The Effect of Shareholders’ Conflict over Dividend Policy on Accounting Conservatism: Evidence from Public Firms in Indonesia

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Abstract
The purpose of this study is to examine the effect of conflict of interests between majority and minority shareholders over dividend policy on accounting conservatism. Shareholders conflict is proxied by dividend and majority shareholders’ control rights.

The research is done on firms listed on Indonesia Stock Exchange. Sample is determined by purposive sampling, consisting of 253 observations. The results of multivariate regression analysis with panel data regression techniques show that dividends have positive effect on accounting conservatism. Majority shareholders’ control rights also affect accounting conservatism. These results deepen the empirical evidence for Agency Theory from Agency Conflict Type II and prove that accounting conservatism made by management on concentrated ownership is under the control of majority shareholders. Therefore, majority shareholders can increase their utilities through the hands of management.

Keywords: Agency Conflict Type II, Accounting Conservatism, Dividend Payout Ratio, Control Rights.

1. Introduction
Accounting conservatism is defined as assessment principles in accounting affecting accounting practices for centuries and as an important convention in financial reporting (Sterling, 1967; Basu, 1997; Givoly and Hayn, 2000 and Watts, 2003). Accounting conservatism is seen as an effective way to minimize the agency problem on dividend policy (Ahmed et al., 2002; Sari, 2004; Juanda, 2007; Widanaputra, 2007; and Hille, 2011). Agency problem may occur because of the separation between ownership and control on firm operations. By applying accounting conservatism, it can minimize earnings and net assets reported, thus it reduces the ability of managers to take action in serving their own purposes.

Previous researchers consider Agency Theory from the conflict of interests perspective between shareholders and management on dividend policy. This agency conflict is less relevant to public firms in Indonesia, because of the concentrated ownership (La Porta et al., 1999; Febrianto, 2005; Siregar, 2006; and Sanjaya, 2010). Concentrated ownership results the conflict of interest between majority and minority shareholders. This conflict is known as Agency Conflict Type II (Fan and Wong, 2002; Villalonga and Amit, 2004; and Siregar, 2006). Majority shareholders are able to control management in determining important policy for the firm (La Porta et al., 1999). Thus, the firm controller is majority shareholders, not the management as it is in the dispersed ownership (Faccio and Lang, 2002).

Majority shareholders may behave opportunistically by reducing the wealth transferred to minority shareholders when deciding on dividend policy. Conflict occurs because majority shareholders do not require large amount of dividends, while small shareholders (individuals) generally desire large amount of dividends, this is explained by Clientele Effect and Tax Differential Theory (Litzenberger & Ramaswamy, 1982). This condition is also supported by the dividend policy in Indonesia which is determined by shareholders through the General Meeting of Shareholders (RUPS) so that the amount of dividends depends on the decision of shareholders attending the RUPS. However, they also have limitations on dividend policy due to regulations requiring firms to inform dividend policy plans in issued prospectus.

Prospectus containing dividend policy is expressed in exacting percentage of earnings. The range of planned dividend percentage should also be stated in the prospectus. Majority shareholders can use their rights to control the management in order to minimize reported earnings generated by applying accounting conservatism. This condition is explained by the argument of entrenchment effect.

Previous researchers such as Siregar (2006), Widanaputra (2007) and Sanjaya (2010), have not examined the accounting conservatism with conflicts of interests as explanatory variable between majority and minority shareholders.
shareholders on dividend policy. Accounting conservatism can be utilized by insider to minimize the earnings
and net assets reporting.

1.1 Aim of Study
This study aims to examine the effect of the conflict of interest between majority and minority shareholders over
dividend policy on accounting conservatism. Shareholders conflict is proxied by dividends and majority
shareholders’ control rights.

1.2 Significance of Study
This study contributes in increasing the empirical studies on Agency Conflicts Type II which is still limited in
Indonesia. The remaining of this paper is organized as follows. Section 2 discusses study of literature and
hypothesis development. Section 3 describes research methodology, Section 4 presents the results of this study
and it is continued by section 5 with conclusion and recommendations.

2. Literature Review and Hypothesis Development

2.1 Agency Problem II
The separation between owner and controller might emerge agency problems (Jensen and Meckling, 1976). If
the management has the job to control firm and the principal acts as capital owner, then the agency conflict
occurs between shareholders and management.
Agency conflict between shareholders and management can be reduced through concentrated ownership.
Ownership concentration has power to control management decisions. However, it raises another problem, that is
the problem between majority shareholders and minority shareholders (Fan and Wong, 2002). It is called Agency
Problem II (Villalonga and Amit, 2004). Agency Problem II considers the minority shareholder as the principal.
Minority shareholders are also called as outsiders. Majority shareholders are agents that have control of the
assets of the firm. Majority shareholders’ rights to control can be used to influence management decisions in
determining the firm policies. Those control rights can also be used to expropriate minority shareholders in the
form of asset redistribution. This condition indicates that firm's assets are not acquired by minority shareholders.
Majority shareholders control the firm's assets in order to meet their private interests. For this purpose, majority
shareholders can utilize their control rights. Control rights are used to influence dividend decision and exploit
firms under their control. Agency conflict between majority shareholders and minority shareholders is greater if
control rights differ substantially from cash flow rights (La Porta et al., 1999; Claessens and Fan, 2002).

2.2 The Dividend Theories: Tax Differential Theory and Clientele Effect
Tax Differential Theory states that there is a difference taxing on dividends and capital gains that lead investors
to prefer capital gains because the payment of taxes can be deferred until it is realized (Litzenberger and
Ramaswamy, 1982). Firms tend to determine low dividend payout ratio or not paying dividends to minimize the
cost of capital and maximize its value.
The theory of clientele states that different shareholders will have different preferences to firm’s dividend policy
(Litzenberger and Ramaswamy, 1982). The group of shareholders who is taxed with relative low amount tends
to prefer big amount of dividends. Clientele effect implies that small dividend payout policy is more favorable
for large shareholders group (Allen et al., 2000).
This study uses the tax differential theory and clientele effect theory to explain the conflict between majority and
minority shareholders over dividend policy. Both dividend policy theories explain the divergence of interests
between majority and minority shareholders over dividend policy.

2.3 Accounting Conservatism
A firm is a nexus of contracts. Jensen and Meckling (1976) state that a firm has contractual relationships with the
various stakeholders, such as creditors, governments, communities and other parties concerned. Watts and
Zimmerman (1986: 200-221) use positive accounting theory to explain and predict managers’ behaviors in
relation with choosing the procedures and accounting methods by managers in order to achieve certain goals.
These following three hypotheses are to explain the reasons for managers in picking accounting methods, which
are: (1) bonus plan hypothesis; (2) debt covenant hypothesis; and (3) political cost hypothesis
Positive accounting theory states that the accounting choices such as accounting conservatism can limit the
opportunistic behavior of managers in transferring firm's assets for personal purposes. Accounting standards
allow firms to choose accounting methods that have implications on firms’ reported earnings whether tend to be
conservative or optimistic.
Related to the concept of conservatism, Suwardjono (2005) states that in an uncertainty condition, management
will use this option to describe accounting behavior. Accounting conservatism implies on accruing losses that are
likely to happen, but does not immediately accrue incomes or earnings that is likely to happen in foreseeable
future. Based on this concept, the firm will report lower and relative permanent earnings.
Furthermore, Wolk et al. (2000:144-145) define accounting conservatism as an attempt to select general acceptable accounting methods which are (1) slowing revenue recognition, (2) speeding up accrual expense, (3) degrading assets valuation, and (4) raising debt valuation. Conservatism is supposed to happen every year, so that for this reason Givoly and Hayn (2000) predict that conservatism produces an accumulation of negative, cumulative and sustainable non-operations.

2.4 Firm Ownership Structure
The structures of firm ownership are classified into two, which are the dispersed ownership structure and concentrated ownership structure. Dispersed ownership usually occurs in the U.S. and the U.K. Reservedly, the ownership structure of firms in countries of East Asia and East Europe are concentrated on particular owners (La Porta et al., 1999; and Faccio and Lang, 2002). There are three variables in firm ownership structure (Jensen and Meckling, 1976), that are insider equity owned by management, outsider equity owned by parties outside the firm, and debt owed to someone outside the firm. Dispersed ownership structure occurs when outsider equity held by many investors and each inventor has relatively little equity value. However, in concentrated ownership structure, shareholders are grouping themselves into large shareholders or majority shareholders in the firm. Majority shareholders are able to increase their ownership through pyramidal ownership structure, cross-ownership and through the involvement of majority shareholders in the firm. The increase of ownership may improve majority shareholders’ abilities to control the firm.

2.5 Control Right and Entrenchment Effect
Voting right is one of shareholders’ rights on firm's important decisions, such as mergers, acquisitions, diversification, dividend policy, and commissioner election. Majority shareholders can effectively reduce agency problem between management and shareholders. However, it has consequences in rising costs. Cost is incurred due to limited opportunities for majority shareholders to diversify so that they bear greater risk.

Control rights owned by majority shareholders as controlling shareholder is the weakest link in each chain of ownership (Siregar, 2006). Study by Morck et al. (2004) find that when the ownership is under ten percent, then the increase in ownership will boost firm’s earnings. However, after the ownership is above ten percent, the increase of ownership will not actually increase firm’s earnings.

Shleifer and Vishny (1997) state that when private benefits of control they have are substantial, majority shareholders will seek to allocate firm resources to generate those private benefits for them. High control right allows controlling shareholders to be interested in enriching themselves by not paying dividends. Based on this argument, the concentration of control right negatively affect dividends is considered. Faccio et al. (2001), Gugler and Yurtoglu (2003), and Siregar (2006) prove that the negative effect of the concentration of control rights to dividends is in line with the argument of entrenchment effect.

2.6 The Effect of Dividends on Accounting Conservatism
Conflict of interests between majority and minority shareholders is proxied by dividends. Conflict occurs because majority shareholders do not require large amount of dividends, while small shareholders (individuals) generally desire large amount of dividends. This is explained by Clientele and Tax Differential Theory (Litzenberger & Ramaswamy, 1982).
Ahmed et al. (2002) prove that dividends payout has a positive effect on accounting conservatism. Test results by Ahmed et al. (2002) are confirmed by Hille (2011) for public firms in Europe. Sari (2004) proves that dividends have a positive effect on accounting conservatism regarding dividends distribution for the firms in Indonesia. Juanda (2007) declares that conflict of interests has a positive effect on accounting conservatism. Dividends payout has a positive influence on financial reporting (Widanaputra, 2007). Putri (2011) proves that dividend policy motivates management in doing earnings management. Based on previous research, it can be concluded that the higher conflict over dividend policy affects higher conservatism levels. So dividends payout may motivate management to apply accounting conservatism. Thus, the research hypothesis is formulated as follows.

Hypothesis 1: Dividends have a positive effect on accounting conservatism.

2.7 The Effect of Control Rights on Accounting Conservatism
The effect of control rights on dividends is based on the argument of entrenchment effect. Majority shareholders are interested in using control rights to obtain private benefits by doing expropriate. Expropriation from minority shareholders may occur because majority shareholders are more interested in private benefit which is not given to minority shareholders (Shleifer and Vishny, 1997, and La Porta et al., 1999). Negative influence of control rights on accounting conservatism is proved by Sanchez et al. (2011) and Wang et al. (2011).
Shleifer and Vishny (1997) prove that when control rights are large enough, shareholders will seek to allocate resources in order to obtain private benefits. Chi and Wang (2008) prove that there is changes in asymmetry information between majority and minority shareholders that positively affect earnings conservatism. Thai and
Kuntisook (2009) find an increase in the ownership of controlling shareholders impacts to an increase in accounting conservatism. The statement that firms with multiple block holders have a higher level of conservatism compared to dispersed ownership is expressed by Haw et al. (2011). The description above states that the higher control rights indicate the higher conflict between majority and minority shareholders. Thus, the research hypothesis can be formulated as follows.

Hypothesis 2: Majority shareholders’ control rights have a positive effect on accounting conservatism.

3. Research Methodology

3.1 Population and Sample
The population contains all firms listed on Indonesia Stock Exchange in the period of 2006 until 2010. Samples are determined using purposive sampling technique with the following criteria: (1) firms with concentrated ownership on 30 percent split-off of control rights, (2) Firms paying dividends at least in four consecutive years. These criteria derive number of observations of 253 firm-year.

3.2 Data Sources
This study uses secondary data with archival data collection technique. Data are obtained from the Indonesia Stock Exchange through accessing the website www.idx.co.id and Indonesia Business Data Centre to gather ultimate ownership data.

3.3 Variables and Measurements
Research variables include independent variable, dependent variable, and control variable.

3.3.1 Independent Variables

1. Dividends (Div)
Dividend is earnings share for shareholders. Dividend is measured by Dividend Payout ratio. Ahmed et al. (2002), Sari (2004), Widanaputra (2007), and Hille (2011) also use this measurement. The formula to calculate dividends paid is yearly dividend per share/earnings per share.

2. The Majority shareholders’ control rights (CR)
The majority shareholders’ control rights (CR) show the ability of shareholders to control firm policy. CR is measured by summing the percentages of direct ownership and indirect ownership. Such measurement is also carried out by La Porta et al. (1999); Siregar (2006), and Sanjaya (2010). The split-off of control rights used in this study is 30 percent, following the percentage used by Demirag and Serter (2003) because the ownership of public firms in Turkey are less scattered, similar to the condition of public firms in Indonesia (Sanjaya, 2010). Direct ownership percentage is obtained from ownership percentage presented in the annual financial statements. If in the annual financial statements there is institutional ownership, then the ownership is traced until it can figure out the ultimate owner. Indirect control rights are the lowest ownership percentage of share ownership.

3.3.2 Dependent Variable
The dependent variable is accounting conservatism. It is calculated with the model of Givoly and Hayn (2000). In order to reflect accounting conservatism level on higher and more conservative values, then the calculation of the conservatism level is multiplied by minus one (-1). The formula used is as follows.

\[
\text{Cons G & H} = \frac{\text{AAC}_{it} - \text{OCF}_{it}}{A_{it}}
\]

Where:
- Cons G & H: Accounting conservatism level calculated by the model of Givoly and Hayn (2000)
- AAC_{it}: Accruals, which is net income before extraordinary items plus depreciation and amortization of firm \( i \) in period \( t \)
- OCF_{it}: Operating cash flow of firm \( i \) in period \( t \)
- A_{it}: Total assets of firm \( i \) at the end of year \( t \)

3.3.3 Control Variables
The purpose of using control variable is to obtain a more complete and better empirical model. Control variable cannot be hypothesized in order to avoid specification mistakes and identification model. The use of control variable is based on several considerations such as (1) Leverage (Lev) which is measured by the ratio of total debt to total assets. This measurement refers to Faccio et al. (2003). (2) Investment Opportunities Set (IOS) which is measured by investment to net sales ratio. High IOS reflects that the firm is growing. Accordingly, it requires substantial funds to realize it, resulting in smaller dividends to be distributed. (3) Firm size (LogSize).
The firm chooses to reduce accounting conservatism in order to lower earnings so that it will lessen the attention from the government. LogSize is measured by the logarithm of total assets of the firm by the end of the year.

3.4 Empirical Model

The effect of conflict between majority and minority shareholders over dividend policy on accounting conservatism are to be tested by multivariate regression model with regression techniques.

\[
\text{Cons G & H} = \alpha + \beta_1 \text{Div}_{it} + \beta_2 \text{CR}_{it} + \beta_3 \text{Lev}_{it} + \beta_4 \text{IOS}_{it} + \beta_5 \text{LogSize}_{it} + \epsilon_{it}
\]

Where:
- **Cons G & H:** Accounting conservatism calculated with the model of Givoly and Hyan (2000)
- **\( \alpha \):** Constanta
- **\( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \):** Regression coefficient
- **Div\(_{it}\):** Dividend payout ratio of firm \( i \) in period \( t \)
- **CR\(_{it}\):** Direct and indirect control rights of majority shareholders of firm \( i \) in period \( t \)
- **Lev\(_{it}\):** The ratio of long-term debt to total assets of firm \( i \) in period \( t \)
- **IOS\(_{it}\):** Investment to net sales ratio of firm \( i \) in period \( t \)
- **LogSize\(_{it}\):** Total assets logarithm of firm \( i \) at end of period \( t \)
- **\( \epsilon_{it} \):** Error term of firm \( i \) in period \( t \)

4. Result and Discussion

4.1 Sample Description

Majority shareholders, based on control rights concentration and with split-off of 30 percent, are classified into 5 groups: financial institutions with broad ownership (6.72 percent), families/individuals (47.43 percent), government institutions (20.16 percent), firms with broad ownership (23.72 percent), and others (1.98 percent). These research results are consistent with findings of Siregar (2006). The largest control rights are concentrated in the families/individuals. Therefore, it is potential for Agency Conflict Type II to occur in public firms in Indonesia. About sixty two percent of the pattern of increased control rights are conducted through pyramidal ownership, and the rest of 38 percent are done through direct ownership.

4.2 Data Description

Accounting conservatism is analyzed based on financial statement data from the year of 2006 up to 2010. Table 1 presents descriptive statistics test results of each variable. The average value of accounting conservatism of public firm paying dividends is 0.06. The average value of the control rights of shareholders is 63 percent, higher than that is stated on the statement of financial accounting standard, which is 50 percent. There are still some firms that distribute dividends greater than earnings gained in the current year.

4.3 Regression Analysis Results

Table 2 presents the regression analysis results for hypothesis 1, hypothesis 2 and control variables. Regression results interpreted based on the estimation of fixed effect model for p-value of Hausman test is significant or less than \( \alpha = 5\% \) (chi square = 12.79537, p-value = 0.0254). The testing focus is on coefficient \( \beta_1 \) and \( \beta_2 \) which shows the effect of majority and minority shareholders conflict on accounting conservatism.

Before conducting the hypothesis testing, the test previously presents classic assumption test on regression model in Table 3. Accordingly, there is no classic assumption problem. Classic assumption tests that have been done include linearity test, multicollinearity, heteroskedasticity, autocorrelation, and normality. If all of the classic assumption tests are fulfilled, then it will produce linear accounting conservatism estimator, unbiased, and minimum variance (Best Linear Unbiased Estimator = BLUE).

4.3.1 The Effect of Dividends on Accounting Conservatism

Hypothesis 1 (H\(_1\)) states that dividends have a positive effect on accounting conservatism. This hypothesis is supported by the testing results indicating that t-statistics value = 4.018066 with p-value of 0.0001 which is less than \( \alpha = 5\% \). The coefficient of \( \beta_1 \) is 0.000191 meaning that the higher percentage of dividends payout, the higher levels of accounting conservatism is. More firms adopt conservative accounting to minimize the amount of reported earnings, so that the amount of earnings distributed to minority shareholders is lower. This shows that asset redistribution happens, which is consistent with Agency Theory and Agency Conflict Type II (Villalonga and Amit, 2004).

The results of this study also prove that majority shareholders prefer dividends in small amounts, so that there are a greater number of retained earnings in the firm. This fact is explained by Clientele Theory and Tax Differential (Litzenberger and Ramaswamy, 1982). The results also support Allen et al. (2000) stating that the group of majority shareholders tends to desire low dividends payout due to it is more favorable for majority
Minority shareholders who have limited information in the firm will use the published earnings information as the basis for decision making. Meanwhile, majority shareholders who have private information are freely to influence management to provide information in accordance with the interests of majority shareholders.

4.3.2 The Effect of Shareholders’ Control Rights on Accounting Conservatism

Hypothesis 2 (H2) states that majority shareholders’ control rights have a positive effect on accounting conservatism. The empirical results support the predictions of hypothesis 2. The test results demonstrate the t-statistics value of 2.253223, with p-value of 0.0254 which is less than α = 5 percent. Beta coefficient indicates positive direction with the value of β2 = 0.000238. This indicates that the higher majority shareholders’ control rights can lead to higher accounting conservatism level of the firm paying dividends. The higher control rights are able to lead to a lower amount of dividends, due to the application of conservative accounting affecting the smaller number of earnings to be reported.

Control rights are the rights to be utilized by majority shareholder to control the important policy of the firm. With the control rights they have, majority shareholders attempt to allocate firm’s resources in achieving of private benefits (Shleifer and Vishny, 1997). The results of this study indicate that majority shareholders maximize their utilities through the hands of management. Therefore, Agency Theory and Agency Conflict Type II are applied to explain relevantly these results.

Agency Theory Type II assumes that agents play direct roles in managing the firm, not as an agent who receives mandates from the principals. Agency Conflict Type II also occurs in concentrated ownership in which there is a difference between cash flow rights and control rights. The tracing of results also shows that 62.05 percent of share ownership in the sample firms are conducted through the pyramid ownership. Pyramid ownership causes a difference between cash flow rights and control rights. The results of this study support the hypothesis of entrenchment effect.

Improved control rights encourage majority shareholders to expropriate minority shareholders. Expropriation is carried out to satisfy private interests (Mork et al., 2004). Majority shareholders are protected by their control rights, so they can do the expropriation (Fan and Wong, 2002).

Expropriation done by majority shareholders over dividend policy is by minimizing the amount of dividends. Majority shareholders with their control rights are able to take control of the management in choosing accounting techniques and procedures that are suitable to minimize the amount of reported earnings and thus to hide expropriate action.

Control rights are the rights of common shareholders to elect the board of directors and determining policies for the firm such as securities issuance, stock splits, and substantial changes in firm operation. The increase in control rights motivate the majority shareholders to expropriate. By using control rights, majority shareholders can increase their utilities through the hands of management.

4.3.3 The Effect of Control Variables on Accounting Conservatism

Control variables tested are leverage, investment opportunity set and firm size. Leverage has no effect on accounting conservatism. Leverage cannot explain the variation in accounting conservatism better than dividend payout ratio and majority shareholders’ control rights in this research model. Investment opportunity set has a significant and positive effect on accounting conservatism. These results are consistent with the prediction that investment opportunity set causes the firm to apply accounting conservatism. Thus the investment opportunity set is able to control causality model of dividend payout ratio and control rights of majority shareholder on accounting conservatism. Firm size has no effect on accounting conservatism. These results do not support the prediction that firm size leads the firm to apply accounting conservatism. This indicates that additional control variable that is firm size, cannot explain the variation of accounting conservatism better than dividends payout and shareholder control rights hence this model is not feasible to be in control with firm size.

4.3.4 Sensitivity Test Results

Sensitivity test without control variables shows consistent results that dividends and shareholders’ control rights has a positive effect on accounting conservatism. The test results indicate that the sample is quite representative in representing the heterogeneity of this research variables in the relation to control variable. The regression test results are presented in Table 4.

5. Conclusion and Recommendations

The purpose of this study is to test the effect of conflict between majority and minority shareholders over dividend policy. The conflict between majority and minority shareholders is proxied by dividends and majority shareholders’ control rights. In general, Agency Conflict Type II exists in public firms in Indonesia, it is proven
by the fact that the share ownerships in public firms are concentrated in specific shareholders and majority shares of public firms are concentrated in families and individuals. The results indicate that the higher percentage of dividends paid, the higher level of accounting conservatism would be. This means that firm with larger dividend payout ratio would be more conservative in reporting their earnings. This happens so that there will be more funds to be retained in the firms. This majority shareholders’ action is called asset redistribution. Dividend Policy Theories: Clientele Effect and Tax Differential theory (Litzenberger and Ramaswamy, 1982) supports this statement. The higher majority shareholders’ control rights can lead to higher level of accounting conservatism in the firms. This condition indicates that majority shareholders expropriate minority shareholders through dividends distributed. Accordingly, majority shareholders is able to improve their ability in controlling the firm by increasing their control rights. This fact is supported by the theory of entrenchment effect. The results of this study support Agency Theory from the perspective of agency conflict type II (Villalonga and Amit, 2004). Majority shareholders can increase their utilities through the hands of management to implement accounting conservatism. This study has limitations in measurement. The measurement of accounting conservatism level emphasizes more on management behavior in reporting lower earnings and assets persistently than the asymmetric timeliness (market-based measurement as developed by Basu, 1997). Future researchers are expected to examine accounting conservatism with market-based measurement to examine Agency Conflict Type II from information perspective, the approach that links between usefulness and information content.

Reference


Table 1. Statistic Descriptive Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Sample</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
<th>Average Value</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Div</td>
<td>253</td>
<td>0.10</td>
<td>142.00</td>
<td>35.77</td>
<td>20.59</td>
</tr>
<tr>
<td>CR</td>
<td>253</td>
<td>30.00</td>
<td>99.12</td>
<td>63.22</td>
<td>15.95</td>
</tr>
<tr>
<td>Lev</td>
<td>253</td>
<td>0.04</td>
<td>0.99</td>
<td>0.50</td>
<td>0.24</td>
</tr>
<tr>
<td>IOS</td>
<td>253</td>
<td>0.001</td>
<td>0.60</td>
<td>0.13</td>
<td>0.14</td>
</tr>
<tr>
<td>LogSize</td>
<td>253</td>
<td>4.99</td>
<td>8.61</td>
<td>6.36</td>
<td>0.83</td>
</tr>
<tr>
<td>Cons G &amp; H</td>
<td>253</td>
<td>-0.20</td>
<td>0.31</td>
<td>0.06</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Source: Data processed, 2013

Table 2. Regression Analysis Results

\[
\text{Cons G & H} = \alpha + \beta_1 \text{Div} + \beta_2 \text{CR} + \beta_3 \text{Lev} + \beta_4 \text{IOS} + \beta_5 \text{LogSize} + \epsilon
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Fixed - Effect</th>
<th>Random- Effect</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>n=253</td>
<td>n=253</td>
</tr>
<tr>
<td>Div</td>
<td>0.000191</td>
<td>0.000179</td>
<td>(4.018066)**</td>
</tr>
<tr>
<td>CR</td>
<td>0.000238</td>
<td>0.000222</td>
<td>(2.253223)**</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.001425</td>
<td>-0.000216</td>
<td>(-0.262022)</td>
</tr>
<tr>
<td>IOS</td>
<td>0.017517</td>
<td>0.015231</td>
<td>(0.497715)**</td>
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<tr>
<td>LogSize</td>
<td>0.013408</td>
<td>0.002553</td>
<td>(1.785595)</td>
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</table>

\[ R^2 = 0.503582 \]

F-Statistic = 3.318400

Probability = 0.000000

Hausman Test

<table>
<thead>
<tr>
<th>Chi square</th>
<th>Probability</th>
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<tbody>
<tr>
<td>12.79537</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

Description: ** significance at \( \alpha = 5\% \)

Div = dividend, dividend payout ratio; CR = Control Rights, the percentage of direct share ownership plus the percentage of the lowest indirect shares ownership; Lev = leverage, total debt compared to total assets; IOS = investment opportunity set, the ratio of total investment compared to total sales; LogSize = firm size, total assets logarithm.

Table 3. Classic Assumptions Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Linearity</th>
<th>Multicollinearity Test</th>
<th>Heteroskedasticity Test</th>
<th>Normality Test</th>
<th>Autocorrelation Test</th>
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<td></td>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
<td></td>
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<tr>
<td>Div</td>
<td>0.963</td>
<td>1.039</td>
<td>0.837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>0.940</td>
<td>1.064</td>
<td>0.258</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lev</td>
<td>0.930</td>
<td>1.075</td>
<td>0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOS</td>
<td>0.816</td>
<td>1.040</td>
<td>0.898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LogSize</td>
<td>0.872</td>
<td>1.155</td>
<td>0.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
<td>1.265</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td>C^2</td>
<td>0.024</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Description: The linearity is tested based on lagrange multiplier test, the tolerance and VIF values suggest that there is no multicollinearity problem between the independent variables. The Heteroskedasticity is tested based on Glejser test. Examination of the normality error term of Cons G&H model employed in this research indicated the error term has a normal distribution. The test carried out on Cons G&H model confirmed there is no heteroskedasticity in the residual.
### Table 4. Regression Test Results Cons G & H Model without Control Variables

Cons G & H = \( \alpha + \beta_1 \text{Div} + \beta_2 \text{HK} + \varepsilon \)

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Fixed effect n=253</th>
<th>Random effect n=253</th>
</tr>
</thead>
<tbody>
<tr>
<td>Div ( \beta_1 )</td>
<td>0.001222 (3.628238)**</td>
<td>0.000922 (3.313463)**</td>
</tr>
<tr>
<td>CR ( \beta_2 )</td>
<td>0.002607 (3.469219)**</td>
<td>0.00133 3.401285**</td>
</tr>
</tbody>
</table>

**Adjusted R Square:**
- Fixed effect: 0.3738
- Random effect: 0.093979

**F-Statistic:**
- Fixed effect: 73.56775
- Random effect: 12.96587

**Probability**
- Fixed effect: 0.00000
- Random effect: 0.00000

**Hausman Test**
- Chi square: 6.431673
- Probability: 0.0401

**Description:** **Significance at \( \alpha=5\% \). Based on Hausman specification test, this research employed a firm fixed effect model.**