

Non-native players in the domestic league: Foreign penetration and domestic banking sector in an emerging market

Nhan Huynh - David

Department of Applied Finance, Macquarie Business School, Macquarie University, Australia

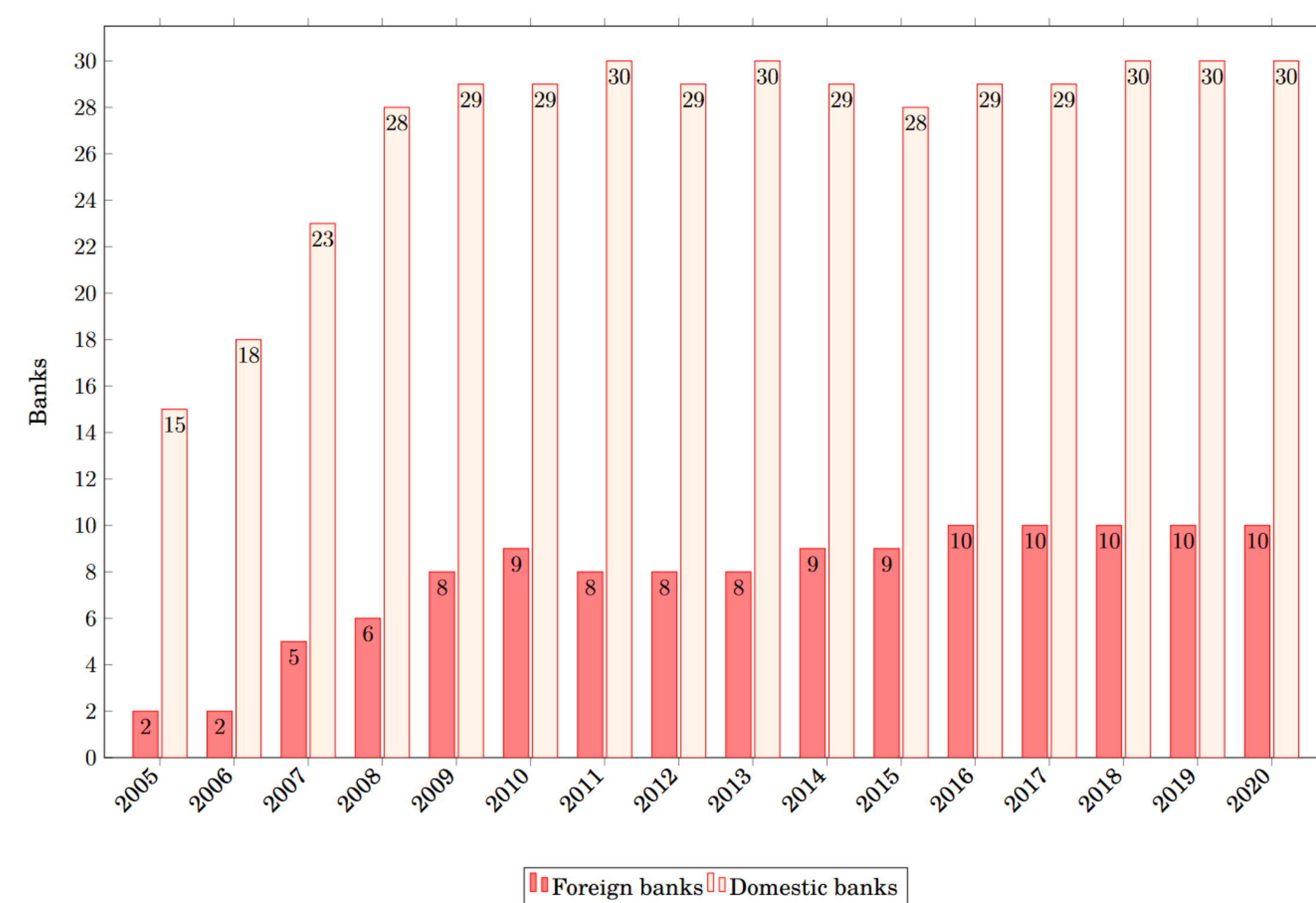
Objectives & Findings

Aims: Explore how foreign bank penetration impacts the Vietnamese banking sector.

- More foreign banks (FB) is associated with higher competition.
- Domestic banks (DB) experience lower profits, and take more risks.
- Distinctive impacts of bank-specific factors: size, age, income diversifications
- Noticeable effects for penetration via greenfield investments compared to M&A.

Introduction

- **Globalization and international integration:** Rich strand of literature provides mixed findings on influences of foreign bank penetration [1, 2].
- **"The rising star - Vietnam":** Significant development of banking sector and higher openness of the economy in Vietnam since the Economic Reform - *Doi Moi (1986)* and joined *WTO (2007)*.



Hypotheses

- H_1 : Foreign banks penetration enhances the competition.
- H_2 : Foreign bank penetration has adverse impacts on local banks' performance.
- H_3 : Local banks will take more risks when more foreign banks penetrated.

Data

- **Data:** BankScope database compiled by Bureau van Dijk and World Bank (2005 - 2020)
- **Penetration proxies - FBP[3]:**
 $NFB = \frac{No. of FB}{No. of banks}$; $FBA = \frac{TAs of FB}{TAs}$ from Annual reports of the State bank of Vietnam.
- **Sorting:** joint venture (ownership $\geq 50\%$), 100% foreign-owned banks, branches of FB.
- **Perf:** Revenue (TR), Market-based proxy (TBQ), Accounting-based proxies (ROA, ROAA, CI) and Technical efficiency (TE).
- **Risk-taking:** Z-score

Method

- Lerner Index approach [4] - banks' market power:
 $LER_{i,t} = \alpha + \beta_i FBP_t + \gamma_k Controls_{i,t-1} + \mu_{i,t}$ (1)
- Panzar - Rosse approach with input prices (w_{it}) (*capital, labor & physical capital*) and dummy variables (D) for FB [5]
 $Perf_{i,t} = \alpha + \beta_i lnw_{i,t} + \gamma_i (lnw_{i,t} \times D) + \gamma_k Controls_{i,t-1} + \mu_{i,t}$ (2)
- Penetration and performance, and risk-taking:
 $Perf_{i,t} = \alpha + \beta_i FBP_t + \gamma_k Controls_{i,t-1} + \mu_{i,t}$ (3)
- **Controls:** Loan ratio, Size, Capital ratio, Age, Diversification Index, GDP growth, Inflation, Private credit.

Additional Analyses

- Cross-sectional analyses: Distinctive impacts of bank-specific factors (*size, age, income diversification*)
- More visible effects on FBP via greenfield investments, as opposite to M&A.
- Robust results after treating the endogeneity issues by GMM and 2SLS with IV

Implications

Providing several practical implications to policy-makers, commercial banks, and stakeholders in the globalizing banking system.

Key Findings

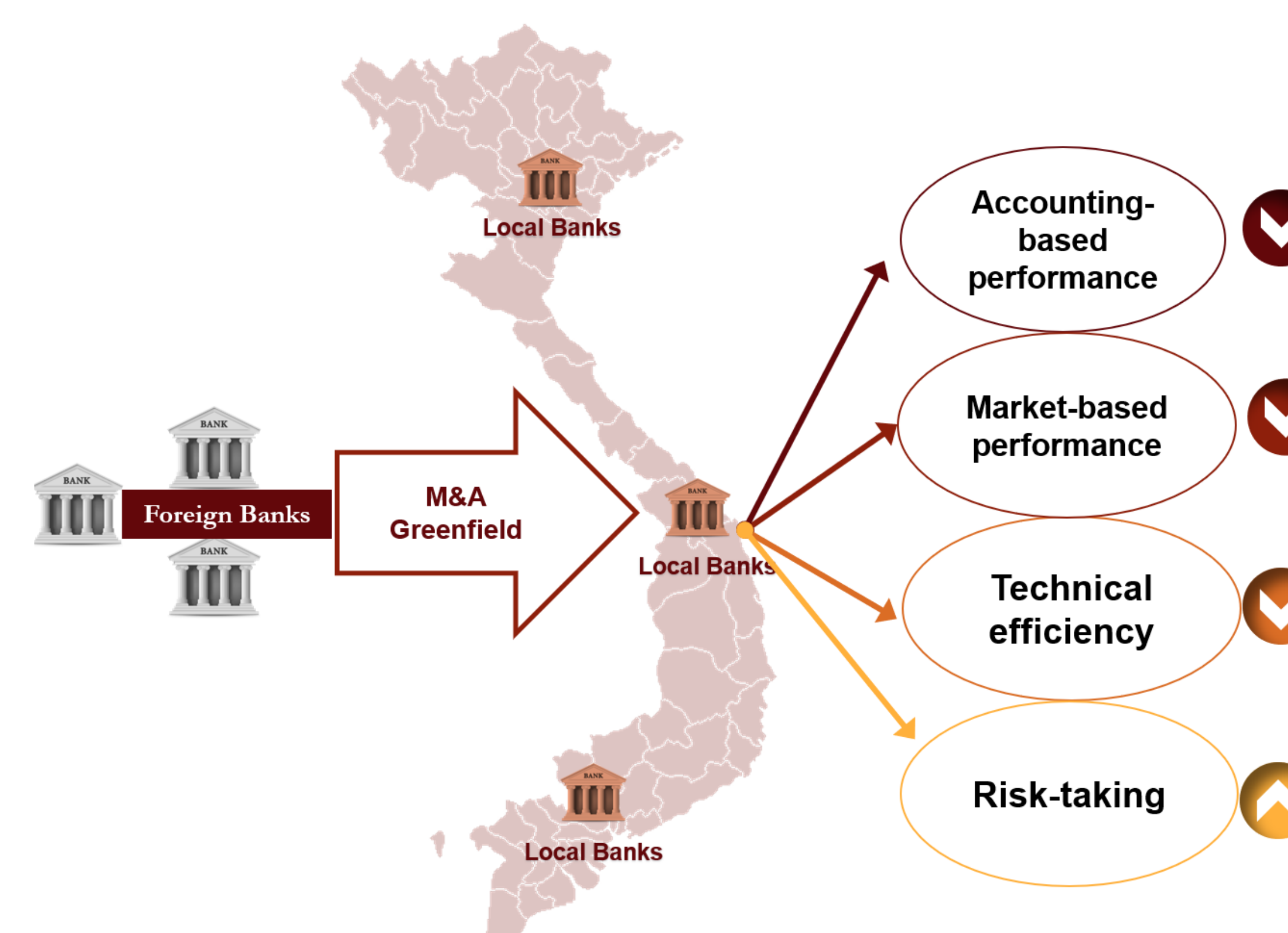
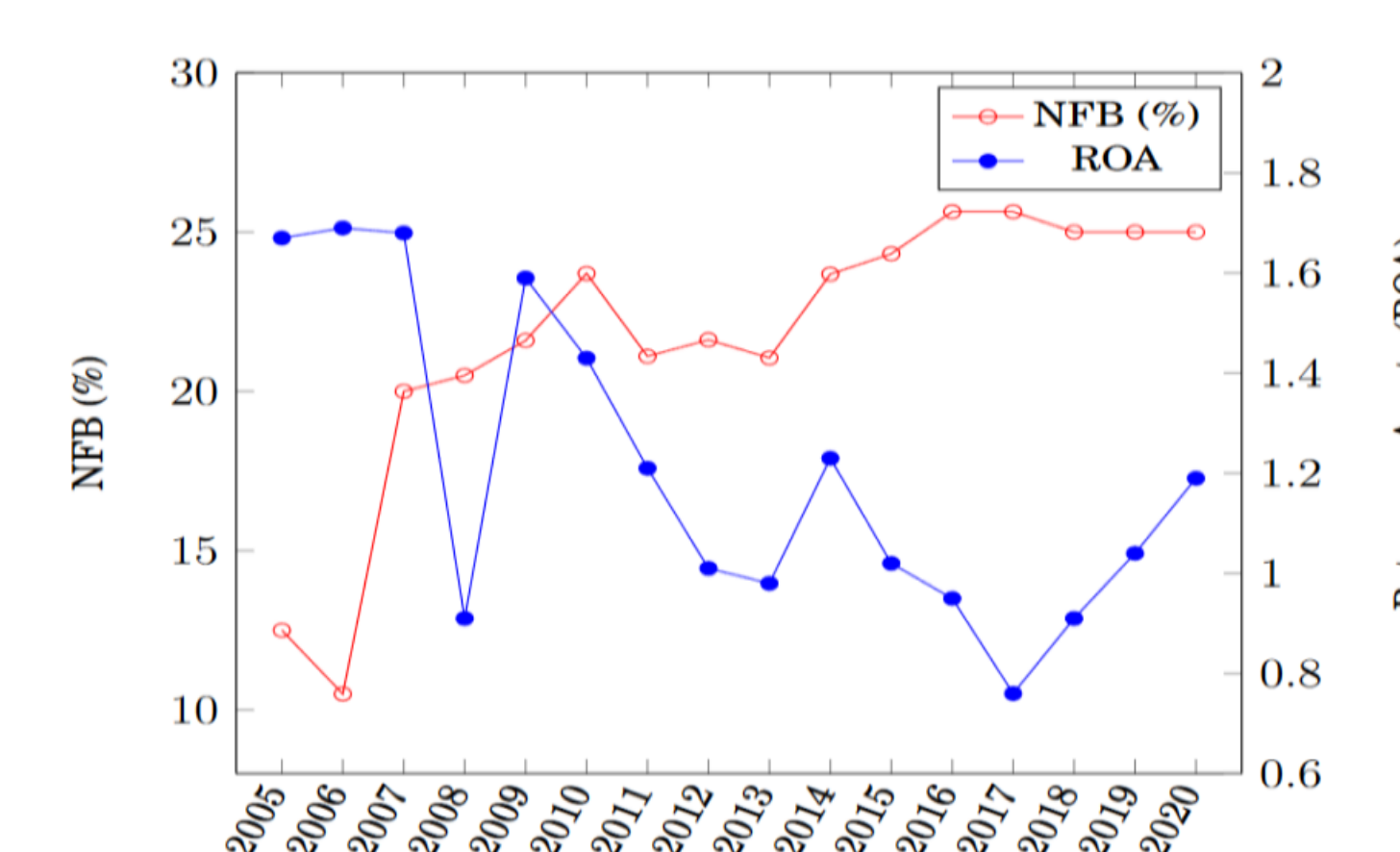
The first study evidences on lower profits, higher risk-taking due to higher competition when more foreign banks join the local market, which is modified by banks' characteristics and modes of entry.

Regression Results

| Proxies | Competition | Risk | Technical efficiency |
|--------------------|---------------------|---------------------|----------------------|
| | LER | Z-score | TE |
| FBA | -0.004** (0.001) | -0.216** (0.021) | -0.416** (0.033) |
| Bank controls | Yes | Yes | Yes |
| Macro controls | Yes | Yes | Yes |
| Time-fixed effects | Yes | Yes | Yes |
| Bank-fixed effects | Yes | Yes | Yes |
| Adj-R ² | 0.521 | 0.679 | 0.714 |
| Perf | Performance | | |
| | ROA | TR | TBQ |
| FBA | -0.058** (0.021) | -0.142** (0.018) | -0.035** (0.001) |
| Bank controls | Yes | Yes | Yes |
| Macro controls | Yes | Yes | Yes |
| Time-fixed effects | Yes | Yes | Yes |
| Bank-fixed effects | Yes | Yes | Yes |
| Adj-R ² | 0.275 | 0.733 | 0.56 |

* and ** represent 5% and 1% significance levels, respectively.

Graphical Results



References

- [1] B. N. Jeon, M. P. Olivero, and J. Wu, "Do foreign banks increase competition? evidence from emerging asian and latin american banking markets," *Journal of Banking & Finance*, vol. 35, no. 4, pp. 856-875, 2011.
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- [4] A. P. Lerner, "The concept of monopoly and the measurement of monopoly power," *The Review of Economic Studies*, vol. 1, no. 3, pp. 157-175, 1934.
- [5] S. Claessens and L. Laeven, "What drives bank competition? some international evidence," *Journal of Money, Credit and Banking*, pp. 563-583, 2004.

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Contact Information

- Personal Website:



- Email: david.huynh@mq.edu.au