



# **FACTORS AFFECTING THE CAPITAL STRUCTURE OF COMMERCIAL BANKS LISTED ON THE VIETNAM STOCK EXCHANGE**

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## **Abstract**

*This study indicates the factors affecting the capital structure of Commercial banks listed on Vietnam Stock Exchange over the period 2017 – 2021 of 16 commercial banks. This study use OLS model, FE model, RE model and Hausman test to select the suitable estimation methods. The capital structure in this case represents the debt ratio of the bank. Bank size, profitability ratio, growth rate of bank, income tax, business risk, liquidity, growth rate of the economy, inflation rate are variables included in the model to study the effect on commercial bank's capital structure. The results show that the bank size, the growth rate of the economy, the inflation have the positive relationship, while the profitability ratio, the growth rate of the bank show the negative relationship. It means that if the explanatory variable in the model increase, the bank will increase its liabilities for variables showing a positive relationship and vice versa. Through discussion, there are many studies that come to similar conclusions.*

*Keywords: Capital structure, Commercial bank, Banking, Vietnam*

## **INTRODUCTION**

Capital structure is an important issue not only with enterprises but also with banking sector. Therefore, research on capital structure has attracted much attention from scientists in the world as well as in our country. Since the research of Modigliani and Miller (1958) was published, there are many authors who have carried out studies on capital structure in

countries around the world such as Titman and Wessels (1988), Rajan and Zingales (1995), Frank and Gidel (2009). The objective of the research is to determine the factors affecting the capital structure of enterprises, thereby considering the impact of capital structure to enterprise value and building a model to determine the optimal capital structure for enterprises. The influence of factors on the capital structure of enterprises can be explained by different economic theories and sometimes the results of these theories are somewhat contradictory. In addition, the relationship between capital structure and influencing factors also depend on the operating environment, sectors and other socio – economic characteristics. From there, it can be seen that research on capital structure is very important and necessary.

The lack of research on commercial bank's capital structure may due to the unique characteristic of the bank as a financial institution (money) while money is the result of business processes. And one more feature, banks are always managed by the State Bank through regulations. The omission and underestimation of the importance of bank's capital structure will cause losses not only for the bank itself, but also for the whole economy. Beside the difference, commercial banks are like companies in term of objective – profit maximization with the good is money. Commercial banks are also subject to the tax law as companies and be affected by the general issue of the economy. Stemming from the above issues, this research examines the factors affecting the choice of debt in Vietnamese commercial banks list on Vietnam Stock Exchange over the period 2017 – 2021.

## LITERATURE REVIEW

Capital structure is defined as the combination of debt and equity to finance the investment decisions of a enterprise or a commercial bank. The capital structure of a commercial bank is the combination of liabilities and equity to finance the lending, trading, investment and other activities of the commercial bank, and an optimal capital structure is to achieves 3 conditions: (1) minimizing the cost of capital; (2) minimizing risks; (3) maximizing profits (Tran Ngoc Tho et al., 2007). Research on capital structure or financial leverage of commercial bank is different from non – financial enterprises because the main source of commercial bank capital is accept deposit and providing loan facilities to the business, while in the enterprises, their business capital usually come from equity and loans from commercial banks. Thereby, in the bank's capital structure, debt always accounts for a high proportion.

However, regardless of the type of business, financial managers must also choose a reasonable financial leverage for their business. Some factors that affect capital structure include:

### **Bank size**

Financial leverage and company (bank) size have positive relationship because enterprise with the larger size and diversified portfolios have lower bankruptcy risk than the smaller (Titman and Wessels, 1988). Beside, according to Ozkan (2008), small business are more vulnerable to economic fluctuations such as economic crisis or the downturn of the entire economy, leading to increased bankruptcy risk. Therefore, from the customer's point of view, small business seem riskier to invest in. These things leads to the possible solution in which, set the higher rate of short – term debt than long – term debt. On the other hand, when comparing the size, large enterprises will have an excess of idle capital, so it will be easier for them to use their own capital instead of loans, so that financial leverage will be low (Kester, 1986)

### **Profitability ratio**

The higher profitability ratio, the lower bankruptcy risk, which will make the business give higher priority to the loan source, leading to an increase in financial leverage. Besides, due to the benefit of tax shield, the enterprises will borrow more and be incentivized to borrow more. According to Jensen (1986), there are benefits for an efficient firm to increase its loan share. However, Titman and Wessels (1988), Rajan and Zingales (1995) lead to a negative relationship.

### **Growth rate of bank**

There are many views that when the growth rate is higher, the financial leverage tends to decrease because enterprises will choose to issue more shares instead of taking out debt to minimize the sharing of interests among shareholders and creditors (Barclay and Smith (1995); Rajan and Zingales (1995)). However, according to Bevan and Danbolt (2002), higher growth rate leads higher long – term debt and lower short – term debt.

### **Income tax**

According to Modigliani and Miller (1958), income tax rate was an important tool to determine the capital structure of the business. When faced with the higher tax rate, business will tend to borrow more to take advantage of tax shield. Similar conclusions are also drawn from studies of Mackie Mason (1990); Jan and Mateus (2008)

## **Business risks**

The impact of business risk on financial leverage is explained by the bankruptcy cost theory. Research by Titman and Wessels (1988), Aremu et al. (2013) indicated that firms with less stable income bear higher bankruptcy costs, therefore, they refuse to take an additional debt. However, according to Vatavu (2012), firms continue to use debt even when they faced the high business risks, because they accept the risk and stills try to maximize the benefits of leverage.

## **Liquidity**

Decisions related to capital structure according to studies also depend on the liquidity ratio (current ratio) (Tran Hung Son, 2008). Accordingly, businesses are legally obligated to pay fixed interest rates to creditors, dividends on shares, and principal and interest amounts on loans. However, sometime the profits of the business cannot generate the cash flow to pay out. The expected cash flow should match the payment obligation

## **Growth rate of the economy**

Economic condition is the general condition of the economy, as measured by the annual growth rate of GDP. Dincergok and Yalciner (2011) showed that the negative relationship between the economic condition and debt levels. However, an earlier study by Gertler and Gilchrist (1993) showed that in the good economic condition, stock price, taxable income and cash increase, while bankruptcy cost decrease, and therefore encourage businesses to borrow more for a positive relationship

## **Inflation**

Research by Frank and Gidel (2009) showed that if business expect an increased inflation rate, they will decide to use more debt, because the cost on debt will be cheaper. The positive relationship also drawn from the research of Taggart Jr (1995)

## **DATA AND METHODS**

### **Study and the Data**

This research focuses on commercial banks in listed on Vietnam Stock Exchange. Due to the requirement of data over the period from 2017 to 2021, there are 16 suitable commercial banks that are listed in table 1. The information used in the model are taken from the audited financial statements of these banks, while the macroeconomic data including GDP and inflation rate are collected from the website of the General Statistics Office (<https://www.gso.gov.vn/>).

Table 1: List of 16 commercial bank list on the Vietnam Stock Exchange

No.	Name of Commercial Bank	Stock code	Exchange	Start year
1	Asia Commercial Joint Stock Bank	ACB	HNX	2006
2	Joint Stock Commercial Bank for Investment and Development of Vietnam	BID	HOSE	2014
3	Vietnam Joint Stock Commercial Bank of Industry and Trade	CTG	HOSE	2009
4	Vietnam Export Import Commercial Joint Stock Bank	EIB	HOSE	2009
5	Military Commercial Joint Stock Bank	MBB	HOSE	2011
6	National Citizen Bank	NCB	HNX	2010
7	Saigon – Hanoi Commercial Joint Stock Bank	SHB	HNX	2009
8	Saigon Thuong Tin Commercial Joint Stock Bank	STB	HOSE	2006
9	Joint Stock Commercial Bank for Foreign Trade of Vietnam	VCB	HOSE	2009
10	BAC A Commercial Joint Stock Bank	BAB	UPCOM	2017
11	Ho Chi Minh city Development Joint Stock Commercial Bank	HDB	HOSE	2018
12	LienViet Commercial Joint Stock Bank	LPB	UPCOM	2017
13	TienPhong Commercial Joint Stock Bank	TPB	HOSE	2018
14	Vietnam International Commercial Joint Stock Bank	VIB	UPCOM	2017
15	Vietnam Commercial Joint Stock Bank for Private Enterprise	VPB	HOSE	2017
16	Vietnam Technological and Commercial Joint Stock Bank	TCB	HOSE	2018

### Description of variables

There are 8 factors that will be examined for their impact on the bank's capital structure (LEV) including 6 specific factors of commercial bank: Bank size (SIZE), profitability (ROA), growth rate of bank (GROW), income tax (TAX), business risk (RISK), liquidity (LIQUID) and 2 general economic factors: growth rate of the economy (GDP) and inflation rate (INF) (Table 2).

Table 2: Description of variables

<i>Variable</i>	<i>Symbol</i>	<i>Expected sign</i>	<i>Description</i>	<i>Formula</i>
<b>Dependent variable</b>				
Capital structure (Financial leverage)	LEV		Debt ratio of a commercial bank	$\frac{\text{Total Debt}}{\text{Total Assets}}$
<b>Independent variables</b>				
Bank size	SIZE	(+)	Total Assets	$\ln(\text{Total Assets})$
Profitability	ROA	(-)	Return on Assets	$\frac{\text{EBT}}{\text{Total Assets}}$
Growth rate of bank	GROW	(-)	Earning before tax (Earning before interest and tax)	EBT (EBIT)
Income tax	TAX	(+)	Based on EBT and Corporate income tax rate	$\frac{\text{Income tax}}{\text{EBT}}$
Business risk	RISK	(-)	Probability of having business risk	Standard Deviation of EBT
Liquidity	LIQUID	(-)	Ability to pay off current liabilities with total assets	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$
Growth rate of the economy	GDP	(+)	Annual growth of GDP	Annual growth of GDP
Inflation	INF	(+)	Annual growth of CPI	Annual growth of CPI

## Empirical model

*Hypotheses for the model:*

$H_0$ : The independent variables cannot explain the financial leverage of commercial banks listed on the Vietnamese stock market ( $\beta_i = 0$ )

$H_1$ : The independent variables can explain the financial leverage of commercial banks listed on the Vietnamese stock market ( $\beta_i \neq 0$ )

The format of the regression model is as follows:

*\* OLS model*

$$LEV_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 ROA_{i,t} + \beta_3 GROW_{i,t} + \beta_4 TAX_{i,t} + \beta_5 RISK_{i,t} + \beta_7 LIQUID_{i,t} + \beta_7 GDP_{i,t} + \beta_8 INF_{i,t} + \varepsilon_{i,t}$$

*\* FE and RE model*

$$LEV_{i,t} = \beta_1 SIZE_{i,t} + \beta_2 ROA_{i,t} + \beta_3 GROW_{i,t} + \beta_4 TAX_{i,t} + \beta_5 RISK_{i,t} + \beta_7 LIQUID_{i,t} + \beta_7 GDP_{i,t} + \beta_8 INF_{i,t} + V_i + \varepsilon_{i,t}$$

## Empirical Procedures

*Steps to determine model for panel data:*

Step 1: Run OLS regression

Step 2: Run the FE (Fix effect) regression. The model removes the specific effect of time-invariant factors to determine the real effect on dependent variable

Step 3: Run the RE (Random effect) regression. The model assumes that the volatility is random and also concern about time-invariant factors.

Step 4: Run the Hausman test to select the appropriate estimation method between FE and RE (Baltagi, 2008; Gujarati, 2004). The hypothesis put forward is as follows:

$H_0$ : There is no correlation of error between the independent variables and the explanatory variables in the model

$H_1$ : There is a correlation of error between the independent variables and the explanatory variables in the model

The estimation of RE is reasonable under  $H_0$  but not under  $H_1$ , while the estimation of FE is reasonable for both hypotheses. However, in case of the null hypothesis  $H_0$  is rejected, the fixed effect estimation is more suitable than the random effect, and vice versa. If there is not enough evidence to reject  $H_0$ , the RE model will be used.

## RESULTS AND DISCUSSION

### Descriptive Statistics

From table 3, the descriptive statistics show that total debt ratio of the whole sample is 92.6% with the highest rate being 95.9%. It means that in the period of 2017 – 2021, an average of 92.6% of commercial banks' assets are financed by debt, of which the smallest ratio is 83.8% and the highest is 95.9%. Although the average rate of ROA is not large (0.9%), the annual grow rate of bank represents a remarkable growth of 42,726.8%. This is compatible with the expansion of banks. The average growth rate of the economy (GDP) is 6.8% and the average inflation rate is 3.0%, the liquidity calculated by the current assets and current liabilities is 81.5%, while 19,581.5% shows that the business risk of banks is very high. The average corporate income tax by earning before tax is 28% with the highest value of 142.5% and the lowest of 11.3%.

Table 3: Descriptive statistics

	LEV	SIZE	ROA	GROW	TAX	RISK	LIQUID	GDP	INF
<b>Mean</b>	0.926	1,933	0.009	4,272,680	0.280	1,958,150	0.815	0.068	0.030
<b>Std.Dev</b>	0.023	0.859	0.006	4,472,265	0.147	1,734,111	0.080	0.003	0.014
<b>Min</b>	0.838	1,769	0.0001	7,473	0.113	32,983	0.586	0.062	0.006
<b>Max</b>	0.959	2,112	0.027	2.31	142.4	6,877,971	0.966	0.071	0.047

### Correlation Analysis

Table 4 shows the correlation matrix between the variables used in the regression models. The data from the table show the direction and degree of linear relationship between variables. Besides, the analysis also allows to suspect the phenomenon of multicollinearity and remove the highly correlated variables from the model. Accordingly, if the correlation coefficient between pairs of explanatory variables is high, it is possible that the information of one variable is included in other variable. The correlation values in the table range from 0 to 0.790 (less than 0.8) so a regression can be performed with the variables given above.

Table 4: Correlation analysis

	LEV	SIZE	ROA	GROW	TAX	RISK	LIQUID	GDP	INF
<b>LEV</b>	1.000								
<b>SIZE</b>	0.148	1.000							
<b>ROA</b>	-0.616	0.221	1.000						
<b>GROW</b>	-0.149	0.790	0.564	1.000					
<b>TAX</b>	0.105	-0.137	-0.234	-0.168	1.000				
<b>RISK</b>	-0.251	0.527	0.541	0.710	-0.138	1.000			
<b>LIQUID</b>	-0.171	0.595	0.326	0.524	-0.278	0.298	1.000		
<b>GDP</b>	-0.108	0.160	0.310	0.282	0.021	0.000	0.298	1.000	
<b>INF</b>	0.116	0.099	0.075	0.060	0.058	-0.000	0.079	-0.302	1.000

Based on the correlation coefficient of financial leverage (LEV) with the independent variables, the hypothesis about the relationship can be surmised as follows:

Table 5: Hypotheses of the estimated model

Hypothesis	Content
H <sub>1</sub>	Financial leverage and bank size have a positive relationship
H <sub>2</sub>	Financial leverage and profitability have a negative relationship
H <sub>3</sub>	Financial leverage and growth rate of bank have a negative relationship
H <sub>4</sub>	Financial leverage and income tax have a positive relationship
H <sub>5</sub>	Financial leverage and business risk have a negative relationship
H <sub>6</sub>	Financial leverage and liquidity have a negative relationship
H <sub>7</sub>	Financial leverage and growth rate of the economy have a positive relationship
H <sub>8</sub>	Financial leverage and inflation have a positive relationship

After testing different models based on 8 independent variables, it has been found that business risk variable (RISK) is ignored because there is collinearity in the FE model and income tax variable (TAX) does not show the value in Hausman test, thus removing these two variables from the model and re-run the OLS, FE, RE model with 6 variable including SIZE, ROA, GROW, LIQUID, GDP, INF.

Table 6 shows the results of the OLS regression, in which, at the significance level at 1%, 5%, and 10% variables affecting a bank's financial leverage (LEV) included SIZE, ROA, LIQUID, GDP and INF. However, the usual use of OLS model does not give accurate results for panel data, so this research use the results of the FE and RE regression analysis (Table 7).

Table 6: Results of the OLS regression analysis

Variables	Coef.	P >  t	No. of obs	= 80
Constant	0.689	0.000***	F(6,73)	= 14.02
SIZE	0.0114	0.010***	Prob > F	= 0.0000
ROA	- 2.475	0.000***	R – squared	= 0.5353
GROW	- 1.40e-10	0.877	Adj R – squared	= 0.4971
LIQUID	- 0.074	0.018**	Root MSE	= .0164
GDP	1.330	0.057*		
INF	0.340	0.022**		
R – squared	0.535			

Note: \*, \*\*, \*\*\* are significance at 10%, 5% and 1% levels, respectively.

The results of FE regression shows that ROA and GROW have the negative relationship with LEV, while based on the RE regression SIZE, GDP, INF represent the positive relationship and ROA, GROW show the negative relationship. According to the results of Hausman test, p-value = 0.7553 > 0.1, so the appropriate model in this case is random effect model (RE). This means that in this study, a random effect model (RE) will be applied to analyze the factors affecting the capital structure of commercial banks listed on the Vietnam Stock Exchange.



Table 7: Results of the FE and RE regression analysis

Variable	FE model		RE model	
	Coef.	P >  t	Coef.	P >  t
Constant	0.513	0.055*	0.620	0.000***
SIZE	0.021	0.204	0.015	0.012**
ROA	- 1.820	0.004***	- 1.962	0.000***
GROW	-1.79e-09	0.060*	- 1.39e-09	0.099*
LIQUID	- 0.023	0.631	- 0.036	0.327
GDP	0.596	0.464	1.013	0.064*
INF	0.215	0.185	0.287	0.006***
Hausman test	<b>0.7553</b>			

Note: \*, \*\*, \*\*\* are significance at 10%, 5% and 1% levels, respectively.

Impact model:  $LEV = 0.6195 + 0.0146SIZE - 1.962ROA - 1.39e-09GROW + 1.013GDP + 0.2872INF$

### ***H<sub>1</sub>: Financial leverage and bank size have a positive relationship***

The positive relationship tells us that the larger the size of the bank, the higher the financial leverage. This is consistent with the fact that commercial banks with an increased scale and network will increase their prestige and be more convenient in mobilizing deposits from customers and easily borrow on the inter – bank market and State Bank, therefore the financial leverage increases. Most of the bank's loans are short – term debts, so the size variable has a positive impact on the financial leverage. This is the general situation for the capital structure situation of Vietnamese commercial banks (Titman and Wessels, 1988)

### ***H<sub>2</sub>: Financial leverage and profitability have a negative relationship***

Profit measures the performance of commercial banks and is defined as the money the bank earns after deducting all expenses and taxes, so, this research consider return on asset to measure profitability. Building on the agency's cost theory, Jensen (1986) and Williamson (1988) state that the higher profitability, the higher free cash flow, and encourage the flexible investment. To limit this problem, debt is chosen as an effective instrument for managers. Therefore, we can say that banks with high profit are absorbing more debt, so making them positively related. In contrast, Aremu et al. (2013) explains that banks with high profit prefer internal financing. As a result, banks tend to retain more profit for expansion instead of servicing debts, so make the negative relationship like in this study.

### ***H<sub>3</sub>: Financial leverage and growth rate of bank have a negative relationship***

According to the pecking order theory and intermediaries theory, when commercial banks are forecasted to have high growth rates in the future, shareholders tend to want to take full advantages of this opportunity, so they will finance the capital entirely with equity. However, this is only true in the short term, in the long term, the fear of shareholders related to risks leads to

uncertainty in the decision to use equity. Therefore, they show the negative relationship in this research.

***H<sub>7</sub>: Financial leverage and growth rate of the economy have a positive relationship***

In a boom economy, the increase in profitability of commercial banks makes the decision in using internal sources instead of debts (Dincergok and Yalciner, 2011), therefore, highlighting a negative relationship between economic conditions and financial leverage. However, an earlier studies of Gertler and Gilchrist (1993) showed that in good economic conditions, stock price increase, bankruptcy costs decrease, taxable income and cash increases, and these factors encourage commercial banks to borrow more.

***H<sub>8</sub>: Financial leverage and inflation have a positive relationship***

The rate of inflation directly affects the cost of debt (Frank and Gidel, 2009) showed that commercial banks expect an increase in the inflation rate, so they decide to use more debt because of cheaper cost. The trade-off theory considers the same relationship and adds that the real value of the tax shield is higher as inflation increases leading enterprises absorbing more debt to obtain more tax benefits (Taggart Jr., 1995). Both theories agree that inflation have a positive effect on financial leverage.

## CONCLUSION

The study was conducted to show the factors affecting the capital structure of commercial banks listed on the Vietnam Stock market. Based on theories and studies around the world, the results of this study indicate that Bank size, Growth rate of the economy, and Inflation show a positive relationship with capital structure, while profitability and growth rate of bank exhibit a negative relationship.

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## APPENDIX

### Analysis result of OLS

. regress LEV SIZE ROA GROW LIQUID GDP INF

Source	SS	df	MS	Number of obs = 80		
Model	.022622428	6	.003770405	F( 6, 73) =	14.02	
Residual	.019638731	73	.000269024	Prob > F	= 0.0000	
				R-squared	= 0.5353	
				Adj R-squared	= 0.4971	
Total	.042261159	79	.000534951	Root MSE	= .0164	

LEV	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
SIZE	.0114022	.0043224	2.64	0.010	.0027877	.0200168
ROA	-2.474769	.408798	-6.05	0.000	-3.289502	-1.660036
GROW	-1.40e-10	8.97e-10	-0.16	0.877	-1.93e-09	1.65e-09
LIQUID	-.0735781	.0303802	-2.42	0.018	-.1341258	-.0130304
GDP	1.329089	.6870267	1.93	0.057	-.0401538	2.698331
INF	.3395089	.1455799	2.33	0.022	.0493684	.6296493
_cons	.6887939	.0890306	7.74	0.000	.5113561	.8662317

## Analysis results of FE

```
. xtreg LEV SIZE ROA GROW LIQUID GDP INF, fe
```

Fixed-effects (within) regression

Number of obs = 80

Group variable: com

Number of groups = 16

R-sq: within = 0.3952

between = 0.4562

overall = 0.4381

Obs per group: min = 5

avg = 5.0

max = 5

F(6,58) = 6.32

Prob > F = 0.0000

corr(u\_i, Xb) = -0.1396

LEV	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
SIZE	.0211755	.0164693	1.29	0.204	-.0117914	.0541423
ROA	-1.81981	.6122205	-2.97	0.004	-3.045303	-.5943177
GROW	-1.79e-09	9.33e-10	-1.92	0.060	-3.66e-09	7.86e-11
LIQUID	-.0227874	.0472491	-0.48	0.631	-.1173667	.0717918
GDP	.5956925	.8080351	0.74	0.464	-1.021765	2.21315
INF	.2147071	.1599726	1.34	0.185	-.1055128	.534927
_cons	.5129203	.261875	1.96	0.055	-.0112794	1.03712
sigma_u	.01516811					
sigma_e	.01085006					
rho	.6615143	(fraction of variance due to u_i)				

F test that all u\_i=0: F(15, 58) = 7.25 Prob > F = 0.0000

## Analysis results of RE

```
. xtreg LEV SIZE ROA GROW LIQUID GDP INF, re
```

Random-effects GLS regression

Number of obs = 80

Group variable: com

Number of groups = 16

R-sq: within = 0.3885

between = 0.5539

overall = 0.5086

Obs per group: min = 5

avg = 5.0

max = 5

Wald chi2(6) = 54.25

Prob > chi2 = 0.0000

corr(u\_i, X) = 0 (assumed)

LEV	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
SIZE	.0146454	.005852	2.50	0.012	.0031756	.0261151
ROA	-1.962304	.4873732	-4.03	0.000	-2.917538	-1.00707
GROW	-1.39e-09	8.41e-10	-1.65	0.099	-3.04e-09	2.59e-10
LIQUID	-.0364125	.0371148	-0.98	0.327	-.1091562	.0363311
GDP	1.01282	.5460081	1.85	0.064	-.0573365	2.082976
INF	.2871764	.1052854	2.73	0.006	.0808209	.4935319
_cons	.6194707	.100663	6.15	0.000	.4221749	.8167666
sigma_u	.01366448					
sigma_e	.01085006					
rho	.61331252	(fraction of variance due to u_i)				

## Hausman test

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
SIZE	.0211755	.0146454	.0065301	.0153945
ROA	-1.81981	-1.962304	.1424935	.3705149
GROW	-1.79e-09	-1.39e-09	-4.00e-10	4.04e-10
LIQUID	-.0227874	-.0364125	.0136251	.0292398
GDP	.5956925	1.01282	-.4171272	.5956474
INF	.2147071	.2871764	-.0724693	.1204418

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(5) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)  
 = 2.64  
 Prob>chi2 = 0.7553