

# Wars and States: China's Long March towards Unity, 750 BC – 1911 AD

*research in progress*

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## ***Notable Quotes:***

- Charles Tilly: War make states, States make wars.
- 罗贯中 (Luo Guangzhong) Chinese Author of the *The Romance of Three Kingdoms*: 合久必分，分久必合 (Fragmentation will follow a long unification and unification will follow a long fragmentation)
- Fairbank and MacFarquhar: *“a billion or so Europeans in Europe and the Americas live divided into some fifty separate and sovereign states, while more than a billion Chinese live in only one state.”*

# The Benefits and Burden of Size and Unity

- The historical legacy of Chinese imperial institutions:
  - the world's largest common market unified by a (nearly) single (written) language.
  - a unusually high degree of ethnic homogeneity for her size
- The costs of governance in larger political units (or the onus of unity).
- What led to China's unity and what sustained it?
- And what are the implications for long-run trajectory and short-run growth?

## Motivation: Why study state formation and structures

- Unitary state versus inter-state competition;
- The impact of warfare and origin of modern states;
- States and provision of public goods;
- States as institution: property rights, contract enforcement, public finance and private financial market;
- Structures within nation-state or union of states: federalism, common market, common wealth...
  - European Union, US Federalism, One country two systems in China and etc.

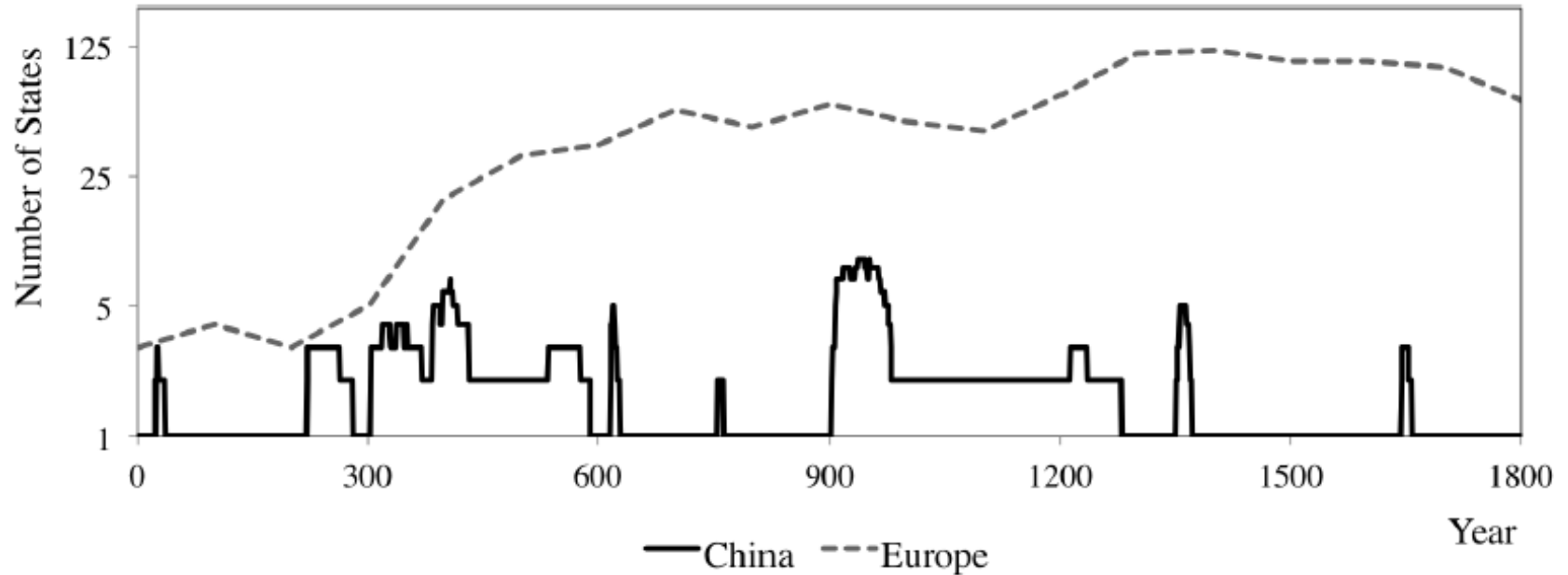
# State Formation and Great Divergence Debate

- Most scholars noted the importance of different state structure as explaining China-Europe divergence;
- But most have taken China's unitary state structure as given rather than to be explained;
- Our presentation is about the origin of this particular Chinese political structure and its possible implications for long-run economic growth.

# Existing Explanations on Chinese Unity

- Some common existing explanations:
  - Geographic unity of China (Diamond: the rivers flows in the right direction);
  - Irrigation and Oriental Despotism (Wittfogel);
  - Cereals, Agriculture, Property Rights and States (Mayshar et al 2015):
  - Clash of Civilizations between Agrarian and Nomadic Regimes? (Ko et al, Li and Lin);
- But more questions: China was not always unified.
  - This raises the bigger question of why fragmentation disappear (or occur less frequently) over time in China.
  - More importantly, why did a single state establish monopoly in China?

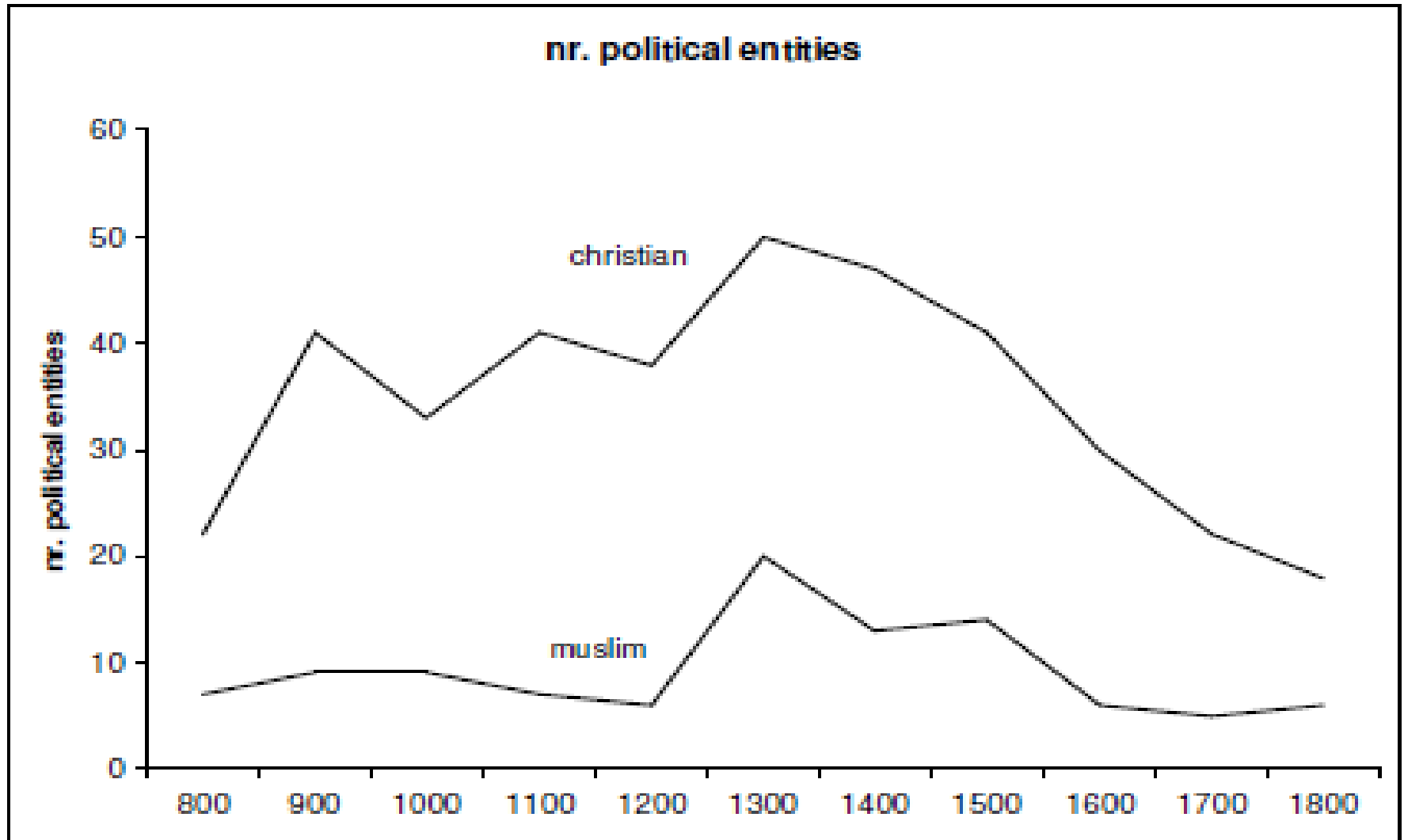
# I. Stylized facts: Unified China and Divided Europe (Ko, Koyama and Sng)



**Figure 1:** The number of sovereign states in China and Europe, 1-1800. Sources: Nussli (2011); Wei (2011).

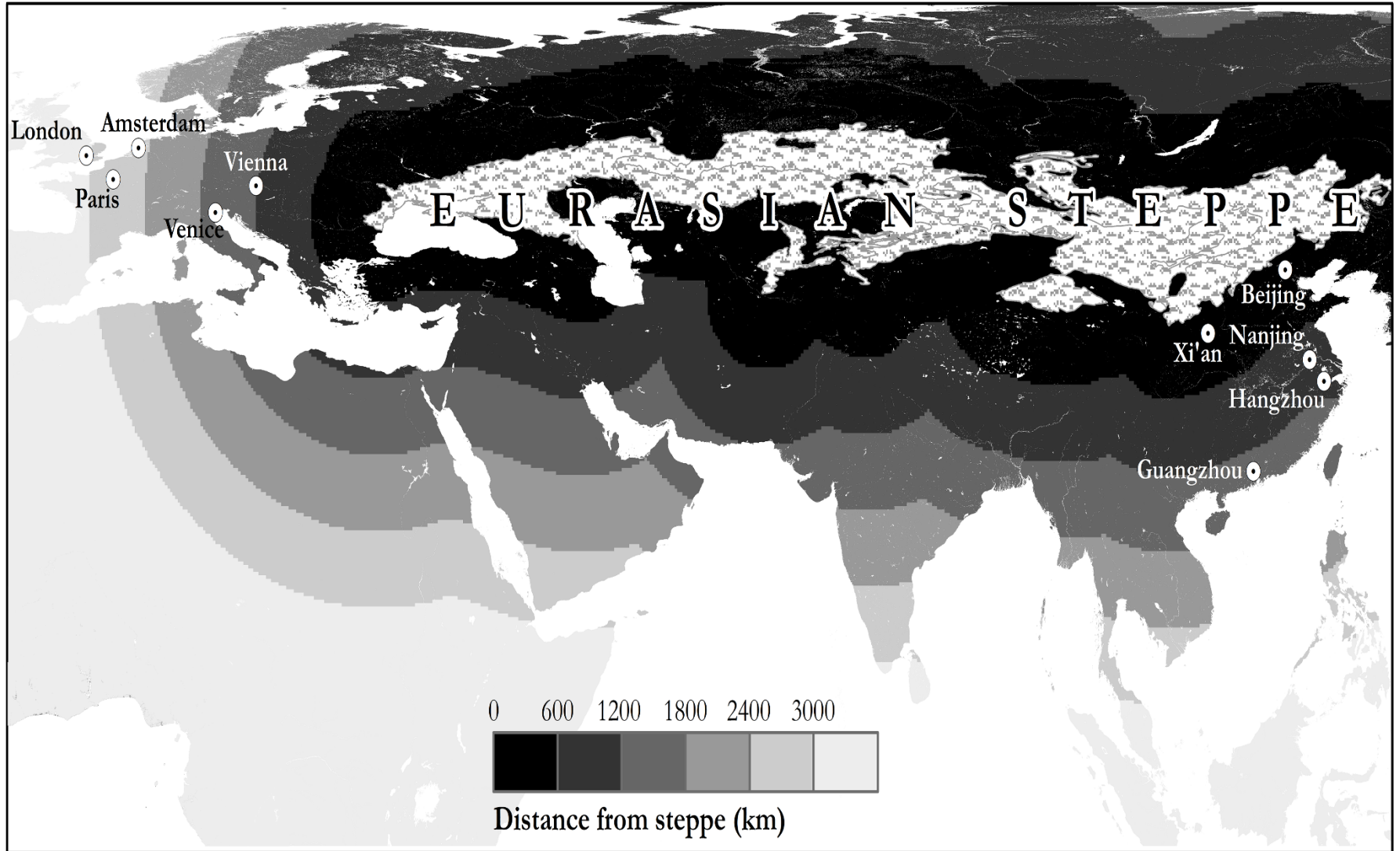
Source: Ko et al., (2014)

Superior Chinese imperial unity in global perspective:  
Number of political entities with a capital city (Bosker, Buringh & van Zanden  
2008)



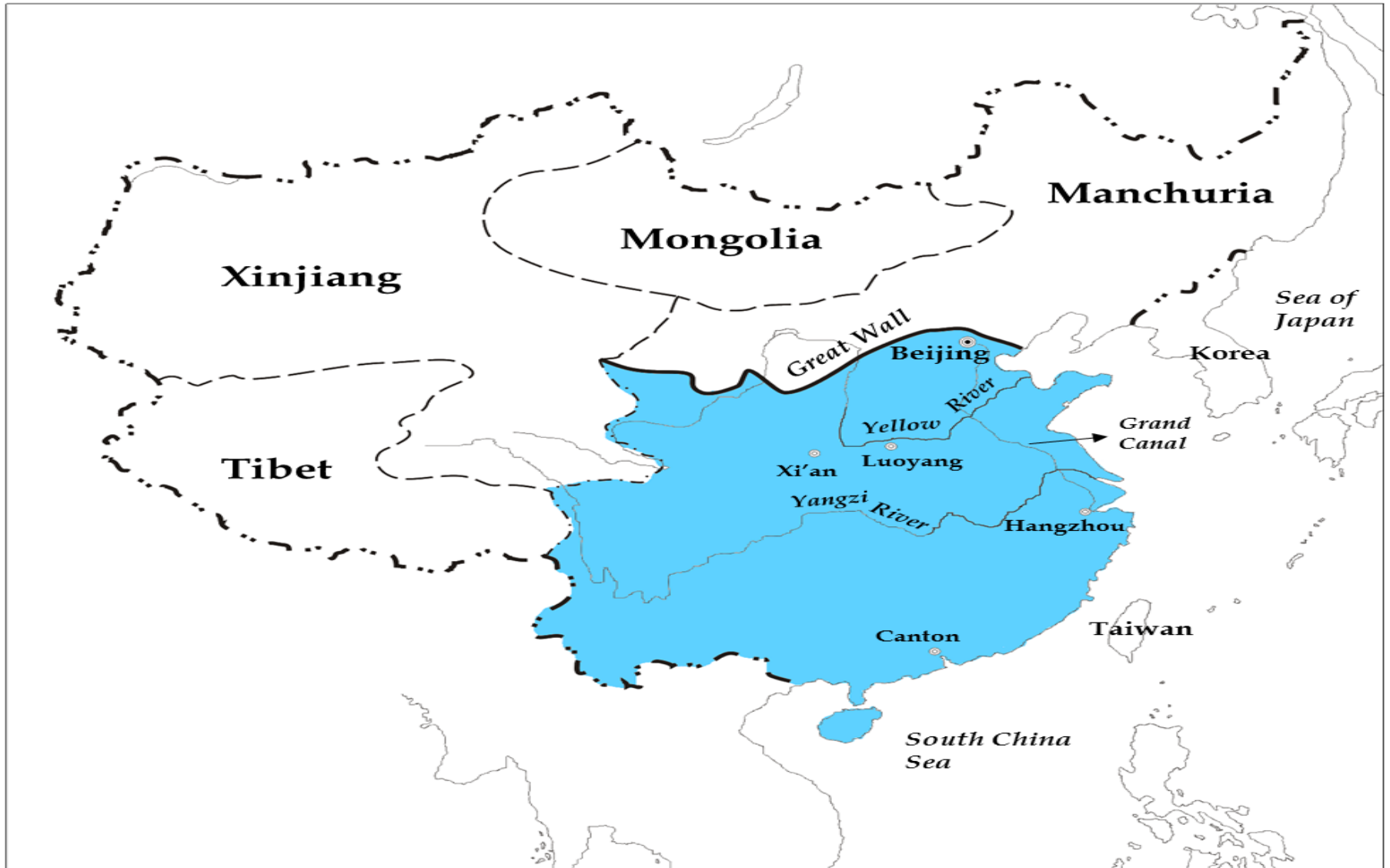


# Ko et al

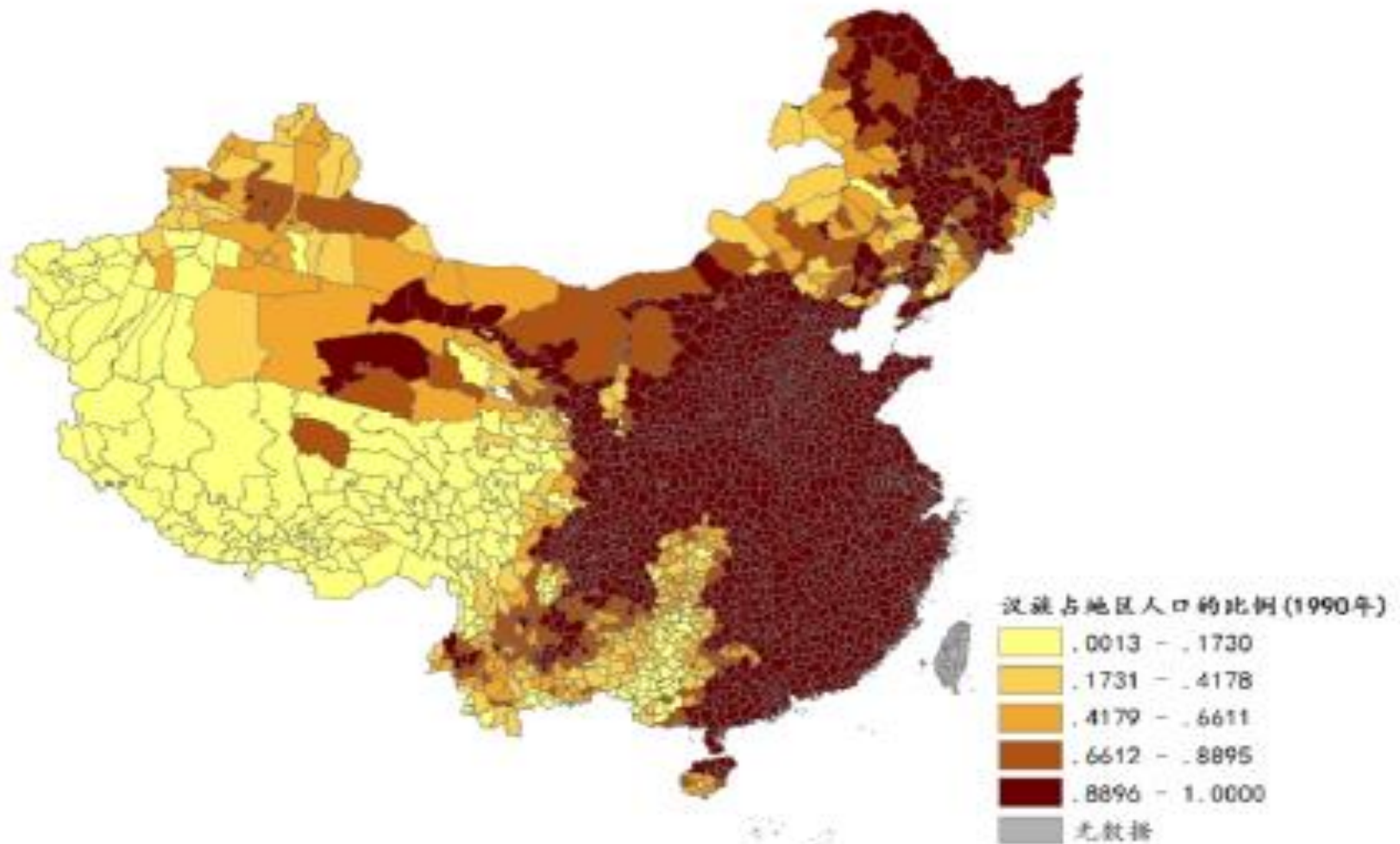


# War and States or Clash Civilizations

## The Confrontation between Agrarian and Nomadic regimes (mirror empires)



The share of Han Chinese at county level in 1990  
(Li and Lin 2014: Why China became Chinese)  
(the darker, the higher the share)



# The geographic distribution of Chinese language (Li and Lin)

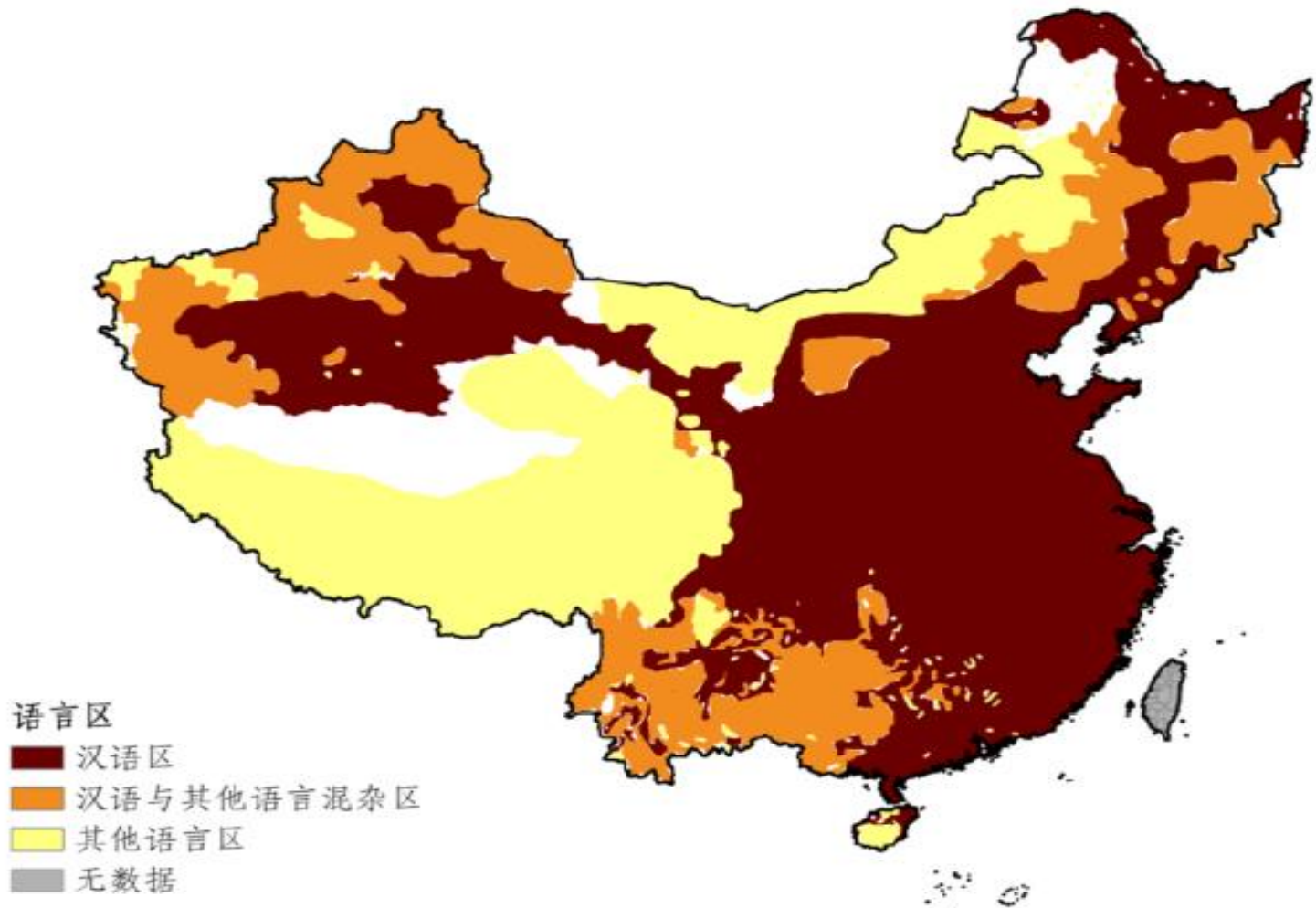


图 1.B: 汉语空间地理分布

# Clash of Civilizations or Integration of Civilizations

I. China was unified as often by non-Han as by Han-Chinese.

II. All unifications (except Ming China and later Republic China) originated from the north.

Table 1. Imperial unifications in China from the Shang era to the present.

Unification	Period	Ethnicity	From	Capital
Shang	1766–1122 BCE	??	North central (Huang He)	Anyang (Huang He)
W. Zhou	1122–771 BCE	Frontier Han (‘Western barbarians’)	North-west (Wei River Valley)	Loyang (Huang He)
Qin	221–206 BCE	Frontier Han	North-west (Wei River Valley)	Xianyang (Wei)
Han	202 BCE–220 CE	Han	North-west (confluence of Wei and Huang)	Chang’an (Wei)
W. Jin	280–316	Han	North central (Huang He)	Loyang (Huang He)
N. Wei (partial)	386–534	To-ba (Mongolian)	North-west	Loyang (Huang He)
Sui	581–618	Han	North-west (Wei River Valley)	Chang’an (Wei)
Tang	618–907	Han (ruling family of Turkic descent)	North-west (Wei River Valley)	Chang’an (Wei)
Liao (partial)	907–1125	Kitan (Altaic?)	North-east (S. Manchuria)	Beijing
N. Song (partial)	960–1127	Han	North central (lower Huang He around Kaifeng)	Kaifeng (Huang He)
Jin (partial)	1115–1234	Jurchen (Tungus)	North-east (Manchuria)	Beijing
Yuan	1206–1368	Mongol	North-west (Mongolia)	Beijing
Ming	1368–1644	Han	East (Nanjing area)	Beijing
Qing	1644–1911	Manchu (Tungus)	North-east (Manchuria)	Beijing
Communist	1949–	Han	North-west (Long March to Wei River Valley; unification from there)	Beijing

*Source:* Compiled from various sources: Eugene Anderson, University of California (personal communication); Victor H. Mair, ‘The north(west)ern peoples and the recurrent origins of the “Chinese” state’, in J. A. Fogel, ed., *The teleology of the modern nation-state: Japan and China*, Philadelphia, PA: University of Pennsylvania Press, Philadelphia, 2005, pp. 46–84, table 1087; and Peter N. Stearns, *The encyclopedia of world history*, 6th edition, Boston: Houghton Mifflin, 2001, table 490. Not all of these states controlled territory exceeding a million square kilometres, and thus only some of them are reflected in Table 2.



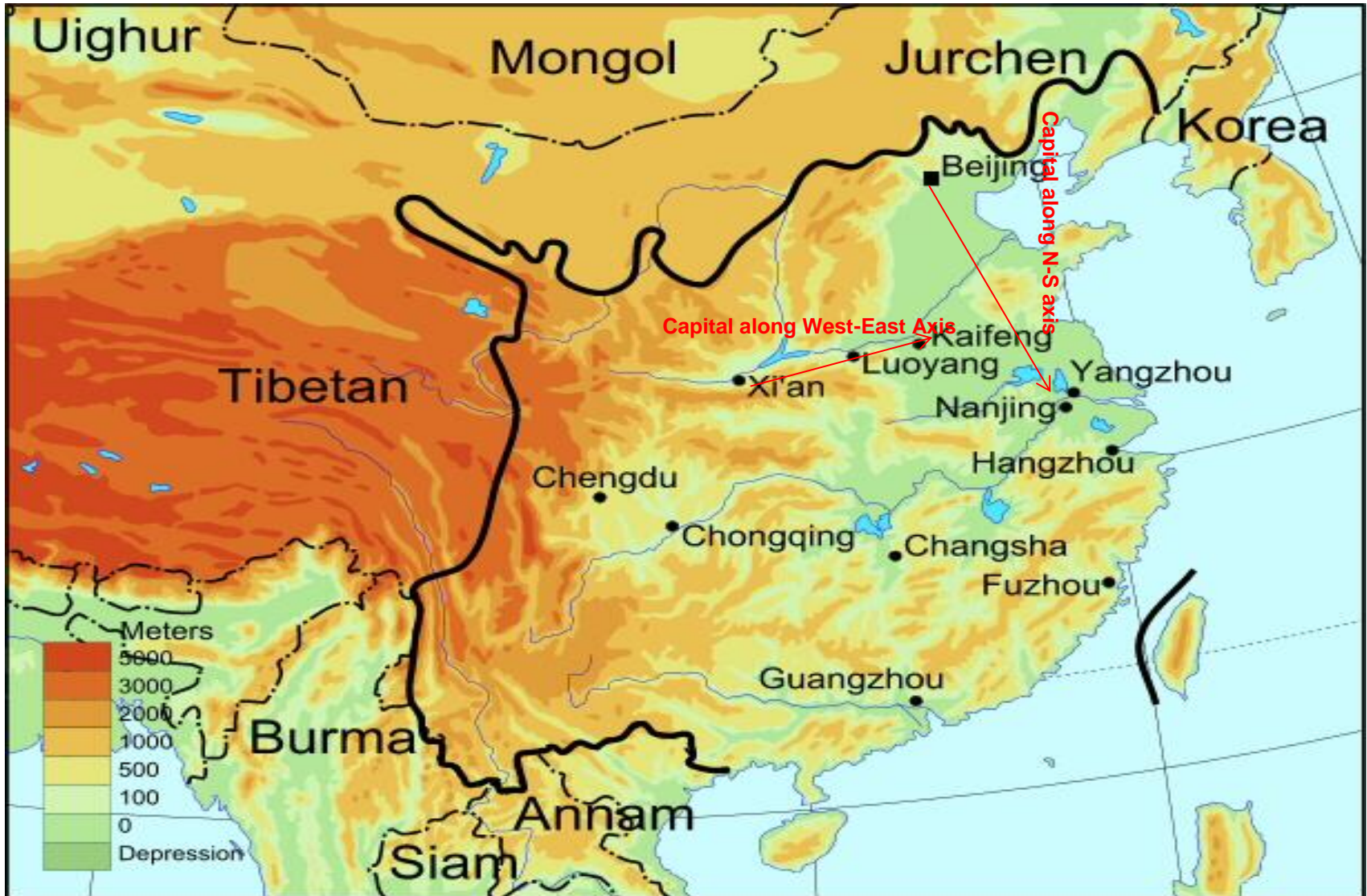
# Qing China (1644-1911): The Grand Synthesis of Agrarian-Nomadic Regimes (Ming territory underlined)



## II. China's long march towards Unity: a Statistical Profile

- Our contribution:
  - We construct two millennia data sets based on standardized definition of territories and regimes;
  - We provide warfare time series differentiated by types and location.
  - We offer a much more comprehensive examination on the relationship between warfare and state formation in China;
  - New insights on changing nature of warfare and state formation
  - Our contribution also emphasizes internal institutional, cultural and infrastructural developments in critical turning points such as Tang-Song transformation

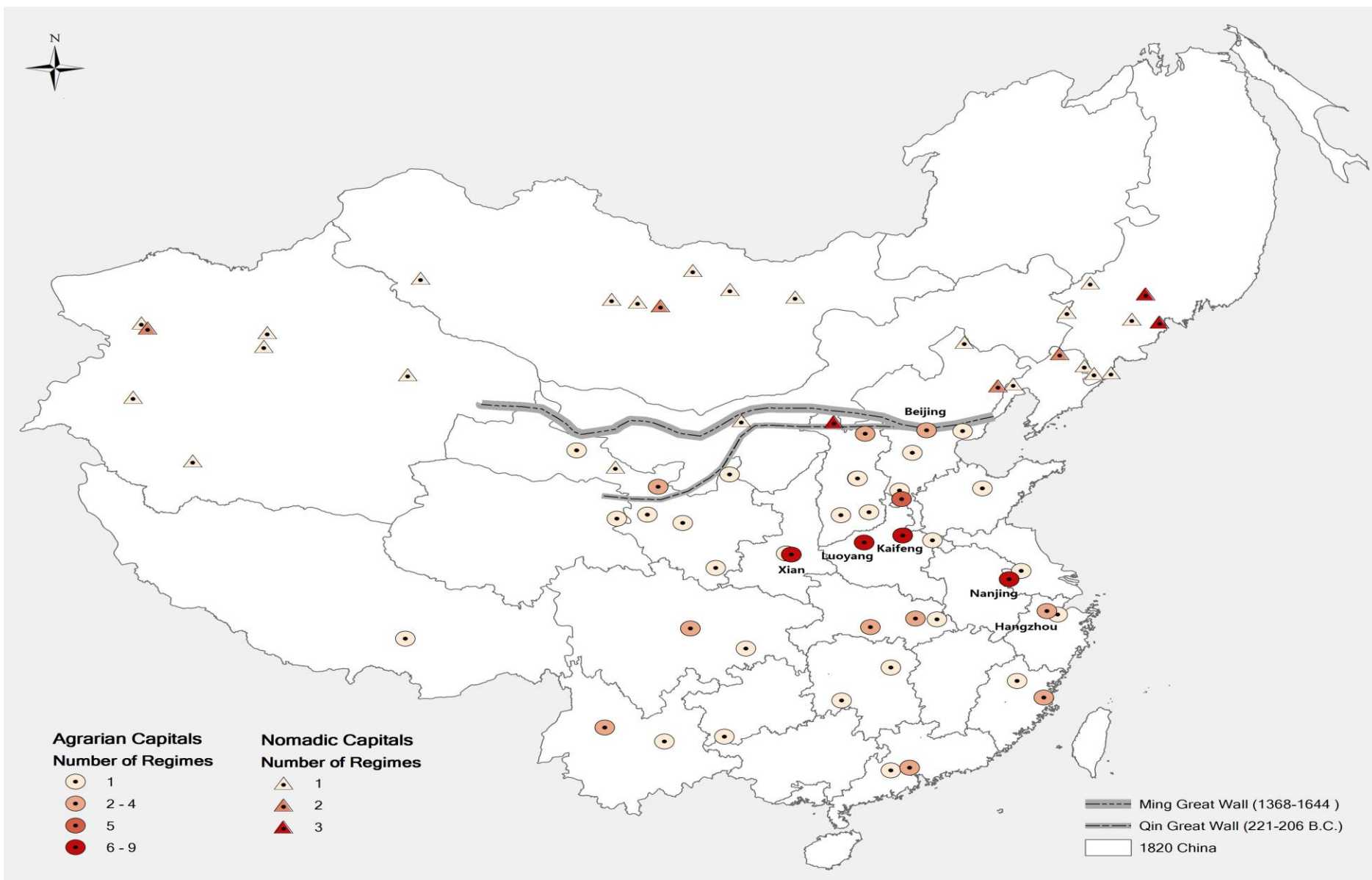
# Expansion of Chinese empire eastward



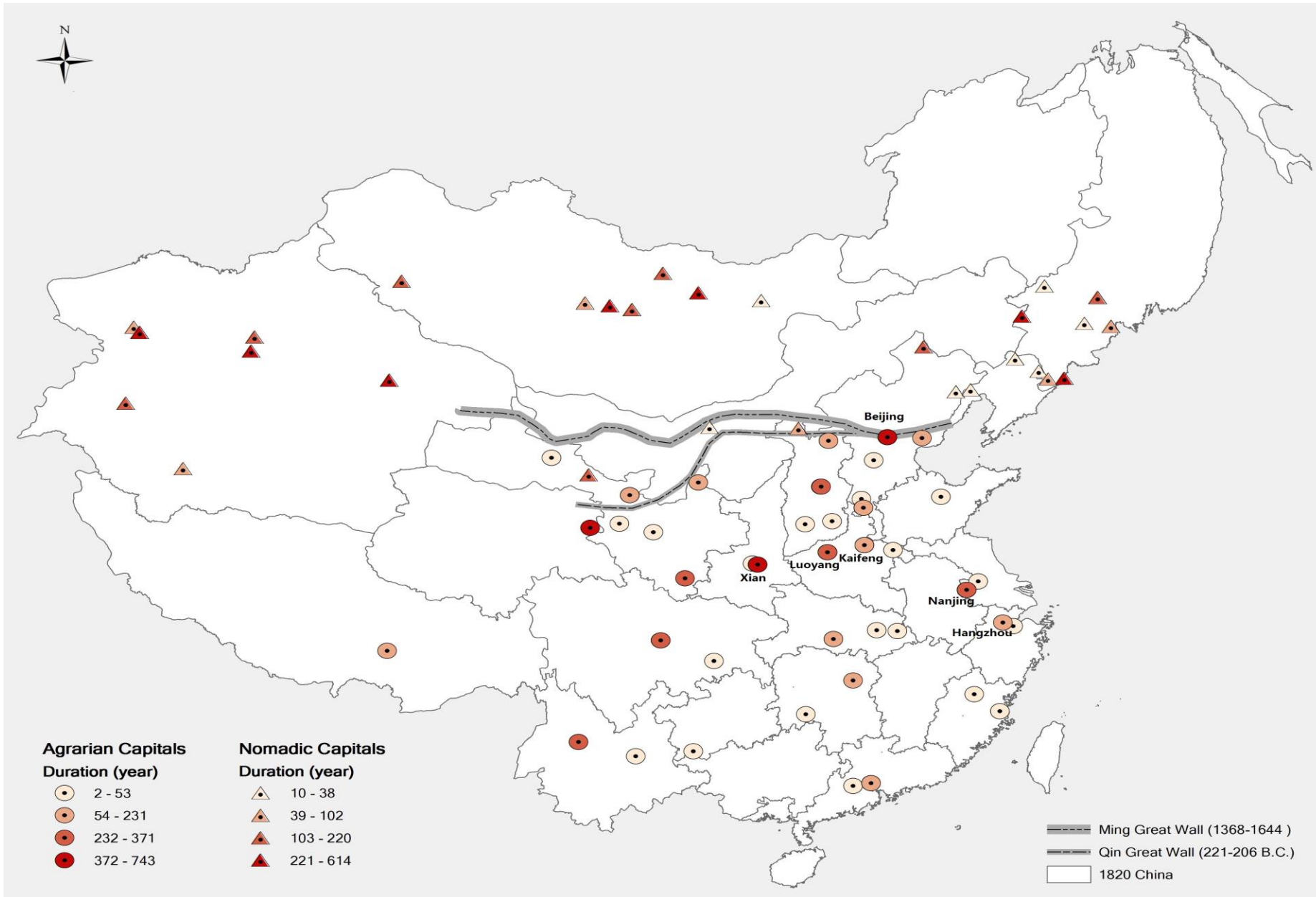


# Defining Political regimes by capital:

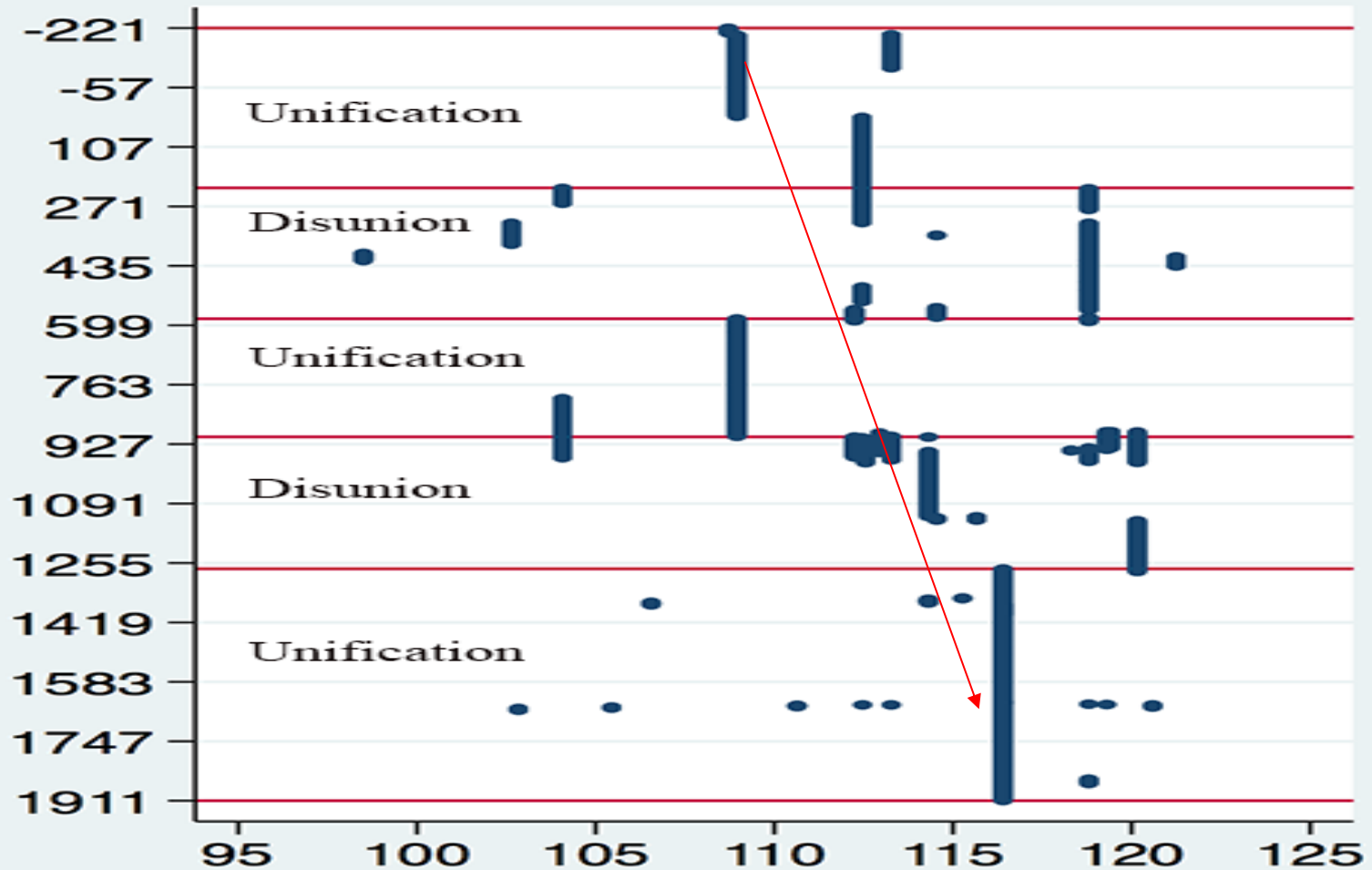
Imperial capitals (number of regimes): note the eastward drift of capitals



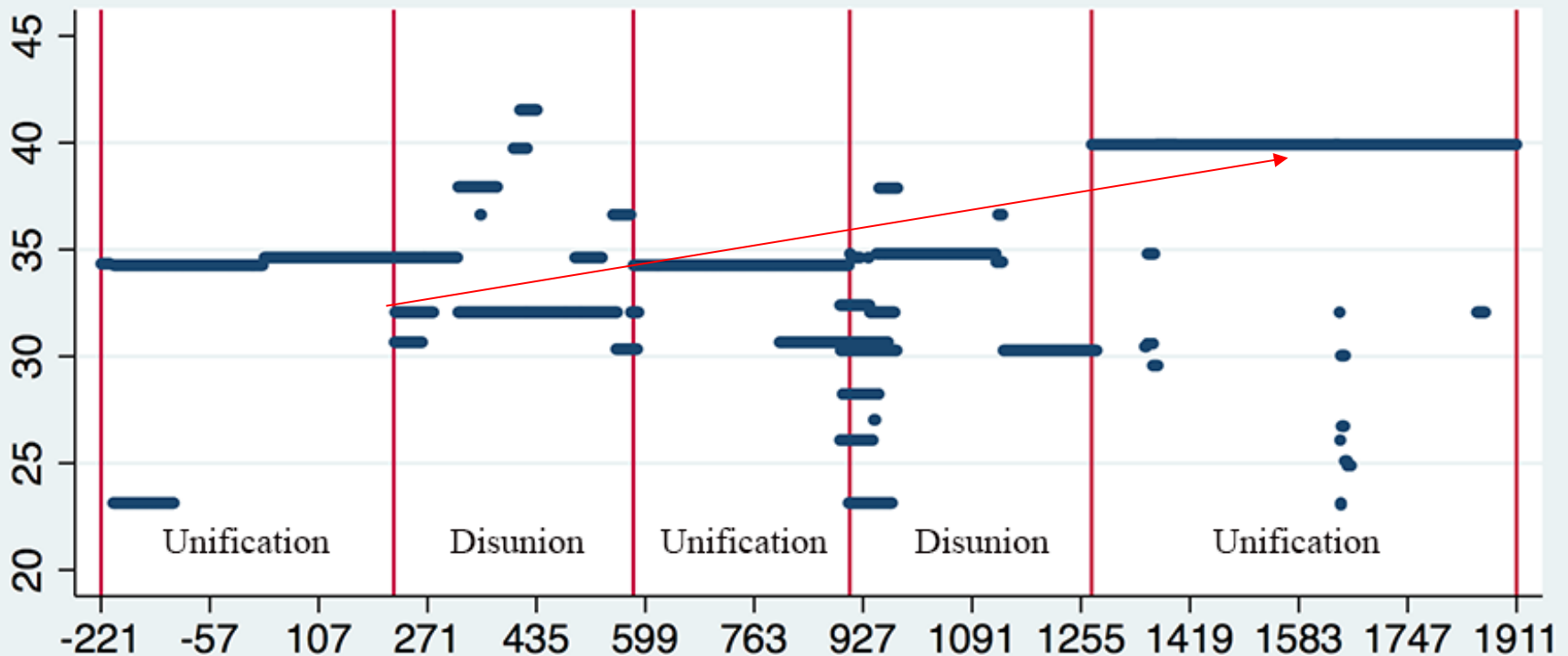
# Duration of Imperial capitals: note the importance of Beijing and the northward drift of capitals



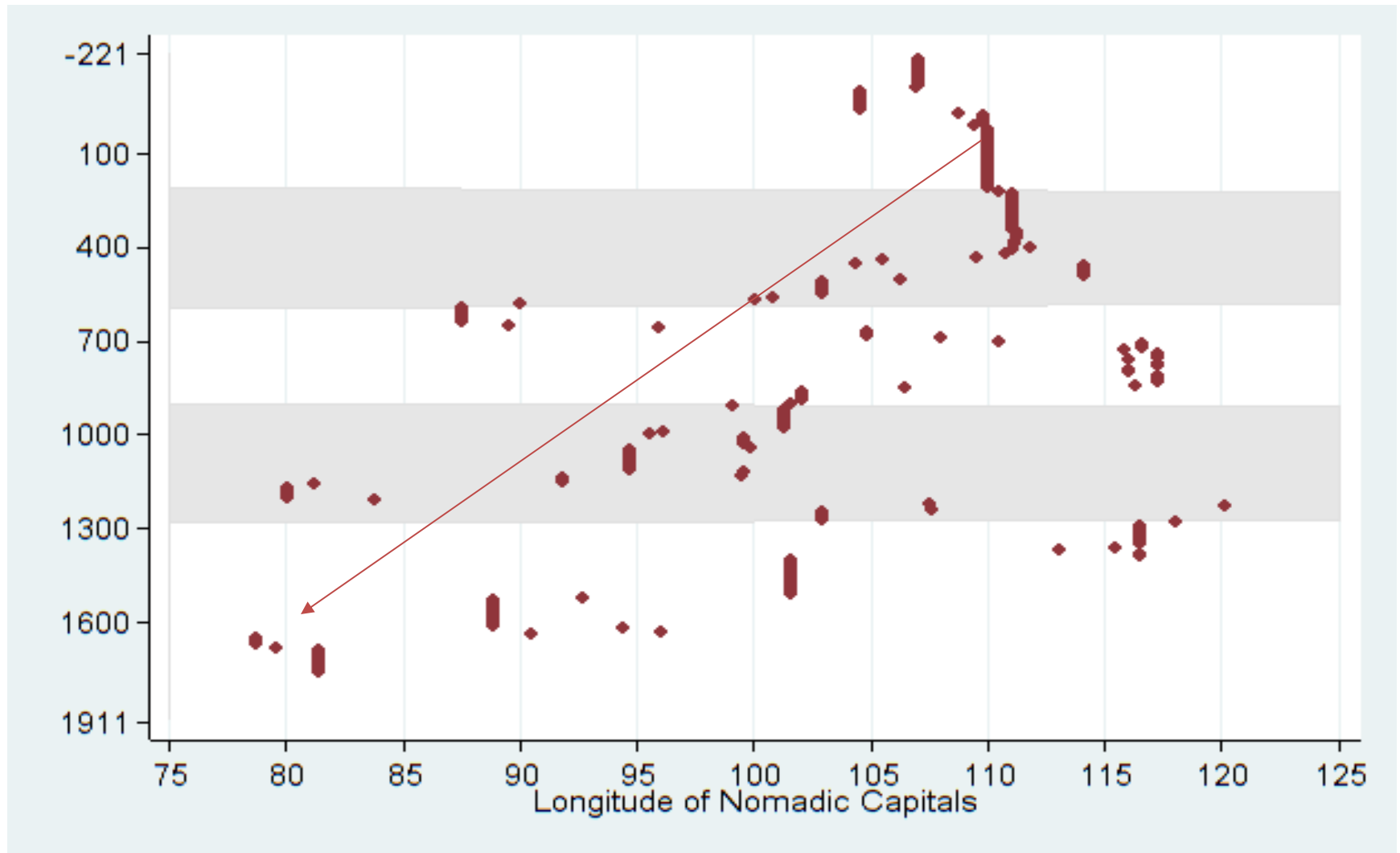
# The Eastward drift of Imperial Capitals of Agrarian Regimes



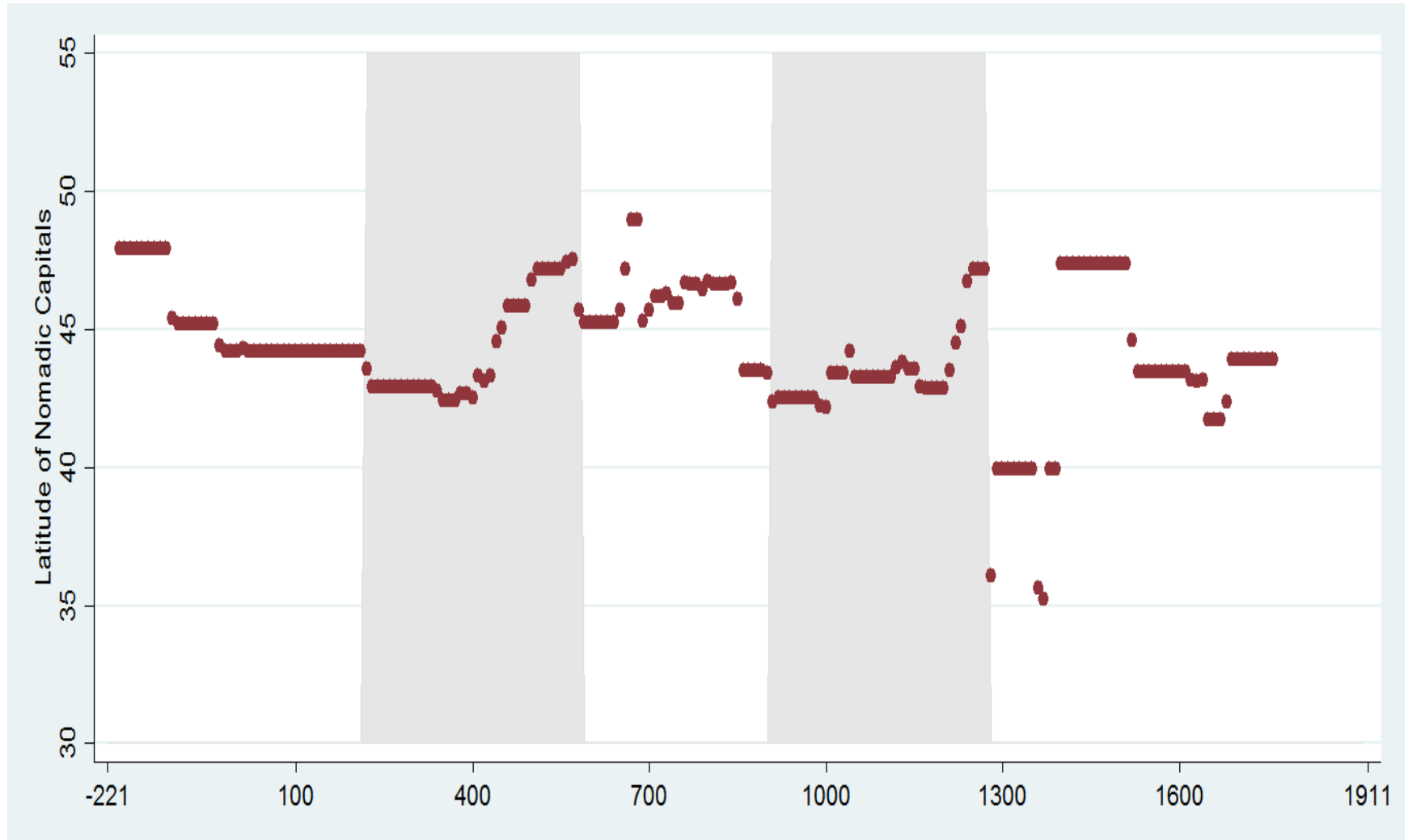
# The northward drift of Imperial Capitals of Agrarian Regimes



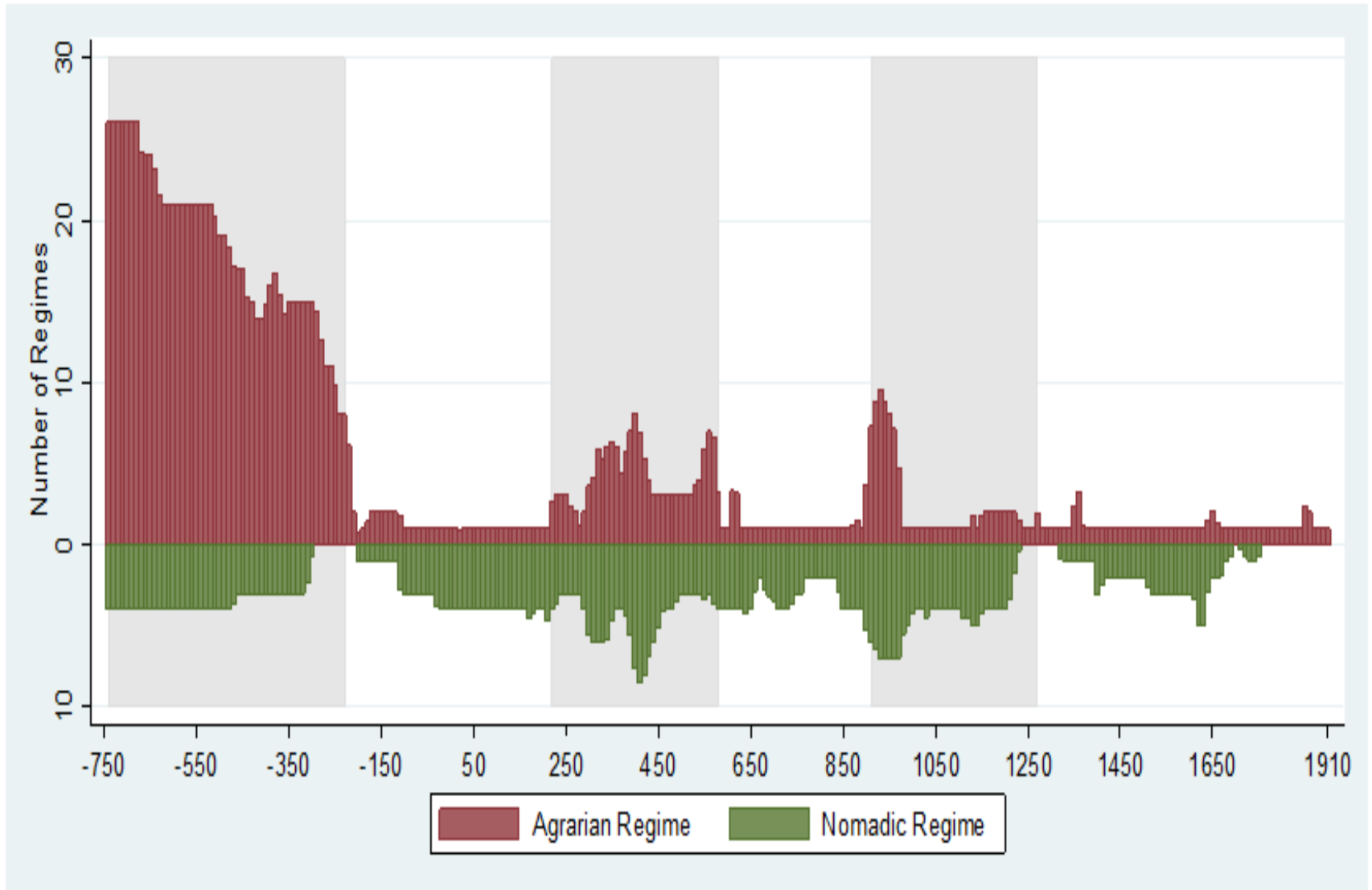
# Westward drift of nomadic capitals



# No trend in latitude for nomadic capitals



# Three Phases of Unification and Fragmentation (66 nomadic regimes and 89 agrarian regimes)



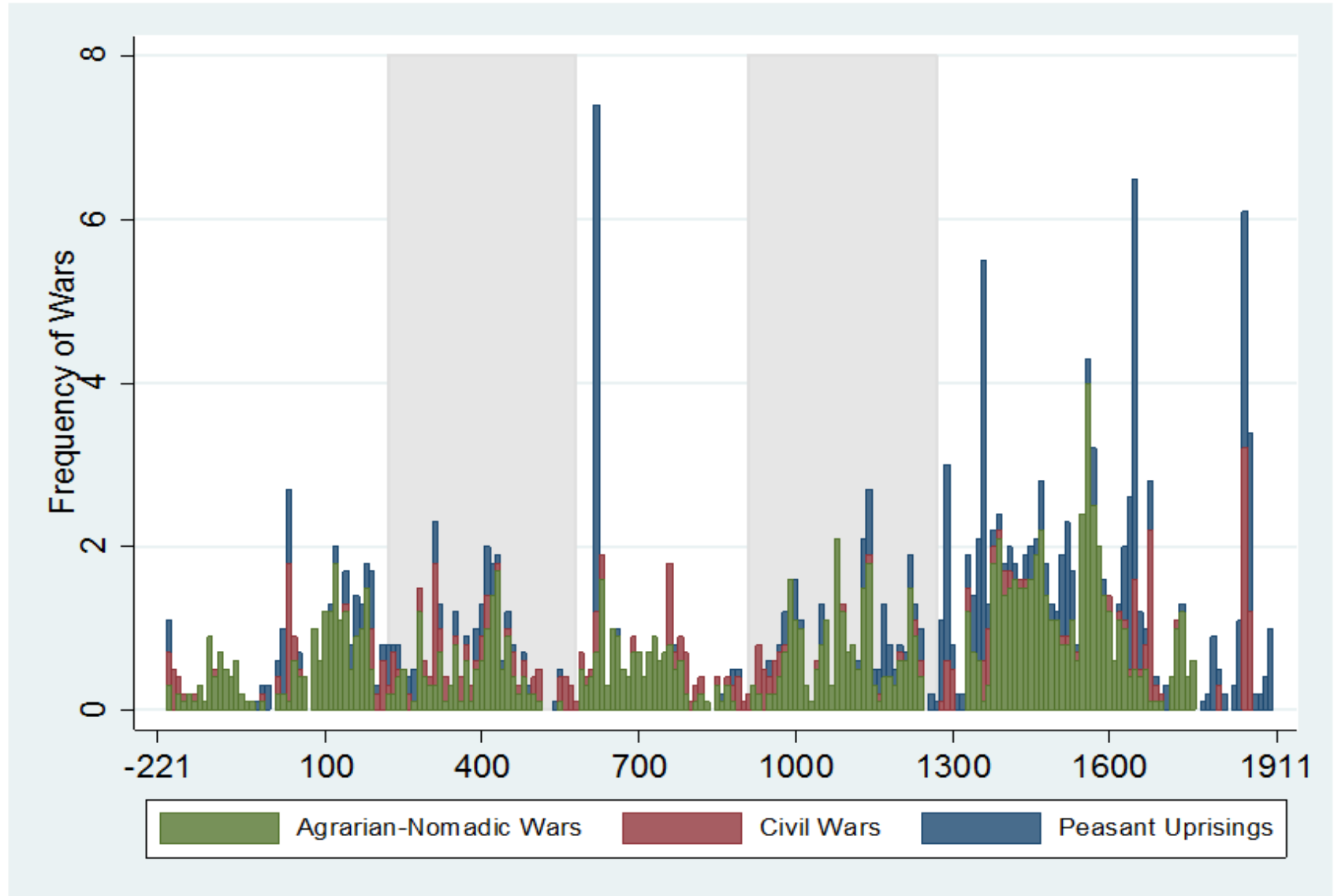
# Defining Types of Warfare

- One of the Longest warfare in human history:
  - Over 1000 warfare incidences from 750 BC to 1911 ADD over 4000 miles from east to west.
- External wars: between regimes inside and outside and Great Wall;
- Civil Wars: within the Great Wall;
- (Peasant) Rebellions: within the Great Wall by rebels prior to establishing official capitals.



# Warfare series by types in time series

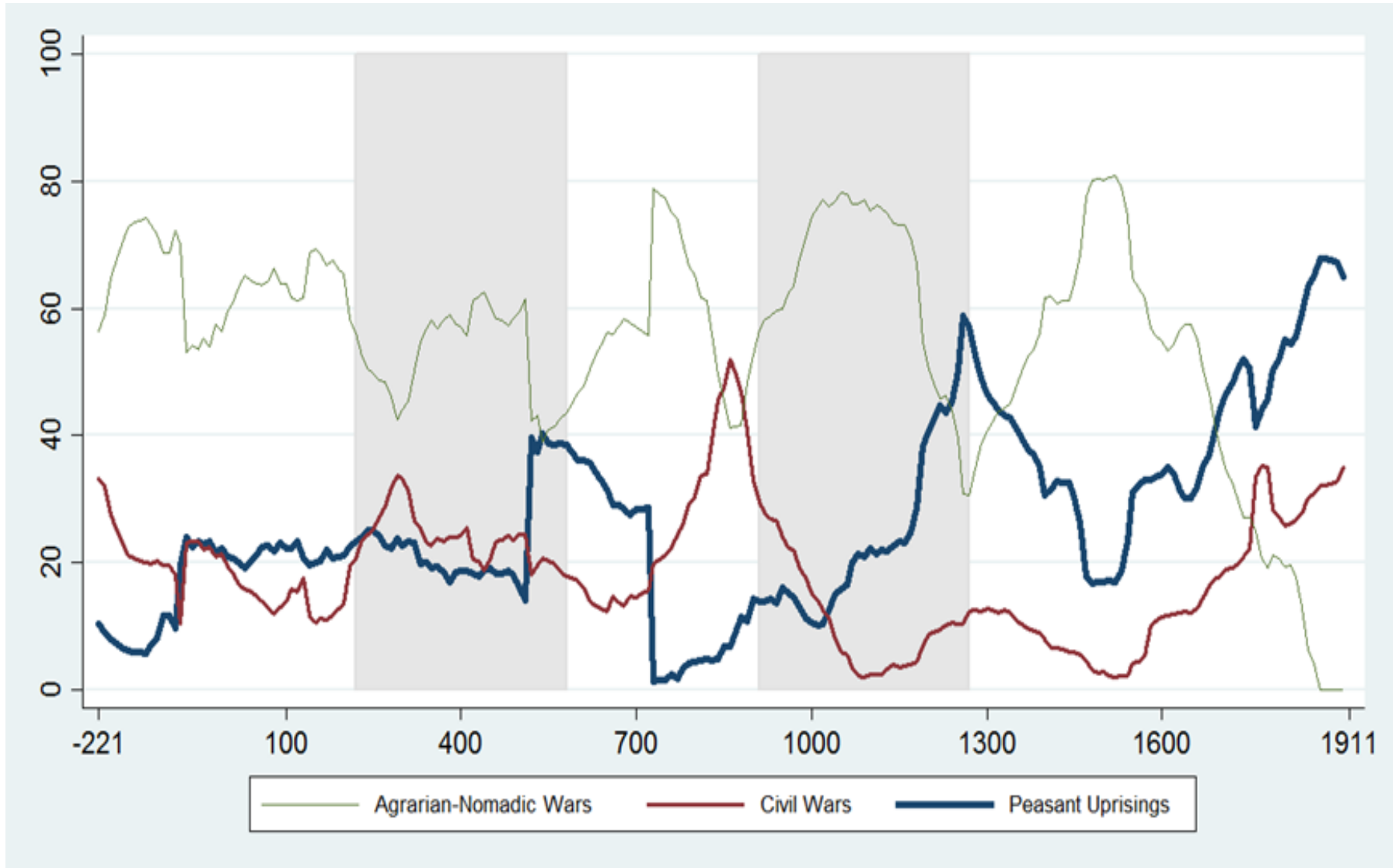
(note the peculiar sudden surge and disappearance of peasant rebellions)



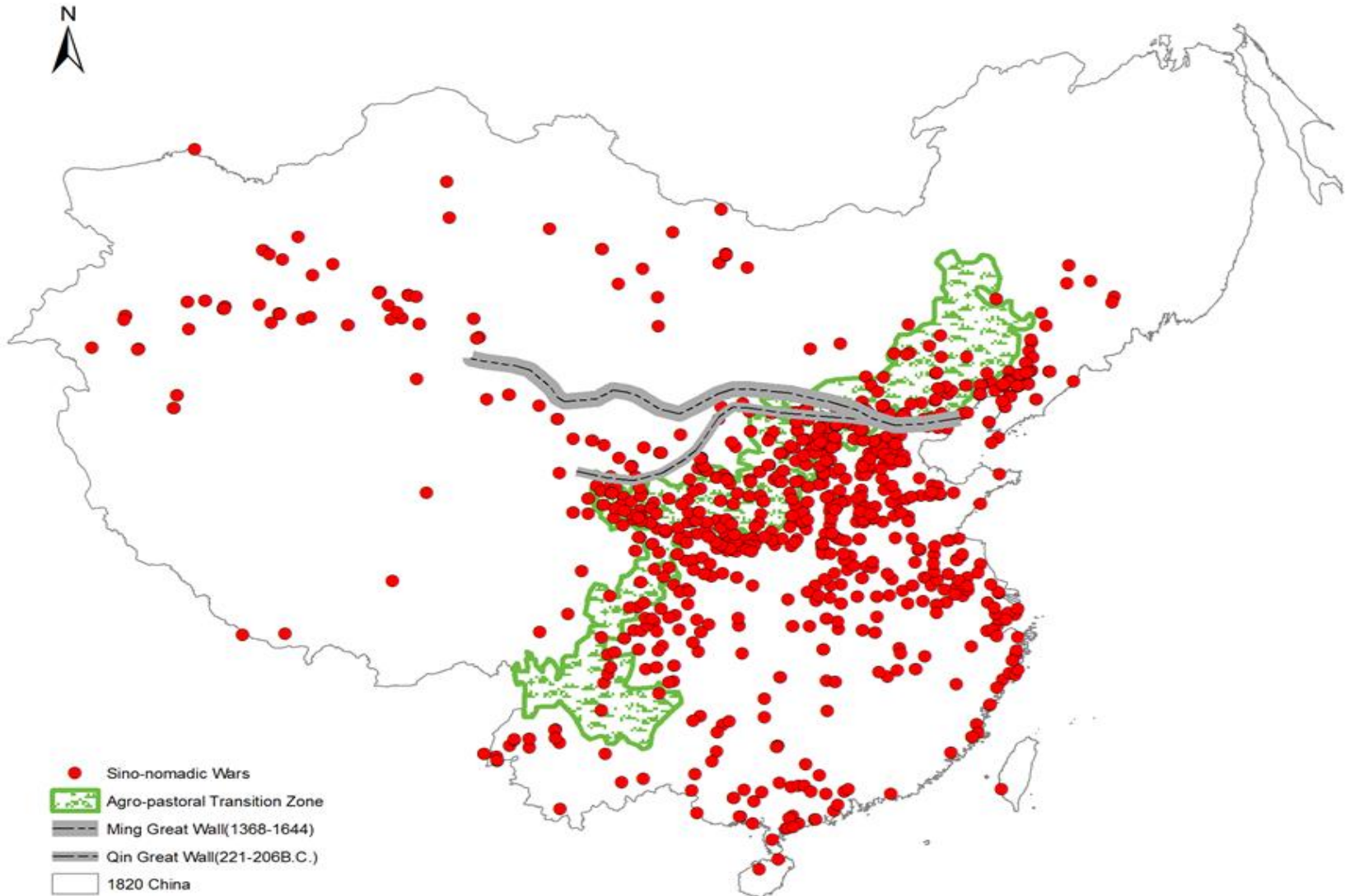
# Summary Statistics: Types of warfare (more peasant rebellions under unified regimes)

	Uni one (221 BC – 220 AD)	Frag.two (220-581)	Uni. Two (581-907)	Frag. Three (907-1271)	Uni. Three (1271-1911)
	秦汉	三国魏晋南北朝	隋唐	五代十国宋辽 金夏	元明清
<b>External</b>	199	147	142	229	488
	<b>(62.7)</b>	<b>(53.6)</b>	<b>(55.5)</b>	<b>(69.4)</b>	<b>(48.2)</b>
<b>Civil</b>	52	78	46	33	132
	<b>(16.4)</b>	<b>(28.5)</b>	<b>(18.0)</b>	<b>(10.0)</b>	<b>(13)</b>
<b>Rebellion</b>	66	49	68	68	393
	<b>(20.8)</b>	<b>(17.9)</b>	<b>(26.6)</b>	<b>(20.6)</b>	<b>(38.8)</b>
<b>Total</b>	317	274	256	330	1013

1. The Constancy of Agrarian-Nomadic Warfare;
2. The transition from (state based) Civil War to Peasant Uprisings
3. the peculiar case of Qing 1644/1911.



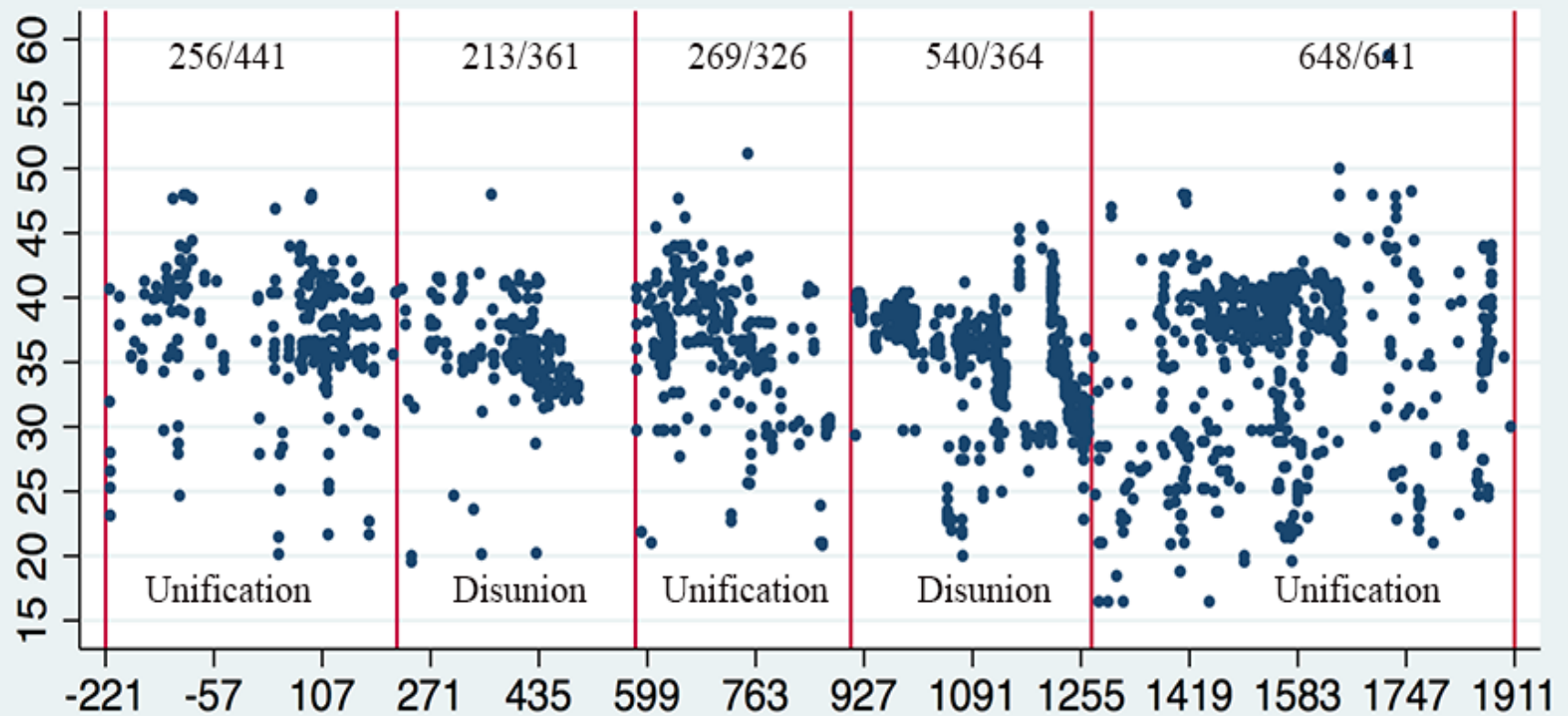
# Geographic Distribution of External Warfare the clustering of warfare in the transition zone



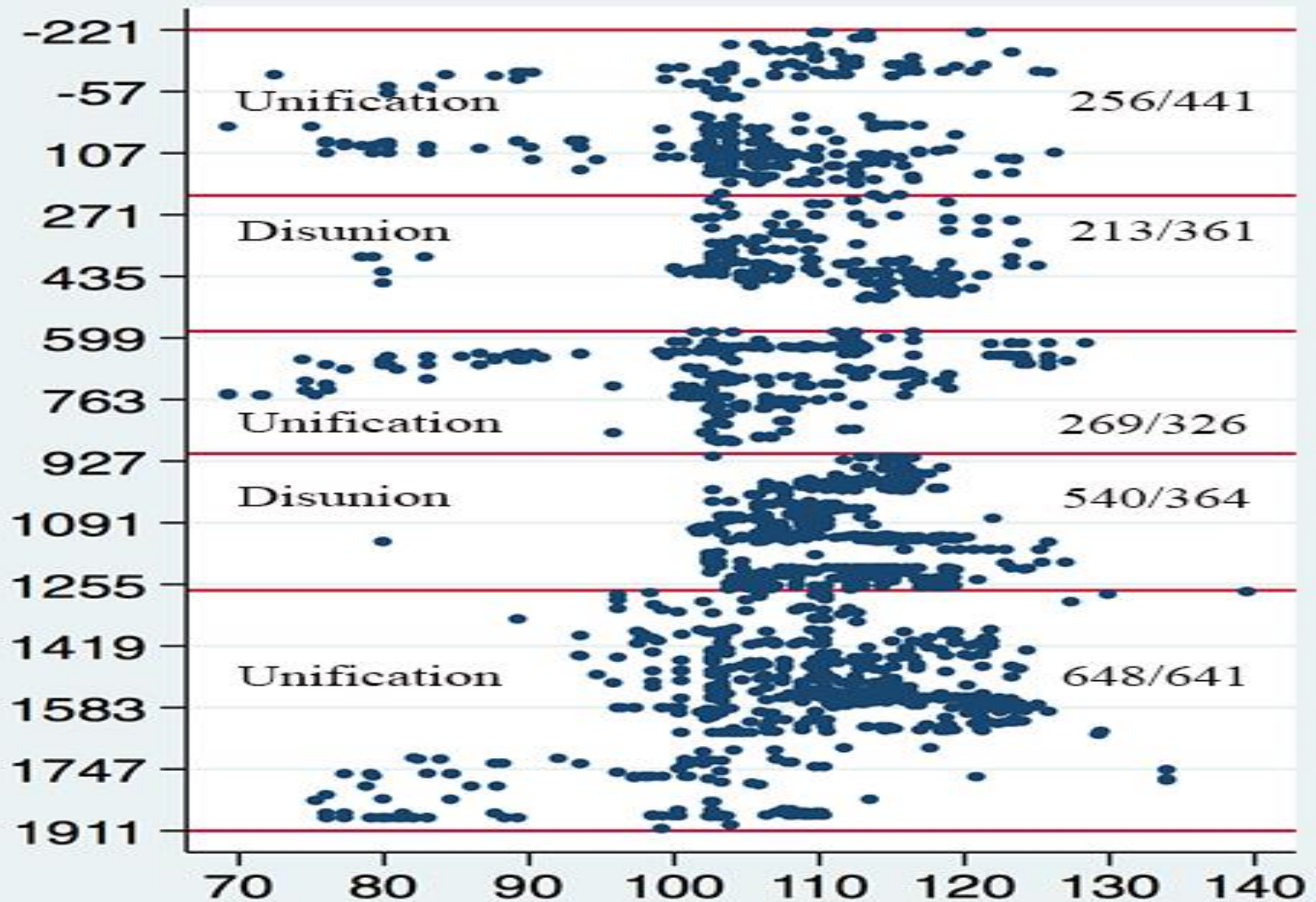
# Summary Statistics

	Number	Percentage
<b>External</b>		
<b>In the Transition Zone</b>	580	33.5%
<b>Within 50km</b>	809	46.7%
<b>Within 100km</b>	1016	58.7%
<b>Civil</b>		
<b>In the Transition Zone</b>	58	13.5%
<b>Within 50km</b>	114	26.5%
<b>Within 100km</b>	174	40.4%
<b>Rebellions</b>		
<b>In the Transition Zone</b>	69	12.4%
<b>Within 50km</b>	140	25.1%
<b>Within 100km</b>	189	33.9%

# External Warfare latitudes



# External Warfare longitudes



# External Warfare

	Frag. one	Uni. one	Frag. two	Uni. two	Frag. three	Uni. Three
	春秋战国	秦汉	三国魏晋南北朝	隋唐	五代十国宋辽金夏	元明清
Longitude	112.62	104.26	110.56	104.59	111.49	110.96
( Stedev.)	(3.26)	(11.58)	(7.67)	(14.33)	(5.09)	(10.96)
Latitude	35.21	38.03	35.78	37.96	35.48	36.53
	(2.49)	(4.53)	(4.02)	(7.94)	(4.21)	(7.42)



# Wars and States in Chinese history: a summary

- Warfare and number and size of states;
- Resource mobilization of agrarian regimes: reaching towards east and south but capitals moving northward and eastward;
- Conversion of civil wars into peasant rebellions: implications on state capacity.

# III. Ideology and internal Institutions: a Narrative

- Fairbank:
  - the disorder of the Warring States period (403-221 B.C.) led Chinese political philosophers such as Confucius to enshrine peace and order as central ideals, thus transforming unity into an overriding political goal;
  - Once achieved, unity was preserved by the invention of bureaucratic government.
- Geography not entirely endogenous: the N-S grand canal is man-made. So is the Great Wall.
- Geography and ethnic diversity as insufficient explanations for the failure of Europeans to revive the Roman empire.

# The Confucius-Legalist synthesis and the Tang-Song Transformation

- Strategies of unifying China: the legalist model of Qin (221-206 BC)
  - Militarization: the rise of peasant (farmer) soldier.
  - Military meritocracy in place of hereditary nobility.
  - Household and land registration (the rise of agrarianism).
  - Direct Taxation (Poll and Land tax)
  - Harsh and strict discipline and standardized penal codes.
- The rise of impersonal bureaucracy and the formalization and opening-up of the civil service examination system.
  - The use of Civil Service Examination;
- The construction of Grand Canal
- The Unification of written characters.
- Early invention and adoption of papers and printing.

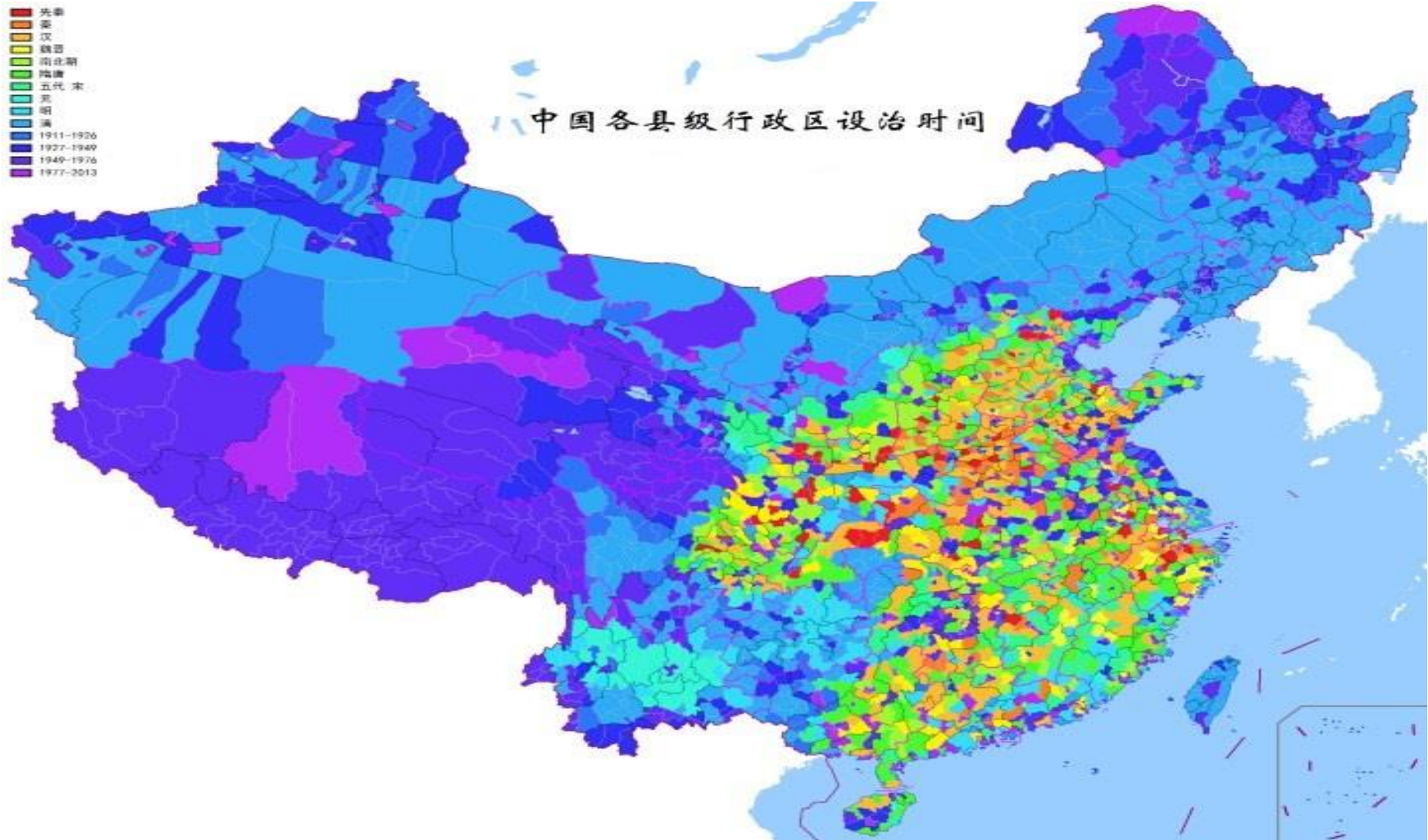
# The Chinese Model of Autocracy

- The invention of the title “Emperor”（皇帝） versus “King”（王）
- The emergence of Three main actors
  - The emperor: The symbol of the sovereign but with self-interest covers himself and Imperial Household.
  - The Bureaucrats/Gentry: agents of the emperors for tax collection and administration.
  - The masses: independent units of production and consumption subject to taxation by the State collected by the bureaucracy.
- The monopoly of rule under a single ruler（天下一家）：
  - In the ideal state: no feudalism, no intermediate aristocracy, no autonomous religious groups or administrative units.

## The Rise of a Giant, Single and Unitary China (大一统)

- One Family under the Heaven (天下一家)
- Internal integration:
  - Hierarchical dominance over local autonomy or power sharing;
  - The legitimacy of Nomenklatura (personnel appointment from the top)
- International order: a tributary system and the elimination of inter-state competition.
- Unity and Stability as the overriding goal and ideology.

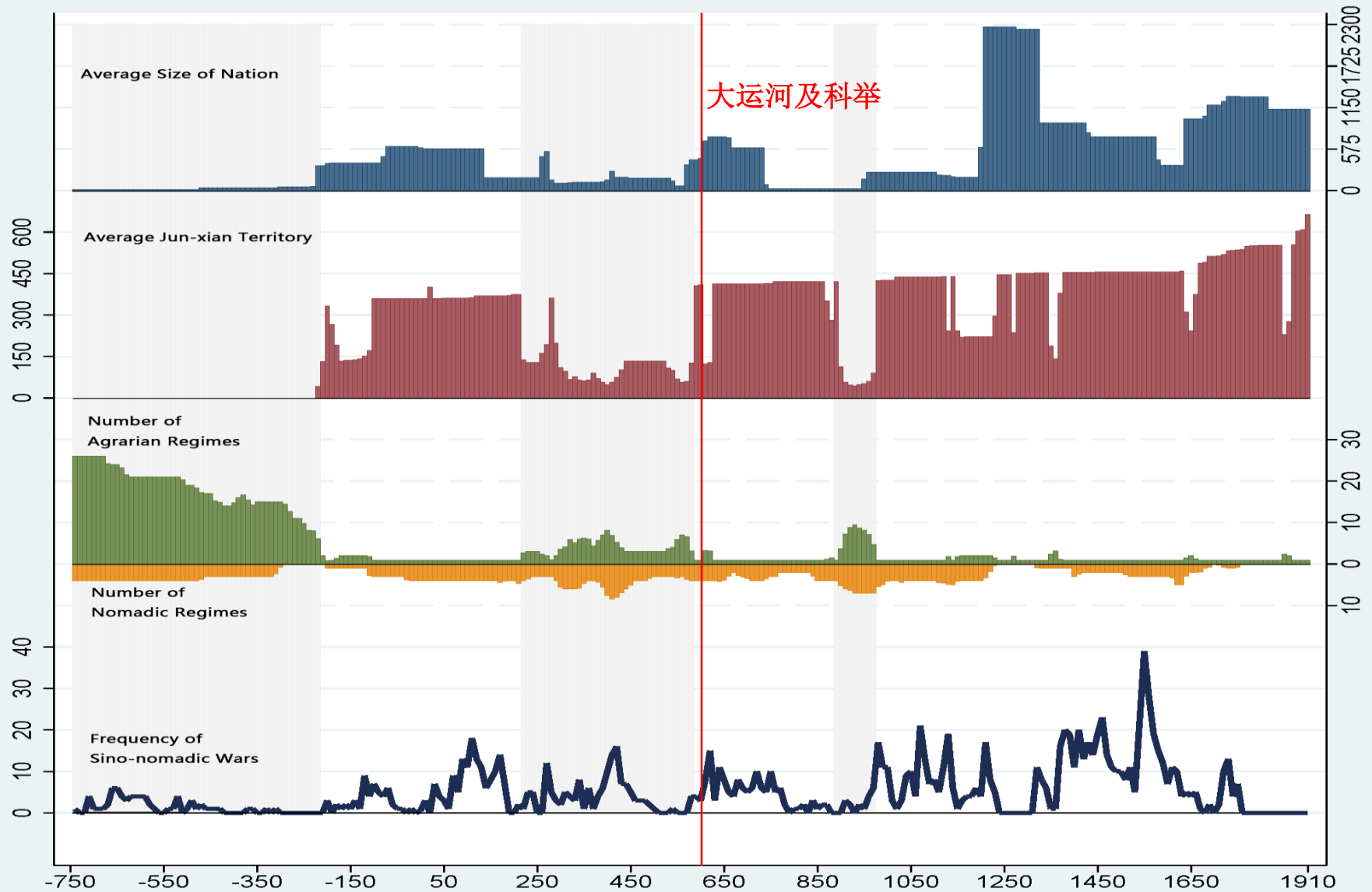
# The expansion of counties (Junxian) across Chinese dynasties (Chen and Ma, Li and Lin)



# Econometrics: War and states in Chinese history

- Dependent variables:
  - Size of nations (agrarian regimes) 《中国历代地图集》（谭其骧，1996）
  - Number of agrarian regimes (1820 Qing map)
- Explanatory variables: External Warfares
- Control variables: Civil Wars, Rebellions, Climate, Natural Disasters

# War and State Formation: a comprehensive profile





# ARDL Model

- We assume that the dynamics relationship between war and size of nations is as following:

$$y_t = \beta_0 + \sum_{i=1}^p \beta_{1,i} y_{t-i} + \sum_{i=0}^q \beta_{2,i} w_{t-i} + \sum_{i=0}^J \beta_{3,i}' W_{t-i} + X_t' \gamma + \varepsilon_t$$

$y$ : size of nations

$w$ : sino-nomadic wars

$W$ : sino-sino wars and agrarian internal wars

$X$ : high temperature, locust plague, heavy floods, heavy draughts

# Error correcting transformation

$$\begin{aligned} & \Delta y_t \\ &= \sum_{i=1}^{p-1} \theta_{1i} \Delta y_{t-i} + \sum_{i=1}^{q-1} \theta_{2,i} \Delta w_{t-i} + \sum_{i=1}^{J-1} \theta_{3,i}' \Delta W_{t-i} + \delta * ECT_{t-1} + X' \gamma_2 \\ &+ \varepsilon_t \end{aligned}$$

# Summary Statistics

	Variables	N	Mean	s.d.	Source
<b>Dependent variables</b>					
$y_1$	Size of nation	214	506.728	520.634	E
$y_3$	Agrarian regimes	214	0.963	0.442	A,B
<b>Explanatory variables</b>					
$w_1$	Agrarian-nomadic wars	214	0.463	0.491	C
$w_2$	Civil wars	214	0.139	0.265	C
$w_3$	Peasant uprisings	214	0.321	0.828	C
<b>Exogenous variables</b>					
$x_1$	Share of years with records of extremely high temperature in Loess Plateau	214	0.178	0.383	D
$x_2$	Share of years with records of extremely serious locust plague	214	0.127	0.333	D
$x_3$	Share of years with records of extremely heavy floods	214	0.145	0.353	D
$x_4$	Share of years with records of extremely heavy draughts	214	0.154	0.362	D

# Estimation Results

$Y_i$	(1)	(2)
	Size of Nation	Agrarian Regimes
Panel A: Long-run coefficients		
Dependent variable: $Y_i$		
Agrarian-nomadic wars	596.6**	-0.602**
	(293.1)	(0.283)
Civil wars	762.6	0.630
	(509.8)	(0.434)
Peasant uprisings	391.1	-0.123
	(240.6)	(0.214)
Panel B: Short-run coefficients		
Dependent variable: $\Delta Y_{it}$		
L.ECT <sub>i</sub>	-0.110***	-0.112***
	(0.0311)	(0.0295)
LD. $Y_i$	-0.0508	0.189***
	(0.0680)	(0.0661)
L2D. $Y_i$	0.114*	
	(0.0677)	

VAR: confirms warfare “causing” size of nations and number of agrarian regimes

$$\begin{bmatrix} y_t \\ w_{1,t} \\ w_{2,t} \\ w_{3,t} \end{bmatrix} = \begin{bmatrix} \beta_{11} \\ \beta_{21} \\ \beta_{31} \\ \beta_{41} \end{bmatrix} + \sum_{i=1}^p \begin{pmatrix} a_{11}^{t-i} & a_{12}^{t-i} & a_{13}^{t-i} & a_{14}^{t-i} \\ a_{21}^{t-i} & a_{22}^{t-i} & a_{23}^{t-i} & a_{24}^{t-i} \\ a_{31}^{t-i} & a_{32}^{t-i} & a_{33}^{t-i} & a_{34}^{t-i} \\ a_{41}^{t-i} & a_{42}^{t-i} & a_{43}^{t-i} & a_{44}^{t-i} \end{pmatrix} \begin{bmatrix} y_{t-i} \\ w_{1,t-i} \\ w_{2,t-i} \\ w_{3,t-i} \end{bmatrix} + \begin{pmatrix} b_{11}^t & b_{12}^t & b_{13}^t & b_{14}^t \\ b_{21}^t & b_{22}^t & b_{23}^t & b_{24}^t \\ b_{31}^t & b_{32}^t & b_{33}^t & b_{34}^t \\ b_{41}^t & b_{42}^t & b_{43}^t & b_{44}^t \end{pmatrix} \begin{bmatrix} x_{1,t} \\ x_{2,t} \\ x_{3,t} \\ x_{4,t} \end{bmatrix} + \begin{bmatrix} \varepsilon_{1,t} \\ \varepsilon_{2,t} \\ \varepsilon_{3,t} \\ x\varepsilon_{4,t} \end{bmatrix}$$

# Robustness checks

- What really held China together: military, geography, political or cultural?
- The limits of econometric analysis:
  - Case studies of Counties (direct rule) versus autonomous local rule;
  - The distinguishing feature of Chinese language: Japan, Korea and Vietnam.

# Lessons

- How states structures impacted long-term economic performance, private property rights and public finance;
- State structure and Great Divergence:
  - economic or cultural regions are not nation-states;
  - State structure is a long term process of ideological and institutional change;
  - Hence a long term view on explaining great divergence

Thank you