

**THE IMPACT OF INSIDER OWNERSHIP TO DEBT  
AND DIVIDEND POLICY IN CONTROLLING  
CONFLICT AGENCY**

**A THESIS**

Presented as Partial Fulfillment of the Requirements  
To Obtain the Bachelor Degree in Accounting Department



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JOGJAKARTA  
2005**

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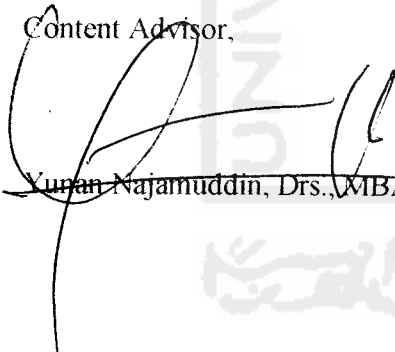
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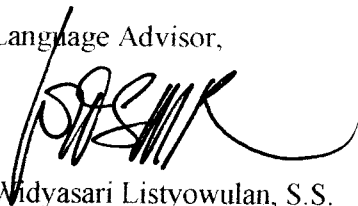
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A BACHELOR DEGREE THESIS

By

DIAN ENDAH AMBARWATI

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Defended before the Board of Examiners

On November 29, 2005

and Declared Acceptable

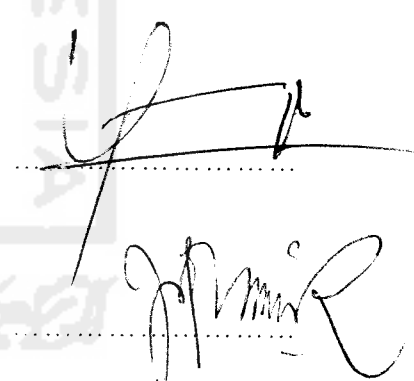
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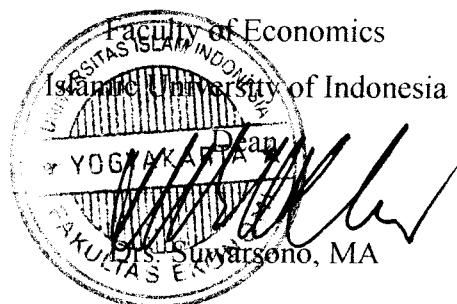
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## STATEMENT OF FREE PLAGIARISM

Herein I declare the originality of this thesis; there is no other work which has ever which presented to obtain any university degree, and in my concern there is neither one else's opinion nor published written work, except acknowledged quotations relevant to the topic of this thesis which have been stated or listed in this thesis bibliography. If in the future this statement is not proven as it supposed to be, I am willing to accept any sanction complying with the determine deregulation for its consequences.

Jogjakarta, November 2005

Dian Endah Ambarwati

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## ABSTRACT

The ownership separation and control in a modern corporation creates two parties that have different interests, the managers (agent) and the owner (principals). Sometimes, the agent does not work at the principal's interests, thus the equity agency problems arise. Several ways to reduce this conflict by using increase insider ownership, debt policy, and dividend policy. Several researchers found the interdependency among them.

This research aims to know the impact of insider ownership toward debt and dividend policy, as a relevant tool in controlling agency conflict. Population covered all of non-financial, banks, and insurance companies listed in Jakarta Stock Exchange, range from 1999-2003.

Using multiple regression analysis models, and *Statistical Program for Social Science* (SPSS) program the result of this study indicate that simultaneously, there is significant impact of all independent variables to debt policy. Although, in dividend policy the result is not significant, it can reflect that insider ownership can be used to control agency conflict.

## ABSTRAK

Pemisahan kepemilikan dan pengawasan pada perusahaan modern menciptakan dua pihak yang mempunyai kepentingan yang berbeda, manager (agen) dan pemilik (pemegang saham). Kadang, agen tidak bekerja selaras dengan keinginan pemegang saham, maka muncullah konflik agensi. Beberapa cara untuk mengurangi konflik agensi adalah menaikkan insider ownership, debt policy, dividend policy. Beberapa peneliti menemukan interdependensi di antara mereka.

Penelitian ini bertujuan untuk mengetahui pengaruh insider ownership terhadap debt policy dan dividend policy, sebagai alat yang relevan untuk mengontrol konflik agensi. Populasi meliputi seluruh perusahaan non keuangan, perbankan, dan asuransi yang terdaftar di Bursa Efek Jakarta dari tahun 1999-2003.

Menggunakan analisis regresi berganda dan program SPSS, hasil dari penelitian ini menunjukkan bahwa secara simultan semua variable independen mempunyai pengaruh yang signifikan terhadap debt policy. Meskipun hasil tidak signifikan terhadap dividend policy, tapi hasil ini merefleksikan bahwa insider ownership dapat digunakan untuk mengontrol konflik agensi.

# CHAPTER I

## INTRODUCTION

### 1.1. Study Background

Nowadays, individual may own company by investing their money into shareholder ownership. Thus, there will be company owner that joining with management, which its duty to manage company, or the owner only pays its equity through buying the company shareholder.

The main goal of company is increasing its value. Shareholders are trust by the managers to manage and run the company activities. In these efforts, managers need fund to expand the business, this fund came from internal or external parties. According to agency theory, Jensen and Meckling (1976) stated, company that separates its management function and ownership function will lead a sensitive agency conflict.

Agency problem is emerged in a firm when managers have incentives to pursue their own interests at shareholders expense. Some shareholders want to find managers' activities to run company business by using debt. Managers do not like to use debt. It is because using debt will invite monitoring from creditor or debt holders and force management to become more discipline. In this research, the writer tries to observe the relationship among shareholder ownership, debt and dividend policy. Previous studies have informed about costs and agency problem to explain each policy independently. However, agency and signaling theory suggest that a firm's debt, dividend, and insider ownership levels are related not only to similar firm specific attributes, but also directly to each other (Jensen, et

all,1992) cost that company spends to reduce conflict between managers and shareholders or agency problems is called agency cost. Jensen (1976) defines agency cost as, cost that consists of three parts: (1) cost of monitoring that doing by owners. (2) Cost of bonding that doing by management. (3) Residual loss.

Agency theory also suggests several mechanisms to control equity agency problems. These include insider ownership, debt policy, and dividend policy. Others are increased institutional or block holders, use of outside directors, managerial labor market and the market for corporate control (Anup Agrawal and Knoeber, 1996). Studies of Chen and Steiner (1999); Jensen Solberg and Zorn(1992); Hansen and Cruchley (1989), show that only three mechanisms- (insider ownership, debt policy and dividend policy) in controlling equity agency problems. Institutional or block holders are entered in the model as exogenous control variables because corporate management does not determine them.

According to Leland and Pyle (1977), their researches suggest that dividend payment is needed to reduce the agency cost. But dividend payment will influence to reduce company cash flow, so it will force company to look for other fund alternative. Insider ownership assumed as one specific exogenous that is hypothesises influence of dividend and debt policies.

Based on the earlier studies and the specific references, this research attempts to delineate and examine THE IMPACT OF INSIDER OWNERSHIP TO DEBT AND DIVIDEND POLICY.



## **1.2. Problem Formulation**

Based on the study background, the problems formulated from this research are as follows:

1. What is the relationship between insider ownership to debt and dividend policy?
2. What is the relationship between specific variables of a company (insider ownership, dividend payout ratio, institutional ownership, business risk, profit, fix asset) to debt policy?
3. What is the relationship between specific variables of a company (risk, debt, growth, insider ownership, institutional ownership, profit) to dividend policy?

## **1.3. Research Objectives**

This research aims to know the impact of insider ownership toward debt and dividend policy, as a relevant tool in controlling agency conflict.

## **1.4. Research Benefits**

1. It is hoped that this research can give information for company investor about interdependency relationships between insider ownership with debt and dividend policy.
2. This research is expected to help business policy makers to choose the appropriate levels of shareholder ownership, debt, and dividend policy that may efficiently reduce the agency conflict and the cost arise.

3. This research is also expected to give knowledge contribution and it can hopefully be a reference for the next research.



## CHAPTER II

### THEORETICAL FRAMEWORK

#### 2.1. Agency Relationship

Managers are empowered by the owners of the firm (shareholders) to make decisions. However, managers may have personal goals that compete with shareholders wealth maximization, and these potential conflicts of interests are examined by agency theory.

An agency relationship arises whenever one or more individuals called principals, those are: (1) hiring another individual or organizations (2) then delegates decision-making authority to that agent. Within to the financial management context, the primary agency relationships are (1) between stockholders and managers (2) between stockholders and managers.

##### 2.1.1. Agency conflicts I: Stockholders versus Managers

A potential agency problem arises whenever the manager of a firm owns less than 100% of the firm's common stock. If the firm is a proprietorship managed by its owner, the owner-manager will presumably operate, so as to maximize his or her own welfare. With welfare measured in the form of increased personal wealth, more leisure, or perquisites. When the owner-manager incorporates and then sells some of the stocks to outsiders, potentials conflict of interests immediately arises. Now the owner-manager may decide to lead a more relaxed lifestyle and to work less strenuously to maximize shareholder wealth, because less of this wealth accrue to him or her, it also may decide to consume

more perquisites, because some of these costs will be borne by outside shareholders. In essence, the fact the owner-manager will neither gain all the benefits of the wealth created by his or her efforts nor bear all of the costs of perquisites will increase the incentive to take actions that are not in the best interests of other shareholders.

In most large corporations, potential agency conflicts are important, because large firm's managers generally own only a small percentage of the stocks (Brigham and Gapenski, 1996).

In this situation, shareholder wealth maximization could take a back seat to any number of conflicting managerial goals. For example, people have argued that the primary goal of some managers seems to be maximizing the size of their firms. By creating a large, rapidly growing firm, managers (1) increase their job security because a hostile takeover is less likely; (2) increase their own power, status and salaries and (3) create new opportunities for their lower-and middle-level managers. Furthermore, since the managers at most large firm owns only a small percentage of the stock, it has been argued that they have a voracious appetite for salaries and perquisites, and that they generously contribute corporate dollars to their favorite charities because they get the glory while outside stockholders bear most of the cost.

Obviously, managers can be encouraged to act in the stockholders best interest through a set of incentives, constraints and punishment. However, these tools are most effective if shareholders can observe all of the actions taken by managers. A potential moral hazard problem, where in agents take unobserved

actions in their own behalf, arises because it is virtually impossible for shareholders to monitor all managerial actions. For instant, in the case of dispersed ownership that there are not majority shareholders (controlling), so this condition can make opportunity for management to take advantage based on asymmetric between outside shareholders and the management about the company. And there is possibility for the management to act in their interest rather than in shareholders interest. Jensen and Meckling, (J and M 1976), show that managers have tendency to engage in excessive perquisite consumption and other opportunities behavior since they receive the full benefit of such activity but bear less than their full share of the costs. In general, to reduce both agency conflicts and the moral hazard problem, stockholders must incur agency cost which include all costs borne by shareholders to encourage managers to maximize the firm's stock price rather than act in their own self-interest. There are three major categories of agency costs: (1) expenditures to monitor managerial actions, such as audit costs; (2) expenditures to structure the organizations in away that will limit undesirable managerial behavior, such as opportunity outside investors to the board of director; and (3) opportunity costs which are incurred when shareholders-imposed restrictions, such as requirements for stockholders vote on certain issues, limit the ability of managers to take timely actions that would enhance shareholder wealth.

If shareholders make no effort to affect managerial behavior, and hence incur zero agency costs, there will almost certainly be some loss of shareholder wealth due to improper managerial actions. Conversely, agency cost

would be very high if shareholders attempted to ensure that every managerial action coincided exactly with shareholders should be viewed like any other investment decision-agency costs should be incurred as long as each dollar spent returns more than a dollar in shareholders wealth.

There are two extreme positions regarding how to deal with shareholder-manager to act in shareholders best interest include (1) managerial compensation plan (2) direct intervention by shareholders (3) the threat of firing and (4) the threat of take over.

#### 2.1.2. Agency Conflict II: Stockholder versus Creditors

Beside stockholders and managers conflicts, there can also be conflicts between stockholders (through managers) and creditor. Creditor have a claim on part of the firms earnings stream for payment of interests and principal on the debt, and they have a claim on the firm's risk, which in turn is based on (1) the risk of the firm's existing assets (2) expectations concerning the risk of future assets additions (3) the existing capital structure and (4) expenditure capital structure decision. These are the primary determinants of the risk of a firm's cash flows, hence the safety of its debt.

If stockholders, acting through management, cause a firm to sell some relatively safe assets and invest the proceeds in a large new project that is far riskier than the firm's old assets. The increased risk will cause the required rate return on the firm's debt to increase, and that will cause the value of the

outstanding debt to fall. If the risky project is successful, most of the benefits go to the stockholders, because creditors returns are fixed at the old, low-risk rate. However, if the project is unsuccessful, the bondholders have to share the losses. From the stockholders point of view, this amount to a game of “head I win, tail you lose” which is obviously not good for the creditor. Similarly, suppose its managers borrow additional funds and use the proceeds to repurchase some of the firm’s outstanding stock in an effort to “leverage up”, stockholders return on equity. The value of the debt will probably decrease, because now there will be more debt backed by an uncharged amount of assets. In both the riskier assets and the increased leverage situations, stockholders tend to gain at the expense of creditor.

Is it possible for stockholders, through their managers or agents, try to expropriate wealth from creditors? In general, the answer is no, there is no room for unethical behavior in the business world (Brigham and Gapenski, 1996) cited from Pramono, Agus 2002. Indeed, creditors attempt to protect themselves against these types of actions by placing restrictive covenants in debt agreements. Moreover, if creditors perceive that a firm’s managers are trying to take advantage of them, they will either refuse to deal further with the firm or else will charge a higher than normal interest rate to compensate for the risk possible exploitation. Thus, firm which deals unfairly with creditors either, lose access to the debt markets or are saddled with high interests rates and restrictive covenants, all of which are detrimental to shareholders. In view of all this, it follows that to best serve their shareholder in the long run, managers must play fairly with creditors.

Managers, as agents of both shareholders and creditors, must act in a manner that is fairly balanced between the interests of the two classes of security holders. Similarly, because of other constraints and sanctions, management actions, which would expropriate wealth from any of the firm's other stakeholders, including its employees, customers, suppliers, and community, will ultimately be to the detriment of its shareholders. In our society, stock price maximization requires fair treatment for all parties whose economic position are affected by managerial decisions.

## **2.2. Literature Review**

Some researchers have examined the relation among insider ownership, debt, and dividend policies to control agency problems. Hartono(1998) found that there was significant impact of dividend on debt ratio in the minimization of agency conflict. Jensen, Solberg, and Zorn (1992) cited from Pramono Agus 2002, uses a three stage least square on a cross-sectional industry data to investigate the relationship between insider ownership, debt and dividend policies. Their results show that firms with higher insider ownership choose lower levels of debt and dividend.

It can therefore be adduced that in an effort to control equity agency conflict, firms with high levels of insider ownership tend to use less debt and dividend. This indirectly supports the major theme of this study.

Crutchley and Hansen (1980) used a sample of 603 industrial firms for a five-year period to test the agency theory. They concluded that several



characteristics of the firms like loss of diversification, earnings volatility, standard deviation of return, advertising, R&D and firm size had a significant impact on the three agency conflict control variables. Their biggest contribution is that firms may use a combination of the three variables in order to overcome equity agency problems.

Friend and Lang (1988) investigated the effect of managerial self-interest on debt policy. They concluded that managerial ownership has an inverse causal relation to debt, which implied some levels of substitutability between insider ownership and debt exists. Jensen and Solberg (1992) noted that a potential shortcoming in their analysis is precisely the assumption that insider ownership “causes” changes in debt levels. In particular, debt policy may also affect insider ownership choices, or both may be independent of each other, but related to similar firm specific attributes. And Brigham, (1996) stated that uses of higher debt service requirements would force managers to become more disciplined. In other word, higher debt forces managers to be more careful with shareholders money, but even well run firms could face bankruptcy (get stabbed) if some events beyond their control occur.

### **2.3. Theoretical Framework and Formulation Hypotheses**

#### **2.3.1. Insider ownership and debt policy**

Crutchley and Hansen (1989) argued that using more debt reduces total equity financing, reducing in turn the scope of manager –stockholder conflict.

However, debt financing introduced conflict of interest between stockholders and creditor that gives rise to debt agency costs.

Friend and Lang (1988) concluded that insider ownership has an inverse causal on debt policy. Chen and Steiner (1999) noted that increasing use of debt might reduce equity agency conflict at the expense of bondholders and other creditors. Agrawal and Knoeber (1996) also stated that while insider ownership decrease, debt financing will higher (negative causal relation). Therefore, if the level of insider ownership and the level of debt serve as substitute monitoring forces, then a negative causal relation is expected from insider ownership to debt policy.

Friend and Lang (1998) hypothesized an inverse causality may be proceed from debt to insider ownership, argue that the debt ratio is negatively related to management shareholding (insider ownership), reflecting the greater non divers able risk of debt to management than to public investor for maintaining a low debt ratio this is consistent with Jensen, et all (1992) found that increasing use of debt to control agency problem lead to less use of insider ownership for that purpose. Chen and Steiner (1999) Bathala, et.all (1994) Jensen et.all (1992) Cruthley and Hansen (1989) hypothesized that debt shows to reduce problem with free cash flow, and consequently the value of insider ownership is expected decline over higher level of debt. And so with company dividend policy, it can be hypothesized to be the way to reduce agency conflict. So, presumably debt and dividend policy negatively are related to insider ownership. It leads to hypothesis 1.

## CHAPTER III

### RESEARCH METHOD

#### 3.1. Population and Sample

Population is the quantity of overall objects (units or industries). Those industry units called unit of analysis, in this circumstance, the units of analysis is the company whereas the sample is part of population which its characteristics intend to observe, and considered represent the population. The sample amount is less than the population.

Secondary data are used in this research. The population of this research consists of both manufacturing and service firms registered in JSE (Jakarta Stock Exchange) range from 1999-2003. From the overall registered company in JSE, excluded bank and non-financial company, there are 36 companies fulfilled the criteria as research sample. Those companies are:

1. PT Astra Agro Lestari Tbk
2. PT Karwell Indonesia Tbk
3. PT Selamat Sempurna
4. PT Rig Tenders Indonesia Tbk
5. PT Surya Intrindo Makmur Tbk
6. PT Lautan Luas Tbk
7. PT Duta Pertiwi Nusantara Tbk
8. PT Berlina Co. Ltd, Tbk
9. PT Lion Metal Works Tbk

10. PT Kedaung Indah Can Tbk
11. PT Ramayana Lestari Sentosa Tbk
12. PT Sona Topas Tourism Industry Tbk
13. PT Gudang Garam Tbk
14. PT Hanjaya Mandala Sampoerna Tbk
15. PT Argo Pantes Tbk
16. PT Sunson Textile Manufacturer Tbk
17. PT Ryane Adibusana Tbk
18. PT Dynaplast Tbk
19. PT Lapindo Packaging Tbk
20. PT Arwana Citramulia Tbk
21. PT Metrodata Electronics Tbk
22. PT Hexindo Adiperkasa Tbk
23. PT Berlian Laju Tanker Tbk
24. PT Rimo Catur Lestari Tbk
25. PT Panorama Sentrawisata Tbk
26. PT Fatrapolindo Nusa Industries Tbk
27. PT Lion Mesh Prima Tbk
28. PT Gema Grahasarana Tbk
29. PT Cahaya Kalbar Tbk
30. PT Tunas Baru Lampung Tbk
31. PT Aneka Kimia Raya Tbk
32. PT Beton Jaya Manunggal Tbk

33. PT Prima Alloy Steel Tbk
34. PT Pelayaran Tempuran Emas Tbk
35. PT Samudra Indonesia Tbk
36. PT Jasuindo Tiga Perkasa Tbk

### **3.1.1 Sampling Technique**

This research uses purposive sampling method, which is random sampling technique and sample chosen based on certain consideration and criteria (Cooper and Emory, 1995). The criteria used are as follows:

1. The companies must have been operated and registered as a public company in JSE as of 1999-2003.
2. The companies must have an insider ownership listed on the side of shareholder.
3. The companies must have paid dividend in 1999-2003.
4. The companies must have debt policy.

### **3.1.2. Data**

Secondary data are used in this research, which contribute financial report of the company listed in JSE. The data used are debt, dividend, institutional ownership, profit, asset, and sales of the company. All these data are available in Indonesian Capital Market Directory (ICMD) 1999-2003.

### 3.2. Research Variable

Variable used in this research are:

- Dependent Variable (Y) : Dividend and debt ratio percentage.
- Independent Variable : Insider ownership, institutional ownership, business risk, profit, fixed asset, growth, tax rate, size.

These variables are operationally defined as follows:

#### 3.2.1. Dependent Variable

- Dividend Payout Ratio ( $Y_1$ )

Dividend payout ratio is the ratio of cash dividend paid out to net operating income.

$$DIV_{it} = \frac{CASHDIV_{it}}{NETOPER_{it}}$$

Where:

$DIV_{it}$  = Dividend payout ratio.

$CASH\ DIV_{it}$  = Cash dividend payout.

$NETOPER_{it}$  = Net operating income.

- Debt Ratio ( $Y_2$ )

Debt is the ratio of total liabilities to the total assets of the firm. (Jensen, Solberg, Zorn, 1992)

$$DEBT_{it} = \frac{TOTLIAB_{it}}{TOTASS_{it}}$$

Where:

Tot Liab<sub>it</sub> = Total liabilities of firm i at period t

Tot Ass<sub>it</sub> = Total asset of firm i at period t

### 3.2.2 Independent Variable

- Insider Ownership ( $X_1$ )

This variable is given a symbol *INSID*. It is measured by the ratio of managers, directors, and commissioner's shareholding to the total share outstanding of the company.

$$INSID_{it} = \frac{D \& CSHRS_{it}}{TOTSHRS_{it}}$$

Where:

$INSID_{it}$  =insider ownership.

$D\&CSHRS_{it}$  =shares held by the director and the commissioner respectively in firm *i* at time *t* (Chen and Steiner 1999, Crutchley and Hansen 1989). These insiders are available in the ICMD. Ownership is computed by percentage holdings.

$TOTSHRS_{it}$  =the total number of outstanding common stock.

- Institutional Ownership ( $X_2$ )

This variable is given the symbol *INST*. It is the percentage of shares held by institutions or block holders (Agrawal &Knoeber, 1996; Bathala, Moon, and Rao, 1994). The level of institutional shareholding is readily available in the ICMD in the list of shareholder. It can be expressed as follows:

$$INST_{it} = \frac{INST \& BLOCKSHRS_{it}}{TOTSHRS_{it}}$$

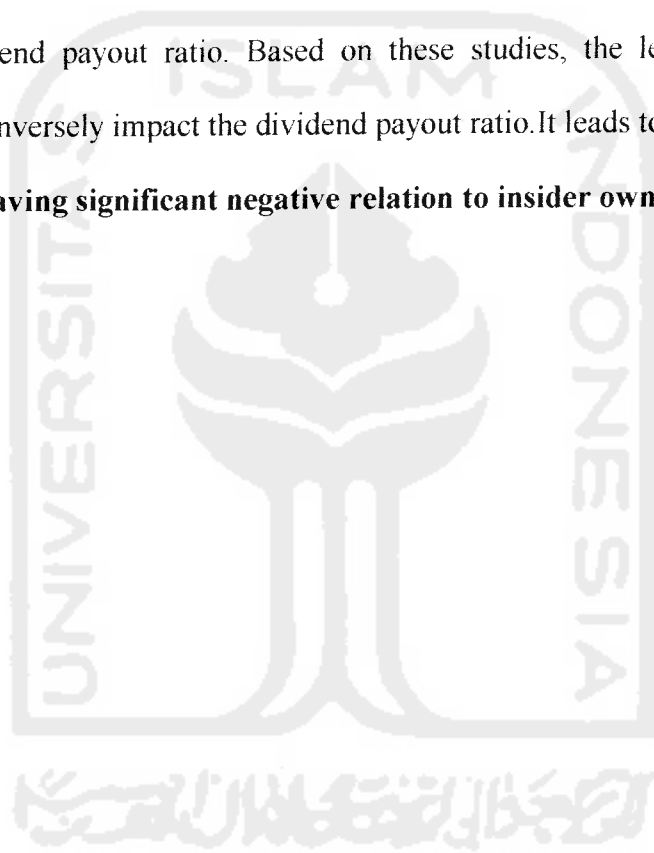
Where:

**H1: debt having significant negative relation to insider ownership.**

### 2.3.2. Insider ownership and dividend policy

Chen and Steiner (1995) argued that insider ownership was inversely related to dividend payout in an agency conflict resolution framework. Firm that uses high percentage of insider ownership to reduce agency cost tends to pay lower level of dividend, while firms with low insider ownership are characterized with high dividend payout ratio. Based on these studies, the level of insider ownership will inversely impact the dividend payout ratio. It leads to hypothesis 2.

**H2: dividend having significant negative relation to insider ownership.**





$INST\&BLOCKSHRS_{it}$  =shares held by institutional and block holder investor in firm i at period t.

$TOT\ SHRS_{it}$  =shares held by institutional and block holder investor in firm i at period t.

- Business Risk ( $X_3$ )

This variable is given a code BUSRISK. This research uses the standard deviation of the stock return as proxy for business risk as recommended by (Chen&Steiner, 1999). It can be expressed as:

$$BUSRISK = STDRET_{it}$$

Where:

STD= standard deviation monthly return.

$$RET = \frac{P_t - P_{t-1}}{P_{t-1}}$$

$P_t$  =the monthly closing price.

$P_{t-1}$  = the monthly closing price for the previous month.

- Profit ( $X_4$ )

This variable is given a code PROFIT. Following Jensen, Solberg and Zorn 1992. It is defined as the ratio of operating income to total assets.

This variable can be expressed as follows:

$$PROFIT = \frac{OPERIN_{it-1}}{TOTASS_{it}}$$

Where:

$OPERIN_{it-1}$  =operating income of firm i during the previous period.

$TOTASS_{it}$  =total assets of the firm.

Both of these items are available in the ICMD.

- Fixed Assets ( $X_5$ )

This variable is given a code FIXASS. It is measured as the ratio of fixed assets to total assets of the firm (Chen&Steiner, 1999). It can be expressed as follows:

$$FIXASS_{it} = \frac{FIXASS_{it}}{TOTASS_{it}}$$

Where:

$FIXASS_{it}$  =the value of fixed assets of firm i at period t.

$TOTASS_{it}$  =the value of total assets of firm i at period t.

Both of these items are available in the ICMD in the summary of financial statement. Sales are provided in the ICMD in the summary of financial statement.

- Growth ( $X_6$ )

This variable retains the name GROWTH in this research. It is measured as the average growth rate of the firm over the research year. Harianto&Sudomo (1998) computed as follows:

$$gt = \left( \frac{S_t}{S_0} \right)^{\frac{1}{n}} - 1$$

Where:

$S_t$  =sales at the end of period t.

$S_0$  =sales at the beginning the period.

n =the number of years in the period.

Sales are provided in the ICMD in the summary of financial statement.

### 3.3 Data Analysis Method

This research will use multiple regression analysis models, using SPSS Program, by passing through classical assumption test that are multicollinearity, autocorrelation and heteroscedasticity test. The equations are as follow:

$$Y_1 = \alpha + a_1 \text{INSID} + a_2 \text{DIV} + a_3 \text{INST} + a_4 \text{BUSRISK} + a_5 \text{PROFIT} + a_6 \text{FIXASS}$$

$$Y_2 = \alpha + b_1 \text{INSID} + b_2 \text{DEBT} + b_3 \text{INST} + b_4 \text{BUSRISK} + b_5 \text{PROFIT} + b_6 \text{GROWTH}$$

H

Where:

$Y_1$	= Debt ratio
$Y_2$	= Dividend Ratio
$\alpha$	= Constant
DIV	= Dividend Payout Ratio
DEBT	= Debt
INSID	= Insider Ownership
INST	= Institutional Ownership
PROFIT	= Profitability
FIXASS	= Fixed Asset
BUSRISK	= Business Risk
GROWTH	= Company Growth

#### 3.3.1 Classical Assumption Test

In multiple regression model using, hypotheses test must avoid classical assumptions deviation possibility that are considered important as follow:

## 1. Multicollinearity Test

One of classical linear model assumptions is there is no multicollinearity among its independent variables. Multicollinearity is a condition where its independent variables in regression equation are having strong correlation each other. Multicollinearity is a situation when a good, certain or close to certain linear correlation between variable X exist (Gujarati, 1995).

Parameter found from multicollinearity:

- There are some variables which having *Eigen Value* is approaching to zero. Multicollinearity test done by identified the coefficient between variables. If the coefficient between independent variables more than one equal to 0.8 so apparently multicol happen.
- Usually regression has equation with high  $R^2$  value or very high, high  $F_{\text{count}}$ , but many of them have insignificant free variables (low  $F_{\text{count}}$ ). To observe multicollinearity indications by scrutinize Variance Inflation Factor (VIF) value from each independents variable. If VIF value more than 10 it indicates multicollinearity happens. Same as before if less than 10, it means that there is no multicollinearity indication or disregard if the values are very small (Gujarati, 1995).

To find out VIF formulation is as follow:

$$VIF = 1/(1 - R^2)$$

VIF = Variance Inflation Factor

$R^2$  = coefficient determination

Regression equation which contain multicollinearity are having consequences in emerging problems as follows (Umar 2000):

- Occurrence of improper standard estimation tends to increase by the addition of independent variables. If independent variable correlates each other, those variables explained the same variances in estimating dependent variables, so independent variables addition will not having influence.
- An extremely big coefficient regression estimation values fluctuation. Significant level used to reject hypothesis null will get bigger.
- Possibility to accept wrong hypotheses will be bigger. Positive coefficient regression in simple regression can be changed into negative in multiple regressions or vice versa.

Having those consequences above, multicollinearity will cause regression model obtained not valid in estimating dependent variables.

Multicollinearity can be eliminate by:

- Increase sample amount.
- Transform the functional relation. Make a new variable that unite high correlate variable and use the new variable as the substitution.
- Eliminate independent variable that has high collinearity.

## 2. Autocorrelation Test

Autocorrelation problem often emerges in time series or cross sectional data. Autocorrelation often called serial correlation. Autocorrelation caused by few items as follow (Umar, 2000):

- Inertia is momentum that include into variables X continuously, so something will happen and influence values in the variables X.
- Specification deviation happens, because there is other variable X that did not put into the model.
- Wrong function form.
- Lags
- Data manipulation will cause in inaccurate data.

The impact of autocorrelation is the sample cannot describe population variance. So regression model result cannot be used to estimate dependent variable value from its independent variable value, to find out the autocorrelation then we can make Durbin-Watson (DW) test.

Durbin-Watson Table

Dw	Result
<1,10	Autocorrelation
1,10-1,54	No result
1,55-2,46	No autocorrelation
2,46-2,90	No result
>2,91	Autocorrelation

To correct autocorrelation are (Umar 2000):

- Find and include important variable that not include yet.
- Re estimates the model.
- More accurate in data measuring and counting.
- Examine the auto regress pattern. Then estimates with other technique.

### 3. Heteroscedasticity Test.

Heteroscedasticity situation can be happen from data variance differences, and it could cause regression coefficient estimation become inefficient. Heteroscedasticity happens because the changing situation that indescribable in regression model specification. For example in economic structure changing and government policy that causes changing in accurate level of data. Heteroscedasticity test is needed to know whether variance of each disturber element is in a constant condition (Gujarati 1995). Heteroscedasticity is a disturber element ( $\epsilon$ ), which has different variance between unequal independent variable. In other words, heteroscedasticity happen if residual did not have constant variance. Heteroscedasticity often appears in cross-section data, but it usually happens in time series data also.

To detect whether heteroscedasticity exist or not we can use some ways, example: scatter plot method (Santoso, 2001) if there are certain pattern like dots plotted in regularly at one certain pattern (waved, widen, then narrows) we will find out that heteroscedasticity happen and vice versa, if there are no clear certain pattern, and also scatter dots so there are no heteroscedasticity happen.

The other way is using Glejser test that is regressing residual value as dependent variable with independent variable. If  $t \text{ count} > t \text{ table}$  heteroscedasticity happen whereas if value of  $t \text{ count} < t \text{ table}$  so heteroscedasticity cannot be happened.

### 3.3.2. Hypotheses Testing

In accordance with the hypotheses in advance so hypotheses testing can be done by:

#### 1. Test of coefficient determination ( $R^2$ )

Where coefficient of determination shows independent variable's ability in explaining dependent variable.

#### 2. f-test

F test used to test whether independent variable simultaneously having effect to dependent variable. The effect of independent variables simultaneously can be determined by observe the significant level, if less than  $\alpha$  that already determined ( $\alpha = 0.05$ ) so independent variables simultaneously can explain dependent variable changing significantly, and vice versa (Sudjana, 1996). If  $f_{\text{count}} > f_{\text{table}}$  so  $H_0$  rejected means independent variable simultaneously having relation and significantly affected by dependent variable. Vice versa  $f_{\text{count}} < f_{\text{table}}$  so  $H_0$  accepted means independent variable simultaneously did not have significant effect to dependent variable.

- $H_0$  rejected if

$$f_{\text{count}} \geq f_{(k, n-k, 0.05)} \text{ and } P\text{-value} < \alpha (\alpha = 0.05)$$

- $H_0$  accepted if

$$f_{\text{count}} < f_{(k, n-k, 0.05)} \text{ P-value} > \alpha (\alpha = 0.05)$$

#### 3. t Test

t-test used to know whether independent variable are having relation to dependent variable partially. To facilitate the calculation of this research, using SPSS



**CHAPTER IV**  
**ANALYSIS AND RESEARCH FINDINGS**

**DEBT VARIABLE**

**4.1. Classical Assumption Test**

Data research analysis done by using multiple regression equation models. These classical assumption tests are: multicollinearity, heteroscedasticity, and autocorrelation. The tests are as follows:

**4.1.1 Multicollinearity Test**

This test is done with the purpose to know whether multicollinearity indications exist between independent variables in regression models, it is a condition when linear relationships between independent variables happen. Multicollinearity can be seen from variance inflation factor (VIF) according to (Gujarati, 1995) VIF limitation value more than 10 means multicollinearity indications happens.

The result from classical assumption test which involving independent variables (insider ownership, dividend, institutional ownership, business risk, profit, fix asset) shows the result as shown in table 4.1 below:

**Table 4.1****Multicollinearity Test**

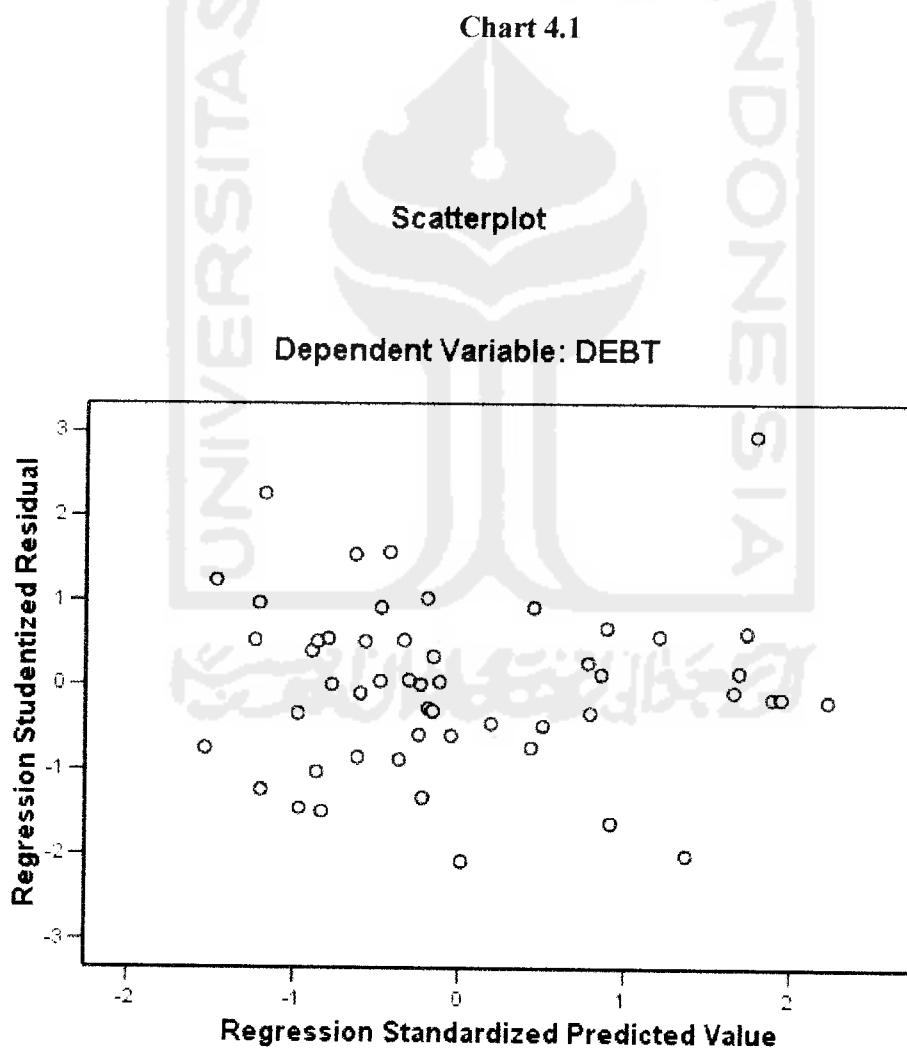
Variable	Collinearity Statistic		Explanation
	Tolerance	VIF	
Insider Ownership	.861	1.162	No multicollinearity
DPR	.746	1.341	No multicollinearity
Institutional Ownership	.785	1.274	No multicollinearity
Busrisk	.714	1.401	No multicollinearity
Profit	.771	1.296	No multicollinearity
Fix Asset	.768	1.302	No multicollinearity

Source: processed data 2005

To detect whether multicollinearity indication exist or not, correlation among the variables should be analyzed, in this case analysis done to VIF and tolerance. Tolerance value which approaching 1 means independent variable did not correlate. If it uses VIF value, when VIF value less than 10 means correlation among independent variables did not happen. From the table above, it can be seen that all variables in this research are having VIF value less than 10 so multicollinearity did not happen, means that there is no variable that should be out from the model, and next, it can be used to test the impact of insider ownership to debt policy.

#### 4.1.2. Heteroscedasticity Test

Heteroscedasticity indication will show up in a regression model if there is no variances similarity from residual from observation. By using chart (scatter plot), heteroscedasticity indication happen when a certain pattern (points) formed in the chart, it formed regularity (fluctuate or wavy then narrows). If the points spread above and below zero in axis Y, so heteroscedasticity did not happen. The result of heteroscedasticity test shown in the chart below:



From the chart 4.1, it can be concluded that the equation of regression model period 1999-2003 did not contain heteroscedasticity problems, and they are appropriate to be further analyzed.

#### **4.1.3. Autocorrelation Test**

Autocorrelation test in this research done by Durbin-Watson (DW) in order, to detect whether autocorrelation indication exist in the model by comparing between  $DW_{test}$  with  $DW_{table}$

The result of  $DW_{test}$  is 2.209 Value of  $DW_{test}$  range from 1.55 to 2.46 it can be concluded that the regression model did not have autocorrelation problem.

#### **4.2. Multiple Linear Regression Analysis Result**

In the research analysis technique used is multiple regression analysis. Process of data testing done by SPSS program. Based on the data collected, the result shown below:

**Table 4.2**  
**Multiple Regress Result**

Variable	Coefficient	t-statistic	Sig-T
Constant	0.577	3.745	0.001
Insider Ownership	-0.017	-0.928	0.359
DPR	0.313	0.749	0.458
Institutional Ownership	-0.248	-1.238	0.222
Busrisk	-0.948	-1.983	0.053
Profit	0.345	2.038	0.047
Fix Asset	0.000	1.005	0.320
R	0.537		
R-squared	0.289		
Adjusted R-squared	0.194		
f-statistic	3.042		
p-value	0.014		

Source: data processed 99-03

According to multiple regression analysis above, it can be arranged regression equation as follow:

$$Y = 0.577 - 0.017 (\text{Insid}) + 0.313 (\text{DPR}) - 0.248 (\text{Inst}) - 0.948 (\text{Busrisk}) + 0.345 (\text{Profit}) + 0.000 (\text{Fix})$$

From the equation above, it can be explained that:

1. Constant ( $\alpha$ )= 0.577

It means that when *insider ownership, dividend payout ratio, institutional ownership, business risk, profit, fix asset*, variable and beta valued zero so the debt will have value 0.577.

2. Regression coefficient ( $\beta_1$ ), DPR =-0.017

From *dividend payout ratio* value analysis, it shows negative direction -0.017.

It means that when DPR variable ( $X_1$ ) having 1 unit decrease so the value of debt will decrease as big as regression coefficients DPR -0.017 with assumption that the other variables are constant and vice versa.

3. Regression coefficient ( $\beta_2$ ), Insid = 0.313

From *Insider Ownership* value analysis, it shows positive direction 0.313. It means that when insider ownership variable ( $X_2$ ) having 1 unit increase so the value of debt will increase as big as regression coefficients insider ownership 0.313 with assumption that the other variables are constant and vice versa.

4. Regression coefficient ( $\beta_3$ ), Institutional ownership = -0.248

From *institutional ownership* value analysis, it shows negative direction -0.248. It means that when inst variable ( $X_3$ ) having 1 unit increase so the value of debt will decrease as big as regression coefficients inst -0.248 with assumption that the other variables are constant and vice versa.

5. Regression coefficient ( $\beta_4$ ), Profit = -0.948

From *profit* value analysis, it shows negative direction -0.948. It means that when profit variable ( $X_4$ ) having 1 unit increase so the value of debt will

decrease as big as regression coefficients profit -0.948 with assumption that the other variables are constant and vice versa.

6. Regression coefficient ( $\beta_5$ ), fix asset = 0.345

From *fix asset* value analysis, it shows positive direction 0.345. It means that when fix asset variable ( $X_5$ ) having 1 unit increase so the value of debt will increase as big as regression coefficients fix asset 0.345 with assumption that the other variables are constant and vice versa.

7. Regression coefficient ( $\beta_6$ ), Business risk =0.000

From business risk value analysis, it shows positive direction 0.000. It means that when Business risk variable ( $X_6$ ) having 1 unit increase so the value of debt will increase as big as regression coefficients business risk 0.000 with assumption that the other variables are constant and vice versa.

### 4.3. Hypothesis Testing

#### 4.3.1. Simultaneously or Simultaneous Test ( $T_{test}$ )

The effect of independent variables to dependent variables simultaneously can be tested with F test with significant level 5%, if level of significant F-test less than 0.05  $H_1$  accepted and vice versa if significant level F-test more than 0.05 so  $H_1$  rejected.

Simultaneously test shown that there is a significant effect from independent variable to dependent variable. It can be seen from F-test value 3.042 From the table informed that significant level of f-test 0.014 in level  $\alpha=0.05$ , so its significant level less than significant level  $\alpha=0.05$ . It is simultaneously shows

that, all independent variables are having significant effect to debt policy in the company sample chosen. In other words, independent variables involved in this research can be used as a decisive instrument in debt policy to minimize agency cost, which caused by debt (agency cost of dividend).

Next, coefficient multiple correlation between independent variables with dependent variable from multiple regression equation is 0.537 or  $R = 53.70\%$ . It means that level of closeness correlation between independent variable (*insider ownership, dividend, institutional ownership, business risk, profit, fix asset*) with debt ratio variable is 53.70%.

Determination coefficient value (R square) is 0.289 ( $R^2 = 0.289$ ). It shows that dependent variable (debt ratio) only able to explain by independent variable by 28.90%. In other words 28.90% debt ratio changing inside the sample company chosen will be able to explain by the independent variables. And the rest 71.10% explains by other factor that unexplained in the model. From the result description, there are many other variables outside the model that reasonable to considered to determine debt policy in a company.

#### 4.3.2. Partially/ partial Test ( $t_{Test}$ )

Partial test done to know whether independent variables used in this research, individually able to explain dependent variable. Partially hypothesis test can be done with t test. Using significant level 5%. If p-value  $< 0.05$   $H_n$  accepted and vice versa if p-value  $> 0.05$   $H_n$  rejected.

From partially examination it is acknowledged:



#### 4.3.2.1. Dividend Payout Ratio Variable

Based on the parameter  $\beta_1$  result in table 4.2 t test  $-0.928$  with significant level  $0.359$  more than significant level  $0.05$ . So, partially hypothesis alternative  $H_1$  rejected and  $H_0$  accepted. Based on the regression equation, it shows that DPR having negative coefficient regression to debt ratio  $\beta_1 = -0.017$  It means DPR having not significant and negative impact to debt ratio.

This result consistent to the theory of Moh'd, et al. (1998) and Jensen et al. (1992), state dividend payment having significant and negative impact to debt ratio. It may happen because manager or insider ownership more attract in debt funding than capital stock funding. Or insider ownership information cannot detect accurately.

#### 4.3.2.2. Insider Ownership Variable

Based on the parameter  $\beta_2$  result in table 4.2 t test  $=0.749$  with significant  $0.458$  more than significant level  $0.05$ . So, partially hypothesis alternative  $H_2$  rejected and  $H_0$  accepted. Based on the regression equation, it shows that Insider Ownership having positive coefficient regression to debt ratio  $\beta_2 = -0.313$  It means Insider Ownership having not significant and positive impact to debt ratio.

According to Jensen and Meckling (1976), if manager having high shareholder ownership inside the company, so they will reduce debt level optimally then agency cost reduced.

The results of the impact of insider ownership to debt ratio test did not appropriate with the theory exist. It is not consistent with research by Hj.

Zulhawati(2004), Ifah Rofiqoh (2002), Wahidahwati (2002) found that insider ownership having significant and negative impact to debt policy. It is also not appropriate with Friend and Lang (1982), Jensen et al. (1992), Bathala et al. (1994), and Mohd, et al. (1998). Based on those research concluded, by having insider ownership so the company will not funded by debt, but it will funded from issuing new shares and by insider ownership so it will aligning the position between manager and shareholder which cause controlling system to management. So management will act more effective and efficient. And manager will very careful in using debt, opportunistic behavior will avoided because managers will also have the consequences, so they tend to use low debt to avoid bankruptcy risk if use high debt. So insider ownership can be used to depress debt using and it is having not significant impact to debt ratio.

#### **4.3.2.3. Institutional Ownership**

Based on the parameter  $\beta_3$  result in table 4.2 t test = -1.238 with significant level 0.222 bigger than significant level 0.05. So, partially hypothesis alternative  $H_3$  rejected and  $H_0$  accepted. Based on the regression equation, it shows that Institutional Ownership having negative coefficient regression to debt ratio  $\beta_3 = -0.248$  It means Institutional Ownership having not significant and negative impact to debt ratio. The sign is consistent with Bathala et al. (1994), Yani Hardiyanti (2002), Wahidahwati (2002), and institutional ownership having significant negative impact to debt policy. In this condition institutional ownership does not have significant impact to debt policy, it may cause by lack of institutional information in the company.

#### 4.3.2.4. Profit

Based on the parameter  $\beta_4$  result in table 4.2 t test= -1.983 with significant level 0.053 less than significant level 0.05. So, partially hypothesis alternative  $H_4$  accepted and  $H_0$  rejected. Based on the regression equation, it shows that profit having negative coefficient regression to debt ratio  $\beta_4 = -0.948$  It means profit having significant and negative impact to debt ratio.

It is significant to research of Yani Hardiyanti (2002) and Fitri Ismiyanti and Mahmud M. Hanafi (2004). So it can be explained that in a low profitability level, company will use debt to fund its operational cost. And vice versa, in a high profitability level company will reduce debt using. It happens because company allocate most of the profit to retained earnings, so company will count on internal sources and use low debt in other words, sufficient internal fund supply to finance the investment. But when it faces low profitability company will use high debt (pecking order theory)

#### 4.3.2.5. Fix Asset

Based on the parameter  $\beta_5$  result in table 4.2 t test = 2.038 with significant level 0.047 less than significant level 0.05. So, partially hypothesis alternative  $H_5$  accepted and  $H_0$  rejected. Based on the regression equation, it shows that fix asset having positive coefficient regression to debt ratio  $\beta_5 = 0.345$  It means fix asset having significant and positive impact to debt ratio.

Consistent to Yani Hardiyanti (2002), it shows that company which have debt guarantee in fix asset form will be easier to obtain debt than other

company that do not have guarantee. High fix asset will make debt holders more trust the company.

#### **4.3.2.6. Business risk**

Based on the parameter  $\beta_6$  result in table 4.2 t test= 1.005 with significant level 0.320 bigger than significant level 0.05. So, partially hypothesis alternative  $H_3$  rejected and  $H_0$  accepted. Based on the regression equation, it shows that business risk having positive coefficient regression to debt ratio  $\beta_6 = 0.000$  It means business risk having not significant and positive impact to debt ratio.

The standard deviation of stock return was used as proxy for business risk, it is possible that creditors do not consider stock return volatility in giving debt to companies.

#### **DIVIDEND PAYOUT RATIO VARIABLE**

Simultaneously test shown that there are no significant impact from independent variables to dependent variable by F-test 0.280. We can see that simultaneously all independent variables (risk, debt, growth, insider ownership, institutional ownership, profit) are having no significant impact to dividend payout ratio. . It means that manager or insider ownership will choose debt funding, because debt funding is more attractive than capital stock funding.

## 5.1. Classical Assumption Test

Data research analysis done by using multiple regression equation models. These classical assumption tests are: multicollinearity, heteroscedasticity, and autocorrelation. The tests are as follows:

### 5.1.1 Multicollinearity Test

This test is done with the purpose to know whether multicollinearity indications exist between independent variables in regression models, it is a condition when linear relationships between independent variables happen. Multicollinearity can be seen from variance inflation factor (VIF) according to (Gujarati, 1995) VIF limitation value more than 10 means multicollinearity indications happens.

The result from classical assumption test which involving independent variables (risk, debt, growth, insider ownership, institutional ownership, profit) shows the result as shown in table 5.1 below:

**Table 5.1****Multicollinearity Test**

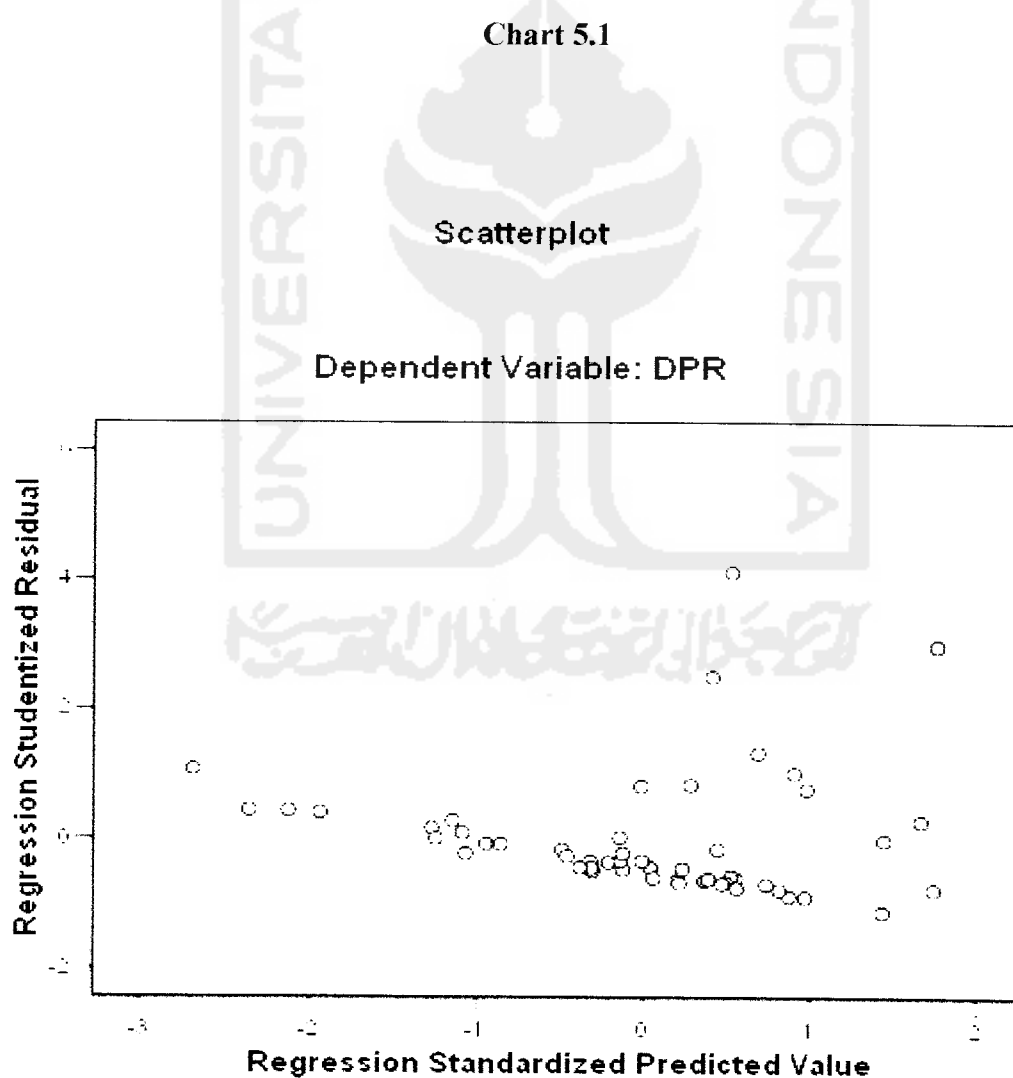
Variable	Collinearity Statistic		Explanation
	Tolerance	VIF	
Debt	.779	1.284	No multicollinearity
Insider Ownership DPR	.793	1.262	No multicollinearity
Institutional Ownership	.767	1.304	No multicollinearity
Profit	.698	1.433	No multicollinearity
Growth	.920	1.088	No multicollinearity
Busrisk	.739	1.354	No multicollinearity

Source: processed data 2005

To detect whether multicollinearity indication exist or not, correlation among the variables should be analyzed, in this case analysis done to VIF and tolerance. Tolerance value which approaching 1 means independent variable did not correlate. If it uses VIF value, when VIF value less than 10 means correlation among independent variables did not happen. From the table above, it can be seen that all variables in this research are having VIF value less than 10 so multicollinearity did not happen, means that there is no variable that should be out from the model, and next, it can be used to test the impact of insider ownership to dividend policy.

### 5.1.2. Heteroscedasticity Test

Heteroscedasticity indication will show up in a regression model if there is no variances similarity from residual from observation. By using chart (scatter plot), heteroscedasticity indication happen when a certain pattern (points) formed in the chart, it formed regularity (fluctuate or wavy then narrows). If the points spread above and below zero in axis Y, so heteroscedasticity did not happen. The result of heteroscedasticity test shown in the chart below:



From the chart 5.1, it can be concluded that the equation of regression model period 1999-2003 contain heteroscedasticity problems, and they are not appropriate to be further analyzed.

### 5.1.3. Autocorrelation Test

Autocorrelation test in this research done by Durbin-Watson (DW) in order, to detect whether autocorrelation indication exist in the model by comparing between  $DW_{test}$  with  $DW_{table}$

The result of  $DW_{test}$  is 1.361 Value of  $DW_{test}$  range from 1.55 to 2.46 it can be concluded that the regression model did not have autocorrelation problem.

### 5.2. Multiple Linear Regression Analysis Result

In the research analysis technique used is multiple regression analysis. Process of data testing done by SPSS program. Based on the data collected, the result shown below:



**Table 5.2**  
**Multiple Regress Result**

Variable	Coefficient	t-statistic	Sig-T
Constant	.662	.466	.644
Debt	-.852	-.729	.470
Insider Ownership	1.257	.378	.707
Inst. Ownership	2.170	1.304	.199
Profit	-6.321	-1.594	.118
Growth	3.926	.792	.433
Busrisk	0.000	-.109	.914
R	0.383		
R-squared	0.147		
Adjusted R-squared	0.033		
f-statistic	1.292		
p-value	0.280		

Source: data processed 99-03

According to multiple regression analysis above, it can be arranged regression equation as follow:

$$Y = 0.662 - 0.852 (\text{DPR}) + 1.257 (\text{Insider Ownership}) + 2.170 (\text{Inst. Ownership}) - 6.321 (\text{Profit}) + 3.926 (\text{Growth}) + 0.000 (\text{Busrisk})$$

From the equation above, it can be explained that:

1. Constant ( $\alpha$ ) = 0.662

It means that when *risk*, *debt*, *growth*, *insider ownership*, *institutional ownership*, *profit*, variable and beta valued zero so the debt will have value 0.662.

2. Regression coefficient ( $\beta_1$ ), Debt = -0.852

From *debt* value analysis, it shows negative direction -0.852. It means that when debt variable ( $X_1$ ) having 1 unit increase so the value of dividend will decrease as big as regression coefficients debt -0.852 with assumption that the other variables are constant and vice versa.

3. Regression coefficient ( $\beta_2$ ), Insider = 1.257

From *insider ownership* value analysis, it shows positive direction 1.257. It means that when insider ownership variable ( $X_2$ ) having 1 unit increase so the value of dividend will increase as big as regression coefficients insider ownership 1.257 with assumption that the other variables are constant and vice versa.

4. Regression coefficient ( $\beta_3$ ), Institutional ownership = 2.170

From *institutional ownership* value analysis, it shows positive direction 2.170. It means that when inst variable ( $X_3$ ) having 1 unit increase so the value of dividend will increase as big as regression coefficients inst 2.170 with assumption that the other variables are constant and vice versa.

5. Regression coefficient ( $\beta_4$ ), Profit = -6.321

From *profit* value analysis, it shows negative direction -6.321. It means that when profit variable ( $X_4$ ) having 1 unit increase so the value of dividend will

decrease as big as regression coefficients profit -6.321 with assumption that the other variables are constant and vice versa.

6. Regression coefficient ( $\beta_5$ ), Growth = 3.926

From *growth* value analysis, it shows positive direction 3.926. It means that when fix asset variable ( $X_5$ ) having 1 unit increase so the value of dividend will increase as big as regression coefficients growth 3.926 with assumption that the other variables are constant and vice versa.

7. Regression coefficient ( $\beta_6$ ), Business risk =0.000

From *business risk* value analysis, it shows positive direction 0.000. It means that when business risk variable ( $X_6$ ) having 1 unit increase so the value of dividend will increase as big as regression coefficients business risk 0.000 with assumption that the other variables are constant and vice versa.

### 5.3. Hypothesis Testing

#### 5.3.1. Simultaneously or Simultaneous Test ( $T_{test}$ )

The effect of independent variables to dependent variables simultaneously can be tested with F test with significant level 5%, if level of significant F-test less than 0.05  $H_1$  accepted and vice versa if significant level F-test more than 0.05 so  $H_1$  rejected.

Simultaneously test shown that there is no significant effect from independent variable to dependent variable. It can be seen from F-test value 1.292. From the table informed that significant level of f-test 0.280 in level  $\alpha=0.05$ , so its significant level more than significant level  $\alpha=0.05$ .

It is simultaneously shows that, all independent variables are having no significant effect to dividend policy in the company sample chosen. In other words, independent variables involved in this research cannot be used as a decisive instrument in dividend policy to minimize agency cost, which caused by dividend (agency cost of debt).

Next, coefficient multiple correlation between independent variables with dependent variable from multiple regression equation is 0.383 or  $R=38.3\%$ . It means that level of closeness correlation between independent variable (*risk, debt, growth, insider ownership, institutional ownership, profit,*) with dividend policy variable is 38.3%.

Determination coefficient value (R square) is 0.147 ( $R^2 = 0.147$ ). It shows that dependent variable (dividend payout ratio) only able to explain by independent variable by 14.7%. In other words 14.7% dividend payout ratio changing inside the sample company chosen will be able to explain by the independent variables. And the rest 85.3% explains by other factor that unexplained in the model. From the result description, there are many other variables outside the model that reasonable to considered to determine dividend payout ratio policy in a company.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

#### 5.1.1. Conclusion

Based on data analysis result the conclusions are:

1. Simultaneously test shown that there are significant impact from independent variables to dependent variable (debt policy) by F-test 0.014. It means simultaneously, there is relationship between debt policy and independent policy. We can see that simultaneously all independent variables (insider ownership, dividend payout ratio, institutional ownership, business risk, profit, fix asset) are having significant impact to debt policy.  $R^2 = 0.289$ , it shows that dependent variable able to explained by independent variable only by 28.90%. Whereas, still a lot of the rest dependent variable explained by other variable outside the model, which reasonable to consider determining company's debt policy.

However, partially test has shown that:

- Dividend payout ratio, not significant negative impact.
- Insider ownership, not significant positive impact.
- Institutional ownership, not significant negative impact.
- Profitability, significant negative impact.
- Fix asset, significant and positive impact
- Business risk, not significant and positive impact.

2. Simultaneously test shown that there is no significant impact from independent variables to dependent variable (dividend policy) by F-test 0.280. It means that equation cannot describe the relation between independent variables and dependent variable. We can see that simultaneously all independent variables (risk, debt, growth, insider ownership, institutional ownership, profit) are having no significant impact to dividend payout ratio. It means that manager or insider ownership will choose debt funding, because debt funding is more attractive than right issue funding.

## **5.2. Limitation and Research Suggestion**

1. Research ranged only five years. It is hoped, that next research will use longer period of time.
2. Difficult to detect the ownership fluctuation each year because those data are not reported completely each year.
3. This research can be done to financial companies, banks, and insurances. So, it would be understood the impact of insider ownership to debt and dividend in those institutions.
4. Coefficient value (dependent variable: debt)  $R^2$  only 28.90%, means that still lot of other variables, which have impact to debt ratio. Thus next research needs to involve other variables that have impact to debt policy.

### 5.3. Research Implications

From the research result there is significant impact of independent variables to debt policy. So, it is need to pay attention to the existence of *insider ownership, dividend payout ratio, institutional ownership, business risk, profit, fix asset*, in debt decision making.

By examining the research conclusion, it can be said that manager or insider ownership can use debt policy instruments to increase company values, but it must be supported with tight controlling by involving institution investor.

In dividend payout ratio, it can be seen that there is no significant impact of independent variables to dividend policy. It can be said that manager or insider ownership may not use dividend policy instruments to increase company values. It may be also concluded that manager or insider ownership tend to use debt policy than dividend policy in controlling agency conflict.

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RAW DATA 1999-2003

Year	Company	insid.	inst.	tot. ass.	fix ass.	tot. debt	sales	sales-1	op. profit	EBT	EAT	DPR	close price	tot sh outst.
1999	PT Astra Agro Lestari Tbk	0.0564	0.753	2,137,642	1,806,061	1,063,327	936,951	853,747	330,342	254,785	172,892	0.3274	1,950	1,509,600,000
1999	PT Karwell Indonesia Tbk	0.02	0.5644	576,630	72,465	384,741	781,564	1,155,340	70,277	29,320	21,365	0.687	800	585,000,000
1999	PT Selamat Sempurna Tbk	0.0191	0.6802	303,673	138,552	79,900	359,362	849,561	80,421	64,148	40,361	0.1995	1,125	259,733,760
1999	PT Rig Tenders Indonesia Tbk	0.0003	0.6721	276,732	71,058	16,315	169,982	203,238	63,717	50,501	47,676	0.3296	2,750	60,913,000
2000	PT Surya Intrindo Makmur Tbk	0.0014	0.686	208,206	74,124	78,426	153,106	136,428	17,763	25,267	15,750	0.3809	2,250	390,000,000
2000	PT Lautan Luas Tbk	0.0364	0.6303	700,431	144,311	354,026	820,805	636,978	78,210	41,001	55,705	0.098	405	780,000,000
2000	PT Duta Pertiwi Nusantara	0.0047	0.4967	137,239	11,234	31,346	63,799	64,722	13,112	24,602	17,390	0.1811	575	125,945,820
2000	PT Berlina Co. Ltd, Tbk	0.1048	0.514	164,391	45,453	67,172	156,837	116,377	41,777	39,910	23,552	0.4395	1,075	69,000,000
2000	PT Lion Metal Works Tbk	0.0018	0.6783	104,719	17,871	20,919	59,093	41,381	11,322	17,693	12,275	0.161	650	52,016,000
2000	PT Kedaung Indah Can Tbk	0.046	0.7636	211,192	72,697	87,674	127,806	121,659	23,784	24,543	17,274	0.3995	500	138,000,000
2000	PT Rig Tenders Indonesia Tbk	0.0003	0.6721	405,613	77,499	18,962	187,940	169,982	58,596	135,842	133,349	0.2284	2,800	60,913,000
2000	PT Ramayana Lestari Sentosa Tbk	0.0371	0.655	1,754,322	201,345	794,449	2,363,369	1,654,293	239,450	335,887	257,194	0.41	5,250	1,400,000,000
2000	PT Sona Topas Tourism Industry Tbk	0.2829	0.3913	392,341	210,623	299,272	255,985	162,766	47,543	759	2,798	0.0888	385	496,800,000
2001	PT Gudang Garam Tbk	0.0175	0.7212	13,448,124	2,191,965	5,249,932	17,970,450	14,964,674	3,389,977	2,985,092	2,087,361	0.2765	8,650	1,924,088,000
2001	PT Hanjaya Mandala Sampoerna Tbk	0.0672	0.3206	9,470,540	1,942,925	5,308,973	14,066,515	10,029,401	2,652,818	2,218,486	955,413	0.1178	3,200	4,500,000,000
2001	PT Argo Pantes Tbk	0.0236	0.3721	2,711,531	1,488,187	3,265,839	1,202,077	1,089,820	94,716	(240,432)	(167,511)	0.0023	900	264,705,000
2001	PT Sunson Textile Manufacturer Tbk	0.0808	0.5737	817,268	478,887	556,508	588,805	533,298	65,706	16,369	11,085	2.3	340	836,707,000
2001	PT Ryane Adibusana Tbk	0.0508	0.8667	69,946	9,878	7,992	42,719	26,924	10,533	8,505	5,832	1.9	700	550,060,000
2001	PT Lautan Luas Tbk	0.0364	0.6333	762,821	182,757	372,906	1,039,517	820,805	72,078	72,157	48,975	0.2469	240	780,000,000
2001	PT Duta Pertiwi Nusantara Tbk	0.019	0.4967	131,619	10,415	21,231	79,163	63,799	9,846	14,669	10,792	0.2918	385	125,945,820
2001	PT Dynaplast Tbk	0.0033	0.3701	480,699	266,998	229,496	383,641	307,882	70,297	54,350	33,160	0.4519	490	302,594,440
2001	PT Lapindo Packaging Tbk	0.0047	0.7163	32,870	13,227	10,229	21,086	14,278	696	844	1,136	6.8	625	259,410,300
2001	PT Arwana Citramulia Tbk	0.1727	0.5895	221,095	145,055	154,091	115,439	92,243	19,466	13,986	11,197	2.5	85	548,851,000
2001	PT Metrodata Elektronik Tbk	0.0041	0.1326	537,519	71,588	227,187	1,139,133	867,641	51,252	124,434	106,445	0.2058	120	2,018,361,673
2001	PT Hexindo Adiperkasa Tbk	0.0014	0.8436	569,402	117,575	415,527	489,128	388,375	54,304	63,411	43,221	3.5	700	84,000,000
2001	PT Selamat Sempurna Tbk	0.0191	0.6802	567,043	286,673	235,919	565,090	502,848	107,892	92,450	54,645	0.4278	1,825	259,733,760
2001	PT Berlian Laju Tanker Tbk	0.0006	0.6231	3,290,166	2,811,004	2,208,487	879,888	635,299	287,060	120,892	112,831	0.0568	1,775	2,061,560,468
2001	PT Rig Tenders Indonesia Tbk	0.0003	0.7407	478,128	71,381	18,739	237,748	187,940	66,540	105,998	103,195	0.2951	3,025	60,913,000

2001	PT Ramayana Lestari Sentosa Tbk	0.0371	0.655	2,232,014	374,787	1,056,712	2,878,059	2,363,369	303,781	416,054	320,077	0.44	2,675	1,400,000,000
2001	PT Rimo Catur Lestari Tbk	0.0142	0.7278	195,490	61,827	69,160	213,335	192,326	3,364	6,609	5,455	0.1502	150	340,000,000
2001	PT Panorama Sentrawisata Tbk	0.0083	0.8917	190,330	71,708	66,595	418,709	246,551	20,135	22,277	15,183	2.5	700	400,000,000
2002	PT Hanjaya Mandala Sampoerna Tbk	0.0167	0.4253	9,817,074	1,806,252	4,616,181	15,128,664	14,066,515	2,727,495	2,566,802	1,671,084	0.1346	3,700	4,500,000,000
2002	PT Fatrapolino Nusa Industries Tbk	0.3182	0.4987	240,295	128,260	66,728	216,291	210,837	46,079	41,470	28,844	0.3555	315	410,200,000
2002	PT Lion Mesh Prima Tbk	0.2561	0.3222	34,853	13,767	23,605	57,462	50,627	789	2,344	1,479	0.1622	350	9,600,000
2002	PT Berlian Laju Tanker Tbk	0.0006	0.5197	2,590,908	215,738	1,593,009	915,340	879,888	196,479	113,638	106,505	0.2427	485	2,068,092,468
2002	PT Gema Grahasarana Tbk	0.1026	0.57	71,178	19,198	25,002	93,807	70,239	7,798	7,094	4,840	5.3	110	320,000,000
2003	PT Cahaya Kalbar Tbk	0.0534	0.5008	295,249	159,484	66,604	180,498	172,968	985	4,627	3,175	2.8	225	297,500,000
2003	PT Tunas Baru Lampung Tbk	0.001	0.782	1,151,271	379,018	646,316	715,576	626,649	72,756	46,823	25,289	3.2	160	1,615,387,200
2003	PT Gudang Garam Tbk	0.0174	0.7212	17,338,899	4,936,413	6,368,028	23,137,376	20,939,084	2,930,647	2,629,417	1,838,673	0.3139	13,600	4,500,000,000
2003	PT Hanjaya Mandala Sampoerna Tbk	0.0197	0.4478	10,197,768	2,139,524	4,429,361	14,675,125	15,126,664	2,392,602	2,199,497	1,406,844	0.3838	4,475	1,924,088,000
2003	PT Aneka Kimia Raya Tbk	0.0047	0.7335	692,237	190,242	221,177	1,382,082	1,288,511	44,450	60,921	53,853	0.1931	900	208,000,000
2003	PT Lautan Luas Tbk	0.0364	0.6303	1,228,714	380,158	829,322	1,258,443	1,113,638	55,604	23,976	7,647	0.204	285	780,000,000
2003	PT Beton Jaya Manunggal Tbk	0.0958	0	23,346	16,653	1,451	18,543	20,443	(171)	107	107	0.0837	190	180,000,000
2003	PT Lion Mesh Prima Tbk	0.2588	0.3222	34,163	12,653	21,445	65,106	57,462	2,380	2,628	1,709	0.1404	550	9,600,000
2003	PT Lion Metal Works Tbk	0.0018	0.577	119,865	15,420	16,450	87,997	83,535	17,419	18,415	12,550	0.373	850	52,016,000
2003	PT Kedaung Indah Can Tbk	0.046	0.7633	177,457	79,685	66,102	84,274	105,784	(18,152)	(10768.00)	(13198.00)	(2.10)	200	138,000,000
2003	PT Prima Alloy Steel Tbk	0.0591	0.8691	368,825	108,124	254,681	391,433	192,471	29,499	13,804	11,936	1	300	76,000,000
2003	PT Selamat Sempurna Tbk	0.019	0.6802	632,610	251,393	275,282	637,589	603,355	89,550	82,172	47,898	0.949	265	259,733,760
2003	PT Berlian Laju Tanker Tbk	0.208	0.6319	3,010,417	2,175,580	1,928,527	969,866	915,340	203,122	154,314	149,150	0.208	575	2,068,097,668
2003	PT Rig Tenders Indonesia Tbk	0.0003	0.7047	455,852	144,807	16,576	172,319	227,405	44,701	31,742	28,994	1.0504	6,100	60,913,000
2003	PT Samudra Indonesia Tbk	0.0229	0.75	2,052,585	1,057,876	1,169,962	2,836,922	2,962,972	97,727	73,685	43,210	0.379	3,600	163,756,000
2003	PT Ramayana Lestari Sentosa Tbk	0.0371	0.655	2,512,276	508,011	986,406	3,553,447	3,262,393	359,593	402,712	302,534	0.56	4,350	1,400,000,000
2003	PT Panorama Sentrawisata Tbk	0.0325	0.8563	223,125	80,723	99,974	519,773	531,086	(2,806)	985	2,139	5.6	700	400,000,000
2003	PT Sona Topas Tourism Industry Tbk	0.0421	0.4759	365,797	241,274	236,816	159,397	228,092	9,232	13,908	10,398	0.0956	155	496,800,000
2003	PT Jasuindo Tiga Perkasa Tbk	0.07	0.64	90,983	48,856	33,985	50,823	50,261	6,944	5,411	4,156	8	285	350,680,000

PROCESSED DATA 1999-2003

Year	Company	DPR	debt	insid.	inst.	profit	fix	growth	risk
1999	PT Astra Agro Lestari Tbk	0.3274	0.49743	0.0564	0.753	0.154536	0.000845	0.018773	196.3083
1999	PT Karwell Indonesia Tbk	0.687	0.667223	0.02	0.5644	0.121875	0.12567	-0.07519	142.6713
1999	PT Selamat Sempurna Tbk	0.1995	0.263112	0.0191	0.6802	0.264828	0.456254	-0.15809	162.0623
1999	PT Rig Tenders Indonesia Tbk	0.3296	0.058956	0.0003	0.6721	0.230248	0.256776	-0.03511	574.0729
2000	PT Surya Intrindo Makmur Tbk	0.3809	0.376675	0.0014	0.686	0.085315	0.356013	0.023335	579.275
2000	PT Lautan Luas Tbk	0.098	0.50544	0.0364	0.6303	0.111660	0.206032	0.052018	132.6557
2000	PT Duta Pertiwi Nusantara	0.1811	0.228404	0.0047	0.4967	0.095541	0.081857	-0.00287	196.7593
2000	PT Berlina Co. Ltd, Tbk	0.4395	0.408611	0.1048	0.514	0.254132	0.276493	0.061491	110.0103
2000	PT Lion Metal Works Tbk	0.161	0.199763	0.0018	0.6783	0.108118	0.170657	0.073858	105.0397
2000	PT Kedaung Indah Can Tbk	0.3995	0.415139	0.046	0.7636	0.112618	0.344222	0.009907	149.9369
2000	PT Rig Tenders Indonesia Tbk	0.2284	0.046749	0.0003	0.6721	0.144463	0.191066	0.020289	139.0852
2000	PT Ramayana Lestari Sentosa Tbk	0.41	0.452852	0.0371	0.655	0.136491	0.114771	0.073949	424.9944
2000	PT Sona Topas Tourism Industry Tbk	0.0888	0.762785	0.2829	0.3913	0.121178	0.536687	0.094788	341.3151
2001	PT Gudang Garam Tbk	0.2765	0.390384	0.0175	0.7212	0.252078	0.162994	0.037286	2048.849
2001	PT Hanjaya Mandala Sampoerna Tbk	0.1178	0.560578	0.0672	0.3206	0.280113	0.205155	0.069996	5771.575
2001	PT Argo Pantes Tbk	0.0023	1.204426	0.0236	0.3721	0.034931	0.548836	0.019801	218.8555
2001	PT Sunson Textile Manufacturer Tbk	2.3	0.680937	0.0808	0.5737	0.080397	0.585961	0.02	20.88932
2001	PT Ryane Adbusana Tbk	1.9	0.11426	0.0508	0.8667	0.150588	0.141223	0.096721	102.9857
2001	PT Lautan Luas Tbk	0.2469	0.488851	0.0364	0.6333	0.094489	0.23958	0.048379	46.0895
2001	PT Duta Pertiwi Nusantara Tbk	0.2918	0.161306	0.019	0.4967	0.074807	0.07913	0.044099	84.3244
2001	PT Dynaplast Tbk	0.4519	0.477421	0.0033	0.3701	0.146239	0.555437	0.04498	125.9953
2001	PT Lapindo Packaging Tbk	6.8	0.311196	0.0047	0.7163	0.021174	0.402403	0.081099	163.7903
2001	PT Arwana Citramulia Tbk	2.5	0.696945	0.1727	0.5895	0.088044	0.656075	0.045885	15.7874
2001	PT Metrodata Elektronik Tbk	0.2058	0.422659	0.0041	0.1326	0.095349	0.133182	0.055959	115.3059
2001	PT Hexindo Adiperkasa Tbk	3.5	0.72976	0.0014	0.8436	0.095370	0.206489	0.047211	224.146
2001	PT Selamat Sempurna Tbk	0.4278	0.416051	0.0191	0.6802	0.190271	0.505558	0.023614	81.50455
2001	PT Berlian Laju Tanker Tbk	0.0568	0.671239	0.0006	0.6231	0.087248	0.854365	0.067308	291.8317

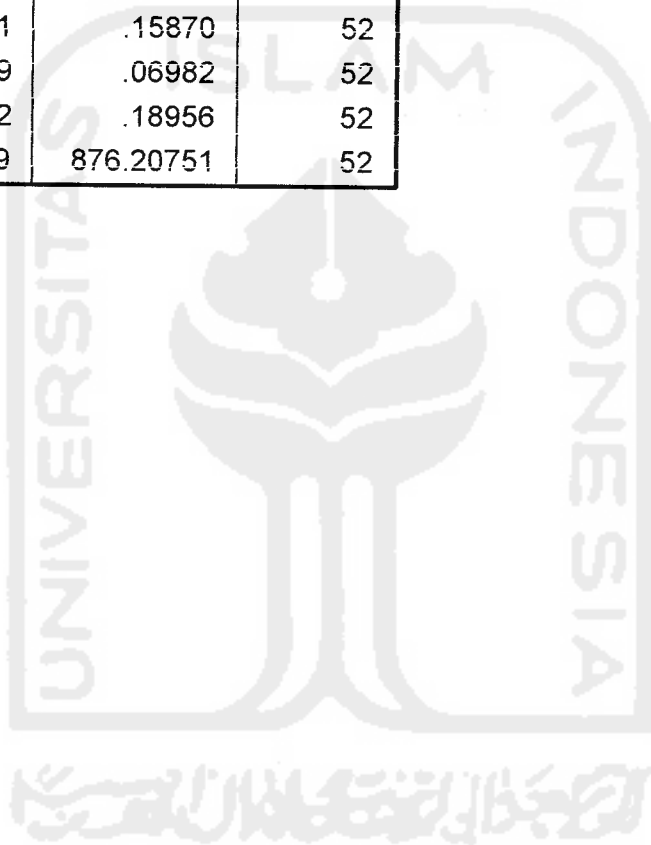
2001	PT Rig Tenders Indonesia Tbk	0.2951	0.039192	0.0003	0.7407	0.139168	0.149293	0.048141	445.3197
2001	PT Ramayana Lestari Sentosa Tbk	0.44	0.473434	0.0371	0.655	0.136102	0.167914	0.040192	665.4202
2001	PT Rimo Catur Lestari Tbk	0.1502	0.353778	0.0142	0.7278	0.017208	0.316267	0.020951	60.58271
2001	PT Panorama Sentrawisata Tbk	2.5	0.349892	0.0083	0.8917	0.105790	0.376756	0.111735	50.14184
2002	PT Hanjaya Mandala Sampoerna Tbk	0.1346	0.47022	0.0167	0.4253	0.277832	0.183991	0.014665	546.8358
2002	PT Fatrapolindo Nusa Industries Tbk	0.3555	0.277692	0.3182	0.4987	0.191760	0.533761	0.005121	51.6911
2002	PT Lion Mesh Prima Tbk	0.1622	0.677273	0.2561	0.3222	0.022638	0.395002	0.025651	534.4212
2002	PT Berlian Laju Tanker Tbk	0.2427	0.614846	0.0006	0.5197	0.075834	0.083267	0.007931	442.6545
2002	PT Gema Grahasarana Tbk	5.3	0.35126	0.1026	0.57	0.109556	0.269718	0.059574	18.27815
2003	PT Cahaya Kalbar Tbk	2.8	0.225586	0.0534	0.5008	0.003336	0.540168	0.008559	11.37348
2003	PT Tunas Baru Lampung Tbk	3.2	0.561393	0.001	0.782	0.063196	0.329217	0.026896	13.05582
2003	PT Gudang Garam Tbk	0.3139	0.367268	0.0174	0.7212	0.169022	0.284702	0.020167	2215.236
2003	PT Hanjaya Mandala Sampoerna Tbk	0.3838	0.434346	0.0197	0.4478	0.234620	0.209803	-0.00604	586.7218
2003	PT Aneka Kimia Raya Tbk	0.1931	0.319511	0.0047	0.7335	0.064212	0.274822	0.014119	212.3618
2003	PT Lautan Luas Tbk	0.204	0.674951	0.0364	0.6303	0.045254	0.309395	0.02475	67.07639
2003	PT Beton Jaya Manunggal Tbk	0.0837	0.062152	0.0958	0	(0.007325)	0.713313	-0.01932	34.16759
2003	PT Lion Mesh Prima Tbk	0.1404	0.627726	0.2588	0.3222	0.069666	0.370371	0.025293	87.18993
2003	PT Lion Metal Works Tbk	0.373	0.137238	0.0018	0.577	0.145322	0.128645	0.010462	60.41993
2003	PT Kedaung Indah Can Tbk	(2.10)	0.37	0.046	0.7633	(0.102290)	0.449038	-0.04445	77.53298
2003	PT Prima Alloy Steel Tbk	1	0.69052	0.0591	0.8691	0.079981	0.293158	0.152546	36.68044
2003	PT Selamat Sempurna Tbk	0.949	0.435153	0.019	0.6802	0.141556	0.39739	0.011099	683.6793
2003	PT Berlian Laju Tanker Tbk	0.208	0.640618	0.208	0.6319	0.067473	0.722684	0.01164	36.86585
2003	PT Rig Tenders Indonesia Tbk	1.0504	0.036363	0.0003	0.7047	0.098060	0.317662	-0.05397	1124.335
2003	PT Samudra Indonesia Tbk	0.379	0.569994	0.0229	0.75	0.047612	0.515387	-0.00866	538.5165
2003	PT Ramayana Lestari Sentosa Tbk	0.56	0.392634	0.0371	0.655	0.143134	0.202211	0.017238	876.5327
2003	PT Panorama Sentrawisata Tbk	5.6	0.448063	0.0325	0.8563	(0.012576)	0.361784	-0.0043	34.47386
2003	PT Sona Topas Tourism Industry Tbk	0.0956	0.647397	0.0421	0.4759	0.025238	0.659584	-0.06916	27.70242
2003	PT Jasuindo Tiga Perkasa Tbk	8	0.373531	0.07	0.64	0.076322	0.536979	0.002226	68.0352

## MULTIPLE REGRESSION ANALYSIS RESULT

### DEBT Regression

#### Descriptive Statistics

	Mean	Std. Deviation	N
DEBT	.4414	.22427	52
DPR	1.0084	1.67975	52
INSID	.0523	.07809	52
INST	.6071	.15870	52
PROFIT	.1189	.06982	52
FIX	.3262	.18956	52
RISK	423.6009	876.20751	52



### Correlations

	DEBT	DPR	INSID	INST	PROFIT	FIX	RISK
Pearson Correlation							
DEBT	1.000						
DPR	-.066	1.000					
INSID	.293	-.021	1.000				
INST	-.284	.243	-.369	1.000			
PROFIT	-.283	-.266	-.059	-.047	1.000		
FIX	.392	.171	.370	-.100	-.303	1.000	
RISK	.001	-.166	-.060	-.157	.452	-.177	1.000
Sig. (1-tailed)							
DEBT							
DPR	.320		.017	.021	.021	.002	.497
INSID	.017	.441		.041	.029	.113	.120
INST	.021	.441	.004		.338	.003	.336
PROFIT	.021	.029	.338	.370		.240	.133
FIX	.002	.113	.003	.240	.014		.000
RISK	.497	.120	.336	.133	.000	.105	
N	52	52	52	52	52	52	52
DPR	52	52	52	52	52	52	52
INSID	52	52	52	52	52	52	52
INST	52	52	52	52	52	52	52
PROFIT	52	52	52	52	52	52	52
FIX	52	52	52	52	52	52	52
RISK	52	52	52	52	52	52	52

**Variables Entered/Removed<sup>d</sup>**

Model	Variables Entered	Variables Removed	Method
1	RISK, INSID, DPR, FIX, INST, PROFIT <sup>a</sup>		Enter

a. All requested variables entered.

b. Dependent Variable: DEBT

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.537 <sup>a</sup>	.289	.194	.20138	2.209

a. Predictors: (Constant), RISK, INSID, DPR, FIX, INST, PROFIT

b. Dependent Variable: DEBT

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.740	6	.123	3.042	.014 <sup>a</sup>
	Residual	1.825	45	.041		
	Total	2.565	51			

a. Predictors: (Constant), RISK, INSID, DPR, FIX, INST, PROFIT

b. Dependent Variable: DEBT



Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	DPR	INSID	INST	PROFIT	FIX	RISK	
1	1	4.438	1.000	.00	.01	.01	.00	.01	.01	.01	.01
	2	1.011	2.095	.00	.17	.02	.00	.02	.02	.01	.34
	3	.732	2.462	.00	.27	.42	.00	.00	.00	.01	.02
	4	.485	3.026	.00	.38	.18	.01	.02	.02	.00	.37
	5	.215	4.544	.00	.09	.15	.00	.27	.47	.47	.16
	6	.098	6.738	.03	.06	.11	.15	.62	.42	.42	.08
	7	.021	14.462	.96	.01	.10	.83	.06	.08	.08	.02

a. Dependent Variable: DEBT

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	.577	.154		3.745	.001		
	DPR	-.017	.018	-.126	-.928	.359	.861	1.162
	INSID	.313	.418	.109	.749	.458	.746	1.341
	INST	-.248	.201	-.176	-1.238	.222	.785	1.274
	PROFIT	-.948	.478	-.295	-1.983	.053	.714	1.401
	FIX	.345	.169	.292	2.038	.047	.771	1.296
	RISK	.000	.000	.144	1.005	.320	.768	1.302

a. Dependent Variable: DEBT

**Residuals Statistics<sup>a</sup>**

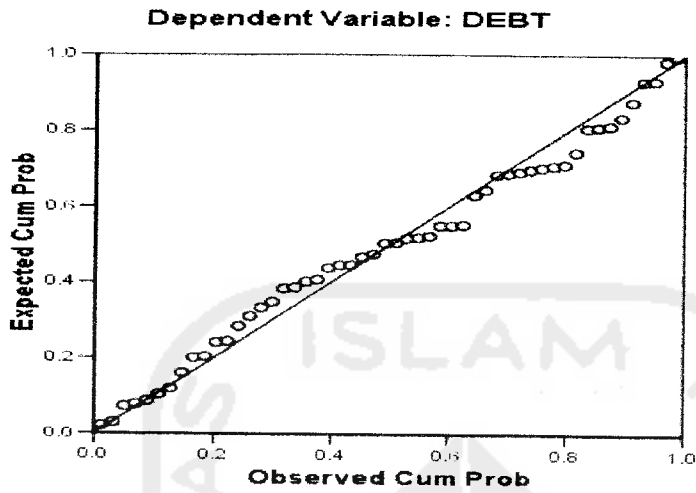
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.2557	.7093	.4414	.12048	52
Std. Predicted Value	-1.541	2.224	.000	1.000	52
Standard Error of Predicted Value	.037	.177	.069	.027	52
Adjusted Predicted Value	.2324	.7193	.4412	.12469	52
Residual	-.40644	.54790	.00000	.18916	52
Std. Residual	-2.018	2.721	.000	.939	52
Stud. Residual	-2.080	2.954	-.001	.997	52
Deleted Residual	-.43149	.64567	.00014	.21393	52
Stud. Deleted Residual	-2.163	3.253	.004	1.029	52
Mahal. Distance	.763	38.631	5.885	6.175	52
Cook's Distance	.000	.222	.019	.039	52
Centered Leverage Value	.015	.757	.115	.121	52

a. Dependent Variable: DEBT

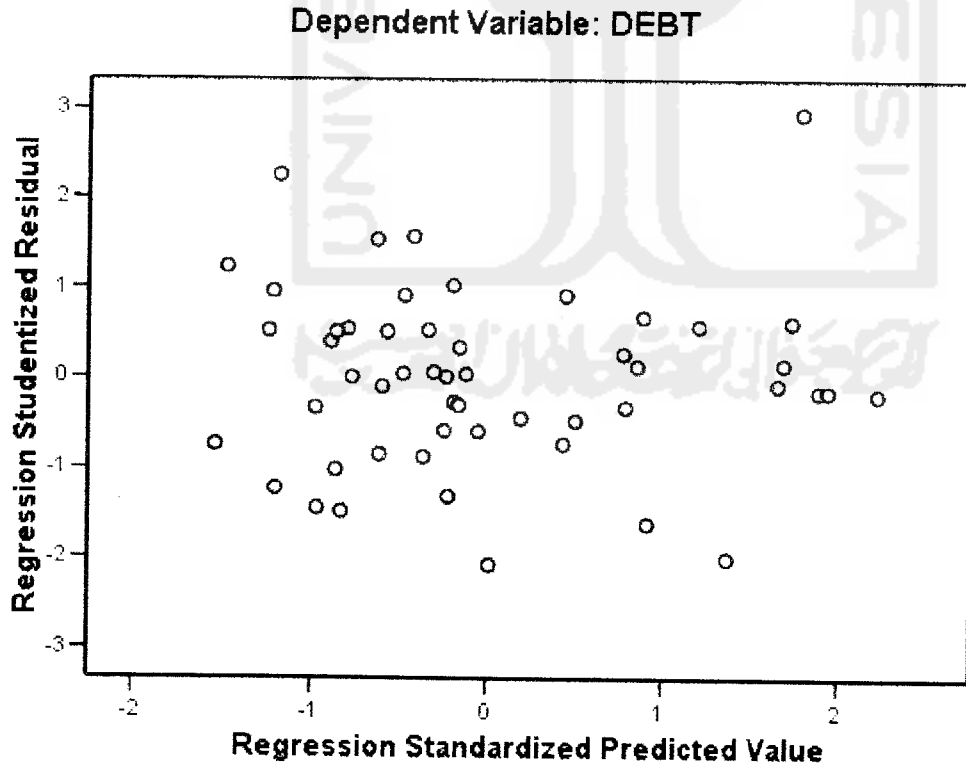


# Charts

Normal P-P Plot of Regression Standardized Residual



Scatterplot



## DIVIDEND Regression

**Descriptive Statistics**

	Mean	Std. Deviation	N
DPR	1.0084	1.67975	52
DEBT	.4414	.22427	52
INSID	.0523	.07809	52
INST	.6071	.15870	52
PROFIT	.1189	.06982	52
GROWTH	.0266	.04864	52
RISK	423.6009	876.20751	52



**Correlations**

	DPR	DEBT	INSID	INST	PROFIT	GROWTH	RISK
Pearson Correlation							
DPR	1.000	-.066	-.021	.243	-.266	.160	-.166
DEBT	-.066	1.000	.293	-.284	-.283	.124	.001
INSID	-.021	.293	1.000	-.369	-.059	.113	-.060
INST	.243	-.284	-.369	1.000	-.047	.106	-.157
PROFIT	-.266	-.283	-.059	-.047	1.000	-.124	.452
GROWTH	.160	.124	.113	.106	-.124	1.000	.054
RISK	-.166	.001	-.060	-.157	.452	.054	1.000
Sig. (1-tailed)							
DPR		.320	.441	.041	.029	.129	.120
DEBT	.320		.017	.021	.021	.191	.497
INSID	.441	.017		.004	.338	.212	.336
INST	.041	.021	.004		.370	.227	.133
PROFIT	.029	.021	.338	.370		.191	.000
GROWTH	.129	.191	.212	.227	.191		.353
RISK	.120	.497	.336	.133	.000	.353	
N	52	52	52	52	52	52	52
DEBT	52	52	52	52	52	52	52
INSID	52	52	52	52	52	52	52
INST	52	52	52	52	52	52	52
PROFIT	52	52	52	52	52	52	52
GROWTH	52	52	52	52	52	52	52
RISK	52	52	52	52	52	52	52

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	RISK, DEBT, GROWTH, INSID, INST, PROFIT <sup>a</sup>		Enter

a. All requested variables entered.

b. Dependent Variable: DPR

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.383 <sup>a</sup>	.147	.033	1.65159	1.361

a. Predictors: (Constant), RISK, DEBT, GROWTH, INSID, INST, PROFIT

b. Dependent Variable: DPR

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.152	6	3.525	1.292	.280 <sup>a</sup>
	Residual	122.748	45	2.728		
	Total	143.900	51			

a. Predictors: (Constant), RISK, DEBT, GROWTH, INSID, INST, PROFIT

b. Dependent Variable: DPR

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	.662	1.422		.466	.644		
	DEBT	-.852	1.168	-.114	-.729	.470	.779	1.284
	INSID	1.257	3.327	.058	.378	.707	.793	1.262
	INST	2.170	1.664	.205	1.304	.199	.767	1.304
	PROFIT	-6.321	3.966	-.263	-1.594	.118	.698	1.433
	GROWTH	3.926	4.958	.114	.792	.433	.920	1.088
	RISK	.000	.000	-.017	-.109	.914	.739	1.354

a. Dependent Variable: DPR

**Collinearity Diagnostics<sup>a</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	DEBT	INSID	INST	PROFIT	GROWTH	RISK	
1	1	4.482	1.000	.00	.01	.01	.00	.01	.01	.01	.01
	2	.883	2.252	.00	.00	.14	.00	.02	.09	.38	.38
	3	.698	2.533	.00	.00	.04	.00	.01	.80	.06	.06
	4	.588	2.760	.00	.00	.53	.01	.00	.00	.21	.21
	5	.232	4.395	.00	.35	.08	.00	.30	.04	.11	.11
	6	.098	6.750	.01	.36	.12	.17	.56	.04	.22	.22
	7	.017	16.027	.98	.27	.09	.81	.12	.01	.00	.00

a. Dependent Variable: DPR

**Casewise Diagnostics<sup>a</sup>**

Case Number	Std. Residual	DPR
55	4.029	8.00

a. Dependent Variable: DPR

**Residuals Statistics<sup>a</sup>**

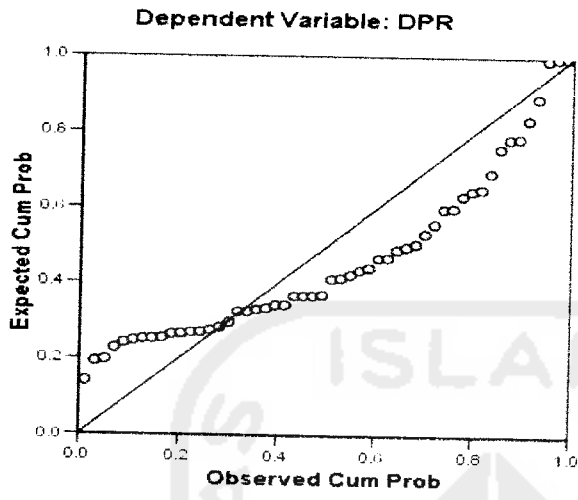
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.7237	2.1370	1.0084	.64400	52
Std. Predicted Value	-2.690	1.752	.000	1.000	52
Standard Error of Predicted Value	.270	1.455	.563	.226	52
Adjusted Predicted Value	-3.6391	2.4530	.9616	.90492	52
Residual	-1.77979	6.65466	.00000	1.55140	52
Std. Residual	-1.078	4.029	.000	.939	52
Stud. Residual	-1.127	4.115	.008	.986	52
Deleted Residual	-1.94585	6.94119	.04681	1.75704	52
Stud. Deleted Residual	-1.130	5.152	.039	1.101	52
Mahal. Distance	.381	38.596	5.885	6.339	52
Cook's Distance	.000	.574	.022	.082	52
Centered Leverage Value	.007	.757	.115	.124	52

a. Dependent Variable: DPR



# Charts

Normal P-P Plot of Regression Standardized Residual



Scatterplot

Dependent Variable: DPR

