Finance, Structural Change, and Growth

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MIT Sloan Finance Lunch

Motivation

- Large rise in **real-estate** related credit over recent decades, along with decline in size of the **manufacturing** sector

  Jordà Schularick Taylor '16, Müller Verner '24

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- Or is there “too much of the wrong sort of credit”?

  Turner ’16 (Between Debt and the Devil), Rodrik ’16

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This paper: investigate the interplay between sectoral allocation of credit and economic development

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1. How does the sectoral credit allocation evolve over development?

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   Structural change **model**

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   - Sectoral difference in **collateral constraints (key role)** vs. productivity

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   - Consistent with theories emphasizing growth-enhancing externality of **manuf.** sector

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Financial frictions + government policy $\Rightarrow$ credit allocation, structural change and growth.

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Financial Kuznets Facts: Concepts and Data

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Compare with canonical Kuznets facts

- Reallocation of economic activities: agriculture $\Rightarrow$ manufacturing $\Rightarrow$ services
  (Kuznets '57, Kuznets '73, Kongsamut Rebelo Xie '01, Herrendorf Rogerson Valentinyi '14)

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  - EU KLEMS, GGDC, UN, UNIDO, OECD STAN, WIOD, ECLAC

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4 broad sectors: agriculture, **manufacturing** (BC), **construction & real estate** (FL), services

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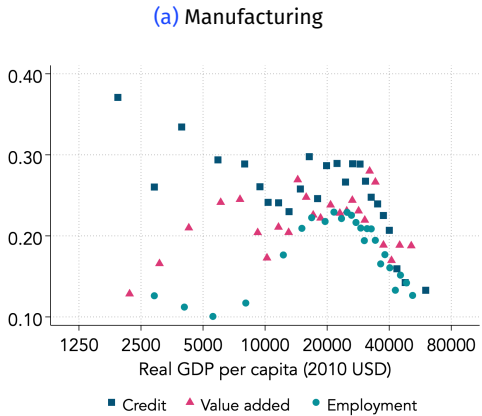
4 broad sectors: agriculture, **manufacturing** (BC), **construction & real estate** (FL), services
Main sample: **77** countries, **1970-2014**

Financial Kuznets Facts: Sectoral Credit Allocation over Development



Financial Kuznets Facts: Sectoral Credit Allocation over Development

- **Fall** in **manuf.** credit, **rise** in **real estate** credit and value added

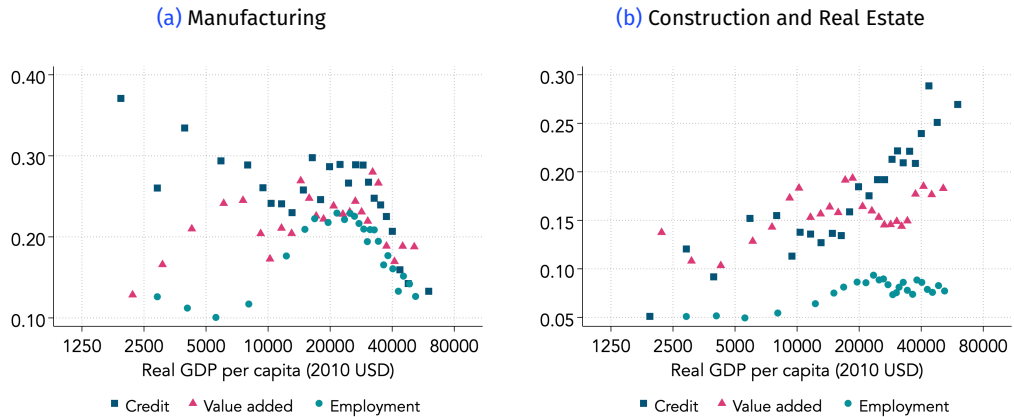


Figure: Agriculture and Services

Financial Kuznets Facts: Sectoral Credit Allocation over Development

- **Fall** in **manuf.** credit, **rise** in **real estate** credit and value added
- Structural change in credit **more pronounced** than real economy

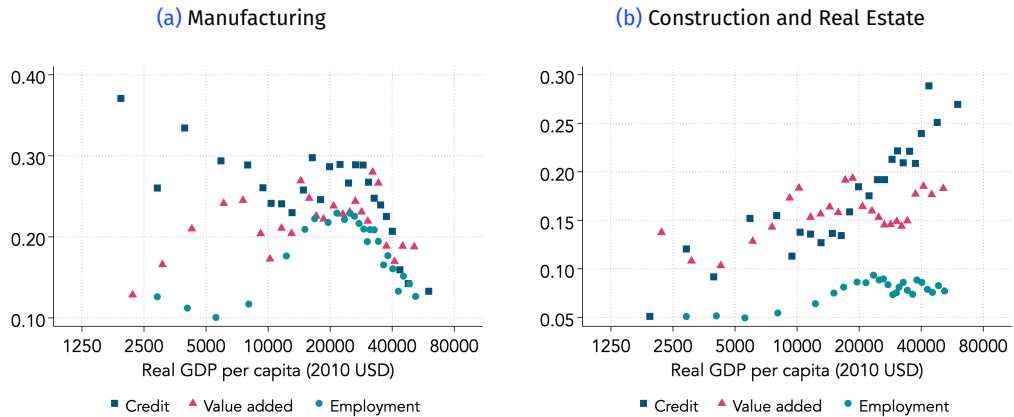


Figure: Agriculture and Services

Financial Kuznets Facts: Real Estate Collateral and Development

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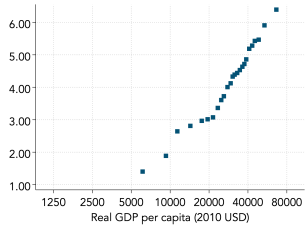
- Rise in **real estate prices** as economies grow
  - Exploit within-country variation; Data: BIS, OECD, Dallas Fed

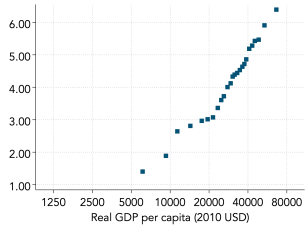
(a) House Prices



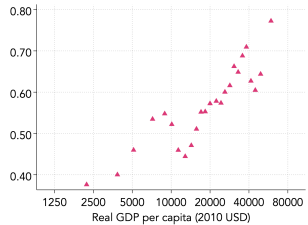
Financial Kuznets Facts: Real Estate Collateral and Development

- Rise in **real estate prices** as economies grow
  - Exploit within-country variation; Data: BIS, OECD, Dallas Fed
- Increasing **reliance of real estate collateral** over development
  - Data: (b) Global Credit Project, and (c) BEEPS

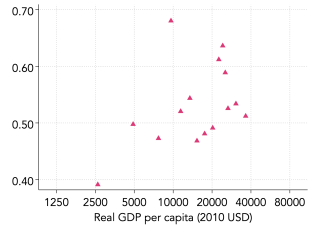
(a) House Prices



(b) Share of Residential Mortgages in Household Credit



(c) Share of Real Estate Collateral in Firm Credit



2.1 Mechanism: Model

Set-Up: Supply-side Structural Change + Collateral Constraints

- **Goal: understand real estate collateral as a channel for Financial Kuznets Facts**

Rest of the Model

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$$\left[(c_t^i)^{\frac{\eta-1}{\eta}} + s(h_t^i)^{\frac{\eta-1}{\eta}}\right]^{\frac{\eta}{\eta-1}}, \quad i \in \{S, M, E\},$$

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- Sectoral collateral constraints (Kiyotaki Moore '97):

$$\underbrace{d_{t+1}^j}_{\text{sectoral credit}}\leq\lambda^j\underbrace{q_{t+1}l_{t+1}^j}_{\text{collateral value of } l_{t+1}^j}, \quad j\in\{M,E\} \tag{2}$$

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- **Goal: understand real estate collateral as a channel for Financial Kuznets Facts**
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- Sectoral collateral constraints (Kiyotaki Moore '97): binding in the steady states

$$\underbrace{d_{t+1}^j}_{\text{sectoral credit}} \le \lambda^j \underbrace{q_{t+1}l_{t+1}^j}_{\text{collateral value of } l_{t+1}^j}, \quad j\in\{M,E\} \tag{2}$$

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Steady State Equilibrium: Collateral Quantity and Price

- Sectoral collateral input l^j: marginal benefit = user cost

$$l^E = (\alpha^E z^E \widetilde{\lambda}^E)^{\frac{1}{1-\alpha^E}}, \tag{3}$$

$$\widetilde{\lambda}^j \equiv \frac{\beta}{1-\beta(1-\delta)-\lambda^j(\beta^S-\beta)},$$

Steady State Equilibrium: Collateral Quantity and Price

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$$l^E = (\alpha^E z^E \widetilde{\lambda}^E)^{\frac{1}{1-\alpha^E}}, \quad l^M = (\alpha^M z^M \widetilde{\lambda}^M / q)^{\frac{1}{1-\alpha^M}}, \tag{3}$$

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  - Intuition: rising q increases the revenue and cost equally in **real estate** sector

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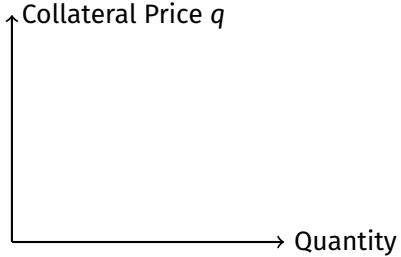

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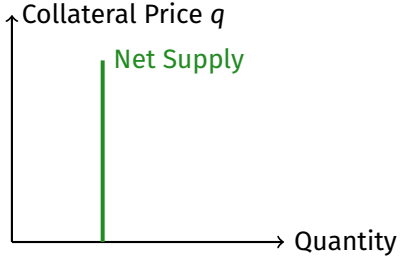

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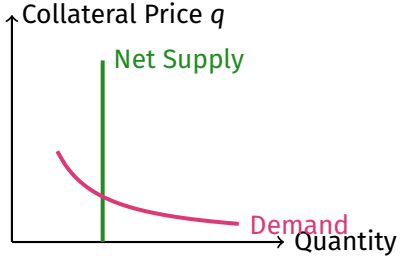

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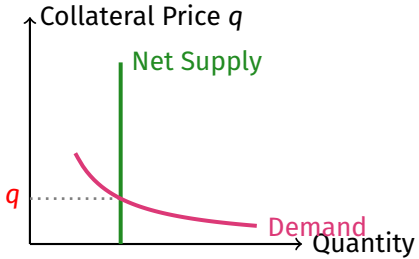

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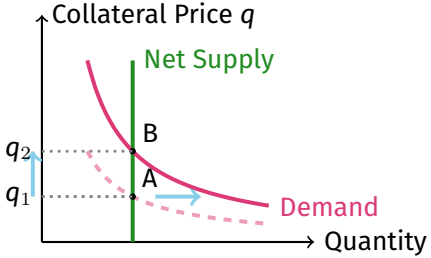

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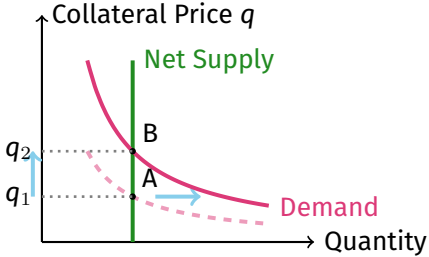

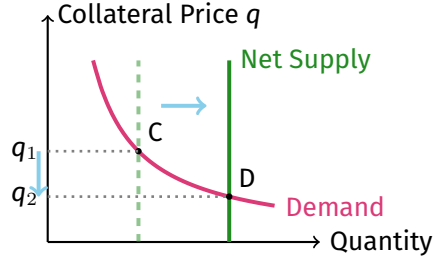

A Simple Decomposition Rule

$$\text{Credit Ratio} \equiv \frac{d^E}{d^M} = \frac{Z^E}{Z^M}\frac{\Gamma_d^E}{\Gamma_d^M}Q, \quad \text{Output Ratio} \equiv \frac{qy^E}{y^M} = \frac{Z^E}{Z^M}\frac{\Gamma_y^E}{\Gamma_y^M}Q$$

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  - **Faster-growing manufacturing** vs. **stagnant real estate** (Beirne Krichberger '23, Goolsbee Syverson '23, D'Amico Glaeser Gyourko Kerr Ponzetto '24)
  - If $\eta < 1$ (complement), credit and output ratio increase with z^M
  - Intuition: (under inelastic demand) for stagnant sector, price, consumption expenditure share and allocated resource go up (Baumol's cost disease '67)
- **Financial** forces: change in sectoral **collateral constraints** λ^j
  - if $\eta = 1$, credit ratio and output ratio increase with λ^E
  - Intuition: higher λ^E boosts collateral demand in real estate l^E and collateral price q

Both **economic** forces and **financial** forces in isolation are sufficient for structural change in credit and real economy.

Model Takeaway

A minimal framework for collateral channel of structural change in credit

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Model predictions via comparative statics

- **Collateral price channel:**

- **Collateral quantity channel:**

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Theoretical results $\Rightarrow$ **quantification**

- Changes in λ^j or z^j in isolation are sufficient for structural change in credit
- **Quant Result**: approx. **4/5** from change in λ^j and **1/5** from change in z^j

Calibration Parameter Model Fit Quant Decomp. Caselli

2.2 Mechanism: Empirical Evidence

Sectoral Differences in Mortgage Share and Real-Estate Input Share

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- **Mortgage share**
  - Share of loans secured on real estate relative to all outstanding loans
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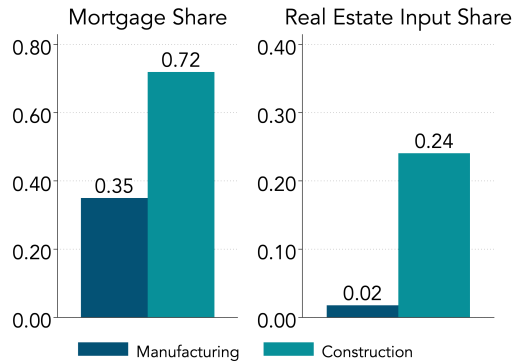
- **Real estate input share**
  - Data: world input-output table (Timmer et al '15)
- Result: empirical analogue of λ^j and α^j
  - Real estate has much higher **mortgage** and **real estate input** share
  - More real estate collateralized credit, higher sectoral credit growth

Table

Figure: Sectoral Collateral Usage



Collateral Price *Q*: Stronger Collateral Price Passthru to Real Estate Credit

- Local proj. (Jordà '05) with lags length $L = 5$ (Montiel Olea Plagborg-Møller '21)

$$\Delta_h y^j_{c,t+h} = \alpha^h_c + \sum_{l=0}^{L} \beta^j_{h,l} \Delta_1 \log(\text{HPI}_{c,t}) + \sum_{l=0}^{L} \gamma^j_{h,l} \Delta_1 y^j_{c,t-l} + \sum_{l=1}^{L} \theta^j_{h,l} X^j_{c,t-l} + \epsilon^j_{c,t+h} \tag{6}$$

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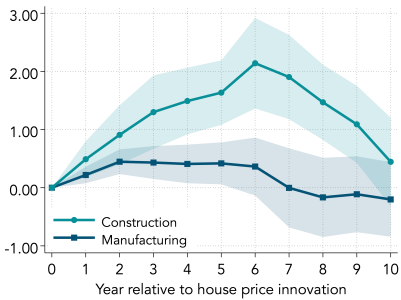
  - Step 2: use $\widehat{\vartheta}_c \Delta_1 \log(\text{HPI}_{r(c),t})$ as IV for $\Delta_1 \log(\text{HPI}_{c,t})$, include 2 lags in 1st stage (Ramey '16, Ramey Zubairy '18)

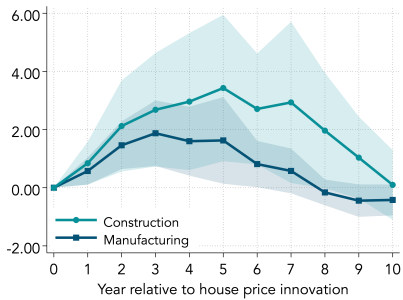
Collateral Price *Q*: Stronger Collateral Price Passthru to Real Estate Credit

stronger house price pass-thru to **real estate** credit relative to **manuf.**

(a) Local Proj.



(b) Local Proj. IV



Collateral Price *Q*: Stronger Collateral Price Passthru to Real Estate Credit

- Result **A**: increasing house prices over development (shown before)
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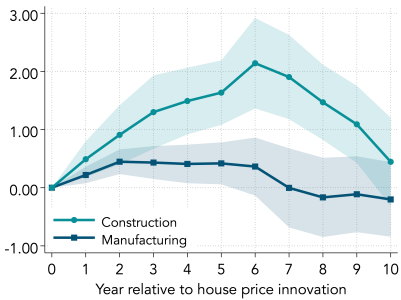

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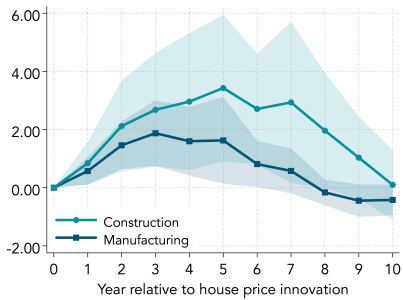

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- Result **A**: increasing house prices over development (shown before)
- Result **B**: stronger house price pass-thru to **real estate** credit relative to **manuf.**
- Result **A** + **B**: $\Rightarrow$ **real estate** credit grows faster than **manuf.** credit over development

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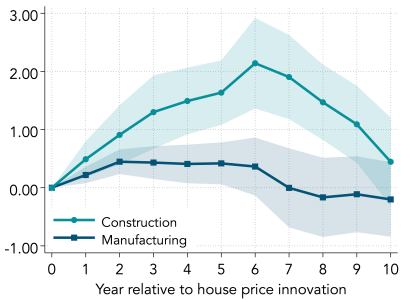

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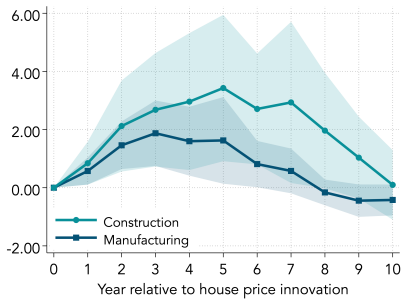

Collateral Quantity Γ: Rising Intangibles in Manuf. as One Potential Driver

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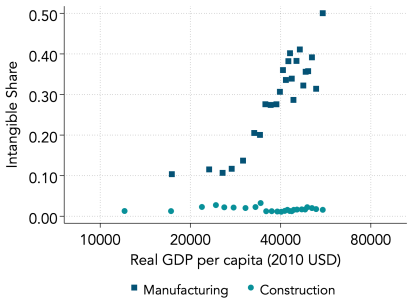

Collateral Quantity Γ: Rising Intangibles in Manuf. as One Potential Driver

- Result **A**: increasing **intangibles** in **manuf.** but not in real estate
- Result **B**: credit growth is mostly driven by investment in **tangible** asset
  (Falato Sim '14, Akcigit Ates Impulllitti '18, Dell'Ariccia Kadyrzhanova Minoiu Ratnovski '21)

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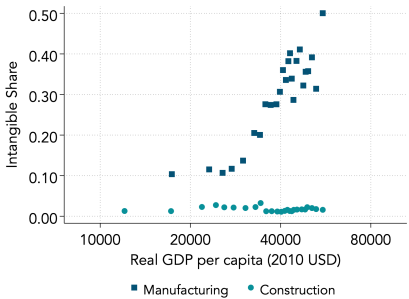
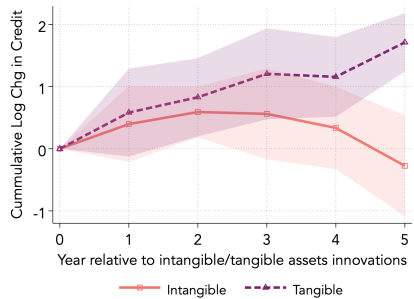


(b) Asset Tangibility and Credit Growth



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- Result **A** + **B**: **slower** credit growth in **manuf.** than real estate over development

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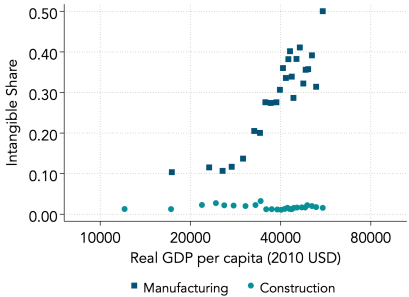

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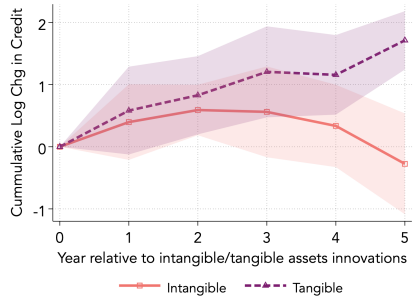

3. Government Directed Credit Policy

Directed Credit Policies: Background and Case Study

- Mechanism: large changes in **collateral constraints** play important role in structural change in credit
- Governments may address these financial frictions via **directed credit policies** Studwell '13, Aikman Bush Taylor '16; Itskhoki Moll '19, Buera Shin '13, Liu '19, Choi Levchenko '21, Choi Shim '22, Lane '24, Matray Müller Xu Kabir '24
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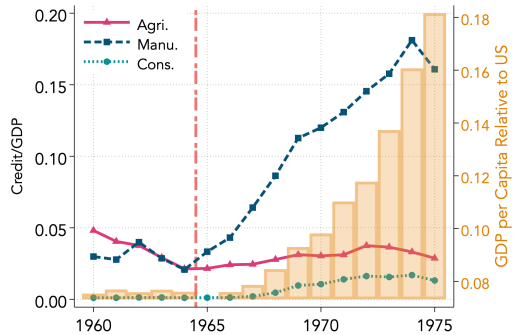

Figure: Credit Allocation in South Korea

Credit Allocation During Directed Credit Liberalization

- New narrative-based chronology of directed credit **liberalizations**

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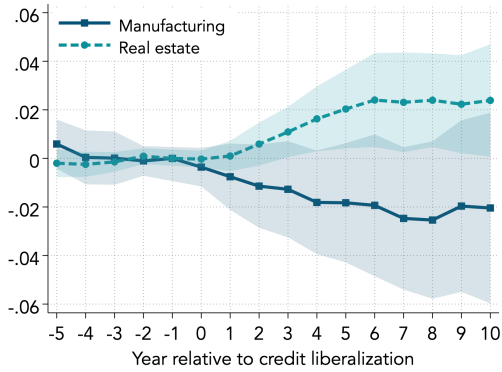

Figure: Effect on Sectoral Credit-to-GDP

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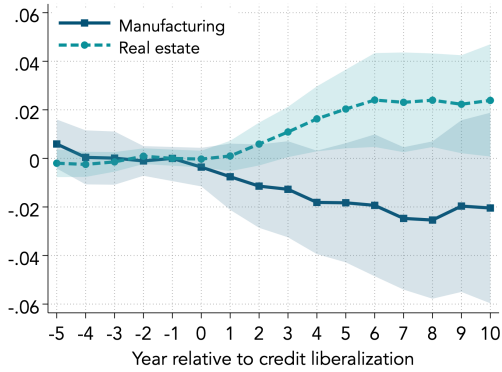


Figure: Effect on Sectoral Credit-to-GDP

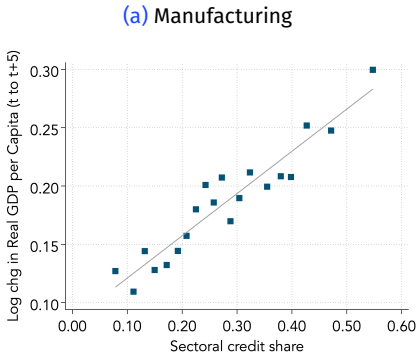
Policymakers believe credit allocation matters for development, at least at certain stages

4. Growth Implication of Credit Allocation

Credit Allocation Matters for Long-Run Growth: Cross-Country Evidence

- Higher manuf. credit predicts growth: **growth-enhancing externality of manuf.**

  Rodrik '14, Benigno Fornaro Wolf '24, Hirano Stiglitz '24



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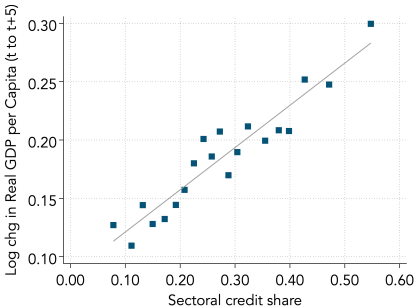
- The opposite is true for real estate: **crowd-out in credit, misallocation, crisis risk**
  Reis '13, Rogoff Yang '20, Brunnermeier Reis '23, Müller Verner '24

(a) Manufacturing



(b) Construction and Real estate

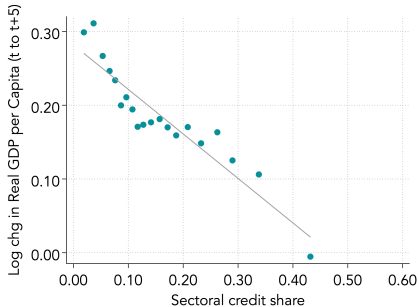


Table with controls | Calibration | Literature

Conclusion

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Financial frictions + government policy $\Rightarrow$ credit allocation, structural change and growth.

- **Financial Kuznets Facts**:
  - Reallocation of credit from **manufacturing** to **real estate** over development
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- Future work:
  - Optimal sector-specific credit policies over the course of development
  - Causal link for growth implication of credit allocation and credit policies

Literature

Thank you!

Appendix

Literature Review

1. **New Financial Kuznets facts + collateral channel of structural change**

   Sectoral structural change: theory and evidence Lewis 54, Rybczynski '55, Kuznets '57, Baumol '67, Kuznets '70, Matsuyama '92, Kongsamut Rebelo Xie '01, Ngai Pissarides '07, Acemoglu Guerrieri '08, Herrendorf Rogerson Valentinyi '14, Boppart '14, Comin Lashkari Mestieri '21, Porzio Rossi Santangelo '22, Buera Kaboski Mestieri O'Connor '24

   New cross-country empirical stylized facts Gollin Lagakos Waugh '14, Porzio '17, Bick Fuchs-Schündeln Lagakos '18, Lagakos Moll Porzio Qian Schoellman '19, Jensen '22, Donovan Lu Schoellman '23

2. **Role of credit allocation on economic development and growth**

   Credit or financial frictions on macro Kiyotaki Moore '97, Iacoviello '05, Gan '07, Kiyotaki Michaelides Nikolov'11, Chaney Sraer Thesmar '12, Gourinchas Obstfeld '12, Liu Wang Zha '13, Jorda Schularick Taylor '16 '17, Mian Sufi Verner '20, Brunnermeier Palia Sastry Sims '21, Elenev Landvoigt Van Nieuwerburgh '21, Greenwald Guren '24, Müller Verner '24

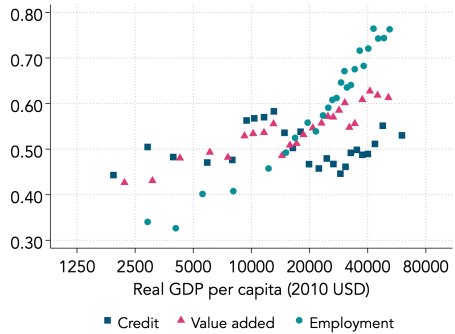
   Finance and development Schumpeter '11, Shaw '73, Townsend '83, Gertler '88, Lucas 88', Greenwood Jovanovic '90, King Levine '93, Levine '97, Rajan Zingales '98, Benigno Fornaro Wolf '20, Banerjee Duflo '05 '10, Townsend Ueda '06, Greenwood Sanchez Wang '10, Kaboski Townsend '11, Buera Kaboski Shin '11, Buera Shin '13, Midrigan Xu '14, Moll '14, Itskhoki Moll '19, Bustos Caprettini Ponticelli '20, Howes '22, Bau Matray '23, Ji Teng Townsend '23, Cavalcanti Kaboski Martin Santos '23, Hirano Stiglitz '24, D'Amico Alekseev '25

   Credit Policies Bertand Schoar Thesmar '07, Studwell '13, Buera Shin '13, Aikman Bush Taylor '16; Itskhoki Moll '19, Liu '19, Choi Levchenko '21, Choi Shim '22, Baron Green '23, Matray Müller Xu Kabir '24

Financial Kuznets Facts: Agriculture and Services

(a) Agriculture

(b) Service



Back

Rest of the Model

- Flow of fund constraint for saver:

$$c_t^S + q_t h_t^S + \frac{b_{t+1}}{1+r_t} = b_t \tag{8}$$

- Market clearing conditions, $i \in \{S, M, E\}, j \in \{M, E\}$

$$y_t^M = \sum_i c_t^i, \quad y_t^E = \sum_i h_t^i + \sum_j [l_{t+1}^j - (1-\delta) l_t^j], \quad b_t = \sum_j d_t^j$$

- Aggregation rules for consumption $c = \sum_i c^i$ and housing $h = \sum_i h^i$

$$\frac{c^i}{h^i} = \left[\frac{q}{s}\right]^\eta \Rightarrow \frac{c}{h} = \left[\frac{q}{s}\right]^\eta \tag{9}$$

  - Higher collateral price q, lower the relative demand for housing h/c

Set Up Solution

Market Clearing Condition for Real Estate Goods

- Market clearing conditions at the steady states

$$z^M (l^M)^{\alpha^M} = c, \quad z^E (l^E)^{\alpha^E} - \delta l^E = h + \delta l^M \tag{10}$$

- Consumption FOC

$$\frac{c^i}{h^i} = \left[\frac{q}{s}\right]^\eta \Rightarrow \frac{c}{h} = \left[\frac{q}{s}\right]^\eta \tag{11}$$

- Combine these two we have

$$h = (s/q)^\eta c = (s/q)^\eta z^M (l^M)^{\alpha^M} = \underbrace{(s/q)^\eta z^M (\widetilde{\zeta}^M)^{\alpha^M}}_{\widetilde{\zeta}^H} q^{-\frac{\alpha^M}{1-\alpha^M}},$$

Set Up Solution

Calibration

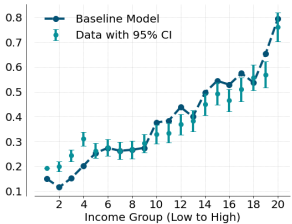
- Extend quantitative model with (1) capital as input and collateral (2) housing investment instead of service flow
- Calibrated parameters

$$\Omega = \{ \underbrace{z^j, \alpha_l^j, \alpha_k^j, \alpha_n^j}_{\text{production}}, \underbrace{\lambda^j}_{\substack{\text{collateral} \\ \text{constraint}}} \}_{j \in \{M,E\}} \cup \{ \underbrace{\beta, \beta^S, \eta, s}_{\text{preference}}, \underbrace{\delta, \delta_h}_{\text{depreciation}} \}.$$

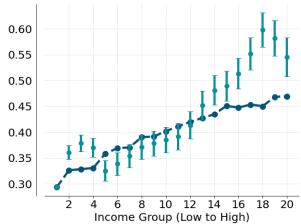
- Assigned parameter:
  - Real estate input share $\alpha_l^j/(\alpha_l^j + \alpha_k^j)$: **0.017** for **manuf.**, **0.240** for **real estate**
  - λ^j: read from sectoral credit to value added, given α_l^j
- Calibrated parameter: two-step procedure; data moments for 20 income groups
  - For a given pair (η, s), calibrate $\{z_n^j\}_{n=1}^N$ to match match sectoral labor productivity
  - Search for a pair (η, s) to target nominal output share and house price variation

Model vs Data

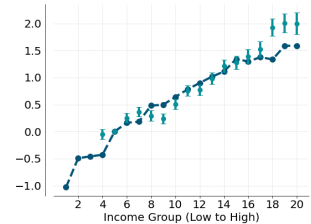
(a) Real Estate Credit Share



(b) Real Estate Output Share



(c) Real Estate Price

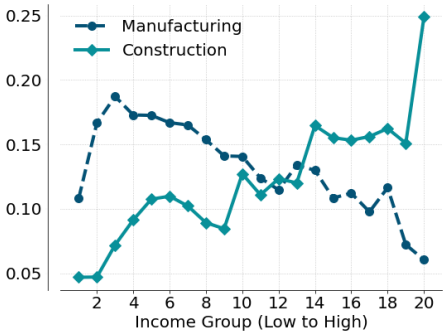


- Model matches rise in real estate credit share, real estate output share, and real estate price q over economic development

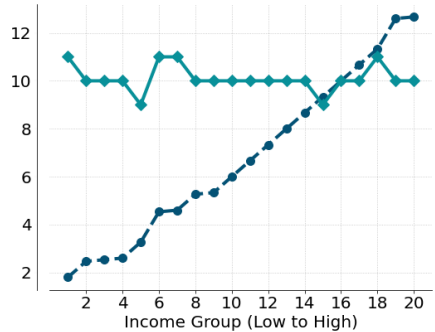
Model Takeaway | Calibration | Parameter | Model Fit | Quant Decomp. | Caselli | Growth | Conclusion

Calibrated Sectoral Collateral Constraints and TFP

(a) Sectoral Collateral Constraint $\{\lambda_n^j\}_{n=1}^N$



(b) Sectoral TFP $\{z_n^j\}_{n=1}^N$



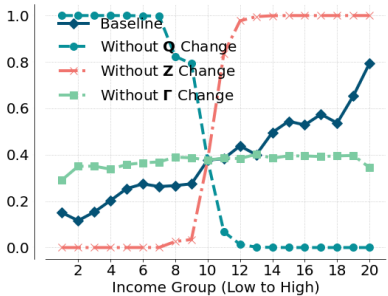
- **Financial forces**: Large relaxation in real estate collateral constraints
- **Economic forces**: Large rise in manuf. TFP, while real estate TFP is stagnant

Model Takeaway | Calibration | Parameter | Model Fit | Quant Decomp. | Caselli | Growth | Conclusion

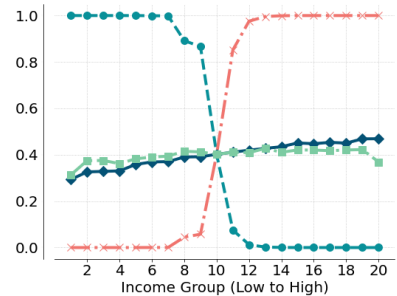
Quantifying the Decomposition Rule

$$\text{Credit Ratio} \equiv \frac{d^E}{d^M} = \frac{Z^E}{Z^M}\frac{\Gamma_d^E}{\Gamma_d^M}Q, \quad \text{Output Ratio} \equiv \frac{qy^E}{y^M} = \frac{Z^E}{Z^M}\frac{\Gamma_y^E}{\Gamma_y^M}Q \tag{12}$$

(a) Real Estate Credit Share



(b) Real Estate Output Share



- Γ_d explains 88% of credit ratio variation across income groups.

Development Accounting Exercise

	Panel A: $d^E/(d^E + d^M)$			Panel B: $qy^E/(qy^E + y^M)$		
	1 to 20	1 to 3	3 to 20	1 to 20	1 to 3	3 to 20
(1) Baseline	64.44	0.30	64.14	17.56	3.48	14.08
(2) Vary productivity	17.05 (26.5)	3.32 (n.a.)	13.73 (21.4)	17.53 (99.8)	3.46 (99.5)	14.07 (99.9)
(3) Vary all constraints	52.42 (81.3)	−2.30 (n.a.)	54.72 (85.3)	0.02 (0.1)	0.01 (0.2)	0.02 (0.1)
(4) Vary manu. constraint	14.79 (22.9)	−13.37 (n.a.)	28.16 (43.9)	−0.00 (−0.0)	0.00 (0.1)	−0.01 (−0.1)
(5) Vary cons. constraint	37.36 (58.0)	7.30 (n.a.)	30.07 (46.9)	0.03 (0.2)	0.00 (0.1)	0.02 (0.2)

- Variation in λ^j explains 80% of d^E/d^M variation; the rest comes from z^j change
- Variation in z^j explains almost all of qy^E/y^M via q — Caselli
- Reason 1: 1% increase of z^M (λ^M) leads to a $\frac{1}{1-\alpha^M}$ ($\frac{\alpha^M}{1-\alpha^M}$) increase in y^M — Calibration
- Reason 2: Difference in z^M across countries is much larger than that in λ^j — Parameter
- **Financial forces** affect real economy via **productivity**. — Caselli

Model Takeaway | Model Fit | Growth | Conclusion

Financial Forces Affect Real Economy via Productivity

	Panel A: TFPQ^M			Panel B: $\log[(y^M + y^E)/(n^M + n^E)]$		
	1 to 20	1 to 3	3 to 20	1 to 20	1 to 3	3 to 20
(1) Baseline	1.99	0.71	1.27	1.31	0.36	0.95
(2) Vary productivity	2.21 (111.2)	0.65 (90.8)	1.56 (122.7)	1.40 (106.7)	0.31 (86.2)	1.09 (114.5)
(3) Vary all constraints	−0.06 (−3.0)	0.14 (19.8)	−0.20 (−15.8)	−0.02 (−1.6)	0.09 (23.8)	−0.11 (−11.2)
(4) Vary manu. constraint	−0.06 (−3.0)	0.14 (19.8)	−0.20 (−15.8)	−0.04 (−2.8)	0.08 (23.2)	−0.12 (−12.7)
(5) Vary cons. constraint	0.00 (0.0)	0.00 (0.0)	0.00 (0.0)	0.02 (1.2)	0.00 (0.5)	0.01 (1.5)

- Type-2 tech: $y^M_{2,t} = z^M_t \frac{d^M_{2,t+1}}{1+r_t}$ with borrow limit $d^M_{2,t} \leq \iota d^M_t$, where $d^M_t = d^M_{1,t} + d^M_{2,t}$
- Exogenous $\iota \in (0, 1)$: (1) more credit access (2) positive externality (learning-by-doing and spillovers across space and production network)
- Loosening fin. constraints matters for output, at the early stage of development

Model Takeaway | Conclusion

Credit Allocation and Long-Run Growth

Panel A: Manufacturing & Mining

	$h = 5$					$h = 10$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Credit Share$^{Manu}_{c,t}$	0.17**	0.33***		0.30***	0.24***	0.34***	0.32***
	(0.083)	(0.069)		(0.073)	(0.060)	(0.098)	(0.078)
Value Added to GDP$^{Manu}_{c,t}$			0.32***	0.23***	0.21***	0.31**	0.30**
			(0.086)	(0.083)	(0.073)	(0.14)	(0.14)
Total Credit to GDP$_{c,t}$					-0.11***		-0.070
					(0.037)		(0.066)
Observations	1,341	1,340	1,340	1,340	1,340	1,014	1,014
# Countries	68	68	68	68	68	61	61
Country FE		✓	✓	✓	✓	✓	✓
Year FE		✓	✓	✓	✓	✓	✓
Other Controls		✓	✓	✓	✓	✓	✓
R^2	0.03	0.16	0.13	0.17	0.21	0.30	0.31

Panel B: Construction & Real Estate

	$h = 5$					$h = 10$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Credit Share$^{Cons}_{c,t}$	-0.41***	-0.37***		-0.34***	-0.26***	-0.49***	-0.48***
	(0.065)	(0.078)		(0.080)	(0.086)	(0.15)	(0.16)
Value Added to GDP$^{Cons}_{c,t}$			-0.36**	-0.24*	-0.15	-0.15	-0.13
			(0.14)	(0.13)	(0.11)	(0.099)	(0.081)
Total Credit to GDP$_{c,t}$					-0.079**		-0.016
					(0.038)		(0.055)
Observations	1,341	1,340	1,340	1,340	1,340	1,014	1,014
# Countries	68	68	68	68	68	61	61
Country FE		✓	✓	✓	✓	✓	✓
Year FE		✓	✓	✓	✓	✓	✓
Other Controls		✓	✓	✓	✓	✓	✓
R^2	0.11	0.18	0.13	0.19	0.20	0.32	0.32

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Mortgage Share and Sectoral Credit Growth

$$\Delta_h \log(\text{Credit}_{c,j,t}) = \beta^h \text{Mortgage Share}_{c,j} + \delta_{c,t} + \gamma_{j,t} + \epsilon_{c,j,t}, \text{ for } h = 5, 10, \quad (13)$$

	$\Delta_h \log(\text{Credit}_{c,j,t})$					
	$h = 5$			$h = 10$		
	(1)	(2)	(3)	(4)	(5)	(6)
Mortgage Share	1.33***	0.11***		2.78***	0.28***	
	(0.26)	(0.023)		(0.40)	(0.034)	
Δ_hMortgage to GDP$_c \times \mathbf{1}\{j = \text{Cons.}\}$			3.87***			4.09***
			(0.19)			(0.18)
Δ_hMortgage to GDP$_c \times \mathbf{1}\{j = \text{Manu.}\}$			1.03***			1.04***
			(0.15)			(0.17)
Observations	280	15,520	1,668	185	12,752	1,338
# Countries	4	112	34	4	110	29
# Industries	5	5	2	5	5	2
Country FE			✓			✓
Year FE			✓			✓
Country×Year FE	✓	✓		✓	✓	
Industry×Year FE	✓			✓		
Industry Level	Broad	Broad	Broad	Broad	Broad	Broad
Mean of Dependent Var.	0.26	0.70	0.26	0.50	1.44	0.52
R^2	0.89	0.75	0.51	0.90	0.85	0.61

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