Inclusive Origins of Rapid Industrialization: the Persistent Effects of the Colonial Bank Networks on Taiwan's Economic Miracle

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Introduction

- What are the crucial factors for the rapid industrialization in East Asian countries after WW2?
  - Centralized governments and professional bureaucracy (eg. Amsden and Chu, 2003; Wade, 2004)
  - "A mobilization of resources" (Krugman, 1994)
  - Inclusive economic institutions: institutions broadly encouraging participants in an economy to produce and make investments (Acemoglu and Robinson, 2012)

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- We focus on the branch networks of commercial banks and analyze the effects of prewar bank branches on the postwar rapid industrialization in Taiwan.

Inclusive Banking Institution Established in Colonial Taiwan

- An inclusive banking institution had been established during the prewar Japanese colonial period (1895-1945).

- The decentralized, bottom-up banking system in colonial Taiwan allowed local elites to establish commercial banks to service local farmers and merchants to facilitate investments.

- Several commercial banks were established and competed with each other by expanding bank branches for collecting private savings and letting branch officers to make loan decisions.

Our Empirical Findings

- Use the geographic variation in bank branches across townships to evaluate the impacts of this inclusive banking system.
    - The areas with more bank branches in the colonial period persistently have more bank branches in the postwar era.
    - These areas also have more industrial activities, such as a higher number of manufacturing establishments or a larger volume of manufacturing output.
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- Use firm-level data to examine the channels of the financial institution in promoting economic development.
  - Banks facilitated capital formation of firms.
  - Firms with higher total factor productivity tended to be selected to get loans.
  - No robust evidence that external funds induced manufacturers to improve total factor productivity

Related Literature

- Institutional nature of rapid industrialization: Amsden and Chu (2003); Amsden (1992); Rodrik (1995); Wade (2004)
- Financial deepening: Jayaratne and Strahan (1996), Burgess and Pande (2005), and Nguyen (2019)
- Entry pattern of retail chains: Holmes (2011); Igami (2011); Jia (2008); Nishida (2015); Seim (2006).
- Persistent effects of institution: Acemoglu, Johnson, and Robinson (2001, 2002); Dell (2010); Dell and Olken (2020); Nunn (2020); Voth (2021)

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Commercial Banks in Colonial Taiwan

- The Japanese colonial government promoted the decentralized commercial bank system that allowed privately-owned, profit-oriented commercial banks to expand their branches to compete for market shares of local lending market.

- Five local commercial banks were established and operated by the Taiwanese elites between 1905 and 1919: First Commercial and Industrial Bank (第一商工, henceforth First Bank), Chang Hwa Bank (彰化), Chiayi Bank (嘉義), Nitaka Bank (新高), Hua Nan Bank (華南).
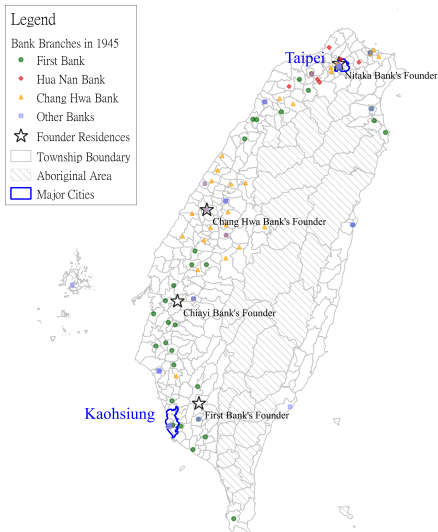
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    - Except Hua Nan Bank, these banks were founded by local political elites to service Taiwanese farmers and entrepreneurs in colonial Taiwan.
    - First Bank became the largest commercial banks in the 1920s by acquiring Chiayi Bank and Nitaka Bank.

Locations of Bank Branches in 1945

- 143 domestic bank branches at the end of the colonial period, including 89 branches of these local commercial banks.

Legend

Bank Branches in 1945
- First Bank
- Hua Nan Bank
- Chang Hwa Bank
- Other Banks
- ☆ Founder Residences
- Township Boundary
- Aboriginal Area
- Major Cities

Commercial Banks in Postwar Taiwan

- The Chinese Nationalist (KMT) government partially nationalizing the commercial banks after 1945.
- Although the operation of bank businesses was highly regulated in postwar Taiwan, the competitive nature of the colonial bank system remained.
- Not only the original bank branch networks persisted to work, but also bank branch officers, as they did during the colonial era, were allowed to make loan decisions at the local level.
- In the 1950s, the credit supply of banks was restrictive because the government, in fear of hyperinflation, maintained a credit-contraction policy.

Reforms in the late 1950s and the early 1960s

- Several reforms were implemented to increase the credit supply to the private sector around 1960.
  - Deregulation of foreign exchange to encourage exports in 1958.
  - "Nineteen-point Reform Program" (十九點財經改革方案措施) in 1959, a reform agenda aiming to facilitate private investments, either domestic or foreign.
  - Legislated "Statute for the Encouragement of Investment" (獎勵投資條例) in 1960.

Regulation and Deregulation on Branch Expansion

- Most banks were at least partially owned by the government until 1991. As the government started to deregulate the entry of new banks, 16 new private commercial banks entered in 1991–1993. The number of banks more than doubled in the 1990s.
- Although few new banks entered before 1991, incumbent banks were allowed to expand branch networks under some regulations.
  - Originally, each bank could at most opened two or three branches a year in the 1980s.
  - After 1993, they could open at most five branches a year.

- The three local commercial banks established and survived in the colonial period had the largest branch numbers before the 1990 deregulation.

Bank Branch Data

- Locations of postwar bank branches were manually collected by Huang (2022), mainly based on "Organizational Change of Financial Institutes" (金融機構組織動態) published by the Central Bank of Taiwan monthly.

- Locations of bank branches in the colonial period are mostly collected from anniversary books of bank history, including Hua Nan Bank (1987), Chang Hwa Bank (1967), and First Bank (1999).
  - We identify the location of each bank branch in October 1945.

Census Data

- Township-level and firm-level dataset is based on Industrial and Service Census conducted by Directorate General of Budget, Accounting and Statistics in 1976, 1981, 1986, 1991, 1996, and 2001.

- The censuses record each establishment's input and output information for the census year: employment, wage bills, revenue, book value of the capital stock, and expenditures on several types of intermediate inputs.

- Due to confidential restrictions, we cannot constructed firm-level panel data as we cannot match the same firm across censuses.

Main Variables: Township Level

	1976	1981	1986	1991	1996	2001
CB_j(Colonial Branches)	1.67	1.67	1.67	1.67	1.67	1.67
	(2.21)	(2.21)	(2.21)	(2.21)	(2.21)	(2.21)
BN_{jt}(Branch Number)	2.22	2.96	3.52	4.50	7.45	9.33
	(5.739)	(6.927)	(8.067)	(10.29)	(17.35)	(21.02)
Pop_{jt}(Population)	47193.52	49846.45	54271.82	57162.46	59693.95	62119.35
	(61183.8)	(58569.7)	(70410.9)	(76455.2)	(78245.6)	(82079.2)
N_{jt}^{ind}(Ind. Establishment)	1190.39	1446.16	1739.66	2115.69	3599.73	2690.98
	(1910.7)	(2322.9)	(2922.9)	(3695.1)	(6241.9)	(4405.4)
N_{jt}^{manu}(Mfg. Establishment)	197.65	257.04	337.07	413.05	443.82	421.90
	(380.4)	(464.2)	(612.6)	(767.7)	(825.6)	(775.2)
Y_{jt}^{ind}(Ind. Output)	7374.33	8537.54	21287.63	37920.10	89232.72	76564.05
	(27174.1)	(40648.4)	(73092.1)	(124277.1)	(296753.9)	(265904.0)
Y_{jt}^{manu}(Mfg. Output)	5215.39	5316.06	14709.42	22574.68	45357.40	38481.47
	(17214.2)	(24047.9)	(38881.4)	(55272.4)	(114712.6)	(96787.5)
N_{jt}^{loan}(Establishment w/ Loan)	94.76	149.44	157.34	241.27	672.46	487.76
	(206.1)	(342.2)	(391.2)	(533.2)	(1414.7)	(897.3)
$Loan_{jt}$%(Ratio of Est. w/ Loan)	0.06	0.08	0.07	0.09	0.15	0.15
	(0.0551)	(0.0597)	(0.0520)	(0.0681)	(0.0501)	(0.0720)
N	365	365	365	365	365	365

This table reports township-level means. Standard deviations are in parentheses. Y_{ij}^{ind} and Y_{ij}^{manu} are in 2016 NTD in millions.
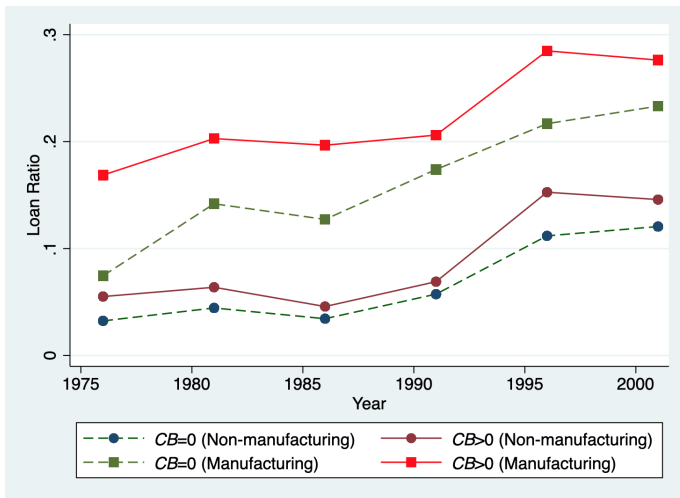
This figure presents group means of percentages of firms which got loans.

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$$y_j^{2001} = \beta CB_j + \gamma X_j + d_{County} + \epsilon_j$$

scatter plots of key variables

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- We also investigate the growth of these economic outcomes between 1976 and 2001.

$$\Delta y_j = y_j^{2001} - y_j^{1976} = \beta CB_j + \gamma X_j + d_{County} + \epsilon_j$$

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- To account for spatial correlation, we follow Kelly (2020) to compute the standard errors.

OLS Estimates for Township-Level Outcomes in 2001

Outcome	(1)	(2)	(3)	(4)	(5)	(6)	(7)
BN_{2001}(Branch Number)	4.850***	3.430***	3.447***	3.432***	3.439***	3.465***	1.788**
	(0.643)	(0.655)	(0.666)	(0.665)	(0.689)	(0.717)	(0.740)
R-squared	0.567	0.598	0.599	0.600	0.605	0.606	0.526
Controls:							
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Trends $f(\lambda_j^x, \lambda_j^y)$	No	No	Linear	Quadric	Quadric	Quadric	Quadric
Observations	365	314	314	314	266	222	304
Sample	Base	Base	Base	Base	West1	West2	$CB_j \leq 6$

All regressions include county fixed effects. The standard errors are based on Kelly(2020) to adjust for two-dimensional spatial autocorrelation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

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N_{2001}^{manu}(Mfg. Establishment)	191.7***	231.0***	227.2***	221.6***	218.9***	232.1***	168.7***
	(60.20)	(68.31)	(68.37)	(66.5)	(68.45)	(73.94)	(49.64)
R-squared	0.447	0.533	0.535	0.541	0.531	0.544	0.464
Y_{2001}^{manu}(Mfg. output)	12354.9***	9731.5***	9441.1***	9091.1**	8629.7**	9767.8**	11417.7***
	(5302.6)	(4389.5)	(4407.5)	(4450.0)	(4506.8)	(4698.4)	(4966.3)
R-squared	0.424	0.372	0.374	0.380	0.367	0.401	0.371
Controls:							
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N_{2001}^{ind}(Ind. Establishment)	1188.4***	1007.2***	1004.7***	994.5***	984.3***	992.3***	633.8***
	(166.1)	(207.5)	(210.3)	(205.8)	(216.7)	(226.4)	(161.5)
R-squared	0.635	0.636	0.637	0.638	0.638	0.644	0.543
Y_{2001}^{ind}(Ind. Output)	31695.4***	15688.0***	15437.9***	15059.2***	14593.7***	15894.7***	15010.0***
	(15752.1)	(5259.6)	(5364.8)	(5189.5)	(5345.1)	(5748.7)	(5597.4)
R-squared	0.471	0.459	0.460	0.466	0.454	0.490	0.430
Controls:							
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Pop_{2001}(Population)	21332.8***	22243.7***	21992.9***	21750.9***	21419.8***	21456.2***	13832.9***
	(4226.3)	(4781.1)	(4726.1)	(4534.0)	(4650.3)	(4602.2)	(3448.2)
R-squared	0.611	0.674	0.675	0.677	0.674	0.686	0.616
Controls:							
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes	Yes	Yes
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Elite-Distance Instrument

- Unobserved factors ϵ_j in the regression equation may correlate with CB_j and bias the OLS estimates.
- Distance to headquarters has been used as an instrument in many empirical analysis of retail chains (eg. Jia 2008), but the location of headquarters could be endogenous as well.
- We propose a novel instrument: the nearest distance to the residences of bank founders, who had been local political elites since the pre-colonial period.
- Four local elites (founding chairpersons) are considered: map
  - 王朝文 (Chiayi Bank): 太保 (Tai-Pao)
  - 李景盛 (Nitaka Bank): 大稻埕 (Twatutia)
  - 吳汝祥 (Chang Hwa Bank): 彰化 (Chang-Hwa)
  - 藍高川 (First Bank): 里港 (Li-Kang)

IV Estimates for Township-Level Outcomes in 2001

Outcome	(1)	(2)	(3)	(4)	(5)
BN_{2001}(Branch Number)	6.200***	4.761***	5.411***	4.664***	3.878***
	(1.180)	(1.158)	(1.771)	(1.148)	(1.187)
R-squared	0.555	0.578	0.555	0.575	0.601

Controls:					
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes
Linear Spatial Trends	No	No	Yes	No	No
Sample	Base	Base	Base	No Founder Township	No Founder County
Excluded instrument's F	23.39	16.30	8.24	16.28	10.18
Observations	365	314	314	311	236

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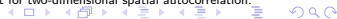
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N_{2001}^{manu}(Mfg. Establishment)	313.8***	365.3***	375.0***	352.8***	329.9***
	(88.46)	(95.50)	(134.69)	(86.84)	(91.62)
R-squared	0.374	0.470	0.460	0.489	0.528
Y_{2001}^{manu}(Mfg. Output)	20000.2***	13706.3**	13280.3	13000.1**	10320.8
	(8149.2)	(8282.3)	(14783.4)	(8128.2)	(4760.1)
R-squared	0.406	0.363	0.366	0.366	0.358
Controls:					
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes
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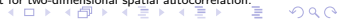| Outcome	(1)	(2)	(3)	(4)	(5)
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N_{2001}^{ind}(Ind. Establishment)	1593.5***	1407.9***	1592.8***	1376.3***	1241.9***
	(306.9)	(330.5)	(497.9)	(318.2)	(315.1)
R-squared	0.610	0.602	0.564	0.609	0.648
Y_{2001}^{ind}(Ind. Output)	40310.4***	22181.1***	22718.9*	21301.1***	18818.9**
	(17686.5)	(9494.9)	(16052.2)	(9490.2)	(10900.6)
R-squared	0.468	0.446	0.444	0.450	0.444
Controls:					
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes
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R-squared	0.555	0.578	0.555	0.575	0.601
N_{2001}^{manu}(Mfg. Establishment)	313.8***	365.3***	375.0***	352.8***	329.9***
	(88.46)	(95.50)	(134.69)	(86.84)	(91.62)
R-squared	0.374	0.470	0.460	0.489	0.528
Y_{2001}^{manu}(Mfg. Output)	20000.2***	13706.3**	13280.3	13000.1**	10320.8
	(8149.2)	(8282.3)	(14783.4)	(8128.2)	(4760.1)
R-squared	0.406	0.363	0.366	0.366	0.358
N_{2001}^{ind}(Ind. Establishment)	1593.5***	1407.9***	1592.8***	1376.3***	1241.9***
	(306.9)	(330.5)	(497.9)	(318.2)	(315.1)
R-squared	0.610	0.602	0.564	0.609	0.648
Y_{2001}^{ind}(Ind. Output)	40310.4***	22181.1***	22718.9*	21301.1***	18818.9**
	(17686.5)	(9494.9)	(16052.2)	(9490.2)	(10900.6)
R-squared	0.468	0.446	0.444	0.450	0.444
Pop_{2001}(Population)	32560.0***	32712.5***	35349.5***	32446.1***	28717.6***
	(7394.0)	(7381.9)	(11366.8)	(7241.3)	(7594.7)
R-squared	0.557	0.630	0.606	0.634	0.677
Controls:					
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes
Linear Spatial Trends	No	No	Yes	No	No
Sample	Base	Base	Base	No Founder Township	No Founder County
Excluded instrument's F	23.39	16.30	8.24	16.28	10.18
Observations	365	314	314	314	236

All regressions include county fixed effects. The standard errors are based on Kelly(2020) to adjust for two-dimensional spatial autocorrelation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Loan Accessibility

Outcome	(1)	(2)	(3)	(4)	(5)	(6)
N_{2001}^{loan}(No. of Firms Getting Loans)	228.8***	227.8***	196.3***	313.3***	332.1***	311.5***
	(31.40)	(32.09)	(32.36)	(47.28)	(45.94)	(44.83)
$Loan\%_{2001}$(Percentage of Firms Getting Loans)	0.00468***	0.00353**	0.00561***	0.0328***	0.0134	0.0127
	(0.00145)	(0.00138)	(0.00159)	(0.00984)	(0.0106)	(0.0164)
Estimator	OLS	OLS	OLS	IV	IV	IV
Controls:						
Linear Spatial Trends	No	Yes	Yes	No	Yes	Yes
Dummy of Aboriginal Area	No	No	Yes	No	No	Yes
Number of Manu. Employees in 1938	No	No	Yes	No	No	Yes
Observations	365	365	318	365	365	318

All regressions include county fixed effects. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Summary of the Findings

- Under either OLS or IV, the estimates for the coefficients of the colonial branch number are significantly positive, indicating a long-term effect on various economic outcomes.

- Historical controls tend to substantially lower the size of the persistent effects.

- The IV estimates are not sensitive to the inclusion of linear spatial trends.

- The magnitude of IV estimates are larger than OLS, implying negative selection in OLS.

- We find similar estimation results on the growth of economic outcomes between 1976 and 2001. growth of the economic outcomes

Robustness of the Results

- More historical controls:
  - Distance to rail station in 1908
  - Population in 1905
  - Land productivity in 1903
  - Labor productivity in 1903
  - Manufacturing labor share in 1903
- Alternative instrumental variables:
  - In addition to the founding chairperson, we include all directors (取締役) and supervisor (監査役) at the commencement of business to compute the "elite distance". map2
  - We also compute the distance to each bank separately.

- Chang Hwa Bank has larger impacts than other banks do.
- Chang Hwa Bank had experienced less government control in the postwar period.
  - Equality share held by government in 1947:
    - First Bank: 74.49%
    - Chang Hwa Bank: 56.25%
    - Hua Nan Bank: 63.72%
  - In the three decades after WW2, each of the chairmen of Chang Hwa Bank came from a local elite family (霧峰林家), while the chairmen of the other banks are politicians with connections with KMT in the mainland (黃朝琴、劉啟光).

IV Estimates for Township-Level Outcomes, by Bank

	(1) BN_{2001}	(2) N_{2001}^{manu}	(3) Y_{2001}^{manu}	(4) N_{2001}^{ind}	(5) Y_{2001}^{ind}	(6) Pop_{2001}
$CB^{Changhwa}$	4.507	825.8*	87918.8**	2201.4	85606.8	34052.9
	(8.275)	(443.9)	(42475.5)	(1671.2)	(74865.8)	(33805.6)
CB^{First}	-3.532	-471.3**	-15475.5	-1021.9	-49467.9	-20188.7
	(3.902)	(214.7)	(24160.9)	(865.4)	(41966.4)	(16952.0)
CB^{Huanan}	31.81	37.66	-104806.3	5079.2	166783.6	119706.6
	(28.99)	(1509.6)	(147244.9)	(5798.6)	(279591.0)	(113175.3)
Controls:						
Dummy of Aboriginal Area	Yes	Yes	Yes	Yes	Yes	Yes
Linear Spatial Trends	Yes	Yes	Yes	Yes	Yes	Yes
Distance to Rail Station 1908	Yes	Yes	Yes	Yes	Yes	Yes
Population 1905	Yes	Yes	Yes	Yes	Yes	Yes
Land Productivity 1903	Yes	Yes	Yes	Yes	Yes	Yes
Labor Productivity 1903	Yes	Yes	Yes	Yes	Yes	Yes
Manu. Labor Share 1903	Yes	Yes	Yes	Yes	Yes	Yes
Mean	9.33	224.26	33266.08	1500.28	69189.72	62119.35
Observations	298	298	298	298	298	298
R^2	0.456	0.470	0.154	0.208	0.426	0.394

Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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The Channels of Bank Loans in Assisting Firms

- Use firm-level data from the industrial censuses to examine the channels of bank loans in assisting firm performance

$$y_{ijst} = \phi Loan_{ijst} + \zeta X_{ijst} + \mu_{ijst}$$

where i, j, s, t index firms, townships, 2-digit industry codes, and census years, respectively.

  - $Loan_{ijst}$ is a dummy variable to indicate whether the firm has external loans.
  - The outcome variables y_{ijst} include:
    - log firm output,
    - log capital input,
    - log capital input per unit of labor input,
    - log labor productivity,
    - log total factor productivity.

Potential Channels

- Capital formation: Loans induce more investment.

- Improvement on firm TFP (total factor productivity): Loans may improve management or production knowledge.

- Selection on TFP: More productive firms are easier to obtain loans to survive.

IV for Obtaining the Causal Effect

- We follow Gregg (2020 *AER*) to construct a firm-level instrument for $Loan_{ijst}$ in the same spirit of Hausman instrument: the relative difference in labor productivity between firms with loans and firms without loans in a given township, industry, and year.

- Formally, the instrument is constructed as

$$(\frac{\text{mean}(Y/L)_{Loan} - \text{mean}(Y/L)_{NoLoan}}{\text{mean}(Y/L)_{NoLoan}})_{-i}$$

for each township, industry, year cell, excluding the firm in question $(-i)$.

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  for each township, industry, year cell, excluding the firm in question $(-i)$.

- Intuitively, the instrument represents firms' advantages in a given region and industry. In townships which the quantity was large, more firms tended to search funds and get loans.

	(1)	(2)	(3)	(4)	(5)
	$log(Y)$	$log(K)$	$log(K/L)$	$log(Y/L)$	tfp
Panel A. OLS: Manufacturing					
Loan	1.189***	1.074***	0.218***	0.334***	0.0402***
	(0.00435)	(0.00390)	(0.00259)	(0.00215)	(0.000771)
Observations	656625	657257	657040	656568	655949

	(1)	(2)	(3)	(4)	(5)
Panel C. IV:Manufacturing					
Loan	1.822***	1.924***	0.441***	0.326***	-0.0754***
	(0.108)	(0.100)	(0.0666)	(0.0641)	(0.0232)
Observations	627187	627631	627631	627187	626607

All regressions include county fixed effects, year fixed effects, industry fixed effects, the township number of firms and the township number of population. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Firm-Level Estimates

	(1) $log(Y)$	(2) $log(K)$	(3) $log(K/L)$	(4) $log(Y/L)$	(5) tfp
Panel A. OLS: Manufacturing					
Loan	1.189***	1.074***	0.218***	0.334***	0.0402***
	(0.00435)	(0.00390)	(0.00259)	(0.00215)	(0.000771)
Observations	656625	657257	657040	656568	655949
Panel B. OLS: Non-Manufacturing					
Loan	0.629***	0.562***	0.202***	0.271***	0.114***
	(0.00179)	(0.00189)	(0.00147)	(0.00106)	(0.000706)
Observations	3735340	3743797	3743351	3735051	3701314
Panel C. IV:Manufacturing					
Loan	1.822***	1.924***	0.441***	0.326***	-0.0754***
	(0.108)	(0.100)	(0.0666)	(0.0641)	(0.0232)
Observations	627187	627631	627631	627187	626607
Panel D.IV:Non-Manufacturing					
Loan	0.951***	0.861***	0.382***	0.475***	0.0997***
	(0.0415)	(0.0395)	(0.0270)	(0.0223)	(0.0124)
Observations	3541242	3549204	3549204	3541242	3508937

All regressions include county fixed effects, year fixed effects, industry fixed effects, the township number of firms and the township number of population. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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# Conclusion

- Inclusive banking institutions play an important role in the postwar rapid industrialization in Taiwan.

- The colonial financial institution have persistently impacted how the postwar government exercised its state capacity through the banking industry.

- The persistent effects are mainly contributed by Chang Hwa Bank, which is least controlled by the KMT government after World War II.

- Due to path dependence of postwar bank expansion, local entrepreneurs near the colonial bank networks were more likely to get loans, so they could expand output by accumulating more capital inputs and became more labor productive.

- In addition, firms with higher total factor productivity are more likely to obtain bank loans to expand.
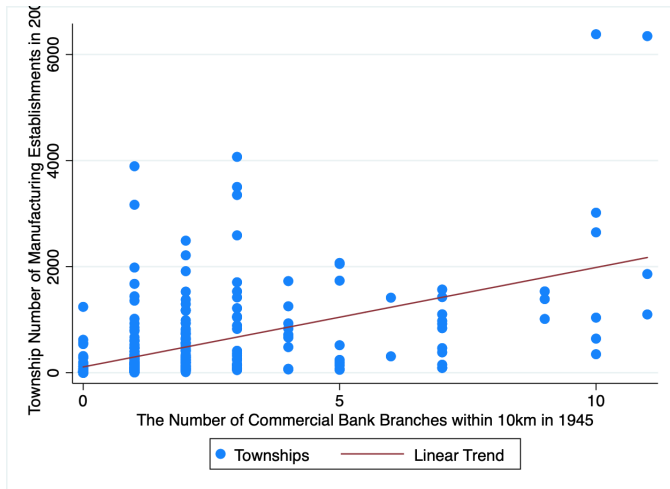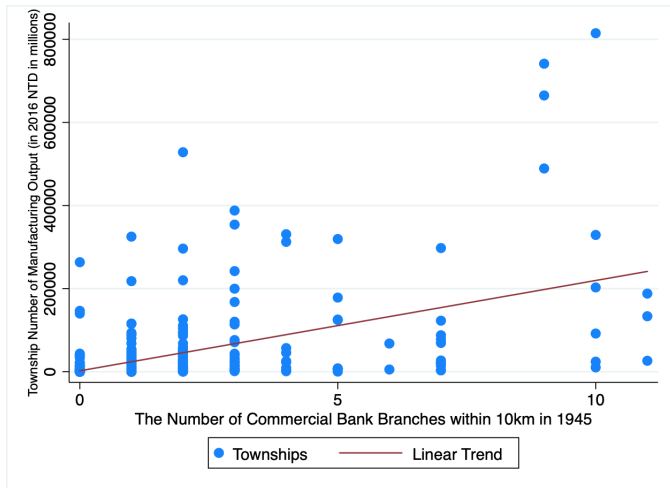
- Thank you!

Scatter Plot: Bank Branches in 2001
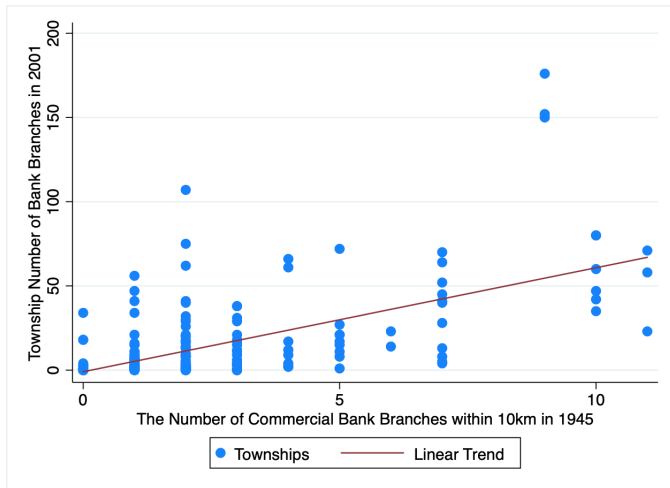
Scatter Plot: Manufacturing Firms in 2001

Scatter Plot: Manufacturing Output in 2001

IV Estimates for the Growth between 1976 and 2001

Outcome	(1)	(2)	(3)	(4)	(5)
ΔBN(Branch Number)	5.003***	4.163***	4.866***	4.094***	3.551***
	(0.895)	(0.958)	(1.502)	(0.954)	(1.001)
R-squared	0.490	0.578	0.547	0.577	0.597
ΔN^{manu}(Mfg. Establishment)	186.0***	242.6***	258.6***	237.1***	224.7***
	(40.04)	(47.45)	(79.65)	(46.12)	(55.36)
R-squared	0.297	0.425	0.402	0.435	0.466
ΔY^{manu}(Mfg. Output)	16100.7***	10938.4**	10312.0	10323.6**	7576.9
	(4303.0)	(5383.5)	(10640.0)	(5255.8)	(7314.1)
R-squared	0.388	0.338	0.341	0.339	0.329
ΔN^{ind}(Ind. Establishment)	1011.7***	995.4***	1153.1***	973.4***	946.9***
	(156.5)	(168.2)	(290.1)	(163.9)	(193.8)
R-squared	0.503	0.620	0.573	0.629	0.647
ΔY^{ind}(Ind. Output)	35360.7***	19175.3***	19411.7	18384.8***	15983.8*
	(8029.1)	(6341.8)	(12201.8)	(6183.3)	(8317.3)
R-squared	0.463	0.429	0.428	0.432	0.424
ΔPop(Population)	15543.1***	19352.2***	15274.5**	19007.7***	21832.1**
	(4202.1)	(6689.3)	(6949.9)	(6509.0)	(9847.6)
R-squared	0.257	0.352	0.381	0.360	0.326
Controls:					
Dummy of Aboriginal Area	No	Yes	Yes	Yes	Yes
Number of Manu. Employees in 1938	No	Yes	Yes	Yes	Yes
Linear Spatial Trends	No	No	Yes	No	No
Sample	Base	Base	Base	No Founder Township	No Founder County
Excluded instrument's F	24.37	16.26	11.81	15.70	9.28
Observations	365	314	314	311	236

All regressions include county fixed effects. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

All Founders' Residences and Bank Branches in 1945

Legend

Bank Branches in 1945
- First Bank
- Hua Nan Bank
- Chang Hwa Bank
- Other Banks

Residence of Founders
- First Bank
- Chaiyi Bank
- Nitaka Bank
- Hua Nan Bank
- Chang Hwa Bank
- Township Boundary
- Aboriginal Area

Taipei

Kaohsiung