

DETERMINANTS OF GROWTH AND PROFITABILITY BY BANK SPECIFIC VARIABLE AND MARKET STRUCTURE IN ISLAMIC BANKING IN INDONESIA

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ABSTRACT

This study aims to assess bank specific variable (finance to deposit ratio, capital adequacy ratio, operating expenses to total assets ratio, non-financing income to total assets ratio, non performing financing and market share to profitability and growth of Islamic banking in Indonesia. This research is explanatory survey with seemingly unrelated regression methods by using data from financial reports from 2011 January until 2013 December.

Overall, this research model can explain that the bank specific variables and market share increase the profitability and total assets growth of Islamic banks significantly. Finance to deposit ratio was not significantly and negative effect both to the return on assets and total assets growth. Capital adequacy ratio was not significantly and negative effect to return on assets but was significantly and negative effect to total assets growth. Operating expenses to total assets ratio was significantly and negative effect both to return on assets and total assets growth. Non-financing income to total assets ratio was not significantly and positive effect to return on assets and significantly and positive effect to total assets growth. Non-performing financing was significantly and negative effect both to return on assets and total assets growth. Market share was significantly and negative effect both to return on assets and total assets growth.

INTRODUCTION

Subprime mortgage crisis ever experienced by the United States is a credit crisis or credit crunch that can be used as an indicator of the financial crisis. The crisis brought a tremendous disaster for the economy of the United States because of a lack of funds and credit is too great in the economy (Farook, 2009). Therefore, the performance of banks is very important both in the national or international economy, as well as the need supervision at all times. The role of banks is very important in the economy, such as stability and economic growth. Bank can play a role through the efficiency of the allocation and utilization of funds and the last resource in the economy (Al-Omar and Al-Mutairi, 2008). After facing many obstacles, reserve growth of Islamic banks experienced a remarkable improvement, as well as an increase in the number of customers (Alam, et al., 2011).

The banking sector is one of the sectors most affected by the impact of the global crisis, affecting 80% of financial instruments. Almost all conventional banks affected by the credit crunch, but the credit crunch has a negative impact on the Islamic bank and almost insignificant when compared with conventional banks, because of the nature of the Islamic bank, where all financial transactions should be based trade and associated assets (Ahmed 2010; Hidayat & Abduh, 2012). While the sectors affected by the financial crisis is the financial sector such as the money market where Islamic banks unlawful conduct their business activities in the money

market. Nevertheless, the Islamic bank could be affected if the crisis affected to the real sector, because the Islamic bank very close to the real sector.

Profitability is very important for the bank and can be measured at the micro and macro levels (Aburime, 2009). In the macro level, profit is an important prerequisite to compete in the banking industry and as a source of cheap funds. The high profits are not entirely good, because indicates the strength of the market, especially for banks with large scale. It inhibits the function of financial intermediation due to the high strength of the market; the bank may offer a low return on savings/deposits but charge a high interest rate loan. If profitability is very low, may give rise to conflicts of agency (the bank's management and shareholders) on the activities of the bank, resulting in the bank failed to attract enough capital to operate and usually occur at banks with low capitalization (Olweny & Shipho, 2011).

Growth is a measurement of the performance of the most important for evaluating the development of the company, as the financial markets and investors tend to reward the stock price for a company that is growing rapidly, so that the manager is under pressure from shareholders and financial analysts to boost the company's growth (Kim & Haleblan, 2011).

However, the performance of Islamic bank strongly linked to welfare aspects. According to Chapra (2000), the benefit of the pillars of business success of Islamic bank, because it must comply with the rules of fiqh muamalah. Muamalah means that the activities of Islamic banks have benefits, so that the resulting performance of the benefit in the form of the aspect of non-financial that Islamic banks as intermediary institutions do fund raising and channeled back into productive real sector as well as social functions to conduct fund raising in the form of zakat, infaq and shadaqoh (ZIS).

The spread of the practice of Islamic banks starting from East to West, from Indonesia and Malaysia to Europe and America. Since the first Islamic bank was established in Egypt in 1963, then developed throughout the world. The number of financial institutions banking around the world at the moment grew more than 300 and in 75 countries with concentrated in the Middle East and Southeast Asia (the largest in Bahrain and Malaysia), began to grow in Europe and the United States (Ahmad & Ahmad, 2011). The interesting phenomenon of the development of Islamic banks in Indonesia, that Indonesia is a country with the largest Muslim population, where a number of Islamic micro-finance unit, formal and semi-formal evolved since 1990, is now recognized as part of the dual banking system. Thus the ability of Islamic banks in Indonesia to earn profits and grow rapidly is one of the requirements to be able to compete with conventional banks

The purpose of this study to assess bank specific variable and market share to profitability and growth of Islamic banking in Indonesia. This research was conducted for the study of Islamic banks and Islamic finance. The phenomenon of Islamic banks and Islamic finance has not been done in the global financial markets and not widely spread because of the limited range.

LITERATURE REVIEW

The Relationship between Liquidity and Profitability

Liquidity shows the bank's ability to meet its obligations on most customers (Ongore & Kusa, 2013). In a study conducted by Athanasoglou (2005), Al-Omar (2008), Ghazali (2008), Kosmidou & Constantin (2008), Shen, et al., (2009), Sufian (2010), Sufian & Majid (2011), Awojobi & Amel (2011), and Hidayat & Abduh (2012) by using empirical data, the effect of

liquidity risk to the profitability of banks is vary. Some studies have a positive effect; while research conducted Shen, et al. (2009), Athanasoglou (2006), Al-Omar (2008), and Kosmidou & Constantin (2008) stated that liquidity have a negative impact on profitability.

Liquidity risk may be low quality of assets that led to low liquidity levels and is the cause of bank failure (Al-Omar, et al., 2008; Awojobi & Amel, 2011). In addition, liquidity risk lowering the bank's profitability (returns on average assets/ROAA and return on average equity/ROAE). Shen, et al., (2009) state bank with a big gap, less stable and low-cost funds, then use the liquid assets or external financing to meet demand for funds, will raise the cost of funds, resulting in lower profitability, thus the high liquidity risk will increase return on average assets (ROAA), return on average equity (ROAE) and net interest margin (NIM).

The Relationship between Capital and Profitability

To help banks reduce losses and avoid the event of bankruptcy in the long term, the necessary reserves are called capital (O'Hara, 1983; Dowd, 1999; Chen, 2003; Toby, 2008; Petersen, 2008; Awojobi & Amel, 2011).

Ahmad et al. (2009) in the Center for Research in Finance (CARF) Working Paper examines the variables that affect the capital ratios of banks in developing countries. Capital ratio (CAR) as the dependent variable is affected by the 9 explanatory variables consisted of 6 accounting based variables, NLP, ZRISK (risk index), NIM (net interest margin), EQTL (ratio of total equity to total liabilities), LACFF (ratio of total liquid assets to total deposits), SIZE (natural log of the total assets of the bank) and 3 dummy variable, REGRWC (1 for law capital banks; 0 otherwise), POST 99 (1 for 1999 - 2002; 0 for 1995-1998), Y96 (1 to 1996; 0 for the other). The study resulted in the conclusion that the non-performing loan (NPL) and risk index has a positive relationship between bank capital and risk-taking, arguing that the bank's capital and risk-related, due to the high capital ratios is the behavior, then the banks are more willing to take risk.

The Relationship between Operational Costs and Profitability

The relationship between operational costs and profitability an estimated negative, because if banks can run their business more productive and efficient, banks will be able to have a low operating costs (Sufian & Habibullah, 2010; Sufian & Majid, 2011).

The empirical test results from several studies suggest that operating costs have a negative relationship, it is shown to improve the profitability of banks, the efficiency of the management cost is a prerequisite (Ghazali, 2008; Sufian & Habibullah, 2010, Sufian & Majid, 2011; Wasiuzzaman & Tarmizi, 2011; Hidayah & Abduh 2012).

The Relationship Between the Non-Financing Income and Profitability

Non-financing income is fee-based income, the income derived from services offered to customers, such as commission, fee amount, and the net profit from the sale of securities or foreign currencies (Sufian & Habibullah, 2010). These variables are estimated to have a positive effect to profitability in the regression analysis (Rahman, et al, 2009; Sufian & Habibullah, 2010).

In the study Sufian and Habibullah (2010), the relationship between income diversification and profitability is a positive and significant, so that the result means that the

proportion of higher bank earnings derived from sources such as non-financing income-based services tend to obtain higher profitability.

The Relationship between the Quality of Assets and Probability

In the study Olweny and Shipo (2011), showed a negative and strong relationship between the asset qualities (credit risk) as measured by non-performing loan (NPL), which is the ratio of total non-performing loans to total loans, with profitability. The meaning that if banks cannot manage credit well will reduce profitability which ultimately lowers the quality of the assets.

The results of empirical tests conducted by Richard & Thomas (1997); Athanasoglou (2005); Shen, et al (2009); Olweny & Shipho (2010); Sufian & Habibullah (2010); Sufian & Majid (2011); Misman (2012); Hidayat & Abduh (2012); Sapuan, et al (2013), as statistics show that credit risk resulted in low profitability of banks in both conventional and Islamic banks. It shows that the management should pay attention on credit risk which in turn can be a problem in the future, because of the failure of the banks most of which come from how the bank can recognize the weakness of these assets and creating a backup for written off this asset (Sufian & Majid, 2011).

The Relationship between the Market Share and Probability

The market share explains the position of competition between companies in the market. Companies that have a large market share will be able to give satisfaction to customers and eventually will enjoy a competitive advantage (Schawalbach, 1991). The market share refers to the customer, especially about the company's product quality (Jacobson, 1988).

Market share is a key determinant of profitability. Market size indicates the strength of banks in controlling the prices and services offered for various bank customers (Haron, 2004). Sharkin study (1988) found that companies with a high level of market share (51%) enjoy above average profit. Research conducted by Markell, et.al (1988) showed in the plastic industry are positive and significant relationship between market share and profitability.

The Relationship between Liquidity and the Company Growth

Research conducted by Oliveira and Fortunato (2005) using the cash flows as a proxy of liquidity, cash flow showed significant positive effect on the company growth.

Research conducted by Broome & Robinson (2009), liquidity proxied by cash flow ratio (fcf_sales and ocash_sales) significantly to growth. While research Notta & Vlachvei (2009) conducted in two criteria for companies, rapid-growth firm and slow-growth firm, in Greece stated that liquidity (measured by the ratio of current ratio to total assets) have a positive effect not significant to the growth (measured by the ratio of the level of sales of the company) for slow-growth firm. For rapid-growth firm liquidity significant negative effect on growth.

The Relationship between Capital and the Company Growth

Ability to pay indicates a healthy company. To calculate the capital ratio or solvency ratio, use formula stockholders' equity divided by total assets. Health companies can be determined by the greater this ratio. Companies that have a solvency ratio indicate that the small shareholder capital is smaller than its debts. Companies with a solvency ratio of small very high

risk to go bankrupt (Loi & Khan, 2012; Benhayoun, et.al, 2014). These results are consistent with studies conducted by Loi & Khan (2012) that the solvency ratio is calculated by dividing total shareholders capital assets have a significant negative effect on the level of $\alpha = 5\%$ to the growth of the company.

The Relationship between Operational Cost and the Company Growth

Research in India, related to the problem of efficiency in banking is based on financial ratios (Sarkar., et.al; 1998; Das, 1999; Sanchez, et.al, 2013). While research Subramanyam (1993) and Reddy (2005) outlines the company's growth due to changes in efficiency and technical change. Market power in the banking sector resulted in a high cost of intermediation. This causes the price to be high, decreasing the amount of savings and investment; resulting in decreased growth of the company (Ningaye, et.al, 2014).

Kumar et.al (2010) empirical test results, which examines the determinants of changes in the growth of the banking sector (total factor productivity) and its components, namely technical and changes, stating that the level of $\alpha = 5\%$, the growth of banks in India during the study period (1995-2006) is almost dominated by technical changes compared with efficiency changes, means that technology and innovation have a greater impact on the growth of bank compared the change in efficiency.

The Relationship between Non-Financing Income and the Company Growth

Research conducted by Pennathura (2009), where the variable non-interest income divided by total assets has significant negative influence on the growth of the company. While Bush & Kick (2009) who conducted a study of three types of banks stated that non-interest income (by using the term fee income) have a negative impact significantly on the growth of the company at the level of $\alpha = 1\%$, both for cooperative banks and saving banks, while for commercial banks, fee income has a significant positive effect on the level of $\alpha = 10\%$.

The Relationship between Quality of Assets and the Company Growth

Logically, the smaller the rate of financing problems, the investment of financing is smaller, so good quality of Islamic banking assets.

The Relationship between Market Share and the Company Growth

Logically, the greater the market shares of Islamic bank, the greater the power of the market, so that Islamic banking will be able to make improvements to its assets.

DATA AND METHODOLOGY

Data were taken from the site Indonesian Bank, in the form of monthly financial reports of eleven Islamic banks in Indonesia period 2010 - 2013. Data were processed with statistical program Stata version 11, using seemingly unrelated regression (SUR) analysis.

Table 1 shows the variables that are used as a proxy for profitability, growth and the variables that affect it. In the table include the notation and the expected effects of each determinant as reflected in the literature.

Table 1			
OVERVIEW VARIABLES USED IN REGRESSION MODEL			
Variable	Sub Variable/Proxi	Overview of Variable	Hypotheses Relationship
Dependent Variable			
Profitability	Return on asset (ROA)	This ratio is used to determine a company's ability to earn a return on the investment made by company	NA
Company growth	Growth of total asset (GTA)	Resources of the company as a result of operational activities	NA
Independent Variable			
Liquidity	Finance to deposit ratio (FDR)	The parameters that determine the success of the distribution of funds of banks (financing) to third parties. Measured by comparing the financing with third party funds	-
Capital	Capital adequacy ratio (CAR)	Parameter that indicates the minimum capital to be provided by the bank. Measured by comparing the capital with risk-weighted assets (RWA)	-
Operational cost	The ratio of operating expenses to total assets (OE/TA)	Parameters that indicate the extent to which the management efficiency. Measured by dividing operating expenses to total assets.	-
Non-financing income	The ratio of non-financing income to total assets (NFI/TA)	Parameters that indicate different types of income earned bank. Measured by dividing non-financing income to total assets	+
Quality asset	Non performing finance (NPF)	Parameters that indicate the extent to which the bank is able to provide sufficient funds and reserves. Measured by comparing the amount of financing problems divided the total financing extended financing provided to bank depositors.	-
Market structure	The market share of banks (MS)	Parameter that indicates the market share of the bank. Calculated by comparing the total assets of Islamic banks with total assets of the banking industry	+

Estimation model to analyze the data of this study variables are as follows:

$$ROA_{it} = \alpha_1 + \beta_1 FDR_{it} + \beta_2 CAR_{it} + \beta_3 OE/TA_{it} + \beta_4 NFI/TA_{it} + \beta_5 NPF_{it} + \beta_6 MS_{it} + \varepsilon_{1it} \quad (1)$$

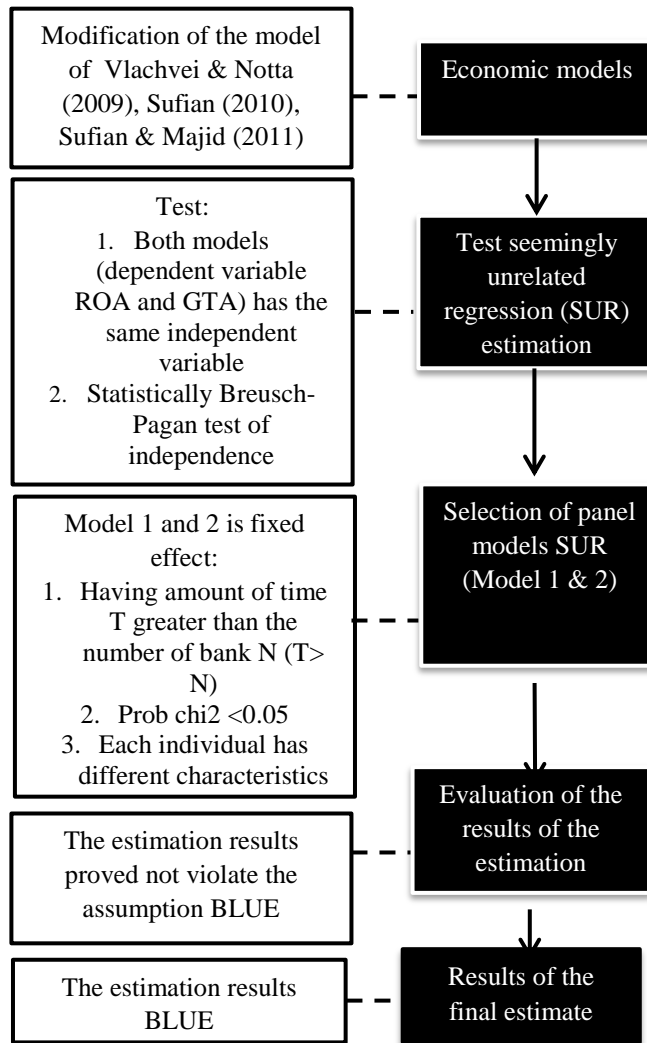
$$GTA_{it} = \alpha_2 + \beta_7 FDR_{it} + \beta_8 CAR_{it} + \beta_9 OE/TA_{it} + \beta_{10} NFI/TA_{it} + \beta_{11} NPF_{it} + \beta_{12} MS_{it} + \varepsilon_{2it} \quad (2)$$

EMPIRICAL FUNDINGS

Summary Estimates Research

The results of the estimation process above can be summarized that in the selection panel models, the first model and the second model using a fixed effect model. Summary results of the estimation process is presented in Figure 1.

Figure 1
SUMMARY OF RESEARCH ESTIMATES



RESULTS ESTIMATES

The estimation results of the research model presented in Table 2.

Variable	Model 1	Model 2
	Dependent variable ROA (N = 396)	Dependent variable GTA (N = 396)
INTERCEPT	+3,087*** (0,497)	+6,493*** (1,319)
FDR	-0,001 (0,002)	-0,002 (0,003)
CAR	-0,0005 (0,007)	-0,048*** (0,017)
OE/TA	-0,005 (0,009)	-0,027 (0,025)
NFI/TA	+0,001 (0,012)	+0,070 ** (0,031)
NPF	-0,167*** (0,039)	-0,334*** (0,104)
MS	-0,013* (0,012)	-0,027* (0,031)
R ²	0,858	0,669
F (prob)	0.0000	0.0000

*** $\alpha = 1\%$; ** $\alpha = 5\%$; * $\alpha = 10\%$

In first model, test of F stat (global test) stated that this model is significant because the p-value < 0.05, so the model is acceptable in describing the dependent variable. With R² of 0.858, or 85.8%, which means that the variation of ROA can be explained by variations of FDR, CAR, OE/TA, NFI/TA, NPF and MS, while the remaining 14.2% is explained by variations in the value of other variables that are not included in this model.

Based on appendix 2, Bank Muamalat Indonesia has a highest constant value because since its presence on 27 Shawwal 1412 Hijri, Bank Muamalat Indonesia has opened to people who want to take advantage of Islamic banks. The presence of Bank Muamalat Indonesia is not only to position itself as the first bank to enforce sharia law, yet equipped with the advantages of real time network on line broadest in Indonesia and provides services through 312 outlets in 33 provinces, supported by a network of more than 3,800 post office online throughout Indonesia.

In second model, test of F stat (global test) states that this model is significant because the p-value < 0.05, so the model is acceptable in describing the independent variables. With the R² of 0.669 means that 66.9% of the variation of GTA can be explained by variations of FDR, CAR, OE/TA, NFI/TA, NPF, and MS, while the remaining 33.1% is explained by variations in the value of other variables that are not included in this model.

Based on appendix 3, Bank Panin Syariah has a highest constant value because Bank Panin Syariah began focusing its financing to the retail sector, consumer and commercial form of projects, construction services and trading. With this strategy, the bank is able to raise the target of financing up to 200% and 300% growth in total assets.

COMPARISON OF THE PERFORMANCE OF ISLAMIC BANKS AND CONVENTIONAL BANKS

During the study period (2010 - 2013), comparison of financial performance related to research variables, between Islamic banks and conventional banks are presented in Table 3 (Irma, et.al, 2015).

Table 3		
COMPARISON OF THE PERFORMANCE OF ISLAMIC BANKS AND CONVENTIONAL BANKS		
Variable		Explanation
ROA		a) Islamic banks have ROA below 1.5%, which the Bank Indonesia regulation No.8/2/ PBI /2006, ROA of banks must be greater than 1.5%, b) Internal and external factors of Islamic banks affect the manager's decision and the impact on ROA.
IB	CB	
1%	3%	
GTA		a) GTA Islamic banks around 5% of its conventional banks, b) Limitations of Islamic banking exposures in tradable sectors and as commodity-based manufacturing sector became one of the obstacles to the growth in assets of Islamic banks.
IB	CB	
3.5%	18%	
FDR		a) FDR Islamic banks in the top 85% (Bank Indonesia Circular Letter No. 6/23 / DPNP, May 31, 2004), b) Good liquidity for banks by 50% - 85%, but there were differences in management between Islamic banks and conventional banks, especially on the nature of its business
IB	CB	
141%	80%	
CAR		a) CAR of Islamic banks above 8% (Bank Indonesia regulation No.15/12/PBI /2013), b) Islamic bank has sufficient capacity to expand the amount of CAR owned.
IB	CB	
17.6%	16%	
OE/TA		a) Islamic banks are more efficient in operating costs compared with conventional banks, b) OE/TA is one way to determine the efficiency of operational costs.
IB	CB	
4.9%	8.6%	
NFI/TA		Revenue from non-financial sector / loans are still below 5%, which means revenues of the banking industry in Indonesia is still dependent on the finance sector / loan, but Islamic banks have started to diversify their products, although not optimal.
IB	CB	
2%	3.5%	
NPF		a) NPF Islamic bank under 5% (Bank Indonesia regulation No.15/2/PBI/2013), b) Management of financing in Islamic banks better than conventional banks, due to differences in the concept of distribution of funds
IB	CB	
0.8%	2.3%	
MS		Market share associated with the approach of market power, small market share makes banks less market power that can degrade its performance.
IB	CB	
9.1%	91.1%	

IB is Islamic banking, CB is conventional banking

CONCLUDING REMARKS AND DIRECTIONS FOR FUTURE RESEARCH

This research found that return on asset Islamic banks in Indonesia affected by the non-performing financing and market share. While the growth of the total assets of Islamic banks in Indonesia is influenced by the capital adequacy ratio, the ratio of non-financing income by total assets, non-performing financing and market share.

It is interesting that the market share has a negative impact both on the profitability and growth of the total assets of Islamic banks. This shows that banks with low levels of market share, it will lack the potential of market forces in the industry, resulting in lower profitability and growth in total assets.

The negative effect between the market share of the return on assets or the growth of total assets can be caused by several things, such (1) as used in calculating the market share of the monthly data by incorporating the entire banking industry in Indonesia; (2) the observation period after the global crisis in 2008, Indonesia's economy is still recovering, so the impact to the performance of Islamic banks and (3) assets of Islamic banks is still very small. If the asset is compared with the entire banking industry in Indonesia, Islamic bank assets accounted for only

5%, means that Islamic banks are still operating below the minimum efficient scale; Islamic banks began operating under optimal level. Although the first Islamic Bank operations in Indonesia already in 1992, but the business cycle of Islamic banks is still at the stage of introduction and maintain sustainability.

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APPENDIX

Correlation matrix of residuals:

	ROA	GTA
ROA	1.0000	
GTA	0.2596	1.0000
Breusch-Pagan test of independence:		
chi2(1)	= 26.694, Pr = 0.0000	

Correlation matrix of between independent and dependent variable

	ROA	GTA	FDR	CAR	OE/TA	NFT/TA	NPF	MS
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	396	16	.4142498	0.8583	2398.29	0.0000	
ROA							
GTA			1.099641	0.6695	802.22	0.0000	
			Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
ROA							
FDR			-.0014729	.0010518	-1.40	0.161	-.0035344 .0005886
CAR			-.0004642	.0065088	-0.07	0.943	-.0122929 .0132213
OE/TA			-.0047918	.0093046	-0.51	0.607	-.0230284 .0134449
NFI/TA			.0014248	.0115258	0.12	0.902	-.0211654 .024015
NPF			-.1670913	.0391125	-4.27	0.000	.0904323 .2437503
MS			-.0130985	.0115498	-1.13	0.057	-.0357358 .0095387
no							
2			-.7152027	.3780455	-1.89	0.059	-1.456158 .0257528
3			-1.939533	.4814436	-4.03	0.000	-2.883145 -.9959208
4			-2.432961	.4116144	-5.91	0.000	-3.239711 -1.626212
5			.217016	.162188	1.34	0.181	-.1008665 .5348986
6			-2.480401	.4572835	-5.42	0.000	-3.37666 -1.584142
7			-2.921601	.4374765	-6.68	0.000	-3.779039 -2.064163
8			-2.43523	.4700106	-5.18	0.000	-3.356433 -1.514026
9			-2.797434	.3562735	-7.85	0.000	-3.495717 -2.09915
10			-2.575167	.4622784	-5.57	0.000	-3.481216 -1.669118
11			-2.705334	.4356595	-6.21	0.000	-3.559211 -1.851457
_cons			3.086695	.4967078	6.21	0.000	2.113165 4.060224
GTA							
FDR			-.001543	.002792	-0.55	0.581	-.0039293 .0070153
CAR			-.0487558	.017278	-2.82	0.005	-.08262 -.0148916
OE/TA			-.0268107	.0246994	-1.09	0.278	-.0752206 .0215991
NFI/TA			.0701397	.0305957	2.29	0.022	.0101732 .1301063
NPF			.3343458	.1038255	3.22	0.001	.1308516 .53784
MS			-.0272949	.0306594	-0.89	0.073	-.0873863 .0327965
no							
2			-2.129532	1.003536	-2.12	0.034	-4.096426 -.1626389
3			-4.146054	1.27801	-3.24	0.001	-6.650907 -1.641201
4			-3.539627	1.092646	-3.24	0.001	-5.681173 -1.398081
5			-.5161643	.4305339	-1.20	0.231	-1.359995 .3276666
6			-3.866157	1.213876	-3.18	0.001	-6.24531 -1.487004
7			-3.620053	1.161297	-3.12	0.002	-5.896154 -1.343952
8			-2.073701	1.247661	-1.66	0.096	-4.519071 .3716687
9			-1.828005	.9457412	-1.93	0.053	-3.681624 .0256133
10			.3746723	1.227135	0.31	0.760	-2.030468 2.779813
11			-4.852752	1.156474	-4.20	0.000	-7.119399 -2.586104
_cons			6.492819	1.318529	4.92	0.000	3.908549 9.077089

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	---- Coefficients ----			
	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
FDR	-.0014729	-.0012655	-.0002074	.0003725
CAR	-.0004642	-.0015495	-.0020137	.0018587
OE/TA	-.0047918	-.0036624	-.0011294	.
NFI/TA	.0014248	.0010784	.0003464	.
NPF	-.1670913	-.1750695	-.3421608	.
MS	-.0130985	-.0006698	-.0137683	.0051377

b = consistent under Ho and Ha; obtained from sureg
B = inconsistent under Ha, efficient under Ho; obtained from xtsur
Test: Ho: difference in coefficients not systematic
$$\chi^2(6) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$
$$= 1689.22$$
$$\text{Prob} > \chi^2 = 0.0000$$

(V_b-V_B is not positive definite)

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