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How does the stock market value bank diversification? Evidence from Vietnam

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Highlights

- We investigate how stock market values bank diversification in Vietnam
- We find a negative relationship between bank diversification and stock market valuation
- We find that investors tend to be more lenient on large bank diversification

How does the stock market value bank diversification - Evidence from Vietnam

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Abstract

Even though commercial banks have gradually followed the diversification strategy and deeply penetrated into non-traditional businesses for further income sources, studies on potential diversification benefits provide mixed results. This paper investigates how stock market values bank diversification using a data set of Vietnamese listed banks for the period 2006 - 2014. Overall, we find a negative relationship between bank diversification and stock market valuation. This implies investor preference for banks focusing on traditional activities.

1. Introduction

Important challenges for global banking system are cyclical and structural changes. Since the global financial crisis, banks continue to struggle in a more competitive environment due to the technological developments and the rise of shadow banking. Many commercial banks have been following the diversification strategy to enter into various non-traditional activities as a way to compensate for reduced incomes due to increased competition in core businesses. More importantly, bank governance mechanisms are also reported to be associated with bank diversification (Liang et al. 2016). Given this trend, the question of whether banks should diversify gains importance for different stakeholders (Sawada 2013).

This paper sheds further light on the question how stock market value bank diversification. Particularly, we address the relationship between bank diversification and stock market valuation using the data of banks listed on the Ho Chi Minh City stock exchange for the period from 2006-2014.

Our paper is motivated from different fronts. Firstly, the question of whether banks should diversify is the subject for extensive debate in the current literature. However, the answer to this question remains open as previous papers provide conflicting results (Sawada 2013). More specially, papers using different data set provide inconclusive results. For instance, Baele et al. (2007) assert that diversification increases value and reduces risk in a sample of European banks. On the contrary, Laeven & Levine (2007) argue that diversification reduces value of financial conglomerates using a cross-country data set. Moreover, Stiroh & Rumble (2006) state that the extra risk outweighs the benefits obtain from diversification because the increase in exposure to highly volatile nontraditional bank businesses.

Secondly, most of previous studies focus on the context of developed markets where banks are at mature development stage while banks in emerging markets are currently at earlier stage of development. However, they are facing many problematic issues. They also need a clear strategy and business model to follow. In addition, the current financial crisis stemming from bank failures highlights the importance to further investigate bank strategy. Further, it is important to investigate bank diversification impacts in different countries because Doumpos et al. (2016)

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argue that income diversification can be more beneficial for banks operating in less developed countries compared to banks in advanced and major advanced countries.

Thirdly, since Vietnam is an emerging bank-based economy where most of firm financing sources are from bank credit. The banking system plays an important role in fuelling high economic growth in the last two decades. However, we observe a significant change in the composition of Vietnamese bank earnings portfolio in recent years. Vietnamese banks are not only facing competition pressure from other local banks but also from foreign banks as a result of deregulation. We also observe a gradual shift from traditional banking activities into non-interest income activities. This trend is also reported for global banks in many papers (Stiroh 2004; Elsas et al. 2010).

More importantly, the recent development of Vietnamese financial sector provides an ideal setting to study bank diversification strategy[1]. Further, Mirzaei & Kutan (2016) report that the impact of bank diversification might be different in bank-based economies and that of market-based economies. Batten & Vo (2016) recently examine bank risk shifting in the context of Vietnam and highlight that banks shifted to non-interest income businesses face higher level of risk. The current paper builds on previous work of Batten & Vo (2016) in addressing the natural question of how the stock market values bank diversification in emerging markets.

The current paper contributes to the current literature in a number of perspectives. Firstly, this paper complements the literature by focusing the ongoing debate about the relationship between bank diversification and stock market valuation. Secondly, we address this important link in the context of an emerging market. Given the increasing importance of emerging markets, investigating the stock market valuation of bank diversification in Vietnam is an interesting topic on its own merit.

The remainder of this paper is structured as follows. Section two introduces the data and model. Section three presents the results and discussion of the results. Section four concludes the paper.

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[1] Batten & Vo (2016) provide a comprehensive analysis of the Vietnamese banking sector.

2. Data and Model

Data

Our dataset covers the market information and bank specific attributes of Vietnamese listed banks. Our data sample incorporates the period from 2006 to 2014.

Model

We first examine the link between bank diversification strategy and stock market valuation. Our baseline model is specified as follows:

$$\text{VALUE}_{it} = \alpha + \beta \text{ DIVERSIFICATION}_{it} + \sum \gamma_h \text{ CONTROLS}_{it} + \alpha_i + \alpha_t + \varepsilon_{it} \qquad (1)$$

We further evaluate the importance of bank size on the relationship between diversification and stock market valuation. To do so, we formulate the following model allowing for the interaction between diversification and bank size variable:

$$\text{VALUE}_{it} = \alpha + \beta_1 \text{ DIVERSIFICATION}_{it} + \beta_2 \text{DIVERSIFICATION}_{it} * \text{SIZE}_{it} + \beta_3 \text{ SIZE}_{it} + \sum \gamma_h \text{CONTROLS}_{it} + \alpha_i + \alpha_t + \varepsilon_{it} \qquad (2)$$

where: subscripts i and t present bank and time. Other variables are defined as follows.

VALUE is the market valuation indicator. We use two important stock market valuation measures to proxy for stock market valuation. Particularly, we use Tobin's Q and the market to book ratio (MTB) as measures of stock market valuation. Sawada (2013) states that Tobin's Q is likely to have a very small variance due to the nature of banks which are highly leveraged. Hence, we use MTB as another indicator to measure market valuation. MTB is defined as the market value of equity divided by the book value of equity. This indicator is considered to vary more widely than the Tobin's Q ratio (Sawada 2013).

DIVERSIFICATION is a measure of bank diversification strategy. We use the ratio of the net non-interest income to net operating income as a measure of diversification. Particularly, this measure is calculated as follows:

$$NNII = \frac{Net\ Non\ Interest\ Income}{Net\ Operating\ income}$$

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CONTROLS are other control variables which potentially explain bank valuation. More specially, our control variables include: SIZE is the log of total assets, OC is the ratio of operating costs to total assets, and L_TA is the ratio of loan to total assets.

3. Results and Discussion of Results

Table 1 shows the descriptive statistics of the variables employed in the analysis.

Table 1 Descriptive Statistics of variables

	TOBINQ	MTB	NNII	SIZE	OC	L_TA
Mean	0.9980	1.1487	0.1999	18.3172	0.0147	0.5159
Median	1.0030	1.1160	0.1917	18.7582	0.0136	0.5324
Maximum	1.4913	2.0390	0.6465	20.3095	0.0301	0.7612
Minimum	0.5374	0.5436	-0.1776	13.9347	0.0053	0.3145

Table 2 presents the regression estimations results using fixed effects estimator. The use of both cross-sectional fixed effects and time fixed effect is relevant for our dataset. Panel (I), (II) and (III) report the regression estimates where the dependent variables to proxy for stock market valuation are Tobin's Q and MTB.

The first panel (I) of table 2 shows the estimates of the standard regression model where Tobin's Q is the dependent variable. We find that the estimated coefficient for diversification measure is negative but not significant in explaining stock market valuation.

Interestingly, we observe the evidence of size effect in the regression result since the coefficient for size is positive and significant. This motivates us to analyze whether the link between bank diversification and market valuation is dependent on size.

We further estimate the regression model allowing for the interaction between SIZE and NNII. This formulation allows us to identify whether the impact of diversification on firm value is

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depending on SIZE. The estimates are presented in panel (II). The result suggests that higher bank diversification is associated with lower market valuation. However, we find that the coefficient for the interaction between NNII and SIZE is positive and significant. This indicates that investors in Vietnam stock market tend to appreciate diversification in large banks.

Panel (III) reports the estimates of the regression equation 1 where the dependent variable is MTB. Consistent with the previous estimation where TOBIN's Q is a proxy for stock market valuation, the results reveal a negative and significant coefficient of bank diversification in explaining market valuation where the dependent variable is MTB.

Table 2 Regression Results - Fixed effects estimator

Dependent Variable	TOBIN'Q				MTB	
	(I)		**(II)**		**(III)**	
Variable	Coeff.	t-Stat	Coeff.	t-Stat	Coeff.	t-Stat
C	-1.4788	0.0000	-1.3429	0.0000	1.7441	0.6928
NNII	-0.0386	0.8482	-2.2659**	0.0390	-1.0193***	0.0001
SIZE	0.1305***	0.0000	0.1204***	0.0000	0.0164	0.9406
NNII*SIZE			0.1284*	0.0774		
OC	-3.4649	0.5826	-1.7393	0.7605	-8.3018	0.4039
L_TA	0.2802	0.4051	0.2789	0.3386	-1.0761	0.1739
R-squared	0.5299		0.5536		0.8400	
Adj R-Squared	0.3513		0.3714		0.7352	
F-Statistics	2.9663		3.0380		8.0143	
Prob F-statistics	0.0011		0.0008		0.0000	

Note: *, **, *** indicates significance at the 10%, 5% and 1% respectively

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Overall, we find a negative relationship between bank diversification and market valuation. This implies that investors prefer banks which focus on traditional activities. This is consistent with the result of Batten & Vo (2016) which reports that banks following diversification strategies face higher level of risk. However, we find that investors tend to be more lenient on diversification of large banks.

Our findings are supported by a number of arguments which highlight the importance of an extensive risk assessment associated with bank diversification strategy. Generally, diversification decreases bank value because banks might face higher potential risk when entering a new business line, as outlined by Batten & Vo (2016). Moreover, investors do not prefer bank diversification because of volatile income resulting from nontraditional banking activities. More importantly, our analysis suggests that investors in emerging countries like Vietnam tend to appreciate banks which focus on the core business activities.

4. Conclusion

Maintaining a sound and safe banking system is important for a well-functioning economy. Global banking system is now facing challenges from different fronts including new market players, new technologies and new regulations from the central banks since the recent GFC. These challenges translate into competition and innovation in the banking system. Given this context, the decision to follow an appropriate strategy is important for bank managers. Banks tend to response to these challenges by following a new business model. A remarkable response is the shift into new non-traditional banking activities for other nontraditional sources of income. However, the question of whether banks should follow diversification strategy remains open for further discussion in the current literature. More specially, even though there are a number of papers discussing the benefits and risks of bank diversification (Jouida et al. 2017; Sissy et al. 2017; Tan et al. 2017), there remains inconclusive evidence of risk and returns associated with bank diversification (Doumpos et al. 2016).

Using a comprehensive analysis in the context of Vietnam, Batten & Vo (2016) suggest that a higher level of bank diversification tends to be associated with a higher level of risk in

Vietnamese banking system. This work utilizes a data set of listed banks in Vietnam to further address the relationship between bank diversification and bank market value. Overall, our analysis suggests a negative relationship between bank diversification strategy and stock market valuation. The finding is consistent with previous work outlined the risk implication of bank diversification.

The findings from the paper have relevant policy implication in the context of emerging markets. Specially, this supports the argument that banks, especially small banks, should focus on the traditional activities rather than shift into non-traditional activities. Moreover, the finding is consistent with recent evidence of Maudos (2017) which outline that diversification is negatively related to profitability and positively related to risk.

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