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Foreign Ownership and Bank Performance การถือหุ้นต่างชาติและผลการดำเนินงานธนาคาร

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บทคัดย่อ

บทความนี้มุ่งทบทวนผลงานทางวิชาการที่ผ่านมาเกี่ยวกับความสัมพันธ์ระหว่างการถือหุ้นต่างชาติกับผลการดำเนินงานธนาคาร พบว่า ตัวแปรการดำเนินงาน 5 กลุ่ม คือ ความสามารถในการทำกำไร, การควบคุมต้นทุน, คุณภาพสินทรัพย์, ประสิทธิภาพ, และการวัดเชิง market-based ขณะที่มาตรการการถือหุ้นต่างชาติ 4 กรณี คือ ตัวแปรเทียมต่างชาติ 1 ตัว หรือมากกว่า (foreign dummies), อัตราส่วนผู้ถือหุ้นต่างชาติ และจำนวนธนาคารต่างชาติที่เข้ามาลงทุนในประเทศ โดยใช้วิธีการศึกษาที่ต่างกัน 4 วิธี คือ t-test หรือ ANOVA, Cross-sectional Regression, Panel Data Regression และ Censored Tobit Regression) ทั้งนี้ ตัวอย่างข้อมูลนำมาจากประเทศพัฒนาแล้ว, ประเทศกำลังพัฒนา, ประเทศที่อยู่ในภาวะการเปลี่ยนแปลง, และประเทศที่มีประสบการณ์ภาวะวิกฤติ ผลการศึกษา พบว่า ความสัมพันธ์ระหว่างการถือหุ้นต่างชาติกับผลการดำเนินงานธนาคารยังไม่ชัดเจน เนื่องจากผลการวิจัยประเทศที่พัฒนาแล้วบางประเทศได้สนับสนุน Home Field Advantage Hypothesis และผลการวิจัยบางประเทศที่อยู่ในภาวะการเปลี่ยนแปลงในยุโรป (European Transition Countries) สนับสนุน Global Advantage Hypothesis ขณะที่ผลการศึกษาจากธนาคารจีน แนะนำว่าการถือหุ้นต่างชาติไม่มีผลกระทบต่อผลการดำเนินงานทั้งระยะสั้น และระยะยาว สรุปว่าความสัมพันธ์ที่แท้จริงขึ้นอยู่กับบริบท

คำสำคัญ: การถือหุ้นต่างชาติ ผลการดำเนินงานของธนาคาร

Abstract

This article reviews recent literature on the relationship between foreign ownership and bank performance. Five groups of performance indicators (profitability, cost control,

quality of assets, efficiency and market-based measures), four cases of foreign ownership measures (one or more foreign dummies, foreign ownership percentage and number of foreign bank entries), and four different methodologies (t-test or ANOVA, cross-sectional regression, panel data regression and Censored Tobit Regression) are found to be commonly employed. The sample data are drawn from developed/industrialized, developing, transition, and crisis-experienced countries. The findings on the relationship between foreign ownership and bank performance are not clear-cut. Results of some developed countries support the home field advantage hypothesis and findings from some European transition countries support the global advantage hypothesis, whereas the study of Chinese banks suggests no short-term or long-term impact of foreign ownership on bank performance. This implies that the relationship really depends on the context.

Keywords: Foreign Ownership, Bank Performance

Introduction

In most countries, the banking industry is heavily regulated and foreign ownership limitation is often one of the many rules. This is also true in Thailand. Before the financial crisis, Thai commercial banks were restricted to a maximum of 25 percent foreign ownership. This limit was removed in 1997 and 100 percent foreign ownership was permitted for a period of 10 years. After that 10-year period, foreign ownership was limited to 49 percent.

In October 2008, however, Thailand's Finance Ministry approved raising Bank Thai's foreign ownership to above 49 percent, and which is now 97.2 percent foreign owned. In 2009, foreign banks in Thailand received permission from the Bank

of Thailand to open two more branches by the end of that year. What is the relationship between foreign ownership and bank performance? Will all of these regulations improve Thai commercial banks' performance? The objective of this article is to review the literature to find out the relationship between foreign ownership and bank performance.

Bank Performance Indicators

To study the relationship between foreign ownership and bank performance, bank performance indicators must first be selected. The popular bank performance indicators are categorized as follows (Berger, et al., 2000: 88-90, 2005: 2188; Bonin, Hasan, and Wachtel, 2005: 40-44; Choi and Hasan, 2005: 222; Grigorian and Manole, 2002: 16; Kim and Lee, 2004: 20;

Lin and Zhang, 2009: 23; Micco, Panizza, and Yanez, 2007: 226; Saovane Chantapong, 2005: 69-72; Sufian and Abdul Majid, 2008: 8-9; Unite and Sullivan, 2003: 2329):

1. Profitability: This group of indicators focuses on the profitability aspect of the bank performance. Profitability is an indicator of managerial efficiency in converting bank assets into earnings. The following indicators can be found in the literature:

- Return on Assets (ROA): ratio of net income to total assets; this is an overall measure of a bank's profitability after tax.

- Before-tax profit/total assets: ratio of gross profit to total assets; this is an overall measure of a bank's profitability before tax.

- Return on equity (ROE): ratio of net income available to common equity holders to common equity; this ratio measures the profitability from the ordinary stockholders' point of view.

- Net margin/total assets: ratio of net interest income to total assets, where net interest income is the difference between interest income generated by the bank and interest paid on borrowed funds. It measures the basic earning power of a bank.

- Non-interest income/total assets: ratio of non-interest income to total assets.

This ratio captures the fact that banks are earning more money from nontraditional sources such as financial service fees.

2. Cost control: This group of indicators measures how efficiently a bank is controlling its cost or expenses. Four examples of this indicator are as follows:

- Costs/assets: ratio of total interest and non-interest expenses to total assets. This ratio measures the total cost of a bank as a percentage of its total assets.

- Overhead/total assets: ratio of total operating expenses to total assets, where total operating expenses include salaries, employee benefits and other non-interest expenses.

- Cost/income: ratio of total cost to operating income. This is a traditional efficiency measurement; the lower the ratio, the higher the efficiency.

- Employees/total assets: the log of the ratio of employment to total assets. This is also an efficiency indicator, which measures the total employment as a percentage of total assets.

3. Quality of assets or degree of risk: This measure became popular, especially after the financial crisis. Banks are paying more attention to quality, or the degree of credit risk of earning assets. Two commonly used indicators are:

- Non-performing loans (NPL): ratio of non-performing loans to total loans. The non-performing loan is measured as a percentage of total loans, thus a higher ratio indicates lower quality and higher degree of risk for the bank's earning assets.

- Loan loss provisions/total assets: ratio of loan loss provisions to total assets. A higher ratio suggests that a higher percentage of loans will be entered as an expense to guarantee the bank's solvency.

4. Relative efficiency: This group of measures is not a traditional financial statement ratio analysis found in most textbooks, rather it is a relative measure obtained by constructing an efficient or best performance frontier, which can be based on the parametric (e.g. Stochastic Frontier Analysis, SFA) or non-parametric approach (e.g. Data Envelopment Approach, DEA). The following efficiency scores or ranks are often found in the literature of bank studies.

- Profit efficiency: is obtained by the parametric approach where a stochastic profit frontier is constructed and the bank's profit efficiency is computed from the residual of the profit function.

- Cost efficiency: can be obtained by the parametric approach where a stochastic cost frontier is constructed and the bank's cost efficiency is computed from the residual of the cost function, or the non-parametric approach where the bank's

cost efficiency is solved from a linear programming problem.

- Technical, pure technical and scale efficiencies. These relative efficiency measures are obtained by solving a series of linear programming problems.

5. Market-based measures: This group of measures is different from the above four groups in that it focuses on the market-based performance rather than the book-based performance.

- Stock return: end of the year stock return. A higher stock return reflects better performance as perceived by investors.

- Standard deviation of stock return: standard deviation of the average daily stock returns. This is a proxy for the degree of risk; the higher the standard deviation, the higher the risk.

Foreign Ownership Measures

Foreign ownership is measured differently in different papers under different circumstances, from as simple as only 1 dummy variable to several measures.

Case 1: When banks can be easily divided into two groups such as foreign and domestic, there is only 1 foreign dummy needed, which equals "1" if the bank is a foreign bank and "0" otherwise. This is suitable when the paper attempts to study

the performance difference between domestic and foreign banks in a country. For instance, Sufian and Abdul Majid (2008: 16) use this foreign dummy to study the domestic and foreign Islamic banks in Malaysia. Saovanee Chantapong (2005: 69, 81) classifies commercial banks in Thailand into three groups as domestic, joint venture, and foreign, hence the foreign dummy is employed together with another domestic dummy.

Case 2: Two or more foreign dummies can be employed together when more detailed information regarding foreign ownership is available. For instance, Bonin, Hasan, and Wachtel (2005: 37) divide the ownership into four mutually exclusive and collectively exhaustive categories: majority government, majority domestic private, strategic foreign and other foreign majority. Majority means more than 50 percent ownership. Strategic foreign ownership represents the bank having a single majority/controlling foreign owner. Lin and Zhang (2009: 24), similar to Berger, et al. (2005: 2192-2194), study the effects of a change in ownership on bank performance by constructing four variables: static ownership indicator (to identify banks with no change in ownership), selection ownership indicator (to identify banks with some change in ownership), dynamic ownership indicator-dummy (to evaluate the

short-term impact of ownership change on bank performance), and dynamic ownership indicator-years since (to catch the long-term impact of ownership change on bank performance).

Case 3: Where the sample consists of only domestic banks, there can be only 1 foreign dummy, depending on the level of ownership. It equals 1 if the bank has any level of foreign ownership (Choi and Hasan, 2005: 223), or more than 30 percent of foreign ownership (Grigorian and Manole, 2002: 16), or more than 50 percent of foreign ownership (Micco, Panizza, and Yanez, 2007: 221), and 0 otherwise.

Case 4: Other than the dummy variable, some papers also select continuous/discrete variables. One continuous variable is the foreign ownership percentage of the bank (Choi and Hasan, 2005: 223; Kim and Lee, 2004: 24; Unite and Sullivan, 2003: 2329). Another variable is the number of foreign bank entries (through the opening of branches) in a given year (Kim and Lee, 2004: 19), or the number of foreign banks as a percentage of all commercial banks (Unite and Sullivan, 2003: 2329). The benefit of these variables is that they can capture the impact of the level of foreign ownership on domestic bank performance, whereas a foreign dummy merely tests the impact of the existence of foreign ownership on domestic bank performance.

Common Methodologies

There are four common methodologies utilized by researchers to examine the effect of foreign ownership on bank performance.

1. T-test, ANOVA and Other Non-Parametric Tests

When the sample banks can be divided into only two groups such as foreign and domestic, it can be tested whether the performance of one group is statistically significantly higher or lower than that of the other group. Examples can be found in Berger, et al. (2000: 94-97) and Sufian and Abdul Majid (2008: 37-38) where t-test, ANOVA, and other non-parametric tests are employed to identify the performance difference between foreign and domestic banks.

2. Cross-Sectional Regression

When cross-sectional data is available, cross-sectional regression would be the best choice to study the effect of foreign ownership on bank performance. Naaborg and Lensink (2008: 545) perform a cross-section analysis to study 216 banks in transition economies in Central and Eastern Europe and Central Asia.

3. Panel Data Regression

If the sample is panel data, then a fixed-effects or random-effects model can be utilized to study the effect of foreign

ownership on bank performance. For the fixed-effects model, normally year dummies and/or country dummies would be added in the regression (Berger, et al., 2005: 2197-2198; Micco, Panizza, and Yanez, 2007: 224). However, it is argued that the fixed-effects model may not be as efficient as the random-effects model; hence Unite and Sullivan (2003: 2337) prefer the less restrictive random-effects model in their study.

4. Censored Tobit Regression

When the performance indicator is the relative efficiency, it might range from 0 to 1 if it is obtained from the Data Envelopment Approach. In this case, the censored Tobit regression model is chosen to analyze the data by Grigorian and Manole (2002: 36) and Sufian and Abdul Majid (2008: 39).

Relationship Between Foreign Ownership and Bank Performance

The relationship between foreign ownership and bank performance can be studied from different perspectives depending on the data set.

1. Developed Countries

Ownership structure in developed countries changed a lot during the 1990s and early 2000s due to domestic mergers, acquisitions and foreign acquisitions. Berger,

et al. (2000: 23-158) studied and compared the relative profit and cost efficiencies of foreign and domestic banks in five countries: France, Germany, Spain, the United Kingdom and the United States. Two hypotheses are raised in the paper: home field advantage hypothesis (HFAH) and global advantage hypothesis (GAH). HFAH asserts that domestic institutions are generally more efficient than the institutions from foreign countries because foreign banks have cross-border disadvantages, whereas GAH supports the opposite. GAH has general and limited forms. It is found that, on average, domestic banks in the above five countries have both higher cost and profit efficiencies than foreign banks operating in the country. This result supports the HFAH. However, it is also found that the results, after they are disaggregated by the foreign nation of origin, seem to reject HFAH and support the limited form of GAH. The disaggregated results indicate that “domestic banks may be more efficient than foreign banks from most foreign countries, may be about equally efficient with foreign banks from some foreign countries, but may be less efficient than foreign banks from one (the United States) of the foreign countries” (Berger, et al., 2000: 106).

2. Developing vs. Industrialized Countries

Micco, Panizza, and Yanez (2007: 219-

241) studied 197 countries around the world over the period 1995-2002. Banks with more than 50 percent foreign ownership are classified as foreign. The results show that foreign banks located in developing countries tend to have higher ROA (about 0.37% higher) than private domestic banks. However, there is no significant difference in ROA between foreign and domestic banks in industrialized countries. Regarding the net interest margin, it is found that the margins of foreign banks are lower than those of domestic private banks in industrialized countries, but there is no significant difference in developing countries. Foreign banks are also found to have much lower overhead costs than domestic private banks in both developing and industrialized countries. The employment ratio (employment divided by total assets) is lower for foreign banks in developing countries, but no significant difference is found in industrialized countries.

3. Transition Countries

Another strand of research papers focuses on transition countries. These countries, that is China and some European countries, are transforming from the central planning to market-oriented system. The effect of foreign entry and increase of foreign ownership on the performance of domestic banks in these transition countries

might be different from the results in developed or other countries. Lin and Zhang (2009: 20-29) studied the panel data of Chinese banks over the period 1997-2004. The results indicate that banks undergoing a foreign acquisition have a better pre-event performance in terms of ROA, ROE, asset quality and costs to operating income, which implies that the Chinese government selected better banks for foreign acquisition in order to attract foreign investors and avoid failure of the reform. However, there is no significant change in performance found after the foreign acquisition in either the short or long term. This above mentioned result may indicate that it is more difficult to improve the performance of a pre-selected better bank.

European transition countries are studied in different papers from different aspects. Bonin, Hasan, and Wachtel (2005: 31-53) studied eleven transition countries over the period 1996-2000 and found that foreign-owned banks were more cost-efficient than other banks, and the strategic foreign owner could really make a difference. This result is consistent with the finding of Grigorian and Manole (2002: 19), that banks (in seventeen transition countries during 1995-1998) with controlling foreign ownership are likely to be more efficient (DEA efficiency) than their domestic-owned peers. Naaborg and Lensink (2008: 545-562)

analyzed cross-sectional data of 216 banks in transition economies in Central and Eastern Europe and Central Asia and found evidence supporting the home field advantage hypothesis.

4. Crisis-Experienced Countries

Researchers are also interested in studying the impact of foreign ownership on bank performance in financial crisis-experienced countries. Normally the foreign ownership control is deregulated after the financial crisis by either allowing more foreign entry or permitting direct foreign acquisitions, which results in more foreign banks in the industry or higher foreign ownership in domestic banks. The objective of the deregulation is to improve the overall performance of the banking industry. The results from this group of countries, however, may be different from the above three groups.

- *Argentina*: Berger, et al. (2005: 2179-2221) studied Argentine banks for the period of 1993-1999. They found that during that period, foreign ownership was associated with statistically significantly lower profit efficiency and lower costs/assets ratio than domestic ownership. In terms of dynamic effects of foreign acquisitions, the results indicate that the short-term performance, such as ROE and cost efficiency, of banks deteriorated. However, the long-term

benefits found that banks which underwent foreign acquisition decreased the costs/assets ratio and non-performing loans (NPL) in the long run.

- *Korea*: Choi and Hasan (2005: 215-241) examined the Korean commercial banks for the post financial crisis period of 1998-2002. Evidence indicates that the depth of foreign entry, not the mere existence of foreign ownership, is significantly positively associated with the bank's return (ROA, ROE and profit efficiency) and significantly negatively related to the bank's risk (standard deviation of stock return, and provision for loan losses). Kim and Lee (2004: 1-28) revealed different results on Korean banks during 1999-2001. They point out that foreign bank penetration through the opening of branches contributes to greater cost efficiency of private domestic banks, presumably by intensifying competitive pressures. However there is no evidence that foreign bank entry has improved local bank profits. Further, private domestic banks with higher levels of foreign ownership are found to have lower profits.

- *Malaysia*: Sufian and Abdul Majid (2008: 1-43) investigated the performance of Malaysian Islamic banks over the period 2001-2005. They find that foreign banks have exhibited higher technical efficiency compared to their domestic counterparts.

- *Philippines*: Unite and Sullivan (2003: 2323-2345) studied the impact of relaxing foreign entry on domestic Philippine banks during 1990-1998. The results show that interest rate spreads narrowed and operating expenses declined with greater foreign bank entry. The evidence also indicates that the entry of foreign banks is directly related to increases in risk, such as the increase in loan loss provisions, which could result from domestic banks being forced to take on less creditworthy customers due to the increased competition brought by the entry of foreign banks. On the other hand, an increase in the percentage of foreign ownership in domestic banks led to an increase in operating expenses and a decrease in non-interest income.

- *Thailand*: Saovanee Chantapong (2005: 63-83) compared the performance of domestic and foreign banks in Thailand over the period 1995-2000. Foreign bank profitability is found to be significantly higher than the average profitability, or higher than that of domestic banks. However, the profitability gap between domestic and foreign banks is closer during the post-crisis period, which could be an indication of the positive effect of financial restructuring programs in domestic banks.

Conclusion

This article reviews the recent literature on the relationship between foreign ownership and bank performance, or the impact of foreign ownership on bank performance. Five groups of performance indicators, such as profitability, cost control, quality of assets, efficiency and market-based measures, four cases of foreign ownership measures, such as one or more foreign dummies, foreign ownership percentage and number of foreign bank entries, and four different methodologies, such as t-test or ANOVA, cross-sectional regression, panel data regression and censored Tobit regression are found to be commonly employed. The sample data are drawn from developed/ industrialized countries, developing countries, transition countries, and crisis-experienced countries. The findings on the relationship between foreign ownership and bank performance are not clear-cut. Results of some developed countries support the home field advantage hypothesis and findings from some European transition countries support the global advantage hypothesis, whereas the study of Chinese banks suggests no short-term or long-term impact of foreign ownership on bank performance. This implies that the relationship between foreign ownership and bank performance, or the impact of foreign

ownership on bank performance really depends on the context. Regarding the Thai banking industry, new regulations need to be justified and the impacts tested in the future.

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Dr. Li Li earned her D.B.A. in Finance from Thammasat University. She is currently a lecturer in the School of Business, University of the Thai Chamber of Commerce. Her research interests are in the areas of financial institutions, investment, and international financial management.