

BUSINESS GROUP, LEVERAGE AND LIQUIDITY

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Abstract

It could be argued that firms belong to large business group usually have an easier access to financing sometimes with a cheaper cost. Therefore, in this paper, I empirically investigate the impact of being affiliated firms with business group on firm leverage and liquidity. To do so, I study Indonesian non-financial firms in a panel data over the period 2012-2014. Regression models are estimated using OLS. The empirical results show that there are negative relationship between affiliation with business group and leverage. In addition, being affiliated is also associated with higher liquidity.

Keywords: Business Group, Leverage, Access to Financing, Liquidity, Indonesia

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1. INTRODUCTION

Business group is a common feature in emerging markets including Indonesia. It dominates the business and subsequently those groups contribute more to the economy of the countries. Some empirical studies have investigated several issues on large business groups both in emerging and advanced markets mostly at the micro (firm) level. Those from marketing and strategic management mainly focus on the impact of business group affiliation on some organization strategies such as firm innovation (Hsieh et al., 2010; Kim and Lui, 2015), R&D investment (Choi et al., 2015), capacity creation and internationalization (Becker-Ritterspach and Bruche, 2012), and FDI (Tan and Meyer, 2010). Most of them provide evidence that being affiliated firms to business group help firms to be more innovative, more appear in the international environment and improve capacity creation.

On the other hand, economics and finance scholars have also extensively studied the differences between affiliated firms with business groups and independent firms in some other aspects mainly firm financial performance and market value (e.g. Khanna and Yafeh, 2007). Some studies also focus on the side effect of business group which stands from the agency problem in which business group could be a tool for controlling shareholder to expropriate minority shareholders through tunneling (e.g. Kali and Sharkar, 2011). However, as mentioned by Khanna and Yafeh (2007),

My previous study (Untoro, 2016) in the context of Indonesia has revealed that in overall, affiliation with business group could not improve firm performance. However, some particular groups help affiliated firms to perform better. In this present paper, I extend the study by looking at the different effect of being affiliated firms with business groups. I stress on the impact of affiliation with business groups on two financial aspects. First, being affiliated with a business group could have an impact on the leverage. On the one side, it may create more access to external financing, however, on the other side; affiliation with business group

could also reduce the dependency on the external financing which subsequently lower the leverage ratio. Therefore, the expected sign for the effect of affiliation with business group on firm leverage is undecided.

Second, I also argue that affiliation with business group could have an impact on the liquidity. Affiliated firms may be benefitted by having a higher level of liquidity and reduce the probability of default. Therefore, positive sign is expected on the effect of business group affiliation on liquidity. However, some also argue that this advantage creates incentive for those firms to take more risk.

2. RESEARCH METHOD

I empirically examine the effect of affiliation with business group on firm leverage and liquidity. Our sample consists of 489 non-financial and financial publicly-traded firms in the Indonesian Stock Exchange over the period of 2012-2014. It has resulted in 1467 firm-year observations. I do not exclude financial firms (bank and insurance) as the variables that we use are generally the same across industries. Also, we control for industry difference in the empirical model. Data are gathered from the financial reports and annual reports of firms which are published in the website of Indonesia Stock Exchange.

I identify affiliation with business group by doing several steps. First, I create the list of business groups according to my previous study (Untoro et al., 2016). Second, I carefully look at the ownership structure of firms. If a firm is at least 10% owned by one or more business groups, it is categorized as an affiliated firm. Therefore, a dummy variable (BG) is used to disentangle the affiliated firms.

The dependent variables are leverage and liquidity. Leverage is measured as the ratio of total debt to total assets (DEBTA), while the liquidity is the ratio of cash to total assets (CTA). The higher the proportion of debt the higher the leverage ratio of firms should be. Firms with higher proportion of cash are considered to be more liquid.

Some control variables are included. First, I consider the firm size which is measured as the natural logarithm of total assets (LNTA). Second, I take into account the firm profitability by including the ratio of net income to total assets (ROA). Third, a vector of dummy variables to account for industry difference is included following the study of Prabowo et al. (2014). The industry classification is following. AGRI is for agriculture firms; BASIC is for basic industry & chemical firms; CONSUMER is for consumer goods firms; FINANCE is for banks and

other financial firms; INFRA is for infrastructure, utilities & transportation firms; MINING is for mining firms; PROPERTY is for property, real estate & building construction firms and TRADE is for trade, services & investment firms. According to the classification of the Indonesia Stock Exchange, there are 9 industries. However, miscellaneous industry is not included in the empirical model to avoid singular matrix.

The empirical models to be estimated are as follows:

$$DEBTA_{i,t} = \alpha_0 + \alpha_1 BG_{i,t} + \alpha_2 LNTA_{i,t} + \alpha_3 ROA_{i,t} + \alpha_4 AGRI_{i,t} + \alpha_5 BASIC_{i,t} + \alpha_6 CONSUMER_{i,t} + \alpha_7 FINANCE_{i,t} + \alpha_8 INFRA_{i,t} + \alpha_9 MINING_{i,t} + \alpha_{10} PROPERTY_{i,t} + \alpha_{11} TRADE_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$CTA_{i,t} = \alpha_0 + \alpha_1 BG_{i,t} + \alpha_2 LNTA_{i,t} + \alpha_3 ROA_{i,t} + \alpha_4 AGRI_{i,t} + \alpha_5 BASIC_{i,t} + \alpha_6 CONSUMER_{i,t} + \alpha_7 FINANCE_{i,t} + \alpha_8 INFRA_{i,t} + \alpha_9 MINING_{i,t} + \alpha_{10} PROPERTY_{i,t} + \alpha_{11} TRADE_{i,t} + \varepsilon_{i,t} \quad (2)$$

3. EMPIRICAL RESULTS

I investigate the impact of affiliation with business groups on capital structure as well as liquidity. More particularly, we question whether such affiliation leads those firms to have a lower leverage ratio as they do not need more external financing. Moreover, internal funding from the group may be cheaper. With regard to the liquidity level, affiliated firms may have a higher liquidity. To do so, I estimate the two models written earlier.

Table 1 shows the descriptive statistics of variables. 40.1% of the observations are belonging to business groups. The average leverage ratio of firms in this research is 57.3%, while the mean of cash to total assets ratio is 11.3%. The average return on assets (ROA) is 5.9%, while the average total assets are 2.3 trillion Rupiah which is equivalent with around 180 million USD. 23.7% are trade, services & investment firms; 16.6% are banks and other financial firms; 12.7% are basic industry & chemical firms; 11.7% are property, real estate & building construction firms; 9.2% are infrastructure, utilities & transportation firms; 8.4% are mining firms; 7.2% are consumer goods firms; and 3.9% are agriculture firms. It means that the number of firms based on industry is well distributed. None of industry is dominant in the sample. Table 2 is the correlation matrix of variables. As expected, the dummy variable standing for business group (BG) is negatively correlated with the leverage ratio (DEBTA). Meet the expectation, BG is positively associated with the liquidity ratio (CTA). We also find that firm size (LNTA) and return on assets (ROA) is negatively correlated with financial leverage (DEBTA). Firm size is negatively correlated with liquidity (CTA), while return on assets (ROA) is positively correlated with liquidity.

Table 3 is the regression results. Column 1 provides the regression result of model 1 in which the dependent variable is leverage ratio, while column 2 shows the regression result for model 2. The coefficient of business group in column 1 is negative and significant. It means that affiliated firms with business groups have lower leverage ratio, the proportion of assets that are financed by debt. It confirms that affiliation with business group could reduce the dependency of firms on the external financing which subsequently lower the leverage ratio. Supposedly, internal financing may also result in lower cost than external financing.

In the column 2, it is also shown that the coefficient of business group is positive and

significant. As expected, it means that affiliation with business group helps firms to maintain their liquidity position. A stronger internal financing within the business group could make affiliated firms healthier in terms of their liquidity in which they can reserve more liquid assets (cash and its equivalent).

4. CONCLUSION

In this paper, I study the impact of being affiliated firms with large business groups on leverage and liquidity by using a sample of 489 publicly traded Indonesian firms over the 2012-2014 period. The results reveal that that affiliation with business group is negative associated with leverage. In addition, affiliated firms also have higher liquidity. These findings simply confirm that business groups "prop up" the affiliated firms which results in lower dependency on external financing and higher liquidity position.

Table 3. Regression Results

	DEBTA	CTA
Business Group	-0.078** (0.023)	0.015** (0.033)
LNTA	-0.022** (0.014)	-0.008*** (0.000)
ROA	-0.150*** (0.000)	0.005 (0.463)
AGRI	-0.145 (0.133)	0.010 (0.609)
BASIC	-0.181*** (0.008)	0.0446*** (0.002)
CONSUMER	-0.247 (0.001)	0.075*** (0.000)
FINANCE	0.044 (0.499)	0.060*** (0.000)
INFRA	0.106 (0.152)	0.019 (0.201)
MINING	-0.194*** (0.007)	0.067*** (0.000)
PROPERTY	-0.226*** (0.001)	0.051*** (0.000)
TRADE	-0.107* (0.078)	0.049*** (0.000)
Year dummies	Included	Included
Constant	Included	Included
Firms	489	489
Observations	1467	1467
Overall R-squared	0.056	0.044

Table 1. Descriptive Statistics

	<i>DEBTA</i>	<i>CTA</i>	<i>BG</i>	<i>LNTA</i>	<i>ROA</i>	<i>AGRI</i>	<i>BASIC</i>	<i>CONSUMER</i>	<i>FINANCE</i>	<i>INFRA</i>	<i>MINING</i>	<i>PROPERTY</i>	<i>TRADE</i>
Mean	0.573	0.113	0.401	14.668	0.059	0.039	0.127	0.072	0.166	0.092	0.084	0.117	0.237
Median	0.521	0.070	0.000	14.584	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Maximum	11.844	0.999	1.000	20.999	12.280	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Minimum	-2.000	0.000	0.000	8.533	-1.720	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Std. Dev.	0.620	0.129	0.490	1.848	0.452	0.193	0.333	0.258	0.372	0.289	0.277	0.321	0.426
Skewness	9.522	2.288	0.405	0.190	24.340	4.773	2.243	3.324	1.799	2.823	3.003	2.390	1.236
Observations	1467	1467	1467	1467	1467	1467	1467	1467	1467	1467	1467	1467	1467

Table 2. Correlation Matrix

	<i>DEBTA</i>	<i>CTA</i>	<i>BG</i>	<i>LNTA</i>	<i>ROA</i>	<i>AGRI</i>	<i>BASIC</i>	<i>CONSUMER</i>	<i>FINANCE</i>	<i>INFRA</i>	<i>MINING</i>	<i>PROPERTY</i>	<i>TRADE</i>
DEBTA	1.000												
CTA	-0.197	1.000											
BG	-0.073	0.036	1.000										
LNTA	-0.061	-0.103	0.268	1.000									
ROA	-0.113	0.034	0.027	-0.082	1.000								
AGRI	-0.024	-0.060	0.073	0.066	-0.001	1.000							
BASIC	-0.041	-0.006	-0.098	-0.053	-0.015	-0.077	1.000						
CONSUMER	-0.064	0.062	-0.081	-0.034	0.033	-0.056	-0.106	1.000					
FINANCE	0.085	0.034	0.141	0.174	-0.030	-0.090	-0.170	-0.124	1.000				
INFRA	0.108	-0.073	-0.044	0.033	-0.028	-0.064	-0.121	-0.088	-0.142	1.000			
MINING	-0.053	0.053	-0.052	0.062	-0.026	-0.061	-0.115	-0.084	-0.135	-0.096	1.000		
PROPERTY	-0.087	0.013	0.054	0.065	-0.001	-0.073	-0.138	-0.101	-0.162	-0.116	-0.087	1.000	
TRADE	-0.014	0.054	0.064	-0.206	0.063	-0.112	-0.212	-0.155	-0.248	-0.178	-0.099	-0.188	1.000

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