

EVIDENCE ON MARKET MICROSTRUCTURE IN INDONESIAN MARKETS

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ABSTRACT

Divergence of opinion causes market prices to differ from intrinsic values. Greater divergence of opinion results in larger bid/ask spreads. This study utilizes Miller's theory (Miller, 1977) which states that differences between bid and ask prices (price spread) is caused by divergence of opinion between buyers and sellers. This study tests a price spread condition that reflects the existence of agency conflict referred to as stock price premium (SPP) and stock price discount (SPD). The conditions relate to agency cost control mechanisms that result from foreign and domestic institutional ownership. This research employs Structural Equation Modeling (SEM) with multi-group structural equation modeling (MSEM). The results show SPD has lower agency conflict than SPP, and a negative effect of foreign and domestic institutional ownership to agency cost.

JEL: G3; G30; G32; G38

KEYWORDS: Stock price premium, stock price discount, agency cost, ownership

INTRODUCTION

This study utilizes Miller's, 1977 theory, which states that disputes between buying, and selling investors are caused by divergence of opinion. This study focuses on the divergence of opinion and the magnitude of agency costs. Buying and selling investors agree on a closing price thereby implicitly revealing the dominant party.

How does the trade activity reflect a company's agency cost? Stockholders as owners of a company have strong interest in the price of stocks they own. Other parties interested in the stock price are potential stockholders. The selling and buying process of stocks is the process of identifying the agreement point that produces a closing price. What is the process of reaching a closing price? Sellers (stockholders) will sell with the highest offer price possible and buyer (potential stockholder) will try to buy at the lowest possible bid price. Bargaining is utilized to arrive at the closing price.

Of interest is how sellers set an offer price and buyers set a bid price. This study proposes the concept that setting the offer price and bid prices reflects a conflict of interest, or agency problem, between the parties in the company (management, stockholders and creditors). Agency conflicts, according to Jensen and Meckling (1976), occur because the company influences the wealth of all stakeholders. If agency conflicts are low, the closing transaction price will be closer to the offer price. On the contrary, if the agency conflicts are high, the closing price achieved will be closer to the ask price.

Agency theory studies ignore the existence of agency conflicts related to the establishment of a closing price through negotiations between offer price and bid prices. The literature focuses on the agency conflict and its control mechanism. This study tests a new condition. The condition reflects the existence of agency costs. These agency costs manifest themselves in the form of stock price premiums and discounts. A stock price premium occurs when the closing price is close to the offer price. A stock price discount occurs when the closing price is close to the bid price. This study assumes that the expectation of high company value is a result of low agency cost. If stockholders and potential stockholders perceive that agency conflicts are low, they value the company higher than other similar companies.

The findings are related to institutional ownership as a conflict control mechanism. This study proposes that stock price premiums and discounts are important issues in identifying agency costs. Both conditions reflect the level of agency conflict in the company. This study argues that a stock price premium indicates low agency problems and a discount indicates high conflict levels.

A closing price close to the offer price shows that sellers obtain a price close to their offer. Buyers are willing to buy with a price close to offer price because they expect higher future prices. Old stockholders tend to hold-out for the offer price. If stockholders are convinced that the value of the company can be increased they holdout for the offer price. This causes the closing price to be close to offer price.

This study examines daily closing prices, the difference between offer price and closing price, and between bid price and closing price. Therefore, this study employs the perspective of market microstructure to explain agency cost. Studies in microstructure give understanding to the behavior and operation of capital market based on intra-day movement (O'Hara, 1999). This study employs a microstructure approach combined with corporate finance research model.

To date, studies on agency theory do not investigate bargaining between sellers and potential stockholders in arriving at a closing price. Different closing prices reflect different agency conflicts among companies. The effect of the different agency conflicts among companies will cause a number of companies to trade for a stock price premium and others at a stock price discount. Identification of stock price premium and stock price discount conditions in this study provide a better explanation for the existence of various agency cost reduction mechanisms. This study focuses on foreign institutional ownership and domestic institutional ownership as a reduction mechanism for agency conflict.

The existence of mixed results in previous studies regarding the relationships between foreign and domestic institutional ownership to agency cost leaves open a fruitful area for new research. This study introduces a price spread condition to better explain the role of control mechanisms on agency conflict through foreign and domestic institutional ownership.

The remaining of this research organized as follows. After describe the related literature and background of the study, this research explains the arguments of price spread, agency conflict, and ownership structures. Next, the research methods are introduced. The following sections present the results and discussion. The paper closes with some concluding comments.

LITERATURE REVIEW

Jensen and Meckling, 1976 introduced social and private costs resulting from incomplete alignment of agent and owner interests. Agency theory brought the roles of managerial decision rights, various external and internal monitoring and bonding mechanisms to the forefront of theoretical discussions and empirical research. Research demonstrates the empirical role of agency costs in financial decisions such as capital structure, maturity structure, dividend policy and executive compensation. However, the actual measurement of the principal variable of interest, agency costs, in both absolute and relative terms, has lagged.

To measure absolute agency costs, a zero agency cost base case is observed as a reference point. In the Jensen and Meckling (1976) agency theory, the zero agency cost base case is a firm owned solely by a single owner manager. When management owns less than 100 percent of the firm's equity, shareholders incur agency costs resulting from management's shirking and perquisite consumption. Because of limitations imposed by personal wealth constraints, exchange regulations on the minimum numbers of shareholders, and other considerations, no publicly traded firm is a single owner managed firm. Thus, Jensen and Meckling's zero agency cost base case cannot be measured from publicly traded firms for

which information is readily available. The absence of information about sole owner manager firms explains the inference of agency costs in empirical finance literature.

Agency costs emerge when the interests manager and owners interest differ. Agency costs come in many forms including preference for on the job perquisites, shirking and making self interested and entrenched decisions that reduce shareholder wealth. The magnitude of these costs is limited by how well the owners and delegated third parties, such as banks, monitor the actions of the outside managers.

The core of agency theory is the existence of a conflict of interest between agents and principals resulting in a reduced firm value. Equity agency costs include monitoring and bonding cost along with residual loss (Jensen and Meckling, 1976). Monitoring cost include expenses incurred in an effort to control agent behavior through budget tightening, compensation policy, and operational regulations. Bonding costs guarantee that agents will not undertake certain actions that will inflict financial loss towards principals. In the event that loss does occur, principles are compensated by the bonding agency.

Residual loss includes the monetary value of principals' wealth reduction because of conflicting interests between agents and principals. These conflicts stimulate agents to conduct selfish actions and inflict financial loss to principals. These actions can be in the form of inefficient choices such as investing in unprofitable investments or incurring wasteful expenses. There also exists a debt agency cost including paying abnormally large dividends, monitoring costs and bonding costs. The reduction of agency cost can be achieved through mechanisms such as manager stock ownership, combining financing sources from debt and equity, and dividend payout (Crutchley and Hansen, 1989).

Miller (1977) proposed a theory explaining the agreement on a price between selling investors and buying investors. Miller's theory loosens the assumption of homogenous expectation in the balance model. Miller (1977) argues that divergence of opinion among investors causes security price differences. The dispute mechanism causes the forming price to be further or closer to its intrinsic value. Greater divergence of opinion causes a greater gap between the price and its' intrinsic value.

This study relates agency cost to the price spread condition between stock price premiums and stock price discounts. Agency conflict experienced by a company manifests in the stock price premium and stock price discount. The agency conflict reflected in the stock price premium and discount are an agency conflict called perceived conflict. Therefore, this study employs perceived agency conflict (stock price premium and stock price discount) to explain actual agency conflicts.

Amihud and Mendelson (1986) and Brennan and Subrahmanyam (1996) state that bid-ask spread measurement can be used to determine the price of an asset. Their studies on microstructure are also useful in determining the value of an asset. This study uses bid-ask spreads as an indicator of agency conflict and introduces a price span condition, consisting of price premiums and discounts.

Baker and Wurgler (2004a, 2004b) employ the term stock price premium to explain why some companies pay dividends and others do not. This study adopts the term stock price premium and discount to test the influence of ownership structure and agency cost on firm performance. As noted earlier, Stock price premium is a condition that occurs when the closing price of a company tends to be closer to offer price. A stock price discount is a condition that occurs when that closing price of company's stocks tends to be closer to bid price. Stock price premium and stock price discount show expectations of stockholders for ownership structure and agency cost which affects company's performance.

A closing price close to the bid price shows that sellers are forced to sell their stocks at a price lower than their offer. Perhaps this occurs because the market does not respond to the offer price and the stockholders need to sell their stocks immediately. Potential stockholders (buyers), obtain the stocks with

a price close to their bid price. Stockholders realize that the firm's agency cost is high. Thus, market participants estimate that the stock price will move lower. Stockholders give a discount to potential stockholders to entice a purchase. This condition causes the tendency of company's closing price agreed by both parties to be close to the bid price. Buyers are convinced that high agency costs cause the company's value to be low, but the value of the company can increase through better ownership structure mechanisms and financial policies.

The conditions of stock price premium and discounts result from a firm's agency conflict. A closing price that is systematically close to the offer or bid price shows that buyers and sellers do take into account agency costs in daily transactions. The level of agency conflict causes differences between the closing price and the offer and bid price. As noted earlier, a stock price premium reflects a low level of agency conflict. On the other hand, a stock price discount reflects a low level of agency conflict.

Ownership structure becomes important in agency theory because most agency conflicts result from ownership and control separation. Agency conflict does not occur in companies with 100% management ownership (Jensen and Meckling, 1976). External owners produce a discrepancy of interest. Conflicts occur between principals and agents as discussed in positivist agency theory. Conflicts between stockholders, management, employees and other parties are within principal-agent research (Eisenhardt, 1989).

Institutional ownership reduces agency conflicts (Shleifer and Vishny, 1986; Jarrel and Poulsen, 1987; Brickley et al., 1988; Graves and Waddock, 1990; Han et al., 1999; and Varma, 2001). These studies argue that institutions that invest in the company will monitor a company better than individual investors. Institutions have professionals who understand the companies and monitor management. An institutional ownership sale position drives the stock price down. Therefore, institutional owners avoid selling stocks and instead monitor the company to improve performance. Effective monitoring enhances firm value. Pozen (1994) stated that the most efficient monitoring method employed by institutional owners is informal discussions with managers.

HYPOTHESES

The hypotheses development in this study consists of foreign institutional ownership, domestic institutional ownership, agency cost and company performance in the form of stock price premium and stock price discount.

As noted earlier, agency theory argues that institutional ownership reduces agency conflicts because institutions will monitor the company reducing management discretion to act sub-optimally (Crutchley et al., 1999; and Chen and Steiner, 1999). This is valid when the institutional owner partially monitors management. However, when the institutional owner is the majority owner, monitoring focuses on institutional interests and ignores public stockholder interests. Foreign institutional ownership is utilized as a control method to decrease agency costs. Higher foreign institutional ownership results in lower agency costs and lower foreign institutional ownership results in higher agency costs. Therefore, hypothesis H₁ is as follows:

H₁: Foreign institutional ownership has negative impact on agency cost.

This study assumes that the agency conflicts in stock price premiums are low relative to stock price discounts. This assumption implies an agency conflict reduction mechanism through foreign institutional ownership. A stock price premium will have less negative influence compared to a stock price discount. Companies with low agency conflicts will closely observe agency-conflict control costs. They tend to

decrease conflict reduction costs through ownership structure agency reduction mechanisms. Therefore, hypothesis H₂ is as follows:

H₂: Foreign institutional ownership will affect agency cost negatively; lower when firm is trading at a stock price premium than a stock price discount.

Domestic institutional ownership also acts as a monitoring party, similar to foreign institutional ownership. Core and Larcker (2002) found a negative relationship between stock performance and domestic institutional ownership. Companies with high institutional ownership (more than 5%) have an ability to monitor management. Large institutional ownership results in more efficient asset utilization. Therefore, institutional ownership prohibits management inefficiency.

Ismiyanti and Hanafi (2004) found that average institutional ownership between 1997-2001 reaches 66% of total stocks outstanding. This result implies that 34% of stocks are held by public individual investors, management and directors. This is different in the United States, where the institutional ownership reaches 52.36% of total stocks outstanding in 1999 (Chen and Steiner, 1999). The domestic institutional ownership is used as control method to decrease agency costs. Therefore, hypothesis H₃ is as follows:

H₃: Domestic institutional ownership has negative influence towards agency cost.

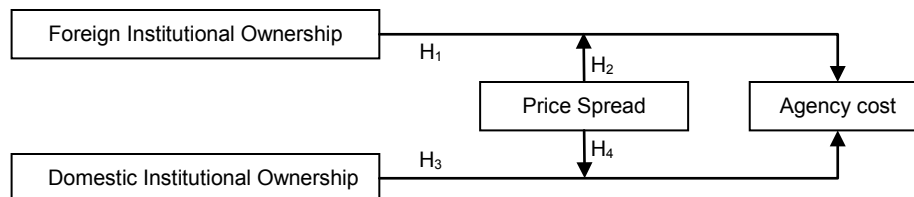
This study assumes that the agency conflict indicated by a stock price premium is lower than for a stock price discount. This implies a reduction mechanism of agency conflict through foreign institutional ownership. Stock price premiums will have a less negative influence relative to stock price discounts. Companies with low agency conflict will closely observe the cost to control agency conflict. Thus, they tend to decrease conflict through ownership structure in an effort to drive costs down. Therefore, hypothesis H₄ is as follows:

H₄: Domestic institutional ownership will affect agency cost negatively; lower when firm is trading at a stock price premium than a stock price discount.

Research Framework

The following research framework depicts the relationship between foreign institutional ownership, domestic institutional ownership and agency cost:

Figure 1: Research Framework



Note: Price spread consists of stock price premium and stock price discount. H₁ and H₃ test the institutional ownership structure (domestic and foreign) to agency cost. H₂ and H₄ test the effect of price spread to the relationship between institutional ownership (domestic and foreign) and agency cost.

METHODOLOGY

Samples employed in this study are non-financial companies listed on the Jakarta Stock Exchange from 1995 to 2004. Financial data obtained from annual financial reports include the balance sheet, income

statement, cash flow report and financial report notes. The data sources were the Jakarta Stock Exchange Library, Indonesian Capital Market Directory (ICMD) and Indonesian Securities Market Database (ISMD) published by Faculty of Economics and Business, Gadjah Mada University.

Data on the following variables were collected: The agency cost proxy is asset utilization and operational cost (Ang et al., 2000); and free cash flow (Hackel et al., 1996). Asset turnover equals the ratio of total sales to total assets and is used to measure agency costs. Selling and General Administrative (SGA) is included in operational expense proxy. Operational expense measures the agency expenses based on SGA, which is the ratio of operational expense to total sales. Free cash flow (FCF) used in this study employs free cash flow, as in Hackel et al. (1996), which modifies the traditional free cash flow. This method avoids sample elimination while still maintaining the appropriateness of free cash flow proxy.

$$FCF = TFCF + DOCO + DCEX \quad (1)$$

$$TFCF = (OCR - OCO) - CEX \quad (2)$$

where TFCF is traditional free cash flow; OCR is operating cash inflow; OCO is operating cash outflow; while CEX is capital expenditure.

$$DOCO = (OCO \text{ growth} - \text{sales growth}) * (0.2 * OCO) \quad (3)$$

where DOCO is discretionary operating cash outlay. Hackel et al. (1996) assumes 20% of OCO is discretionary of OCO and sales growth.

$$DCEX = (CEX \text{ growth} - \text{Cost of Good Sold Growth}) * CEX \quad (4)$$

$$OCO \text{ growth} = (OCO_t - OCO_{t-1}) / OCO_{t-1} \quad (5)$$

$$\text{sales growth} = (\text{sales}_t - \text{sales}_{t-1}) / \text{sales}_{t-1} \quad (6)$$

$$CEX \text{ growth} = (CEX_t - CEX_{t-1}) / CEX_{t-1} \quad (7)$$

$$\text{Cost of Goods Sold (COGS) Growth} = (COGS_t - COGS_{t-1}) / COGS_{t-1} \quad (8)$$

where DCEX is discretionary capital expenditure; and COGS is cost of goods sold.

Stock price premium occurs when the closing price tends be close to the offer price. Stock price discount occurs when closing price tends to be close to the bid price and is measured as follows:

$$\text{Stock Price Premium} = | \text{Closing Price} - \text{Offer Price} | \quad (9)$$

$$\text{Stock Price Discount} = | \text{Closing Price} - \text{Bid Price} | \quad (10)$$

Foreign institutional ownership is the sum and percentage of stocks owned by foreign institutions. Domestic institutional ownership is the percentage of ownership by registered as non-public stockholders.

This research employs Structural Equation Modeling (SEM) in hypotheses testing because SEM has the ability to combine measurement and structural models. This research applies two stage approaches for multi-group structural equation modeling (MSEM). MSEM does not require a nested model to estimate different hypotheses groups. A series of statistical goodness-of-fit indicators is employed to test a complex model. SEM is conducted in two structural models, constrained and unconstrained parameters models. In constrained parameter models, regression estimate weights are controlled in both sample groups resulting in a similar estimated relationship. The moderating variable is significant if models with unconstrained parameters are better than models with constrained parameters.

RESULTS AND DISCUSSION

This research uses a full structural equation model to analyze research hypotheses that do not contain stock price premium and stock price discount moderating variables, H₁ and H₃. Hypotheses, which used stock price premium and stock price discount moderating variables (H₂ and H₄), are tested by employing multi-group structural equation model using constrained parameters and unconstrained parameters models. Table 1 shows the full structural equation model without stock price premium and stock price discount as moderating variables.

Table 1: Result of Full Structural Equation Model

| Structural Relationship | Unstandardized Regression Weight | Standard Error | Critical Ratio |
|------------------------------------|----------------------------------|----------------|----------------|
| Agency Cost ← Foreign Inst. Ownr. | -0.243 | 0.086 | -3.481* |
| Agency Cost ← Domestic Inst. Ownr. | -0.378 | 0.092 | -0.643 |
| Asset Utilization ← Agency Cost | 1.000 | | |
| Operating Expense ← Agency Cost | 0.863 | 0.078 | 5.429* |
| Free Cash Flow ← Agency Cost | 0.068 | 0.089 | 0.983 |

*This table shows the structural relationship of institutional ownership structure (domestic and foreign) to agency cost. The full model also shows the regression weight of asset utilization, operating expense and free cash flow as proxy of agency cost. *) significant 10%*

Table 2 shows the test result by multi-group structural equation model with constrained parameters. The numbers of observations used total 1,559 comprising 713 observations with stock price premium and 846 observations with stock price discount. The results show that the regression coefficient value of ownership structure influence (foreign institutional ownership and domestic institutional ownership) on agency costs is not different when compared between firms with a stock price premium and firms with a stock price discount.

Table 2: Result of Price Spread Multi-Group SEM with Constrained Parameters

| Structural Relationship | Stock Price Premium Sample | | Stock Price Discount Sample | |
|-------------------------|----------------------------------|----------------|----------------------------------|----------------|
| | Unstandardized Regression Weight | Critical Ratio | Unstandardized Regression Weight | Critical Ratio |
| AC ← PFIOWN | -0.483 | -7.195* | -0.483 | -7.195* |
| AC ← PDIOWN | -0.036 | -0.457 | -0.036 | -0.457 |
| AU ← AC | 1.000 | | 1.000 | |
| OE ← AC | 0.079 | 3.159* | 0.079 | 3.159* |
| FCF ← AC | 0.275 | 2.064 | 0.275 | 2.064 |
| Goodness of Fit | | | | |
| Chi Square | 259.652 | | | |
| Degree of Freedom | 57 | | | |
| Probability | 0.000 | | | |
| Chi Square/DF | 4.555 | | | |
| GFI | 0.942 | | | |
| AGFI | 0.931 | | | |
| RMR | 0.006 | | | |
| RMSEA | 0.062 | | | |

*AC: agency cost; PFIOWN: foreign institutional ownership; PDIOWN: domestic institutional ownership; AU: assets utilization; OE: operating expense and FCF: free cash flow. The coefficient of institutional ownership structure is the same between firms with stock price premium and stock price discount. *) significant 10%*

Table 3 shows the test results by multi-group structural equation model with unconstrained parameters. The regression coefficient of ownership structure influence towards agency cost is not different when compared between firms with stock price premiums and discounts. Goodness of fit tests are presented in

Table 4 indicating the unconstrained parameter model (GFI= 0.976) is better for the model with constrained parameters (GFI= 0.942). In addition, a chi square value changes by 56,585 with four degrees of freedom demonstrating a significant difference (p<0.10). Therefore, the base model and alternative model based on the difference of stock price premium and discount are significantly different.

This indicates that the price spread condition is significantly influential as a moderating variable. Variance in moderation of the price spread condition appears primarily in the difference between foreign institutional ownership, domestic institutional ownership and agency cost on stock price premiums and discounts.

Table 3: Result of Price Spread Multi-Group Structural Equation Model with Unconstrained Parameters

| Structural Relationship | Stock Price Premium Sample | | Stock Price Discount Sample | |
|-------------------------|----------------------------------|----------------|----------------------------------|----------------|
| | Unstandardized Regression Weight | Critical Ratio | Unstandardized Regression Weight | Critical Ratio |
| AC ← PFIOWN | -0.542 | -3.267* | -0.946 | -6.465* |
| AC ← PDIOWN | -0.087 | -0.785 | -0.236 | -1.463 |
| AU ← AC | 1.000 | | 1.000 | |
| OE ← AC | 0.085 | 5.078* | 0.098 | 4.842* |
| FCF ← AC | 0.497 | 3.287* | 0.096 | 0.823 |
| Goodness of Fit | | | | |
| Chi Square | 203.067 | | | |
| Degree of Freedom | 53 | | | |
| Probability | 0.000 | | | |
| Chi Square/DF | 3.831 | | | |
| GFI | 0.976 | | | |
| AGFI | 0.943 | | | |
| RMR | 0.028 | | | |
| RMSEA | 0.067 | | | |

AC: agency cost; PFIOWN: foreign institutional ownership; PDIOWN: domestic institutional ownership; AU: assets utilization; OE: operating expense; and FCF: free cash flow. The coefficient of institutional ownership structure is the same between firms with stock price premium and stock price discount. *) significant 10%

Table 4: Comparison of Goodness of Fit from Base Model and Alternative Model of Price Spread

| Indicator | Goodness of Fit | | Criteria |
|--|--|---|----------|
| | Base Model (constrained parameter) | Alternative Model (unconstrained parameter) | |
| Chi Square | 259.642 | 203.067 | Low |
| Degree of Freedom | 57 | 53 | |
| Probability | 0.000 | 0.000 | > 0.05 |
| Chi Square/DF | 4.555 | 3.831 | < 5 |
| GFI | 0.942 | 0.976 | > 0.90 |
| AGFI | 0.931 | 0.943 | > 0.90 |
| RMR | 0.006 | 0.028 | < 0.03 |
| RMSEA | 0.062 | 0.067 | < 0.08 |
| Goodness of Fit Increase from Base Model to Alternative | | | |
| Chi Square | 259.652 – 203.067 = 56.585 | | High |
| Degree of Freedom | 57 – 53 = 4 | | |
| Probability | Less than 0.005 | | < 0.05 |
| Conclusion | Alternative model (unconstrained model) is significantly different from base model (constrained model) Thus, price spread (stock price premium and stock price discount) significantly moderates direct and indirect relationship between ownership structure (foreign institutional ownership, and domestic institutional ownership) and agency cost. | | |

Table 4 shows a comparison of test result between the base model (constrained model) and alternative model (unconstrained model). The goodness of fit value, chi square value and degree of freedom of both test models determine whether stock price premium and stock price discount have significantly different relationships. The table shows increase of goodness of fit values, from base model to alternative model. The chi square value changed 56,585 points, and degree of freedom changed 4 points. Based on the goodness of fit of base model and alternative model, the relationships between agency cost and performance is moderated by stock price premiums and stock price discounts.

Table 5 shows full model of SEM (Panel 1) and Multi-groups SEM (Panel 2). The result of full model SEM shows results consistent with negative coefficients however, the effect of domestic institutional ownership to agency cost is insignificant. The result of Multi-groups SEM shows coefficients consistent with the hypotheses. The SPP has lower negative magnitude than SPD.

Table 5: Comparison of Test Result Prediction

| Panel 1: Unmoderated Full Structural Equation Model | | | |
|--|-------------------|---------------------|----------------------|
| Relationship | Result Prediction | Full SEM Result | |
| Agency Cost ← Foreign Institutional Ownership | Negative | -0.243* | |
| Agency Cost ← Domestic Institutional Ownership | Negative | -0.378 | |
| Panel 2: Multi-group Structural Equation Model Moderated by Price Spread | | | |
| Relationship | Result Prediction | Multi-group Result | |
| | | Stock Price Premium | Stock Price Discount |
| Agency Cost ← Foreign Institutional Ownership | SPD<SPP<0 | -0.542* | -0.946* |
| Agency Cost ← Domestic Institutional Ownership | SPD<SPP<0 | -0.087 | -0.236 |

Table 5 Panel 1 is a summary of predictions with results that utilizes full structural equation model with constrained parameters, and the unconstrained parameters model with stock price premium and discount as moderating variables. The results are consistent with predictions indicating a negative relationship. Nevertheless, the domestic institutional ownership and agency cost relationship is insignificant. Table 5 Panel 2 is a summary of the result predictions and empirical results utilizing multi-group structural equation model with stock price premium and discount moderating variables. The results of the study show that the coefficient value of stock price discount should be lower than the coefficient value of stock price premium. Ownership structure has a negative effect on agency cost however, the effect is less negative for firms with low agency conflict. *) significant 10%

Table 6 shows a summary of the test results obtained in this study. Higher foreign institutional ownership implies lower firm agency costs. Foreign institutional ownership has a smaller negative effect on agency cost when firms are trading at a stock price premium. However, domestic institutional ownership has an insignificant effect on agency cost and the negative effect is statistically the same for stock price premiums and discounts. The result suggest that domestic institutional ownership has less influence on agency cost because domestic institutional owners usually have a majority ownership and a resulting superior control over managers and policies. Therefore, the conflict shifts from a principal agent conflict to a majority versus minority conflict.

Meanwhile, foreign institutional ownership usually has better internal control of their clients than domestic shareholders. Their investment in Indonesia usually involves a sophisticated governance mechanism and risk management practices because they bear more risks.

Table 6: Summary of Statistics and Hypotheses

| Hypotheses | SPP | SPD | Result ^{*)} |
|--|--------|----------|----------------------|
| Structural equation model on all study samples | | | |
| H ₁ : Foreign institutional ownership have negative influence towards agency cost | -0.542 | -0.946 | ♣♣ |
| H ₃ : Domestic institutional ownership have negative influence towards agency cost | -0.087 | -0.236 | ♣ |
| Structural equation model on stock price premium and stock price discount samples | | | |
| H ₂ : Foreign institutional ownership will affect agency cost negatively; lower when firm is in stock price premium than stock price discount. | -0.542 | < -0.946 | ♣♣ |
| H ₄ : Domestic institutional ownership will affect agency cost negatively; lower when firm is in stock price premium than stock price discount. | -0.087 | < -0.236 | ♣ |

Table 7 summarizes the findings in this paper. The table shows results consistent with the research hypotheses however, two hypotheses are not significant in explaining the price spread phenomena to institutional ownership structure. A lower SPP effect means the negative magnitude is closer to zero than SPD. *)♣♣ indicates the empirical result is consistent with the theoretical prediction and significant ♣: indicates the empirical results is not significant

Further studies might reexamine the proxy for agency conflict magnitude. Other proxy's might produce different results. This will enrich the findings in this paper. Further studies might also examine other markets. The extent to which the findings are can be generalized is not known.

CONCLUSION

This research analyses the bid and ask price spread as a measure of the divergence of opinion between buyer and seller of securities. This research argues that bid ask spreads are related to agency problems and the effect types of institutional ownership (foreign and domestic). This research uses Indonesian listed firm financial data and utilizes Structural Equation Modeling (SEM) with full model and multi-group model to test four hypotheses.

Research findings shows foreign and domestic institutional ownership have negative effect to agency cost. The result also confirms that the effect of types of institutional ownership to agency cost are lower for stock price premiums than discounts. The findings are mixed but generally consistent with research hypotheses. This research uses asset utilization and operational cost as proxy for agency cost. However, there are other proxy's suitable for agency cost, such as residual loss. Future research should also examine other markets.

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