

Foreign Bank Penetration In Asean And It's Impact Toward Banking Competition

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OIDA International Journal of Sustainable Development, Ontario International Development Agency, Canada
ISSN 1923-6654 (print) ISSN 1923-6662 (online) www.oidaijdsd.com
Also available at <http://www.ssrn.com/link/OIDA-Intl-Journal-Sustainable-Dev.html>

Abstract: The existence of foreign banks within a country is to facilitate international trade transactions. As a consequence, foreign banks provide some breakthroughs for local companies to access worldwide financing. It means, through foreign banks, foreign companies can enter the domestic market in terms of financing, investment, or else. The purpose of this study is to measure the impact of foreign banks penetration in ASEAN countries banking industry. The impacts to be measured are limited only in terms of competition during 2002-2014. Foreign bank penetration is measured by ratio of foreign assets to total assets of banks. The level of banking competition is measured using Panzar-Rosse approach as used by Shaffer (2004) which refers to the Panzar Rosse (1987). Panel Regression method used to estimate the effect of the penetration of foreign banks on the level of banking competition. This research show that foreign bank penetration have negative relationship with bank competition im ASEAN. So, decision maker in each country have to take prudent policy in term of foreign bank penetration.

Keywords: ASEAN, Bank Competition, Bank Concentration, Foreign Bank Penetration, and Panzar Rose Competition

Introduction

Penetration of foreign banks is the entry of a foreign bank or an increase in the amount of foreign capital in the domestic banking sector. Theoretically penetration of foreign banks will be striving to various aspects of banking. If foreign banks or foreign capital get into the banking system of a country it will have an impact on resource allocation domestic banking, competition and efficiency of banking, public confidence in the banking sector, access to international capital, the profitability of domestic banks and the domestic financial system's ability to respond the internal and external shocks. (Aburime, 2009). The presence of foreign banks in developing countries has increased significantly since the early 1990s . Average Share of total assets owned bank in Asia and Latin America increased from 26 % to 38 % within a period of 5 years is not too long before the year 2002. The trend in increased penetration of foreign banks beberpa higher in countries such as Mexico, Peru and Uruguay in Latin America and Korea , Indonesia in Asia (Jeon, Olivero and Wu, 2010). Financial reform after the crisis that put pressure on the policy of reducing or eliminating entry barriers to the penetration of foreign banks that triggered the increasing internationalization of the domestic bank market in Countries that do this. This reform effort to provide more flexibility for foreign banks increase their freedom and get a broader activity, especially in the business strategy of foreign banks to move in global banking. As a result foreign bank becomes an important role in shaping and internationalization - clicking the banking market on the economies of these countries

Based on the description above, examining the impact of foreign bank penetration to the domestic banking sector in developing countries become important for academics researcher and policy. Several researcher revealed that the penetration of foreign banks will increase competition in the domestic banking market, improving the efficiency of operations of domestic banks, providing services to lower costs and boost economic growth through increased efficiency of resource allocation (Claessen et al., 2001; Crystal et al., 2002; Claessen and Laeven, 2004; Demircuc-Kunt et al., 2004; Northcott, 2004; Levy- Yeyati and Micco, 2007; Yildirim and Philippatos 2007; Claessen 2009; Olivero et al., 2009; Wu et al., 2010, Usman, 2012). On the other hand some researchers have found the opposite, where foreign banks may choose borrowers who have the lowest risk, and forcing domestic banks serve borrowers who are at high risk so that domestic banks become profitable, not efisiesn and less competitive. The researchers stated that foreign banks tend to enjoy higher NIM (Net Interest Margin) compared to banks domestically, and caused banks to domestic less competitive (Barajas et al., 2000, Lesink and Hermes 2004, De la Tore et al., 2010 Usman and Syofyan, 2014).

Research Question

Empirical issue that until now is still disable to conclude how the effect of the penetration of foreign banks. Banking literature has not yet obtained the agreement of the link between the penetration of foreign banks to the level of competition . There is still need much study to identify specifically the mechanism between the entry of foreign banks and their impact on the level of banking competition in the Host country and how the effect depends on the conditions Host country. The research question is: How the impact of the entry of foreign banks on the level of banking competition in ASEAN countries ?

Literature Review

Many researches on foreign banks appear to make the definition of foreign banks diminutive and to its measurement as well. Some researchers had taken its measurement for granted. They assume that foreign banks measurements can be represented only by one or two indicators such as its number, the number of branches, total assets, productive assets, or else.

Given the enormous amounts of ratios within the financial reports that do exist and possible, the measurements for existence of foreign banks can be tens of indicators. It only requires how we elaborately define earnings, revenues, incomes, profits, sales, etc.

Yet, the definition of foreign banks in Indonesia remains vague and unclear. Its latest definition was provided in the Banking Act No.10/1998, as an amendment to the Act No.7/1992. The second amendment has been registered as the priority in the national legislation process of the parliament by 2014. Recently, some discourse to redefine the foreign banks in Indonesia has resurfaced. Previously, in May 2012, the discourse once was delivered by Muliaman Hadad, then Deputy Governor of Bank Indonesia.

In the US, as of 18 February 2014, The Fed has set the final rule strengthening supervision and regulation of Large Foreign Banking Organisations (LFBOs) and large US bank holding companies. They all have to comply with the Fed's requirements on capital, debt levels, and annual stress tests. The enhanced prudential standards set by the Fed are to address some sources of vulnerability and material weaknesses in the traditional framework for supervising and regulating major financial institutions and assessing risks.

As the worst impacts of foreign banks are recognised, its potential and positive impacts to the industry have been very well observed. At some level, foreign banks can accelerate the competition to be efficient and well-operated. They also can raise the the industrial concentration that effects the industry in terms of competition and efficiency.

According to Focarelli and Pozzolo (2005) and Goldberg (2007), foreign banks are often beneficial for the host economies, particularly on the financial sector that enhances welfare through economic growth (Bayraktar and Wang, 2006). So were their role in improving the efficiency of the host country banks (Bayraktar and Wang, 2005; Claessens, Demirguc-Kunt, and Huizinga, 2000, 2001; Claessens and Lee, 2002).

According to Cetorelli and Goldberg (2006), in 1990, 9 banks classified as Money Center Banks (MCBs) were controlling the foreign exposure market by 70% in the US. As a result of mergers, the number declined to 4, and their market share increased to 81% in 2005. MCBs are not necessarily the largest US banks by asset size. The 4 group of MCBs are Bank of America Corp, Taunus Corp, JP Morgan Chase & Co, and Citigroup. In Canada, the 6 largest banks controlled the Canadian banks' assets by 92% and 96% of all foreign exposures (Santor, 2005).

The competition spreads to more sophisticated lending-borrowing mechanisms, safer and more secured deposits, access to (syndicated) foreign loans, foreign exchange deals, and so on. Internally, the competition takes the forms of enhanced capabilities in innovation, technology, and expertises in managerial, marketing, recruitment and training, cost efficiency, work effectiveness, etc. This implies to a more appreciation, that is increased real wages and welfare. As the bank gains efficiency through reduced production costs, the company can lower the price offered and becomes competitive. Economies of scale can induce further reduction in price and cost. According to some researches; that is Claessens et al (2001), Gelos et al (2004), Peria and Mody (2004), Berger, Hasan, and Klapper (2004); foreign banks increase the competition as the Net Interest Margin (NIM) became lowered.

According to Poshakwale and Qian (2010) and Lehner and Schinizer (2008), foreign banks are able to increase the efficiency as it can reduce its operating expense.

As a matter of fact, such trends (lowered profitability) can lead the industry to a nightmare, that is further reduction of profit level as a whole, cut-throat competition, predatory pricing, and so on. According to Usman (2012), this does not happen in Indonesia. The competition has increased the NIM, operating income ratio, and profitability of the banking industry. In the meantime, foreign banks can make the industry becomes more concentrated. As it

happens, the competition gets lowered (Bikker and Haaf, 2000). As it becomes more concentrated, the industry is losing efficiency significantly, but not in the industry that has matured (Demirgüç-Kunt, Laeven, and Levine, 2004) As the competition becomes fiercer, violations to the existing rules occur in terms of legal lending limit, loan loss provision, debt restructuring and/or early remediation, asset valuation and maintenance, accounting standard and principles, and so on.

In the US, the sophisticated nature of lending-borrowing mechanism has rather been a bit abused by LFBOs. The LFBOs operating in the US has been transformed into the funding branch, instead as the traditional lending branch. They have become heavily rely on unstable short-term wholesale funding, and reap benefits in terms of discount window provided by the Fed.

In Indonesia, Syofyan (2002) had analysed the relationship between the market structure and the performance of the banking industry in Indonesia during 1983-1994. She found that the industry proned to support the structure-performance hypothesis as higher profit correlated with higher concentration of the market, not because of the efficiency.

Usman (2012) found that foreign banks did increase the competition, leaving the NIM unaltered. He also urged the Indonesian monetary authority to set the rules for foreign banks to fully comply with Indonesian laws. The first thing to do is to legalise the foreign bank as a legal subject by establishing its entity as a corporation (PT, *Perseroan Terbatas*) under Indonesian statute.

As foreign banks establishments fail to lower its efficiency, measured by its NIM, the industry remains highly concentrated and leaving banks with small to medium scale vulnerable as the targets of foreign acquisitions. Usman and Syofyan (2014) examined the effect of the penetration of foreign banks on the level of competition and efficiency of banking. In this study they used a different measurement of foreign penetration with previous studies, namely: the percentage of foreign ownership in domestic bank shares. The result is the penetration of foreign banks will lower the level kompetisi and banking efficiency in the State Indonesia. The position of this research is continuing research of Usman and Syofyan (2014) by expanding the coverage area of research that countries in ASEAN with the aim of analyzing the impact of foreign bank penetration of the competitive structure of the banking sector that is focused on the ASEAN countries the period 2002-2014

Methodology

This study uses data banks level in ASEAN countries during 2002-2014 . The data used is taken from publication of bank financial statement report (balance sheet , income statement and cash flow). The data obtained through the bank's financial statements which have been published in the Bank Scope, Euromonitor and Reuters Eikon. This study uses two (2) phases: first, measuring the level of banking competition in the Host country and second, estimate the equation which corelate with the penetration of foreign banks in domestic banking competition. The estimation method used is the method of panel data estimation. The level of banking competition is measured by Ranzar - Rosse approach . Measurement competition with Panzar - Rose approaches using the basic model according to the model used Vesala (1995) and Shaffer (2004) which refers to the Panzar Rosse (1987) . Adjustments were made to this article is , insert EQ , CASH , LO as bank -specific factors and did not enter OI . So that the model to be estimated is :

$$\ln INTR_{it} = \alpha + \beta \ln AFR_{it} + \gamma \ln PPE_{it} + \delta \ln PCE_{it} + \zeta_1 \ln EQ_{it} + \zeta_2 \ln CASH_{it} + \zeta_3 \ln LO_{it} + \epsilon$$

With operational definitions as follows :

(1)

- INTR : Ratio of Interest Income to Total asset
- AFR : Ratio of Interest expense to total deposit
- PPE : average labor cost (ratio of human resource expense to number of workers)
- PCE : Ratio of administrative and operational expense to total asset total asset
As a proxy of fixed input cost
- EQ : Ratio of total equity to total asset
- LO : Ratio of nett credit to total asset
- CASH : Ratio of cash from each bank to total deposit
- B, γ , δ , ζ_1 , ζ_2 and ζ_3 = regression coefficient from each independent variable

PRH statistic is determined by $\beta + \gamma + \delta$ and tested whether different from zero for the null hypothesis of monopoly or oligopoly markets and different colluded with 1 for the null hypothesis of perfect competition market or markets contestable. If the test results show is different from zero and one means monopolistik. PRH statistic is

measurement of bank competition to be used in equation (2). In this study, the estimated equation showing the effect of the penetration of foreign banks on the level of banking competition. Factors that affect competition in the ASEAN countries banking are the structure of the banking market, the bank -specific factors, environmental factors banks and macro-economic factors in the country concerned (Jeon, Olivero and Wu, 2010)

The regression equation is as follows :

$$PRH_{i,t} = b_0 + b_1PBA_{i,t} + b_2C_{i,t} + b_3BCF_{i,t} + b_4FEF_{i,t} + b_5MEF_{i,t} + b_6D + e_{i,t} \quad (2)$$

Where: i is the index of the State and t is the time index . The dependent variable is $PRH_{i,t}$ is the measurement of the level of banking competition in state i year t obtained from the estimation of equation (1) using a data bank level. The independent variable was the penetration of foreign banks ($PBA_{i,t}$), the level of banking concentration ($C_{i,t}$), a number of factors characteristic of banks ($BCF_{i,t}$), and also include the size of the bank, liquidity, capitalization, profitability, efficiency and risk. $FEF_{i,t}$, t is the financial environmental factors, and $MEF_{i,t}$ is the factor of the macroeconomic environment. D is variable dami for crises. FEF is measured by the ratio of domestic credit to the private sector to GDP and the level of stock market turnover. MEF measured by real GDP, the GDP growth rate, the rate of year inflasi. D is dami (Caprio and Klingebiel, 2003, Leaven and Valencia, 2008). PBA measured by The share of total foreign bank assets and C measured by CR3 (Concentration Ratio for three top banks)

Description Of Variables

As shown in Table 1, foreign bank penetration levels vary among the countries in ASEAN. On average during our sample period, the economies with the lowest levels of penetration (asset-base) are Vietnam, the Philippines and Singapore, and those with the highest are Indonesia, and Malaysia.

Table 1: Foreign Bank Penetration Rates in ASEAN Countries, 2000-2014

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Indonesia	.054	.168	.234	.263	.263	.270	.271	.269	.206	.207	.212	.216	.218
Malaysia	.219	.231	.234	.213	.215	.227	.227	.20	.212	.210	.208	.206	.204
Philippines	.045	.043	.032	.016	.015	.013	0.01	.01	.016	.012	.009	.009	.010
Singapore	.070	.059	.037	.043	.036	.044	0.03	.07	.039	.033	.028	.022	.023
Thailand	.060	.058	.039	.047	.045	.052	.058	.06	.050	.050	.055	.055	.056
Vietnam	.02	.02	.02	.02	.01	.01	.01	.01	.010	.010	.010	.010	.010

Notes: The foreign bank penetration rates are measured in terms of assets (the asset-based foreign bank penetration rate is estimated as the assets of foreign banks divided by the total banking sector assets in each country and year)

The levels of foreign bank penetration have increased dramatically in Indonesia until 2019, after the governments relaxed entry restrictions in the banking sector as part of the post-crisis financial reform efforts. After that the level of foreign bank penetration decreased from 2009 to 2010, and this was because of foreign ownership of domestic bank assets have switched to domestic investors. Although ASEAN countries have been deregulating their banking systems, they have approached process of relaxing entry restriction of foreign banks more cautiously for concerns that foreign banks might be a source of financial instability and contagion (Rajan and Gopalan, 2009). As a result, shareholding of foreign subsidiaries is still limited in Asia, even with foreign banks having been found to perform significantly better than domestic banks (Laeven, 2005).

In Indonesia, Usman (2012) suggested that Bank Indonesia as the monetary authority needs to create more strictly rules against foreign banks which require foreign bank branches operating in Indonesia turned into a limited liability company (PT) to facilitate the supervision and regulation. Thus foreign banks will be subject to the provisions of company law in Indonesia , because, it proved that foreign banks in Indonesia are not able to reduce the net interest margin which is the signal of efficiency.

Table 2: The estimated Panzar and Rosse H (PRH) statistics

	Three-year term estimates								
	2003 - 2005		2006 - 2008		2009 - 2011		2012 - 2014		Average
ASEAN									
Indonesia	0.327	***	0.764	***	0.708	***	0.734	***	0.633
Malaysia	-0.114		0.245		1.098	***	0.42	***	0.759
Singapore	0.643	**	0.629	***	0.23		0.579	***	0.617
Philippines	-0.145		0.524	***	0.633	***	0.765	***	0.641
Thailand	0.504	***	0.386	***	0.531	***	0.609	***	0.508
Vietnam	-		0.705	***	0.846	***	1.66		0.776
Average	0.491		0.602		0.763		0.621		0.619

Notes: The missing entries are due to an insufficient number of observations.

The estimated three-year term PRH statistics reported in Table 2 indicate that banking industries in ASEAN seem to be monopolistic competition. The sample mean of the PRH statistics in Vietnam and Malaysia shows that the two countries banking more competitive compare with another. The less competitive banking industry is in Thailand. Table 3, shows the same conclusion with Table 2. But special for Singapore we find no significant PRH statistic due to lack of data, so we calculate three years term PRH statistic estimation.

Table 3: The estimated Panzar and Rosse H (PRH) statistics

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam	Average
2002	0.812	***	2.338 *	0.004196	(0.313)	0.592	0.857
2003	0.508	***	0.298	-0.215584	(1.122)	0.428 **	0.028
2004	0.290	***	0.070	-0.479051	(0.313)	0.601	0.162
2005	0.896	***	(0.141)	0.289330	(0.159)	0.203	0.200
2006	0.772	***	0.487	0.293395	0.101	0.155	0.548 ***
2007	0.721	***	(0.006)	0.856875 ***	0.095	0.341 ***	1.005 ***
2008	0.824	***	0.240	0.411866	0.051	0.296 ***	0.731 ***
2009	0.704	***	1.280 ***	0.730611 ***	0.269	0.629 ***	0.660 **
2010	0.716	***	0.939 ***	0.750273 **	0.243	0.606 ***	0.659 **
2011	0.697	***	0.644	0.572310	0.240	0.272	0.583 **
2012	0.959	***	0.917	0.712331	0.026	0.766 ***	0.595 **
2013	0.664	***	0.712 **	0.772030	0.100	0.505 ***	1.060 **
2014	0.663	***	1.050 *	0.637520 ***	0.183	0.611 ***	1.088 ***
Average	0.710		0.679	0.410	(0.046)	0.462	0.770

Notes: The missing entries are due to an insufficient number of observations.

In general, banking industry in ASEAN countries are concentrated reported in Table 4. The most concentrated banking industry are Malaysia, Philippines and Vietnam and the less concentrated among them are Thailand and Singapore. Indonesia's Banking Industri is rather concentrated.

Table 4: The Concentration Of Banking Industry In ASEAN 2002 - 2014

Year	Country					
	Indonesia	Malaysia	Singapore	Vietnam	Philippines	Thailand
2002	0.638	0.529	0.438		0.603	0.453
2003	0.614	0.533	0.446		0.559	0.454
2004	0.588	0.547	0.408	0.597	0.549	0.430
2005	0.543	0.548	0.394	0.779	0.552	0.411
2006	0.509	0.584	0.387	0.773	0.540	0.399
2007	0.511	0.595	0.400	0.638	0.586	0.401
2008	0.504	0.604	0.413	0.627	0.582	0.386
2009	0.516	0.618	0.405	0.468	0.576	0.404
2010	0.499	0.616	0.390	0.429	0.590	0.386
2011	0.490	0.592	0.398	0.418	0.585	0.374
2012	0.485	0.590	0.391	0.446	0.614	0.370
2013	0.481	0.603	0.392	0.460	0.602	0.367
2014	0.503	0.614	0.383	0.464	0.612	0.376

Empirical Result

We apply a Panel Regression Method to estimate equation (2) Table 5 reports the estimation results for equation (2). Our results reveal that foreign bank penetration levels are associated to decrease in the degree of competition in terms of of total assets. The estimates presented in Table 4 imply that a 1% increase in the share of total bank assets owned by foreign banks (the ratio of foreign to total banks) decrease the PRH measure of competition by 6.062. These result is not consistent with those in Jeon et al (2010), Claessens et al (2001), according to which the degree of competition in a banking system is a function of the number of foreign banks as well as of the volume of assets that foreign banks control. The model's determination coefficient increases significantly as we add control variables in to the estimation equation. Importantly, the negative association between foreign bank penetration and competition is still consistent after controlling for the effect of macroeconomic, financial market and bank-specific factors.

This result consistent with Usman and Syofyan (2014). They found that the penetration of foreign banks will decrease banking competition. The results also showed that the increase in foreign ownership of domestic banks will decrease the efficiency of banking in Indonesia and the results are consistent with research of Levi and Micco (2007). It required more rigorous regulations regarding foreign ownership limits on domestic banks. It is shown that higher market concentration does not necessarily dampen competition. Actually, we find that the coefficient on CR3 is positive and statistically significant, which implies that higher concentration in the market for loans is associated with a higher level of banking competition. This finding is consistent with the observation that the structure-conduct-performance (SCP) paradigm which predicts a clear inverse relationship between concentration and competition does not necessarily hold in the banking industry (Jeon et al, 2010). Other studies have reported similar results (e.g., Claessens and Laeven, 2004; and Wu et al., 2010). Several bank-specific characteristics which proxy for the strength of banks' balance sheets show a less significant effect on competition. Only, the coefficient on bank size is always positive and statistically significant, which indicates that competition seems to be more intense in markets dominated by larger banks. We did not find evidence for a consistent and significant effect of liquidity, capitalization, riskiness, profitability and efficiency on competition. Jeon et al, (2010) denoted that Bank competition increases in crisis periods. This is consistent with the fact that reform began with a restructuring of the domestic banking sector with the goal of enhancing competition among domestic banks in most of the countries severely affected by financial crises (BIS, 2005).

Conclusions

The presence of foreign banks not much increased in ASEAN countries since the early 2002s. Banking markets in this economy have become increasingly international due to financial liberalization, widespread privatization, financial integration, and banking reform efforts. The impact of this increasing foreign bank entry on the competitive structure of domestic banking markets has been examining by Jeon et al (2010), and they found that foreign bank penetration have positive relationship with bank competition in emerging Asian and Latin American

banking markets. Usman and Syofyan (2014) found the opposite in Indonesia. However, the banking literature has reached no consensus so far on this impact. Whether proponents or opponents of foreign bank penetration. We find that the penetration of foreign banks will decrease banking competition. Our findings have important policy implications for policy makers and banking regulators in ASEAN countries that open their doors to foreign banks. Policy maker required to be more prudent in decide about foreign bank regulation such as strengthening supervision and regulation of LFBOs and requirement on credit supply where foreign banks have to increase their credit supply to small-medium enterprises.

Table 5: Effects of Foreign Penetration on Banking Competition

Dependent variable: PRH-statistic		
	(1)	(2)
Banking market structure		
Penetration (assets) _t	-6.062** (2.985)	
CR3 _t	1.873** (0.880)	2.477*** (0.853)
Banking specific factors		
Size _{t-1}	.008*** (0.002)	.007** (0.001)
Liquidity _{t-1}	0.887 (1.155)	1.28 (0.172)
Capitalization _{t-1}	3.40 (2.558)	1.63 (2.476)
Riskiness _{t-1}	0.00 (0.00)	0.0002 (0.0002)
Profitability _{t-1}	0.831 (6.344)	(3.73) (6.403)
Efficiency _{t-1}	-1.05 (7.28)	-3.78 (7.37)
Macroeconomic environment		
GDP _t	.000* 0.00	.000 0.00
Inflation _t	0.013 (0.012)	0.0146 (0.0122)
Dummies		
Dummy (crisis)	.201** (0.08)	.208** (0.08)
Constant	-1.52 (1.211)	-2.382** (1.16)
Observation	68	68
Goodness of fit	0.68	0.65

Notes: Standard errors in parentheses. *** denotes the 1% significance level, ** 5%, and * 1% significance level

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