

Banking on the Confucian Clan: Why China Developed Financial Markets So Late

Online Appendix

Zhiwu Chen, Chicheng Ma, and Andrew J. Sinclair

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A. Figures and Tables

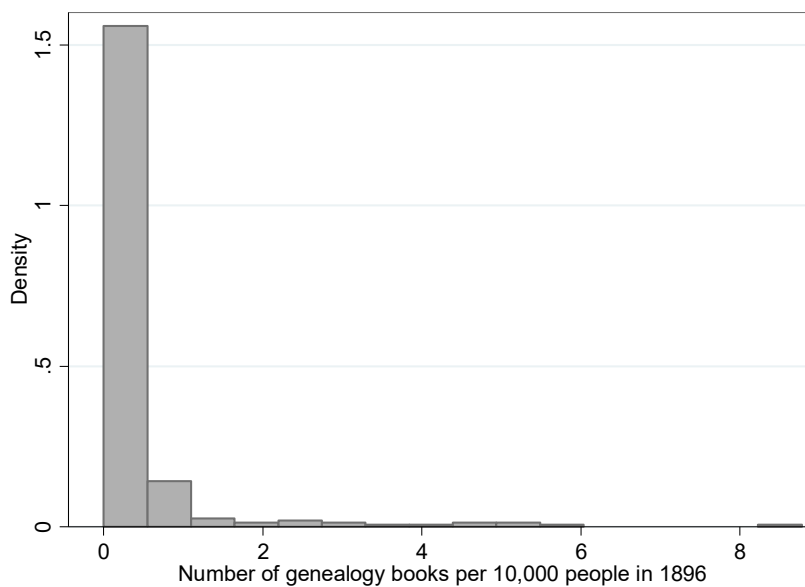
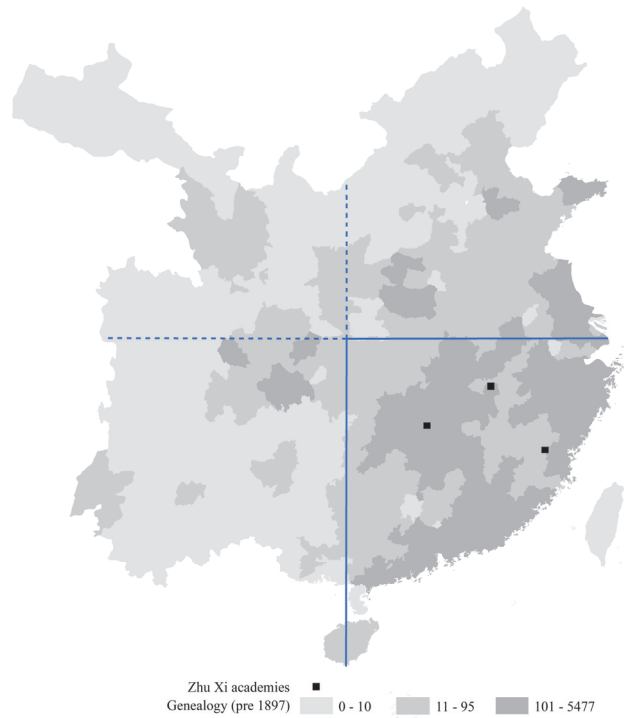


Figure A1. *Histogram of the Distribution of Genealogy Density*

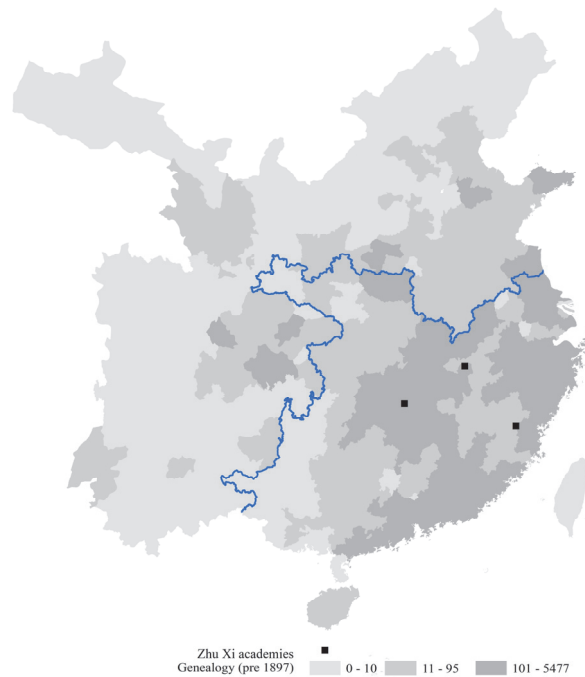


Figure A2. *Distribution of Zhu Xi's Disciples, the Twelfth to Thirteenth Centuries*

Notes: This figure demonstrates the importance of the proximity to Zhu Xi Academies (the three blue points) in the diffusion of Zhu Xi's philosophy. The latter is measured by the number of Zhu Xi's disciples. The data of Zhu Xi's disciples are obtained from Chan's (1982) *Zhu Xi Menren* (The Disciples of Zhu Xi). The distribution of the disciples is based on their places of origin.



(a) Centroid-based southeastern quadrant



(b) Skinner's southeastern macro-regions

Figure A3. *'Southeastern China' Used for Further Randomisation Tests*

Notes: We focus on the southeast as it was the most prosperous and genealogy-dense region of China. In (a), we divide China proper into four quadrants with the axes crossing the centroid, and identify southeastern China as the bottom right quadrant. In (b), we define southeastern China according to Skinner's (1977) division of the physiographic macro-regions of the 19th-century China. The macro-region located in the southeast includes the Middle and Lower Yangtze River delta, Southeastern coastal areas, and Lingnan region.

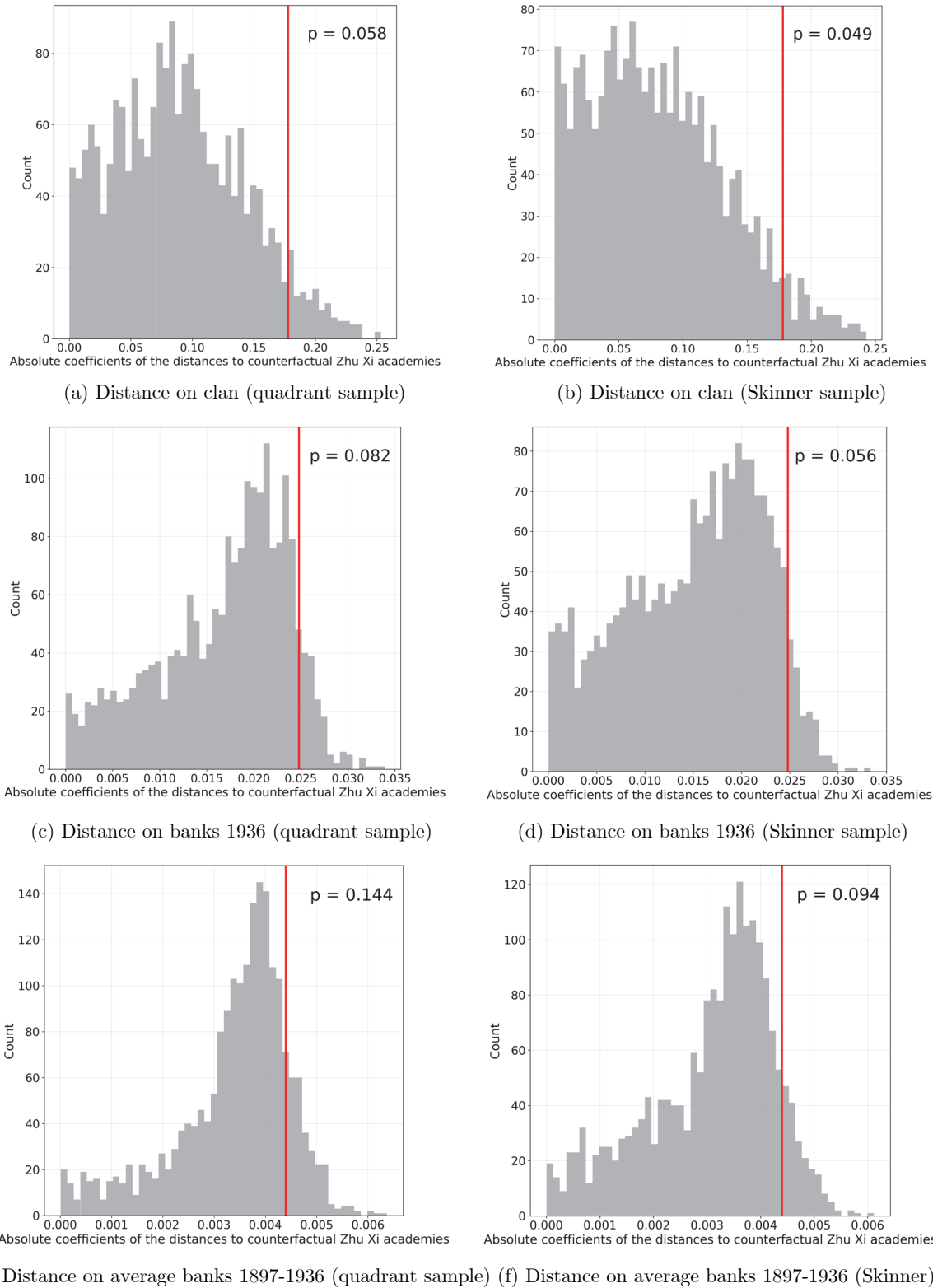


Figure A4. *Randomisation Tests Based on Southeastern China*

Notes: The charts plot histograms of the absolute coefficient estimates of distance to the counterfactual Zhu Xi academies. All coefficients are estimated in the same way as for Figure 4 except that the three counterfactual Zhu Xi academies are now drawn only from the prefectures with academies or *jìnshì* degree holders in southeastern China in the Song dynasty. In figures (a), (c), and (e), southeastern China is defined as the centroid-based bottom right quadrant in Figure A3(a), which includes 107 prefectures in total and 72 prefectures with academies or *jìnshì* holders. In figures (b), (d), and (f), southeastern China is defined as Skinner's (1977) southeastern physiographic macro-regions of China in the 19th century (see Figure A3(b)), which covers 132 prefectures in total and 81 prefectures with academies or *jìnshì* degree holders.



Figure A5. *Distributions of Confucian Temples in China Proper, the Nineteenth Century*

Notes: Confucian temples are built to worship Confucian sages and local eminent Confucian exemplars. The number of the temples can reflect the overall strength of Confucian ethos. The data are obtained from the provincial gazetteers compiled in the nineteenth century.

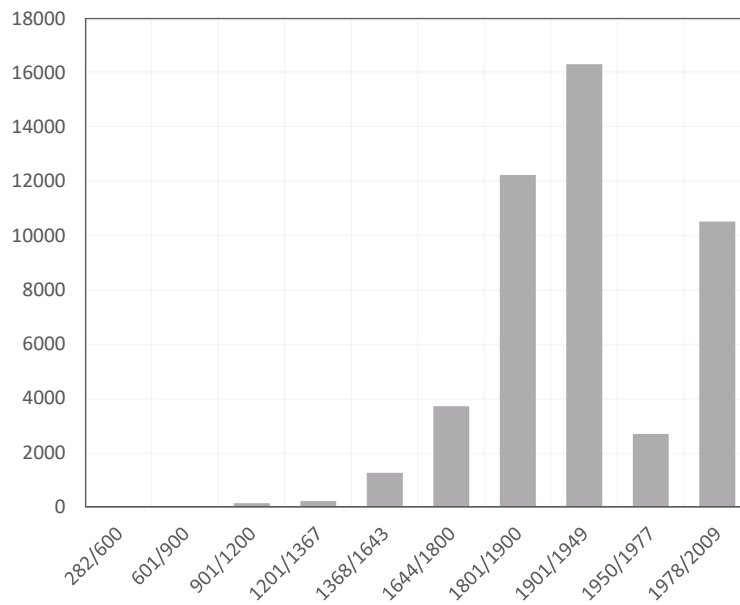


Figure A6. *Number of Genealogy Books Compiled by Period*

Table A1. *Summary Statistics*

Variable	Obs.	Mean	Std. Dev.	Min	Max
<i>For Historical Banks</i>					
Banks 1936	236	0.03	0.08	0	0.69
Average banks 1897-1936	236	0.01	0.01	0	0.06
Foreign and official banks 1903-1936	236	0.004	0.01	0	0.05
Traditional Chinese banks 1820-1913	243	0.11	0.25	0	2.70
Clan	247	0.16	0.29	0	1.85
Distance from the Zhu Xi academies (100km)	247	7.10	3.65	0	20.84
Confucian temples	247	0.98	0.56	0	3.48
Distance to treaty ports (km)	247	284.22	164.21	4.13	811.33
Distance to coast (km)	247	539.94	369.74	2.19	1924.74
Distance to river (km)	247	302.03	221.12	4.28	1524.15
Provincial capital	247	0.06	0.24	0	1
Eastern China	247	0.64	0.48	0	1
Industrial firms	247	0.001	0.005	0	0.06
Commercialisation	247	3.16	7.52	0	101.73
Urbanisation rate	247	5.99	4.99	0	33.5
<i>Jinshi</i> degree holders	247	1.37	1.21	0	11
Telegraph	247	0.55	0.86	0	4
Post offices	247	0.21	0.52	0	3
Protestantism	247	0.20	0.32	0	2.92
Civil wars	247	0.52	1.43	0	12
<i>For Interest Rate</i>					
Interest rate	6790	31.63	17.81	0	98.16
Clan	6790	0.5	0.79	0	6.03
Lenders					
Communities	6790	0.03	0.18	0	1
Merchants	6790	0.01	0.12	0	1
Traditional banks	6790	0.19	0.39	0	1
Modern banks	6790	0.14	0.34	0	1
Maturity	5278	2.99	0.71	1	5
Rural	6790	0.68	0.47	0	1
Share of clan lending (%)	184	2.15	9.9	0	89.39
<i>For CGSS 2010</i>					
Trust relatives	9679	0.87	0.33	0	1
Trust others	9682	0.65	0.48	0	1
Business contract with relatives	9631	0.80	0.40	0	1
Bank loan dummy	9697	0.14	0.35	0	1
Bank loan amount	9697	15566.65	95455.87	0	4000000
Clan	9697	2.45	3.66	0	17.51
Clan 1980-2009	9702	0.46	0.71	0	3.5
Gender	9695	1.52	0.50	1	2
Age	9693	47.47	15.74	17	96
Ethnic minority	9678	0.08	0.27	0	1
Rural household	9693	0.52	0.50	0	1
Education	9674	2.09	1.43	0	6
Kin size	9588	1.82	1.34	0	10
<i>For City Statistics 2010</i>					
Bank loans and deposits to population	252	7.27	12.11	1	130.51
Bank loans and deposits to GDP	252	2.06	1.02	0.79	6.76
Clan	252	0.34	0.56	0	3.65
Clan 1980-2009	253	0.08	0.13	0	0.59
GDP per capita	252	28059.47	18305.7	5441	116404

Source: See the text.

Table A2. *Clan and Banking Development: Controlling for Traditional, Foreign and Official Banks*

	Banks 1936	Banks 1936	Banks 1936	Banks 1936	Banks 1936	Banks 1936
	OLS	OLS	Tobit	2SLS	2SLS	IV-Tobit
	1	2	3	4	5	6
Clan	-0.067 (0.021)*** [0.020]***	-0.061 (0.016)*** [0.015]***	-0.070 (0.025)***	-0.172 (0.063)*** [0.069]**	-0.151 (0.059)** [0.066]**	-0.168 (0.079)**
Traditional Chinese banks	0.037 (0.028) [0.026]	0.039 (0.028) [0.026]	0.055 (0.037)	0.029 (0.027) [0.026]	0.024 (0.029) [0.028]	0.038 (0.039)
Foreign and official banks	1.077 (0.476)** [0.482]**	1.194 (0.516)** [0.498]**	1.288 (0.528)**	1.174 (0.460)** [0.470]**	1.221 (0.493)** [0.493]**	1.318 (0.525)**
Geographic controls	X	X	X	X	X	X
Additional controls		X	X		X	X
Observations	232	232	232	232	232	232
R-squared	0.251	0.308		0.161	0.250	
K-P F statistic				28.99	18.17	

Notes: The dependent variable is the log number of Chinese modern banks (per 10,000 population) in each prefecture in 1936. Traditional Chinese banks include *qianzhuang* (money houses) and *piaohao* (Shanxi banks), which were established in each prefecture in late Qing dynasty (1820 to 1912). We normalise it by population (in 10,000 people) in 1910. Clan is instrumented by the log distance to the Zhu Xi academies in columns 4-6. Controls and are same as those of Table 3. Robust standard errors are in parentheses. Standard errors in brackets are clustered within a radius of 136 kilometres to account for possible spatial correlation based on Colella et al. (2019). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table A3. *Clan and Emergency Loans*

	OLS	OLS	OLS	Tobit	2SLS	2SLS	IV-Tobit
	1	2	3	4	5	6	7
Clan	-2.708 (4.752) [4.305]	-3.230 (4.330) [4.091]	-0.466 (4.843) [4.395]	-0.430 (4.659)	15.405 (11.963) [15.249]	12.939 (11.441) [15.347]	12.972 (11.500)
Geographic controls		X	X	X	X	X	X
Additional controls			X	X		X	X
Observations	184	184	184	184	184	184	184
R-squared	0.002	0.185	0.241		0.109	0.207	

Notes: The dependent variable is the logarithm of the share (percentage points) of emergency loans in all lending records at the prefectural level between 1912 and 1936. Clan and controls are the same as those in Table 3. In columns 5-7, clan is instrumented by the distance to the Zhu Xi academies. Robust standard errors are given in parentheses. Standard errors in brackets are clustered within a radius of 136 kilometres to account for possible spatial correlation based on Colella et al. (2019). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

B. Gazetteers for the Number of Confucian Temples

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