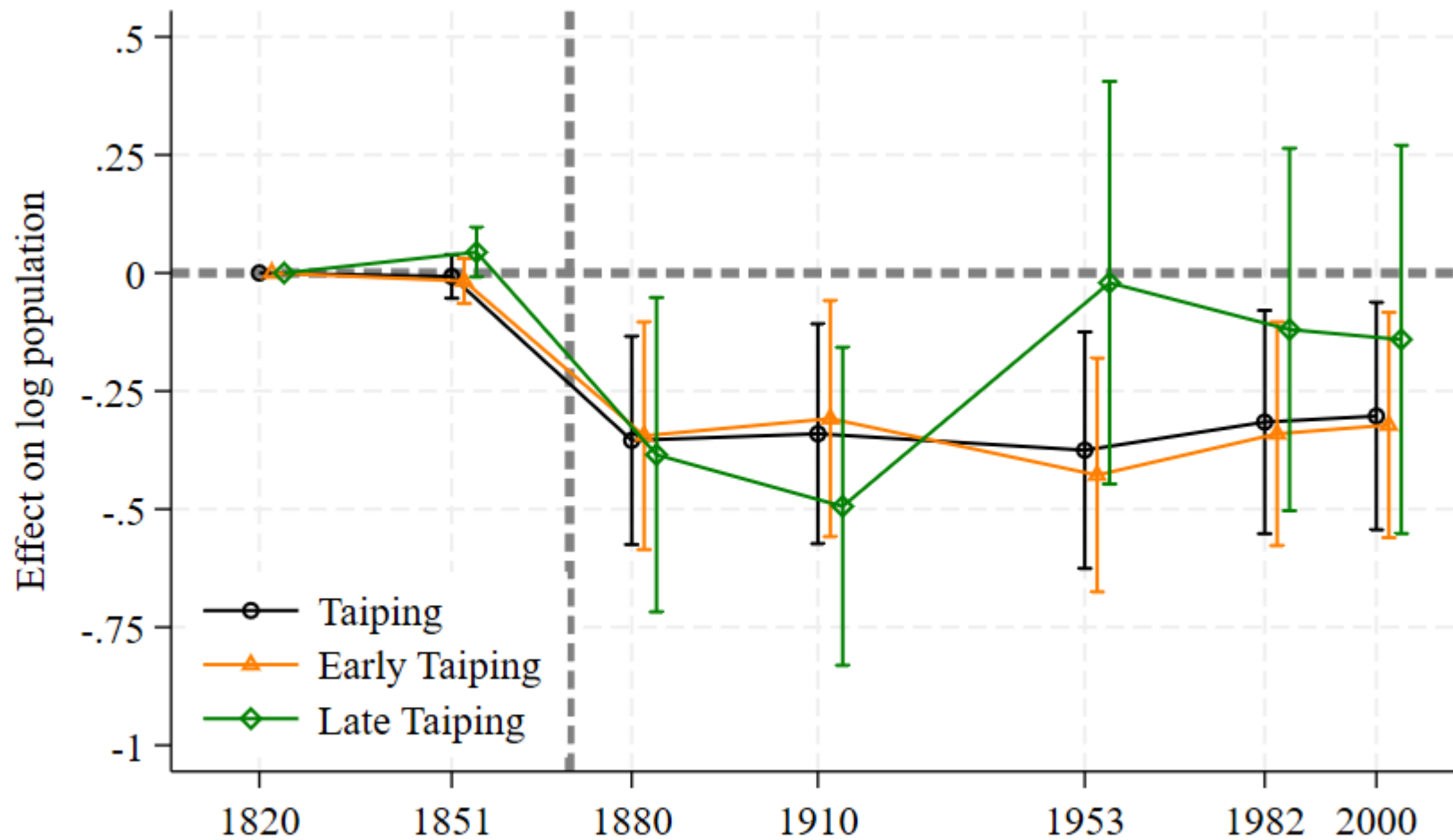
$$Y_i = \alpha + \beta Taiping_i + X_i' \gamma + \varepsilon_i$$

Institutional Changes

Effects on Population

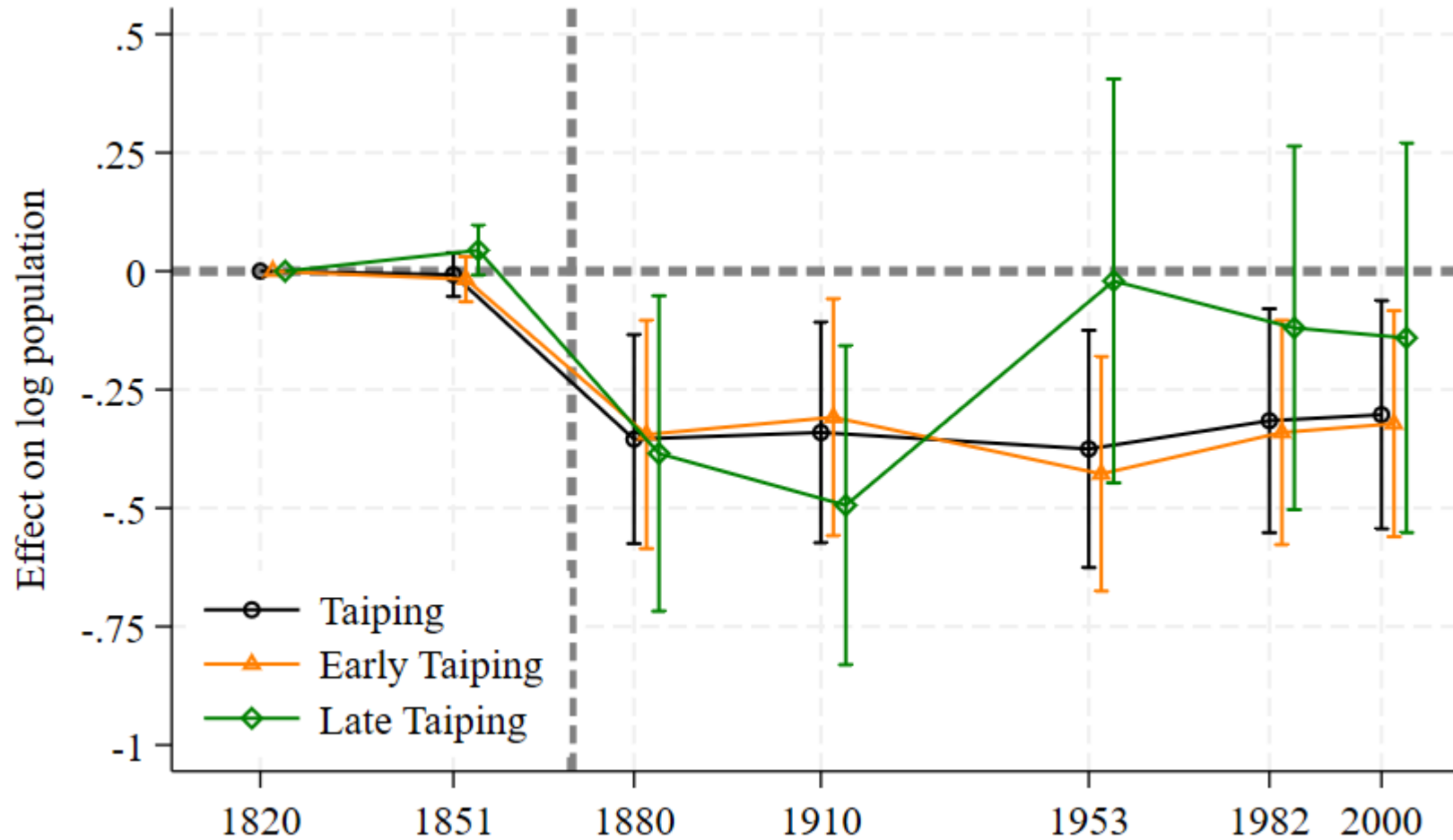


Effects on Population



Effects on Population

On average, the Rebellion led to long-term population loss. However, **Late Taiping areas** rebounded.



Testing Property Rights Hypothesis

Panel B. Determinants of the share of idle land in 1915

	(1)	(2)	(3)
Taiping	2.710** [1.034]		
Early Taiping		3.555*** [1.278]	3.855*** [1.327]
Late Taiping		1.26 [1.437]	1.692 [1.493]
Standardized ln(distance to Nanjing)			-1.519 [1.252]
Initial Likin			-1.025 [0.701]
Observations	332	332	332
R-squared	0.108	0.11	0.079
Control	Y	Y	Y
Province fixed effect	Y	Y	N

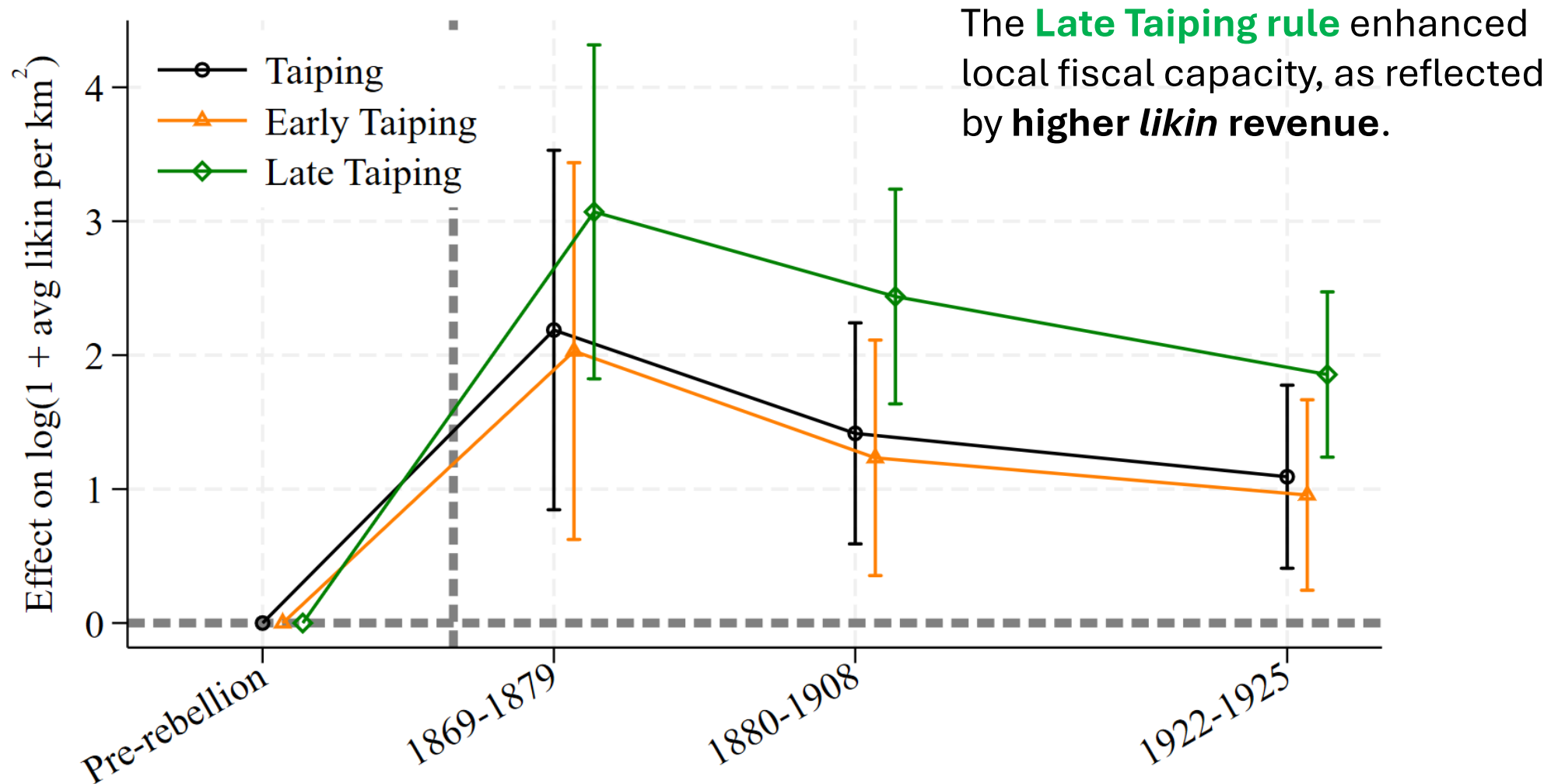
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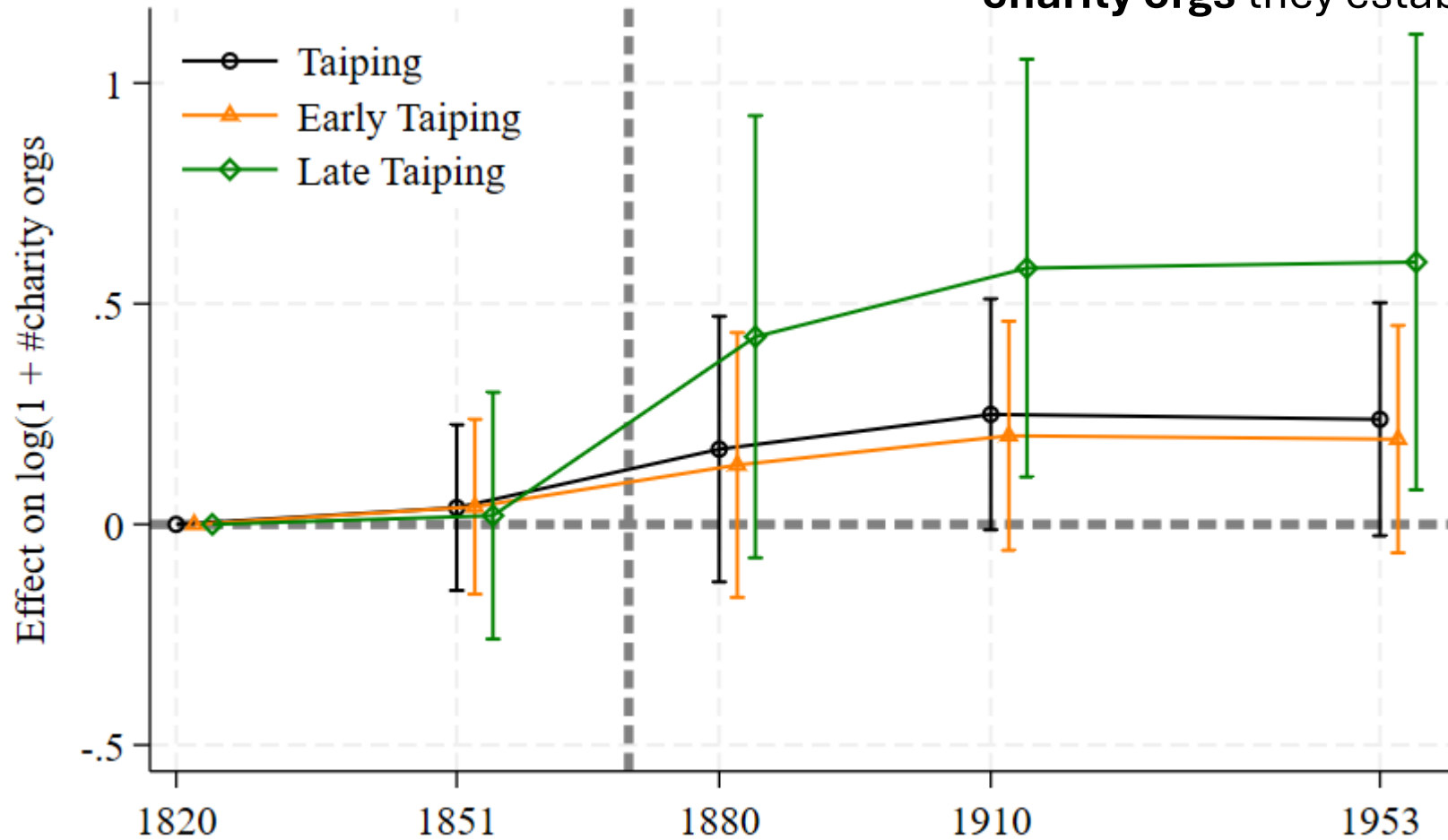
In **Late Taiping areas**, better property rights
 → incentivize investment & maintenance
 → no difference in land reclamation

Testing Fiscal Capacity Hypothesis



Testing Social Capacity Hypothesis

In **Late Taiping areas**, local elites are more engaged in local governance, as reflected by **more charity orgs** they established.



Long-Term Impacts

Long-Term Effects on Economic Development

Dependent variable:	Log ag & ind. output per capita (1982) (1)	% Middle school graduates (1982) (2)	% Literate population (1982) (3)	Log avg. years of schooling (2000) (6)	Log GDP per capita (2010) (4)	Log fiscal revenue per capita (2010) (5)
Early Taiping	0.130 [0.091]	-0.007 [0.007]	-0.022 [0.020]	0.019 [0.017]	-0.154 [0.105]	0.190 [0.165]
Late Taiping	0.642*** [0.162]	0.038*** [0.013]	0.006 [0.029]	0.025 [0.031]	0.625*** [0.166]	1.109*** [0.222]
Ln (Jinshi ₁₇₉₃₋₁₈₂₀)	0.174*** [0.035]	0.013*** [0.003]	0.031*** [0.008]	0.027*** [0.009]	0.120** [0.049]	0.201*** [0.053]
Ln (pre-TP wars)	0.045 [0.113]	-0.002 [0.008]	-0.010 [0.020]	-0.014 [0.023]	-0.148 [0.098]	-0.263* [0.137]
Controls	Y	Y	Y	Y	Y	Y
Observations	191	191	191	191	185	185
R-squared	0.437	0.339	0.279	0.336	0.447	0.479

- The **Late Taiping rule** increased income, fiscal revenue, and educational attainment.
- (In the paper) Controlling #charity orgs **attenuates** the Late Taiping effects → Part of the development effects are explained by stronger social capacity.

Long-Term Effects on Sociopolitical Development

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Trust in Relatives	Trust in Friends	Trust in Coworkers	Attention to Politics	Engagement in Local Affairs
Early Taiping	0.138*** [0.050]	0.072 [0.056]	0.077 [0.058]	-0.043* [0.025]	-0.021 [0.031]
Late Taiping	0.142** [0.069]	0.142* [0.078]	0.188*** [0.066]	0.080* [0.045]	0.079* [0.042]
Observations	6416	6404	6123	6406	6415
R-squared	0.022	0.025	0.026	0.297	0.047
Baseline controls	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y
Cultural Revolution	Y	Y	Y	Y	Y

The Late Taiping rule enhanced social cohesion and civic engagement.

Conclusions

- Modern-day regional inequality can be rooted in the experience of conflict.
- In the case of the Taiping Rebellion, we show that **property rights, fiscal capacity, and social capacity** underpin sustained development.

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