

Diversification and Bank performance: The case of Vietnamese commercial banks

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Chronicle

Article history

Received 30 April 2021

Revised 28 May 2021

Accepted 09 Jun 2021

Keywords

Bank performance

Income diversification

Funding diversification

Vietnam

JEL classification

Abstract

This study aims at the impacts of diversification strategies on the Vietnamese bank's performance. Using a sample of 13 listed banks from 2010 to 2019 and System Generalized Method of Moments (Sys-GMM) regression method, the author finds that income diversification results to lower bank profitability, as measured by the bank's return on assets and return on equity. In contrast, banks that are less dependent to the deposit have higher profitability. Also, the author explores that joint-stock banks with larger size, higher asset quality, and more capitalized tend to have higher performance. The empirical results suggest Vietnamese banks to diversify their sources of fundings and improve their operational efficiency, especially in non-traditional activities.

1. Introduction

Rapid financial integration to the international markets has driven significant changes in the business models of the Vietnamese banking sector. In particular, Vietnamese commercial banks have gradually shifted from traditional lending business to non-traditional activities to strengthen their competitive advantages in the competition with an increasing number of foreign banks. The recent Covid-19 pandemic also forces Vietnamese banks to diversify their activities to lower their sensitivity to the traditional deposit and lending markets.

This study explores the relationships between diversification and bank performance of Vietnamese commercial banks. In particular, the author examines two dimensions of bank diversification: income and funding diversification on the profitability of 13 listed com-

mercial banks from 2010 to 2019. This is of particular interest from both managerial and regulatory perspectives since increasing competition forces banks to diversify, but could also create more complex business models and mega-banks that may impose financial instability on the market.

This paper contributes to the literature in two ways. *First*, the author adds new empirical evidence to the ongoing debate on the impacts of diversification on bank performance. Several studies advocate diversification strategy in stabilizing cash flows (Elsas et al., 2010), spreading fixed costs over multiple products (Laeven and Levine, 2007), and reducing the risk of bankruptcy (Berger et al., 2010). In contrast, some studies suggest diversification could impose new risks from non-interest activities (Stiroh and Rumble, 2006; Gamra and Plihon, 2011); increasing fixed costs and financial

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leverage (DeJonghe, 2010), and increasing the volatility of revenue and profits (Berger et al., 2010). Empirical studies also provide mixed results. Trivedi (2015) and Ismail et al. (2015) find that income diversification leads to an increase in bank profits, especially in the highly competitive market. On the contrary, Anh (2018) shows that the impacts of diversification on bank performance depends on the source of diversification and vary significantly between countries.

Second, the author provides a more comprehensive study on the impacts of diversification on Vietnamese banks' performance. Previous studies, such as Hiep et al. (2019), Ngoc (2019), Quynh (2020) and Cuong, et al. (2020), only focus on income diversification, whereas the author also examines funding diversification. Curi, et al. (2015) show that funding diversification is an important bank strategy, especially during the recession periods due to increasing competition for limited availability of savings. The study closest to us is Anh (2018), who examines the relationship between diversifications and bank efficiency in the ASEAN-6 countries. While their study applies the stochastic frontier analysis (SFA) method to measure the bank efficiency, this study focuses on the bank performance, as directly measured by bank profitability. While SFA provides a general measurement of bank efficiency, this method relies on distributional assumptions of the error terms of the target functions.

Overall, the author finds that income diversification significantly reduces Vietnamese bank's profitability. This is in line with the results of Berger et al. (2010); Laeven and Levine (2007) and indicates the lack of experience of Vietnamese commercial banks in non-interest activities, and more importantly, the lack of flexibility and slow transition in business models. In contrast, funding diversification positively affects bank profitability. This result is consistent with Anh (2018) and suggesting lower fixed costs in funding diversification could lead to a higher profit margin.

This paper is structured as follows. Section 2

reviews literature on the relationship between diversification and bank performance. Section 3 presents methodology and regression results, while section 4 concludes the paper.

2. Literature Review

There are two strands of literature on the impacts of diversification on bank performance. On the one hand, diversification can improve bank performance through the economies of scope (Diamond, 1991; Rajan, 1992). Banks can utilize customer information to facilitate the distribution of multiple business lines, thus, reducing the fixed costs. For example, information for customers while making loans to also provide other financial services such as financial consultancy or securities underwriting and vice versa (Stein, 2002). In addition, the Portfolio theory implies that banks can benefit from the risk diversification as different business lines have different levels of risks, resulting in a more stable income and lower probability of default.

On the other hand, diversification can impose higher agency problem, which might reduce the bank's market value. Laeven and Levine (2007) argue that it is more difficult to align the incentives of the agency and stockholders in a complex entity. Thus, the insiders might pursue business diversification simply to enhance their private benefits. Furthermore, since the managers might have to make decisions in the business activities where they do not have comparative expertise, the bank might suffer from a reduction in the operation efficiency (Klein and Saldenberg, 1998). Finally, the expansion to multiple business lines might also result in new forms of risks, such as operational risk and market risk, in addition to the traditional credit risks.

The empirical evidence on the impacts of diversification also provides mixed results. Baele et al. (2007) find a positive relationship between revenue diversification on the bank operational efficiency, whereas asset diversification does not provide significant impacts. Another study that supports diversification

strategy is that of Elsas et. al (2010) on banks in 10 developed countries. Their results indicate better profits in more diversified banks, especially during the 2007 - 2008 financial crisis. This is in line with the results of Chiorazzo et. al (2008) on Italian banks or Kohler (2014) on German banks.

In contrast, several studies show insignificant effects of diversification on bank performance. Acharya et al. (2006) showed that diversification does not guarantee superior performance. They show that increase in the non-interest income ratio associate with lower profitability and credit quality in 105 Italian banks from 1993 to 1999. Using a sample from 15 European countries, Maudos (2016) yields similar results with a non-significant relationship between revenue diversification and bank profitability. Diversification might also lead to lower risk-adjusted profits (Stiroh and Rumble, 2006), higher profit volatility (DeYoung and Roland, 2001), and a higher level of systemic risks. Laeven and Levine (2007) conclude that diversification results to lower market value of more complex financial institutions.

Studies on emerging countries yield similar evidence. Using a sample from 11 emerging countries from 2000 to 2007, Sanya and Wolfe (2010) show that a higher ratio of non-interest income in the bank revenue significantly associate with lower bankruptcy risk, higher profitability, and market value. In the same manner, Lee et al. (2014) explore positive relationship between revenue diversification and bank's operational efficiency in 2,372 commercial banks from 29 Asia-Pacific countries over the 1995-2009 period. On the contrary, several studies explore the negative relationship between diversification and bank, performance. For example, Berger et al. (2010) find a reduction in profits of more diversified Chinese banks from 1996 to 2006. Similar results are reported for Mexico (Melister et al., 2014), and Indonesia (Hidayat et al., 2012). Interestingly, Moudud-Huq et al. (2018) find that the impacts of diversification on bank performance vary between countries. Using a sample of commercial banks from Indonesia, Malaysia, the Philip-

pires, Thailand, and Vietnam over the period 2011 - 2015, the authors find that both income and asset diversification improve bank performance in Indonesia and Thailand, while only income diversification has significant effects in the remaining three countries.

Several studies examine the impacts of diversification on Vietnamese banks performance; however, they also provide mixed results. Nguyen (2017) provides the first study on the effect of income diversification on bank performance in 10 listed banks from 2007 to 2016 period and shows that income diversification significantly improves bank profit efficiency. Similar results are found in Sang (2017) for the operational efficiency and Hong et al. (2018) for bank's profitability. Hiep et al. (2019) provides more insights into the impacts of income diversification and explores different benefits to banks at different ages. In contrast, Ngoc (2019) found that diversification has a negative impact on the performance of both listed and unlisted banks from 2010 to 2018. The author argues that the negative relationship results from the lack of experience of Vietnamese banks in developing an effective transformation model. Similarly, Cuong et al. (2020) find that diversification has a negative impact on both bank liquidity creation and bank profitability. Besides, the impacts depend on bank size and the state-ownership characteristic of the bank.

This study aims to provide more comprehensive evidence on the impacts of diversification strategy on the bank performance of Vietnamese banks, that is proxied by two profitability proxies, namely ROA and ROE, similar to Stiroh, (2004); Chiorazzo et al. (2008) and Lee et al. (2014). While previous studies mainly focus on income diversification, the author also investigates the relationship between funding diversification on the Vietnamese banks' profitability. This is of particular importance given the recent changes in the funding profiles of Vietnamese banks with the increasing proportion of non-deposit fundings.

3. Empirical study

3.1. Methodology

To investigate the impacts of diversification strategy on bank performance, the author employs the following regression:

$$BP_{it} = \beta_0 + \beta_1 BD_{i,t} + \beta_2 BD_{i,t-1} + \beta_3 BCV_{i,t} + \lambda_i + \varepsilon_{i,t} \quad (1)$$

In which $BP_{i,t}$ is performance indicator of bank i in year t . In this study, the author explores the bank performance via two profitability proxies, namely ROA and ROE. $BP_{i,t-1}$ is one-period lag of dependent variable to control for the persistence in bank performance, is the main explanatory variable that represents bank diversification. $BD_{i,t}$ is a proxy of bank-specific control variables, including the natural logarithm of bank size (SIZE), the ratio of loan loss provision to total asset (LP), the ratio of total equity to total asset (ETA) and a dummy variable taking value 1 for state-owned banks and 0 otherwise (STATE). λ_i is unobservable individual effect and $\varepsilon_{i,t}$ is the error term.

In this study, the author focuses on two dimensions of bank diversification strategy, that are income diversification (ID) and funding diversification (FD). Similar to Wu et al. (2020), the diversifications are computed as follows:

$$ID_{it} = \frac{\text{Non interest income}_{it}}{\text{Total operating income}_{it}}$$

$$FD_{it} = \frac{\text{Total liabilities}_{it} - \text{Deposit}_{it}}{\text{Total liabilities}_{it}}$$

The income diversification is measured as the ratio of non-interest income over total operation income, which indicates the extent to which banks shift to a non-traditional business model. Similarly, funding diversification explore the degree of reliance of banks on non-deposit fundings such as wholesale market or issuance of commercial papers.

the author includes several bank characteristic variables to control for other factors that could affect bank performance. The first control variable is bank size, which is measured by the natural logarithm of total assets. McAllister and McManus (1993) and Goddard et al. (2004) find that large banks often have better

profitability due to the economics of scales. On the contrary, Vallascas and Keasey (2012) argue that large banks tend to be more diversified and tend to be riskier than smaller banks. The next variable is the asset quality, measured by the ratio of loan loss provision to total asset. Lower quality in the loan portfolio imposes higher costs and lower profitability (Mustafa, et al., 2012). Next, the author controls for the financial leverage, measured by the ratio of total equity to total asset. Hughes and Mester (1998) explore that higher capitalized banks tend to be less risky, thus generating lower profitability. However, Goddard, et al. (2004) and Demirguc-Kunt & Huizinga, (2010) argue that banks with higher capital to asset ratio have a lower probability of default, resulting in lower funding costs and higher interest margins. The final control variable is a dummy variable, which takes value 1 for state-owned banks and 0 otherwise. Phong and Tuan (2020) find that state ownership is inversely correlated with the business performance of Vietnamese commercial banks because state-owned banks have to perform several non-profit activities under the requirement of the government.

3.2. Data

In this study, the author employs data from 13 listed banks in Vietnam from 2010 to 2019 from S&P CapitalIQ. The total asset of banks in the sample corresponds to approximately 70% total asset of the banking sector. The full list of banks is provided in the Appendix. Table 2 reports the descriptive statistics of all variables. The panel data is unbalanced as several bank-specific variables are missing in from the data sample, with the lowest observation being FD, at 446 bank-time observations. The average ROA of all banks over the sample period is approximately 0.97%, whereas the mean value of the ROE ratio is 12.4%. The profitability varies significantly between banks as the standard deviation of ROA and ROE is 0.77% and 8.23%, respectively. On average, 18.49% of the total operating income of banks in the sample comes from non-interest activi-

Table 1: Variables' definitions

Classification	Variable	Description	Sources
Dependent variables	ROA	Return on average assets	Stiroh, (2004); and Lee et al. (2014)
	ROE	Return on average equity	Stiroh, (2004); Chiorazzo et al. (2008)
Explanatory	ID	$ID_{it} = \frac{Non\ interest\ income_{it}}{Total\ operating\ income_{it}}$	Wu et al. (2020)
	FD	$FD_{it} = \frac{Total\ liabilities_{it} - Deposit_{it}}{Total\ liabilities_{it}}$	Wu et al. (2020)
Control variables	STATE	Dummy variable takes value 1 for state-owned banks and 0 for others	Phong and Tuan (2020)
	SIZE	Natural logarithm of total assets	McAllister and McManus (1993), Goddard et al. (2004) and Vallascas and Keasey (2012)
	LP	$LP_{it} = \frac{Loan\ loss\ provision_{it}}{Total\ asset_{it}}$	Mustafa, et al., (2012)
	ETA	$ETA_{it} = \frac{Total\ Equity_{it}}{Total\ Asset_{it}}$	Hughes and Mester (1998), Goddard, et al. (2004) and Demirgüç-Kunt & Huizinga, (2010)

Source: The author's own summarization

Table 2. Descriptive statistics of research variables

Variable	Observation	Mean	Standard Deviation	Min	Max
Bank Performance Indicators					
ROA	493	0.0097	0.0077	-0.0679	0.0313
ROE	498	0.1240	0.0823	-0.4629	0.3350
Independent Variables					
ID	472	0.1849	0.0479	0.0570	0.4094
FD	446	0.2141	0.0987	0.0178	0.9403
Control Variables					
SIZE	478	19.1138	0.9748	16.3854	21.1221
LP	453	0.0013	0.0017	0.00142	0.0105
ETA	478	0.0812	0.0275	0.0408	0.2195
STATE	520	0.2308	0.4217	0	1

Source: Author's calculations from financial reporting of 13 Vietnamese commercial banks in the period of 2010–2019

Note: ROA (return on assets); ROE (return on equity); ID (income diversification); FD (funding diversification); SIZE (natural logarithm of total assets); LP (loan loss provision ratio); ETA (equity to total asset ratio); STATE (state-owned).

Table 3. Correlation analysis

	ROA	ROE	ID	FD	SIZE	LP	ETA	STATE	VIF
ROA	1.000								
ROE	0.876	1.000							
ID	-0.047	-0.109	1.000						1.14
FD	0.165	0.148	-0.072	1.000					1.13
SIZE	0.245	0.412	0.030	0.076	1.000				2.83
LP	-0.089	-0.061	0.095	0.039	0.201	1.000			1.05
ETA	0.116	-0.198	0.109	0.251	-0.470	-0.072	1.000		1.43
STATE	0.007	0.186	-0.152	-0.048	0.687	0.103	-0.307	1.000	2.10

Source: The author's own calculation from data sample

ties and 21.41% of the liabilities are sourced from non-deposit fundings. The average bank size is nearly 19.11 with the largest bank size is 21.12 (BID) which has state-owned over 40% while the smallest bank size is only 16.38 (TPB). The mean of loan loss provision ratios across banks is 0.13%, while Vietnamese commercial banks have a high level of financial leverage, at 8.12%. However, this ratio varies substantially between banks with the highest and lowest ETA which are 21.95% and 4.08%, respectively.

3.3. Empirical result

The author employs a panel data regression to investigate the impacts of bank diversification on their performance. First, the author performs autocorrelation and multicollinearity test in Table 3. The severity of the multicollinearity issue is measured via the variance inflation ratio (VIF). Not surprisingly, the correlation between the two dependent variables ROA and ROE is highest, at 0.876 since both ratios represent the bank's profitability. The correlation coefficients between other pairs are below 0.8, with the highest value being the correlation between STATE and SIZE, at 0.6869. This observation exhibits the high concentration in the Vietnamese banking sector as the largest banks are state-owned. The VIF of all variables does not exceed 3, indicating that multicollinearity does not create a major issue in the regression results.

3.3.1. Model selection

Similar to Moudud-UI-Huq et. al. (2018), the author estimates Equation (1) using the system GMM method (Sys-GMM). This method can take into account the endogeneity issue of the bank-specific variables, the dynamic nature of the bank's profitability and the potential heteroscedasticity and autocorrelation problems. Thus, the Sys-GMM can control for the potential endogenous correlation between the lagged dependent variable and the regression errors. Table 4 reports the Sys-GMM estimation results for Equation (1). Columns (1) and (2) present the results for impacts of income and funding diversifications on the bank's ROA, whereas in column (3), both two dimensions of bank diversification are included in the regression. To ensure the robustness of the regression results, the author performs two diagnostic tests to verify the validity of the instruments and the potential error serial correlation. The test results are reported in the last three rows in the table. First, the Sagan test of Sargan (1958) test for the overidentification of the instruments. The reported test statistics indicate that hypothesis of valid moment conditions with the use of instruments cannot be rejected. Second, the p-values of the autocorrelation tests based on Arellano and Bond (1991) for the first and second lags verify that the innovations are serially uncorrelated, thus, the generalized method of moments is consistent.

As shown in Table 4, the coefficient of income

Table 4. The impact of bank diversification on performance - ROA

	ROA		
	(1)	(2)	(3)
ROA _{t-1}	0.064 (0.124)	0.097 (0.132)	0.082 (0.128)
ID	-0.026** (0.012)		-0.023** (0.011)
FD		0.012** (0.005)	0.012** (0.005)
SIZE	0.006*** (0.001)	0.005*** (0.002)	0.006*** (0.002)
LP	-0.663*** (0.244)	-0.650** (0.223)	-0.565** (0.211)
ETA	0.095** (0.033)	0.072* (0.031)	0.082* (0.032)
STATE	-0.006*** (0.003)	-0.007*** (0.002)	-0.006*** (0.002)
N	843	816	816
Sargan test	11.97385	10.89892	12.05808
AR test (1)	0.2583	0.25083	0.24868
AR test (2)	0.57373	0.65375	0.63005
This table presents Sys-GMM estimation results of Equation (1) where proxies for the performance of bank i in year t . ID_{it} and FD_{it} are the main explanatory variables, that represent bank income and funding diversification, respectively. The bank-specific control variables include the natural logarithm of bank size (SIZE), the ratio of loan loss provision to total asset (LP), the ratio of total equity to total asset (ETA) and a dummy variable taking value 1 for state-owned banks and 0 otherwise (STATE). The number in parentheses are robust standard errors. Sargan test presents the Sargan (1958) test statistic for overidentification in GMM system. AR (1) and AR (2) are p-values Arrelano and Bond (1991) test for error serial correlation at lag 1 and 2.). *, ** and *** represent significance at the 1%, 5% and 10% levels, respectively			

Source: The author's own estimation from R

diversification, ID, is negative and statistically significant in all three specifications. This result suggests that income diversification reduces the bank's profitability and in line with the results of Berger et al. (2010). In contrast, the coefficient of funding diversification, FD, is positive and significant with the bank's ROA. This positive relationship indicates that funding diversification benefits Vietnamese banks by enhancing their profitability. For

bank-specific variables, the author finds that bank size and leverage are positively related to bank profitability, whereas the loan loss provision ratio and state-owned characteristic significantly reduce bank returns on total assets. Table 5 provides the Sys-GMM regression results of Equation (1) when the bank performance is proxied by the bank's ROE. Overall, the author finds similar results to the case of ROA that income diversification significantly

Table 5. The impact of bank diversification on performance - ROE

	ROE		
	(1)	(2)	(3)
ROE _{t-1}	0.545*** (0.095)	0.585*** (0.093)	0.585*** (0.086)
ID	-0.155*** (0.058)		-0.129*** (0.048)
FD		0.092** (0.041)	0.091** (0.043)
SIZE	0.029*** (0.001)	0.026*** (0.002)	0.029*** (0.002)
LP	-8.473*** (2.801)	-8.754*** (2.614)	-8.551*** (2.552)
ETA	0.030 (0.178)	-0.103 (0.150)	-0.055 (0.162)
STATE	-0.028*** (0.011)	-0.026*** (0.010)	-0.031*** (0.009)
N	852	816	816
Sargan test	12.98685	12.8785	12.6671
AR test (1)	0.178317	0.14333	0.14144
AR test (2)	0.22432	0.50026	0.48289

This table presents Sys-GMM estimation results of Equation (1) where ROE_{*i,t*} proxies for the performance of bank *i* in year *t*. *IT_{*i,t*}* and *FD_{*i,t*}* are the main explanatory variables, that represent bank income and funding diversification, respectively. The bank-specific control variables include the natural logarithm of bank size (SIZE), the ratio of loan loss provision to total asset (LP), the ratio of total equity to total asset (ETA) and a dummy variable taking value 1 for state-owned banks and 0 otherwise (STATE). The number in parentheses are robust standard errors. Sargan test presents the Sargan (1958) test statistic for overidentification in GMM system. AR (1) and AR (2) are p-values Arrelano and Bond (1991) test for error serial correlation at lag 1 and 2. *, ** and *** represent significance at the 1%, 5% and 10% levels, respectively

Source: The author's own estimation from R

reduces bank profitability, whereas funding diversification strategy significantly improves ROE. The impacts of bank control variables are consistent between models, indicating that banks with larger size, better asset quality, higher leverage, and independence from the government ownership generally have better profitability.

3.3.2. Result discussion Income diversification

The negative impact of income diversification on Vietnamese commercial banks is not surprising. This is in line with the results of Berger et al. (2010); Laeven & Levine, (2007) and Nguyen Khanh Ngoc (2019). Since the Vietnamese financial market has a strong bank-based structure, lending is still the most important and traditional activities of Vietnamese banks. Thus, this result might indicate lower operating efficiency of Vietnamese banks

when they expand to non-traditional businesses without strong corporate governance and system. As a result, diversifying to non-interest activities might eventually increase the total risk of Vietnamese banks. In addition, since Vietnamese banks are still in the early transition stages to provide a wide range of business lines, this result might simply be due to increasing

Funding diversification

The positive impacts of funding diversification on bank performance is similar to the results of Anh (2018). The latter finds that the lower average cost of banks with diversified funding sources leads to higher profit efficiency. This result, however, is contradict to that of Demircuc-Kunt & Huizinga (2010) and Curi et al. (2015). They argue that when banks diversify their fundings to the wholesale markets, it can create more liquidity risks, especially during stressed periods as all banks need to fight for limited available fundings. Having said that, Vietnamese commercial banks have been diversified to the issuance of certificates of deposit and bonds, rather than increasing their lendings in the interbank markets. This strategy could strengthen the stability of the bank funding profile, and reducing the bank's liquidity risks.

Bank control variables

The results for bank control variables are generally in line with previous results. Larger banks tend to have higher profitability, similar to the conclusions of McAllister and McManus (1993) and Goddard (2004). This result is of expectation since the Vietnamese banking sector is highly concentrated (Trung Le, 2014). Thus, large banks can exploit their economies of scale to relatively reduce fixed costs to enjoy higher profit margins. Not surprisingly, banks with higher loan loss provisions have lower profitability, because of the lower quality in their loan portfolio, similar to Mustafa et al (2012). Also, the author finds that equity capacity has a positive impact on the profitability of commercial banks. This result is consistent with the results of Pasiouras and Kosmidou (2007), Caporale et al (2017), Mirzaei et al (2013). Higher capitalized banks

can be considered to have lower bankruptcy risk, thus, increasing their profit margins by lower cost of capital. Finally, the author shows that state-owned banks have relatively lower profitability than joint-stock banks, similar to that of Phong and Tuan (2020). This might be because state-owned banks might have lower flexibility in their business models, having to perform assigned functions for the government, rather than fully focusing on maximizing their profitability.

4. Conclusions

In this paper, the author examines the impact of diversification strategies on bank performance in Vietnam. In particular, the author considers two dimensions of diversification strategies employed by banks, namely income and funding diversification, on the bank profitability. Overall, the author explores the contradictory impacts of these two strategies on the bank's ROE and ROA ratios. While diversified funding sources improve the bank's profitability, expansion to non-traditional activities might result to lower profit efficiency. These empirical findings are of expectation, given the recent development in the Vietnamese banking sector. Transition to non-deposit borrowings might help Vietnamese banks to reduce their cost of capital, as well as increasing their funding stability. The negative impacts of income diversification on bank's profitability does not necessary imply that Vietnamese commercial should avoid non-interest activities. This relationship might be driven by recent large investments of banks to the core banking infrastructure, leading to a short-term reduction in the profit margin. Thus, this result suggests that Vietnamese commercial banks should improve their operational flexibility and efficiency to exploit the rapid changes in the business environment due to the advance of financial technology in the fourth industrial revolution. There are several extensions and areas for future researches from this study. *First*, the author limits the impacts of diversification strategies to bank performance as proxied by

their profitabilities. Future research could also investigate the potential affects of diversification strategies to bank’s market powers and efficiencies. *Second*, future reseach could also expand the data sample to include non-

listed banks. It would be interesting to explore whether the impacts of diversification strategies vary due to the transparency requirement of the listed status ■

Appendix: List of commercial banks in the sample

No.	Name of Bank	Abbreviation
1	Asia Commercial Bank	ACB
2	Bank for Investment and Development of Vietnam	BID
3	Vietnam Joint Stock Commercial Bank for Industry and Trade	CTG
4	Vietnam Export Import Commercial Joint Stock Bank	EIB
5	Ho Chi Minh City Development Joint Stock Commercial Bank	HDB
6	Military Commercial Joint Stock Bank	MBB
7	National Citizen Commercial Joint Stock Bank	NVB
8	Saigon-Hanoi Commercial Joint Stock Bank	SHB
9	Sai Gon Thuong Tin Commercial Joint Stock Bank	STB
10	Vietnam Technological and Commercial Joint Stock Bank	TCB
11	Tien Phong Commercial Joint Stock Bank	TPB
12	Bank for Foreign Trade of Vietnam	VCB
13	Vietnam Prosperity Joint Stock Commercial Bank	VPB

Source: S&P Capital IQ

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