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Selecting Various Industrial Competitors Affect the Risk Level of Viet Nam Wholesale and Retail Industry During and After the Global Crisis 2007-2011

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Abstract

Using a one factor model, this paperwork estimates the impacts of the size of firms' competitors in the wholesale and retail industry on the market risk level, measured by equity and asset beta, of 9 listed companies in this category. This study identified that the risk dispersion level in this sample study could be minimized in case the competitor size doubles (measured by asset beta var of 0,0243). Beside, the empirical research findings show us that asset beta max value increases from 0,640 to 1,044 when the size of competitor doubles. Last but not least, most of beta values are acceptable. Ultimately, this paper illustrates calculated results that might give proper recommendations to relevant governments and institutions in re-evaluating their policies during and after the financial crisis 2007-2011.

Keywords: Risk Management, Competitive Firm Size, Market Risk, Asset And Equity Beta, Wholesale And Retail Industry

JEL CLASSIFICATION : G00, G3, G30

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1. Introduction

Together with financial system development and the economic growth, throughout many recent years, Viet Nam wholesale and retail industry is considered as one of active economic sectors, which has some positive effects for the economy. Additionally, financial risk and reactions has become an issue after the global crisis 2007-2009 which has some certain impacts on the whole Viet nam economy, and specifically, the Viet Nam wholesale and retail industry. Hence, this research paper analyzes market risk under a one factor model of these listed firms during this period.

This paper is organized as follow. The research issues and literature review will be covered in next sessions 2 and 3, for a short summary. Then, methodology and conceptual theories are introduced in session 4 and 5. Session 6 describes the data in empirical analysis. Session 7 presents empirical results and findings. Next, session 8 covers the analytical results. Then, session 9 will conclude with some policy suggestions. This paper also supports readers with references, exhibits and relevant web sources.

2. Research Issues

For the estimating of impacts of a one factor model: the size of competitor on beta for listed wholesale and retail industry companies in Viet Nam stock exchange, research issues will be mentioned as following:

Issue 1: Whether the risk level of wholesale and retail industry firms under the different changing scenarios of the size of competitor increase or decrease so much.

Issue 2: Whether the disperse distribution of beta values become large in the different changing scenarios of the size of competitor in the wholesale and retail industry.

3. Literature review

Black (1976) proposes the leverage effect to explain the negative correlation between equity returns and return volatilities. Diamond and Dybvig (1983) said banks can also help reduce liquidity risk and therefore enable long-term investment.

Next, Kim et all (2002) noted that the nature of competitive interaction in an industry is important in assessing the effect of corporate product strategies on shareholder value. Jimenez et all (2005) pointed As market power is the primary source of franchise value, reduced competition in banking markets has been seen as promoting banking stability. Ren and Scmit (2009) suggest that when competition is intense, HFV firms may have sufficient incentive to overcome the risk-constraining effects of franchise value.

Daly and Hanh Phan (2013) investigated the competitive structure of the banking industries in five emerging asian countries including Viet Nam and showed that the global financial crisis affected dramatically the competition of banking system in emerging Asian countries.

Last but not least, Ana and John (2013) Binomial Leverage – Volatility theorem provides a precise link between leverage and volatility.

4. Conceptual theories

The impact of competition or the size of competitor on the economy and business

In a competitive market, there are many firms offering the similar products and services and this helps customers select a variety of qualified goods that meet their demand. Competitors could affect price and

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customer service policies; hence, affect revenues and profits of a typical company. Sources of competition include, but not limit to, training. Increasing training can help competition raising productivity.

Different kinds of market contain various types of risks. And different organizational structure can offer various competition degree.

Last but not least, Porter, the guru of competitive strategy, stated that companies' route to success is in competing not just aginst their direct competitors but also against their suppliers and customers.

5. Methodology

In this research, analytical research method is used, philosophical method is used and specially, scenario analysis method is used. Analytical data is from the situation of listed wholesale and retail industry firms in VN stock exchange and applied current tax rate is 25%.

Finally, we use the results to suggest policy for both these enterprises, relevant organizations and government.

6. General Data Analysis

The research sample has total 9 listed firms in the wholesale and retail industry market with the live data from the stock exchange.

Firstly, we estimate equity and asset beta values of these firms, as well as the risk dispersion. Secondly, we change the competitor size from aprroxiamte size to doubling size and slightly smaller size to see the sensitivity of beta values. We figure out that in 3 cases, asset beta mean values are estimated at 0,352, 0,320 and 0,268 which decrease if the size of competitors doubles and then, be smaller. Also in 3 scenarios, we find out equity beta mean values (0,653, 0,564 and 0,523) also in the same trend with the competitive firm size. Various competitors selected definitely have certain effects on asset and equity beta values.

7. Empirical Research Findings and Discussion

In the below section, data used are from total 9 listed wholesale and retail industry companies on VN stock exchange (HOSE and HNX mainly). In the scenario 1, current financial leverage degree is kept as in the 2011 financial statements which is used to calculate market risk (beta) whereas competitor size is kept as current, then changed from double size to slightly smaller size. Then, two (2) FL scenarios are changed up to 30% and down to 20%, compared to the current FL degree. In short, the below table 1 shows three scenarios used for analyzing the risk level of these listed firms.

Market risk (beta) under the impact of tax rate, includes: 1) equity beta; and 2) asset beta.

Table 1 – Analyzing market risk under three (3) scenarios (Made by Author)

	FL as current
Competitor size as current	Scenario 1

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Competitor size slightly smaller	Scenario 2
Competitor size double	Scenario 3

7.1 Scenario 1: current financial leverage and competitor size kept as current

In this case, all beta values of 9 listed firms on VN wholesale and retail industry market as following:

Table 2 – Market risk of listed companies on VN wholesale and retail industry market under one factor model (case 1) (source: VN stock exchange 2012)

Order No.	**Company stock code**	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Note**	**Financial leverage (F.S reports)**
1	HHS	0,728	0,479	PIT as comparable	34,2%
2	IMT	0,399	0,386	TH1 as comparable	3,4%
3	TH1	0,409	0,160		60,8%
4	BSC	0,420	0,342	FBA as comparable	18,7%
5	PET	1,273	0,351		72,4%
6	BTT	0,829	0,640	PIT as comparable	22,8%
7	CMV	0,391	0,126	PIT as comparable	67,9%
8	PIT	1,012	0,514		49,2%
9	VT1	0,411	0,175	BTT as comparable	57,5%
				Average	43,0%

7.2. Scenario 2: competitor size double

All beta values of total 9 listed firms on VN wholesale and retail industry market as below:

Table 3 – Market risks of listed wholesale and retail industry firms under one factor model (case 2) (source: VN stock exchange 2012)

Order No.	**Company stock code**	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Note**
1	HHS	0,295	0,194	TH1 as comparable
2	IMT	1,080	1,044	ANV as comparable
3	TH1	0,409	0,160	
4	BSC	0,238	0,193	VT1 as comparable
5	PET	1,273	0,351	
6	BTT	0,335	0,259	TH1 as comparable

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7	CMV	0,158	0,051	TH1 as comparable
8	PIT	1,012	0,514	
9	VT1	**0,279**	0,118	GDT as comparable

7.3. Scenario 3: Competitor size slightly smaller

All beta values of total 9 listed firms on the wholesale and retail industry market in VN as following:

Table 4 – Market risk of listed wholesale and retail industry firms under one factor model (case 3) (source: VN stock exchange 2012)

Order No.	**Company stock code**	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Note**
1	HHS	0,383	0,252	BTT as comparable
2	IMT	0,399	0,386	TH1 as comparable
3	TH1	0,409	0,160	
4	BSC	0,204	0,166	VBH as comparable
5	PET	1,273	0,351	
6	BTT	0,532	0,411	AAM as comparable
7	CMV	0,391	0,126	PIT as comparable
8	PIT	1,012	0,514	
9	VT1	0,101	0,043	BSC as comparable

All three above tables and data show that values of equity and asset beta in the three cases of changing competiotor size have certain fluctuation.

8. Comparing statistical results in 3 scenarios of changing leverage:

Table 5 - Statistical results (FL in case 1) (source: VN stock exchange 2012)

Statistic results	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Difference**
MAX	1,273	0,640	0,633
MIN	0,391	0,126	0,266
MEAN	0,653	0,352	0,300
VAR	0,1069	0,0307	0,076
Note: Samle size 9 firms			

Table 6 – Statistical results (FL in case 2) (source: VN stock exchange 2012)

Statistic results	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Difference**
MAX	1,273	1,044	0,2292
MIN	0,158	0,051	0,1075
MEAN	0,564	0,320	0,2439
VAR	0,1839	0,0921	0,0918
Note: Sample size : 9			

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Table 7- Statistical results (FL in case 3) (source: VN stock exchange 2012)

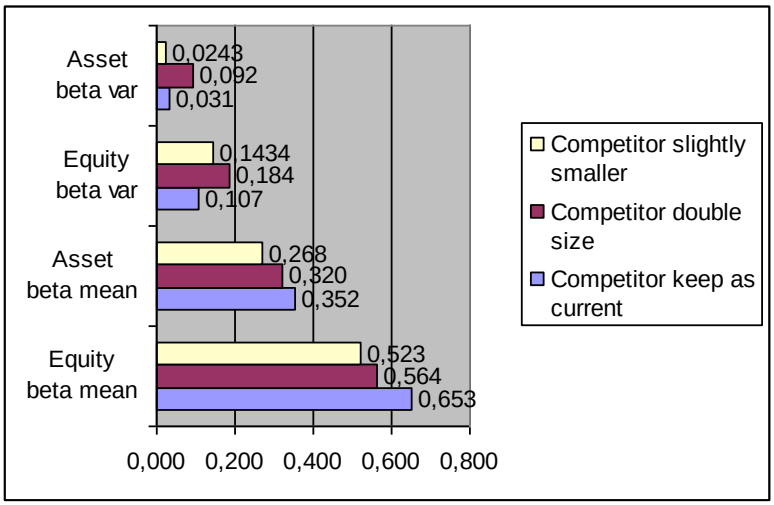
Statistic results	**Equity beta**	**Asset beta (assume debt beta = 0)**	**Difference**
MAX	1,273	0,514	0,7595
MIN	0,101	0,043	0,0582
MEAN	0,523	0,268	0,2552
VAR	0,1434	0,0243	0,1190
Note: Sample size : 9			

Based on the calculated results, we find out:

First of all, Equity beta mean values in all 3 scenarios are acceptable (< 0,7) and asset beta mean values are also small (< 0,4). In the case of reported leverage in 2011, equity beta max is 1,273 which is somewhat acceptable. If competitor size doubles, asset beta max decreases from 0,640 to 1,044. Finally, when competitor size is slightly smaller, asset beta max declines to 0,514.

The below chart 1 shows us : when competitive firm size decreases slightly, average equity beta value decrease slightly (0,523) compared to that at the initial selected competitor (0,623). Next, average asset beta decreases little (to 0,268). However, in case the competitor size doubles, the risk level of the selected firms is higher (0,564). Last but not least, the fluctuation of equity beta value (0,184) in the case of doubling size competitors is higher than (>) the results in the rest 2 cases. And we could note that in the case competitor size slightly smaller, the risk is more dispersed (0,092).

Chart 1 – Comparing statistical results of equity beta var and mean in three (3) scenarios of changing competitor size (source: VN stock exchange 2012)



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9. Conclusion and Policy suggestion

In conclusion, the government has to consider the impacts on the mobility of capital in the markets when it changes the macro policies and the legal system and regulation for developing the wholesale and retail market. The Ministry of Finance continues to increase the effectiveness of fiscal policies and tax policies which are needed to combine with other macro policies at the same time. The State Bank of Viet Nam continues to increase the effectiveness of capital providing channels for wholesale and retail companies as we could note that in this study when competitive firm size doubles, the risk level decreases (equity beta mean value is estimated at: 0,564), and the equity beta var value (0,184) is little higher than that in case competitor size as current (0,107).

Furthermore, the entire efforts among many different government bodies need to be coordinated.

Finally, this paper suggests implications for further research and policy suggestion for the Viet Nam government and relevant organizations, economists and investors from current market conditions.

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Exhibit

Exhibit 1 – Inflation, GDP growth and macroeconomics factors
(source: Viet Nam commercial banks and economic statistical bureau)

Year	Inflation	GDP	USD/VND rate
2011	18%	5,89%	20.670
2010	11,75% (Estimated at Dec 2010)	6,5% (expected)	19.495
2009	6,88%	5,2%	17.000
2008	22%	6,23%	17.700
2007	12,63%	8,44%	16.132
2006	6,6%	8,17%	
2005	8,4%		
Note	approximately		

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