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Does foreign ownership structure increase Indonesian firms' risk-taking?

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ABSTRAK

Penelitian ini dilakukan untuk mengetahui hubungan antara struktur kepemilikan asing dengan tingkat pengambilan risiko perusahaan pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI), yang diproksikan kedalam tingkat volatilitas laba. Penelitian ini menggunakan data panel tidak berimbang dari perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2014 hingga 2017. Jumlah sampel yang digunakan dalam penelitian ini adalah 438 observasi. Hasil penelitian menunjukkan bahwa struktur kepemilikan asing secara positif dan signifikan meningkatkan tingkat pengambilan risiko perusahaan. Selanjutnya, penelitian ini menggunakan uji robustness dengan menggunakan variabel dummy struktur kepemilikan asing yang menunjukkan adanya pengaruh terhadap pengambilan risiko perusahaan. Penelitian ini menunjukkan bahwa investor asing dengan kepemilikan saham yang besar dapat mengendalikan tingkat pengambilan risiko perusahaan manufaktur di Indonesia. Selain itu, semakin tinggi persentase kepemilikan asing perusahaan, maka semakin berisiko keputusan terkait investasi atau projek yang dilakukan perusahaan dengan tujuan untuk memperoleh pengembalian investasi atau keuntungan yang lebih besar.

ABSTRACT

This research seeks to investigate the effect of foreign ownership structure on the level of listed Indonesian manufacturing firms' risk-taking behavior. We predict that foreign owners prefer high-risk investment projects because they aim for short-term profits, and we use earnings volatility as the proxy of risk-taking behavior. This study uses unbalanced panel data from listed Indonesian manufacturing firms from 2014- 2017, resulting in 438 firm-year observations. The research results show that foreign ownership structure has a significantly positive impact on firms' risk-taking

behavior. Furthermore, the robustness test indicates that only firms with 80-90 percent of foreign ownership exhibit a significantly positive effect of foreign ownership on firms' risk-taking behavior. Thus, foreign shareholders can affect firms' risk-taking behavior more effectively when they have (almost) full control.

INTRODUCTION

Higher expected returns proportionally imply higher risks (Nguyen, 2012). However, managers' decisions do not always generate returns as expected, and they even lead to losses. Firms seek to generate higher returns by taking big-risk projects. Additionally, feasible projects will improve firms' performance. However, (controlling) shareholders may exploit firms' decisions for their personal gains, resulting in conflicts of interests between shareholders and management.

Corporate governance mechanisms exist because of the separation between ownership (shareholders) and control (management) (Chun & Lee, 2017). Such separation leads to agency conflicts between managers, who have better firm-related information, and shareholders, who seek to maximize returns.

Agency conflicts refer to conflicts of interests between managers and shareholders, especially when shareholders are majority ones or hold significant ownership shares (Jensen & Meckling, 1976). Majority shareholders can affect firms' various behaviors and outcomes, including risk-taking activities. Majority shareholders have better firm-related information and greater power to control managers. Furthermore, they will generate the lion shares of risk-taking activities' favorable results while their losses are limited to their contributed capital when these risk-taking activities fail (Amihud & Lev, 1981; Paligorova, 2010).

The structure of share ownership in Indonesia is characteristically different from other countries. In particular, as reported by *PT Kustodian Sentral Efek Indonesia (KSEI)* in 2017, foreign investors accounted for about 53 percent of Indonesian publicly listed firms' outstanding shares. Hence, foreign owners greatly affect Indonesian firms' decisions and outcomes. Furthermore, foreign shareholders are considered more skillful in implementing corporate governance mechanisms because of their spillover knowledge effect (Alzoubi, 2016; Grinblatt & Keloharju, 2000; Hallward-Driemeier et al., 2006). This knowledge spillover effect enables foreign shareholders to have better knowledge, expertise, and skills. Hence, they are better able to influence firms' decisions.

Prior studies on firms' risk-taking behavior demonstrate inconsistent results. Most of them analyze the relationship between firms' ownership structure, such as family ownership, foreign ownership, institutional ownership, managerial ownership, and state ownership, on the level of firms' risk-taking behavior (Al-Tamimi, 2013; Barry et al., 2011; Boubakri et al., 2013; Chun & Lee, 2017; Firdaus & Adhariani,

2017; Ho et al., 2020; Kurniawati & Komalasari, 2016; Langit & Adhariani, 2017; Lee et al., 2018; Mahdavi et al., 2012; Nazir et al., 2018; Nguyen, 2012; Paligorova, 2010; Vo, 2016)

For instance, Vietnamese state-owned enterprises (SOEs) increase their risk-taking activities for managers' personal gains during the recession and pandemic, and greater foreign ownership mitigates the effect. In this regard, foreign owners focus on firms' long-term viability to avoid excessive risks (Ho et al., 2020). However, Chun & Lee (2017) demonstrate that Japanese firms' foreign investors prefer greater risk-taking activities to generate short-term higher profits. Thus, greater foreign ownership increases firms' risk-taking activities (Nguyen, 2012). Meanwhile, Kurniawati & Komalasari (2014) document that foreign investors in Indonesia are more willing to take higher risks to generate higher profits. In contrast, Langit & Adhariani (2017) observe that family ownership and foreign investors can minimize Indonesian firms' risk-taking levels.

Another study examines the effect of corporate governance mechanisms on managerial risk-taking in New Zealand (Koerniadi et al., 2014) or how corporate social responsibility affects Indonesian firms' risk-taking levels (Mulia & Joni, 2019). Scholars also add other factors that potentially affect firms' risk-taking activities, such as the presence of women in top management or gender diversity (Firdaus & Adhariani, 2017; Poletti-Hughes & Briano-Turrent, 2019; Widyawati et al., 2018), CEO Characteristics (Martino et al., 2020), Muslim CEO (Ooi et al., 2021), or CEO compensations (Gormley et al., 2013).

However, the effect of foreign ownership on Indonesian firms' risk-taking levels, especially manufacturing ones, remains relatively understudied. This issue is important because manufacturing firms arguably engage in more complex operational activities that involve riskier investment projects to generate higher short-term returns and profits. Hence, this study aims to examine the relationship between foreign ownership and Indonesian listed manufacturing firms' risk-taking levels.

This study also uses the volatility or standard deviation of daily stock returns as a different proxy of risk-taking levels. This proxy has not been arguably used in prior research that uses the Indonesian setting. By doing so, this research contributes to the existing firms' risk-taking literature by analyzing the effect of foreign owners, especially when they have considerable control over firms, on manufacturing firms' risk-taking levels in the Indonesian setting.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency Theory

The agency theory explains the contractual relationship between principals and agents, arguing that firms' owners (as principals) delegate the authorities to managers

(as agents) to make decisions on behalf of principals. This relationship potentially leads to conflicts of interests because owners and managers have different, and even conflicting, goals `(Jensen & Meckling, 1976). The initial agency conflicts expand to any interest difference between firms' stakeholders, including majority and minority shareholders (horizontal agency problems).

In this respect, foreign shareholders, especially those who hold significant shares, can cause horizontal agency conflicts because they can exploit their significant ownership to interfere with firms' managerial decisions for their interests at the expense of minority shareholders' interests. For example, they can ask managers to commit risky investment projects that will potentially harm firms, thus increasing firms' risk-taking levels. Moreover, foreign shareholders arguably have a knowledge spillover effect on firms, strengthening the effect of their ownership on firms' risk-taking behavior (Alzoubi, 2016; Grinblatt & Keloharju, 2000; Hallward-Driemeier et al., 2006).

Firms' Risk-Taking Behavior

Firms likely pay more attention when making risky investment decisions due to greater uncertainty consisting of systematic and unsystematic risks (Jo & Na, 2012). Systematic risk, commonly known as market risk, represents inherent and inevitable investment decisions. Meanwhile, unsystematic risk, commonly known as idiosyncratic risk, represents firm-specific risks that can be mitigated through asset diversification. Tsai & Luan (2016) explain that several factors motivate firms' aggressive risk-taking behavior, including concentrated ownership, prior investment performance or experience, access to required resources, and better connections with governments or financial institutes (Firdaus & Adhariani, 2017).

Firms' risk-taking behavior can be measured by various indicators, including the standard deviation of daily share returns (Jo & Na, 2012). The risk levels of firms' investments likely affect their returns that may exceed or fall below expected returns. Additionally, managers may have to deal with conflicts of interest when making investment decisions because firms tend to reduce risks (more risk-averse). Conversely, shareholders usually prefer greater risks to meet personal interests (Kurniawati & Komalasari, 2016).

Foreign Ownership Structure

Foreign shareholders are arguably more willing to take risky investments because they expect such investments to generate higher returns. However, they also have better investment skills, knowledge, and technology than domestic shareholders that they improve firms' efficiency (Estrin et al., 2009; Langit & Adhariani, 2017). Additionally, foreign shareholders also effectively motivate managers to run firms more efficiently, including making investment decisions (Langit & Adhariani, 2017). Foreign shareholders with significant ownership (blockholders) have greater power to influence firms' risk-taking process that affect firms' ability to compete against

competitors and ensure their business continuity (Chun & Lee, 2017).

Foreign Ownership Structure and Firms' Risk-Taking Behavior

Foreign shareholders arguably enhance firms' risky decisions because they usually represent large institutions that affect firms' decisions and policies more easily (Cronqvist & Fahlenbrach, 2009; Nguyen, 2012). Additionally, they likely put more efforts into diversifying their international investments more effectively, thus encouraging firms to make riskier decisions (Faccio et al., 2011; Langit & Adhariani, 2017).

Prior studies have empirically demonstrated that foreign shareholders significantly affect firms' risk-taking activities. For instance, foreign shareholders increase Japanese firms' risk-taking behavior (Chun & Lee, 2017; Nguyen, 2012). Foreign shareholders also motivate Indonesian firms' managers to make more aggressive (riskier) investment decisions to generate higher profits (Kurniawati & Komalasari, 2016). But, another research documents that foreign shareholders encourage Indonesian firms to make less risky investment decisions (Langit & Adhariani, 2017). Further, foreign ownership positively affects Chinese firms' risk-taking behavior and eventually their sales and market values (Peng, 2017). Furthermore, a study in 57 countries observes that foreign shareholders affect firms' risk-taking behavior, although the effect depends on governance quality in each country (Boubakri et al., 2013). Based on the explanation, we propose the following hypothesis:

H1: Foreign ownership structure positively affects firms' risk-taking behavior.

RESEARCH METHOD

The study uses secondary data from the annual reports of manufacturing firms listed on the Indonesia Stock Exchange (IDX) in 2014-2017. From the initial 532 unbalanced samples, only 438 samples meet the research criteria due to data availability issue. We measure firms' risk-taking activities (RISK) with the standard deviation of daily stock returns in year t. Meanwhile, foreign ownership structure (FOREIGNOWN), as an independent variable, is measured using the percentage of foreign ownership of each firm in the year t. Further, following Amin et al. (2018), we classify firms into five groups based on the percentage of foreign ownership: 0-20 percent, 20-50 percent, 50-60 percent, 60-80 percent, and 80-100 percent in the robustness test. Table 1 below further informs our research variables, empirical operationalization, and reference sources. Additionally, this study uses several control variables. Specifically, they are firm size (*SIZE*), profitability (*ROA*), earnings (*EARNING*), leverage (*LEV*), and firm age (*FIRMAGE*).

Table 1
Variable Description

Variable	Variable Operationalization	Source
RISK	The standard deviation of daily stock returns	Jo & Na (2012)
FOREIGNOWN	The number of shares owned by foreign shareholders	Langit & Adhariani (2017)
SIZE	Natural logarithm of total assets	Nguyen (2012)
ROA	Net income after tax divided by total assets	Chun & Lee (2017)
LEV	Total long liabilities divided by total assets	Widyawati et al. (2018)
EARNING	Company's EBITDA divided by total assets	Chun & Lee (2017)
FIRMAGE	Natural logarithm of firm age after IPO	Nguyen (2012); Widyawati et al. (2018)

We run the regression analysis with fixed unbalanced panel data models to test our hypothesis. More specifically, the following equation analyzes the effect of foreign ownership on firms' risk-taking behavior as controlled by control variables:

$$RISK_{i.t} = \beta_0 + \beta_1 FOREIGNOWN_{i.t} + \beta_3 SIZE_{i.t} + \beta_4 ROA_{i.t} + \beta_5 EARNING_{i.t} + \beta_6 LEV_{i.t} + \beta_3 FIRMAGE_{i.t} + \varepsilon_{i.t} \quad \text{..... 1}$$

ANALYSIS AND DISCUSSION

Descriptive Analysis

Table 2 shows descriptive statistics of the research variables. The mean value of *RISK* is 0.073. Some firms do not make investment decisions that the minimum value of *RISK* is zero. About 65 percent of our firm-year data have any foreign shareholder, causing the mean value of *FOREIGNOWN* is only 0.24. Conversely, foreign shareholders dominate the ownership structures of some firms (up to 96.3 percent).

Table 2
Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	N	Freq.
RISK	0.073	0.040	0.535	0.000	0.075	438	
FOREIGNOWN	0.241	0.088	0.963	0.000	0.300	438	
With FO							286
Without FO							152
SIZE	14.700	14.700	19.505	10.599	15.818	438	
ROA	0.053	0.031	0.820	-0.276	0.104	438	
EARNING	0.950	1.000	1.000	0.000	0.219	438	
LEV	0.158	0.101	0.849	0.003	0.147	438	
FIRMAGE	8.538	8.989	9.599	2.639	1.083	438	

Notes: RISK = Corporate risk-taking; FOREIGNOWN = Foreign ownership structure; SIZE = Company's size; ROA = The level of company profitability; EARNING = Company earnings; LEV = Company's ability to cover debt owned by assets; FIRMAGE = The age of the company since the company conducted an IPO.

Correlation Analysis

We initially run the correlation analysis to analyze the relationships between

the research variables and identify the possible multicollinearity problems between the independent variables. Table 3 shows that all the independent variables are not strongly correlated with other independent variables, indicating no serious multicollinearity problem exists in our model.

Table 3
Correlation between Research Variables

Variable	RISK	FOREIGNOWN	SIZE	ROA	EARNING	LEV	FIRMAGE
RISK	1						
FOREIGNOWN	0.041	1					
SIZE	-0.169*	0.161*	1				
ROA	-0.080***	0.059	0.091***	1			
EARNING	-0.044	-0.054	0.097**	0.282*	1		
LEV	-0.008	0.033	0.265*	-0.271*	-0.099**	1	
FIRMAGE	0.118**	0.295*	0.144**	-0.046	-0.053	0.098**	1

Notes: *, ** and *** indicate significance at 1%, 5% and 10%, respectively; RISK = Corporate risk-taking; FOREIGNOWN = Foreign ownership structure; SIZE = Company's size; ROA = The level of company profitability; EARNING = Company earnings; LEV = Company's ability to cover debt owned by assets; FIRMAGE = The age of the company since the company conducted an IPO.

Regression Analysis

Table 4 shows the results of the data panel regression using a fixed model effect. The regression results show that *FOREIGNOWN* has a significantly positive impact on firms' risk-taking behavior (*RISK*), implying that higher foreign ownership increases Indonesian manufacturing firms' risk-taking behavior. Our results empirically support the hypothesis that predicts the positive effect of foreign ownership on firms' risk-taking behavior. Besides, the finding is also consistent with previous studies (Boubakri et al., 2013; Chun & Lee, 2017; Kurniawati & Komalasari, 2016; Nguyen, 2012), that document that foreign investors of Indonesian firms are more aggressive in making investment-related decisions, thereby increasing firms' risk-taking decisions to generate higher profits.

$$RISK = 0.029FOREIGNOWN + 0.018SIZE + 0.078ROA + 0.029EARNING + 0.069LEV + 0.011FIRMAGE + \varepsilon \quad \text{..... 2}$$

All control variables in the study (*SIZE*, *ROA*, *EARNINGS*, *LEV*, and *FIRMAGE*) also positively affect firms' risk-taking decisions. Hence, larger, more profitable, high-revenue, highly leveraged, and older manufacturing firms tend to engage in greater risk-taking behavior.

Table 4
FEM Regression Results

Variable	Exp. Sign	RISK	
		Coefficient	Prob.
C	?	-0.486	-0.258
FOREIGNOWN	+	0.063	0.029**
SIZE	+	0.024	0.018**
ROA	+	0.101	0.078***
EARNING	+	0.004	0.029**
LEV	+	0.087	0.069***
FIRMAGE	+	0.020	0.011**
R-squared		0.431	
Adjusted R-squared		0.198	
F-statistic		1.849	
Prob(F-statistic)		0.000	
N (Observations)		438	

Notes: *, ** and *** indicate significance at 1%, 5% and 10%, respectively; RISK = Corporate risk-taking; FOREIGNOWN = Foreign ownership structure; SIZE = Company's size; ROA = The level of company profitability; EARNING = Company earnings; LEV = Company's ability to cover debt owned by assets; FIRMAGE = The age of the company since the company conducted an IPO.

Robustness Analysis

We run the alternative test to ensure the robustness of our findings. The test classifies the observations into five subsamples based on the categorization of the main independent variable (*FOREIGNOWN*), from firms with foreign ownership of 0-20 percent, 20-40 percent, 40-60 percent, 60-80 percent, and 80-100 percent. Table 5 below informs that most firms (267) belong to the 0-20% foreign ownership group, indicating that foreign owners mostly only have insignificant share ownership.

Table 5
Descriptive Statistics for Dummy Variables

Variable	FOREIGNOWN
Foreign 0-20%	267
Foreign 20-40%	52
Foreign 40-60%	53
Foreign 60-80%	26
Foreign 80-100%	40
N	438

Table 6 presents the regression results in five subsamples with *FOREIGNOWN* as the main independent variable. The table informs that *FOREIGNOWN* has a significantly positive effect on *RISK* in the 80-90% foreign ownership subsample. Hence, family owners can effectively influence firms' risk-taking behavior only when they have very high share ownership. Foreign owners can effectively motivate firms to engage in greater risk-taking behavior when they have very high share ownership because they will face little resistance from minority shareholders. Tsai & Luan (2016) also explain similarly that greater ownership concentration impacts firms' risk-taking

behavior. Meanwhile, among the control variables, only *FIRMAGE* significantly affects *RISK*.

Table 6
FEM Regression Results for Dummy Variables

Variable	RISK				
	Foreign 0-20%	**Foreign 20-40%**	**Foreign 40-60%**	**Foreign 60-80%**	**Foreign 80-100%**
C	-0.478***	-0.481***	-0.488***	-0.478***	-0.463***
	(0.066)	(0.066)	(0.061)	(0.067)	(0.074)
FOREIGNOWN					
Foreign 0-20%	-0.021				
	(0.196)				
Foreign 20-40%		-0.009			
		(0.600)			
Foreign 40-60%			0.000		
			(0.981)		
Foreign 60-80%				0.026	
				(0.284)	
Foreign 80-100%					0.060**
					(0.048)
SIZE	0.025	0.024	0.025	0.024	0.023
	(0.166)	(0.176)	(0.169)	(0.184)	(0.206)
ROA	0.097	0.077	0.084	0.080	0.099
	(0.219)	(0.331)	(0.286)	(0.308)	(0.209)
EARNING	0.004	0.003	0.004	0.004	0.004
	(0.884)	(0.910)	(0.898)	(0.880)	(0.890)
LEV	0.083	0.066	0.068	0.072	0.070
	(0.233)	(0.338)	(0.326)	(0.294)	(0.302)
FIRMAGE	0.021***	0.021***	0.021***	0.021***	0.021***
	(0.072)	(0.068)	(0.069)	(0.070)	(0.069)
R-squared	0.425	0.423	0.422	0.424	0.430
Adjusted R-squared	0.190	0.186	0.185	0.188	0.196
F-statistic	1.806	1.787	1.784	1.799	1.840
Prob(F-statistic)	0.000	0.000	0.000	0.000	0.000
N (Observations)	267	52	53	26	40

Notes: *, ** and *** indicate significance at 1%, 5% and 10%, respectively; RISK = Corporate risk-taking; FOREIGNOWN = Foreign ownership structure; SIZE = Company's size; ROA = The level of company profitability; EARNING = Company earnings; LEV = Company's ability to cover debt owned by assets; FIRMAGE = The age of the company since the company conducted an IPO.

CONCLUSION, LIMITATIONS, AND SUGGESTIONS

This study aims to investigate the effect of foreign ownership on Indonesian manufacturing firms' risk-taking behavior. Our results empirically support the hypothesis. Additionally, the robustness test reveals that the positive effect of foreign ownership on firms' risk-taking behavior is only significant for firms with 80-100 percent foreign ownership. Thus, foreign shareholders with (almost) full control over firms can effectively influence firms' risk-taking behavior. The findings empirically support prior studies that foreign ownership motivates firms to take higher risks for short-term profits (Chun & Lee, 2017; Kurniawati & Komalasari, 2016; Nguyen, 2012).

This study relies on Indonesian data that largely presents direct share ownership information rather than ultimate/beneficial ownership. Therefore, the identification of foreign ownership may be less accurate. Besides, we cannot identify further foreign ownership structure into individual or institutional one. Thus, we advise further studies to address these issues to extend the existing literature.

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