FAMILIAR STRANGERS: OVERSEAS CHINESE, LINEAGE CONNECTION AND FOREIGN FIRMS IN CHINA

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Motivation

- Governments of developing countries strive to attract FDI.
  - often in the form of introducing new foreign firms.
  - in the hope that FDI generates positive spillovers to the domestic sector (Harrison and Rodríguez-Clare, 2010).
- Yet, the entry of foreign firms has been scarce in many developing countries.
- ”Why doesn’t capital flow from rich to poor countries?” (Lucas, 1990)
  - information frictions
  - institution weaknesses
  - corruption
  - infrastructure insufficiency

Motivation

- The case of China challenges the conventional wisdom:
  - having remained closed for 30 years before the reform in 1979.
  - rose to a hub for multinationals and foreign firms within very short time.
  - IFDI volumn only second to the US from 1979 to 1999 (Huang, 2003).
- Anecdotes attribute this achievement to the "Huaren", i.e. overseas Chinese (Vogel, 1990; Tang, 2006):
  - socially connected to ancestral hometowns through lineage.
  - pioneered in an immature market.
  - used informal networks to overcome entry barriers.
  - planted the seed investment for later industrial growth of China.
- How important are the roles of Huaren in explaining the entry and survival of foreign firms? Is there a causal effect of lineage connection? What are the long-term implications?

Figure 1. Examples of Huaren Foreign Firms

This Paper

- Build a comprehensive dataset on the universe of foreign firms (inlcuding wholly-owned, joint-venture, foreign-invested) controlled by Huaren in China from 1980 to 2014, using firm registration data.
  - leveraging the spellings of Chinese surnames.
  - account for more than 60% of all foreign firms; ≥ 90% before 1995.
- Exploit variations from both China's gradual openness and surname distributions across prefectures, and adopt a DID design with differential treatment.
- Find that stronger lineage connection facilitates the entry and survival of Huaren foreign firms, following the local openness reform, through reducing information frictions and smoothing contract enforcement.
- Show that Lineage-driven FDI brings about long term economic benefits.

Historical Background

- China has a long history of emigration.
  - 1300s-1840s: South East Asia
  - 1840s-1949: North and South America, Australia
  - 1949-1979: HMT
  - 1979-present: US, Canada, Europe
- One of the largest migrant network in the world.
  - 5.8 million in stock (Global Migrant Origin Database, 2007)
  - high income level and social status in host countries
  - 3/4 of $ 369 billion worth wealth was controlled by Huaren (The Economist, 2020)
- Though as emigrants, Huaren (of earlier generations) remained socially connected to their ancestral hometowns (Kuhn, 2008).
  - During 1949 and 1979, they kept in touch with lineage members through letters and remittance.

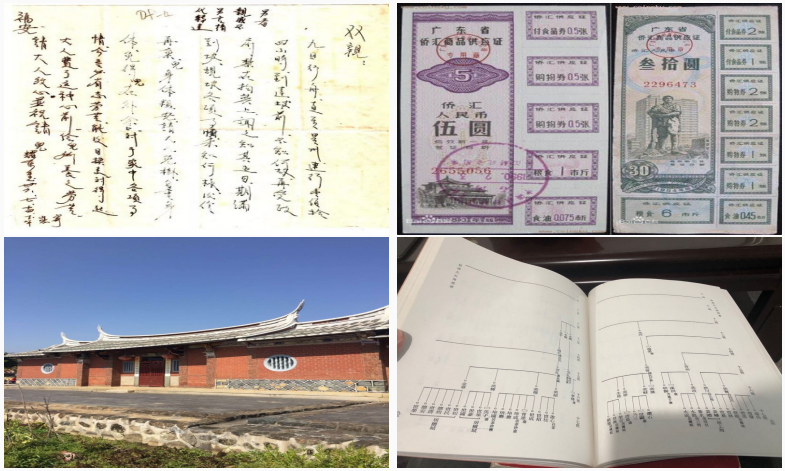


Figure 2. Letters, Remittance, Ancestral Temple, and Genealogy

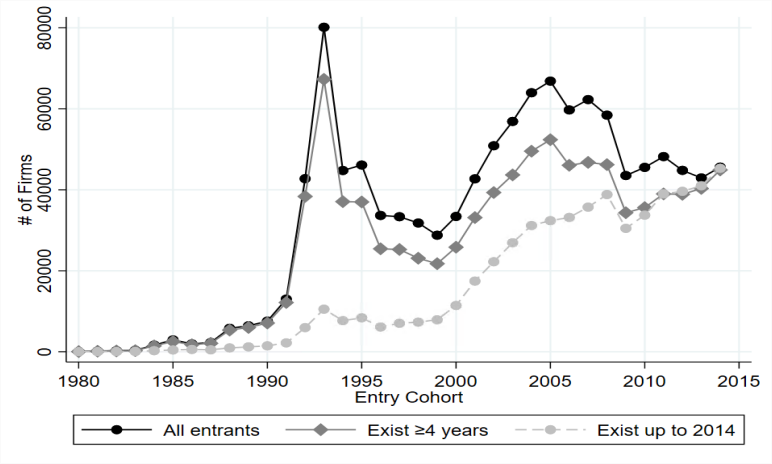


Figure 3. Foreign Firm Entry by Cohort

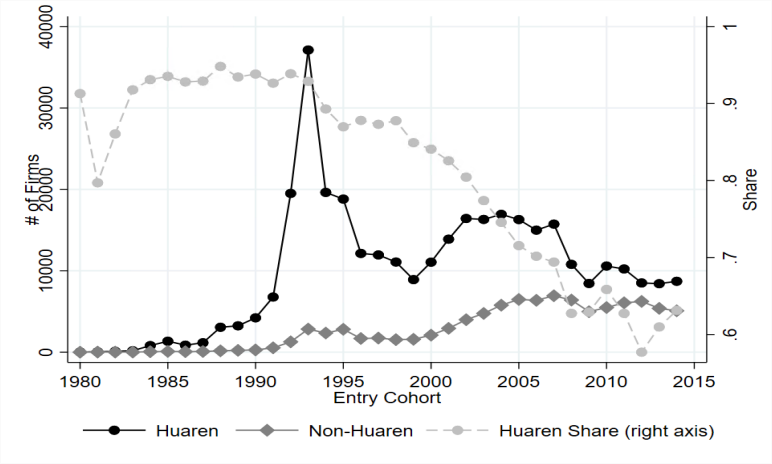


Figure 4. Breakdown of Foreign Entrants by Cohort and Ethnicity

Related Literature and Contribution

- **Social affinities on trade and investment**: Rauch and Trindade (2002), Javorcik et al. (2011), Ma (2018), Burchardi et al. (2019)
  - a new type of social tie: lineage connection (between surname and locality)
  - a dynamic perspective: separate two margins——entry & survival
- **International migration and economics of names:** Sequeira et al. (2019), Tabellini (2020), Abramitzky et al. (2020)
  - effects of emigration on home countries: facilitate foreign investments
  - use surnames to proxy one's lineage/ancestry
- **FDIs and their spillovers in China:** Cheng and Kwan (2000), Gao (2003), Tong (2005), Amit and Javorcik (2008), Du et al. (2008), Huang et al. (2016), Lu et al. (2017)
  - a causal examining of the role played by lineage network on Huaren foreign firms across Chinese prefectures.
- **Studies on Chinese economy using firm registration data:** Dai et al. (2019), Allen et al. (2019), Bai et al. (2020). We focus on the subset of foreign firms.

Data

- **Firm registration data**
  - the universe of firms ever registered in China up till 2014
  - entry & exit dates
  - industry code (4-digit), region code (6-digit), ownership code (4-digit)
  - up-to-date registered capital (2014). strongly correlated with assets, employment, and sales (Bai et al. 2020)
  - list of shareholders & key personnel members.
- **Population census 2005**
  - 0.2% representative sample of population
  - region code (6-digit)
  - *individual surnames*
- **Other sources**
  - CSMAR
  - China National Compendium of Statistics

Identifying Huaren Foreign Firms & Surnames

- Use ownership code to select the subgroup of foreign firms.
  - any change in the nature of ownership will automatically create a new legal entity (Chen et al. 2019)
  - immediate shareholding structure do not imply ultimate control structure, e.g., the existence of holding shells (Bai et al. 2020)
  - joint-venture (JV): a specific form of foreign firms
- Use surnames to identify Huaren.
  - extract surnames of all personnel members in foreign firms. ▸ See details
  - Huaren = Chinese surname + non-mainland ID (passport, HMT residency)
- Use the surname of the Huaren legal representative to proxy the firm's lineage
  - surnames of shareholders in foreign-registered firms not observable.
  - legal rep. unique in every firm. ▸ See details
  - legal rep. ≈ highest executive position. ▸ See details

Surname-based Lineage Connection

- The lineage connection between surname s and prefecture p is:

$$m_{sp} = \frac{E_{sp}}{\sum_p E_{sp}} \tag{1}$$

- where E_{sp} denotes the population of surname s in prefecture p.
- a measure of lineage connection not necessarily driven by surname size
- novelty of this measure:
  - practical: lack of data for emigration in China
  - methodological: pre-determined variable (Clark, 2015; Bai and Kung, 2020)

  ▸ See details
- assume surname distribution remains relatively stable from 1981 to 2005.
  - Hukou registration not formally relaxed until 2000s (Tombe and Zhu, 2019)
  - exclude ethnic minority provinces and prefectures that experience influx of internal immigrants: Beijing, Shanghai, Guangzhou, Shenzhen

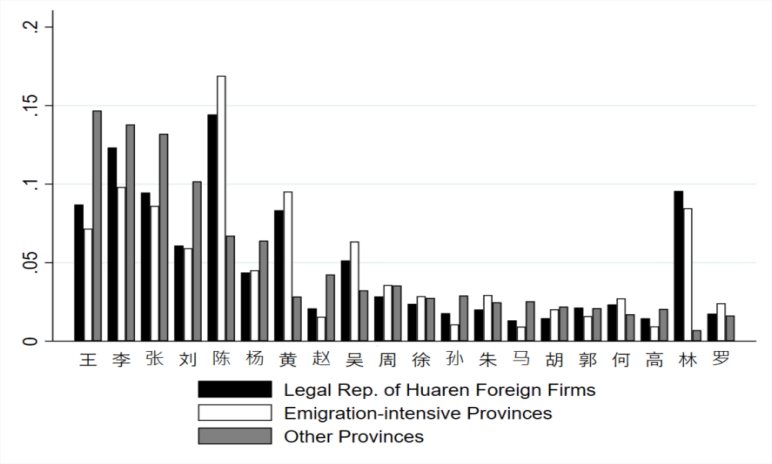


Figure 5. Distribution for Top 20 Surnames

Comparison with Other Data and Cross Validation

- Foreign Firm Entry vs. Official FDI Inflows. ▸ See details
- Firm registration data vs. Annual Survey of Industrial Firms. ▸ See details
- Huaren foreign firms vs. HMT firms. ▸ See details
- Huaren foreign firms in Fujian Province during the 1980s. ▸ See details
- Lineage Connection measures based on 2005 Census vs. based on firm registration data. ▸ See details

Empirical Strategy

$$Y_{spc} = \eta_{sp} + \theta_{sc} + \phi_{pc} + \beta \times Openness_{pc} \times m_{sp} + \lambda \times S_{spc} + \epsilon_{spc} \quad (2)$$

- surname s, prefecture p, cohort c (1981-1996)
- Y_{spc}: outcome variable, e.g. number of entrants, number of survived firms
- m_{sp}: lineage connection between surname s and prefecture p
- S_{spc}: firm stock in counts
- η_{sp}, ϕ_{pc}, ϕ_{pc}, controlling for:
  - geographic characteristics, entrepreneurial culture
  - place-based policies (and agglomerations)
  - surname-specific advantages
- $Openness_{pc}$: =1 if prefecture p has conducted openness reform in year c, =0 otherwise

China's Gradual Openness Reform: $Openness_{pc}$

- Special Economic Zone, 1980
  - Shenzhen, Zhuhai, Shantou, Xiamen
  - excluded; no pre-trends can be tested.
- Coastal Open City, 1984
  - Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, Beihai
- Coastal Open City, 1985: Yingkou
- Coastal Open City, 1987: Weihai
- Special Economic Zone, 1988: Hainan Province
- Special Economic Zone, 1990: Shanghai Pudong District
- Deng Xiaoping's Sour Tour, 1992: Comprehensive

Event Study

$$Y_{spc} = \eta_{sp} + \theta_{sc} + \phi_{pc} + \beta^{\tau} \times \sum_{\tau \in \{\leq -4, -3, ..0, ..3, \geq 4\}} Openness_{pc}^{\tau} \times m_{sp} + \lambda \times S_{spc} + \epsilon_{spc} \quad (3)$$

- surname s, prefecture p, cohort c (1981-1996)
- $\tau = c - \tau^{p}$ is the normalized time window relative to reform
- τ^{p} is the year of openness reform firstly launched in prefecture p
- $Openness_{pc}^{\tau} = 1$ if prefecture p in year c is τ year relative to reform, =0 otherwise
- Common trend assumption holds if β^{τ} insignificant for $\tau < 0$

Baseline Results

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Mean of Dep. Var.	0.075	0.061	0.031	0.438
Openness × Lineage Connection	1.767***	1.517***	0.218*	-0.333
	(0.574)	(0.527)	(0.399)	(0.825)
Adj.R^2	0.570	0.555	0.399	0.364
N	1344421	1344421	1344421	20633
Firm Stock	Y	Y	Y	Y
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

Testing Common Trend Assumption

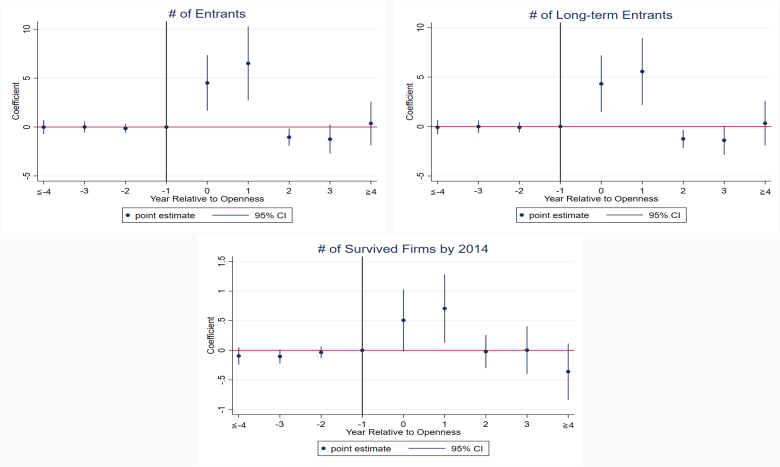
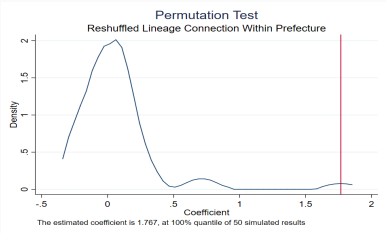


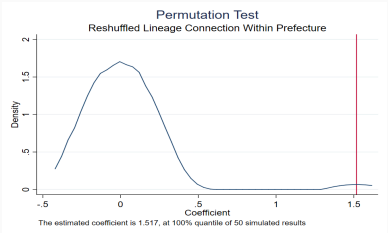
Figure 6. Estimates of β^{τ}

Robustness Checks

- Using alternative functional forms. ▸ See details
- Clustering standard errors at prefecture level. ▸ See details
- Using alternative lineage connection measures. ▸ See details
  - based on personnel members of domestic firms established before 1992 from firm registration data
- Excluding FDI-intensive prefectures. ▸ See details
- Excluding emigration-intensive prefectures. ▸ See details
- Excluding emigration-intensive surnames. ▸ See details
- Within Guangdong, Fujian, Zhejiang provinces. ▸ See details

Placebo Test: Reshuffling Lineage Connection Measures Within Prefecture





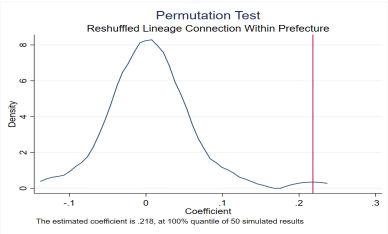
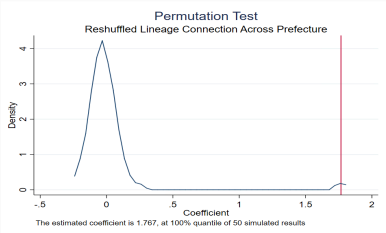
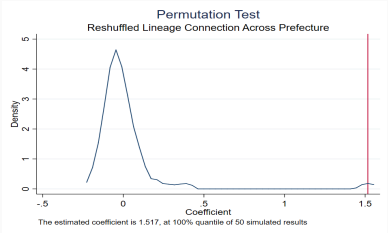


Figure 7. Placebo Test

Placebo Test: Reshuffling Lineage Connection Measures Across Prefecture





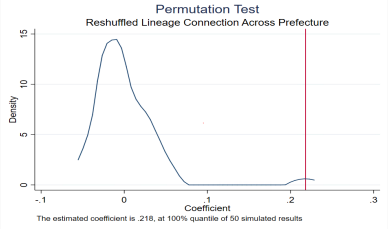


Figure 8. Placebo Test

Mechanism: Information Channel

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Panel A:				
Openness × Lineage Connection	-2.507	-1.814	-0.355	0.223
	(1.908)	(1.846)	(0.765)	(1.404)
Openness × Lineage Connection × Telephone Exchanger Capacity	1.074***	0.868**	0.161	-0.246
	(0.409)	(0.386)	(0.184)	(0.193)
Adj.R^2	0.454	0.437	0.244	0.317
N	666397	666397	666397	8825
Panel B:				
Openness × Lineage Connection	-9.356***	-7.201***	-0.407	8.830***
	(2.936)	(2.899)	(1.110)	(3.015)
Openness × Lineage Connection × Surname Fragmentation	11.963***	9.365***	0.719	-10.014
	(3.336)	(2.899)	(0.399)	(3.900)
Adj.R^2	0.409	0.395	0.208	0.295
N	1186664	1186664	1186664	12149
Panel C:				
Openness × Lineage Connection	7.424**	6.390**	0.702**	-0.568
	(3.063)	(2.712)	(0.282)	(0.823)
Openness × Lineage Connection × Pioneer Firm	-13.080**	-11.263**	-1.186**	-0.073
	(5.650)	(4.974)	(0.477)	(0.404)
Adj.R^2	0.465	0.458	0.321	0.554
N	2690048	2690048	2690048	24936
Additional Controls	Y	Y	Y	Y
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level. Additional controls include firm stocks at surname-prefecture-cohort level and pioneer firm dummy in panel C.

Mechanism: Contract Enforcement

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Panel A:				
Openness × Lineage Connection	8.795***	7.633**	1.034***	-0.258
	(3.363)	(2.997)	(0.379)	(0.833)
Openness × Lineage Connection × Branch Firm	-15.823***	-13.749***	-1.850***	-0.961
	(6.255)	(5.547)	(0.676)	(0.936)
Adj.R^2	0.452	0.444	0.300	0.566
N	2690048	2690048	2690048	23274
Panel B:				
Openness × Lineage Connection	-1.864*	-1.650*	-0.193*	-0.922
	(1.043)	(0.928)	(0.099)	(1.284)
Openness × Lineage Connection × Labor Intensive	4.990**	4.433**	0.535**	-0.031
	(2.466)	(2.226)	(0.257)	(0.328)
Adj.R^2	0.665	0.645	0.345	0.567
N	2690048	2690048	2690048	18799
Panel C:				
Openness × Lineage Connection	-2.331*	-2.030**	-0.256**	-0.161
	(1.156)	(1.010)	(0.104)	(0.814)
Openness × Lineage Connection × Intermediate Goods Contract Intensive	6.196**	5.397**	0.693***	-0.619**
	(2.736)	(2.427)	(0.258)	(0.292)
Adj.R^2	0.688	0.673	0.376	0.545
N	2690048	2690048	2690048	25245
Additional Controls	Y	Y	Y	Y
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level. Additional controls include firm stocks at surname-prefecture-cohort level and branch firm dummy in Panel A, labor intensive dummy in Panel B, Intermediate good contract intensive dummy in panel C.

Lineage-driven Foreign Entrants as IV for Huaren FDI

$$\widehat{Entry_{spc}} = \hat{\beta} \times Openness_{pc} \times m_{sp} \tag{4}$$

$$\overline{Entry_p} = \sum_{s,c=1981/1996} \widehat{Entry_{spc}} \tag{5}$$

$$\hat{FDI}_p = \alpha \times \overline{Entry_p} + \lambda \times X_p + \epsilon_p \tag{6}$$

$$\pi_p = \alpha \times \hat{FDI}_p + \lambda \times X_p + \epsilon_p \tag{7}$$

- following Sequeira et al. (2019)
  - isolate lineage-driven FDI that is orthogonal to geographic characteristics, entrepreneurial culture, place-based policies, surname-specific advantages, etc.
- $\hat{\beta}$ estimated from Equation 2

$$\widehat{Entry_{spc}} = \hat{\beta} \times Openness_{pc} \times m_{sp} \tag{8}$$

$$\overline{Entry_p} = \sum_{s,c=1981/1996} \widehat{Entry_{spc}} \tag{9}$$

$$F\hat{D}I_p = \alpha \times \overline{Entry_p} + \lambda \times X_p + \epsilon_p \tag{10}$$

$$\pi_p = \alpha \times F\hat{D}I_p + \lambda \times X_p + \epsilon_p \tag{11}$$

- $Entry_{spc}$: number of entrants
- $F\hat{D}I_p$: aggregated registered capital of Huaren Foreign Firms active by 2014 (in log)
- π_p: measures of long-term economic development
- X_p is a vector of control variables: log GDP per capita in 1996, years since openness reform, distance to sea, surname fragmentation, SEZ dummy, Coastal Open City dummy, province FEs.

Long-term Spillovers of Huaren FDI on Economic Development

	Log GDP per capita (2014)	Log Number of Patents (2014)	Log Average Wage (2014)	Log Non-Huaren FDI (2014)	Log Import (2017)	Log Export (2017)
	(1)	(2)	(3)	(4)	(5)	(6)
Log Huaren FDI	0.704***	0.937***	0.029*	1.139***	1.047***	0.962***
	(0.138)	(0.184)	(0.015)	(0.258)	(0.246)	(0.225)
Anderson-Rubin Wald Test F Statistics	45.543***	34.207***	3.413*	15.111***	12.675***	14.482***
N	242	242	238	226	241	241
Controls	Y	Y	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level. Controls include log GDP per capita in 1996, years since openness reform, distance to sea, surname fragmentation, SEZ dummy, Coastal Open City dummy, province FEs.

Conclusions & Follow-ups

- Document quantitatively for the first time the prevalence of Huaren foreign firms in China.
- Lineage connection lowers entry barriers by overcoming information frictions and smoothing contract enforcement.
- Lineage-driven FDI leads to long-term economic benefits.
- Implications: Developing countries have comparative advantage to make use of informal institutions.
- More follow-up questions: transition from informal to formal institution during development process.

Thank you

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Backup Slides

Registered Capital vs. Other Economic Outcomes

	Log Registered Capital	
	(1)	(2)
Log Employment	0.025***	0.018***
	(0.003)	(0.004)
Log Assets	0.976***	0.416***
	(0.003)	(0.004)
Log Sales	-0.124***	-0.005
	(0.003)	(0.003)
R^2	0.710	0.946
N	15065	124964
Year Fixed Effects	Y	Y
Industry Fixed Effects	Y	N
Firm Fixed Effects	N	Y

Notes: Samples are foreign firms according to ownership code from Annual Survey of Industrial Firms (ASIF) ,1998-2007. Industry is at 2-digit level. ******* denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at firm level.

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Algorithm to Extract Surname

- Names of key personnel members in foreign firms:
  - English entries: e.g. "Fanghao Chen" (7.51%)
  - Chinese entries: e.g. " **陈方豪**" (91%)
  - mixed entries: e.g. " **陈方豪** (Fanghao Chen)" (1.49%)
- Construct a English spelling-Chinese spelling mapping based on mixed entries.
  - e.g. 1 Zhang =0.8 **张** + 0.2 **章** (an illustrative case)
- Rule out non-Chinese surnames using Chinese spelling.
  - e.g. Japanese, Korean, transliterated names.
- Manually process highly-unstructured entries.

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Personnel Structure of Foreign Firms

	Percentage
Has a legal representative	96.84%
Has a chairman on the board	23.90%
Has a CEO	20.57%
Has more than one legal representative	1.35%
Has more than one chairman	4.78%
Has more than one CEO	1.24%

Notes: The samples are all personnel working in foreign firms ever existed from 1985 to 2014.

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Legal Representative vs. Top Executive Position within Foreign Firms

	Is Top Executive	Not Top Executive	Total
Is Legal Representative	1334367	94956	1429323
Not Legal Representative	458908	1065118	1524026
Total	1793275	1160074	2953349

Notes: The samples are all personnel working in foreign firms ever existed from 1985 to 2014. Conditional on being a legal representative, a person has 93.35%(=1334367/1429323) chance of holding a top executive position within a foreign firm. Conversely, the chance is reduced to 74.41% (=1334367/1793275) for one's being a legal representative given that he or she holds a top executive position

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Bai and Kung (2020)

Table A1: Correlation of historical surname share with that in the 2005 census

	Surname share in total population				
	(1) All sur-names	(2) Top-100 surnames	(3) Non-top-100 surnames	(4) All sur-names	(5) All sur-names
Surname share in CBDB	1.134***	1.202***	0.934***	1.176***	1.222***
	(0.194)	(0.241)	(0.136)	(0.223)	(0.260)
Surname rank				0.040	0.191
				(0.029)	(0.154)
Squared term of surname rank					-0.029
					(0.024)
Observations	493	100	393	493	493
R-squared	0.774	0.742	0.347	0.778	0.781

Note: * significant at 10%; ** significant at 5%; *** significant at 1%; robust standard errors in parentheses.

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Table A2: Correlation of historical surname share with that in the 2005 census

	Surname share in total population of each prefecture			
	(1)	(2) Small sample size	(3) Medium sample size	(4) Large sample size
Surname share in CBDB	0.375***	0.255***	0.442***	0.637***
	(0.031)	(0.038)	(0.042)	(0.041)
Observations	52,751	17,748	17,748	17,255
R-squared	0.284	0.191	0.339	0.480

Note: * significant at 10%; ** significant at 5%; *** significant at 1%; robust standard errors in parentheses.

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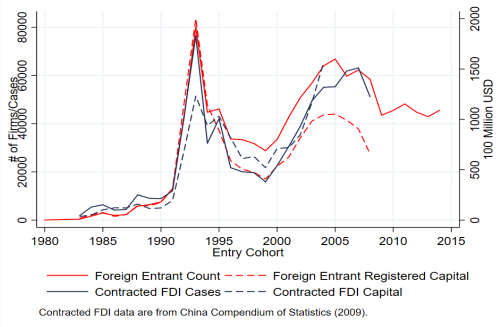
Foreign Firm Entry vs. Official FDI Inflows



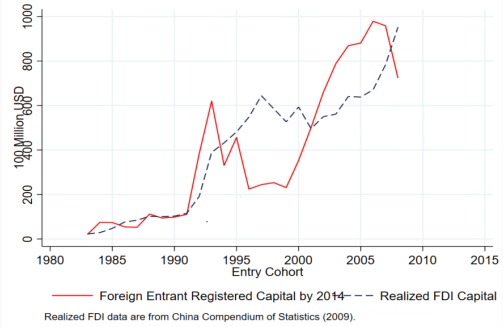


Figure 9. Foreign Firm Entry vs. Official FDI Inflows

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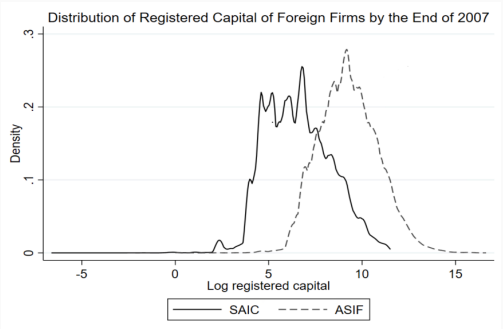
Firm Registration Data vs. Annual Survey of Industrial Firms



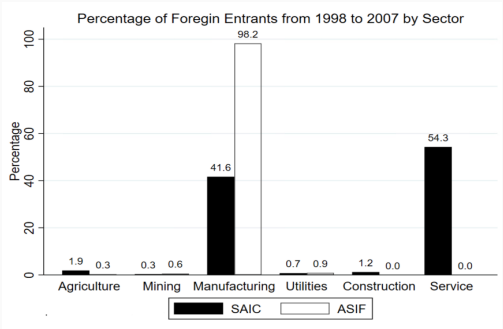


Figure 10. Comparing two popular data sources

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Firm Registration Data vs. Annual Survey of Industrial Firms

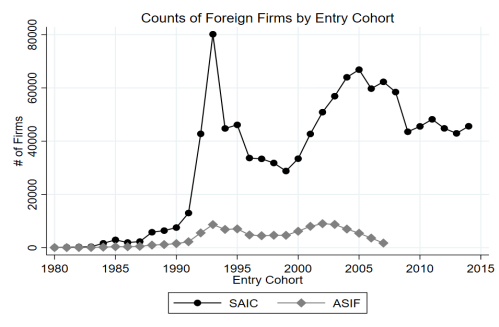

Figure 11. Comparing two popular data sources

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Huaren Foreign Firms vs. HMT Firms

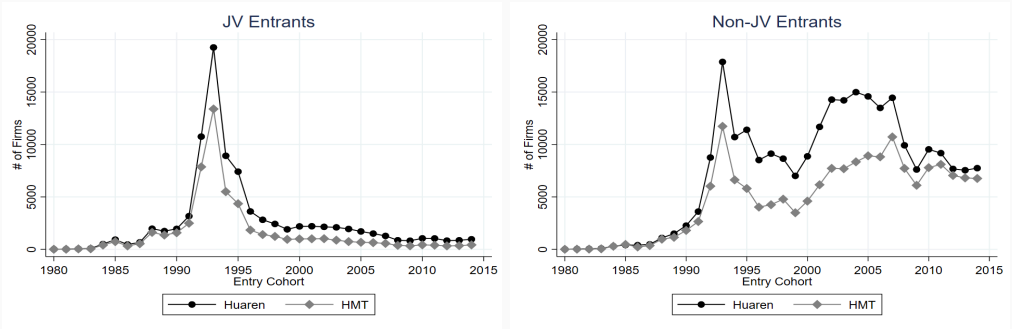

Figure 12. Huaren Foreign Firms vs. HMT Firms

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Huaren Foreign Firms in Fujian Province during the 1980s

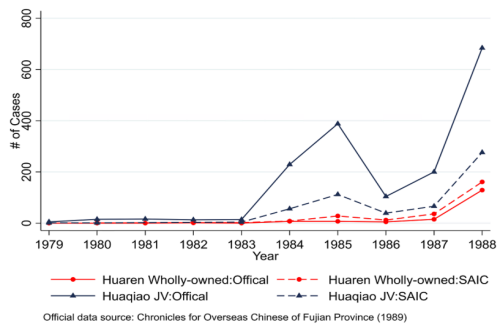

Figure 13. Huaren Foreign Firms vs. HMT Firms

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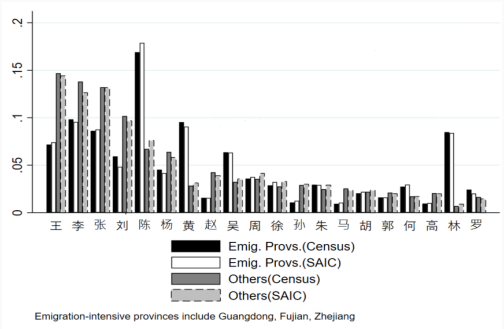
Lineage Connection Measure: 2005 Census vs. Firm Registration data



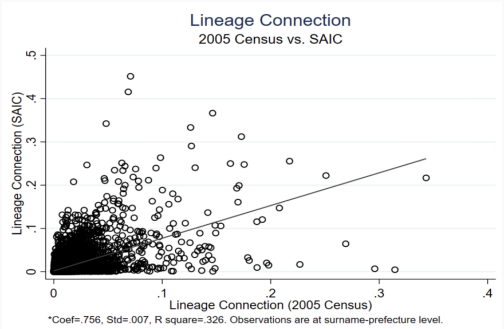


Figure 14. Lineage Connection: Census vs. SAIC

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Alternative Function Forms

	Entry Dummy	Survival-adjusted Entry Dummy	Survival Dummy	arcsinh(Number of Entrants)	arcsinh(Survival-adjusted Number of Entrants)	arcsinh(Number of Survived Firms)
	(1)	(2)	(3)	(4)	(5)	(6)
Openness × Lineage Connection	0.766***	0.672***	0.165***	0.924***	0.802***	0.167***
	(0.112)	(0.102)	(0.053)	(0.156)	(0.139)	(0.066)
Adj.R^2	0.383	0.373	0.255	0.563	0.547	0.361
N	1344421	1344421	1344421	1344421	1344421	1344421
Surname-Prefecture FEs	Y	Y	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Clustering Standard Errors at Prefecture Level

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	1.767***	1.517***	0.218*	-0.333
	(0.493)	(0.456)	(0.119)	(0.735)
Adj.R^2	0.570	0.555	0.399	0.364
N	1344421	1344421	1344421	20633
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Using Alternative Lineage Connection Measure

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	2.874***	2.511***	0.463	-0.111
	(0.946)	(0.903)	(0.403)	(0.537)
Adj.R^2	0.612	0.596	0.445	0.373
N	539376	539376	539376	18324
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Excluding FDI-intensive Prefectures

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	1.534***	1.308***	0.172**	-1.870***
	(0.440)	(0.380)	(0.072)	(1.373)
Adj.R^2	0.451	0.435	0.230	0.400
N	1272091	1272091	1272091	11858
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Excluding Emigration-intensive Prefectures

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	1.447***	1.207***	0.007	-1.942***
	(0.472)	(0.432)	(0.053)	(0.684)
Adj.R^2	0.493	0.467	0.271	0.396
N	1167420	1167420	1167420	13208
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Excluding Emigration-intensive Surnames

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	1.733***	1.480***	0.258***	0.023
	(0.332)	(0.292)	(0.092)	(0.884)
Adj.R^2	0.409	0.394	0.208	0.294
N	1250024	1250024	1250024	12149
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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Within Guangdong, Fujian, Zhejiang Provinces

	Number of Entrants	Survival-adjusted Number of Entrants (last ≥ 4 years)	Number of Survived Firms (2014)	Survival Ratio Conditional on Entry (2014)
	(1)	(2)	(3)	(4)
Openness × Lineage Connection	6.001**	5.152**	0.694	-0.953
	(2.476)	(2.186)	(0.532)	(1.261)
Adj.R^2	0.690	0.682	0.491	0.337
N	181447	181447	181447	9678
Surname-Prefecture FEs	Y	Y	Y	Y
Surname-Cohort FEs	Y	Y	Y	Y
Prefecture-Cohort FES	Y	Y	Y	Y

Notes: ***, **, * denote significance level at 1%, 5%, and 10%, respectively. Standard errors are clustered at surname-prefecture level.

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