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## The Effect of Foreign Bank Entry on the Performance of Philippine Domestic Banks

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**Abstract:** The liberalization of financial markets has spurred the growth of international banking worldwide where advanced and emerging markets now increasingly allows for foreign entry and foreign ownership in the domestic banking sector. However, previous literature on the effect of banking liberalization on domestic banks in the Philippines only used large banks to represent the whole banking system and did not control for other factors such as mergers and acquisitions. Therefore, this study examines the impact of the liberalization of foreign bank entry on Philippine domestic banking market during the period of 1994 to 2010. In particular, we used an unbalanced panel of 34 universal and commercial banks and employ the fixed-effects model. This study finds that foreign bank entry increases bank profitability when net interest margin is used as a measure of bank profitability; otherwise, the relationship is found to be insignificant. It is concluded that the intent of the foreign bank liberalization to improve the profitability and efficiency of domestic banks, only works after foreign banks have increased percentage ownership in the domestic banking system.

**Key Words:** foreign bank entry; domestic commercial banks; fixed-effects model; unbalanced panel; profit efficiency

### 1. INTRODUCTION

In recent decades, international banking activity has become more important due to the globalization of capital markets and integration of economies. One aspect of it that has received increased interest is the activities of foreign banks. This is due to the increase of foreign bank presence in emerging economies in the late 90s as part of their financial liberalization policies. In Europe and Central Asia, the median foreign bank share on the domestic banking total assets increased from 5% in 1995 to 60% in 2008. During the same period, foreign ownership increased from 6% to 41% in Latin America and Caribbean. In East Asia and Pacific, there was an increase in foreign bank participation from 8% in 1995 to 28% in 2008 (Cull, Martinez Peria, & Verrier, 2017). Due to the Global Financial Crisis, foreign ownership declined across all regions. In the Philippines, the share of domestic banks owned by foreigners started to increase when the Foreign Bank Liberalization Act of 1994 (Republic Act No. 7721) has been enacted, which allows a maximum of 10 new foreign banks to operate by opening a branch or subsidiary, either as a new operation or by acquiring a domestic bank. The primary purpose is to enhance the efficiency of the domestic banking market by changing its competitive landscape. This policy and the higher minimum capital requirement induced by the 1997 Asian Financial Crisis, has forced many banks to venture on mergers and acquisitions.

The growth of foreign bank ownership has raised an interesting question whether the gains outweigh any losses in the domestic banking system. The proponents in favor of foreign bank entry argue that it may augment financial resources through an increase in foreign direct investments, improve the competitive landscape of the domestic banking system, and develop the financial system infrastructure (Claessens & Glassner, 1997). However, the opposition is concerned with the fact that the entry of foreign banks may create over

fragmentation in the financial system (i.e., foreign banks tend to cherry pick clients in the domestic banking market, leaving behind risky clients for domestic banks which may result to inefficiency and less competition) (Goldberg, Dages & Kinney, 2000; Yoshitomi & Shirai, 2000). The rationale for the internationalization of the domestic banking system is that it creates efficiency spillovers and increases the level of competition in the domestic banking sector. Although, several studies have provided empirical evidence on the effect of foreign bank entry on domestic bank performance, it is still insufficient to conclusively say that an increase in foreign bank participation is able to improve the competitive landscape and soundness of the financial system, especially in the banking sector. Hence, this study aims to draw conclusions on the impact of foreign bank liberalization on the performance of domestic banks to justify the financial liberalization of this kind.

### 2. METHODOLOGY

#### 2.1 Data and Variables

In estimating the effect of foreign bank entry on domestic bank performance, an unbalanced panel data over the period of 1994 to 2010 is employed in this study. We then eliminate the following from our sample: (i) banks with financial statement figures denominated in currencies other than that of the Philippine Peso, (ii) banks classified as foreign bank branches or subsidiaries, and (iii) firms with incomplete data. We use domestic universal and commercial banks to represent the whole Philippine domestic banking system. This yields an unbalanced panel data consisting of 404 observations which include 34 domestic universal and commercial banks.<sup>1</sup> The annual financial statements of individual domestic banks are utilized to estimate the accounting-based measure of bank performance. Aside from the effect

<sup>1</sup>The original list of banks, which has been obtained from the BSP Factbook, includes 56 domestic universal and commercial banks during the period of 1994 to 2010



of foreign bank entry, we also employ different control variables that may affect bank performance such as bank-specific and macro-specific variables. Table 1 summarizes the variables used in this study and their corresponding data sources.

Table 1. Variable Descriptions and Sources

Variables	Description	Source
<b>Dependent Variables</b>		
<b>Bank Performance:</b>		
Accounting Profitability	Ratio of before-tax profits to total assets.	SEC
Net-Interest Margin	Ratio of net interest margin to total assets.	SEC
Non-Interest Income	Ratio of non-interest income to total assets.	SEC
Operating Expenses	Ratio of overhead expenses to total assets.	SEC
Loan Loss Provisions	Ratio of loan loss provisions to total assets.	SEC
<b>Independent Variables</b>		
<b>Foreign Bank Presence:</b>		
Foreign Number Share	Ratio of the number of foreign banks to the total number of UBs and KBs.	BSP Factbook
Foreign Market Share	Ratio of total foreign bank assets to the total assets of UBs and KBs.	BSP Factbook
<b>Bank-specific Controls:</b>		
Capital Asset Ratio	Ratio of book value of shareholders' equity to total assets.	SEC
Customer and Short-term Funding	Ratio of short-term and long-term deposits plus non-deposit short term funding to total assets.	SEC
Operating Expenses	Ratio of overhead expenses to total assets.	SEC
Relative Bank Size	Ratio of the total assets of the bank to the total assets of UBs and KBs.	SEC
Mergers and Acquisitions	A dummy variable indicating that a bank underwent M&A.	
<b>Macro-specific Controls:</b>		
GDP Growth	The annual growth rate of real GDP.	World Bank
Inflation Rate	Percentage change in the consumer price index.	World Bank
Real Interest Rate	The difference between the nominal interest rate on short-term government securities and inflation rate.	World Bank

### 2.1.1 Bank Performance Variables

Similar to Claessens et al. (2001), Unite and Sullivan (2003), Lensink and Hermes (2004), and Uiboupin (2004), we use accounting-based measures as indicators of income, profit, and costs of domestic banks. These variables, including accounting profitability (ap), net-interest margin (nim), non-interest income (nii), loan loss provisions (llp), and operating expenses (oe), are used since foreign bank entry may be linked to changes in these variables with the increase in competition and/or efficiency effects.

Accounting profitability is composed of profits from lending and non-lending activities which measures how banks efficiently allocate their assets to generate before-tax profits. In general, domestic banks are observed to be more profitable since it adjusts the pricing of their financial products and services upon the entry of foreign banks to

prevent the latter from capturing significant part of the former's market share.

Net-interest margin and non-interest income are used to characterize the income of banks. The non-interest income variable refers to the non-lending activities of banks. These are observed distinctly because several domestic banks in the Philippines participate in nontraditional banking activities, which include investment banking and brokerage services. Unite and Sullivan (2003) observe that domestic banks tend to engage more in non-lending activities as competition increases since foreign banks usually captures a significant market share of domestic banks. Unlike non-interest income, net interest margin denotes the profits earned by banks through financial intermediation. This variable accounts for the cost of such, which is the difference between the gross cost of the borrowers and the net return received by the depositor (Doliente, 2005).

Loan loss provisions and operating expenses are for measuring bank costs. Loan loss provisions<sup>2</sup> is a noncash, tax deductible expense that represents the current period's allocation to the allowance for loan losses reported on the statement of financial position (Saunders & Cornett, 2012). The differences between the provisioning ratios of domestic banks and foreign banks indicates their ability to evaluate and compare loans using credit scores. It also suggests possible difference in the customer mix of foreign and domestic banks.<sup>3</sup>

Operating expense refers to the expenses incurred by banks in rendering financial services and producing financial products. Foreign banks are expected to incur higher operating expenses due to information asymmetry, which is why foreign banks cherry picks clients and focus on wholesale transactions. In the Philippines, domestic banks incur high operating expenses due to the inability to transfer operating expenses on their customers (Unite and Sullivan, 2003).

### 2.1.2 Foreign Bank Presence

This study used two different measures of changes in foreign bank presence: (1) the ratio of the number of foreign banks to the total of domestic banks (*fns*); and (2) the share of foreign banks' assets in the total assets of domestic banks (*fms*). Changes in these variables capture the dynamic effect of changes in foreign bank presence on the performance of domestic banks. Claessens et al. (2001) state that the ratio of the number of foreign banks to the total of domestic banks is a suitable measure in determining the current competitive conditions in the host country. Unite and Sullivan (2003) posit that domestic banks responds to changes in foreign entry at the time of the entry to become more competitive. The changes in foreign bank presence is induced by profit and market penetration, which pressures domestic banks to be more efficient to maintain their market share. Meanwhile, the share of foreign banks' assets in the total assets of domestic banks is suitable if after gaining substantial market share, foreign banks start to influence the pricing and profitability in the domestic banking market. Claessens et al. (2001) and Unite and Sullivan (2003) explain that the foreign market share in the industry may be large enough to put pressure on the profitability of domestic banks, thus, indicating openness and efficiency. In addition, an increase in foreign ownership

<sup>2</sup> This accounting data may also refer to the bank's prediction of default risk or the risk that borrowers will default from paying the loan

<sup>3</sup> Claessens et al (2001) state that foreign banks usually focus on wholesale loans rather than retail loans



is seen to encourage outside monitoring activity, thus, enhancing the current banking practices of domestic banks.

### 2.1.3 Bank-specific Control Variables

Capital-to-asset ratio measures the asset quality of the banks by taking into account the banks' risk preferences (Hughes & Mester, 1993; Mester, 1996; Manlagñit, 2011). Risk management and risk signaling is linked to equity, thus, it can be conjectured that well-capitalized banks are effective in minimizing costs of production through their risk-taking behavior (Rao, 2005). Berger (1995) states that cheaper sources of funds are more accessible to banks with high quality of risk management which improve their profit rates. Thus, it is hypothesized that there is a positive relationship between capital-to-asset ratio and bank performance.

Customer and short-term funding is the ratio of total customer deposits and short-term borrowings to total assets. Demirgüç-Kunt & Huizinga (1998) states that although customer and short-term funding carries low interest expense, this type of funding is quite costly in terms of establishing branching network. Although this type of funding is relatively costly, it should not be expected for it to have a negative impact on profitability since banks do not increase branching networks unless it is economically rational. Thus, customer funding has an inverse relationship with operating expense and a direct relationship with profitability.

Operating expenses are the costs in conducting operations. It is proxied by overhead expenses, which are related to a bank's lending and non-lending operations, consisting of employee and managerial wages, fringe benefits, depreciation expenses, overhead and equipment-related costs. Any accompanying improvements in supervisory efficiency and organizational structure are predicted to cause a decrease in operating expenses (Claessens et al., 2001).

Relative bank size is utilized to control for the effect of economies and diseconomies of scale in the market. Boyd and Runkle (1993) find that economies of scale indicates the ability of banks to gather and process information at the lowest possible cost. Additionally, Smirlock (1985) notes that banks with higher market share allows them to have access in other markets and to gain higher profits from diversification. Meanwhile, the mergers and acquisitions variable is a dummy variable which takes the value of 1 for the period prior to the bank's M&A, and 0 for all periods for all other banks.

### 2.1.4 Macro-specific Control Variables

Similar to Claessens et al (2001), Unite and Sullivan (2003), Lensink and Hermes (2004), and Uiboupin (2004), we use general economic variables as indicators of macroeconomic development, where such control variables as significant. These macro-specific variables include GDP growth (*gdp*), inflation rate (*ir*), and real interest rate (*rir*).

GDP growth measures how fast GDP grows over time. Djalilov and Piesse (2016) observe that the impact of GDP growth on bank performance depends on the business cycle. During cyclical upswings, banks are more profitable because of the increase in demand for loans. While, banks are considered as less profitable during recessions due to the increase in interest rates. This suggests that bank performance is sensitive to GDP growth.

Inflation rate measures how fast the general level of prices for goods and services rise over time. Perry (1992) finds that the influence of inflation rate on bank performance is ambiguous depending on whether anticipated or not. An anticipated inflation rate signals banks to adjust their loan interest rates faster than their operating expenses, increasing bank profitability. When inflation rate is not anticipated, the operating expenses increases faster than the adjustments in interest rates decreasing bank profitability. Some studies find the relationship between inflation rate and bank performance to be positive, while others find it to be negative.

Real interest rate is the interest rate adjusted for inflation to reflect the real cost of borrowing and the real profit from lending. Banks usually respond to an increase in interest rate by also increasing their lending rate and reducing their lending volume. This strategy potentially strengthens the lending standard of banks which positively influences bank profitability.

## 2.2 Empirical Procedure

To determine which among the Naïve Model, Fixed Effects Model, and the Random Effects Model is the most appropriate to estimate the effect of foreign bank presence on the performance of the domestic banks, we conducted three statistical tests: (1) Wald's test, (2) Breusch and Pagan Lagrangian Multiplier Test, and (3) Hausman Specification Test. Following the results of the aforementioned statistical tests, this study utilized a robust fixed-effects model with the inclusion of firm-constant variables (LSDV 1) to make a sound estimation of the effect of a change in foreign ownership on the performance of Philippine domestic banks. The specification of the model is in accordance with empirical literature on foreign bank presence, which includes bank-specific and macro-economic control variables. The robust fixed-effects model is expressed as:

$$Y_{it} = \alpha + \beta_1 FBE_t + \beta_2 B_{it} + \beta_3 M + \sum \gamma_i D_{it} + u_{it}$$

where:

$Y_{it}$  = vector of variables of interest for bank  $i$  at time  $t$

$B_t$  = vector of variables measuring foreign bank presence at time  $t$

$B_{it}$  = set of bank specific variables for bank  $i$  at time  $t$

$M_t$  = set of country specific variables at time  $t$ , and  $D_{it}$  = set of firm-constant dummy variables

## 3. RESULTS AND DISCUSSION

### 3.1 Summary Statistics

Table 2 presents the descriptive statistics for the entire Philippine commercial and universal banking sector. Subsequent to the enactment of the Republic Act No. 7721, the number of foreign-owned UBs and KBs rose noticeably. The number of foreign banks increased from 4 in 1994 to 14 in 1995, or from 11.11% to 29.17% of the total number of UBs and KBs on a percentage basis. On the other hand, total foreign assets began to increase dramatically from 1995 to 1997, reaching its peak at 90.89% in 1997. After reaching its highest point in 1997, the increases were gradual in the subsequent years with the exception of the decreases that occurred in the years 2002, 2005, and



Table 2. Summary of Philippine universal and commercial banks for 1994-2010

Year	Total	Foreign		Total Assets				
		Number	%	Foreign	Increase/ Decrease	Domestic	Increase/ Decrease	% F/D
1994	36	4	11.11	83,898	6.58	1,128,252	22.56	7.44
1995	48	14	29.17	120,473	43.59	1,456,669	29.11	8.27
1996	49	13	26.53	190,426	58.07	2,283,585	56.77	8.34
1997	54	14	25.93	363,511	90.89	2,581,111	13.03	14.08
1998	53	13	24.53	376,502	3.57	2,522,040	-2.29	14.93
1999	52	17	32.69	390,729	3.78	2,744,830	8.83	14.24
2000	45	17	37.78	445,230	13.95	2,985,015	8.75	14.92
2001	44	22	50.00	554,308	24.5	2,968,837	-0.54	18.67
2002	42	23	54.76	526,588	-5	3,136,386	5.64	16.79
2003	42	23	54.76	538,468	2.26	3,314,047	5.66	16.25
2004	42	23	54.76	696,595	29.37	3,728,843	12.52	18.68
2005	41	14	34.15	621,413	-10.79	3,873,339	3.88	16.04
2006	39	14	35.90	652,119	4.94	4,331,275	11.82	15.06
2007	38	14	36.84	682,282	4.63	4,485,287	3.56	15.21
2008	38	14	36.84	600,556	-11.98	4,992,291	11.3	12.03
2009	38	14	36.84	631,355	5.13	5,451,030	9.19	11.58
2010	38	14	36.84	779,879	23.52	6,131,755	12.49	12.72
Mean			35.05					13.54

Note. Includes all UBs and KBs. Total assets are in millions of pesos.

Source. BSP Factbook

2008. This study is based on a sample that includes 34 domestic commercial and universal banks for the years 1994 to 2010. Over the period 1994 to 2010, we find that foreign banks make up 11.99% of the entire Philippine banking sector having 3.93% of total bank assets.

Table 3 shows the descriptive statistics for accounting profits, net interest margin, non-interest income, operating expenses, loan loss provisions, and relative bank size for 34 domestic commercial and universal banks during the years 1994 to 2010. It is seen that the net interest margin per banks differ extensively between banks, given the considerable difference between its minimum and maximum values, and its respective standard deviations. This large margin is attributable to high profit margins and high intermediation costs from taxes and reserve requirements, which suggests a structural limitation of the sector (World Bank, 1986). The figures obtained for accounting profitability, non-interest income and operating expenses validate this outcome by emphasizing that a number of these domestic banks conduct their operations significantly better than others. On average, accounting profitability, net interest margin, and non-interest margin seems to be declining during 1994 to 2001, and increased relatively after this period. During the same period operating expenses and loan loss provisions experienced significant increases during. This trend may be attributable to the liberalization of foreign bank entry in 1994 and the AFC in 1997.

### 3.1.1 Foreign Bank Presence

This study employs two measures of foreign bank presence, which are the change in the number of foreign banks (fns), and the change in foreign market share (fms). The number of foreign entrants is a proper measure if the number of domestic and foreign banks are determinants of competitive conditions. This might be the instance

when domestic banks modify the prices of their lending and other activities as foreign entry happens, to hinder foreign entrants from gaining significant market share (Claessens et al., 2001). From the estimation results in Table 4, changes in the number of foreign entrants have a positive insignificant effect on accounting profitability, net interest margin, operating expense, while a negative insignificant effect on non-interest income and loan loss provisions. Since this study includes banks of varying sizes, the prior insignificant relationships may be explained by the claim that the entry of foreign banks have a significant effect on large domestic banks only. This is because both foreign and large domestic banks cater to the same market segment, in contrast to the smaller banks which serve a different market segment. This argument is supported by the findings of Unite and Sullivan (2003) wherein the increase in the number of foreign bank entry only affects the profitability and efficiency of large Philippine domestic banks.

Another possible reason is that prior to the entry of foreign banks, domestic banks have already modified their competitive behavior. This is supported by the findings of Hapitan (2001) that prior to the entry of foreign banks, Philippine domestic banks have already changed their competitive behavior through core marketing strategies under the perspective that foreign banks are more of a "marketing problem" than a "banking problem". Some of the core marketing strategies that has been done by domestic banks prior to foreign bank entry include moving to other market segments, reassessing pricing schemes, launching new products, and allocating more resources in advertising and promotional activities. This shift in core marketing strategies have already improve the profit efficiency of domestic banks prior to the entry of foreign banks through the expansion of their deposit-taking and lending activities.



Alternatively, the changes in foreign market share is a fitting measure in the case where foreign banks are able to put pressure on the profit and cost efficiency of domestic banks after gaining significant market share (Claessens et al., 2001). Overall, it is found that there is a significant and positive relationship between foreign market share and bank profitability when net interest margin is used as a measure of bank profitability. This suggests that domestic banks are successful in improving their competitive behavior by means of

implementing new marketing strategies and investing in new technology. The rationale behind this is that domestic banks are employing preventive measures through the aforementioned means in preparation of the increase in the market share of the foreign banks. By doing so, domestic banks are able to entice more clients to avail of their financial services. Thus, in the event that foreign entrants are able to obtain a considerable market share through entering the domestic market, domestic banks have already employed their

Table 3.  
 Summary statistics for selected bank-level variables

Years	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
<b>Accounting Profitability</b>																		
Average	2.47	2.35	2.36	1.89	0.99	0.19	-0.31	-1.41	0.60	1.40	1.10	1.20	1.28	1.20	0.67	1.21	1.56	1.10
Standard deviation	1.64	1.13	1.09	1.04	2.51	2.01	4.07	7.56	1.57	1.76	1.12	1.87	1.07	1.30	1.23	0.95	1.24	1.95
Minimum	0.30	0.14	1.01	0.34	-9.69	-6.41	-18.75	-37.66	-3.28	-1.99	-2.14	-5.90	-1.41	-2.36	-2.41	-2.17	-2.29	-5.57
Maximum	6.89	5.61	5.28	4.40	4.26	2.78	3.36	2.16	3.25	7.81	3.16	3.42	4.06	2.76	1.95	2.66	4.74	4.03
<b>Net Interest Margin</b>																		
Average	4.23	4.01	3.89	4.00	4.17	3.14	2.94	2.43	2.81	2.72	3.11	3.16	3.02	3.27	3.09	3.23	3.26	3.32
Standard deviation	1.75	1.40	1.14	1.51	1.86	1.55	1.35	2.12	1.36	1.18	1.71	1.82	1.43	1.35	1.07	1.21	1.16	1.47
Minimum	0.34	0.30	1.06	0.34	0.19	0.03	0.56	-4.87	0.47	0.08	-0.86	-3.73	-1.75	0.28	0.30	0.20	0.18	-0.40
Maximum	8.50	7.17	6.47	7.86	7.94	7.21	5.27	5.39	5.41	4.93	8.04	5.30	4.97	7.21	5.12	6.23	6.37	6.44
<b>Non-Interest Income</b>																		
Average	2.31	2.21	2.04	1.81	1.79	1.63	1.26	1.54	2.16	2.41	1.96	2.41	4.07	3.36	2.63	2.59	2.77	2.29
Standard deviation	0.93	0.80	1.46	1.02	0.96	0.64	0.77	0.95	0.89	2.21	0.97	1.71	2.53	2.12	2.01	2.23	2.43	1.45
Minimum	0.47	0.76	0.09	0.04	-0.87	0.25	-0.05	-1.49	0.44	0.25	0.93	0.53	0.63	1.13	-1.27	0.00	0.01	0.11
Maximum	4.57	4.17	6.14	4.08	3.81	2.96	3.12	3.24	3.91	11.53	5.38	7.60	10.00	8.97	6.02	7.96	8.83	6.02
<b>Operating Expenses</b>																		
Average	3.92	3.73	3.43	3.33	3.79	3.72	3.85	4.16	3.54	3.29	3.55	3.70	4.06	3.91	3.53	3.67	3.64	3.69
Standard deviation	1.18	0.88	0.79	0.91	0.93	1.55	1.82	2.15	0.94	0.75	1.02	0.93	1.50	1.41	1.02	1.34	1.27	1.20
Minimum	1.16	2.41	2.18	1.09	2.49	0.56	1.70	2.64	2.36	2.10	2.14	1.93	1.63	1.73	1.56	1.47	1.57	1.81
Maximum	6.85	5.94	5.21	6.14	7.38	8.04	10.48	13.69	6.58	5.58	6.74	6.28	7.75	8.17	5.40	6.42	6.70	7.26
<b>Loan Loss Provision</b>																		
Average	0.62	0.39	0.37	0.71	1.34	1.42	1.41	2.05	0.99	0.83	0.70	0.94	1.01	0.94	0.72	0.97	1.05	0.97
Standard deviation	1.99	0.80	0.50	0.44	1.30	1.72	3.26	5.73	0.56	0.88	0.82	1.51	1.46	1.17	1.17	1.23	1.30	1.52
Minimum	0.00	0.00	0.03	0.00	0.01	0.00	-0.37	0.00	0.30	-0.07	-0.89	0.00	-0.19	0.07	-0.85	0.00	0.00	-0.12
Maximum	8.30	3.87	1.89	1.50	6.70	7.03	16.90	29.89	2.19	4.20	3.76	6.97	5.47	3.87	4.06	5.05	4.60	6.84

Note. The figures are reported as percentages and derived their values based on individual bank data for each year.  
 Sources: Bank Annual Reports and audited financial statements submitted to the SEC, and BSP Factbook.

Table 4.  
 Summary of Regression Results

Dependent Variable	Accounting Profitability (ap)		Net Interest Margin (nim)		Non-Interest Income (nii)		Operating Expense (oe)		Loan Loss Provision (llp)	
	1	2	3	4	5	6	7	8	9	10
<i>fns</i>	0.0001 (0.05)		0.0001 (0.09)		-0.0018 (-1.53)		0.0016 (1.32)		-0.0019 (-1.38)	
<i>fms</i>		0.0030 (.57)		0.0081** (2.28)		-0.0052 (-1.53)		-0.0042 (-1.59)		0.0019 (0.46)
<i>car</i>	0.0369 (1.46)	0.0366 (1.45)	0.0201 (1.05)	0.0193 (1.03)	-0.0022 (-0.21)	-0.0022 (-0.23)	-0.0031 (-0.25)	-0.0022 (-0.17)	0.0079 (0.599)	0.0071 (0.46)
<i>csif</i>	0.0115 (0.87)	0.0117 (0.89)	0.0052 (0.73)	0.0058 (0.82)	0.0063 (1.02)	0.0063 (1.03)	0.0302*** (8.68)	0.0295*** (8.42)	-0.0133 (-1.35)	-0.0128 (-1.30)
<i>oe</i>	-0.7333** (-2.14)	-0.7283** (-2.12)	0.1638 (1.07)	0.1770 (1.15)	0.6671*** (5.13)	0.6542*** (5.03)			0.6120** (2.50)	0.6102** (2.48)
<i>rbs</i>	0.0064* (1.89)	0.0071** (2.00)	0.0032 (1.25)	0.0053** (2.11)	-0.0019 (-0.77)	-0.0038 (-1.46)	-0.0009 (-0.30)	-0.0014 (-0.49)	0.0055* (1.92)	0.0054* (1.73)
<i>ma</i>	-0.0222 (-1.30)	-0.0220 (-1.28)	-0.0116 (-1.60)	-0.0111 (-1.52)	-0.0053 (-1.44)	-0.0056 (-1.53)	0.0091* (1.87)	0.0089* (1.82)	0.0169 (1.38)	0.0170 (1.38)
<i>gdp</i>	0.0018*** (3.46)	0.0018*** (3.51)	0.0006* (1.96)	0.0007** (2.14)	0.0009** (2.09)	0.0009** (2.19)	0.0006* (1.77)	0.0005 (1.49)	-0.0007* (-1.67)	-0.0006 (-1.47)
<i>ir</i>	0.0019*** (4.19)	0.0019*** (4.28)	0.0020*** (6.38)	0.0019*** (6.30)	-0.0006* (-1.79)	-0.0006* (-1.67)	0.0008*** (3.06)	0.0009*** (3.25)	-0.0007* (-1.77)	-0.0007* (-1.82)
<i>rir</i>	0.0002 (0.43)	0.0001 (0.24)	0.0003 (0.97)	-0.0000 (-0.06)	-0.0005* (-1.73)	-0.0004 (-1.24)	0.0001 (0.54)	0.0003 (1.45)	-0.0001 (-0.32)	-0.0002 (-0.71)

Note. Parameter estimates of 10 distinct regressions relating the following dependent variables. (1) accounting profitability, (2) net interest margin, (3) non-interest income, (4) operating expenses, and (5) loan loss provisions, to two sets of independent variables. The difference between the two sets of independent variables is the inclusion of the foreign entry number share while excluding the foreign market share, and vice versa. The values in parentheses are the t-statistics obtained from the White's (1980) heteroskedasticity-consistent variances and standard errors. \*, \*\*, and \*\*\* Statistically significant at 10%, 5%, 1%.



strategies that are intended to positively affect the profitability and efficiency of the domestic banks. In general, the implementation of the said strategies will result to the improvement and efficiency of the services provided by the domestic banks which would attract more clients and increase the bank's profitability.

### 3.1.2 Bank-specific and Macro-Specific Control Variables

Table 4 shows that customer and short-term funding increases operating expense which implies that domestic banks establishes new branch networks to attract customer deposits. It also presents that an increase in operating expense is associated to higher non-interest income and loan loss provision, and lower accounting profitability. This suggests that domestic banks are passing a percentage of their overhead and operating costs to their customers. Since the total operating expense is not passed on completely, accounting profitability decreases due to high overhead. The positive relationship between operating expense and non-interest income implies that banks usually incur higher operating expense to generate greater profits from alternative sources (Claessen et al., 2001; Unite & Sullivan, 2003).

Relative bank size is associated with higher accounting profitability, net interest margin, and loan loss provisions. This suggests that economies of scale and scope exists in the banking system where large banks are consistently more profitable and cost efficient than small banks. Furthermore, higher loan loss provisions imply that there is a difference between the risk exposures of large and small banks. M&A increases the operating expenses of banks since M&A entails other expenses outside the primary activities of banks such as legal expenses and liquidation costs. Moreover, M&As create redundancies within the bank, specifically, in the workforce which also increases operating expenses. However, it is important to note that the cost inefficiency caused by M&A happens only in the short-run as merged banks adjust to changes. Capital-to-asset ratio is not associated to any bank performance variable.

Of the macro-specific control variables, an increase in GDP growth increases bank profitability variables and operating expense, and decreases loan loss provisions. Consistent with Unite and Sullivan (2003), as the level of business activity increases due to better economic prospects, banks generate more income and incur more expenses. Conversely, positive economic conditions decrease loan loss provisions since borrowers are less likely to default in times of economic growth. Inflation rate is associated to increases in accounting profitability, net interest margin and operating expense, and decreases non-interest income and loan loss provisions which is consistent with the findings of Claessens et al. (2001). This implies that inflation rate is anticipated making banks able to adjust their interest rates to increase their bank profits faster than their overhead. Contrary to the findings of Unite and Sullivan (2003), non-interest income and real interest rate has an inverse relationship. This indicates that Philippine banks generate profits more from traditional banking activities rather than non-traditional sources in times of high real interest rates.

## 4. CONCLUSIONS

The internationalization of banking sector has grown quickly due to financial market liberalization. Raising an important question about how domestic banks react to the changes in the competitive condition. Using an unbalanced panel of 34 universal and commercial

banks, this study provided an insight on how foreign bank entry affects the performance of the Philippine domestic banking system. The main finding is that foreign bank entry increases bank profitability when net interest margin is used as a measure of bank profitability; otherwise, the relationship is found to be insignificant. This suggest that domestic banks only exhibit profit efficiency after foreign banks have increased their market share in the banking sector. While, the insignificant effect of foreign bank entry on operating expense, loan loss provision, and other measures of profitability may suggest that the domestic banks in the Philippines may have changed their competitive behavior prior to the entry of foreign banks to prevent any possible losses. Through the shift in core marketing strategies, domestic banks have been able to expand their client outreach, and deposit-taking and lending activities. These are facilitated by the investment in new technology and reorganization of banking processes. This insignificant relationship may also reflect that foreign bank entry only affect large domestic banks as they both cater the same market segment, as compare to the smaller banks which cater to a different market segment. Thus, this supports the contention of Unite and Sullivan (2003) that in the Philippines the increase in foreign bank entry only affects the profitability and efficiency of large domestic banks.

For future researchers, it is interesting to study the whole domestic banking system by including other types of banks to account for the differences in the effect of foreign bank entry. Additionally, it may be of interest to study the effect of the Republic Act no. 10641 as it has fully liberalized the Philippine banking system. The full liberalization of foreign bank presence may entail a different interpretation on whether foreign bank entry improves profit and cost efficiency of domestic banks, especially when the Philippines is preparing for the impending ASEAN economic integration. Lastly, variables such as bank failure and reserve requirements may also be included in the analysis to better control for the effects of foreign bank entry.

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