THE PRICE IMPACT OF FOREIGN AND DOMESTIC INVESTORS' BLOCK TRADING: THE HYPOTHESIS TESTING OF PRICE PRESSURE, INFORMATION AND SLOPING DOWN DEMAND CURVE

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Abstract

Theoretically, block trading should not have any impact on stock price changes but the results of empirical studies find that block trading has a price impact. Price changes occur are theoretically associated with three hypotheses: price-pressure hypothesis, sloping-down demand curve hypothesis, and information hypothesis. Using LQ45 data in 2015-2017 on the Indonesia Stock Exchange (IDX) this study found a temporary price impact on the sale of blocks. At the time of sell and buy initiated testing based on the investor type, it is found that foreign sell-initiated, foreign buy-initiated and domestic buy-initiated have a permanent price impact that confirms support for the information hypothesis depending on the type of initiating investor. Otherwise, domestic sell-initiated have a temporary price impact that confirms support for the price-pressure hypothesis.
Keywords: Block Trading, Price-pressure Hypothesis, Information Hypothesis, Sell and Buy Initiated, Foreign Investor, Domestic Investor.

INTRODUCTION

How trading affects securities prices has become an important research question in the financial and economic fields. Literature assumes financial markets are perfect and have high degree of liquidity without market friction so that trading has no effect on securities prices. However, the results of the study show that trading has an effect on stock prices, especially on large trading (block trading). Block trading should not affect the company value since there is always one buyer for each

seller (Bozcuk & Lasfer, 2005), and because investors are rational and make decision based on information. Hence the trading they do should not provide information about the company's prospect, but several studies have shown that block trading has a significant price impact such as the study conducted by Easley and O'Hara (1987) which found that large trading makes prices worse than small trading, and large trading has a permanent price effect with lower transaction prices after block sales and greater after block purchase.

Research on large trading (block) is still a controversy to date due to differences in the results of empirical research with the existing theories, especially the definition of block trading which has not reached agreement yet, and there is still very limited research on block trading in developing countries.

The first study to explore the price impact of block trading is a study by Kraus and Stoll (1972) that found three factors that can cause price impact, namely price pressure, demand and supply curves and the information content carried by large trading. In addition, the asymmetry of price impact between block purchases and sales is found (the impact of permanent buying price is greater than the impact of permanent selling price). Therefore, it is concluded that the information carried at the time of block purchases is greater than at the time of block sales. Some arguments given regarding the price impact asymmetry, among others, are those by Kraus and Stoll (1972) and Chan and Lakonishok (1993) which state that investors' decision to sell shares may not be based on the information they have, but may be due to limitations on the investors' portfolios, whereas the decision to buy one share among many shares in the market is likely due to the superior information owned by the investors. Several other arguments given to explain on why price impact asymmetry was found are those by Chiyachantana et al., (2004) who found that market condition can explain why differences in price impact occur, Chan and Lakonishok (1993) and Bozcuk and Lasfer (2005) found that the identity of the transaction affects the price impact. On the Indonesia Stock Exchange (IDX), there are two types of investors, namely foreign and domestic investors; so it provides an opportunity to test whether

there is an asymmetry in the price impact between the two investors. The price impact between these two classes of investors may be different depending on whether there is a content of information carried on the trading.

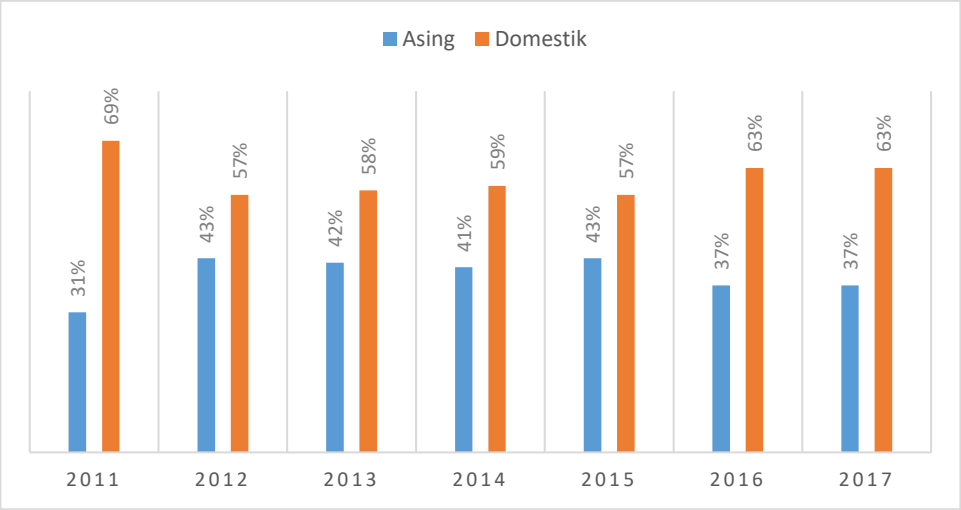
The existence of foreign investors in developing country exchanges is an issue which is still interesting to study until now. Investment by foreign investors is different from local investors in developing markets since foreign investors are institutional investors with large capital and have good portfolio diversification. The existence of foreign investors on the IDX has existed since 1989 following financial market liberalization, but the policies of the Indonesian Government only allow foreign investors to own shares up to 49% of the total outstanding shares. In 1997 the maximum limit of the shares was abolished so that foreign investors could own up to 100% of the outstanding shares except the shares in the banking sector that still had maximum shareholding limit.

Figure 1.1 below illustrates the comparison of trading carried out by domestic and foreign investors in the Indonesia Stock Exchange from 2011 to 2017. In the figure, it can be seen that IDX trading is dominated by domestic investors, but for shareholding (figure 1.2), the shareholding percentage of foreign investors is greater compared to domestic investors'. This shows that foreign investors on the IDX are institutional investors who make long-term investments with a greater percentage of shareholding, though the total daily trading is still lower than the domestic investors. In the IDX's note, it is known that shareholding by domestic investors in 2007 amounted to 33.7% and foreign shareholding of 66.3%, while in 2017 this shareholding position had changed a lot; shareholding by domestic investors increased to 47.77% (the highest since 2007) while foreigners' shareholding declined to 52.23%. This indicates a significant increase in the involvement and shareholding of domestic investors on the IDX year by year.

The composition of foreign and domestic shareholdings is far different from the composition of foreign and domestic shareholding in the Jakarta Stock Exchange (JSX) from 1999 to 2001 in the study of Dvorak (2001) which found that domestic

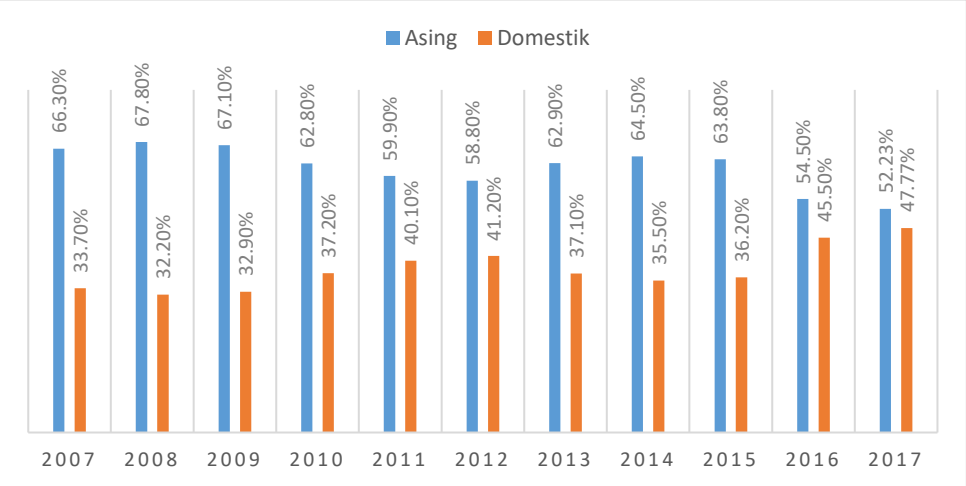
investors had information superiority compared to foreign investors. During the Dvorak's research, foreign composition in JSX is only 25% so that the condition of the Indonesian capital market at the time of Dvorak's (2001) and current research is so different that further research needs to be done to examine whether the differences in the composition of foreign and domestic shareholding in the stock exchange cause different result of study on price impact.

Figure 1.1. Total of Trading Volume based on Investor Type



Source: Annual Report of Indonesia Stock Exchange

Figure 1.2. Shareholding based on Investor Type



The issue of foreign investors is generally related to three main issues, namely regarding the trading behavior of foreign investors, the comparison of performance superiority between foreign and domestic investors and the price impact of trading carried out by foreign investors (Dvorak 2005, Richards 2005 & Ulku & Weber 2011). Foreign investors generally have positive feedback trading, in which foreign investors make purchases (sales) when prices rise (fall) Grinblatt et al. (1995), Choe et al. (2000), Grinblatt & Keloharju (2000), Karolyi (2000), Froot et al. (2001), Kim & Wei (2002), Richards (2005), Samarakoon (2009), Liao et al. (2013) and Hanafi (2014).

The second issue is the comparison of performance superiority between foreign and domestic investors. The results of the study are still varied regarding the performance superiority between the two classes of investors. Some research results confirm that domestic investors have better performance, Dvorak (2005) and Choe et al. (2005) while others argue that foreign investors have the superiority of analyzing the prospects of shares since they have more investment experience (Grinblatt & Keloharju 2000, Seasholes 2000).

The third issue is the price impact of foreign investors' trading. Questions on this issue generally include: 1) Does the trading carried out by foreign investors have an impact on prices? 2) If the trading carried out by foreign investors has a price impact, is the price impact temporary or permanent?, and 3) If the trading carried out by foreign investors has a price impact, can the price impact be explained by the price pressure or information hypothesis?

There are three hypotheses that are able to explain the price impact of trading, they are: 1) Price-Pressure Hypothesis which states that a large flow of funds into (out of) the market will push the price of securities to go up (down). 2) The Sloping Down Demand Curve Hypothesis, coming from one of the assumptions on financial theory relating to the ability of investors to buy and sell stock equity without any price impact. The theory states that the demand curve for stocks is horizontal which indicates that stocks have a close substitution so that the underlying value of the stock

does not significantly depend on the offer. In other words, companies can sell any quantity of shares without considering the fall in stock prices since the horizontal demand curve predicts that the market can always absorb excess supply in fundamental values. However, some results of studies such as the study of Holthausen et al. (1987) found that the demand curve is in the form of sloping down so that when there is a large amount of supply, the stock price will go down so that the excess supply can be all absorbed, and 3) Information Hypothesis, coming from the efficient market hypothesis (Fama, 1970) states that investors are able to respond the market information rationally and efficiently so that the stock price will reflect all information available to the public. The new information available will immediately be reflected in the stock price, so that when trading with information happens, it will result in a change in price depending on the type of information carried on the trading.

Research provides different results regarding the price impact of foreign investor trading. This difference may occur due to differences in methods and data used in the existing studies. At the beginning of the research on the price impact, the data used are monthly and daily data. The use of monthly and daily data is considered inappropriate since if there is price impact of foreign trading, adjustments should occur immediately (related to efficient market theory). The use of data that is considered appropriate is high frequency data (intra-day data). The use of intra-day data is considered more appropriate than the daily data as stated by Seasholes (2001) in his research on foreign investors.

The effect of trading on prices can occur in a short period of time (seconds or minutes). The use of daily data in research regarding the price impact may be biased since the daily data used in general has been adjusted, so that it does not measure in real time.

Based on the description above, this study aims to examine whether the price impact of block trading carried out is able to be explained by the sloping down demand curve hypothesis or the price pressure hypothesis, and whether there are

differences in the price impact of block trading initiated by foreign and domestic investors (for testing information hypothesis) by using data from Indonesia in which the structure of foreign and domestic shareholding is quite balanced.

The results of the study found that block sales that occurred on the IDX can be explained by the price pressure hypothesis, the permanent impact on block sales initiated by foreign investors, and also the permanent impact on the block purchases initiated by foreign and domestic investors. However, there was no difference in price impact so it was concluded that the amount of information held by the two investors was the same. Research based on the type of investor found information that was carried out at the time of the sell-initiated and buy-initiated of blocks, thus supporting the information hypothesis.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

How trading affects asset prices has become an important research question in the financial and economic fields. Early literature assumes that financial markets are perfect and have high levels of liquidity without market friction so that trading has no influence on asset prices, but research results show that trading has an impact on prices.

Block trading should not affect company value because there is always one buyer for each seller (Bozcuk & Lasfer, 2005), and because investors are rational and make decisions based on information. Hence the trading they do should not provide information about company prospects, but several studies show that block trading has a significant price impact such as Easley and O'Hara's (1987) study which found that large trading makes prices worse than small trading, and block trading has a permanent price impact with lower transaction prices after block sales and greater transaction prices after block purchases.

The price impact is related to the correlation between incoming orders to buy or sell with subsequent price changes (Bouchaud, 2009). From this understanding, purchases (sales) should encourage prices so that the next purchases (sales) will be more expensive (cheaper) than the previous purchases (sales) due to the impact of

trading on prices.

Theory states that large trading results in price movements due to asymmetry information. Large (block) trading transactions play a large role in trading that occurs on stock exchanges throughout the world. Nearly half of the trades that occur on the New York Stock Exchange are carried out by block trading (greater than 10,000 shares or more). Jain (2003) in Frino et al. (2007) claim that institution trading (which dominates the block trading) controls more than 70% of trading activities. In relation to the price impact of block trading, it is found that the common pattern is similar, namely block purchases on the equity market will be followed by an increase in the price of individual assets, and this price increase is permanent. In addition, block sales are followed by a decline in prices, but then a price reversal (temporary price reduction) so that from the results of previous studies it was found that there was an asymmetry in the price impact of block purchases and sales (Frino et al. 2008). Chan and Lakonishok (1993) and Keim and Madhavan (1996) assume that the asymmetry of the price impact between block purchases and sales is due to differences in information content.

Block trading is often associated with the existence of information and price movements resulted from inventory costs and information asymmetry (Agarwalla & Ajay, 2010). The emergence of block trading is believed to provide a signal about the existence of private information, causing investors to change their expectations depending on the nature of the block itself. Some studies attempting to test block trade are associated with the information that was carried on the trading. Sun and Ibikunle (2015) tested the price impact of block trading by using intraday and interday data on the London Stock Exchange. The results of the study found that block trading has information that facilitates the formation of prices. The price impact is found to be stronger in the first hour of trading compared to other times. This is consistent with the hypothesis that information is accumulated at night during hours outside of trading.

Holthausen *et al*. (1987) describes the price impact as follows:

Figure 2.1. The Impact of Block Sales on the Stock Prices

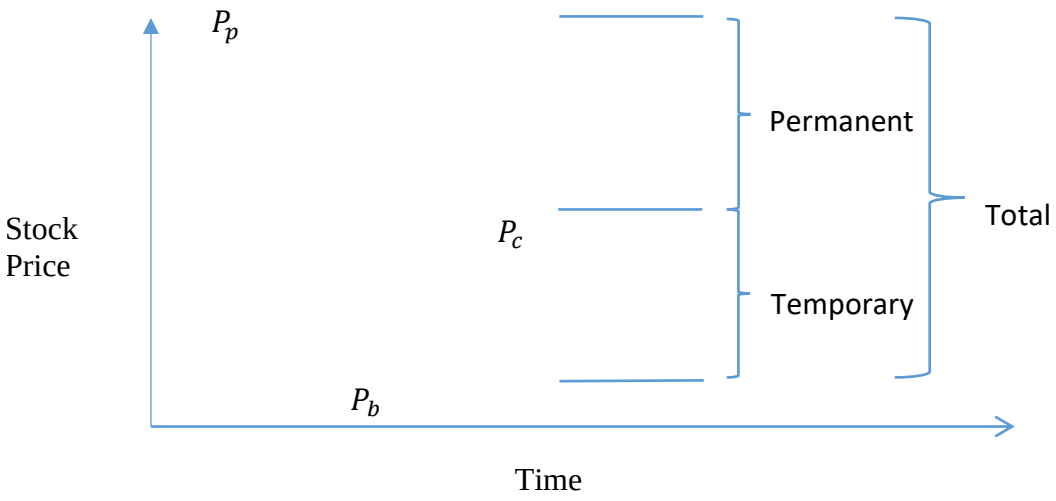
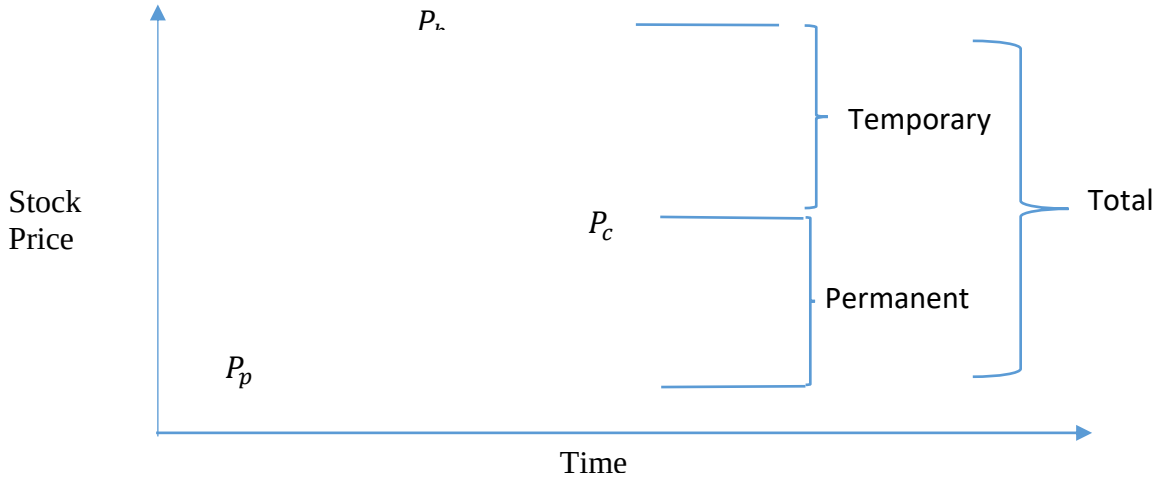


Figure 2.2. The Effect of Block Purchases on the Stock Prices



Holthausen et al. (1987) illustrates the price impact of block sales on figure 2.1 and block purchases on figure 2.2. P_p as the equilibrium price before the occurrence of a block transaction and without information about the block transaction, P_b as the block price and P_c as the equilibrium price after the temporary

effect disappears. Holthausen et al. (1987) predicts that all price changes (total, temporary and permanent) that occur in block sales are negative and price changes that occur in block purchases are positive.

There are three hypotheses that can explain why trading can affect stock price changes: 1) the price pressure hypothesis which states that if the demand curve for equity is not perfectly elastic, then large purchases (sales) will push securities prices to go up (down), but increase or the decline in the price of this security is only temporary since in a certain period the stock price will return to the initial equilibrium price, 2) the sloping-down demand curve hypothesis which states that securities do not have substitutions for one another (demand curve is not perfectly elastic) so that the equilibrium price will change when the demand curve shifts to eliminate excess demand, and 3) the information hypothesis which states that trading helps to enter information into prices.

Some tests found the price impact of block sales, namely a decline in prices at the time of block sales such as the research conducted by Krauss and Stoll (1972), Holtahusen et al. (1987), Keim and Madhavan (1992), Chan and Lakonishok (1992) and also Surasni (2012) which indicate that block trading has an effect on prices.

H_{1a} : There is a negative change on the stock price at the block sales.

The price pressure hypothesis states that the demand curve for stocks is not perfectly elastic, so the investors who want to accommodate demand shift must be compensated for the portfolio transaction and risk costs they want to bear. Therefore, there will be a decrease in prices after the block sales, but this temporary decline in prices will be then followed by a price reversal. Some studies such as Harris and Gurrel (1986) Ben-Rephael et al. (2011), Ulku and Weber (2013) provide support for price pressures, so that:

H_{1b} : There is a price reversal at the period after the block sales.

Theories in economics and finance state that the demand curve for stocks is horizontal, but several studies have found that the demand curve for stocks is sloping

down as the research conducted by Shleifer (1986), Neumann & Voetmann (2003) and Levin & Wright (2006). If the demand curve for stocks is sloping down, then when a large number of sales occur, the stock price will change permanently, so:

H_{1c} : There is a negative permanent price change after the period of block sales.

Scholes (1972) conducted a study related to block sales at the secondary offering event. If block sales have a negative effect on prices, then a price reversal occurs, what happens is the temporary effect of block sales, causing prices to change (price pressures). However, if the price changes are permanent, it can be caused by a demand curve in the form of sloping down or due to negative information content at the time of sales in the secondary offering. Scholes (1972) then distinguishes them by identifying who made the sales at the secondary offering. The results of the research conducted found that Abnormal Return (AR) after the sale shows that AR for the corporation and also the officer is greater than the other vendor categories, so it is concluded that the sales made by corporations and officers have information content. Scholes's (1972) study supports that the stock demand curve is horizontal and trading contains information depending on who the vendor is. Based on the description above, hypotheses can be formed as follows:

H_2 : There is price decline which is followed by price reversal around the sell-initiated of block by the foreign or domestic investors.

H_3 : There is negative permanent price change around the sell-initiated of block by the foreign or domestic investors.

If there is a permanent price change around the sell-initiated of block carried out by foreign or domestic investors, the party that has a larger permanent price change has greater information content.

H_4 : There is a difference between the negative permanent price change around the sell-initiated of block by foreign investors and the negative permanent price change around the sell-initiated of block by the domestic investors.

The finding of foreign investor trading effect on stock prices in developing

country exchanges can be caused by several factors, including the fact that the majority of foreign investors are institutional investors, so they trade in large quantities, so that the trade done causes pressure on prices, this is known as the price pressure hypothesis. Another cause of price impact is that foreign investors are predominantly institutional investors, so foreigners do trading based on information, so that the trading they carry has information content and helps them to enter information into stock prices.

The Choe et al. (2001) study used Korean data and Dvorak (2001) used data from the Jakarta Stock Exchange to test the price impact of trading in foreign and domestic investors using event studies. The data used are intra-day and inter-day data. Choe et al. (2001) and Dvorak (2001) conducted research by using 5 minute intervals. Their research investigates at whether abnormal returns occur around incentive trading carried out by foreign and domestic investors. The study found a positive return around the purchase of incentives by foreign investors and negative returns around the sale of incentives by foreign investors.

Choe et al. (2001) and Dvorak (2001) then conducted the next test to test whether the effect of this trading is temporary or permanent. If it is temporary, they link it to the pressure of purchases (sales) which causes prices to go up (down), but this change is only temporary since in some periods later there will be a price reversal, this is known as the price pressure hypothesis. Next if the price change is permanent, it will be associated with the existence of information content, this is due to the propositions on economic and financial theory which states that the demand curve for stocks is horizontal, so that investors can buy and sell regardless of the price and also based on assumptions that trading carried out by investors has information that will help to enter information into prices through the trading.

Choe et al. (2001) and Dvorak (2001) then conducted a test to test whether the price impact is temporary or permanent with reference to the method used by Holthausen et al. (1989), namely by testing Cumulative Abnormal Return (CAR) by the incentives buying and selling carried out by each class of investors. CAR (-10, -

1), CAR (0, + 1), CAR (0, + 10) and CAR (+ 1, + 10) are cumulative returns from day -10 to -1, from 0 to +1 are the total effect of events, from 0 to +10 is a permanent effect and from +1 to +10 is a temporary effect. The results of the study of Choe et al. (2001) found that the permanent effect of incentive purchases made by foreign investors was greater than the temporary effect, while the study conducted by Dvorak (2001) found that foreign purchases had a permanent effect and this permanent effect was greater than the permanent effect of domestic purchases. The difference between the two classes of investors is 0.54% and this difference is statistically significant. The study results from foreign sales also found that foreign sales had a greater permanent effect than domestic sales, and the difference was 0.27% but was not statistically significant.

Existing studies relate the price impact to the information content held by investors. Investor classes that have a greater price impact are believed to have greater information content. Dvorak (2001) states that by comparing the price impact of foreign and domestic investors, it enables the chance to identify which investors have greater information content. This is because investors who have information should have a greater price impact. Based on the descriptions above, the following hypotheses can be formed:

H_5 : There is price increase which is followed by price reversal around the buy-initiated of block by foreign or domestic investors.

H_6 : There is positive permanent price change around the buy-initiated of block by foreign or domestic investors.

If there is a permanent price change around the buy-initiated of block made by foreign or domestic investors, the party that has a larger permanent price change has greater information content.

H_7 : There is a difference between positive permanent price change around the buy-initiated of block by foreign investors and the positive permanent price change around the buy-initiated of block by domestic investors.

RESEARCH METHODOLOGY

The sample in this study is the shares of LQ45 companies which are traded on the regular market by foreign and domestic investors in the form of block trading. The stocks used are LQ45 shares since the selected shares must be traded by foreign and domestic investors, in which foreign investors generally like trading in liquid stocks and have a large market capitalization value.

The data used are block transaction data that occurred on the Indonesia Stock Exchange in the period of 2015 to 2017 of the LQ45 companies listed on the Indonesia Stock Exchange.

The Definition of Block Trading

The definition of block trading has not yet reached an agreement; some researchers provide different definitions of block trading so that until now there has been no standard definition of block trading in the literature. The focus of this research is block trading that occurs in the regular market on the Indonesia Stock Exchange. This is based on the results of Bonsear-Neal's (1999) study which found that 91% of trading and 45.1% of the transaction volume in the Jakarta Stock Exch ange occurred in the Regular Market.

This study uses the definition of block trading in accordance with the definition issued by the IDX, namely 30 largest trades during the sample period for each issuer, each initiation and each type of investor using a minimum value of 200,000 shares per transaction and occurring on the regular market.

The Definition of Price Impact

In this study, the variables used to measure price impact refer to Holthausen et al. (1987), whereas for the determination of interval time refers to the results of previous studies which found that prices adjust in a short time to the existence of information such as the results of the study of Holthausen et al. (1990) and Surasni (2012) which found that the average of trading was initiated by sellers adjusting in one transaction and being complete in three transactions, while trading was initiated

by buyers adjusting in one transaction so that this study used per-transaction intervals. The measurement of price impact was done by using the measurement proposed by Halthousen *et al.* (1989) as follows:

a. Temporary Effect = $\text{Ln}(\frac{P_b}{P_c})$

b. Permanent Effect = $\text{Ln}(\frac{P_c}{P_p})$

c. Total Effect = $\text{Ln}(\frac{P_b}{P_p})$

Which are:

P_p : Equilibrium price before the block transaction (t = -1 transaction before the block trading).

P_b : Price on the time of block transaction (t = 0)

P_c : New equilibrium price after the block transaction (t = +10 transaction after the block trading).

Buy-initiated and Sell-initiated

Trading on the IDX depends on an automated trading system known as the Jakarta Automated Trading System (JATS). Data from 2015 to 2017 shows 14 data columns consisting of: 1) trading number, 2) trading date, 3) entry time stamp, 4) securities identity, 5) identity board, 6) quantity, 7) price, 8) value 9) the seller's identity ID, 10) the seller's domicile, 11) the sales order number, 12) the buyer's identity number, 13) the buyer's domicile, and 14) the purchase order number.

The first step is to determine whether initiation is a buy or sell-initiated by looking at the sales order number (column 11) and the purchase order number (column 14), if the sales (purchase) order number is greater than the purchase (sales) order number then it is identified as sell (buy) initiated. The second step is by looking at whether the seller's (buyer's) domicile is I (A) which is then identified as the initiation of the seller (buyer) by the domestic (foreign).

RESULT AND DISCUSSION

The data used are the issuer's data included in the LQ45 index in the period of 2015 to 2017 and traded by foreign and domestic investors. The data are obtained on the IDX through The Indonesia Capital Market Institute (TICMI). The final sample of this study included 35 listed companies in LQ45 (not in and out of the index during the observation period). During 2015 to 2017, 35 listed companies recorded trading transactions totaling 72,338,991 times. The trading carried out was greater than 200,000 shares for foreign buy-initiated of 34,861, domestic buy-initiated amounted to 51,472, foreign sell-initiated amounted to 31,090 and domestic sell-initiated amounted to 30,154.

Table 4.1 below shows the average volume, value and size of daily trading between foreign and domestic investors during the period of 2015 to 2017. On average, the volume of daily domestic investor trading is greater than that of foreigners, on average domestic investors trading with a volume of 1,054,883,900 shares per day while foreign investors accounted for 824,824,600 shares per day. Although the trading volume of foreign investors was less than domestic investors, but for the value of trade, foreign investors traded with average daily trading value which is greater than domestic. Foreign investors trade with a daily value of Rp3,854,780,000,000 while domestic investors trade with a daily value of Rp3,789,500,000,000. This indicates that foreign investors buy shares at a price that is relatively more expensive than domestic investors which proves that foreign investors have relatively larger capital compared to domestic investors.

Table 4.1. The Average of Volume, Value, and Size of Daily Trading during the Period of 2015 to 2017

Categories	Domestic Investor	Foreign Investor
Trading Volume	1.054.883.900 shares	824.824.600 shares
Trading Value	Rp. 3.798.500.000.000	Rp. 3.854.780.000.000
Trading Size	7600 share / transaction	7100 share / transaction

Table 4.2. Block Sales Testing

	Total Impact	Temporary Impact	Permanent Impact
Mean	-0.00018	-0.00024	0.00005
T-Test	-5.03	-2.36	0.54
No. of obs.	986	986	986
Wilcoxon Sig.	0.0001*	0.0012*	0.5753

*Significant on level 1% **Significant on level 5% ***Significant on level 10%

There are two kinds of statistical tests that can be done namely one-sample t-test and one sample Wilcoxon signed rank test. If the data is normally distributed, one sample t-test can be done, but if the data is not normally distributed then the statistical analysis that can be done is one sample Wilcoxon signed rank test. Based on the results of the normality test, it was found that the data was not normal so the statistical test used was one sample Wilcoxon signed rank test. Even so, Hartono (2015) states that parametric testing is still needed and non-parametric testing serves as an additional test.

In table 4.2 above, it can be seen the results of block sales testing, when block sales occur, the total and temporary impacts are -0.018% and -0.024% while the permanent impact shows positive price changes. Significant test results for total impact support hypothesis 1a which states that there is a negative price change at the time of block sales (total negative and significant impact), and the Wilcoxon sign test found that negative and significant temporary impact support hypothesis 1b which states that there is a price reversal in period after block sales. This result supports the price reversal in the period after the block sales, which indicates that prices change temporarily due to large amounts of sales causing sales pressure on prices, but this sales pressure slowly disappears and prices will return to the initial equilibrium price. Hypothesis 1c states that there is a permanent price change at the time of block sales, the test results for permanent impacts show a positive sign (which is expected to be a

negative change) so that hypothesis 1c is not supported. This shows that the demand curve for shares is horizontal and there is no information carried on block sales. Based on these results, it can be concluded that when block sales occur, a negative price change (stock price decreases) and this price change is temporary which supports the price pressure hypothesis.

The testing results of hypotheses 2, 3, 4, 5, 6 and 7 are summarized in the table 4.3 below.

Table 4.3. The Test Result of Buy-initiated and Sell-initiated by Foreign and Domestic Investors

Categories	Total Impact	Temporary Impact	Permanent Impact
	Panel A.Sell Initiated		
By Domestic	-0.0003	-0.00049*	0.00019
	(-6.88)	(-3.44)	(1.32)
Wilcoxon Test	0.0001*	0.0002*	0.3517
No. of Obs.	841	841	841
By Foreign	-0.00038*	-0.00008	-0.00031**
	(-7.11)	(-0.66)	(-2.31)
Wilcoxon Test	0.0001*	0.3492	0.0065*
No. of Obs.	865	865	865
Domestic-Foreign	0.000089	-0.00041	0.0005
	(1.29)	(-2.23)	(2.54)
Wilcoxon Sign	0.0181	0.1312	0.0087
	Panel B. Buy Initiated		
By Domestic	0.000265*	-0.00005	0.000315**
	(6.32)	(-0.34)	(2.12)
Wilcoxon Test	0.0001*	0.7521	0.0149**
No. of Obs.	897	897	897
By Foreign	0.00031*	0.00015	0.000165
	(7.54)	(1.09)	(1.17)
Wilcoxon Test	0.0001*	0.2905	0.0230**
No. of Obs	891	891	891
Domestic-Foreign	-0.00005	-0.00020	0.000150
	(-0.86)	(-1.00)	(1.11)
Wilcoxon Sign	0.0384**	0.2694	0.9655

*Significant on level 1% **Significant on level 5% ***Significant on level 10%

Hypothesis 2 states that there are temporary price changes at the time of sell-initiated by foreign and domestic investors. The results of one-sample t-test and Wilcoxon signed rank (Table 4.3 panel A) indicate a temporary negative price change at the time of sell-initiated of domestic investors. This result provides support for hypothesis 2 which proves the existence of price pressures at the time of the sell-initiated of block carried out by domestic investors, but is not supported for foreign investors since there are no negative and significant temporary price impacts.

Hypothesis 3 states that there is a permanent price change at the time of the sell-initiated by foreign and domestic investors. The Wilcoxon signed rank results (Table 4.3 panel A) support hypothesis 3, on average there is a significant negative permanent price change at the time of sell-initiated by foreign investors, but no significant negative permanent impact is found for domestic investors. Therefore, based on this result there is information on block sales by foreign investors. Hypothesis 4 was not tested since there are no permanent price impacts on block sales by domestic investors.

Hypothesis 5 states that there are temporary price changes at the time of buy-initiated carried out by foreign and domestic investors. One-sample t-test and Wilcoxon signed rank test results (Table 4.3 panel B) show even though prices change positively (as predicted) but they are not significant, so hypothesis 5 is not supported.

Hypothesis 6 states that there are permanent price changes at the time of buy-initiated carried out by foreign and domestic investors. The Wilcoxon signed rank test (Table 4.3 panel B) shows a permanent and significant price change for buy-initiated by foreign and domestic investors, so that this result supports that buy-initiated carried out by both types of investors has information that causes prices to change permanently. Based on these results, it is found that there is information content that is carried out during trading so that prices change permanently since the information hypothesis states that the information carried on the trading causes the information to be immediately reflected in the stock price, so that prices will change permanently.

Hypothesis 7 states that there are differences in the impact of permanent prices between foreign and domestic investors, the test results found no difference in the permanent impact between the two investors, so that hypothesis 7 is not supported. Based on these results, it is found that the amount of information held by the two investors is the same.

Based on the test results of hypotheses 2, 3, 4, 5, 6 and 7 (Table 4.3), it can be concluded that the price changes that occur at the time of sell-initiated by domestic investors are temporary since prices experience changes due to price pressures but the pressure on these prices slowly will disappear and the price will return to the initial equilibrium point. The results of the sell-initiated test by a foreign investor are permanent, indicating the presence of information that is carried out when a foreign investor initiates a sale. In addition, the test results at buy-initiated by foreign and domestic investors found that the price changes that occur are permanent, so that it supports the information hypothesis which states that large trading (blocks) helps to enter information into stock prices and the amount of information between the two investors is the same, so there is no difference in the size of the permanent price impact between the two investors.

This research attempts to test whether the theory is able to explain the block sale events that occur on the IDX. The test results show that there are negative price changes at the time of block sales (prices fall in the period after the block sales) and this price change is temporary. Therefore, it can be concluded that block sales on the IDX can be explained by the price pressure hypothesis which states that large amount of sales cause prices to change (down) and shifts from the initial equilibrium price but a few moments later this price pressure slowly disappears and the price returns to the initial equilibrium point, so that the test results support the price pressure hypothesis that is able to explain the price changes that occurred at the block sales on the IDX.

The next test relates to the information hypothesis, the results of empirical research find information content that is carried out during the trading depends on whether trade is a buy-initiated or sell-initiated, and also depends on the party or

identity behind the transaction (Scholes, 1972). On the IDX, there are two types of investors, namely foreign and domestic investors. The price impact between these two investors may differ depending on who initiates. Distinguishing between sell-initiated and buy-initiated by foreign or domestic investors can provide an opportunity to test whether there is a content of information carried on the trading and whether there is a difference in the size of the information content. Parties that have a greater price impact are more superior parties in the information of Dvorak (2001) and Choe et al., (2001).

Efficient market hypothesis (Fama, 1970) states that investors are able to respond to market information rationally and efficiently so that stock prices will reflect all information available to the public. An efficient market will prevent traders who do not have special information to get abnormal returns and because the market is efficient and stock prices reflect all available information, when trading carries information, that information will immediately be reflected in stock prices and prices will change permanently. Scholes (1972) states that the identity behind the trading can indicate which party has more information, with the block trading setting on the IDX can be done by distinguishing which party initiates trading and investor identity behind the initiation of the trading.

The results of different tests which are based on which party initiates found that when block sales made by domestic investors, there are temporary price changes. The finding of a temporary impact on sell-initiated by domestic investors supports the price pressure hypothesis and is in line with the results of previous studies such as the studies of Krauss and Stoll (1972), Chan and Lakonishok (1993), Keim and Madhavan (1995) and Alzahranai et al. (2010) which found that prices changed temporarily when there was a large number of sales that supported the hypothesis of price pressure since large sales put pressure on prices but the pressure on these prices slowly disappeared and prices would return to the initial equilibrium price. The results of this study are also able to be explained by the arguments given by Chan and Lakonishok (1993) and Keim and Madhavan (1995) which state that the decision of

investors to make large amounts of sales is done not because of information but one of them may be due to limitations in the portfolio owned by investors, so investors decide to make a sale.

The study result of block sell-initiated by domestic investors provides support for the price pressure hypothesis which assumes that investors consider securities as a unique commodity so that it is not perfectly elastic which results in large trade such as block trading, stock prices should fall to encourage investors to buy additional shares because of the demand curve for stocks is sloping down. This hypothesis states that when the demand curve for stocks is not perfectly elastic, a large flow of funds into (out of) the market will push the price of securities to go up (down). There is a purchase (sales) pressure on the market that pushes prices up (down) which results in a temporary deviation from the equilibrium price resulting in a positive (negative) market return, but a moment later the purchase (sales) pressure on this market slowly disappears and the price returns to initial balance.

The test result of the block sell-initiated by foreign investors found a negative and significant permanent price change. This result provides evidence that the trading carried out by foreign investors has information content. The efficient market hypothesis states that trading will enter information into the stock price if it has information and because the market is efficient, all available information will immediately be reflected in the stock price. In addition, this result also supports the results of Easley & O 'Hara, 1987; Karpoff, 1987 in Sun & Ibikunle, 2015, which found that investors or market participants prefer trading with large volumes to minimize transaction costs and to maximize profits obtained through trading activities that have information content. This is done because of competition from other market players who also have information and also because the private information they have may be short-term, so that large trading brings information into the market which causes prices to change permanently.

Sell-initiated by domestic investors on the IDX supports the price pressure hypothesis and also the arguments given by Chan and Lakonishok (1993) and Keim

and Madhavan (1995) which state that the decision to sell one stock is not always due to negative information, but is likely due to limitations in portfolio so that investors have to make sales. While on the side of sell-initiated by foreign investors, there is no temporary impact but a permanent impact. The finding of a permanent impact on the side of sell-initiated by foreign investors shows that foreign investors on the IDX are investors with large capital, so that they make sales due to information.

The test results of block buy-initiated found a significant permanent impact at the time of block buy-initiated by domestic and foreign investors. The finding of the permanent impact of block purchases by both investors is in accordance with the information hypothesis and the results of previous tests such as the research of Krauss and Stoll (1972), Chan and Lakonishok (1993), Keim and Madhavan (1995) and Alzahranai. (2010). In line with efficient markets, trading that has information will immediately be reflected in the stock price. Chan and Lakonishok (1993), Keim and Madhavan (1996) and Saar (2001) state that buy-initiated carried out by investors usually contains company-specific information and the decision to buy one share compared to many other shares is generally done because of information.

Based on the test results of which parties doing sell and buy initiated, it was found that sell-initiated by domestic had a temporary impact (supporting the hypothesis of price pressure) and sell-initiated by foreign investors had a permanent impact (supporting the information hypothesis). Meanwhile, buy-initiated by domestic and foreign investors had a permanent impact (supporting the information hypothesis) and the amount of information between the two investors is the same. These results prove that foreign investors are superior in accessing and executing company information when it relates to negative news and information and when related to positive information, the two types of investors have the same amount of information.

CONCLUSION AND RECOMMENDATION

Some conclusions obtained from this study are 1) Block sales that occur on the IDX in the period of 2015 to 2017 can be explained by the price pressure

hypothesis, 2) At the sell-initiated of domestic investors, it is found a temporary price change that gives support for the price pressure hypothesis, while foreign sell-initiated finds permanent price changes that provide support for the information hypothesis, and 3) At the buy-initiated of foreign and domestic investors, there found to be permanent and significant price changes. These results confirm the existence of information that is carried out at the time of the buy-initiated for both types of investors and the amount of information held by the two investors is the same.

The research limitations and suggestions that can be given in this study are as follows: 1) Research on block trading is carried out by the method of Holthausen et al., (1989) because so far no other method has been able to measure block trading by using intraday data. This study also adopts the method of Holtahusen et al., (1989); future research can develop other methods or measurements related to block trading using intraday data, 2) The impact of block trading in this study has not distinguished the impact on different market conditions; some research empirically found the impact of prices can differ based on market conditions (bearish or bullish). Future research can distinguish whether there are differences in the price impact on different market conditions using the Indonesia Stock Exchange settings. Future research can also divide samples based on company or industry size to test whether company size and industry differences affect the significance of the price impact that occurs.

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Are All Related Party Transactions The Same? A study in Indonesia Stock Exchange.

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Abstracts

This study aims to examine the effect of related party transactions (RPTs) conducted by public firms in Indonesia Stock Exchange. RPTs are known to have positive and negative effect for the firms especially their minorities shareholder. To disentagle the two possible effect, sub-categorizations of RPTs are employ such as trade activities, receivables activities, service payment activities and asset activities for the negative effect (tunneling); and cash receipt activities for the positive effect (propping). The research sample is all public firms listed in IDX that conducted RPTs during 2009-2015. The hypothesis are tested using panel data with random effect, fixed effect or OLS method. The result shown that these categorizations are useful in disentagling the effect of RPTs to firm value. Furthermore, good corporate governance mechanism are also examine to study their role in lowering the negative effect and enhacing the positive effect of RPTs to firm value. The result shown that some good corporate governance mechanism play an important role in moderating the relationship between RPTs and firm value.

Keywords: Good Corporate Governance; Propping; Related Party Transactions; Tunneling.

1 Introduction

For the past 30 years, practical and academic approach to corporate governance has focused on problems of expropriation towards investor known as self-dealing, private benefit of control or tunneling (Grossman, Hart, Grossman, & Hart, 1982). Those who held control over company such as companies' executives and managers, controlling shareholders, or both (also knowns as insiders of the firm) have the ability to use their control to transfer the wealth of the company for their own self interest and share these wealth among them. Some activities of self-dealing including excessive luxury benefits for excecutives, transfer pricing, benefiting from firm's opportunities, self-serving financial transactions such as issuance of new stocks for certain buyers determined ahead of transactions or personal loans to firm's insider, and at worse form is stealing firm's assets (Shleifer & Vishny, 1997).

According to researches conducted by Djankov et al. (2008); La Porta, Lopez-de-Silanes, & Shleifer (1998); and La Porta et al. (1997), legal protection of outside investors may deter the expropriation by corporate insiders which may lead to financial development. Furthermore, they state that the rule of law that protects investors is systematically different between legal tradition or origin of the law, where countries that adhere to the common law legal system (derived from United Kingdom law) would provide higher protection to investors compare to countries that adhere to the civil law system (derived from Roman law), especially countries that adhere to French civil law, such as Indonesia. Countries with a civil law system are associated with higher government ownership and

regulation which would cause adverse impacts on markets such as higher corruption, higher informal economy and higher unemployment rate. In addition, civil law is also linked to higher formal legal procedures which will lead to poor contract enforcement and weak ownership rights. This condition makes it possible for a high level of concentrated ownership to occur which lead to the expansion of external investors or non-controlling shareholders.

Nearly 70 percent of public companies in East Asia, including Indonesia is incorporated in a business or affiliate group (Claessens & Fan, 2002). Companies in this type of business group often involved in internal markets through related party transactions (RPTs) between companies in their business group or between companies and their owners. On one hand, RPTs are carried out for economic reasons as an efficient and optimal transaction for all members of the company in the business group (term as propping). While, on the other hand, internal markets that are built on highly concentrated ownership and complex control structures in business group may produce high agency problems which lead to inaccurate and inefficient resource allocation (term as tunelling) (Claessens & Yurtoglu, 2012). Firms in Indonesia are characterized to have a high concentration of ownership, while, protection of investors and law enforcement are weak which creates a high risk of expropriation of minority shareholders (Budiyanti, Husnan, & Hanafi, 2018).

Therefore, research on RPTs is crucial, especially in Indonesia. Based on preliminary observations, almost all public companies in Indonesia conduct such transactions. These RPTs may influence stock performance, financial position and value of the public company(Aharony, Wang, & Yuan, 2010; Cheung et al. 2009; Cheung, Rau, & Stouraitis, 2006; Ryngaert & Thomas, 2012), as well as used for earnings management purposes (Hall, Agrawal, & Agrawal, 2013).

In addition, the level of compliance regarding disclosures of RPTs on financial statement of Indonesia companies is relatively low (Budiyanti et al. forthcoming; Utama, Utama, & Yuniasih, 2010). Thus, the financial statement has not performed effectively in assisting its user in giving information to assess whether RPTs are carried out for economic or opportunistic purposes. Although the monitoring council of Indonesia stock market (Bapepam) has tightened the rules regarding affiliate transactions and conflicts of interest through the issuance of Bapepam and LK regulations No. IX.E.1 of 2009, especially rules that obliged public companies to make public announcements no later than 3 days after the affiliate transaction is carried out. However, there is still some relaxation in the Bapepam regulation in which it does not require public disclosure regarding RPTs that are not related to the company's main activities. Despite empirical evidence on companies in Hong Kong which use some outside main activity transactions, namely the sale and purchase of assets between companies and controlling shareholders as a way to conduct tunneling activities (Cheung et al., 2009, 2006).

Aharony et al. (2010) find evidence that firms use sales transactions of goods and services to related parties to increase profits before the IPO and this profit manipulation before the IPO was motivated by tunneling activities after the IPO such as loans to related parties. Bertrand, Mehta, & Mullainathan (2002) report that RPTs related to firm's non-operational activities are more likely to be used as a means of transferring wealth by controlling shareholders as it involves subjective valuation and company's policy compared to the firm's operational activities. Bapepam and LK also give authority for companies to self-assess whether or not their RPTs contain conflicts of interest. While, the regulatory implications concerning conflicts of interest are more stringent, thus, it is very rare for companies to recognize their RPTs contain conflicts of interest. In addition, weak law enforcement in Indonesia provides an opportunity for expropriation through RPTs.

Furthermore, according to previous studies, corporate governance may reduce management opportunistic behavior related to RPTs, increase the efficiency of RPTs and increase company value (Al-Dhamari et al. 2018; Bhagat & Bolton, 2008; Chien & Hsu, 2010; Gordon, Henry, & Palia, 2005). Thus it is expected that corporate governance may moderate the relationship between RPTs related to market reaction, company performance and company value. In addition, despite the magnitude of the influence of corporate governance mechanisms and ownership structures, there are still many conflicting and diverse results regarding the mechanism of corporate governance and ownership structure in influencing RPTs. Therefore, it is deemed necessary to examine the influence of corporate governance mechanisms in this study.

This study bear some similiarities and differences from previous studies in the field of type II agency problems that face many developing nations. Some differences are the categorizations of RPTs to detangle their positive (propping) effect and negative (tunneling) effect. Such categorization of RPTs for tunneling effect are trade activities (sales and purchase); service payment activities; account payable activities, and asset activities. While categorization of RPTs for propping are cash receipt activities (current and non-current account payable). We also study the role of corporate governance mechanism in detering the negative effect of RPTs and ehancing the positive effect of RPTs.

The result of this study shown that most categorization for each tunneling RPTs will give negative effect, while propping activities will give positive effect to firm's value. In testing corporate governance mechnism, the results conclude when a company audits its financial statements with a BIG4 auditor, it has a large audit committee, has a large proportion of independent directors and commissioners, may serve their fuction to monitor RPTs effectively and change the nature of RPTs from opportunistic to efficient. While a high DIRCOM_SH and SH_MAIN strengthen the negative relationship and weaken the positive relationship. That is, when the proportion of directors and commissioners who are

part of the controlling shareholder is large, and the percentage of main shareholders ownership is large, may disrupt the supervisory function of corporate governance which make RPTs remain as opportunistic transactions and may harm non-controlling shareholders.

2 Theoritical Background

The first published study to document RPTs was conducted in the United States by Gordon & Henry (2004). They observed 112 public companies in the United States and revealed matters relating to RPTs in 2000 and 2001 and argued that companies with more RPTs activities would have lower stock *returns*. This line of argument is consistent with the view that RPTs harm the outside investors. In addition, they also found that RPTs are less common in companies that have stronger corporate governance mechanisms.

Kohlbeck & Mayhew (2010) conclude that RPTs were related to weak corporate governance, higher CEO compensation, and lower future stock returns. Lower stock returns are evident in simple and non-complex RPTs involving controlling shareholders and the board of directors. While higher stock returns are found partly in companies that conduct RPTs for investment activities. Thus, simple RPTs involving controlling shareholders and board of directors are in accordance with agency hypotheses and opportunistic actions, while RPTs for investments purpose are in accordance with the hypotheses of economic efficiency contracts.

Furthermore, by focusing on the implications of the firm's value against RPTs disclosure, Kohlbeck & Mayhew, (2014) study the disclosure of financial statements of public firms listed in the S & P 1500 in the United States on 2001. Their findings indicate that the market value of a company's residual income that carries out RPTs is lower compared to companies that do not conduct RPTs. This shows that investors lack of trust in income reported by companies that conduct RPTs and discount shareholder’s returns from their future income. In addition, companies that disclose RPTs in their financial statements are associated with lower stock returns and negative market values compared to companies that do not disclose RPTs. This finding is only evident in simple RPTs involving controlling shareholders, board of directors and company managers. While more complex RPTs and related to investment are positively related to stock returns and the company's future income.

Research on RPTs is rarely carried out in the United States due to the more spread ownership structure of public companies which impose them to the agency conflict type I, namely agency conflict between company managers and company owners. As a result, problems regarding expropriation of controlling shareholders and the use of RPTs as one of the potential ways of expropriation have become less relevant to be investigated. Research on RPTs has developed rapidly in Asian countries, especially China, Hong Kong and Korea, where the ownership structure

is more concentrated and they face type II agency conflict, namely the conflict of interest between controlling shareholders and non-controlling shareholders. Johnson et al. (2000) argue by using a legal case involving companies in Europe, the expropriation of non-controlling shareholders through RPTs is more likely to occur in the capital markets of developing countries with a legal system and poor legal sanctions.

Cheung et al. (2006) state that public companies in Hong Kong experienced *negative abnormal stock returns* when they announced RPTs activities. Cheung et al. (2009) find evidence that sale of assets of public companies in Hong Kong to related parties was carried out at unfavorable prices when compared to similar arm's length transactions. They also find that *tunneling* and *propping* activities occurred often in their study sample, though *tunneling* activity was far more frequent than *propping* activities. Their next finding is the existence of a negative relationship between ROE and *excess return* which indicates that companies with good performance will experience a greater decline in value from *tunneling* activities. Their findings consistently show that RPTs are used by controlling shareholders to facilitate their opportunistic behavior by *tunneling* assets out of companies that have good performance to *prop up* companies with poor performance.

Research conducted by Ming (2003) reports that public companies in China are often involved in RPTs and the volume of RPTs is negatively related to firm value. Berkman, Cole, & Fu (2009) find evidence that controlling shareholders in China using debt guarantees to transfer value from companies where they had fewer ownership shares to the companies they have more ownership. Ariff & Hashim (2013) conducted research on 144 public companies in Malaysia and They find a positive relationship between the level of disclosure of related party transactions and professional affiliation and company size, but found no support for other research variables. Furthermore, Budiyanti et al. (Forthcoming) find evidence that public companies in Indonesia who conducted RPTs are likely associated with tunneling motives rather than propping motives.

Some studies also examine agency problems between controlling shareholders and non-controlling shareholders in companies within a business group. Bae, Kang, & Kim (2002) test *value added view* (add value to group members) and *tunneling view* (opportunity for controlling shareholders to transfer resources to the benefit of controlling shareholders) in the context of mergers and acquisitions and find that when *chaebol-affiliated firms* make acquisitions, the average stock price drops so that the controlling shareholders would make profit as the acquisition increases the value of other companies in the same business group. Results of this study are in line with Bertrand et al. (2002) who also find evidence that business group owners expropriated non-controlling shareholders by transfering resources out of the company with low cash flow rights to companies with high cash flow rights.

Furthermore, Atanasov, Black, & Ciccotello (2007) classify tunneling into three categories, namely *cash flow tunneling, asset tunneling,* and *equity tunneling. Cash flow tunneling* is part of the company's current cash flow, yet it does not affect its long-term productive assets, thus it does not have direct affect on the company's value. Examples such as *transfer pricing* (sales of output to intermediaries controlled by company insiders under market prices or purchases of inputs above market prices), excessive salaries and bonuses to company executives, and purchases or sales of assets on a small scale that do not affect the company's capacity to obtain cash significantly.

Research conducted in Malaysia by Munir & Gul (2010) state that RPTs conducted in family firms were used as a mechanism to expropriate minority shareholders. Their findings indicate that RPTs are negatively related to firm performance. They also find that the negative relationship was stronger in family firms compared to non-family firms. Based on these findings, they argued that RPTs enhanced arguments for *entrechment* and *tunneling* practices that support the hypotheses of conflict of interest (opportunistic behavior) from the use of RPTs.

Apart from numerous results of research on the expropriation of non-controlling shareholders through RPTs, results from previous studies nevertheless bring mixed and conflicting results related to the role of RPTs in expropriating non-controlling shareholders. The law itself does not completely prohibit the existence of RPTs regardless of the existing debate concerning the detrimental of RPTs associated with the expropriation of non-controlling shareholders. On the other hand, RPTs are considered as normal business practice apply on normal business operations and allocation of resources between affiliated companies. In line of this argument is study by Gallery, Gallery, & Supranowicz (2008) who state that public companies which conduct RPTs on a large scale are not involved in opportunist earnings management activities. Therefore, RPTs may be a double edged sword for the company, which on one hand can have a negative impact if done with the purpose to gain interests for the controlling shareholder at the expense of the interests of shareholders of non-controlling and on other hand may have a positive impact if done with the aim of efficiency to maximize the welfare of all company owners and investors.

Djankov et al. (2008) indicate the fact that no country in the world completely prohibits RPTs. They study RPTs on country level and the benefits obtained from RPTs are greater than the costs incurred. While, at the company level, RPTs may increase the operational efficiency of the company. For example, some companies can benefit from RPTs by making strategic investments in *joint ventures* in such a way that they can obtain and secure access to supplies needed by companies or potential markets which will reduce their business risks (Kohlbeck & Mayhew, 2014).

Wong & Kim (2015) study public companies in China and find that the sale to related parties increased the value of the company. However, the increase in value disappears in the company with (i) the high percentage of directors from parent companies, (ii) high government ownership, or (iii) tax avoidance incentives often followed by rent-seeking activities by management. In the end they concluded that the sale to related party may increase the value of the company only if the transaction can increase the efficiency of the allocation of internal resources between affiliated companies in the same business group. However, this increase in value will be reduced in a condition where the controlling shareholders of affiliated companies, such as parent company that are not a *public* firm or a government firm, carry out their control which is in conflict with the interests of affiliated companies.

Based on the previous discussion, research hypotheses are stated as follows;

H_1 : RPTs with *tunneling* potential are negatively related to the performance of public firms.

H_2 : RPTs with *propping* potential are positively related to the performance of public firms.

Corporate Governance Mechanism

The next research question to be discussed in this study relates to corporate governance and ownership structure in increasing or reducing the negative effect of *tunneling* RPTs on financial performance and company value. According to previous studies corporate governance may reduce management opportunist behavior related to RPTs, increase the efficiency of RPTs and company value (Bhagat & Bolton, 2008; Chien & Hsu, 2010; Gordon et al., 2005; Tsai, Chang, & Chang, 2015).

Independence directors is one of the important characteristics in the board of directors structure (Adams, Hermalin, & Weisbach, 2008; Guest, 2009; Jensen, 1993). Higher levels of independence for board of directors will increase the efficiency of their supervisory role (Bhagat & Black, 2002). According to agency theory, it can be expected that the more independent directors sit on the board of directors may increase the role of supervisory board of directors. Therefore, it can be assumed that the presence of more independent directors in the board of directors will improve the quality of earnings and the level of information of the company and reduce the opportunistic behavior of management and controlling shareholders of the company.

In addition, the function of independent commissioners who represent minority shareholders in the board of commissioners is also important. The definition of independent commissioners according to Nam & Nam (2004) are commissioners who are not company's employees nor relatives/families

of majority shareholders and do not have serious business interests in the company. Appointment of commissioners and establishment of audit committees is a key measure of reform that significantly improves the function of the board of commissioners and makes the board of commissioners more effective in carrying out the interests of the whole company and shareholders not only in the interests of majority shareholders.

Studies conducted by Byrd & Hickman (1992); Coles, McWilliams, & Sen (2001); and Muchemwa, Padia, & Callaghan (2016) show that the greater representation of independent commissioners will improve the strategic control function of the commissioner. Through close supervision, independent commisioners may reduce the excessive risk taken by non-independent commissioners. Survey of 515 companies in Korea by Black, Jang, & Kim, (2006) show that firms with the proportion of 50% independent commissioners have a higher Tobin's Q ratio, thus supporting the view that in companies whose board of commissioners are larger will results in higher stock prices in developing markets.

In cross-country research, Dahya, Dimitrov, & McConnell (2008) find evidence that board independence have a negative effect on RPTs which indicated that more independent directors in the company would reduce the tendency for conducting RPTs. Similar results were found in research in China by Lo, Wong, & Firth (2010) and Australia by Gallery et al. (2008). This follows the general expectations in the study of the relationship between independence directors and RPTs that independent directors can act more effectively as supervisors than insider or non-independent directors. Therefore, it can be expected that board independence is negatively related to RPTs.

As to corporate governance mechanism relating to the audit committee, in many countries, public companies are required to have an audit committee and there are specific rules governing membership in the committee. The audit committee may enhance good corporate governance by overseeing the accounting and auditing processes within the company. In addition to the existence of the audit committee, the technical competence of the audit committee is conjointly important. The Sarbanes Oaxley Act (SOX) requires public companies in the United States to disclose whether they have financial experts on their audit committees. Gallery et al. (2008) find that companies with financial experts on audit committees have lower level of earnings management. Alves (2014) show a positive market reaction to the announcement of the appointment of financial and accounting experts in the company's audit committee and did not find a significant reaction to the appointment of non-financial or accounting experts in the company's audit committee. Lo et al. (2010) report that a company with a lower percentage of directors representing parent company, having different people held the position of chairman and CEO, have financial experts in the audit committee, would have a lower tendency to manipulate transfer pricing on RPTs.

Meanwhile, Cheung et al. (2009) examine directly the effect of board independence and the existence of an audit committee on the price of transfers on RPTs related to asset transfers. They find evidence that the existence of an audit committee was the only characteristic of corporate governance that affect price setting on the acquisition and sale of assets. Companies that have audit committees will pay lower prices for RPTs related to asset acquisition and obtain higher prices for RPTs related to asset sales.

Other evidence from research in China supports the statement that the more outside directors in the company board of directors may prevent *tunneling* activities through operational activities. Gao & Kling (2008) study the effect of corporate governance mechanisms on *tunneling* through operational activities based on public company data in China from 1998 to 2002. They used the difference between the value of receivables RPTs and debt RPTs as *tunneling* measurements. They find that directors from outside the company deter operational *tunneling* activities. In addition, Chen, Chen, & Chen, (2009) conduct research in China during 2002-2006, and find that the higher the purchase RPTs made by public companies, the highet the financial performance of the company. This finding occurs when a public company is a controlling party. However, when a public company is a concentrated company controlled by controlling shareholders, there is a negative relationship between RPTs related to the company's financial performance. This finding shows that controlling shareholders in public companies in China use RPTs regularly for their own benefit.

Yeh, Shu, & Su (2012) conducted research in the Taiwan capital market where they use board structure variables as part of the measurement of corporate governance variables. They include board control, supervisor control and board independence. They show that high board control by controlling shareholders shows a negative board structure. They also find evidence that good corporate governance is effective in controlling RPTs.

Furthermore, Selcuk & Sener (2018) examine whether internal governance mechanisms affect tunneling through intercorporate loans for a sample of Turkish listed non-financial firms over the period 2006 to 2014. While the findings reveal a significant and positive relationship between state ownership and tunneling and a significant and negative relationship between foreign ownership and tunneling, the relationship between family ownership and tunneling is non-linear. In addition, while board size is negatively associated with tunneling, independent directors do not prevent the embezzlement of resources. Furthermore, the results indicate that older firms, firms with family chairman and higher growth opportunities are more likely to engage in tunneling activities, while firm size, high cash holding, leverage and financial distress do not affect tunneling.

Therefore, from the previous discussion, it can be concluded that the mechanisms of corporate governance such as the independence of the board of

directors and commissioners; the existence of an audit committee within the company; the existence of a board of directors and commissioners who are part of the controlling shareholders; have an important role in preventing, reducing or increasing *tunneling* activities through RPTs. Thus, hypotheses are stated as follows:

H $_{3a}$: Good corporate governance mechanism will weaken the negative influence of RPTs with *tunneling* potential to company performance.

H $_{3b}$: Good corporate governance mechanism will strengthen the positive influence of RPTs with *propping* potential the company's performance.

3. Research Method

Sample Selection

All Public firms conducted RPTs transaction in Indonesia Stock Exchange between 2009-2015.

Dependent Variable The dependent variable in hypotheses 3 and hypotheses 4 is measured by net profit margin, *Return on Asset* , and Tobin's Q to measure firm value.

1. **Net Profit Margin**

$$Net\ Profit\ Margin = \frac{Net\ Profit}{Sales}$$

2. ***Return On Asset (ROA***).

$$Return\ on\ Asset = \frac{net\ Profit}{Total\ Asset}$$

3. **Firm's value (Q).**

Tobin's Q is the equity market value plus the book value of debt divided by the book value of assets. This measurement refers to previous studies such as, Claessens & Fan (2002); Faccio & Lang (2002); and Wong & Kim, (2015).

$$Q = \frac{Market\ Value\ of\ Equity + Book\ Value\ of\ Debt}{Total\ Asset}$$

Independent Variables

Related Party Transactions (RPTs)

RPT is a transfer of resources, services or obligations between a reporting entity with related parties, regardless of whether there is a price charged (SFAS No.7 of 2010) or not. To test hypotheses 1, RPTs could be further decomposed into several sub-categories with one for each being explored separately such as, trade transactions, cash payment transactions, and asset transactions. The following is a measurement of each RPT includes in this study.

Measurement of Trade with Related Party (TRP)

Variable of TRP	Measurement
Sale to Related Party	$\frac{Total\ Sales\ to\ Related\ Party}{Total\ Sales}$
Purchase from Related Party	$\frac{Total\ Purchases\ from\ Related\ Party}{total\ purchases}$

Measurement of Service Payment to Related Party (SRP)

Variable of SRP	Measurement
Service Payment to Related Party	$\frac{Total\ Service\ payement\ to\ Related\ Party}{total\ asset}$

Measurement of Receivables of Related Party (RRP)

Variable of RRP	Measurement
Trade Receivables to Related Party	$\frac{Total\ trade\ receivables\ to\ related\ party}{total\ \ account\ receivable}$
Account Receivable to related party/ TA	$\frac{Total\ account\ receivables\ to\ related\ party}{total\ asset}$
Net receivables to related party / TA	$\frac{Total\ receivables\ to\ related\ party - Total\ debt\ from\ related\ party}{total\ asset}$

Measurment of asset sales and acquisition to Related Party (ARP)

Variable of ARP	Measurement
Asset acquition	$\frac{total\ asset\ acquition\ from\ relate\ party}{total\ aset}$
Asset sales	$\frac{total\ asset\ sales\ to\ related\ party}{total\ aset}$

To test hypotheses 2, RPTs with propping potential, categorization of RPTs in this research is using measurement below:

Measurement of Cash Receive from Related Party (CRRP)

Variable of CRRP	Measurement
Account payable	$\frac{total\ \ account\ payable\ from\ related\ party}{total\ account\ payable}$
Non-Current Account Payable	$\frac{total\ \ Non-current\ account\ payable\ from\ related\ party}{total\ Non-current\ account\ payable}$
Others Account Payable	$\frac{total\ \ others\ account\ payable\ from\ related\ party}{total\ others\ account\ payable}$

Testing Hypothesis 1

$$NPM = \alpha_{21} + \alpha_{22}(TRP) + \alpha_{23}(SRP) + \alpha_{24}(RRP) + \alpha_{25}SIZE + \alpha_{26}IP + \alpha_{27}IT + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

where:

NPM : Net Profit Margin
TRP : Trade with Related Party
SRP : Service Payment to Related Party
RRP : Account Receivables to Related Party
SIZE : Log Natural of total aset
IP : Industry performance
IT : Industry Type

$$ROA = \alpha_{31} + \alpha_{32}ASRP + \alpha_{33}SIZE + \alpha_{34}SALESG + \alpha_{35}DEBT + \alpha_{36}\,KI + \alpha_{37}JI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (3)$$

Where:

ROA : Return On Asset
TAB : Asset Sales and Acquition of Related Party
SIZE : Log Natural of Total Asset
SALESG : Sales Growth
DEBT : Total Debt/Total Asset
KI : Industry Performance
JI : Industry Typ

$$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPT_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (4)$$

Dimana:

$Q_{i,t}$ = (Equity Market Value + Book Value of Debt) / Total Asset
ABN_RPT = Abnormal RPT based on Jian dan Wong (2010)
$SIZE_{i,t}$ = Log Natural of Total Asset
$DEBT_{i,t}$ = Total Debt / total aset
$LIQUID_{i,t}$ = Short Term Debt/ total Debt
MB_{it} = Market value of Equity / Book value of equity
$ROA_{i,t}$ = *Return on Asset*

Variables of abnormal RPTs are abnormal portions of RPTs made by the firm. This variable is used in several previous studies such as Jian & Wong (2010); and Wong & Kim (2015) to eliminate the normal component of related party transactions related to company characteristics and industrial effects.

To obtain the ABN_RPT variable, first OLS regression is conducted during the study period:

$$RPT_i = \alpha_0 + \alpha_{51} SIZE_i + \alpha_{52} DEBT_i + \alpha_{53} MB_i + (dummi\ industri) + \varepsilon \quad \text{.....(5)}$$

Where:

RPT = RPTs with *tunneling* potential, such as Sales to Related Party; account receivables to RP; etc

$SIZE_{i,t}$ = Natural log of total asset

$DEBT_{i,t}$ = Total debt / total s

MB_{it} = Market value of equity / book value of equity

ABN-RPTVariable is the residual from OLS regression above.

Testing Hypothesis 2

$$ROA = \alpha_{71} + \alpha_{72}(TRP) + \alpha_{73} SIZE + \alpha_{74} SALESG + \alpha_{75} DEBT + \alpha_{76} KI + \alpha_{77} JI + \varepsilon \quad \text{.....(7)}$$

Where:

TRP = Trade with Related Party

$$Q_{i,t} = \alpha_{41} + \alpha_{42} ABN\_RPT\_CRRP_{i,t} + \alpha_{43} SIZE_{i,t} + \alpha_{44} DEBT_{i,t} + \alpha_{45} LIQUID_{i,t} + \alpha_{46} MB_{it} + \alpha_{47} ROA_{i,t} + \varepsilon \quad \text{.....(9)}$$

Where:

CRRP = Cash Receive from Related Party

ABN_RPT_TDB = The Abnormal part of CRRP

Testing Hypotheses 3

In testing hypotheses 3 regarding how the corporate governance mechanism influences the relationship between RPTs and firms value, it is necessary to first explain the corporate governance mechanism apply in this study based on previous studies, such as:

1. Independent Directors and Commissioners (IND_DIR and IND_COM) are expected:

   a) The negative effect of RPT with tunelling potential to company value will be lower when the number of independent directors and independent commissioners of the company is higher

   b) The positive influence of RPT with propping potential to company value will be higher when the number of directors and independent commissioners on the board of directors and board of commissioners of the company are higher .

2. Audit Committee (DITCOM) are expected:

a) The negative influence of RPT with tunneling potential to company value will be lower when the company has an audit committee.
b) The positive influence of RPT with propping potential to company value will be higher when the company has an audit committee.
3. Independent directors and commissioners who are part of the controlling shareholder (DIRCOM_SH) are expected:
a) The negative influence of RPT with tunelling potential to company value will be higher when the number of directors and commissioners representing the parent company on the board of directors and the board of commissioners of the company is higher.
b) The positive influence of RPT with propping potential to company value will be lower when the number of directors and commissioners representing the parent company on the board of directors and the board of commissioners of the company is higher
4. Financial statements audited by auditors who are included in the Big Four (BIG4) are expected:
a) The negative influence of RPT with tunelling potential on company performance will be lower when the company financial statement is audited by a BIG4 auditor.
b) The positive effects of RPT with propping potential on company's performance will be higher when the company financial statement is audited by a BIG4 auditor.
5. Percentage of Major Shareholders (MAIN_SH), are excpected
a) The negative influence of RPT with tunelling potential to company performance will be higher when the percentage of major shareholders is higher.
b) The positive effects of RPT with propping potential to company's performance will be lower when the percentage of major shareholders is higher.

Table 1
Measurement of Good Corporate Governance Mechanism

Nama Variabel	**Pengukuran**
IND_DIR	Percentage of independent directors in board of director
IND_COM	Percentage of independent commissioners in board of commisioner
DITCOM	Total jumlah komite audit / total jumlah dewan komisaris
DIRCOM_SH	prosentase dari direksi dan komisaris yang mewakili pemegang saham pengendali dalam perusahaan adalah lebih besar daripada median dalam tahun periode sampel.
Big4	Variabel dummy yang bernilai 1 jika laporan keuangan perusahaan diaudit oleh auditor independen big 4 dan 0 jika

	sebaliknya.
MAIN_SH	Percentage of ownership by majority shareholders

Persamaan yang digunakan untuk menguji hipotesis 3a dan hipotesis 3b:

$$Q_{i,t} = \alpha_{101} + \alpha_{102}ABN\_RPT_{i,t} + \alpha_{103}BIG4_{i,t} + \alpha_{104}DITCOM_{i,t} + \alpha_{105}IND\_DIR_{i,t} + \alpha_{106}IND\_COM_{i,t} + \alpha_{107}DIRCOM\_SH_{i,t} + \alpha_{108}SH\_MAIN_{i,t} + \alpha_{109}\, ABN\_RPT_{i,t} * BIG4_{i,t} + \alpha_{1010}ABN\_RPT_{i,t} * DITCOM_{i,t} + \alpha_{1011}ABN\_RPT_{i,t} * IND\_DIR_{i,t} + \alpha_{1012}ABN\_RPT_{i,t} * IND\_COM_{i,t} + \alpha_{1013}ABN\_RPT_{i,t} * DIRCOM\_SH_{i,t} + \alpha_{1014}ABN\_RPT_{i,t} * SH\_MAIN_{i,t} + \alpha_{1015}SIZE_{i,t} + \alpha_{1016}DEBT_{i,t} + \alpha_{1017}LIQUID_{i,t} + \alpha_{1018}MB_{i,t} + dummi\ industri + \varepsilon \quad \text{.....(10)}$$

Where :

$Q_{i,t}$ = (Mv equity + Bv of debt) / BV of asset

$ABN\_RPT_{i,t}$ = abnormal portion of RPTs

$Big4_{i,t}$ = Variabel dummi yang bernilai 1 jika laporan keuangan perusahaan diaudit oleh auditor pada kelompok big 4 dan 0 jika sebaliknya.

$DITCOM_{i,t}$ = Variabel dummi yang bernilai 1 jika perusahaan memiliki komite audit dan 0 jika sebaliknya.

$IND\_COM_{i,t}$ = Prosentase komisaris independen dalam dewan komisari

$IND\_DIR_{i,t}$ = Prosentase direksi independen dalam dewan direksi

$DIRCOM\_SH_{i,t}$ = Prosentase komisaris dan direksi dalam dewan komisaris Dan dewan direksi yang menjadi bagian atau berhubungan dekat dengan pemegang saham pengendali

$SH\_MAIN_{i,t}$ = prosentase pemegang saham utama

$SIZE_{i,t}$ = Natural log dari total aset

$DEBT_{i,t}$ = Total hutang / total aset

$LIQUID_{i,t}$ = likuiditas diukur dengan hutang jangka pendek / total hutang

MB_{it} = Nilai pasar ekuitas / nilai buku ekuitas

$ROA_{i,t}$ = *Return on Asset*

4. Result and Discussion

Hypothesis 1

Table below present the summary of statistic descriptive for variables employ to test hypothesis 1.

$$NPM = \alpha_{21} + \alpha_{22}(TRP) + \alpha_{23}(SPRP) + \alpha_{24}(RRP) + \alpha_{25}SIZE + \alpha_{26}KI + \alpha_{27}JI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Table 3

Statistic Descriptive all variables in testing hypotheses 1

Variabel	N	Mean	Standard Deviation	Minimum	Maximum
NPM	2056	0.02430	0.6759	-8.767	8.5689
ROA	2051	0.0462	0.1379	-1.3579	0.9514
Q	2037	1.3817	1.7035	0	17.345
Sales (TRP)	1225	0.1944	0.2775	0	1
Purchase (TRP)	775	0.2047	0.2544	0	1
Trade Receivables to RP (RRP)	877	0.0207	0.0408	0	0.5259
AccRec.to RP (RRP)	1240	0.2417	0.2944	0	1
Current Account Receivable (RRP)	1464	0.0400	0.0755	0	0.9349
NonCurrent Acc. Receivable (RRP)	645	0.0248	0.0577	0	0.5951
Other Receivables (RRP)	32	0.0262	0.0518	0.0002	0.1855
Asset Acquisition (ARP)	93	0.0212	0.0357	0	0.1781
ABN_RPT Sales	1079	9.08e-09	0.2652	-0.2524	0.8856
ABN_RPT Purchase	683	1.90e-07	0.2398	-0.2322	0.8702
ABN_RPT Acc.Receivable	1102	7.28e-08	0.2843	-0.2963	0.7727
ABN_RPT Asset Acquisition	77	1.30e-07	0.0351	-0.0428	0.1561
SIZE	2051	6.244691	0.7775	2.9547	8.373
Debt	1911	0.2862	0.2834	0.00002	2.5303
Sales G	2041	0.2989	1.5633	-0.99044	34.335
Liquid	1844	0.566	0.3393	0.0003	1.7487
MB	1964	2.7775	5.6248	0.0555	92.812
Kinerja Industri	2053	-0.0048	0.5727	-4.8601	0.7575
Jenis Industri	2078	0.2820	0.4500	0	1

Tabel 3 menyajikan ringkasan deskripsi statistik variabel-variabel penelitian pada sampel perusahaan yang melaporkan transksi pihak berelasi pada laporan keuangannya untk periode tahun 2008-2014. Pengukuran variabel-variabel riset tersebut adalah sebagai berikut. NPM (Net Profit Margin) = Laba bersih/ Total Penjualan. ROA (Return On Asset) = Laba bersih / Total aset. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. Sales (TRP) = Total penjualan berelasi/ total penjualan. Purchase (TRP) = Total pembelian berelasi / total pembelian. Service Payment (SRP) = Total pembayaran jasa berelasi / Total Asset. Trade Receivables (RRP) = total piutang usaha berelasi / total piutang usaha. Piutang Lancar (TPB) = total piutang lancar berelasi / total asset. Piutang tidak lancar (RRP) = total piutang tidak lancar berelasi / total asset. Piutang lain-lain (RRP) = Total piutang lain-lain berelasi / total asset. Asset Acqusition (ARP) = pembelian aset berelasi pada satu periode tertentu / total aset. ABN_RPT penjualan; ABN_RPT pembelian; ABN_RPT_Piutang; ABN_RPT pembelian aset = residual dari regresi OLS (persamaan 5). Size = Natural Log total asset. DEBT = total hutang / total asset. SalesG = (Total Penjualan pada periode t – total penjualan pada periode t-1) / (total penjualan periode t). Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. Kinerja Industri = kinerja MLB industri. Jenis industri (dumi variabel) = 1 jika perusahaan masuk dalam industri manufaktur, dan 0 jika sebaliknya.

Table 3 reports summary statistics of all the variables used in this analysis to test hypotheses 1. The number of public companies used as samples in this study were 331 public

companies that conducted RPTs in the period 2009 - 2016. Only public companies from the financial industry are excluded from the study sample to avoid bias. Thus, it can be concluded that of the total 527 public companies listed on the Indonesia Stock Exchange as many as 331 public companies conduct RPTs and are included in this study or around 65% of the total public companies in Indonesia conduct RPTs. Mostly RPTs are carried out in the current account receivables and sales categorization, respectively. This data shows that RPTs are a normal phenomenon commonly exercised by most public companies on the IDX.

The average value of all variables are as follows; such as; net profit margin (NPM) is 0.024 which means that on average the net income generated by public companies in this study is 2.4 percent of total sales. For sales with related parties (SRP) the average is 0.1944 which means on average 19.44 percent of the total sales made by public companies are sales to related parties. For purchase with related parties (PRP), the average value is 0.2047 which means on average 20.47 percent of the total purchases made by public companies are purchases from related parties. For Return On Asset (ROA) is 0.046 which depicts that in any given year the average net income of samples companies are 4.6% of total asset. While Tobin's Q as dependent variabel use to measure companies performance has an average of 1.381 implying that market capitalization value plus biik value of debt are 1.381 time of the companie's asset.

Table 4

Testing Hypotheses 1 using MLB as Dependent Variable

$$\boldsymbol{MLB = \alpha_{21} + \alpha_{22}(TDB) + \alpha_{23}SIZE + \alpha_{24}KI + \alpha_{25}JI + \varepsilon \dots\dots\dots\dots\dots\dots (2.1)}$$

$$\boldsymbol{MLB = \alpha_{21} + \alpha_{22}(JPB) + \alpha_{23}SIZE + \alpha_{24}KI + \alpha_{25}JI + \varepsilon \dots\dots\dots\dots\dots\dots (2.2)}$$

$$\boldsymbol{MLB = \alpha_{21} + \alpha_{22}(TPB) + \alpha_{23}SIZE + \alpha_{24}KI + \alpha_{25}JI + \varepsilon \dots\dots\dots\dots\dots\dots (2.3)}$$

$$\boldsymbol{MLB = \alpha_{21} + (TPB) + \alpha_{23}SIZE + \alpha_{24}KI + \alpha_{25}JI + \varepsilon \dots\dots\dots\dots\dots\dots (2.4)}$$

Variables	**Arah Hub.**	**Persamaan (2.1)**	**Persamaan (2.2)**	**Persamaan (2.3)**	**Persamaan (2.4)**
Konstanta		0.665 ** (2.10)	0.699*** (2.31)	-0.4867** (-2.36)	-0.0436
Sales (SRP)	(-)	-0.103** (-2.65)			
Purchase (TDB)	(-)	-0.204* (1.66)			
Pembayaran Jasa (JPB)	(-)		-0.181*** (-2.17)		
Piutang usaha (TPB)	(-)			-0.166** (-2.36)	
Piutang Lancar (TPB)	(-)			-3.237*** (-2.14)	
Piutang Tidak Lancar (TPB)	(-)			-0.268 (-0.76)	
Piutang Lain-lain (TPB)	(-)				-0.655 (-1.03)

Size	(+)	-0.0209 (-0.20)	-0.00677 (-0.19)	0.0472 (0.24)	0.07202 (0.71)
Kinerja Industri	(+)	0.167** (2.22)	0.108*** (4.34)	0.255** (2.23)	0 .282 *** (2.64)
Jenis Industri			0.010 (0.18)		0.0681 (0.41)
Statistik F		21.21**	18.99***	6.70**	5.34*
Adjusted R2		0.1482	0.1243	0.1716	0.1781
Jumlah Observasi		631	846	359	31

Tabel 4 menyajikan ringkasan hasil pengujian hipotesis 1 dengan variabel margin laba bersih sebagai variabel dependen. Pengukuran variabel-variabel penelitian tersebut adalah sebagai berikut ini. MLB(Margin Laba Bersih) = Laba bersih/ Total Penjualan. Penjualan (TDB) = Total penjualan berelasi/ total penjualan. Pembelian (TDB) = Total pembelian berelasi / total pembelian. Pembayaran jasa (JPB) = Total pembayaran jasa berelasi / Total Asset. Piutang usaha (TPB) = total piutang usaha berelasi / total piutang usaha. Piutang Lancar (TPB) = total piutang lancar berelasi / total asset. Piutang tidak lancar (TPB) = total piutang tidak lancar berelasi / total asset. Piutang lain-lain (TPB) = Total piutang lain-lain berelasi / total asset. Utang usaha (TPB) = Total utang usaha berelasi / total utang usaha. Size = Natural Log total asset. Kinerja Industri = kinerja MLB industri. Jenis industri (dumi variabel) = 1 jika perusahaan masuk dalam industri manufaktur, dan 0 jika sebaliknya. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1%, ** = signifikan pada level 5%, dan * = signifikan pada level 10%.

Table 4 reports coefficients of partial correlations between MLB and several sub-categories of RPTs to test hyoptheses 1. Regression model 2 was tested four times which breaks into model (2.1); (2.2); (2.3); and (2.4). For Model (2.1) using sales and purchase to related parties as independent variables, the result is negative and significant. For model (2.2) using service payment to related parties as independent variable, the result is negative but not significant. For Model (2.3) using Trade Account Receivables, Current Account Receivables, and Non-current account receivables with related parties as independent variables, the result is negative and significant. For the last model (2.4) using others Account Receivables with related parties as independent variable, the result is negative but not significant. This last model was tested separately due to the small number of sample size compares to other models which only account for 32 observations.

The results of this study are in line with the results from several previous researchers such as Hwang, Chiou, & Wang (2013). They find evidence that special channels used by majority shareholders to expropriate minority shareholders are, such as, through unusual related sales and abnormal accruals could be associated with several types of transactions such as funding with a fixed interest rate from related parties. Chen et al. (2009) conclude that RPTs, such as sales, purchase, debt, lease and mortgage guarantee transactions were negatively related to company performance as measured by ROA and Tobin's Q. Furthermore, Berkman et al. (2009) state that companies which provide loan guarantees to related parties and loans with interest rates below market interest rates will experience negative abnormal accruals and harm minority shareholders. Bae et al. (2012) also find evidence that the offering of private securities by the same industry group and excessive executive compensation may lead to abnormal accruals for companies under study.

The results of this study are also consistent in showing that Account receivables to related parties may be used as a tool to bring company resources out of the company for the interest majority shareholders. Aharony et al. (2010); Habib, Muhammadi, & Jiang (2017); Jian & Wong (2010) find evidence that Account receivables with related parties were used for tunneling. Atanasov et al. (2008) state that Account receivables with related parties are

considered as put options on related parties where they may excercise these options by not paying their loans when the company's condition is declining or deteriorating.

Furthermore Hypotheses 1 is tested on the possibility of *asset tunneling* when company's is acquitioning assets above their fair price and selling assets below their fair price which will lower company's performance as measure by ROA.

Tabel 5

Testing Hypotheses 1 using ROA as Dependent Variable

$$ROA = \alpha_{31} + \alpha_{32}(ARP) + \alpha_{33}SIZE + \alpha_{34}SALESG + \alpha_{35}DEBT + \alpha_{36}KI + \alpha_{37}JI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots (3)$$

Independent Variable	Expectation	Coefficient Value	t-statistic
Coefficient		-0.2212	-3,86***
Asset Aqcuisition	(-)	-0.1589	2,32***
Size	(+)	0.0457	5,39**
SalesG	(+)	0.0217	5,24***
Debt	(-)	-0.1468	-4,48***
Industry Performance	(+)	0.4261	2,16**
Industry Type		0.0013	0,08
F statistik	72.86***		
Adjusted R^2	0.3459		
Observasi	82		

Tabel 5 menyajikan ringkasan hasil pengujian hipotesis 1 dengan variabel *Return on asset* (ROA) sebagai variabel dependen. Pengukuran variabel-variabel penelitian tersebut adalah sebagai berikut ini. ROA (*Return On Asset*) = Laba bersih / Total aset. Pembelian aset = pembelian aset berelasi pada satu periode tertentu / total aset. Size = natural log dari total asset. DEBT = total hutang / total asset. SalesG = (Total Penjualan pada periode t – total penjualan pada periode t-1) / (total penjualan periode t). Kinerja Industri = Kinerja industri ROA pada periode t. Jenis industri (dumi variabel) = 1 jika perusahaan masuk dalam industri manufaktur, dan 0 jika sebaliknya. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%.

The results of Table 5 shows that the coefficient α_32 (-0.1589) is negative and significant at the 1% significance level which supported hypotheses 1. This means that other form of RPTs (purchases of related assets) were negatively affecting the performance of the company. Thus, the results imply that type of asset tunneling also occurs in public companies in Indonesia through related sales transactions. The results of this study are in line with Johnson et. al. (2000) who find that controlling shareholders use RPTs to transfer assets out of the company in the interest of the controlling shareholders. Chen et al. (2009) find evidence that several RPTs, such as asset purchase and sale transactions, were negatively and significantly related to the company's ROA.

Furthermore, Hypotheses 1 is tested using different measurements of RPTs known as abnormal RPTs (ABN_RPT) which measured using a study by Jian & Wong (2010) where they measured the abnormal portion of RPT conducted by the company. This variable is used to eliminate the normal component of RPTs related to company's characteristics and industrial effects. This measure isolates the influence of the normal component of RPTs related to company and industry characteristics (Lo & Wong, 2011). Therefore, it can be argued that the results of this measurement are more accurate proxies in capturing the phenomenon of RPTs that are not related to the normal factors of the company and industry.

This approach was also used in research conducted by (Lo & Wong, 2011; Moradi, Aldin, Heyrani, & Iranmahd, 2012).

To obtain the value of the ABN_RPT, an Ordinary Least Square (OLS) regression was applied during the study period of each type of RPTs (4 types of RPTs that which has a significant result in affecting companies'performance). The 4 types of RPTs are sales, purchase, trade receivable, asset Acqusition. The OLS regression used to calculate the ABN_RPT variable is as follows:

$$RPT_i = \alpha_0 + \alpha_{51}SIZE_i + \alpha_{52}DEBT_i + \alpha_{53}MB_i + (dummi\ industri) + \varepsilon \quad \text{.....(5)}$$

where, ABN_RPT is the residual from OLS regression (5).

The results of testing hypotheses 1 using Tobin's q as a measure of company's performance is excercise using equation 4 which tested four times using 4 different measures of RPTs. These RPTs are types of transactions previously tested in equations 2 and 3 and obtained statistically significant results. The 4 types of RPTs are sales, purchase, Account receivable and asset acquisition. See Table 6 below.

Table 6

Testing Hypotheses 1 Using Tobin's Q as Dependent Variable

$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTPenjualan_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon$.....(4.1)

$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTPembelian_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon$.....(4.2)

$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTPiutang_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon$.....(4.3)

$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTPembelianaset_{\ i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon$.....(4.4)

Variabel Independen	**Arah Hub.**	**Persamaan (4.1)**	**Persamaan (4.2)**	**Persamaan (4.3)**	**Persamaan (4.4)**
Konstanta		0,3952* (1,75)	O,1048** (2,01)	0,4723* (1,85)	0,033*** (2,03)
ABN_RPTPenjualan	(-)	-0,4217*** (-3,61)			
ABN_RPT_pembelian	(-)		-0,1839*** (-2,84)		
ABN_RPTpiutang	(-)			-0,3467* (-1,72)	
ABN_RPTPembelianaset	(-)				-2,0262** (-2,50)
SIZE	(+)	0,02343 (0,44)	0,1007 (1,57)	0,0309 (0,38)	0,0250 (0,13)
Debt	(-)	-0,1048495 (-0,81)	-0,1670 (-1,30)	-0,0877 (-0,40)	0,0280 (0,09)
Liquid	(-)	-0,0153	-0,1322	-0,1322	0,2744

		(-0,17)	(-0,98)	(-0,95)	(0,46)
MB	(+)	33,2896*** (49,50)	35,2811*** (17,54)	30,0875*** (7,02)	39,0964*** (11,92)
ROA	(+)	0,3486* (1,69)	0,1793 (1,05)	0,2564* (1,78)	0,6850 (0,31)
F		2498,16***	53,84***	11,89***	164,36***
R^2		0,7389	0,8238	0,6586	0,8426
N observasi		957	617	984	72

Tabel 6 menyajikan secara ringkas hasil uji hipotesis 1 dengan menggunakan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Metode pengujian menggunakan metode *random effect* atau *fixed effect* untuk panel data. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ABN_RPT penjualan; ABN_RPT pembelian; ABN_RPT_Piutang; ABN_RPT pembelian aset = residual dari regresi OLS (persamaan 5). Size = natural log total asset. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. ROA = laba bersih / total aset. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%.

The test results using random effect method in equation (4.1) indicate that the coefficient of ABN_RPT sales is negative and significant at the 1% significance level. Thus, hypotheses 1 is supported and R^2 value is 73.89%. The test results using the fixed effect method in equation (4.2) indicate that the coefficient of purchase ABN_RPT is negative and statistically significant. Thus, hypotheses 1 is supported and R^2 value is 72.38%. The test results using the fixed effect method in equation (4.3) indicate that the coefficient of Account Receivable ABN_RPT is negative and statistically significant. Thus, hypotheses 1 is supported and R^2 value is 65.86%. Lastly, The test results using random effect method in equation (4.4) indicate that the coefficient of ABN_RPT Asset Acquisition is negative and significant at the 5 % significance level. Thus, hypotheses 1 is supported and R^2 value is 84.26%.

The results of this study are in line with the results of several previous studies which support the hypotheses of conflicts of interest from RPTs which tend to harm minority shareholders (Budiyanti et al. (forthcoming); Dahya et al., 2008; Jiang, Lee, & Yue, 2010; Lei & Song, 2011). Research conducted by Johnson et al. (2000) find that companies with concentrated ownership may expropriate minority shareholders in various ways, such as, obtain additional cash by selling assets, goods and services to related companies at prices above market prices; obtain loans with easier terms and transfer assets between companies under their control; or at worse, they may dilute ownership of minority shareholders.

Hypotheses 2

Table 7
Statistic Descriptive for All Variables Use to Test Hypotesis 2

Variable	**N**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
ROA	2051	0,0462	0,1379	-1,3579	0,9514
Q	2037	1,3817	1,7035	0	17,3450
Current Account Payable	1176	0,1939	0,2510	0	1
Non-Current Acc.Payable	625	0,0409	0,0852	0	0,9322
ABN_RPTAccPay	1062	1,88e-08	0,2351	-0,3039	0,8293

ABN_RPTNonAccPay	588	-1,71e-08	0,0701	-0,1662	0,4845
Size	2051	6,2446	0,7775	2,9547	8,373
debt	1911	0,2862	0,2834	0,00002	2,5303
salesG	2041	0,2989	1,5633	-0,9904	34,332
MB	1964	2,7775	5,6248	0,05555	92,812
Liquid	1844	0,5668	0,3393	0,0003	1,7487
KI	2055	0,0406	0,0315	-0,0545	0,1115
JI	2078	0,2820	0,4500	0	1

Tabel 7 menyajikan secara ringkas statistik deskriptif untuk pengujian hipotesis 2 dengan menggunakan ROA dan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ROA (*Return On Asset*) = Laba bersih / Total asset. Utang usaha = total transaksi utang usaha berelasi pada satu periode tertentu / total utang usaha pada satu periode tertentu. Utang tidak lancar = total transaksi utang tidak lancar berelasi pada satu periode tertentu / total aset pada periode tertentu. ABN_RPT utang usaha; ABN_RPTutangtidaklancar = residual dari regresi OLS (persamaan 5). Size = natural log total asset. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. Liquid = hutang jangka pendek / total hutang. Kinerja Industri = Kinerja industri ROA pada periode t. Jenis industri (dumi variabel) = 1 jika perusahaan masuk dalam industri manufaktur, dan 0 jika sebaliknya.

Table 7 presents descriptive statistics of research variables used to test hypotheses 2. For current Account Payable, there are 1176 obeservations with average value of 0.1939, which means that 19.39% of the total account payable of the company is from related parties. For non-current Account payable, there are less observations available which is 625 with average value of 0.0409 which means that 4.09% of the total assets of the company is non-current account payable from related parties.

Table 8

Empirical Results of Testing Hypotheses 2

$$ROA = \alpha_{71} + \alpha_{72}CRRP + \alpha_{73}SIZE + \alpha_{74}SALESG + \alpha_{75}DEBT + \alpha_{76}KI + \alpha_{77}JI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7.1)$$

$$ROA = \alpha_{71} + \alpha_{72}Utangtidaklancar + \alpha_{73}SIZE + \alpha_{74}SALESG + \alpha_{75}DEBT + \alpha_{76}KI + \alpha_{77}JI + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (7.2)$$

Variabel Independen	**Arah Hub.**	**Persamaan (7.1)**	**Persamaan (7.2)**
Konstanta		-0,0693 (-1,63)	-0,4127*** (-3,34)
Account Payable (CRRP)	(+)	0,0317 ** (2,02)	
Noncurrent Acc.Payable (CRRP)	(+)		0,03059*** (2,58)
Size	(+)	0,0179*** (2,85)	0,07117*** (3,59)
SalesG	(+)	0,00545 ** (2,42)	0,00469* (1,91)
Debt	(-)	-0,1249 *** (-8,46)	-0,23722*** (-3,72)
KI	(+)	0,8608 *** (7,68)	1,2417*** (3,82)
JI		-0,0043 (-0,36)	
F test		156,25***	8,74***

R2		0,1777	0,1372
N observasi		1075	610

Tabel 8 menyajikan ringkasan hasil pengujian hipotesis 2 dengan variabel Return on asset (ROA) sebagai variabel dependen. Pengukuran variabel-variabel penelitian tersebut adalah sebagai berikut ini. ROA (*Return On Asset*) = Laba bersih / Total aset. Utangusaha = total utang usaha berelasi pada satu periode tertentu / total utang usaha pada satu periode tertentu. Utang tidak lancar = total utang tidak lancar berelasi pada satu periode tertentu = total aset pada satu periode tertentu. Size = natural log dari total aset. DEBT = total hutang / total asset. SalesG = (Total Penjualan pada periode t – total penjualan pada periode t-1) / (total penjualan periode t). Kinerja Industri = Kinerja industri ROA pada periode t. Jenis industri (dumi variabel) = 1 jika perusahaan masuk dalam industri manufaktur, dan 0 jika sebaliknya. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%.

Table 8 highlights the positive and statistically significance results of all type RPTs use in equation (7.1) and (7.2) using the random effect method and fixed effect method, respectively. Thus, hypotheses 2 is supported. Furthermore, to test hypotheses 2, the abnormal portion of RPTs are employ (ABN_RPT), as done previously (Jian & Wong, 2010; Wong & Kim, 2015).The test results are presented in the following table 9.

Table 9

Testing Hypothis 2 using ABN_RPT as Independent Variables

$$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTUtangusaha_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon \quad \text{.....(9.1)}$$

$$Q_{i,t} = \alpha_{41} + \alpha_{42}ABN\_RPTUtangtidaklancar_{i,t} + \alpha_{43}SIZE_{i,t} + \alpha_{44}DEBT_{i,t} + \alpha_{45}LIQUID_{i,t} + \alpha_{46}MB_{it} + \alpha_{47}ROA_{i,t} + \varepsilon \quad \text{.....(9.2)}$$

Variabel Independen	**Arah Hub.**	**Persamaan (9.1)**	**Persamaan (9.2)**
Konstanta		0.2346848*** (2.45)	1.300439*
ABN_RPT utang usaha	(+)	0.2137323** (2.20)	
ABN_RPT Utang tidak lancar	(+)		1.3221*** (2.94)
Size	(+)	0.063925 (0.82)	-0.052194 (-0.36)
Debt	(-)	-0.0430221 (-0.23)	-0.0451498 (-0.18)
Liquid	(-)	-0.0157453 (-0.13)	-0.1741098 (-1.22)
MB	(+)	28.09219*** (4.81)	9.808051* (1.94)
ROA	(+)	0.2035021* (1.66)	-0.0204679 (-0.08)
F test		6.11***	5.17**
R^2		0.7284	0.1443
N Observasi		962	527

Tabel 9 menyajikan secara ringkas hasil uji hipotesis 2 dengan menggunakan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ABN_RPT utangusaha; ABN_RPT utangtidaklancar = residual dari regresi OLS (persamaan 5). Size = natural log total asset. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. ROA = laba bersih / total aset. Angka dalam tanda kurung

merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%.

Table 9 reports that ABN_RPT Account Payable is positive and significant at the 5% significance level using fixed effect method. Therefore, hypotheses 2 is supported. For the ABN_RPT Non Current Account Payable is positive and significant at the 1% significance level using fixed effect method. Therefore, hypotheses 2 is supported.

The results obtained support the propping hypotheses or efficient contract hypotheses of RPTs, especially for 2 sub-categories of RPTs which are Account payable and Non-current account payable. This research is in line with several previous studies such as Khanna & Palepu (2000), which show that in developing countries with weak institutional systems to support business and economics, transactions between companies in the same business group may help individual companies in the business group to operate more efficiently than stand-alone companies. Companies may achieve financial assistance from other companies in the same business group when they cannot easily obtain it from the capital market.

Moreover, Kohlbeck & Mayhew (2004) state that RPTs related to company's investment is linked to efficient contract hypotheses, while RPTs involving parent companies, controlling shareholders, directors and company officials is linked to opportunistic motives or conflict of interest hypotheses. The study is supported by Peng, Wei, & Yang (2011) who report that the market reacted positively to announcements regarding RPTs between public companies and controlling shareholders when the company experienced financial difficulties. Buysschaert, Deloof, & Jegers (2004) conducted research on public companies in Belgium, find evidence that several transactions between companies in the same business group could provide added value to non-controlling shareholders. Apart from the positive effects found these studies, Aharony et al. (2010); Kohlbeck & Mayhew (2014); Peng, Wei, & Yang (2011) also show that propping made by companies using RPTs is conducted temporarily for the purpose of earnings management especially during initial public offering. When the company has improved or stabilized, the funds transferred in will be send out of the company to controlling shareholders and tunneling again occurs through RPTs.

Hypotheses 3

Table 10 presents a summary of descriptive statistics of various variables used to test hypotheses 3. Tobin's q is use to measure of company value. For RPTs, an abnormal portion of RPTs (ABN_RPT) will be used as independent variables as denotes in equation (5) due to significance results when testing of hypotheses 1 and 2. We use several sub-categorisation for Abnormal RPT based on previous result test, such as, ABN_RPTSales, Purchase, Account receivables, Asset Acuisition, Account payable and Non-Current account payable.

Table 10
Descriptive statistic of all variables to test Hypoteses 3a and 3b

Variable	N	Mean	Standard Deviation	Minimum	Maksimum
Q	2037	1,3817	1,7035	0	17,345
ABN_RPTSales	1079	9,08e-09	0,2652	-0,2524	0,8856
ABN_RPTPurchase	683	1,90e-07	0,2398	-0,2322	0,8702
ABN_RPTAcc.Rec	1102	7,28e-08	0,2843	-0,2963	0,7727
ABN_RPTAssetAqui.	77	1,30e-07	0,0351	-0,0428	0,1561
ABN_RPTAcc.Pay	1062	1,89e-08	0,2351	-0,3039	0,8293
ABN_RPTNon-curr.Acc.Pay	588	1,71e-08	0,0701	-0,1662	0,4845
BIG4	1968	0,3709	0,4831	0	1
DITCOM	1968	0,5934	0,4323	0	2
IND_DIR	1968	0,0679	0,1325	0	0,75
IND_COM	1968	0,3630	0,1489	0	1
DIRCOM_SH	1968	0,1346	0,2022	0	0,909
SH_MAIN	1968	0,5056	0,2287	0,0313	0,989
Size	2051	6,2446	0,7775	2,9547	8,373
Debt	1911	0,2862	0,2834	0,00002	2,5303
MB	1964	0,0277	0,0562	0	0,9281
Liquid	1844	0,5668	0,3393	0,0003	1,7487
JI	2080	0,2822	0,45018	0	1

Tabel 10 menyajikan secara ringkas statistik deskriptif untuk pengujian hipotesis 3 dengan menggunakan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ABN_RPT penjualan; ABN_RPT pembelian; ABN_RPT_Piutang; ABN_RPT pembelian aset; ABN_RPTUtangusaha; ABN_RPTUtangtidaklancar = residual dari regresi OLS (persamaan 5). BIG4 = 1 jika perusahaan di audit oleh auditor big 4 dan 0 jika sebaliknya. KOMDIT = jumlah total komite audit / jumlah total komisaris. DIR_IND = persentase jumlah direksi independen. KOM_IND = persentase jumlah komisaris independen. DIRKOM_PS = Size = natural log total asset. PS_MAIN = persentase pemegang saham utama. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. ROA = laba bersih / total aset.

Some new variables added in the regression model for testing this hypothesis 3, which have not been included in the previous hypothesis testing, are variables related to good corporate governance. The details of these variables are as follows.

1. The average value of audit by the big 4 auditor (BIG4) is 0.3709, which means that 37.09% of public companies use as sample in this study use big 4 auditors to audit their financial statements with a maximum value of 1 and a minimum of 0.
2. The average value of audit committee (COMDIT) is 0.5934, which means that on average the number of audit committee is 59.34% out of total board commissioner of public companies use as sample in this study with a maximum value of 1 and a minimum of 0.
3. The average value of Independent Directors (IND_DIR) is 0.0679, which means that on average the number of independent directors are 6.79% out of total board directors of public companies use as sample in this study with a maximum value of 1 and a minimum of 0. The amount of independent directors is lower compare to independent commissioner because it is still not compulsory for public companies to have independent directors.

4. The average value of Independent Commissioner (IND_COM) is 0.3630 which means that on average the number of independent commissioners are 36.30% out of total board commissioners of public companies use as sample in this study with a maximum value of 1 and a minimum of 0. It's not a surprise that the amount of independent commisioners is higher compare to independent directors because it is compulsory for public firms to have independent commisioners with a minimum of 40% out of total board commisioners as required by the law in Indonesia.
5. The average value of percentage of directors and Commissioners as part of main shareholders (DIRCOM_SH) is 0.1346 which means that on average the number of directors and commissioners as part of main shareholders are 13.46% out of total board directors and commissioners of public companies use as sample in this study with a maximum value of 0.909 and a minimum of 0.
6. The average value of controlling or main shareholders (SH_MAIN) is 0.5056 which means that on average the percentage of ownership by main shareholders are 50.56% on public companies use as sample in this study with a maximum value of 0.989 and a minimum of 0.0313. This highlights that ownership in Indonesia's public companies tend to be highly concentrated as shown by previous studies, such as Claessens, Djankov, & Xu (2000); Johnson et al. (2000); La Porta et al. (1998); Shleifer & Vishny (1997).

4.2.6.1 Hasil Pengujian Hipotesis 3a

Tabel 4.18
Hasil pengujian Hipotesis 3a

$$Q_{i,t} = \alpha_{101} + \alpha_{102}ABN\_RPT_{i,t} + \alpha_{103}BIG4_{i,t} + \alpha_{104}KOMDIT_{i,t} + \alpha_{105}IND\_DIR_{i,t} + \alpha_{106}IND\_KOM_{i,t} + \alpha_{107}DIRKOM\_PS_{i,t} + \alpha_{108}PS\_MAIN_{i,t} + \alpha_{109}\,ABN\_RPT_{i,t} * BIG4_{i,t} + \alpha_{1010}ABN_{RPT\,i,t} * KOMDIT_{i,t} + \alpha_{1011}ABN_{RPT\,i,t} * IND_{DIR\;\;i,t} + \alpha_{1012}ABN_{RPT\;\;i,t} * IND_{KOM\;\;i,t} + \alpha_{1013}ABN_{RPT\,i,t} * DIRKOM_{PS\;\;i,t} + \alpha_{1014}ABN_{RPT\,i,t} * PS_{MAIN\,i,t} + \alpha_{1015}SIZE_{i,t} + \alpha_{1016}DEBT_{i,t} + \alpha_{1017}LIQUID_{i,t} + \alpha_{1018}MB_{i,t} + dummi\ industri + \varepsilon$$ .....(10**)**

Variabel independen	**Arah hub.**	**Persamaan (10) ABN_RPT Penjualan**	**Persamaan (10) ABN_RPT Pembelian**	**Persamaan (10) ABN_RPT Piutang**	**Persamaan (10) ABN_RPT Pembelianaset**
Konstanta		1.04263* (1.88)	9.000358*** (2.59)	3.2977*** (5.33)	2.636* (1.91)
ABN_RPTPenjualan	(-)	-0.2563*** (-2.43)			
ABN_RPTPembelian	(-)		-0.35777*** (-2.38)		
ABN_RPTPiutang	(-)			-0.2542***	

				(-2.42)	
ABN_RPTPembelianaset	(-)				-2.922** (-2.03)
BIG4	(+)	0.38452*** (3.56)	0.531919 ** (2.54)	0.4645*** (3.71)	0.34723 (1.15)
KOMDIT	(+)	0.09468 (0.95)	0.126889 (0.66)	0.04369 (0.47)	0.5283*** (2.59)
IND_DIR	(+)	0.22062*** (2.77)	0.030978 (0.06)	0.16121 (0.53)	1.5478** (2.18)
IND_KOM	(+)	0.108126** (1.96)	0.63571** (1.99)	0.49071* (1.93)	1.1824 (1.29)
DIRKOM_PS	(-)	-0.25084*** (-2.15)	-0.19495*** (-2.59)	-0.01158 (-0.05)	-0.908* (-1.88)
PS_MAIN	(-)	-0.31007* (-1.96)	-0.26904 (0.94)	-0.17803* (-1.85)	-0.11431 (-0.17)
ABN_RPTPenjualan*Big 4	(+)	0.077933 (0.20)			
ABN_RPTPenjualan*KO MDIT	(+)	0.526453* (1.67)			
ABN_RPTPenjualan*IN D_DIR	(+)	1.5218*** (2.43)			
ABN_RPTPenjualan*IN D_KOM	(+)	0.954645*** (2.02)			
ABN_RPTPenjualan*DI RKOM_PS	(-)	-0.15135* (1.86)			
ABN_RPTPenjualan*PS _MAIN	(-)	-0.0391 (-0.05)			
ABN_RPTPembelian*Bi g4	(+)		0.39316 (0.54)		
ABN_RPTPembelian*K OMDIT	(+)		0.3531*** (2.77)		
ABN_RPTPembelian*IN D_DIR	(+)		2.0137 (0.89)		
ABN_RPTPembelian*IN D_KOM	(+)		1.0268* (1.86)		
ABN_RPTPembelian*DI RKOM_PS	(-)		-0.48485*** (-2.33)		
ABN_RPTPembelian*PS _MAIN	(-)		-0.60829 (-0.45)		
ABN_RPTPiutang*Big4	(+)			0.29528** (2.99)	
ABN_RPTPiutang*KOM DIT	(+)			.010347 (0.31)	
ABN_RPTPiutang*IND_ DIR	(+)			0.4773*** (2.57)	
ABN_RPTPiutang*IND_ KOM	(+)			0.1375*** (2.18)	

ABN_RPTPiutang*DIRKOM_PS	(-)			-0.69794 (-0.90)	
ABN_RPTPiutang*PS_MAIN	(-)			-0.0372*** (-2.05)	
ABN_RPTPembelianaset*Big4	(+)				0.57083 (0.24)
ABN_RPTPembelianaset*KOMDIT	(+)				0.5389** (2.24)
ABN_RPTPembelianaset*IND_DIR	(+)				0.5485*** (2.01)
ABN_RPTPembelianaset*IND_KOM	(+)				1.49426* (1.88)
ABN_RPTPembelianaset*DIRKOM_PS	(-)				-0.29117 (-1.42)
ABN_RPTPembelianaset*PS_MAIN	(-)				-0.25587 (1.40)
Size	(+)	0.08804 (0.83)	1.2859** (2.45)	-.03117*** (-3.34)	0.19631 (1.00)
Debt	(-)	-0.88329*** (3.47)	-1.5385* (-1.92)	0.5213*** (2.52)	1.8494** (2.04)
Liquid	(-)	-0.203829 (-1.52)	-0.161071 (0.72)	-0.13867 (-1.03)	1.8494** (2.04)
MB	(+)	-0.10343*** (2.41)	0.01279** (2.12)	0.00831 (0.90)	-0.12379 (-0.26)
JI		-0.44609** (-2.39)		-.5025*** (-2.64)	0.02524 (0.9)
F-test		48.10***	2.50***	42.05***	22.63***
R2		0.1153	0.2215	0.2346	0.2058
N Observasi		862 (R)	512 (F)	851 (R)	53 (R)

Tabel 4.20 menyajikan secara ringkas hasil pengujian hipotesis 3a dengan menggunakan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ABN_RPT penjualan; ABN_RPT pembelian; ABN_RPT_Piutang; ABN_RPT pembelian aset; ABN_RPTUtangusaha; ABN_RPTUtangtidaklancar = residual dari regresi OLS (persamaan 5). BIG4 = 1 jika perusahaan di audit oleh auditor big 4 dan 0 jika sebaliknya. KOMDIT = jumlah total komite audit / jumlah total komisaris. DIR_IND = prosentase jumlah direksi independen. KOM_IND = prosentase jumlah komisaris independen. DIRKOM_PS = Size = natural log total asset. PS_MAIN = prosentase pemegang saham utama. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. ROA = laba bersih / total aset. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%. Hasil analitis statistis lengkap disajikan pada lampiran 13.

Table 4.20 presents empirical results from testing hypotheses 3a. We tested equation 10 four times based on each sub-categorisation of ABN RPT use to test hypotheses 3a, such as, ABN_RPTSales, Purchase, Account Receivables and Asset Aqcuisiton. For the first equation 10, ABN_RPTSales variable was tested using random effect method and the results are shown in the third colomn. For ABN_RPT sales the result is negative and significant. For audit by BIG4 the result is positive and significant. For the audit committee (COMDIT) the result is positive, but not significant. For the independent directors (IND_DIR) the result is positive and significant. For independent commissioner (IND_COM) the result is positive

and significant. For the percentage of directors and commissioners as part of main shareholders (DIRCOM_SH) the result is negative and significant. For the percentage of ownership by major shareholders (SH_MAIN) the result is negative and significant.

Moreover, the results of moderating effect on various types of corporate governance variables as the core of hypothesis 3a, are almost all significant except for the interaction between ABN_RPTSales and Audit by BIG4 (ABN_RPTPenjualan*BIG4), and ABN_RPTSales and the percentage ownership of main shareholders (ABN_RPTSales*SH_MAIN). For other moderating variables, the results are positive and significant as expected, thus hypothesis 3a is supported. This means that the corporate governace practice in public company may deter the expropriation to minority shareholders from using RPTs.

Furthermore, coloumn 4 highlights the results of second sub-categorisation of ABN_RPT which is ABN_RPTPurchase tested using fixed effect method. The result of ABN_RPTPurchase is negative and significant. For audit by BIG4 the test is positive and significant. For audit committee (COMDIT) the result is positive, but not significant. For independent directors (IND_DIR) the results is positive, but not significant. For independent commissioner (IND_COM) the result is positive and significant. For the percentage of directors and commissioners as part of main shareholders (DIRCOM_SH) the result is negative and significant. For the percentage ownership by major shareholders (SH_MAIN) the result is negative, but not significant.

Moreover, the results of moderating effect on various types of corporate governance variables as core of hypothesis 3a, are almost all significant except for the interaction between ABN_RPTPurchase and Audit by BIG4 (ABN_RPTPurchase*BIG4), ABN-RPTPurchase and Independent Director (ABN_RPTPurchase*IND_DIR), and ABN_RPTPurchase and the percentage ownership of main shareholders (ABN_RPTPurchase*SH_MAIN). For other moderating variables, the results are positive and significant as expected, thus hypothesis 3a is supported. This means that the corporate governace practice in public company may deter the expropriation to minority shareholders from using RPTs.

Coloumn 5 highlights the results of third sub-categorisation of ABN_RPT which is ABN_RPTAccountReceivables tested using random effect method. The result of ABN_RPTAcc.rec is negative and significant. For audit by BIG4 the test is positive and significant. For audit committee (COMDIT) the result is positive, but not significant. For independent directors (IND_DIR) the results is positive, but not significant. For independent commissioner (IND_COM) the result is positive and significant. For the percentage of directors and commissioners as part of main shareholders (DIRCOM_SH) the result is negative and significant. For the percentage ownership by major shareholders (SH_MAIN) the result is negative and significant.

Moreover, the results of moderating effect on various types of corporate governance variables as core of hypothesis 3a, are almost all significant except for the interaction between ABN_RPT account receivable and audit committee (ABN_RPTAcc.Rec*DITCOM), ABN-RPTPurchase and Independent Director (ABN_RPTPurchase*IND_DIR) and interaction between ABN_RPT account receivable and the percentage of directors and commissioners as part of main sharholders (ABN_RPTAcc.Rec*DIRCOM_SH). For other

moderating variables, the results are positive and significant as expected, thus hypothesis 3a is supported. This means that the corporate governace practice in public company may deter the expropriation to minority shareholders from using RPTs.

Lastly, coloumn 6 reports he results of fourth sub-categorisation of ABN_RPT which is ABN_RPT asset acquisiton tested using random effect method. The result of ABN_RPTAsset.Acq is negative and significant. For audit by BIG4 the result is positive, but not significant. For audit committee (COMDIT) the result is positive and significant. For independent directors (IND_DIR) the results is positive and significant. For independent commissioner (IND_COM) the result is positive, but not significant. For the percentage of directors and commissioners as part of main shareholders (DIRCOM_SH) the result is negative and significant. For the percentage ownership by major shareholders (SH_MAIN) the result is negative, but not significant.

Furthermore, the results of moderating effect on various types of corporate governance variables as core of hypothesis 3a, are almost all significant except for the interaction between ABN_RPT asset aqusition and audit of financial statements by BIG4 (ABN_RPTAsset.acq*BIG4), ABN_RPTAsset.Acq and the percentage of directors and commissioners as part of main sharholders (ABN_RPTAcc.Rec*DIRCOM_SH), and ABN_RPTAsset.Acq and percentage of ownership by main shareholders (ABN_RPTAsset.Acq*MAIN_SH). For other moderating variables, the results are positive and significant as expected, thus hypothesis 3a is supported. This means that the corporate governace practice in public company may deter the expropriation to minority shareholders from using RPTs.

The results of this research are in line with several previous studies, such as, Louwres et al. (2008) who state that the problem of accounting scandals that dragged down the names of many large companies in the world was also caused by audits failure triggered by a lack of auditor professionalism. Therefore, they emphasized the importance of high levels of professionalism and prudence principle in carrying out the tasks for independent auditors. Usually the auditors in large public firms from big 4 group have a better work ethic and professionalism than other independent auditor offices (Francis, Maydew, & Sparks, 1999; Palmrose, 1988). In addition, Fan & Wong (2005) show that big 4 auditors performed the role of good corporate governance where they reduce agency problems of the firms in developing countries. Thus, financial report auditing by big 4 auditors is one of the corporate governance mechanisms use in this study. Chien & Hsu (2010) find evidence that the use of big 4 auditors and independent board of commissioners could reduce the negative impact of RPTs towards the company's financial performance in China public firms.

Furthermore, regarding the existence of independent directors and independent commissioners, as well as the audit committee in moderating the relationship between RPTs and firm’s value were reported in several studies, such as, Beasley (1996) who conclude that greater involvement of outside members on the company's board of directors may reduce the tendency of financial statement manipulation significantly. Klein (2002) examined whether audit committees and board characteristics may be related to earnings management by companies, and they find a negative relationship between audit committee independence and board independence and abnormal accruals. Carcello & Neal (2003) find that audit committees with higher independence, better management expertise and ownership of lower

companies would be more effective in monitoring the company. Anderson, Mansi, & Reeb (2004) also find that costs of debt is inversely related to the independence of the board of directors and the size of the board of directors. They also find that independent audit committees could be is linked to lower funding costs.

In addition, Cheung et al. (2006) find that the announcement of RPTs activities is related to negative abnormal returns which also related to the percentage of ownership by major shareholders. This means that firms with concentrated ownership experience a greater decline in firm value. Moreover, they also find that companies not audited by the BIG5 group experienced negative market reactions to the announcement of RPTs, while the existence of the audit committee is associated with positive market reactions. Chen et al. (2009) find evidence that when public firms are controlled by related parties with concentrated ownership, RPTs will be higher and the firm's operational performance will be lower. Yeh et al. (2012) conducted a study on public companies in Taiwan and state that good corporate governance, namely the proportion of directors controlled by the controlling shareholders and the independence of the board and a good corporate governance index were effective in reducing various types of RPTs.

4.2.6.2 Testing Hypothesis 3b

Tabel 4.21
Empirical Result of Testing Hypothesis 3b

$$Q_{i,t} = \alpha_{101} + \alpha_{102}ABN\_RPT_{i,t} + \alpha_{103}BIG4_{i,t} + \alpha_{104}KOMDIT_{i,t} + \alpha_{105}IND\_DIR_{i,t} + \alpha_{106}IND\_KOM_{i,t} + \alpha_{107}DIRKOM\_PS_{i,t} + \alpha_{108}PS\_MAIN_{i,t} + \alpha_{109}ABN\_RPT_{i,t} * BIG4_{i,t} + \alpha_{1010}ABN\_RPT_{i,t} * KOMDIT_{i,t} + \alpha_{1011}ABN\_RPT_{i,t} * IND\_DIR_{i,t} + \alpha_{1012}ABN\_RPT_{i,t} * IND\_KOM_{i,t} + \alpha_{1013}ABN\_RPT_{i,t} * DIRKOM\_PS_{i,t} + \alpha_{1014}ABN\_RPT_{i,t} * PS\_MAIN_{i,t} + \alpha_{1015}SIZE_{i,t} + \alpha_{1016}DEBT_{i,t} + \alpha_{1017}LIQUID_{i,t} + \alpha_{1018}MB_{i,t} + dummi\ industri + \varepsilon \quad \textbf{.....(10)}$$

Variabel Independen	**Arah Hub.**	**Persamaan (10)**	**Persamaan (10)**
Konstanta		7.6222*** (2.32)	2.8486*** (3.12)
ABN_RPTUtangusaha	(+)	2.1344* (1.94)	
ABN_RPTUtangtidaklancar	(+)		4.3662** (2.21)
BIG4	(+)	0.3555** (2.06)	0.5773*** (2.89)
KOMDIT	(+)	0.16305 (1.16)	0.06557 (0.40)
IND_DIR	(+)	0.11035** (2.31)	0.0532 (0.12)
IND_KOM	(+)	0.0983*** (2.17)	0.4344** (2.00)

DIRKOM_PS	(-)	-0.27704 (-1.03)	-0.1631 (-0.44)
PS_MAIN	(-)	-0.234 (-0.92)	-0.0343 (-0.10)
ABN_RPTUtangusaha*BIG4	(+)	0.50903* (1.90)	
ABN_RPTUtangusaha*KOMDIT	(+)	0.7526 (1.42)	
ABN_RPTUtangusaha*IND_DIR	(+)	0.3082*** (2.15)	
ABN_RPTUtangusaha*IND_KOM	(+)	4.6207** (1.96)	
ABN_RPTUtangusaha*DIRKOM_PS	(-)	-0.6294 (-0.47)	
ABN_RPTUtangusaha*PS_MAIN	(-)	-0.3146 (-0.44)	
ABN_RPTUtangutidaklancar*BIG4	(+)		4.7517** (2.19)
ABN_RPTUtangtidaklancar*KOMDIT	(+)		4.1869 (1.60)
ABN_RPTUtangtidaklancar*IND_DIR	(+)		11.098 (1.42)
ABN_RPTUtangtidaklancar*IND_KOM	(+)		7.3877*** (2.27)
ABN_RPTUtangtidaklancarDIRKOM_PS	(-)		-3.1115*** (-2.35)
ABN_RPTUtangtidaklancar*PS_MAIN	(-)		-0.073* (-1.78)
Size	(+)	-0.9988*** (-2.72)	0.24906* (1.84)
Debt	(-)	0.20253 (0.23)	0.49683* (1.63)
Liquid	(-)	-0.369* (-1.85)	-0.01089 (-0.05)
MB	(+)	0.014648 (1.02)	0.001734 (0.15)
JI			-0.65555** (-2.45)
Ftest		2.17	33.21
R^2		0.4110	0.4739
N-Observasi		819 (f)	463 (r)

Tabel 4.21 menyajikan secara ringkas hasil pengujian hipotesis 3b dengan menggunakan Tobin's q sebagai variabel dependen yang mengukur kinerja perusahaan. Adapun variabel-variabel yang digunakan adalah sebagai berikut ini. Q (Tobin's q) = (nilai pasar ekuitas + nilai buku hutang) / nilai buku aktiva. ABN_RPTUtangusaha; ABN_RPTUtangtidaklancar = residual dari regresi OLS (persamaan 5). BIG4 = 1 jika perusahaan di audit oleh auditor big 4 dan 0 jika sebaliknya. KOMDIT = jumlah total komite audit / jumlah total komisaris. DIR_IND = prosentase jumlah direksi independen. KOM_IND = prosentase jumlah komisaris independen. DIRKOM_PS = Size = natural log total asset. PS_MAIN = prosentase pemegang saham utama. Debt = total hutang / total aset. Liquid = hutang jangka pendek / total

hutang. MB = Nilai pasar ekuitas / nilai buku ekuitas. ROA = laba bersih / total aset. Angka dalam tanda kurung merupakan nilai t statistik, *** = signifikan pada level 1 %, ** = signifikan pada level 5%, dan * = signifikan pada level 10%. Hasil analitis statistis lengkap disajikan pada lampiran 14.

Tabel 4.21 reports the results on testing hypotesis 3b using 2 sub-categories of RPTs which are ABN_RPT account payable and ABN-RPT Non-current account payable. The third coloumn depicts the result of equation 10 using ABN_RPT account payable as an independent variable and tested using fixed effect method. For the ABN_RPT account payable (ABN_RPTAcc.Pay) the result is positive and significant. For audit by BIG4 the result is positive and significant. For the audit committee (COMDIT) the result is positive, but not significant. For the independent directors (IND_DIR) the result is positive and significant. For independent commissioner (IND_COM) the result is positive and significant. For the directors and commissioners that are part of the main shareholders (DIRCOM_SH) the result is negative, but not significant. For the percentage of ownership by major shareholders (SH_MAIN) the result is negative, but not significant.

Moreover, the results of moderating effect on various types of corporate governance variables as the core of hypothesis 3b, are almost all significant except for the interaction between ABN_RPT account payable and audit committee (ABN_RPTAcc.PAY*DITCOM), ABN_RPT account payable and the percentage of directors and commissioners as part of main shareholders (ABN_RPTAcc.Pay*DIRCOM_SH), and ABN_RPT account payable and the percentage of ownership by main shareholders (ABN_RPTAcc.Pay*SH_MAIN). For other moderating variables, the results are positive and significant as expected, thus hypothesis 3b is supported. This means that the corporate governace practice in public company may increase the positive effect of RPTs to firm's value (propping activities).

The fourth coloumn depicts the result of equation 10 using ABN_RPT non-current account payable as an independent variable and tested using random effect method. For the ABN_RPT Non-current account payable (ABN_RPTNon.Cur.Acc.Pay) the result is positive and significant. For audit by BIG4 the result is positive and significant. For the audit committee (COMDIT) the result is positive, but not significant. For the independent directors (IND_DIR) the result is positive and significant. For independent commissioner (IND_COM) the result is positive and significant. For the directors and commissioners that are part of the main shareholders (DIRCOM_SH) the result is negative, but not significant. For the percentage of ownership by major shareholders (SH_MAIN) the result is negative, but not significant.

Furthermore, the results of moderating effect on various types of corporate governance variables as the core of hypothesis 3b, are almost all significant except for the interaction between ABN_RPT non-current account payable and audit committee (ABN_RPTNon.Cur.Acc.PAY*DITCOM), and ABN_RPT account payable and independent direcors (ABN_RPTNon.Cur.Acc.Pay*IND.DIR). This means that the corporate governace practice in public company may increase the positive effect of RPTs to firm's value (propping activities).

The results of this research are in line with several previous studies regarding the propping hypothesis of RPTs or also called the efficient contract hypothesis rooted in the concept of cost transactions theory developed by Coase (1937) and Williamson (1975) who

state that RPTs are not always negative and have the potential to benefit shareholders). In this study, the type of RPTs used as propping by the firm are account payable and non-current account payable as all are related to cash receipts for the company. Moreover, according to Friedman, Johnson, & Mitton (2003) RPTs may be used to help increase income (earnings earnings) in companies that are experiencing a decline in performance. Khanna & Palepu, (2000) examined companies in India who joined business groups and find that several types of RPTs are used to reduce corporate transaction costs as part of vertical or horizontal integration in business groups. Jian & Wong (2010) show that public companies in China that belong to the same business group use RPTs with their parent companies (especially in terms of trade in goods and services) as a way to manipulate income and profits.

In addition Cheung et al. (2006) and Gordon, Henry, & Palia (2004) state that good corporate governance may used to reduce the adverse effects of RPTs that harm companies and non-controlling shareholders. Chien & Hsu (2010) conducted a study in Taiwan and find that a good corporate governance mechanism such as the use of Big5 auditors in auditing corporate financial statements and a more independent board of directors may change RPTs nature from "conflict of interest" to "efficient transactions". The results of this study managed to find a moderating effect from various corporate governance mechanisms which strengthen the positive influence of several RPTs to firm's value (BIG4, DITCOM, IND_DIR, IND_COM), and several corporate governance mechanisms that may weaken the positive influence several RPTs to firm's value (DIRCOM_SH, SH_MAIN).

5. Summary and Suggestion

This study examines how RPTs activities carried out by public companies in Indonesia may have a negative influence that harm non-controlling shareholders (tunneling hypothesis) and may have a positive influence for the firms (propping hypotheses). This research is crucial based on previous studies by La Porta et al. (1998) and Shleifer & Vishny (1997) that included Indonesia in countries with poor institutional system, high level of corruption, weak law enforcement and poor protection of investors and creditors. Thus, with the characteristic of highly concentrated ownership in Indonesia public firms, the appropriate type of agency conflict is a conflict between controlling and non-controlling shareholders where controlling shareholders are prone to expropriate non-controlling or minority shareholders (Type II Agency conflict).

One of the tools for expropriating minority shareholders is through RPTs where the controlling shareholders may transfer out the company's resources for their own interest at the expense of minority shareholders'. According to Johnson et al. (2000) these activities are referred to as "tunneling". However, RPTs are not only carried out on opportunistic motives but also for efficiency reasons. As research conducted by Khanna & Palepu (2000) that firms in the same business group may conduct RPTs for reasons of efficiency because external markets cannot perform their functions properly. A condition that often occurs in developing countries. Several previous studies also showed that RPTs are used to help firms experiencing financial difficulties or during initial public offering (IPO) (Bertrand et al., 2002; Friedman et al., 2003). This is called the propping hypothesis of RPTs. This study tests the tunneling and the propping hypothesis of RPTs by grouping various types of RPTs based on research of Cheung et al. (2006) and Atasanov et al., (2008) in order to separate the two hypotheses.

Based on the results of empirical testing it can be concluded that the results of this study are as follows. First hypothesis 1 which tests the negative effects of various types of RPTs on firm's performance (tunneling hypothesis) gives mixed results but generally supports hypothesis 1. The types of RPTs used in this study are trade transactions (TRP) which consist of sales and purchase transactions; Services Payment Transactions (SRP); Accounts Receivable Transactions (ARP) consisting of trade receivables, current account receivables, non-current accounts receivable, and other account receivables; and Asset Transactions (ARP) consisting of asset acquisition. Using the net profit margin (NPM) as a measure of firm's performance, the negative and significant results are trade transaction (TRP), service payment transactions (SRP) and Account receivables transactions (ARP) except for Non-current account receivables and other receivables. Using Return On Assets (ROA) as a measure of firm's performance, the results of asset acquisition variable is negative and significant, thus supporting hypothesis 1. Furthermore, using tobin 'q as a measure of firm's performance. Different measure of RPTs are used by measuring the abnormal portion of RPTs called the ABN_RPT variable (Jian and Wong, 2010), and the results show that almost all RPTs (sales, accounts receivable and asset purchases) have a negative and significant effect on firm value. Only the variable of the purchase transaction has negative but not significant results. Therefore, hypothesis 1 is also supported.

For hypothesis 2 (propping hypothesis), RPTs used in testing this hypothesis are related to cash receipts, such as account payable and non-current account payable. Using ROA as a measure of firm's performance, the result is positive and significant, thus, hypothesis 2 is supported. Further, using Tobin's Q as a measure of firm's value and RPTs are measured using abnormal portion account payable and non-current account payable (ABN_RPT). The results are positive and significant for both categories of RPTs. Thus, hypothesis 2 is supported. The results of this study are in line with several previous studies.

Furthermore, to test hypotheses 3a and 3b relating to the moderating effect of various corporate governance mechanisms on the relationship between RPTs and firm value, 6 corporate governance mechanisms based on previous literature studies are used. These are Auditing financial statement by the big 4 auditor (BIG4), the percentage of audit committees in the board of commissioners (DITCOM), the percentage of independent directors in the board of directors (IND_DIR), the percentage of independent commissioners (IND_COM), proportion of directors and commissioners as part of the main shareholder (DIRCOM_SH), and percentage owneship by major shareholders (SH_MAIN).

Empirical evidence from testing hypothesis 3a (tunneling hypothesis) shows that hypothesis 3a is supported. For the ABN_RPT purchase, the interaction between ABN_RPT * IND_COM has a positive and significant effect, and ABN_RPT * DIRCOM_SH has a negative and significant effect. Thus, hypothesis 3a is supported. Therefore, it can be concluded that the corporate governance mechanism, namely BIG4, DITCOM, IND_DIR, and IND_COM, weaken the negative relationship of RPT sales, purchases, accounts receivable and asset acquisition to firm value. While other corporate governance mechanism, such as, DIRCOM_SH and SH_MAIN strengthens the negative relationship.

Lastly, for hypothesis 3b (propping hypothesis), is supported. Therefore, it can be concluded that corporate governance mechanisms such as BIG4, DITCOM, IND_DIR and IND_COM may increase the positive influence of the relationship between RPTs categories

of account payabable non-current account payable to firm value. This means that when a company audits its financial statements with a BIG4 auditor, it has a large audit committee, has a large proportion of independent directors and commissioners, may serve their fuction to monitor RPTs effectively and change the nature of RPTs from opportunistic to efficient. While the DIRCOM_SH and SH_MAIN variables weaken the positive relationship. That is, when the proportion of directors and commissioners who are part of the controlling shareholder is large, and the percentage of main shareholders ownership is large, may disrupt the supervisory function of corporate governance which make RPTs remain as opportunistic transactions and may harm non-controlling shareholders.

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IS THE COMPANY'S OWNERSHIP STRUCTURE RELEVANT IN THE CORPORATE CASH POLICY?

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Abstract

Corporate governance are expected to be able to take on the responsibility to monitor the management team so that they work effectively in increasing shareholder prosperity. This empirical research examines implications insider ownership, institutional ownership, independent board to monitor, control management cash. This research based on agency theory framework, corporate governance for a typical developing country using Indonesia listed firms samples over 2001-2017. Dynamic panel regression and regression moderated analysis used in this research.

We show that; insider ownership weakens the relationship between cash and firm value. Insider ownership strengthens the relationship between optimal cash holding and firm value. Insider ownership does not interaction effect the relationship between speed of adjusment of cash and firm value. Overall these results sugest that the insider ownerships and independent board strengthens the relationship between corporate cash policy and firms value. Institutional ownership does not interaction effect the relationship between corporate cash policy and firm value.

Keywords: cash policy; insider ownership; institutional ownership; independent board.

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INTRODUCTION

Given that information asymmetry is important part of the possible costs associated with holding cash. The specific ownership and its propensity to have agency problems should be considered when examining firm cash holding policy (Opler et. al., 1999; Harford et. al., 2008). The agency problems between owners and manager disappear in family controlled firms because the family owns and manages the firm. However family and manager owns controlled firms may expropriate benefit from minority shareholders to increase family wealth rather than firms value. Agency problems are of primary importance in determining cash holding. Firms take into acount the discretion and managerial opportunism associated with cash when deciding how to compose their liquidity reserve (Ditmar et. al., 2003; Anderson and Hamidi, 2016).

Theoretically and empirically, cash holding is still a controversy, where the use of tremendous cash holding will bring great benefits and capital cost as well. Several empirical studies found a positive relationship between cash holding and firm value (Pinkowitz et. *al.,* 2003; Zhou, 2014). In many empirical studies, the evidence of a negative relationship is found between cash holding and firm value. According to Jensen (1986), Opler et. al., (1999), Baleno & Duran (2016), if managers have more free cash flow at their disposal, they are likely to overinvest in negative NPV project The firm's with high financial liquidity and large cash holding tend to do overinvestment, empire building, problem opportunism, agency problem, private benefits and also a large cost of capital.

The cash, cash optimal and speed of cash adjustment to optimal cash is highly important for firms, especially for economically-transitioning countries, where economic liberalization will reduce transaction costs in the capital market (Chang *et al*., 2016; Anderson and Hamidi, 2016). Indonesia has firm's average cash of 5.8%-7% as measured by cash +

cash equivalent/ total assets, compared to ASEAN countries (1994-2013). Cash is lower in firms at the countries with weak legal protection, due to high insider control and tendency to use excess cash for personal interests (Da Cruse, 2015). Various perspectives of cash management reflect managers' decisions and they are influenced by the ownership structure of the firm.

Many studies were conducted to examine and explain cash holding built using various theories, such as: trade-off, financial hierarchy, agency theory, corporate governance theory, and market timing theory (Opler et. al., 1999; Chen et. al., 2015). Many papers explores the relationship between corporate governance and corporate cash holding (Dittmar and Duchin, 2011, Anderson and Hamidi, 2016, Baleno and Duran, 2016,). Cash holding policy is related to the efficiency of firm management, because it affects the firm's operational activities every day, investment, financial behavior, dividend payment and other activities (Shipe, 2015; Byoun, 2008; Lozano and Duran, 2016).

Dynamic changes in achieving cash holding at optimal level will motivate firms to actively make cash adjustments to optimal levels. Jiang and Lie (2015) revealed that the cash holding speed of adjustment reflected several factors: 1) the cost of deviation from the target ratio; 2) the cost of cash adjustment and; 3) the manager's desire to adjust the cash ratio. Opler et. al. (1999) revealed that managers would use excess cash to increase firm value. The main benefit of continuously adjusting cash holding into optimal level will increase the firm value (Orlova and Rao, 2018; Shipe, 2015). Firms and firm's managers strive to achieve optimal cash and make appropriate cash policies (Orlova and Rao, 2018; Jiang and Lie, 2015).

The level of ownership concentration in a firm will determine the distribution of the power between shareholders and managers. Empirical evidence of the managerial effects on ownership on firm value shows mixed results (Huegen, et. al. 2009, Lozano and Duran, 2016). Empirical evidence indicates that institutional ownership has a negative effect on firm value,

whilst other research has a positive effect on firm value (Thomsen and Pederson, 2000; Johnsen and Milton, 2003).

The establishment of commissioners and audit committees is intended to improve the function of the board of commissioners in enhancing the interests of firms and firm's owners or shareholders. Through optimal supervision, independent board can reduce excessive risk taking and moral hazard behavior taken by non-independent board (Byrd and Hickman, 1992; Rosenstin and Wyatt, 1990; Coles et. al., 2001).

The present research was motivated by the importance owner structure to monitoring and control of cash, optimal cash holding for firms as well as the importance of speed holding cash adjustment for the firms in increasing their firm value. Given their ownership structure, family owners can use different mechanisms to increase their control cash holding over the firm and extract private benefits from minority shareholders. Firms in Indonesia have low cash fluctuation, weak protection shareholders are volatile and included in transitioning countries (Da Cruse, 2015: Kristanto et. al., 2017).

The remainder of the paper is organized as follows. Section 2 related literatures and develops our hypothesis. Section 3 present the data and estimation method. Section 4 result and anaysis. Finally conclusion and implication.

RELATED LITERATURES AND HYPHOTHESIS DEVELOPMENT.

The central idea in agency theory is to analyse contract relation that reflect efficiency information and risk shifting cost. As trade off arise from the separation of ownership and control, agency conflicts might occour when principal represesnted by agent differ in their interests and risk preferences, leading to problem such as moral hazards and adverse selection (Jensen and Meckling, 1976; Da Cruse, 2015). The agency perpective suggests that manager are likely to apropriate firm resources and extract rent. Liquid asset such as cash can be turn

into private benefits or and for the investment to increasing firm value (Opler et. al., 1999; Chang et. al., 2015)

In financial and managerial field, the research conducted by Opler et. al., (1999) and Miller and Orr (1996) employed a cash management model with a trade-off model. The pecking order theory model reveals that the optimum level of firm cash is the manager's preference function using internal resources to reduce transactional costs and asymmetric information. The research related to cost-benefit and liquidity with positive impact on corporate performance was performed by Pinkowitz et. al., (2003). Empirical studies found positive cash holding relationship with firm value (Kalcheva and Lins, 2007; Zhou, 2014; Lozano and Duran, 2016).

Various studies on cash holding firms were developed from capital structure theories: trade-off theory, agency theory, pecking order theory and market timing to explain corporate liquidity (Opler et al., 1999; Dittmar and Duchin, 2011). In the development of the literature on cash holding, the usage of the cash holding speed of adjustment methodology is the same approach as in testing trade off theories in the capital structure literature (Byoun, 2008).

The Shipe's (2015) study found that speed of adjustment as measured from cash volatility cash holding indicated an increase in firm value measured by Tobin Q. The results of the study also showed a significant positive relationship between cash holding speed of adjustment and firm value. *Hypothesis 1. Cash, optimal cash holding, cash holding speed of adjustment are positively related to the firm value.*

Several studies have found that in firms with weak corporate governance, they spend their cash holdings faster for inefficient investments. Inefficient investments are caused by weak corporate governance. It will give consequences on the profitability of the firm, as well as the value of the firm. Coles et al. (2008) argue that larger councils provide greater monitoring, thus improving firm performance. Morck, Shleifer and Vishny (1988) and

McConnell and Servaes (1990), Lozano and Duran, (2016) found a significant relationship between insider ownership and firm performance. The empirical study of Demsetz (1983) found a negative relationship showing that an increase in managerial ownership could reduce firm performance. Another study conducted by Stulz (1988) found that in a situation where insider ownership is low, there will be an increase in firm value because the right to supervise will be more formal.

Dittmar and Duchin's research (2010) found that adjustment cost has a very important role in the adjustment cash holding. The investigation conducted by Dittmar and Duchin (2010) found various factors that play a role in adjusting cash holding: access to banks, the size of free cash flow and the quality of corporate governance. The research by Dittmar and Mahrt-Smith (2007), Jiang and Lie (2015) found evidence that holding firms or managerial entrenchment will reduce excess cash or cash speed of adjustment faster than firms' growth. Corporate governance has a weak role in monitoring the use and management of the firm's cash that has grown. *Hypothesis 2. The greater insider ownership, the weaker relationship between cash, optimal cash, cash holding speed of adjustment and firm value.*

Institutional ownership is part of the firm's shares owned by institutional investors, such as insurance firms, financial institutions (banks, financial firms, credit), pension funds, investment banking, and other firms related to these categories. Ferreira and Matos (2008) reveal that institutional investors are more interested in the high cash holding because of positive impact on the value and performance of the firm. Institutional investors will prefer and appreciate appropriate business decision and long-term investments, continuous monitoring and management improvements (Graves and Waddock, 1990; Gillan and Starcks, 2003; Lozano and Duran, 2016). Kusnadi and Wei, (2005) find that government ownership is prevalent in Singapore companies. They find that companies with controlling institutional ownership tend to perfom better than those with no controlling shareholder. Institutional

investors will reduce opportunistic problems and agency costs and provide support for external financing and cash holding allocations on projects with positive NPV. *Hypothesis 3. The greater institutional ownership, the stronger relationship between cash, optimal cash, cash holding speed of adjustment and firm value.*

Jensen (1986) also argue that smaller council size can improve communication, cohesiveness and coordination to make the monitoring more effective. Through optimal supervision, independent commissioners are able to reduce excessive risk-taking and moral hazard behavior taken by non-independent commissioners (Byrd and Hickman, 1992; Rosenstin and Wyatt, 1990; Coles et. al., 2001). The greater representation of independent commissioners will improve the function of strategic control from the commissioners.

In the cash management literature, it is revealed that managers must actively manage cash to smooth the firm's operational activities and increase firm value (Shipe, 2015). The independent board is expected to be able to take on the responsibility to monitor the management team so that they work effectively in increasing shareholder prosperity (Shipe, 2015). *Hypothesis 4. Independent board strengthen the relationship between cash, optimal cash holding, cash holding speed of adjustment and the firm value.*

DATA AND ESTIMATION METHOD

The present research employed data from non-financial firms listed on the Indonesia Stock Exchange in 2001-2017 from various sources, including Indonesian Capital Market Directory (ICMD) from the IDX MM UGM corner, Bloomberg database (BNI Corner) FEB UGM, and Osiris database MSc & Doctor FEB UGM. The dependent variable in this research is the firm value measured from Tobin's Q. Tobin's Q is (market value of all standing shares + debt) / total assets. The independent variables in this research was cash, the optimal cash

holding and cash holding speed of adjustment. Moderating variables in this research were managerial ownership (%), institutional ownership (%), independent commissioners (%).

1. **Baseline Specification**

The basic model for the estimation of the determination of optimal cash holding used the optimal cash model from Opler, *et al.* (1998), Orlova and Rao (2018):

$$\mathbf{Cash_{i,t} = \alpha_0 + \beta_1 MTB_{i,t} + \beta_2 Sales\ Growth_{i,t} + \beta_3 Size_{i,t} + \beta_5 NWC_{i,t} + \beta_6 CapExp_{i,t} + \beta_7 Lev_{i,t} + \beta_8 Div_{i,t} + \beta_9 Age_{i,t} + \beta_{10} Industri_{i,t} + \varepsilon_{i,t}}$$

Where the cash variable is cash & cash equivalent/ total assets, MTB is the market value of equity/ total assets, Sales Growth is $sales_{t0}$ - $sales_{t-1}$ / $sales_{t0.}$ Size is the natural log of total assets, NWC is the net working capital/ total assets, capital expenditure is capital expenditure/ total assets, leverage is total debt / total assets. Dividend is a dummy 1 for those paying for dividends. Dummy 0 is for those who do not pay dividends, while age is the natural log of firm age, industry is a dummy variable.

2. Cash Holding Speed of Adjusment Model

The determination of the standard partial adjustment cash holding model used the Dittmar & Duchin (2011) model, Orlova and Rao (2018). The standard partial adjustment cash holding model is used to partially distinguish the cash holding speed of adjustments, which is between firms or industries. The coefficient β (beta or slope) is a cash holding speed of adjustment. Greater β coefficient shows the faster the cash holding speed of adjustment. Smaller β coefficient shows slower cash holding speed of adjustment.

Standard partial adjustment cash holding model:

$$\mathbf{Cash_{i,t+1} - Cash_{i,t} = \beta\ (Cash^*_{i,t+1} - Cash_{i,t}) + e}$$

Where variable $cash_{i,t+1}$ is the cash holding when t+1, $cash_{i,t}$ is the cash holding when t, $cash^*_{i,t+1}$ is the optimal cash holding or target cash holding, β is cash holding speed of adjustment towards target and e is the error term.

Cash and cash* are scaled by total asset. Often the optimal or target level of cash holdings can be estimated as:

$$\mathbf{Cash^*_i = \beta X_i + FE_i}$$

Where X_1 is a vector of observable firm specific that determine the firms target level of cash holding, β is a vector of coefficients and FEi is the firm fixed effect.

The estimation of model mainly concerns the model uncertainty and method uncertainty. The model uncertainty refer to the cash holding estimation of the model and in other words, which factor should be included in the target cash holding model is uncertain. The econometric method uncertainties arising from dynamic panel data have made it easy to achieve concensus on the speed of adjusment. Data have heterogenity firms and long time observation. The estimator of dynamic panel data have has two essensial advantages: controlling for potensial endogenity problem and addressing the dynamic nature of cash holding (Chang et al., 2015). Dynamic panel data regression model used for dynamic model cash holdings admit there is adjusment process to optimal cash holdings, thus resulting in a lag autoregressive dynamic regresive statistic model to estimate cash holdings. Fixed effect dynamic panel used in this research because fixed effect widely thought to be more convincing tool for estimating cateris peribus effect. Still, fixed effect is applied in uncertainty situations (Wooldridge, 2013).

3. Test of Hypotheses

To test our first hypothesis, we follows the equation:

$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{C/TA}_{i,t} + \beta_{3.it.}\text{Control Variables} + e._{i.t}$$
$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{OCH}_{i,t} + \beta_{3.it.}\text{Control Variables} + e._{i.t}$$
$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{SofAdj}_{i,t} + \beta_{3.it.}\text{Control Variables} + e._{i.t}$$

To test the others hypothesis, we add an interaction effect to the equation:

$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{C/TA}_{i,t} + \beta_{2.I.t}\text{C/TA}_{i,t} * \text{Moderating Variables} + \beta_{3.it.}\text{Control} + e._{i.t}$$
$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{OCH}_{i,t} + \beta_{3.I.t}\text{OCH}_{i,t} * \text{Moderating Variables} + \beta_{3.it.}\text{Control} + e._{i.t}$$
$$\text{Tobin-Q}_{,i.t} = \alpha_0 + \beta_{1,I.t} + \beta_{2.I.t}\text{SofAdj}_{i,t} + \beta_{2.I.t}\text{SofAdj}_{i,t} * \text{Moderating Variables} + \beta_{3.it.}\text{Control} + e._{i.t}$$

Where, dependent variable used in this study is the company's value used from Tobin-Q, namely total market value or total capitalization plus total divided by the total book assets. Tobin Q is (market value of all standing stocks + debt)/total assets. Independent variables in this study are C/TA is cash, OCH is optimal cash holding, and SofAdj is cash holding speed of adjusment to optimal cash holding. Moderating variables are managerial ownership (%), institutional ownership (%), independent commissioners (%), investment, and debt.

RESULT AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics

	Mean	Maximum.	Minimum.	Std. Dev
Determinant Variables				
C_TA	0,0889	0,7235	0,0059	0,0969
MTB_TA	0,6115	2,1689	0,0042	0,5403
Sales	0,0229	2,1663	0,0082	0,9150
Size	6,0824	8,4707	2,7533	0,7625
NWC_TA	0,4103	0,8076	0,0029	0,3062
CE_TA	0,0487	0,7844	0.0000	0,0622
Debt_TA	0,2924	0,6634	0,0004	0,2055
DIV	0,4580	1,0000	0,0000	0,4983
LOGAGE	6,0824	6,0031	2.7533	0,7625
Cash Optimal, Speed of Adjusment Varibles				
CASHOPTIMAL	0,0572	0,8130	0,0010	0,0207
SoAdj	0,0988	0,8534	0,0092	0,1485
Ownership Structure Variables				
Z_IB	0,3593	0,4541	0,0000	0,1526
Z_KM	0,0251	0,5845	0,0000	0,0663
Z_KI	0,2645	0,8759	0,0000	1,4196
Observation: 3349				

Source: Summarized from Eviews 10, 2018

Table 1. presents descriptive information statistic estimation of firm cash variables from 3349 firms in 2001-2017 (years of observation). The statistical description presented is the average, maximum, minimum, standard deviation. The dependent variable is C_TA, namely Cash & cash equivalent/ total asset. The

dependent variable, MTB_TA is *market value of equity/total asset, Sales* is $sales_{t0}$ -$sales_{t-1}$ /$sales_{t0}$,. Size is the natural log of total assets, NWC_TA is net working capital / total assets, CE_TA is capital expenditure/ total assets, Debt_TA is total debt / total assets, DIV is dummy 1 for those who pay dividends and dummy 0 is for those who do not pay dividends. LOGAGE is the firm's natural log age starting from listing period on the IDX. CASHOPTIMAL is optimal cash based on estimation, SoAdj is the speed of adjustment to optimal cash, Z_IB is the number of independent commissioners divided by the number of commissioners, Z_KM is managerial ownership (%). Z_KI is institutional ownership (%), Z_Inv is investment measured from non-current assets/ total assets, Z_Debt is total debt/ total assets.

Table 1 shows that cash & cash equivalent/total assets in the sample firms have an average of 0.0889 which, meaning that the average cash of the firm is 8.89% of the total assets. MTB_TA or the market value of equity total assets which are indicators that the firm's market value has an average of 0.8115, meaning that the average market value of the firm is lower than the book value. The optimal cash average in Indonesia is quite low compared to Da Cruz's (2015) findings in Southeast Asian countries. Estimated speed of adjustment to optimal cash is 9,888%. The findings indicate that the speed of adjustment to optimal cash in Indonesia is quite low when compared to other countries, such as China, Belgium which ranges from 20% to 40% (Chang et al., 2015; Jiang and Lie, 2015; Anderson and Hamidi, 2016).

Dynamic estimation model used fixed-effect cross-section specifications, generalized least square estimation or Panel Dynamic Model of CSF-EGS can be seen in table 2. Results show that the R-square is 80.71% and the adjusted R-square is 79.37% (Wooldridge, 2013). Predictive ability with this model looks better than other models. The prediction results of the firm's cash determination shows that variables market to book, sales growth, net working capital, capital expenditure, debt, dividends, previous year's cash C_TA (-1) affect the firm's cash. Variable size, and LOGAGE or firm's age does not significantly affect the firm's cash.

Table 2. Summary of Prediction Model of Cash Holding in Indonesian Firms

	Panel Cross-Section Fixed			Dynamic Panel Least Square			Dynamic Panel CSF-EGLS		
Variables	Coef.	t-Stat.		Coef.	t-Stat.		Coef.	t.Stat.	
Constanta	0,0469	3,6308	*	0,0000	0,0069	*	0,0217	1,9048	**
MTB	0,0043	4,7047	*	0,0071	8,0357	**	0,0019	2,3234	**
Sales	-0,0001	-0,756		0,0073	1,9105		0,0029	1,9217	**
Size	0,0034	1,5225		-0,000	-0,554	*	0,0003	0,1233	
NWC_TA	0,0938	18,097	*	0,0314	8,3085	*	0,0623	13,190	*
CE_TA	-0,0018	-0,192		0,0950	5,2151	*	0,0271	3,2815	*
Debt_TA	-0,0132	-4,446	*	-0,018	-3,424	*	-0,006	-2,426	**
DIV	0,0100	6,3687	*	0,0131	5,0035	*	0,0062	4,5481	*
LOGAGE	-0,0187	-5,803	*	0,0165	2,9814	*	0,0023	0,7834	
C_TA(-1)	-	-		-	53,355	*	-	27,186	*
R-square	0,7238			0,5830			0,8071		
Adjusted R^2	0,7059			0,6635			0,7937		
F-statistic	40,397			0,5818			60,146		
Prob (F-stat.)	0000			0000			0000		

DW-Stats.	1,2793			2,2299			2,1296		
N	3349			3349			3349		

Source: Summarized from Eviews Result 2018

Table 2. *=significant at the level of 1%, ** = significant at 5%, *** = significant at 10%.

Cash prediction results show that the market to book value will increase the firm's cash amount by 0.16%. The testing result indicates a positive relationship of market to book value and cash. It is consistent with the findings of Opler et. al. (1999), Anderson and Hamidi (2016). Sales growth will increase the firm's cash amount by 2.9%. The variable sales growth prediction is consistent with the findings of Opler et. al., (1999), Shipe (2015). Greater working capital will increase the firm's cash amount. The net working capital variable affects the firm's cash is also consistent with the findings by Opler et. al., (1999), Venkiteshwaran (2011), Orlova and Rao (2018). Increased capital expenditure will also increase the firm's cash amount to 2.71% of the firm's total assets. The positive relationship of capital expenditure with firm cash is consistent with the findings of Venkiteshwaran (2011), Orlova and Rao (2018). Larger firm's debt will reduce the firm's cash amount by 0.63% of total assets. Negative debt relation with cash is consistent with the findings of Shipe (2015), Orlova and Rao (2018). Greater dividend will increase the firm's cash amount. The positive relationship between dividends and cash is consistent with the findings of Venkiteshwaran (2011). Coefficient of cash/ total assets (-1) indicates that greater cash in the previous year will increase the firm's cash.

Moderated Regression Analysis Result and Discussion

In this analysis, which is based on the trade-off theory, agency theory, corporate governance of cash, optimal level of cash holdings for firms is dynamic rather than static. The results of the proposed hypothesis testing can be seen in Table 3. The results of the first hypothesis testing show that cash, cash holding, optimal cash holding, cash holding speed of adjustment have a positive effect on Tobin's Q or firm value. The testing with a variety of different proxies shows the same results, namely cash/ total assets, cash holding, cash holding speed of adjustments positively are related to Tobin's Q or firm value. These results indicate

that higher the cash value, cash holding, optimal cash holding and cash holding speed of adjustment and the firm will increase the firm value.

The results of the first hypothesis test support the theory and previous empirical studies. Cash decision and optimal cash holding are the decision that must be made by the manager in maintaining the capability of the firm's liquidity and operational liquidity. Many firms are significantly different in optimal cash and cash level which are affected by many factors. The cash holding policy is related to the efficiency of firm management, because it affects the firm's daily operations, investment, financial behavior, dividend payment and other activities. (Chang et. al, 2016; Shipe, 2015; Anderson and Hamidi, 2016; Lozano and Duran, 2016) found that is the optimal level of cash is not the same across firms or over time. Firms constantly need to adjust their cash levels to achieve the level of cash that balances the benefits and costs of liquidity.

Firms should allocate the firm’s holding cash at optimal level, where at the optimal level cash holding is used to maximize shareholder welfare. Either way, they should not only maximize the welfare of the managers or management or controlling shareholders. The test results indicate that the faster the firm adjusts to optimal cash, the more increasing the firm value will be. The result of this research supports several previous studies, such as those from (Orlova and Rao, 2018; Lozano and Duran, 2016; Shipe, 2015). The benefits of the cash holding speed of adjustment to the optimal target level include suppressing over investment, maintaining cash reserves, and serving as substantial economic condition smoothing. These are the indication of good cash management (Orlova and Rao, 2018; Shipe, 2015). Chang et. al. (2016), Lozano and Duran, (2016) found that the cash holding speed of adjustment would reduce transaction costs, a trade-off between costs and benefits that would increase the value of the firm. The research from Shipe (2015), Lozano and Duran (2016) found the results of

speed of adjustment as measured by the cash volatility cash holding, thus indicating an increase in firm value measured by Tobin's Q.

We find characteristics of insider ownership firms that influence their cash holding policy, we posit that insider ownership firms have a heterogeneous cash policy. Thus we analyze the indirect effects of being insider ownership firm on cash holding by including moderating variables in our models. The results of hypothesis testing show that the greater the insider ownership of the firm, the weaker relationship between cash holding and firm value; hence the hypothesis is supported. This result indicates that insider ownership the strengthens relationship between optimal cash holding and firm value. Meanwhile, insider ownership does not moderate the relationship of cash holding speed of adjustments to firm value.

Table 3. Moderated regression result
Dependent Variable: Tobin's Q

	Tobin's Q		
Independent Variables	Coef.	t-Stat	F-statistic
Cash/Total Asset	0,6277	8,412*	34,19
Optimal Cash	2,8450	6,932*	44,37
Speed.Adj	0,0035	2,507**	38,76
Insider.Owner	-0,035	-0,346	32,89
Insider.Owner * Cash/Total Asset	-0,997	-1,848***	32,77
Insider.Owner * Optimal Cash	0,009	7,9046*	33,67
Insider.Owner * Speed.Adj	-0,004	-0,251	32,81
Inst.Owner	-0,000	-0,211	36,23
Inst.Owner * Cash/Total Asset	0,476	2,814*	33,67
Inst.Owner * Optimal Cash	-0,014	-0,060	43,91
Inst.Owner * Speed.Adj	-0,000	-0,133	38,31

Indep.Board	-0,023	-0,774	33,19
Indep.Board * Cash/Total Asset	0,886	2,371**	33,68
Indep.Board * Optimal Cash	6,016	3,285*	43,92
Indep.Board * Speed.Adj	-0,003	-0,278	38,34
N observation: 3349			

Source: Summarized from Eviews 10- 2018.

Table 3. presents a summary of the interaction testing results of the variables insider ownership, institutional ownership, independent board, investment, debt to cash relationship, optimal cash holding, cash holding speed of adjustment on Tobin's Q or firm value research variables from 3349 firms during 2001--2017 (years of observation). These dependent variables is Tobin's Q. Independent variables are: cash/ total assets, optimal cash from estimation, speed of adjusment cash holding is $Cash_{i,t+1} - Cash_{i,t} = \beta (Cash^*_{i,t+1} - Cash_{i,t}) + e$. Moderating variables are insider ownership (%) is share ownership by insider; independent commissioner (%) is the number of independent commissioners divided by the number of commissioners; institutional ownership (%) is institutional ownership. * significant at 1%, ** significant at 5%, *** significant at 10%.

The results of insider ownership testing reinforce the relationship between optimal cash holding and firm value. Results indicating that insider ownership properly controls cash management, because the average insider ownership is low and therefore minimizing the indulgence of personal interests. These results are consistent with findings by McConnell and Servaes (1990), Lozano and Duran (2016) who found a significant interact and relationship between insider ownership and firm performance. The findings of the insider ownership reinforce the relationship between optimal cash holding and firm value. It is consistent with the finding by Anderson and Hamidi (2016) that there is an indication that dispersed insider ownership will minimize managers using excess cash holding. Referring to the theories and empirical evidence, the effect of insider ownership can be increasing the firm value is

consistent with the efficient monitoring hyphotesis or convergence of interest hyphotesis (Jensen and Meckling, 1976, Lozano and Duran, 2016)

The results of hypothesis testing show that insider ownership of a firm does not interact with the cash holding speed of adjustments and firm value. There is a tendency that insider ownership neither pays close attention nor controls the speed of adjusting to optimal cash.This research indicates that firm in Indonesia look the family business, and cash can be tranfer easy between firms or group business. It is consistent with the finding by Shipe (2015). There are indications that managers pay more attention to optimal cash for operational liquidity and firm's liquidity.

The testing results of the institutional ownership have more interaction effect between cash and firm value. This result indicate that larger institutional ownership reinforces the relationship between cash and the firm value. The argument is that institutional ownership is able to control the cash management to managers for conducting good corporate governance and increasing corporate value. The test results show that institutional ownership does not moderate the relationship between optimal cash holding and firm value. There is indication that institutional ownership is unwilling or reluctant to exercise optimal cash management control, and there is a tendency to only control the firm's cash. Institutional ownership has more trust in the managerial capabilities of the firm, thus controlling of the firm's cash management to become very weak (Graves and Waddock, 1990; Lozano and Duran, 2016). This result is consistent with the finding by Da Cruse (2015). Meanwhile, institutional ownership has tendency to be only short-lived and more concerned with the firm's stock price on the market and will retrieve it during high-price season.

Institutional ownership does not moderate the relationship between cash holding speed of adjustments and firm value. There is indication that institutional ownership is reluctant to over profoundly control the firm's optimal cash management. Optimal cash management is

the responsibility of financial managers. Institutional ownership trusts the managerial capabilities of the firm, turning the control of the firm's optimal cash management very weak. Institutional ownership tends to be associated with low performance. Institutional ownership is often involved in various business groups for those legally separated from the firm, either formally or informally (Da Cruse, 201; Heugens et. al., 2009). Institutional investors are different from individual investors who do not interfere in the internal affairs of firms with shares.Insignificant results of an institutional framework with weak investor protection lead us to consider the need to carry out more in-depth analyses in future research. To observe whether this institutional effect remains over a longer time span (Lozano & Duran, 2016)

The greater independent board the stronger interaction effect between cash, optimal cash and firm value. The results of the hypothesis testing are consistent with the findings of several previous studies (Lozano and Duran, 2016; Anderson and Hamidi, 2016). Research by Black *et al.* (2006), found that there was a positive role between independent board, board of commissioners and firm performance. The board of commissioners plays an important role in countries with weak investor protection and in emerging markets (Claessens and Yurtoglu, 2012; Chang et. al, 2016). Through the optimal supervision, independent commissioners can reduce excessive risk taking and moral hazard behavior, taken by the non-independent commissioners. The study conducted by Byrd and Hicman (1992), Coles, et. al., (2001), found that the greater the representation of independent commissioners, would improve the function of strategic control from the commissioner. Through close supervision, the independent commissioners can reduce the excessive risk of the behavior of the commissioners. The independent board is expected to be able to carry out the responsibility to monitor the management team to work effectively in order to increase the shareholder prosperity (Shipe, 2015).

The independent board does not moderate the relationship between cash holding speed of adjustment and firm value. The argument that can be derived from these findings is the tendency of the independent board to pay more attention, control the firm's optimal cash position compared to the speed of the firm in adjusting cash to cash. These findings are in line with those by Hermalin and Weisbach (2003) stated that independent commissioners would generate information asymmetry; whereas firm managers have excessive information compared to the board of commissioners. The board of commissioners has limited information about firm operations and irrelevant skills trends. Such condition will have an impact on the reluctance of the board of commissioners, making them uncritical and inactive in exercising control according to the role and task of monitoring.

Robustness Checks.

Estimator of dynamic panel data has two essential advantages: controlling for potential endogeneity problem and addressing the dynamic nature of cash holding (Opler et. al., 1999; Chang et. al., 2015; Lozano and Duran, 2016) . We use robustness test with run and compare any model and proxies in cash holding policy (Chang et. al., 2015; Lozano and Duran, 2016, Orlova and Rao, 2018). The test support used dynamic panel for estimates optimal cash holding. The cash holding speed of adjustment, deviation standard of cash are relevant to estimates cash management in Indonesian the firm.

Robustness checks estimation cash holding:

Dependent variable: Cash/Total Asset

	F-stat	R^2	Adjusted R^2	
Panel CSF	40,397	0,72	0,70	*
Dynamic Panel LS	488,12	0,58	0,58	*
Dynamic Panel CSF	60,146	0,80	0,79	*

* = significance level 1%, ** = significance 5%, *** = significance 10%.

Robustness checks cash management and firm value.

Dependent variable: Tobin's Q

	Fstat	R^2	
Cash/Total Asset	34,19	0,68	*
Optimal cash holding (estimation)	44,38	0,73	*
Standard Partial Speed of Adjustment $Cash_{i,t+1} - Cash_{i,t} = \beta(Cash^*_{I,t+1} - Cashi,t) + e$	38,77	0,71	*
Standard Deviasi Target Cash SDTC, $Cash_i = Cash_{i,t0}/Asset_{i,t-1} - Cash_{i,t0}/Asset_{i,t0}$	37,66	0,70	*

* = significance level 1%, ** = significance 5%, *** = significance 10%.

Conclusion and Implication

Agency theory as applied to cash holdings in the literature has mostly focused on agency conflicts that arise from ownership, corporate governance. Agency problems are considered an important determinant of the value and level of corporate cash holding. This research is crucial because good cash management is needed to maintain operational liquidity and the firm's liquidity to increase firm value. Our study shows that the ownership structure of companies is an important determinant of its management cash holding in Indonesian firms. Differences in this policy may therefore be the result of the different uses that firms assign to their cash, especially when comparing insider ownership, institutional and independent board firm

There is still limited amount of research in Indonesia about optimal cash and the optimal speed of adjustment which use incorporation of agency theory and corporate governance. The researchers were motivated in taking objects in Indonesia because it is included as transitioning country with low cash rates compared to other countries in Southeast Asia (Da Cruse, 2015). This research examines and analyzes the optimal cash, speed of adjustment to optimal cash and firm value in Indonesia, and the interaction of agency theory perspective.

The results show that cash, cash holding, cash, cash holding speed of adjustment are positively related to firm value. These findings make optimal cash management guidance and the speed of adjusting to optimal cash in increasing firm value. Greater insider ownership further strengthens the relationship between optimal cash holding and firm value. The present research shows that the interaction of corporate governance also demonstrates mixed results. Insider ownership is able to manage cash and optimal cash to increase firm value. Independent board is capable of monitoring cash and optimal cash. Corporate governance do not interact effect between cash holding speed of adjusment and firm value. These results give a clue to the weaknesses of corporate governance about monitor and control cash holding speed of adjusment in Indonesia firms.

The theoretical implications of the results of this research are able to explain the development of the base line cash holding model of the Opler's, et. al., (1999) determinant cash holding model. Adding the additional literature to the moderating factor of the corporate governance in Indonesia. This research complements some of the methodologies of the previous corporate cash policy.

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