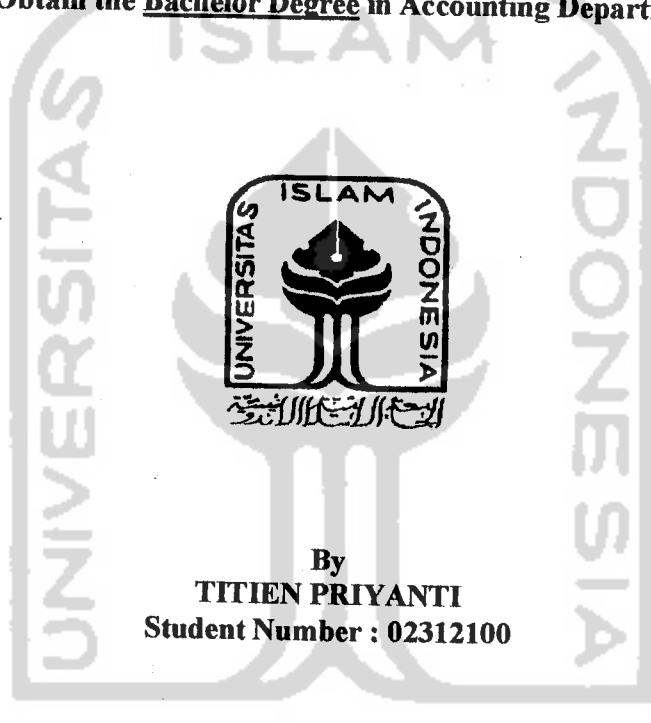


**THE ANALYSIS OF STOCKS DIVERSIFICATION ACROSS INDUSTRIES  
LISTED IN THE JAKARTA STOCK EXCHANGE**

**A THESIS**

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



**DEPARTMENT OF ACCOUNTING  
INTERNATIONAL PROGRAM  
FACULTY OF ECONOMICS  
UNIVERSITAS ISLAM INDONESIA  
YOGYAKARTA  
2006**

**THE ANALYSIS OF STOCKS DIVERSIFICATION ACROSS INDUSTRIES  
LISTED IN THE JAKARTA STOCK EXCHANGE**

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July 10, 2006

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**Bismillahirrahmanirrahim**

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Yogyakarta, June, 2006

Titien Priyanti

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## ABSTRACT

**Priyanti, Titien (2006). The Analysis of Stocks Diversification Across Industries in the Jakarta Stock Exchange. Yogyakarta: Faculty of Economics, Department of Accounting, International Program, Islamic University of Indonesia.**

This thesis aims to know that diversification benefits to minimize the risk of stock-portfolio. If it shows a valid significant result in a particular way then the last is to test the macroeconomic factors that causing the variation of stock-returns, and whether the variation resulted in influences significantly to the diversified stocks returns. Diversifying the stocks represents fund investment's effort, in the form of stocks, of the various go-public companies listed in the Jakarta Stock Exchange. The investors who try to reduce the risks affected by certain stock investment will diversify their stocks. Industrial factors have been important and become major consideration and important in choosing the appropriate stocks in portfolios.

Company return is decomposed into market return, pure industry's return, and company specific's return. The use of Multivariate Anova (MANOVA) yields the solution of pure industrial return's existence. By using eight-stock portfolios and monthly return data from 1998 – 2002, the hypotheses of this research has been formulated based on cross section correlation and time-series linier program.

The result of this research shows that the correlation of the stock return after the decomposition is lower than before the decomposition. This means that diversification of the stock return across industries in Jakarta Stock Exchange is useful in minimizing the risk of stock portfolios. The calculation of pure industrial return's variance shows unequal to zero, meaning that pure industrial return factors influence to the company's stock return. Stock return variation from each industry can be influenced differently by macroeconomic factors. In this case they are the inflation rate taken from the Consumer's Composite Price Index, the Gross Domestic Product, and the last is the Interest Rate. The results of this research have several differences and similarities compare to the previous research done by Zulfa Irawati.

**Key Word:** stocks diversification, risk, across industry, and return decomposition.

## INTISARI

**Priyanti, Titien (2006). The Analysis of Stocks Diversification Across Industries in the Jakarta Stock Exchange. Yogyakarta: Faculty of Economics, Department of Accounting, International Program, Islamic University of Indonesia.**

Skripsi ini bertujuan untuk mengetahui bahwa diversifikasi berguna untuk mengurangi risiko portfolio saham. Jika hasil yang ditunjukkan signifikan dan valid kemudian berikutnya adalah menguji faktor-faktor makroekonomi yang menyebabkan variasi pada retur saham, dan apakah variasi yang dihasilkan berpengaruh signifikan terhadap retur saham yang terdiversifikasi. Diversifikasi saham merupakan upaya menginvestasikan dana dalam bentuk saham di berbagai perusahaan go-publik yang terdaftar di Bursa Efek Jakarta. Para investor yang ingin mengurangi resiko yang timbul karena sejumlah investasi saham melakukan diversifikasi saham. Dalam hal ini, faktor-faktor industri menjadi penting dan dijadikan pertimbangan utama dalam memilih portfolio saham yang tepat.

Retur Perusahaan didekomposisikan menjadi retur pasar, retur industri murni, dan retur spesifik perusahaan. Kegunaan dari Multivariate Anova (MANOVA) menghasilkan solusi keberadaan retur industri murni. Dengan menggunakan delapan portfolio-saham dan data retur bulanan dari tahun 1998-2002, hipotesis dari penelitian ini, yang terbentuk dari *cross-section correlation* dan *time-series linier program*, diformulasikan.

Hasil dari penelitian ini menunjukkan bahwa korelasi retur saham sesudah dekomposisi lebih rendah daripada sebelum dekomposisi. Hal ini berarti bahwa diversifikasi retur saham antar industri di Bursa Efek Jakarta berguna untuk mengurangi resiko dari portfolio-saham. Perhitungan varians dari retur industri murni menunjukkan nilai tidak sama dengan nol, yang berarti adanya faktor-faktor retur industri murni yang mempengaruhi retur saham perusahaan. Variasi retur saham dari tiap industri dapat dipengaruhi secara berbeda oleh faktor-faktor makroekonomi. Dalam hal ini, faktor-faktor tersebut adalah tingkat inflasi yang diambil dari Indek Harga Konsumen Gabungan, Produk Domestik Bruto, dan terakhir tingkat bunga. Hasil dari penelitian ini mempunyai beberapa perbedaan dan persamaan dibandingkan dengan penelitian sebelumnya yang telah dilakukan oleh Zulfa Irawati.

**Kata Kunci:** diversifikasi saham, resiko, antar industri, dan dekomposisi retur.

## **STATEMENT OF FREE PLAGIARISM**

Herein I declare the originality of this thesis; there is no other work which has ever presented to obtain any university degree, and in my concern there is neither one else's opinion nor published written work, except knowledge quotation relevant to the topic of this thesis which have been stated or listed on the thesis bibliography.

If in the future this statement is not proven as it supposed to be, I am willing to accept any sanction complying to the determined regulation for its consequence.

Yogyakarta, July,2006

Titien Priyanti

## CHAPTER I

### INTRODUCTION

#### **1.1 Background of the Study**

Investors have done several investments for the purpose of maximizing returns without avoiding risk factors that need to be taken into consideration. When investors are doing investment, they should be aware of *risk*. Risk is a measurable possibility of losing or not gaining value. Risk is differentiated from uncertainty, which is not measurable (Dictionary of Finance and Investment Terms, 1991). Investors who are interested in investing their capital in the form of stocks are aware of two important subjects i.e. returns and risks of the investments.

Rational investors always avoid any risks as much as possible. But, if the investors decide to bear greater risks, it means that they will expect greater returns in the future. To minimize the size of the risks, investors generally have done diversifications by forming stock portfolios. Portfolios' diversification is notified as a kind of effort to form the portfolios that will be useful for the investors to minimize the risk without sacrificing the expected returns.

There are many kinds of portfolios' diversification. The portfolios can be formed from many available sources of assets such as stocks, obligations, and real estates. However, the kind of diversification that will be discussed on this research is the stock's diversification, the impact of the diversification on the investors, the returns, and more importantly to prove the effectiveness of the diversification in

minimizing the risks after doing the diversification. The purpose of doing stock's diversification is that the cumulative available fund in the form of stocks is not supposed to be invested into one company, but furthermore the portfolios must be consisted of various stocks from various companies in order to be effective and efficient.

Several empirical studies have been done related to the amount of stocks in the portfolios that will be able to reduce risks and resulted in the recommendation of providing minimum of 15-20 types of stocks (Tandelilin, 2001). In the management of portfolios, it is confirmed that company's risks can be minimized by doing investment's diversification consisting of various number of securities. The peak of reducing risks will be reached only when portfolios consist of several types of stocks. But, after that, the use of reducing portfolios' risks will not be very valuable anymore. This theory has also been proven by Sudana and Janiarti (2000).

Risk factors for instance wars, inflations, recessions, and highly interest rates can affect the entire companies/ industries. This systematic risk can not be eliminated through diversification. The measurement of this risk from a security/ portfolios towards market risks can be computed using beta coefficients. Contradict to the systematic risk, the unsystematic risk will be relatively smaller after a company has 10 stocks in the portfolios (Wagner and Lau, 1999). To strengthen this theory, another study states that the use of diversification will be able to be achieved by having stocks from various industries in the portfolios (Markowitz, 2000).

Beta is a measure of return's volatility of securities/ portfolios towards market return. Beta shows the sensitivity of beneficiary of a stock toward market index's profitability. Beta security period-n measures the return's volatility of securities period-n towards market return. Therefore, beta is a systematic risk measure of securities/ portfolios relative towards market risk (Jogiyanto, 1998).

Empirical evidence to recognize the relationship between risks and returns has been done. Rubio (1989), Fama and French (1992), and Natarsyah (2000) shows that the relationship of market risk/ beta and the expected returns is low. In fact, there is another risk factor i.e. ratio book equity with market equity and size (Fama and French, 1992), size and ratio of book to market value of equity (Ashton and Tippet, 1998), cost of exchange (Shinsuke), and non-fundamental factors (Natarsyah, 2000) that affect the expected return.

Study of Grubel (1968), Levy and Starnat (1970), and Solnik (1974) have showed low correlation across return indexes inside different countries and stated opinion that the use of international diversification burden amount of costs including direct higher trading cost, dissimilar regulations and cultures, currency risks, and political risks. On the other hand, Roll's study (1992) states that industry factors explain averagely 40% of the stock's return volatility. This matter has different result with Heston and Rouwenhorst (1994) who state that there is a little variance inside a country's index that is less than 4% explained by their industry's composition. Several studies above show that industry factors in the diversification are crucial in determining the securities' portfolios.

Estimation toward the expected return is being influenced by several risk factors (Bower, Bower and Logue, 1984; Bubnys, 1990). Even though there has not been any agreement of the total risk factors and trouble in deciding the relevant risk factors, this research will be using the specific macroeconomic risks factors correlated with the condition of stocks market in Indonesia, to see whether the expected return variance is influenced by the industry sectors.

The result of the study done by Fifield, Power, and Sinclair (2002) states that local economic factors (GDP, money inflation, and interest rates) actively influence the return in the 13 ESMs (Emerging Stock Markets) when global analysis economic factor (production of industries and world's inflation) is stated significant. It shows that the return variance of portfolio is clearly explained by risk factors inside a country.

The difference of the risk factors' type as the surprise element causes actual value disorder from the expected value. Numerous strategies in managing risks that cover portfolios from several industry sectors are required to reach a greater portfolios' return.

## 1.2. Research Identification

This research identifies the problem about stock diversifications and the component factors that affect the returns gained after the stocks are being diversified. There will be three types of process in this research. The first is before decomposition, and the second is after decomposition to see which process will cause lower risk than the other. And, the last is to see whether the risk factors

caused by macroeconomic variables affect the variance of stock return in each industry.

### **1.3. Research Formulation**

Based on the study of stock's diversification across industries listed in Jakarta Stock Exchange and background of the study above, hence some problems of this research will be formulated in these following questions:

1. Does the stock's diversification across industries listed in the Jakarta Stock Exchange will be useful in minimizing the portfolio's risks?
2. Does the variance from stock's return derived from the industry factors can be explained by the macroeconomic variables?

### **1.4. Research Limitation**

The research tries to investigate whether doing stock's diversification across industries listed in the Jakarta Stock Exchange will be useful/ valuable or not for the investors in order to minimize the portfolio's risks and to elaborate the variations of stock's returns derived from industry factors explained by the macroeconomic variables.

The sample will be taken from secondary sources i.e. ICMD (Index Capital Market Directory), JSX Monthly Statistics, Indonesian Financial Statistics, and the Economic Indicators, consisting of 9 industries and 75 companies listed in the JSX. The data obtained will be limited to:

1. The stock closing price in the current years and in the previous years to obtain company monthly returns.
2. the Composite Stock Price Indexes (CSPI)
3. the Composite Consumer Price Indexes (CCPI)
4. Gross Domestic Products
5. SBI interest rates

### **1.5. Research Objectives**

This research, generally, aims to examine more widely about the impact of stock's diversification across industries listed in the JSX on the risks that the company will bear before and after the decomposition process. This research also examines the effect of macroeconomic variables on the variance of stock returns derived from the industry factors. The objectives of the research are:

1. to analyze whether the functions of stock's diversification across industries listed in JSX will be able to minimize the portfolio's risks, and
2. to investigate the macroeconomic variables that influence the variance of stock returns derived from the industry factors.

### **1.6. Research Contribution**

#### **1. For the researcher**

- a. The results of this research can be used to measure the relationship of stock's diversification across industries listed in JSX having the impact of minimizing the risks on the companies applying the diversification, and to

investigate the macroeconomic variables that influence the variance of stock returns derived from the industry factors. .

- b. This research hopefully can be useful to enrich knowledge and to apply the lesson which the writer has studied in the university.

## **2. For the others**

- a. For the academician

This research is expected to give additional knowledge related to the sources of stock risks derived from the industry factors,

- b. For the practitioners

This research aims to be valuable for the investors in determining the proper investment portfolios, particularly if they decide to do diversifications across industries.

- c. The result of the research can be used as the valuable sources for another relevant study with different subjects.

- d. It can also function as a work reference for the next research.

## **1.7. Definition of Terms**

The terms that are being used and function as the keywords on this research are:

### **1. Stock's Diversification**

Dividing investments into various investment's places/ companies, this means that the investors try to diverse/ spread-out the investments in order to minimize the risks.

## 2. Risks

1. Unsystematic risk
  2. Systematic risk
  3. Idiosyncratic risk
3. Across Industry

The research involves 9 industries listed in JSX. The researcher aims to know the monthly return across 9 industries after the stocks are being diversified.

## 4. Return Decomposition

Decomposing the return to become Market Return, Pure Industry Return, and Company Specific Return. This decomposition is adapted from the previous study done by Heston and Rouwenhorst.

### **1.8. Thesis Organization**

The main features for this thesis organization can be described as follows:

#### **CHAPTER I: *Introduction***

This chapter contains the study background, research identification, research formulation, research limitation, research objectives, research contribution, definition of terms, and thesis organization.

#### **CHAPTER II: *Review of Literature***

This chapter contains introduction of the literature review, definition of return and risk, the classification of risk, three components of non-diversifiable risks, the classifications of risks based on the behavior of stock prices, the characteristics of stock prices, the characteristics of investors, decomposing returns, decision oriented return decomposition, and formulation of hypotheses.

#### **CHAPTER III : *Research Method***

This chapter contains the research sources, the method of collecting data, the sampling design, data analysis, research variables, and statistical formulation of hypotheses..

#### **CHAPTER IV : *Data Analysis***

This chapter contains the analysis of research's result explaining about formulation of hypotheses.

**CHAPTER V : Conclusion**

This chapter contains the conclusion result of the research, implications, and limitation of the research.



## CHAPTER II

### REVIEW OF LITERATURE

In this chapter, the literature review used in this study will be discussed. This thesis uses various data resources related to the stock diversification and the implications of the diversification on the stocks before and after the decomposition process. This chapter explains the previous studies and theories used to confirm the use of doing diversification, and the kind of risks that the investors will take. Part of this chapter will elaborate more about the macroeconomic factors that will give whether a significant or non-significant influence towards the diversified stocks to conclude some hypothesis derived from previous studies and theories.

#### **2.1. Information of Investment and Macroeconomic Factors**

The decision of doing investment is closely related to fund allocation's decision. The optimum of fund allocation is expected to generate the profitability rate while maintaining the risk's rate, or on the other hand to reduce the risk's rate while maintaining the profitability rate. The ideal principle when doing investment is doing investment with high profit and low risk. This term is against the normal term "High Risk and High Return", but normally there will be a trade-off between them. Therefore, investors must decide the ideal composition between the expected rates of profitability and the rate of risk so that no financial lose will occur.

A business cycle according to Wesley C. Mitchell and Arthur F. Burns:

“is a type of fluctuation that is determined through the activity of economy aggregate from a nation that organized their work, particularly in the business world”

A cycle is started from expansion in the same economy activity followed by general recession, contraction, and revivals joined in the next expansion phase cycle. It can be assumed that the cycle consist of 2 turning points (the up turning point/ the cycle peak and the down turning point/ the bottom cycle) and two phases (expansion phase and contraction phase). Contraction is a movement from the peak to the bottom. While the movement from the bottom to the peak is called expansion. If the contraction gets greater then it is called as recession/ technically it happens when the actual GDP falls within 2 years in a row. When the contraction gets heavier, later it is called as depression.

Even though there are several ways to calculate the aggregate activities, the most comprehensive way to calculate the rate of the real income is the real/ actual GDP. Because the real GDP growths averagely from one year to another year, so the abstract of the real GDP and the trend of GDP is included in the definition of cycle. Therefore, the economy factors such as the growth of GDP, the inflation rate, and the interest rate will influence the business cycle. Investment by using the rotation method sector will use this business cycle. Hence, the growth of GDP, the inflation rate, and the interest rate will influence investors in determining the stock portfolios in maximizing the expected stock return.

## 2.2. The Concept of Portfolio

The basic concept in the portfolio management is the diversification principle, where by doing diversification the investors can minimize the portfolio's risk without necessarily reducing the expected return from the portfolio. Because in doing diversification, the investors whether in person or as institution are always faced with the expected return and the rate of risk they will bear. Therefore the decision on the selection of the securities and several funds invested in each of those securities will influence the expected return and risk.

The decreased risk can occur because there is variation in the rate of return between securities in certain periods, hence by combining those various securities in a portfolio then it will result in more stable and less risk in the rate of return. Nevertheless, as long as the securities do not have the coefficient correlation perfectly negative between its return, then the investors cannot eliminate the fluctuation of the portfolio's return.

The return owned by the owner of a portfolio is influenced by two sources, which are (1) the changes possibility of the price of the securities that formed the portfolios, and (2) the divided payout (or the interest, if the portfolio contains an obligation).

An efficient portfolio is the kind of portfolio that results in certain return with low risk, or a certain risk with the highest return. In the investment theory, there is term commonly known as positive correlation between the risk and the return. The bigger the expected return, the bigger the rate of risk, for that reason managing the

risk that faced by the investors become a crucial matter. The relevant risk measurement for the investors can be identified in a form of standard deviation (the total risk of portfolio) or the beta of the portfolio (as the systematic risk).

Forming portfolios and not placing funds into one kind of security usually done to manage the investment's risk. Another kind of investment management is by allocating the fund on various kinds of securities such as stocks, obligations, foreign exchanges and Bank Indonesia Certificate.

To form portfolio the investors should have sufficient capital in doing diversification, such as the knowledge on analysis or on the selected securities and the time that will be used to see the investment activities. In the real world not many investors have the whole capabilities above, which resulted in giving their fund management to the investment manager in order to have better fund allocation.

### **2.3. Definition of Return and Risk**

The purpose of investors in doing investment is to maximize return, without avoiding the risk factors. Return is one of factors that motivate the investor to bear the risk of the investment. The sources of investment's return consist of two main components; there are yield and capital gain or capital loss. Yield is the return's component reflecting the cash flow or income gained periodically from an investment. For instance, if we invest an obligation, then the value of yield will be shown from the interest paid from the obligation. The same thing happens when we purchase stock, yield will be shown from the amount of the dividend paid out. While,

capital gain or capital loss refer to the second component from return i.e. the decrease or increase of an obligation price (possible in the form of stocks or long term debt notes) that can give profit/ gain or loss to the investors. In other words, capital gain or capital loss can be referred to the changes of securities' price.

From both sources of return above, then we can calculate total return of an investment by adding yield and capital gain derived from a certain investment. It is necessary to know that yield will only be in the form of zero (0) and positive (+). While, the capital gain (loss) will be possible in the form of minus number (-), zero (0), and positive (+). Mathematically, the total return of an investment can be written as follows :

$$\text{Return Total} = \text{Yield} + \text{Capital Gain / Loss}$$

As explained above, besides considering return of an investment, the investors must also put extra attention to the risk of the investment as a basic in making investment's decision. Risk is the possibility of the difference between the actual return and the expected return. The greater the possibility of the difference, the greater the risk of the investment.

#### *What is Risk?*

In simple terms, risk can be defined as the uncertainty of an outcome. If an investor looks at the historical monthly returns generated by his favorite stock in a 12-month period, and calculates the simple average of the monthly returns, he will get a monthly average return that he expects to generate over a one-month

investment horizon in that 12-month period. But, the chances that the investor will actually generate the monthly average return in any given month depend on the variability of the monthly returns, if compared with the monthly average return. The greater the variability, the greater the uncertainty that the actual monthly return will be equal to the average monthly return. Standard Deviation is a statistical concept that captures the spread of investment returns (deviation) around an observed mean return. The higher the standard deviation, the greater the volatility observed in investment returns, and therefore the greater the risk will be faced by the investor.

#### **2.4. The Classifications of Risks**

For an investor, the total risk of a company consists of two components: company's specific risk and market risk. The former is unique to a company, and is created by such events as property damage (due to fire, explosion, earthquakes, and hurricanes), product liability lawsuits, environmental pollution liability, and the death of a chief executive officer. The latter is the risk that is common to all market participants, e.g., inflation, interest rate changes, unemployment, economic recessions, budget deficits, and trade deficits.

The finance profession has long held that firm-specific risk can be diversified away when investors keep a sufficiently large number of investment assets in their portfolios, and that market risk is non-diversifiable. However, it is intuitively obvious that some company's specific risk is correlated with the market movements, and therefore it is non-diversifiable. The non-diversifiable company's specific risk

includes the risk produced by debt (financial risk) and by the use of a capital asset (operating risk).

Financial risk is company's specific, since the degree of financial leverage is determined by the amount of debt that the company chooses to borrow. Operating risk is also company's specific because the degree of operating leverage depends upon the type of the capital asset that is selected by the firm. Hamada (1969) finds the nontrivial impact of debt decisions of a company on its cost of equity capital in the context of the CAPM. Conine and Tamarkin (1985) reaffirm the significance of financial leverage in evaluating the divisional cost of capital. These works clearly imply that the company's specific financial risk is non-diversifiable.

#### **2.4.1 Three Components of Non-diversifiable Risk**

##### **1. Business Risk**

The term "business risk" is not well defined in finance literature, because it is often blended with operating risk as in Modigliani (1958) and Miller (1963). Business risk is created by the covariance of sales of a particular industry with market return. Since this risk depends upon the type of industry to which the company belongs, the business risk is considered as a market risk rather than a company's specific risk.

## 2. Operating Risk

Operating risk, created by the use of a capital asset, has been recognized as a relevant risk factor in finance and economics profession. According to Mandelker and Rhee (1984), Ravid (1988), and Booth (1991), the risk used by firms that depends upon the production technology is categorized as company's specific. On the other hand, Dugan and Shriver (1994) find that the degree of operating leverage is significantly different across industries. Being created by a capital asset, the operating risk of a company is determined by the variable and fixed operating costs under the particular capital asset. Hence, the operating risk for a company can be measured by the covariance of the variable and fixed operating costs under the capital asset.

## 3. Financial Risk

Financial risk is generated by long-term debt, under which the company makes a fixed financial commitment to pay interest to the bondholders. The amount of debt that the company uses affects the amount of interest payment. Hence, financial risk is also company's specific. Given this fixed amount of financial commitment, when the sales volume increases, the company earnings will increase more than proportionately; when sales decrease, earnings will shrink more than proportionately. The degree of

financial risk depends upon debt ratio and the covariance between the rate of return of the unlevered firm and market return.

#### **2.4.2. The Classification of Risks Based on the Behavior of Stock Prices**

There are numerous risks associated with investing in the stock markets. The analysts have classified these risks based on the behaviour of stock prices in the financial markets. The classification of the risks is:

- 1. Idiosyncratic risk**

The most recognizable of all risks is the continual adjustment of a stock price to new information entering the market. We recognize that there is a strong relationship between new information and the price movements observed for a particular stock. They refer to the particular risk that an investor faces from a potential movement in a stock price, as 'idiosyncratic risk'.

- 2. Correlation risk**

On closer examination of the behaviour of stock prices, we also notice that there are relationships between stock price movements indicating interdependence. This is because when information pertaining to one stock is released to the market, it affects other stocks. It shows a correlation between movements in the stock prices. As a consequence, there is a correlation between stock returns. Then this risk is called 'correlation risk'.

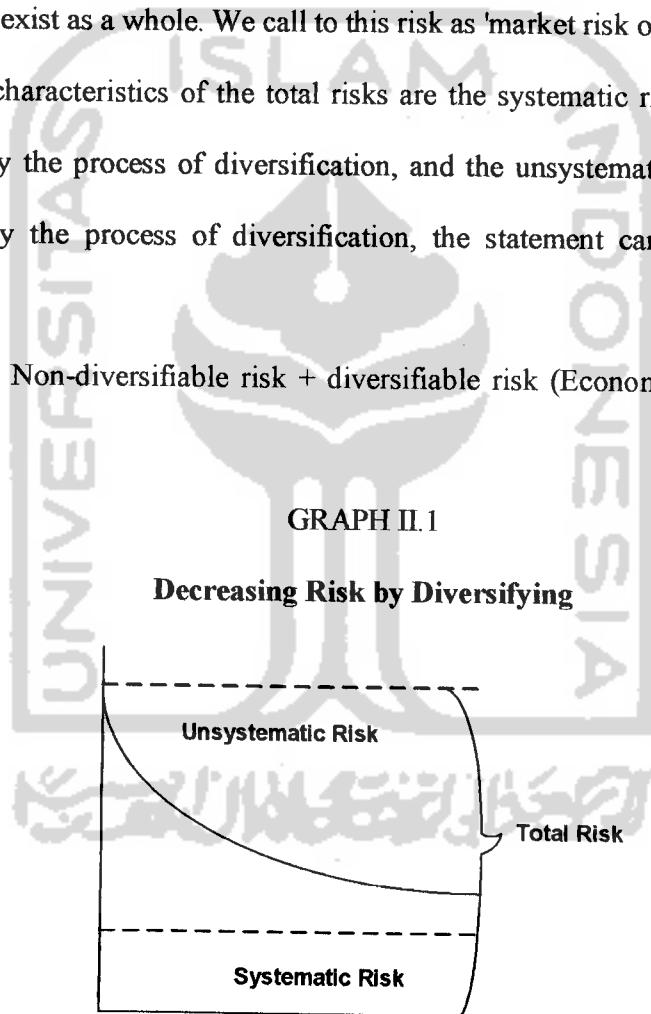
### 3. Market risk or systematic risk

On a macro-level, we can also say that when information pertaining to all stocks is released to the market, certain stocks behave differently from others.

Hence, we can deduce that same relationships between stocks and the market must exist as a whole. We call to this risk as 'market risk or systematic risk'.

The characteristics of the total risks are the systematic risks that can not be eliminated by the process of diversification, and the unsystematic risks that can be eliminated by the process of diversification, the statement can be formulized as follows:

Total Risk = Non-diversifiable risk + diversifiable risk (Economy Magazine, April 2000).



*Source : J. Fred Weston and Thomas E. Copeland, Managerial Finance, Ninth Edition, 1992*

To reach a better result from diversification, the company is suggested to form portfolios consisting of stocks that come from various industries, because the stocks from various industries have better capability in lessening the unsystematic risks comparing with the stocks coming only from one industry.

Investors who tend to be a risk averse investors (risk avoider) are better doing diversification by forming portfolios based on the type of stocks than by forming portfolios based on the amount of stocks included in the portfolios (the size of the portfolios). The result of diversification by forming the portfolios based on the types of stocks showing that averagely the unsystematic risk's value reached by stocks portfolios from various industries are better than the average of the systematic risks by stocks portfolios based on the stocks from one industry (Pike, Richard, and Bill Neale, 1993).

## 2.5. The Composite Stock Price Index

The composite stock price index (CSPI) is a number that simply describe the average of ups and downs of the market stock price in a certain period. In the index there are two types of times, the base time (base time) and the running time (current period). The base time is stated in a form of number 100. The usage of this index is to compare the relative changes of various phenomenons from time to time.

Index can be related to one stock, but also can be related to group of stocks inside a certain industry, or even can be related to all the stocks that listed in the

exchange in a period of time, for what the Composite Stock Price Index is, as what is announced by the Jakarta Stock Exchange.

The individual stock price index is useful to see the growth of a company that is reflected through its stock price index. The formula to determine the individual stock price index (ISPI) is as follows:

$$\text{Index (daily) stock "A" = } \frac{\text{Stock price in the exchange (on a current day)} \times 100}{\text{The premier stock price "A"}}$$

While to determine the Composite Stock Price Index (CSPI) is formulized as follow:

$$\text{CSPI} = \frac{\text{Market Value from All Reported Stocks in the Exchange (everyday)}}{\text{Market Value from All Reported Stocks on base day}} \times 100$$

CSPI is useful to identify the situation of the stock price inside the exchange market generally in a certain time. By identifying the CSPI hence people will notice the condition of an exchanged market whether in the *bullish* condition (the stock prices tend to increase) or in the *bearish* condition (the stock prices tend to decrease).

CSPI is also a ratio that obtained from the real values from various stocks considered with its total shares in a basis period, and then multiplies with 100.

## 2.6. The Characteristics of investors

Investments are divided into two forms. They are investments in the form of real estate and financial assets. Investment of real estate is done by purchasing various tangible assets such as land, building, jewelries, and etc. While, investment of financial assets is the kind of investment done in the form of securities traded in a particular market called as Stock Market (In Indonesia known as Jakarta Stock Exchange and Surabaya Stock Exchange) as common and preferred stocks, obligations, Certificate of Bank Indonesia (SBI), savings, and many others.

There are three characteristics of investors in the company:

1. Risk averse

This type of investors has the characteristics of avoiding any available risks. In addition, the type of person will ‘play by the rule’ and play safe in order to gain a stable return. He will turn down any fair gambling.

2. Risk neutral

This type of investor has the characteristics to be neutral towards any available risks. He sometimes enjoys for not having any risks. On the other hand, he is curious on investing the risk on his hand. He will be indifferent towards the fair gambling.

3. Risk seeker

This type of investors has the characteristics of considering any available risks. He will response better to the fair gambling. In the investment analysis, this can be assumed that all investors will be a risk averse. Risk

aversion means that the value of certainty equivalent will always be lower than the expected value (Husnan, 1996).

From the study of Sudana and Janiarti (2000) and Tandelilin (1998 in Tandelilin, 2001), it results that the greater the amount of stocks included in the portfolios, the greater the effectiveness of reducing the risks. But, the effectiveness will reach the peak only at the time when the portfolios consist of various kinds of the securities' return inside the portfolios is not affected to one another so that the risk of the portfolios can be estimated from the portfolios' variance. The estimation has proved that the greater the amount of stocks included in the portfolios will be very useful to reduce the portfolios' risk. However, to find stock return that does not have any correlation between one stock to another will be hard in the real world. Consequently, if we insist on including the stocks into the portfolios, it will result in a useless effort in the case of lowering the risks.

The various types of risks will give various perspective results either in the economic or in the industrial sector. A certain industry has a bad performance for a certain period of time when there is unexpected inflation and another surprise events occurred uncontrollably taking over the situation (Berry, Burmeister, and Mc Elroy, 1988). Sudana and Janiarti (2000) state that normally the value of the unsystematic risks achieved in the diversifications based on the type of the stocks is better according to the diversification based on the amount of the stocks. And, the coefficient correlation can explain the amount of diversifications reached by the

portfolios better than the covariance (Jogiyanto, 2000). Therefore, the hypothesis ( $H_{1a}$ ):

**$H_{1a}$  : There is a low correlation across stock's portfolios formed according to the industries**

## 2.7. Decomposing Returns

*Decomposition* method is a problem decomposed into smaller problems (subproblems).

### 2.7.1. Decision Oriented Return Decomposition

To decompose the returns of absolute oriented portfolios, the analysts propose the approach of a decision oriented return decomposition splitting up into the following three steps:

**Step 1:** to reflect the specific investment decisions into (absolute) asset allocations,

**Step 2:** to calculate the corresponding returns of the different asset allocations and

**Step 3:** to assign the returns and the return differences to the investment decisions as well as to the relevant decision makers.

Cavaglia, Brightman, and Aked (2000) and Baca, Garbe, and Weiss (2000) using the Heston and Rouwenhorst (1994) decomposition find that industry effects have been growing important, and now dominate country factors. Using a different volatility decomposition method, Ferreira and Gama (2004) also find that industry volatility has been rising relatively to country volatility in the late 1990's. This

evidence is consistent with Diermeier and Solnik (2001), showing that the greater the proportion of international sales, the greater the response of a company to world factors. They suggest that as company's internationalization expands, the company becomes more related to industry factors.

The company's individual stock return can be classified into return from the market factors (known as *market return*), return from the pure industry factors (known as *pure industry return*), and the last is the return from specific company factors (known as *company's specific return*). The stock risks also can be decomposed into risks acquired from the market return's variance, the risks acquired from the industry return's variance, and the risks acquired from the company specific return's variance. If the diversification across industries is able to lessen the risks hence the hypothesis ( $H_{1b}$ ):

**H1b : The risks come from the variance of pure industry return unequal to zero**

The study of Natarsyah (2000), Fama and French (1992), and Rubio (1989) have resulted that the relationship between market's risks/ beta and the return is weak. Natarsyah (2000), Ashton and Tippett (1998), Lee, Wei, and Bubnys (1989), Berry, Burmeister, and Mc Elroy (1988) and Roll and Ross (1984) state that the expected return from risky assets is depending on other variables except beta. Whilst Bubnys (1990) and Bower, Bower and Logue (1984) state that model with various risk factors will be more accurate to forecast the scale of return.

The result of the research done by Imam Sugeng N.D. (1999) finds that the growth of economy has a positive influence towards the expectation of market return

while the changes of inflation have a negative influence on the expectation of market return. Dwi Haroyah M. (2000) set up a theory that there is a significant difference concerning with the great amount of systematic risk in JSX when the national economic's condition is normal and when the national economic suffers from monetary crisis. The factors influences on the systematic risks are operational leverage, financial leverage, cyclical, and the size of the company.

If  $H_{1a}$  and  $H_{1b}$  can be established and proven so the diversifications across industries will be valuable to the effort of reducing the company's risks. Then, the factors causing the differences between stock return that came from the industry factors will be investigated thoroughly on this research. Assuming that the macroeconomic factors will have a different influence towards each industry, for instance the financial industry. This will be more influenced on the interest rate changes comparing with the other industries.

The influence of stock return on inflation can be explained as for, if the inflation occurs then the company's production cost will increase relatively. This will also cause the increase of the costs of good sold. Then, it will be followed by the decrease of the company's profitability rate. Beside, it can also decrease the dividend earned. The decline of the dividend earned by the company will cause the investors releasing the stocks of the company.

The growth of economy illustrated by the increasing macroeconomic factors, such as the Growth Domestic Product, has two effects on the company:

1. The direct effect of the GDP, the increase of GDP means the growth of the prosperity of the society. Therefore, the type of the investment shifts from the stock's investment at the banking institution to stock's investment at the stock market. The intentions to get a better life cause the citizens of Indonesia to have courage to do investment with higher risk, which will result in giving back a higher return.
2. The indirect effect of the growth of the GDP will increase the citizens' purchasing power. This will lead to the increase of demand of the society to the output produced by the company listed in the stock market. As a consequence, this will increase the profit of the company resulting in the punctuality and great amount of the dividend payout.

The influence of stock return on interest rate can be explained as for: the increased interest rate of the company that owns highly leverage will increase the capital cost. The next thing happens that the company will be subjected to the decline of the profitability rate causing the decline of the dividend payout. This successive condition urges the investors who have stocks in the company to sell their ownership. Because the supply of the sold stocks increases, this will result in the decrease of the stock price, with the assumption that the other factors will remain constant (*ceteris paribus*). Reversely, the investors will likely to purchase stocks when the interest rate declines. The demand of stocks will cause to the increase of stock price.

**H<sub>2</sub> : The macroeconomic factors such as inflation, Gross Domestic Product, and interest rate influence differently on the stock return for each industry.**



## **CHAPTER III**

### **RESEARCH METHOD**

In this chapter, the research methodology used in this study will be explained more detail. In the beginning section, the data sources of the study will be discussed. The next section will discuss the type of data and data collection method that derives information from various sources. After that, their study will be examined the sampling method by using proportional stratified random sampling. Finally, this study investigates the statistical tool used to analyze the hypothesis.

#### **3.1. Research Sources**

The sources of the data obtain from secondary data -the data that is derived from other parties- where the research will be done. The data are taken from ICMD (Index Capital Market Directory), JSX Monthly Statistics, Indonesian Financial Statistics, and the Economic Indicators and other related literatures, the contents of the data consist of the 8 industries' stocks return, the names of the companies from each industry, the macroeconomic factors that will affect the stocks return such as the inflation rate, Gross Domestic Product rate, and the interest rate in the period per monthly.

### **3.2.Method of Collecting Data**

The data that is used in this research is secondary data. Secondary data is a kind of data that already exists and do not have to be collected by the researcher (Sekaran, 2000). The secondary data is collected with documentary method, collecting and taking notes the necessary data from ICMD (Index Capital Market Directory), JSX Monthly Statistics, Indonesian Financial Statistics, the Economic Indicators, and the internet.

The obtained secondary data is in a form of stock prices, GDP rates, SBI rates, and consumer price indexes to determine the inflation rates. After the data are collected, it is checked and tabulated according to the analysis needs, so that we will have good and accountable data analysis.

### **3.3. Sampling Design**

The sampling technique that will be used is *proportional stratified random sampling*. The *proportional stratified random sampling* is the method of taking sample by dividing the population into several sub-population groups in which the components are relatively homogenous and the sub-population groups that are relatively heterogeneous. The samples are randomly selected from each of the strata with proportional size towards the sub-population size. Random means each component of the population has the same chance to be considered as the sample component (Cochran, William G, 1991, Teknik Penarikan Sampel, Jakarta: UII Press).

The sampling technique is derived with the formulation as follows (Cochran, 1991):

$$n = \frac{N}{Nd^2 + 1}$$

Where :

*d = the degree of expected confidence or errorness*

*N = the total population*

The research is used the degree of confidence of 10%, hence by applying the formula the minimum of sampling taken is:

$$n = \frac{292}{292(0,1)^2 + 1} = 74,49 \approx 75$$

Hence the total of the sample taken is 75 companies. To make the calculation easier, the total samples taken are 100 respondents. On the other hand, the total samples taken from each of the type of industries can be determined with formula as follows:

$$n_j = \frac{N_i}{N} \times n$$

Where:

*N* = The total companies.

*N<sub>i</sub>* = The total companies within *j*-industry.

*n* = The total of the samples.

*n<sub>i</sub>* = the total of companies' samples within *j*-industry.

Based on the calculation by applying the formula above, then the sample size for each of the industry derived as follows:

**Table III.1**  
**Sample Size**

<b>Industry</b>	<b>Population</b>	<b>Sample</b>
Agriculture	7	2
Animal Husbandry	8	2
Mining	8	2
Manufacturing	147	37
Transportation&Telecommunication	10	3
Wholesale & Retail Trade	14	4
Banking, credit agencies, securities, insurance, and real estate	91	23
Hotel	7	2
<b>Jumlah</b>	<b>292</b>	<b>75</b>

The samples are taken from the method with the criteria of Manufacturing and Non-Manufacturing industry starting from year 1998 – 2002 with the period of per month for companies which are available in the 8 industries periodically to form 8 portfolios. And, the last is to see the role of macroeconomic factors in influencing the company's monthly return after the portfolios form is being decomposed.

The criteria above will take a group of data which is needed to form the hypotheses. The data covers:

1. the stock closing price in the current years and in the previous years per company in the Manufacturing and Non-Manufacturing Industries enlisted in the JSX, from year 1998 – 2002 to derive the company's monthly return
2. the Composite Stock Price Indexes (CSPI)
3. the Composite Consumer Price Indexes (CCPI)
4. Gross Domestic Products

## 5. SBI interest rates

### 3.4. Data Analysis

#### 3.4.1. The form of portfolios

The Tandelilin's research (1998, in Tandelilin, 2001) recommends that in order to minimize the risk of portfolios at least 15 stocks are needed for the manufacturing companies in Indonesia. Because of the limitation of the data available, the researcher forms the portfolio by following the amount of the companies that their data are listed from year 1998 – 2002 to form 8 portfolios. The industries are *Agricultural Production, Animal Feed and Husbandry, Mining and Mining Services, Manufacturing, Communication and Transportation Services, Wholesale and Retail Trade, Banking, credit agencies other than bank, securities, insurance and real estate, Hotel and Trade Services.*

Calculating company's monthly return before decomposition by using the closing price of company's stock for the current and the previous year before decomposition:

$$R_{it} = \frac{P_1 - P_0}{P_0}$$

$R_{it}$  = Stock Return (i) in the period of n

$P_1$  = Stock Price in the period of n

$P_0$  = Stock Price in the period of n-1

### 3.4.2. Correlation Analysis

The coefficient correlation shows the magnitude of the relationship's movement between the two variables relative towards the deviations (Jogiyanto, 2000). The coefficient correlation for the two assets can be formulated:

$$r_{A,B} = \rho_{A,B} = \text{Cov}(R_A, R_B) / \sigma_A \sigma_B$$

The coefficient correlation explains more the magnitude of diversifications that can be achieved by portfolios compared with the covariance (Jogiyanto, 2000). The calculation of the coefficient correlation without calculating the covariance:

$$r_{AB} = \frac{\sum R_A R_B - \frac{(\sum R_A)(\sum R_B)}{n}}{\sqrt{\left\{ \sum R_A^2 - \frac{(\sum R_A)^2}{n} \right\} \left\{ \sum R_B^2 - \frac{(\sum R_B)^2}{n} \right\}}}$$

Where:

$R_{A,i}$  = the realization return stock A in the n-condition

$R_{B,i}$  = the realization return stock B in the n-condition

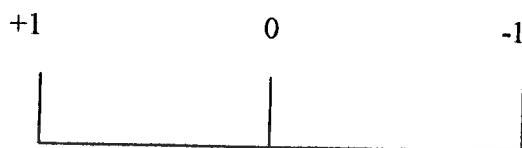
$n$  = the total from n-condition = 1,n

The correlation between assets and the portfolio's risk can be described as:

GRAPH III.1

### GRAPH III.1

#### Correlation between assets and the portfolio's risks



This analysis will be used to test the H<sub>1a</sub> hypothesis. The return's correlation across industries before decomposition will be formed from the data of monthly return from January 1998 until December 2002. The return's correlation across industries after decomposition will be formed by using the average of return data derived from the pure industry return per month from January 1998 until December 2002 through *Multivariate Anova*. The coefficient correlation of a certain stock is considered low with the coefficient correlation is less than +0.5. And the more the coefficient correlation is less than +0.5 or even negative, this will reflect the low level of the stock risk across industries.

This research uses the return's decomposition model from Heston and Rouwenhorst (1994) stating that company's stock return is decomposed into *global return, country return, industry return, and company specific return*. Unlike Heston and Rouwenhorst, the company's stock return in this research is decomposed into market return, pure industry return, and company's specific return.

### 3.4.3. Analysis of multiple regressions with multivariate annova.

Multiple regressions are the extension of linier bivariate regression. This research will use multiple regressions with multivariate annova (MANOVA). General Linier Model Multivariate or also known as MANOVA is the extension of General Linier Model Univariat (ANOVA), the basic difference between them is that the first one uses Dependent Variable more than one, while the latter use only one Dependent Variable (Santoso, Singgih, 2002, Statistik Multivariat, Jakarta: PT Gramedia).

Regression analysis with multivariate annova is used to test the  $H_{1b}$  hypothesis. This regression model (Multivariate Annova) is used to decompose company's stock return into three factors, that is:

Company's Stock Return = Market Return + Pure Industry Return + Company Specific Return.

Formulated as follows:

$$Y_i = \alpha + \sum_{j=1}^k \beta_j X_{ij} + e_i$$

Where:

$Y_i$  = stock return of individual i-company.

$\alpha$  = the intercept represents return from market's factors.

$\sum_{j=1}^k \beta_j X_{ij}$  = return that represents industry factors.

$k$  = the total industries.

$e_i$  = return from company specific return factor.

$n_j$  = the total companies in j-industries.

$b_j$  = the average return from pure industry return  $j$  where  $= 1, 2, \dots, k$ .

$X_{ij}$  = category variable individual company

The calculation of multiple regressions with multivariate annova above is done for 75 companies for each year (60 periods) cross sectionally.

#### 3.4.4. Analysis of the effect of macroeconomic factors on the decomposed variance of pure industry return.

The result of decomposing pure industry return will be used to see the control of each macroeconomic variable towards the return coming from each industry factors. Hence, there will be 8 regression equations that will be done in time series (60 months). The formulation is:

$$R_{jt} = \gamma_0 + \gamma_1 INF_t + \gamma_2 GDP_t + \gamma_3 SBI_t$$

Where:

$R_{jt}$  = return coming from  $j$ -industry in  $t$ -period.

$\gamma_0$  = constantan, return of each industry factor if the value of macroeconomic variables is zero.

$\gamma_1$  = return sensitivity related to each macroeconomic variable of  $j$ -industry where  $j=1, 2, \dots, k$ .

$\text{INF}_t$  = inflation rate factor in the t-period which is the comparison between the difference of consumer price index time-t and (t-1) with consumer price index (t-1).

$\text{GDP}_t$  = GDP rate factor t-period which is the comparison between the difference of GDP time-t and (t-1) with GDP (t-1).

$\text{SBI}_t$  = interest rate factor t-period which is the comparison between the difference of SBI time-t and (t-1) with SBI (t-1).

### 3.5. Research Variables

Variables used in this research are covering:

#### 3.5.1. Independent Variables

1. Market Return (MR) derived from Composite Stock Price Indexes represents the return from market's factors.
2.  $\text{INF}$  = the factor of inflation rate, represents the comparison between the difference of Consumer Stock Price Indices period-n and period -n-1, and the period n-1.
3.  $\text{GDP}$  = the factor of Gross Domestic Product rate, represents the comparison between the difference of GDP period-n and period-n-1, and the period n-1.
4.  $\text{SBI}$  = the factor of interest rate, calculates the difference of SBI interest rate between SBI period-n and period-n-1, and the period n-1.

### 3.5.2. Dependent Variables

Company's Monthly Return (CMR) derived from companies' current and previous stock price represent the monthly return of a company.

## 3.6. Data Analysis and Hypothesis Testing

Formulating research hypothesis becomes statistic hypotheses:

$$H_{1a} = r < 0.5$$

It means that there is a positive correlation for the stocks portfolios formed across industries. The  $H_{1a}$  will be accepted if the coefficient correlation before decomposition is less than +0.5 or even negative, and will be rejected if otherwise.

$$H_{1b} = \beta \neq 0$$

It means that the variance of pure industry return is unequal to zero. The  $H_{1b}$  will be accepted if the variance of pure industry returns after the decomposition process is unequal to zero, and will be rejected if otherwise.

$$H_2 = \beta_i \neq 0$$

It means that the macroeconomic factors such as INF, GDP, SBI, influence differently to the return for each of industry. The macroeconomic factors have significant and insignificant influence towards the return for each of industry. The  $H_2$  will be accepted if the macroeconomic factors have significant and non-significant influence to the return for each of industry, and will be rejected if otherwise.

## **CHAPTER IV**

### **DATA ANALYSIS AND TESTING HYPOTHESIS**

This chapter will discuss the statistical descriptive of eight industries according to the classification provided at the JSX. The discussion will try to answer the research question by analyzing the data collected, and eventually test the hypothesis. Moreover, the objective of the research will apply several statistical analysis tools like proportional stratified random sampling, bivariate correlation, and multiple regressions with multivariate anova.

#### **4.1. Descriptive Statistic**

The industry's sector provided at the JSX from year 1998-2002 in this research are *Agricultural Production, Animal Feed and Husbandry, Mining and Mining Services, Manufacturing, Communication and Transportation Services, Wholesale and Retail Trade, Banking, credit agencies other than bank, securities, insurance and real estate, Hotel and Travel Services* with the return's composition as follow:

**Table IV.I**  
**Descriptive Statistic**

Industry	Return Mean	Return Variance	Minimum Return	Maximum Return
Agriculture	0.014003	0.032268	-0.18558	0.434959
Animal Husbandry	0.005402	0.014000	-0.18174	0.413636
Mining	0.001293	0.017618	-0.47917	0.378843
Manufacture	0.050522	0.017287	-0.06326	0.656133
Transportation & Communication	0.110804	0.491369	-0.23585	5.315738
Wholesale & Retail Trade	0.130294	0.600027	-0.13988	5.935268
Banking	0.041692	0.015510	-0.11438	0.748194
Hotel Service	0.115643	0.671067	-0.41000	4.540909

The form of portfolios described in this research is based on the sector of industries listed at the JSX. By using the sampling technique of proportional stratified random, 75 samples of the 292 population of the companies are taken from the 8 industries. In processing the data, the SPSS program is used to obtain the result of stock's correlation across industries listed at the JSX by using Pearson method. The correlation across 8 industries derived as follows:

**Table IV.2**  
**Stock's Correlation across Industries before Decomposition**

	Agriculture	Husbandry	Mining	Manufactur	Trans port	Wholesale	Retail	Banking	Hotel
<b>Agriculture</b>									
<b>Husbandry</b>	0.320								
<b>Mining</b>	0.057	0.448							
<b>Manufacture</b>	0.261	0.173	0.210						
<b>Transport</b>	0.235	0.048	-0.057	0.441					
<b>Wholesale&amp; Retail Trade</b>	-0.040	0.031	-0.009	0.626	-0.032				
<b>Banking</b>	0.163	0.058	0.263	0.631	0.014	0.013			
<b>Hotel</b>	0.069	0.050	0.140	0.498	0.001	-0.032	0.855		

From the table above, it is showed that most of the stocks across industries have low correlation because the value is less than +0.5. Hence, it is concluded that the stock's correlation across industries at the JSX before decomposition is low and reflects the low level of the stock risk across industries.

The correlation shows the value of 0.62 (more than +0.5) for industries between Manufacture and Wholesale & Retail Trade, the value of 0.63 for Manufacture and Banking, and the last is between Banking and Hotel with the value of 0.85. These results indicate that if the companies of those industries insist to have their stocks diversified they will have their stock risk high instead of decreasing the risk.

#### **4.2. Testing Hypothesis**

Regression analysis with multivariate annova, where  $n_1=2$ ,  $n_2=2$ ,  $n_3=2$ ,  $n_4=37$ ,  $n_5=3$ ,  $n_6=4$ ,  $n_7=23$   $n_8=2$ , is used to decompose the company's stock return into market return + pure industry return + company's specific return. The result of the regression is derived from analyzing with the SPSS program to obtain the beta of the industry which also shows the return from pure industry return for each industry's sector. The summary of the 60 regressions have been done cross-sectionally can be seen as follows:

**Table IV.3****Table of Mean, Variance and Standard Deviation of Market Return and Pure Industry Return**

<b>Return</b>	<b>Mean</b>	<b>Variance</b>	<b>Std. Dev</b>
Market	0.1156	0.0637	0.2523
Agriculture	-0.1016	0.1273	0.3569
Husbandry	-0.1102	0.1273	0.3569
Mining	-0.1144	0.1273	0.3569
Manufacture	-0.0651	0.0671	0.2591
Transportation & Communication	-0.0048	0.1061	0.3258
Wholesale & Retail Trade	0.0147	0.0955	0.3090
Banking	-0.0740	0.0692	0.2631
Hotel	-0.2239	0.1275	0.3570

**Table IV.4****Table of Summary of Mean, Variance and Std. Deviation of Market Return and Pure Industry Return**

<b>Return</b>	<b>Mean</b>	<b>Variance</b>	<b>Std. Dev</b>
Market return	0.1156	0.0637	0.2523
Pure Industry Return (Average of the total return for each industry)	-0.0472	0.1043	0.3207

From the tables above, the company's stock return can be decomposed into 0.1156 market return and -0.0472 return from pure industry.

According to Markowitz, when doing diversification the relevant risk that we should deal with will be the risk of the portfolios. The portfolios' risk can be measured by standard deviation or variance (square root of the standard deviation). From the table IV.3, table IV.4, the variance of the market return is 0.0637 and the variance of each stock return from pure industry return averagely

is 0.1043. On the other hand, the standard deviation from the pure industry factor, shown by table IV.3 above averagely is 0.3207. This is showing that the risk from the variance of pure industry return is unequal to zero.

The result of correlation of stock return across industries listed at the JSX after decomposition by using Pearson method is as follows:

**Table IV.5**  
**Stock's Correlation across Industries after Decomposition**

	Agriculture	Husbandry	Mining	Manufacture	Transport	Wholesale Retail	Banking	Hotel
<b>Agriculture</b>								
<b>Husbandry</b>	0.475							
<b>Mining</b>	0.180	0.627						
<b>Manufacture</b>	0.285	0.303	0.153					
<b>Transport</b>	0.226	0.074	-0.043	0.490				
<b>Wholesale&amp; Retail Trade</b>	-0.019	0.041	0.007	0.704	-0.030			
<b>Banking</b>	0.155	0.227	0.122	0.509	0.025	0.043		
<b>Hotel</b>	-0.049	0.159	-0.001	0.296	0.000	-0.028	0.708	

From the table above, it is shown that most of the stocks across industries show low correlation because the value is less than positive 0.5 or less than negative 0.5 (negative value will be better). Therefore, the stock's correlation across industries at the JSX after decomposition process is low. Some of the results show that the coefficient correlation after decomposition is higher than before decomposition, but the value is still less than positive 0.5. But there are also some industries show lower values after being decomposed, such as correlation between Agriculture industry and Wholesale and Retail Trade (-.019), Hotel and Travel Service and Agriculture (0.069), Mining Service and Transportation and Communication (-0.057), Transportation and Communication

and Wholesale and Retail Trade (-0.032), Transportation and Hotel and Travel Service (0.001), and the last is Wholesale and Retail Trade and Hotel and Travel Service (-0.032).

The analysis of regression derived from the SPSS program to find whether the macroeconomic factors as the cause of the variance of the stock return resulted in the table IV.6.

The coefficient regression of the inflation rate of -0.0075, shows that the increase of one level for each inflation rate will decrease the stock return for Agriculture industry for 0.0075. The coefficient regression for the GDP rate is -0.0073. This means that the increase of one level for each GDP rate will decrease the stock return of Agriculture industry for 0.0073. The coefficient regression of the SBI rate which is 0.0102, means that the increase of one level for each SBI rate will increase stock return of Agriculture industry for 0.0102.

The result for Banking and Hotels are different from the result for the Agriculture industries. For instance, the coefficient regression for Banking industry for the inflation rate shows the value of 0.0409. It means that the increase of one level for each inflation rate will increase its stock return for 0.0409. The coefficient regression for the GDP rate is -0.0020, therefore the increase of one level for each GDP rate will decrease its stock return for 0.0020. And the last, the coefficient regression for the SBI rate is -0.0053. This shows that the increase of one level for each SBI rate will decrease its stock return for 0.0053. The rest of the industries follows the same explanation.

Table IV.6

**Table of the Significance of the Influence of Macroeconomic Factors towards Stock Return**

$$R_{jt} = \gamma_0 + \gamma_1 INF_t + \gamma_2 GDP_t + \gamma_3 SBI_t$$

Industry	GDP	SBI	Inf.Coeff.	VIF		Adj. R Sq.
Agriculture	-0.0073	0.0102	-0.0075	CSPI	1.298	0.015
	0.260	0.704	0.802	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Animal Husbandry	-0.0031	-0.0035	-0.0005	CSPI	1.298	0.035
	0.457	0.840	0.998	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Mining	0.0013	-0.0140	0.0002	CSPI	1.298	-0.059
	0.788	0.498	0.917	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Manufacture	-0.0008	-0.0149	0.2488	CSPI	1.298	-0.018
	0.864	0.457	0.026*	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Transportation and Communication	-0.0058	-0.0014	-0.0018	CSPI	1.298	-0.067
	0.826	0.901	0.988	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Wholesale and Retail Trade	0.0012	-0.0088	-0.0042	CSPI	1.298	-0.057
	0.688	0.467	0.975	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Banking	-0.0020	-0.0053	0.0409	CSPI	1.298	0.022
	0.648	0.774	0.045*	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	
Hotel	-0.0032	0.0625	0.0172	CSPI	1.298	-0.002
	0.280	0.614	0.211	GDP	3.001	
				SBI	3.247	
				CCPI	1.174	

- Significant at 0,05 (2-tailed)

The t-test is used to test the significance of the independent variables according to probability: if probability  $> 0.05$  then  $H_0$  is accepted or if the probability  $< 0.05$  then  $H_0$  is rejected. For the agriculture industry with the significant value of more than  $+0.05$  (0.802),  $H_0$  is accepted or the coefficient regression is insignificant or in other words the inflation rate does not influence the stock return for the product for the agriculture industry. The same result shows for the significance of the GDP and the SBI rate, showing the value of more than 0.05 (the GDP = 0.26 and the SBI = 0.704). This means that the GDP and the SBI rate do not influence the stock return for the Agriculture industry.

Contradict to the Agriculture industry, the effect of CCPI (the indicator for the inflation rate) directly influences the Manufacture industry, and the Banking industry. The coefficient regression is 0.026, or the significance is less than 0.05, for the Manufacture industry and the coefficient regression is 0.045 for the Banking industry. Hence, it can be concluded that most of the stock return of an industry is not influenced by the macroeconomic factors.

Some improvements are made to the inflation's indicator by using lag inflation. Psychologically people will not change their consumption behaviour by directly following the decreased price or the increased income or perhaps the changing process causing the worthless use of consumption therefore the variance of the individual company stock return of a certain period can be caused by the information of the changed price in the past time.

Table IV.7

**Table of the Significance of the Influence of Macroeconomic Factors towards Stock Return by using lag 2 inflation**

$$R_{jt} = \gamma_0 + \gamma_1 INF_t + \gamma_2 GDP_t + \gamma_3 SBI_t$$

Industry	GDP	SBI	Inf.Coeff.	VIF		Adj. R Square
<b>Agriculture</b>	-0.0011 0.428	0.0018 0.976	-0.0012 0.856	IHSG	0.7706	0.035
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Animal Husbandry</b>	-0.0084 0.380	-0.0005 0.897	0.0025 0.564	IHSG	0.7706	0.015
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Mining</b>	0.0011 0.905	-0.0028 0.470	0.0045 0.284	IHSG	0.7706	0.049
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Manufacture</b>	0.0071 0.662	-0.0885 0.192	0.0167 0.048*	IHSG	0.7706	0.018
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Transportation</b>	-0.0014 0.853	-0.0049 0.881	-0.0026 0.943	IHSG	0.7706	0.063
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Wholesale and Retail Trade</b>	0.0043 0.712	-0.0340 0.482	-0.0063 0.906	IHSG	0.7706	-0.058
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Banking</b>	0.0569 0.042*	-0.0449 0.134	0.0019 0.571	IHSG	0.7706	0.024
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	
<b>Hotel</b>	0.1976 0.010*	-0.0076 0.689	-0.0097 0.640	IHSG	0.7706	0.042
				PDB	0.3332	
				SBI	0.3080	
				CPI	0.8515	

- Significant at 0,05 (2-tailed)

The result of the improvement by using the lag 2 inflation method is that the indicator for the inflation of Manufacture industry showing the value of less than 0.05. This means that the inflation rate factors influence the stock return of Manufacture industry. On the other hand, the GDP rate for banking industry and Hotel industry, shows the value of less than 0.05, states that the GDP factor is significantly influenced the stock return for both industries while before doing the lag 2 inflation the Banking and Hotel industry are not significantly influenced by the GDP factor. And the last is the SBI factor that not significantly influenced all of industries. The significance of lag 2 inflation, the GDP rate and the SBI rate or in this case the macroeconomic factors show the value of more than 0.05 means that the macroeconomic factors do not influence the stock return for each of industry. Hence, from the result of the regression with the indicator's inflation by using lag inflation are better than using the indicator of the inflation rate.

The table VI.7 above shows that the stock return for each of industry can be explained by the macroeconomic factors even though between the ranges of 1.5% until 6.3% for the whole industries.

### 4.3. Analysis

The total risk of a security is the total of diversifiable risks (unsystematic risk/ company risk) and the non-diversifiable risks (systematic risk/ market risk). The risks' diversification is crucial for the investors to minimize the risk without minimizing the expected return.

Investors can diversify in many ways. Markowitz's diversification proves that the more the securities included in the portfolios then the lessen the risks of the portfolios. Coefficient correlation can explain the amount of diversification better than covariance, even though for the total of large securities covariance is more important than coefficient correlation. If the coefficient correlation is between +1 and -1 therefore the risks of the portfolios is successfully declined but it does not eliminate the entire risks.

The return decomposition model of Heston and Rouwenhorst is used to decompose the company's stock return. Company's stock return is decomposed into market return + pure industry return + company's stock return. Hence, the variance of the company's return comes from pure industry return + the risks' factors from pure industry return + the risks' factors from company's specific. With the eight of industry's sectors as a part of stock's portfolios listed at the JSX, most of the results from stock return correlation across industries before and after the decomposition process shows the value that is below +0.5, and the coefficient correlation stocks across industries after decomposition is even lower. Therefore, the stock portfolios of the investors listed at the JSX will have their risks minimized, and it is proven that the stock's correlation across industries is low.

Aside of that, the variance of the stocks market return is 0.0637 and the variance of the stock return coming from the pure industry return factor averagely is 0.1043. This has proven that the stock return comes from pure industry return factor is unequal to zero. Hence, the return from pure industry return factor influence the variations of the company's stock return for 0.1043.

From the analysis, it is truly showed the importance of industry factors as a systematic risk in a stock's investment. The next analysis result is to see the variance of stock return coming from industry's sectors that will be influenced by the macroeconomic factors. Theoretically, investment with sector's rotation strategy will benefit the business cycle where the type of the fluctuation is determined by the economy aggregate from a nation that organizes the work in the business world. Therefore, the GDP growth factor, inflation rate and interest rate will influence the return of the investment.

This research uses the GDP growth factor, inflation rate, and interest rate to influence the variance of the stock return in JSX. The changes of the inflation rate and the GDP rate significantly influence the variance of the stock return of several industry sectors. On the other hand, the interest rate does not significantly influence the variance of the stock return for each industry.

After analyzing using the lag 2 inflation, all of industries show the value of more than 0.05, which means that all of the industries are not significantly influenced the variance of the stock return by the changes factor of the inflation rate. The inflation does not cause the raise in the cost of production. It does not lead to the increase of the sales of the production's activities and also the increase

of the sales price, and followed by the increase of the profit of the company. The increased return in these industries' sectors probably because the citizens will keep on consuming the agriculture and husbandry production even though the prices increase. If the industry of Manufacturing is influenced by the inflation rate, then it has a negative impact on the variance of the stock return for the industry. The increase of the cost of goods sold in these industries causing the decrease on sales, which can be possibly related to the decrease on the consumption of the Manufacturing industry. Hence, the result is to show the citizens finally decide to consume directly after the prices of the production's activities are relatively lower than before.

The changing factors of the GDP rate significantly have the stock return variance only for the industry of Banking and Hotel and Services industries. The GDP rate has a positive impact towards the stock return variance for the Hotel and Services industry. The increase of the GDP rate will raise the purchasing power of the citizens, which later results to the increase of the sales and the profit of the production. As the customer's purchasing power increase therefore the Banking industry is considered to have their profit increased.

The stock return variance for the industry of Agriculture, Animal Husbandry, Mining, Wholesale and Retail Trade, Transportation and Communication industries are not significantly affected by the three of the nation's macroeconomic factors. The inflation rate, the GDP rate, and the interest rate do not significantly affect the stock return variance for the Mining Service industries. This can be caused by the government's policies in subsidizing the

policies in subsidizing the Mining Products and also the availability of the mining production that is sufficient. So, the changes of the prices are not too high, and the citizens can always consume/ without worrying the scarcity of the mining production.

However, the profit of the companies running in this sector is not balance with the expenses spent. The macroeconomic factors do not significantly affect the stock return's variance for the Transportation and Communication Service industry, probably because the citizens will continue on consuming the transportation service for certain purposes. Therefore, the changes of prices, the changes of income, and the changes of interest rate do not result in the low level of consumption for this sector.

Next explanation is related to the macroeconomic factors (the inflation and the SBI rate) that insignificantly affect the stock return variance for the Banking industry, Credit other than Bank, Insurance and Property industries. This is because the economic condition that is relatively stable leading to the proper level of the inflation rate, the citizens improve their prosperity, and the low level of the interest rate. Hence, the citizens accept the simplicity in consuming these industries even though this contradicts to the profit that they will gain for the companies in this sector.

The results show that not all the changes in the macroeconomic factors significantly affect the stock return variance for each industry. It is proven that the macroeconomic factors such as inflation, GDP, and the interest rate affect differently on the return of each industry.

This research has been compared with the theory explained and with the previous study, the comparison results in some differences and similarities.

### 1. Comparison to the stock's diversification theory

The theory of the concept of portfolio is the diversification principle, where by doing diversification the investors can minimize the portfolio's risk without necessarily reducing the expected return from the portfolio. An efficient portfolio is the kind of portfolio that results in certain return with low risk, or a certain risk with the highest return. This theory has been proven by this research that by doing diversification the risks of the portfolios can be minimized so that the investors will obtain the expected return.

The company's specific risk or known as the unsystematic risk that can be eliminated by diversification is such as environmental pollution liability, the death of a chief executive officer, etc. While the market risk or known as the systematic risk that can not be eliminated by diversification is such as inflation, interest rate changes, economic recession. Companies can not control what is going on in the market, but they can manage what has been going on inside their companies. Therefore, the diversification is useful in minimizing the unsystematic risk to achieve the expected return.

### 2. Comparison to the previous research

The similarity between this research and the research done by Zulfa Irawati from year 1991-1996 with 108 companies, is that all of the hypotheses are accepted, for  $H_{1a}$  the stock's diversification is useful in minimizing the risks that the investors will bear, better than if the stocks were not being diversified. For  $H_{1b}$

show that the variance of pure industry return result from the decomposition process is unequal to zero and therefore  $H_{1a}$  is accepted. And last for the  $H_2$  stated that the macroeconomic factors influence differently to the stock return for each of industry, whether significant or insignificantly. The other similarity is the macroeconomic factors that influence the industries are the GDP rate and the inflation rate while the SBI rate does not have any significant influence towards all of the industries.

On the other hand the differences between the recent and the previous research consist of several material subjects. The previous research resulted that the macroeconomic factors significantly influenced Agriculture industry, Animal Feed and Husbandry industry, and Manufacture (influenced by the inflation rate), and Hotel and Travel Services (influenced by the GDP rate). While on the recent research the macroeconomic factors significantly influence on Manufacture industry (inflation rate), Banking industry, and Hotel and Travel Services industry (GDP rate). There is possible analysis for the different result on the recent research compare to the previous one. The period for the previous research are from year 1991-1996, when at that time the government are very eager in increasing the welfare of the citizens through the Agriculture industry, with the purpose of the government did not have to import the agriculture needs from foreign agriculture countries, such as Thailand. Hence, if there was any changes of the macroeconomic factors particularly for the inflation rate, the agriculture industry will be influenced by it. The explanations are the same for the Animal Feed and Husbandry industry. But for the recent research, the period taken is from

year 1998-2002, during this period the government are more likely to set up policies into Banking industry rather than the Agriculture industry anymore. Through this five years there have been many illegal acts in the Banking industry, such as the Non-Performing Loan, corruptions, etc which makes the government needs to focus on this industry better than the others.

Meanwhile, Manufacture industry and Hotel and Travel Services have been steadily influenced by the macroeconomic factors. Since Manufacture industry has become the basic wheel of economic life for the Indonesian people then the Manufacture industry will always be the type of industry influenced by the macroeconomic factors. From time to time Hotel and Travel Services industry has been the important industry aspect for the government in gaining foreign exchange, the GDP rate is more influenced to this industry.

The next difference related to the use of the analysis method, for the previous research the analysis used was Restricted Least Square with dummy Variables while the recent research uses Multivariate Annova (MANOVA). The difference used of the analysis method has an effect to the difference of the final result. The purpose of doing research with Multivariate Annova is to avoid one of the variables from being removed from the analysis, because in dummy variable one of the variables must be removed to obtain the result. And also in dummy variable if there are more than one regressions (in this research is 59 regressions) this method will obtain the result by doing the regression one by one. Each of the method has its own credibility, but to use time more effective and efficient then

the Multivariate Anova will be better because if there are 59 regressions, it only needs to do the regression for once instead of doing it one by one.



## **CHAPTER V**

### **CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS**

This chapter covers the conclusion, limitation, and the recommendation for investors, company's managements, and the future research. Through this chapter, the economists can learn some important lessons in this study, particularly in term of investment and stock diversification. Therefore, for the students who will conduct the next research or further research relating to this study, this paper can be a guidance to derive new evidence relating to informational content of stock diversification.

#### **5.1. Conclusions**

This research is a study about the analysis of the stocks diversifications across industries listed in the Jakarta Stock Exchange. In this research, there are two hypotheses formulated  $H_{1a}$ ,  $H_{1b}$  until  $H_2$ . All of the hypotheses are accepted. The  $H_{1a}$  hypothesis states that there is a low correlation between stock's portfolios formed according industries. It is accepted because the stock diversifications that come from various industries listed in the JSX from year 1998-2002 show a low correlation and even negative value. This means that the companies inside the industries doing diversification will have a lower level of risk than if their stocks are not diversified. In the  $H_{1b}$  hypothesis, it is stated that the risk coming from the variance of pure industry return is unequal to zero. It is proven that the hypothesis is accepted because

the average and the standard deviation of market return show value more than zero. And, the last is the  $H_2$  hypothesis stating that the macroeconomic factors such as inflation, GDP, and interest rate influence differently on the stock return from each industry. The hypothesis is accepted because the macroeconomic factors, in this case inflation, GDP, and interest rate factors, influence differently on the stock return from each industry.

Based on the research findings in the previous chapter, several conclusions can be drawn regarding the function of stock diversification across industries listed in the JSX. The conclusions are as follow:

- 5.1.1. Most of the stocks across industries listed in the JSX show weak correlation because the value is less than +0.5. The stocks' correlation across industries listed in the JSX after the decomposition process shows lower correlation than before decomposition, or the stocks' correlation in JSX is low. It can be concluded that the investment of the stocks' portfolio in the JSX has minimum risk so that the stocks' diversification in JSX is useful.
- 5.1.2. Company individual stock return is decomposed into market return, return from pure industry return's factor and company specific return. The variance of the stock return coming from pure industry return is 0.0637. It means the stock return that comes from pure industry return is unequal to zero. Hence, return that comes from pure industry return influences the variance of the company stock return.

- 5.1.3. The changes of the inflation rate and the GDP rate significantly influence the variance of the stock return of several industry sectors. On the other hand, the interest rate does not significantly influence the variance of the stock return for all industries. The stock return's variance of Hotel, and Banking industries are significantly influenced by the changes of the GDP rate factor. The changes of the inflation rate factor significantly influence the stock return of the Manufacture industry. On the other hand, the stock return's of the Agriculture, Animal Husbandry, Wholesale and Retail Trade industries, Transportation and Communication industries Mining and Mining Services, are not significantly influenced by all of the three macroeconomic factors. These results show that the changes of the macroeconomic factors do not always influence significantly on the stock return's variance for each industry. Therefore, the macroeconomic factors such as the inflation rate, the GDP rate, and the interest rate give different influence on the stock return for each industry chosen. Also, the macroeconomic factors do not significantly influence the variance of the stock return for each industry.
- 5.1.4. The similarities with the previous research are that all of the hypotheses in the recent research are accepted, the macroeconomic factors that influence the industries are the GDP rate and the inflation rate while the SBI rate does not have any significant influence towards all of the industries. The differences are located at the influenced industries, and at the use of the method of analysis.

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## TABLE OF COMPANIES

NO	COMPANIES	INDUSTRIES
1	Adindo Foresta	AGRICULTURE
2	Dharma Samudra	
3	Central Proteina	ANIMAL FEED & HUSBANDRY
4	Surya Hidup Satwa	
5	Alter Abadi	MINING
6	Medco Energi Corp.	
7	Ades Alfindo Putras	MANUFACTURING
8	Cahaya Kalbar	
9	Mayora Indah Tbk	
10	Multi Bintang Indonesia	
11	Pioneerindo Gourmet Int'l	
12	Sierad Produce Tbk	
13	SMART Tbk	
14	Suba Indah Tbk	
15	Tunas Baru Lampung Tbk	
16	Argo Pantes Tbk	
17	Century Textile Industry Tbk	
18	Panasia Filament Inti Tbk	
19	Panasia Indosyntex	
20	Sunson Textile Manufacture Tbk	
21	APAC cltra Cent.	
22	Ryane Adibusana	
23	Sarasa Nugraha Tbk	
24	Sepatu Bata Tbk	
25	Sumalindo Lestari Jaya Tbk	
26	Tirta Mahakam Plywood Industri	
27	Plaspak Prima Industri Tbk	
28	Summiplast Interbenua Tbk	
29	Trias Sentosa Tbk	
29	Wahana Jaya	
30	Indocement Tunggal Perkasa Tbk	
31	Semen Gresik (Persero) Tbk	
32	Alakasa Industrindo Tbk	
33	Indomobil Sukses International Tbk	
34	Intraco Penta Tbk	
35	Nipress Tbk	
36	Bristol-Myers Squibb Indonesia Tbk	

37	Kalbe Farma Tbk	
38	Kimia Farma Tbk	
39	Merck Indonesia Tbk	
40	Mustika Ratu Tbk	
41	Procter & Gamble Indonesia Tbk	
42	Unilever Indonesia Tbk	
43	Steady Safe Tbk	TRANSPORTATION
44	Zebra Nusantara Tbk	
45	Telekomunikasi Indonesia Tbk	Communication
46	Matahari Putra Prima Tbk	WHOLESALE & RETAIL TRADE
47	Milenium Pharmacon Int'l Tbk	
48	Tk Gunung Agung Tbk	
49	Wicaksana Overseas Int'l Tbk	
50	BNI Tbk	BANKING
51	Bank Niaga Tbk	
52	Bank NISP Tbk	
53	Bank Universal Tbk	
54	BBL Danatama Finance Tbk	credit agencies other than bank
55	Bunas Finance Ind. Tbk	
56	Clipan Finance Indonesia Tbk	
57	Danasupra Erapacific Tbk	
58	Sriwani Trimitra Tbk	
59	Bhakti Capital Indonesia tbk	securities
60	Panin Securities Tbk	
61	Asuransi Ramayana Tbk	insurance
62	Lippo General Insurance Tbk	
63	Bukit sentul tbk	real estate and property
64	Gowa Makassar Tourism Development Tbk	
65	Jaka Artha Graha Tbk	
67	Jakarta Int'l Hotel & Development Tbk	
68	Jaya Real Properti Tbk	
69	Metro Supermarket Realty Tbk	
70	Pakuwon Jati Tbk	
71	Panca Wiratama Sakti Tbk	
72	Pudjiaji & Sons Estate Tbk	
73	Surya Semesta Internusa Tbk	
74	Anta Express Tour & Travel Tbk	HOTEL AND TRAVEL SERVICES
75	Plaza Indonesia Realty Tbk	

**COMPANIES STOCKS RETURN**

No.	COMPANIES	1998											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Adindo Foresta	60	70	60	75	65	60	50	45	35	30	35	30
2	Dharma Samudr	280	315	305	345	330	315	260	235	200	195	175	180
3	Central Proteina	550	550	675	750	700	650	525	500	450	400	395	405
4	Surya Hidup Satwa	265	300	300	345	315	300	255	235	195	165	165	170
5	Alter Abadi	485	600	625	750	650	675	600	550	525	490	490	500
6	Medco Energi Corp.	1525	1525	2150	2000	1925	2000	1900	1480	1150	1125	1125	1125
7	Ades Alfindo Putras	295	290	330	400	425	410	385	380	355	360	335	385
8	Cahaya Kalbar	280	280	255	225	210	220	230	215	210	215	215	300
9	Mayora Indah Tbk	85	85	100	105	110	100	85	75	70	70	60	80
10	Multi Bintang Indonesia	105	110	115	120	120	125	115	120	110	95	105	115
11	Pioneerindo Gourmet Int'l	1425	1450	1475	1700	1550	1425	1350	1400	1200	1050	1100	1350
12	Sierad Produce Tbk	600	625	600	625	600	575	525	525	350	355	370	400
13	SMART Tbk	435	450	420	435	405	420	415	500	500	500	500	460
14	Suba Indah Tbk	650	850	1075	1175	1200	1125	1025	975	875	775	775	850
15	Tunas Baru Lampung Tbk	775	775	775	650	650	825	825	875	900	900	900	900
16	Argo Pantex Tbk	430	460	400	420	445	410	400	385	400	380	370	420
17	Century Textile Industry Tbk	405	405	455	465	405	395	415	470	550	485	525	525
18	Panasia Filament Inti Tbk	140	175	380	425	405	385	450	455	525	480	575	575
19	Panasia IndoSyntex	90	90	85	85	75	70	55	70	70	70	80	70
20	Sunsion Textile Manufacture Tbk	7350	7850	8700	9350	8800	8450	8100	9400	11950	11500	15000	15000
21	APAC cltra Cent.	700	700	700	700	700	700	700	700	700	700	700	700
22	Ryanne Adibusana	350	350	325	335	335	395	400	400	400	400	410	410
23	Sarasa Nugraha Tbk	255	285	400	550	600	525	600	625	800	800	1000	1000
24	Sepatu Batu Tbk	825	875	1100	1125	1175	1175	1250	1175	1350	1300	1375	1375
25	Sumalindo Lestari Jaya Tbk	215	370	450	525	495	480	525	500	465	500	450	450
26	Tirta Mahakan Plywood Industri	575	575	575	575	575	575	575	575	525	525	525	525
27	Plaspack Prima Industri Tbk	3025	3050	3050	3000	3000	3000	3000	3000	3000	3000	3000	3000
28	Summiplast Interbenua Tbk	3500	3900	3400	3100	2400	2800	2800	2800	3000	3000	3000	3000
29	Trias Sentosa Tbk	3800	3450	3100	3050	2400	2600	2525	2175	1610	1550	1500	1375



59	Sriwani Trimitra Tbk		350	350	325	335	335	395	400	400	400	400	410	410
60	Bhakti Capital Indonesia tbk		255	285	400	550	600	525	600	625	800	800	1000	1000
61	Panin Securities Tbk		825	875	1100	1125	1175	1250	1175	1350	1300	1375	1375	1375
62	Asuransi Ramayana Tbk		215	370	450	525	495	480	525	500	465	500	450	450
63	Lippo General Insurance Tbk		575	575	575	575	575	575	575	575	525	525	525	525
64	Bukit sentul tbk		3025	3050	3050	3050	3000	3000	3000	3000	3000	3000	3000	3000
65	Gowa Makassar Tourism Development Tbk		3500	3900	3500	3400	3100	2400	2800	2800	2800	3000	3000	3000
66	Jaka Artha Graha Tbk		3800	3450	3100	3050	2400	2600	2525	2175	1610	1550	1500	1375
67	Jakarta Int'l Hotel & Development Tbk		3825	3650	3675	3450	2825	3075	3065	2890	2780	2400	2450	2050
68	Jaya Real Properti Tbk		5400	5400	5400	5000	5000	5000	5005	5400	5400	5400	5400	6150
69	Metro Supermarket Realty Tbk		2975	3000	2975	2975	2975	2975	2975	3000	2975	2975	2975	2975
70	Pakuwon Jati Tbk		725	675	675	675	700	700	790	510	500	90	90	85
71	Panca Wiratama Sakti Tbk		4350	3600	3725	4075	3850	3550	3460	3660	3150	3000	3225	3075
72	Pudjajji & Sons Estate Tbk		1525	1525	2150	2000	1925	2000	1900	1480	1150	1125	1125	1125
73	Surya Semesta Internusa Tbk		230	225	245	250	275	350	325	350	270	205	235	245
74	Anta Express Tour & Travel Tbk		2975	3000	2975	2975	2975	2975	3000	2975	2975	2975	2975	2975
75	Plaza Indonesia Realty Tbk		725	675	675	700	700	790	510	500	90	90	85	85

**COMPANIES STOCK RETURN**

No.	Companies	1999											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Adindo Foresta	25	25	20	30	40	40	40	40	40	40	40	40
2	Dharma Samudr	145	150	150	205	315	265	280	310	295	305	285	285
3	Central Proteina	365	375	375	460	450	575	575	550	700	675	600	625
4	Surya Hidup Satwa	125	135	125	200	225	210	195	205	210	205	200	210
5	Alter Abadi	430	390	395	525	495	525	455	475	480	500	505	525
6	Medco Energi Corp.	1125	1125	1050	1500	1525	1800	315	300	245	210	215	225
7	Ades Alfindo Putras	335	315	350	355	335	315	315	525	355	335	315	315
8	Cahaya Kalbar	310	380	465	525	650	525	495	465	525	650	525	465
9	Mayora Indah Tbk	65	70	60	95	115	155	205	460	480	400	395	410
10	Multi Bintang Indonesia	105	110	115	115	195	225	435	500	575	700	650	700
11	Pioneerindo Gourmet Int'l	1300	1350	1325	1350	1250	1200	1150	1225	1275	1300	1235	1350
12	Sierad Produce Tbk	395	465	500	700	825	1000	1025	1225	1025	1025	1000	1225
13	SMART Tbk	600	600	650	700	725	800	800	825	700	750	750	775
14	Suba Indah Tbk	900	975	1000	1175	1200	1350	1425	1325	1400	1325	1325	1400
15	Tunas Baru Lampung Tbk	900	900	900	900	900	900	900	900	900	925	925	925
16	Argo Pantex Tbk	420	370	340	465	420	500	500	500	525	650	600	650
17	Century Textile Industry Tbk	355	335	315	315	355	340	320	340	350	315	525	355
18	Panasia Filament Inti Tbk	525	355	335	315	315	525	355	335	315	315	355	330
19	Panasia IndosynTEX	95	115	155	205	460	480	400	395	410	450	410	405
20	Sunson Textile Manufacture Tbk	16000	14000	11400	10950	10900	11450	10850	10550	10000	9525	8050	8050
21	APAC oltra Cent.	700	700	700	700	700	700	700	700	700	700	700	700
22	Ryane Adibusana	700	825	350	350	325	335	335	395	400	400	400	400
23	Sarasa Nugraha Tbk	700	725	255	285	400	550	600	525	600	625	800	800
24	Sepatu Bata Tbk	1175	1200	825	875	1100	1125	1175	1250	1175	1250	1350	1300
25	Sumalindo Lestari Jaya Tbk	900	900	215	370	450	525	495	480	525	500	465	500
26	Tirta Mahakam Plywood Industri	465	420	575	575	575	575	575	575	575	525	525	525
27	Plaspack Prima Industri Tbk	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	2950	2950



59	Sriwani Trimitra Tbk	700	825	350	350	325	335	395	400	400	400
60	Bhakti Capital Indonesia tbk	700	725	255	285	400	550	600	525	600	625
61	Panin Securities Tbk	1175	1200	825	875	1100	1125	1175	1175	1250	1175
62	Asuransi Ramayana Tbk	900	900	215	370	450	525	495	480	525	500
63	Lippo General Insurance Tbk	465	420	575	575	575	575	575	575	575	575
64	Bukit sentul tbk	3000	3000	3000	3000	3000	3000	3000	3000	3000	2950
65	Gowa Makassar Tourism Development Tbk	3000	3000	2850	2850	2850	4000	4000	4000	4000	4000
66	Jaka Artha Graha Tbk	1600	1775	1475	1375	1725	1725	1725	1450	1100	1000
67	Jakarta Int'l Hotel & Development Tbk	2525	2925	2425	2400	3000	3200	2975	2950	2650	2825
68	Jaya Real Properti Tbk	6150	6000	6000	5500	5500	5500	5500	5500	5500	5500
69	Metro Supermarket Realty Tbk	2975	2975	2975	2975	2800	2800	2800	2750	2750	2750
70	Pakuwon Jati Tbk	85	75	70	55	70	70	80	70	70	70
71	Panca Wiratama Sakti Tbk	2975	3150	2750	2425	2825	3150	3050	2925	2600	3050
72	Pudjiaji & Sons Estate Tbk	1125	1125	1050	1500	1525	1800	315	300	245	210
73	Surya Semesta Internusa Tbk	230	235	225	230	225	245	250	290	295	185
74	Anta Express Tour & Travel Tbk	2975	2975	2975	2800	2800	2800	2750	2750	2600	2400
75	Plaza Indonesia Realty Tbk	85	75	70	55	70	70	80	70	70	75

COMPANIES STOCK RETURN



59	Sriwani Trimitra Tbk	410	410	700	825	1000	1025	1225	1025	1000	1225	775
60	Bhakti Capital Indonesia tbk	1000	1000	700	725	800	800	825	700	750	750	775
61	Panin Securities Tbk	1375	1375	1175	1200	1350	1425	1325	1400	1325	1400	725
62	Asuransi Ramayana Tbk	450	450	900	900	900	900	900	900	925	925	925
63	Lippo General Insurance Tbk	525	525	465	420	500	500	500	500	525	650	600
64	Bukit sentul tbk	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
65	Gowa Makassar Tourism Development Tbk	3100	2400	2800	2800	2800	2800	3000	3000	3000	3000	2850
66	Jaka Artha Graha Tbk	2400	2600	2525	2175	1610	1550	1500	1375	1600	1775	1375
67	Jakarta Int'l Hotel & Development Tbk	2825	3075	3065	2890	2780	2400	2450	2050	2525	2925	2400
68	Jaya Real Properti Tbk	5000	5000	5005	5400	5400	5400	5400	5400	6150	6000	5500
69	Metro Supermarket Realty Tbk	2975	2975	2975	3000	2975	2975	2975	2975	2975	2975	2975
70	Pakuwon Jati Tbk	700	700	790	510	500	90	90	85	85	75	70
71	Panca Wiratama Sakti Tbk	3550	3460	3660	3150	3000	3225	3075	2975	3150	2750	2425
72	Pudjajati & Sons Estate Tbk	315	300	245	210	215	225	315	300	245	210	215
73	Surya Semesta Internusa Tbk	100	90	120	120	120	120	120	150	145	140	130
74	Anta Express Tour & Travel Tbk	2975	2975	3000	2975	2975	2975	2975	2975	2975	2975	2975
75	Plaza Indonesia Realty Tbk	700	700	790	510	500	90	90	85	85	75	70

COMPANIES STOCK RETURN

28	Summoplast Interbenua Tbk	2850	4000	4000	4000	4000	3100	2400	3100	2400	2800	2800
29	Trias Sentosa Tbk	1725	1725	1450	1100	2400	2600	2400	2600	2525	2175	1610
30	Wahana Jaya	3000	3200	2975	2950	2650	2825	3075	2825	3065	2890	2780
31	Indocement Tunggal Perkasa Tbk	5500	5500	5500	5500	5500	5000	5000	5000	5005	5400	5400
32	Semen Gresik (Persero) Tbk	2800	2800	2800	2750	2750	2975	2975	2975	2975	2975	2975
33	Alakasa Industrindo Tbk	70	70	70	80	70	700	700	700	700	790	510
34	Indomobil Sukses International Tbk	3150	3050	2925	2600	3050	3050	3250	3050	3250	3550	3460
35	Intraco Penta Tbk	300	245	210	215	225	215	225	215	225	315	300
36	Nipress Tbk	115	90	95	110	180	140	125	125	280	315	330
37	Bristol-Myers Squibb Indonesia Tbk	13500	13500	13500	14000	14000	14000	10500	12000	15000	15000	14200
38	Kalbe Farma Tbk	25	25	20	30	40	40	40	40	60	70	65
39	Kimia Farma Tbk	145	150	150	205	315	265	280	280	315	305	345
40	Merck Indonesia Tbk	365	375	375	460	450	575	575	550	550	675	750
41	Mustika Ratu Tbk	210	205	195	165	165	170	125	135	125	200	225
42	Procter & Gamble Indonesia Tbk	480	500	525	490	490	500	430	390	395	525	495
43	Unilever Indonesia Tbk	300	245	210	215	225	215	225	215	225	315	300
44	Steady Safe Tbk	390	390	395	420	550	525	550	9200	500	550	725
45	Zebra Nusantara Tbk	215	210	215	300	310	380	465	525	650	525	495
46	Telekomunikasi Indonesia Tbk	525	550	575	550	525	550	550	600	600	625	410
47	Matahari Putra Prima Tbk	95	95	190	300	220	180	275	350	445	390	330
48	Milenum Pharmacon Int'l Tbk	2975	2950	2950	3575	3850	4150	4100	4050	4525	4350	4250
49	Tk Gunung Agung Tbk	800	875	825	975	1050	900	900	1000	1175	1275	1175
50	Wicaksana Overseas Int'l Tbk	145	140	130	100	115	90	95	110	180	140	125
51	BNI Tbk	650	750	800	725	800	875	875	775	950	950	1000
52	Bank Niaga Tbk	4875	6400	6250	6500	7000	7450	9250	11750	12600	10650	10150
53	Bank NJSP Tbk	575	575	600	725	875	850	775	675	725	700	675
54	Bank Universal Tbk	335	315	355	330	320	280	280	255	315	525	355
55	BBL Danatama Finance Tbk	575	575	525	355	335	315	315	525	355	335	315
56	Bumas Finance Ind. Tbk	80	70	95	115	155	205	460	480	400	395	410
57	Clipan Finance Indonesia Tbk	8300	7400	7550	7400	8650	10000	10200	9500	9200	11250	13150
58	Danasupra Erapacific Tbk	4500	4525	4375	4575	4100	3950	1200	1150	1225	1275	1300

59	Sriwani Trimitra Tbk		750	750	1175	1450	1450	1250	1000	1025	1225	1025	1025	1000
60	Bhakti Capital Indonesia tbk		105	130	120	100	90	120	800	800	825	700	750	750
61	Pamin Securities Tbk		650	575	700	750	800	675	1350	1425	1325	1400	1325	1325
62	Asuransi Ramayana Tbk		1025	1225	1025	1000	1225	900	900	900	925	925	925	925
63	Lippo General Insurance Tbk		750	800	1050	1100	1075	1125	500	500	500	525	650	600
64	Bukit sentul tbk		3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
65	Gowa Makassar Tourism Development Tbk		2850	4000	4000	4000	4000	3100	2400	3100	2400	2800	2800	2800
66	Jaka Artha Graha Tbk		1725	1725	1725	1450	1100	2400	2600	2400	2600	2525	2175	1610
67	Jakarta Int'l Hotel & Development Tbk		3000	3200	2975	2950	2650	2825	3075	2825	3075	3065	2890	2780
68	Jaya Real Properti Tbk		5500	5500	5500	5500	5500	5500	5000	5000	5000	5005	5400	5400
69	Metro Supermarket Realty Tbk		2800	2800	2800	2750	2750	2975	2975	2975	2975	2975	3000	2975
70	Pakuwon Jati Tbk		70	70	70	80	70	700	700	700	700	790	510	500
71	Panca Wiratama Sakti Tbk		3150	3050	2925	2600	3050	3050	3250	3050	3250	3550	3460	3660
72	Pudjaji & Sons Estate Tbk		300	245	210	215	225	215	225	215	225	315	300	245
73	Surya Semesta Internusa Tbk		115	90	95	110	180	140	125	125	125	280	315	330
74	Anta Express Tour & Travel Tbk		2800	2800	2750	2750	2975	2975	2975	2975	2975	3000	2975	2975
75	Plaza Indonesia Realty Tbk		70	70	70	80	70	700	700	700	700	790	510	500

COMPANIES STOCK RETURN

28	Summiplast Interbema Tbk	3000	3000	3000	3000	2850	2850	2850	2850	4000	4000
29	Trias Sentosa Tbk	1550	1500	1375	1600	1775	1475	1375	1725	1725	1450
30	Wahana Jaya	2400	2450	2050	2525	2925	2425	2400	3000	3200	2950
31	Indocement Tunggal Perkasa Tbk	5400	5400	6150	6000	6000	5500	5500	5500	5500	2650
32	Semen Gresik (Persero) Tbk	2975	2975	2975	2975	2975	2975	2975	2800	2800	2750
33	Alakasa Industrindo Tbk	90	90	85	85	75	70	55	70	70	70
34	Indomobil Sukses International Tbk	3150	3000	3225	3075	2975	3150	2750	2425	2825	3150
35	Intraco Penta Tbk	210	215	225	315	300	245	210	215	315	300
36	Nipress Tbk	150	145	140	130	100	115	90	95	110	180
37	Bristol-Myers Squibb Indonesia Tbk	15200	15800	15250	15800	15250	13500	13500	14000	13000	14200
38	Kalbe Farma Tbk	60	50	45	35	30	35	30	25	25	20
39	Kimia Farma Tbk	315	260	235	200	195	175	180	145	150	150
40	Merck Indonesia Tbk	650	525	500	450	400	395	405	365	375	375
41	Mustika Ratu Tbk	195	205	210	205	200	210	225	210	195	205
42	Procter & Gamble Indonesia Tbk	455	475	480	500	505	525	495	525	455	475
43	Unilever Indonesia Tbk	210	215	225	315	300	245	210	215	315	300
44	Steady Safe Tbk	750	575	500	475	450	425	410	450	450	425
45	Zebra Nusantara Tbk	315	315	240	260	215	230	155	155	140	120
46	Telekomunikasi Indonesia Tbk	850	850	850	900	875	1225	1000	975	850	650
47	Matahari Putra Prima Tbk	380	465	525	650	525	495	550	315	315	7800
48	Milenum Pharmacon Int'l Tbk	1300	1325	1325	1325	1350	1350	1350	1350	1350	700
49	TK Grumung Agung Tbk	455	455	455	460	350	350	350	350	350	350
50	Wicaksana Overseas Int'l Tbk	280	315	330	400	390	410	355	360	240	235
51	BNI Tbk	1000	975	1000	1050	1050	950	875	825	700	750
52	Bank Niaga Tbk	12750	11750	10950	9100	9150	8900	7800	8350	9250	9150
53	Bank NISP Tbk	950	925	750	675	600	575	575	575	575	575
54	Bank Universal Tbk	335	315	355	330	320	280	280	255	355	335
55	BBI Danatama Finance Tbk	355	330	320	280	255	315	355	330	320	280
56	Bumas Finance Ind. Tbk	410	405	435	415	400	450	410	405	435	415
57	Clipan Finance Indonesia Tbk	13600	12750	11750	10950	9100	9150	8900	7800	8350	9500
58	Danasupra Erapacific Tbk	1350	4325	4500	4525	4375	1150	1225	1275	1300	1235

59	Sriwani Trimitra Tbk		1225	775	750	1175	1025	1225	1025	1000	1225	1225
60	Bhakti Capital Indonesia tbk		775	150	105	130	120	800	825	700	750	775
61	Panin Securities Tbk		1400	725	650	575	700	1425	1325	1400	1325	1400
62	Asuransi Ramayana Tbk		925	1000	1025	1225	1025	900	900	925	925	925
63	Lippo General Insurance Tbk		650	775	750	800	1050	500	500	525	650	650
64	Bukit sentul tbk		3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
65	Gowa Makassar Tourism Development Tbk		3000	3000	3000	3000	3000	2850	2850	2850	2850	2850
66	Jaka Artha Graha Tbk		1550	1500	1375	1600	1775	1475	1375	1725	1725	1450
67	Jakarta Int'l Hotel & Development Tbk		2400	2450	2050	2525	2925	2425	2400	3000	3200	2950
68	Jaya Real Properti Tbk		5400	5400	6150	6150	6000	6000	5500	5500	5500	2650
69	Metro Supermarket Realty Tbk		2975	2975	2975	2975	2975	2975	2975	2800	2800	4000
70	Pakuwon Jati Tbk		90	90	85	85	75	70	55	70	70	1100
71	Panca Wiratama Sakti Tbk		3150	3000	3225	3075	2975	3150	2750	2425	2825	2925
72	Pudjijaji & Sons Estate Tbk		210	215	225	315	300	245	210	215	315	210
73	Surya Semesta Internusa Tbk		150	145	140	130	100	115	90	95	110	140
74	Anta Express Tour & Travel Tbk		2975	2975	2975	2975	2975	2975	2975	2800	2800	2750
75	Plaza Indonesia Realty Tbk		90	90	85	85	75	70	55	70	70	80

	ret_1	ret_2	ret_3	ret_4	ret_5	ret_6	ret_7	ret_8	ret_9	ret_10	ret_11	ret_12	ret_13
1	,167	-,14	,250	-,13	-,08	-,17	-,10	-,22	-,14	,167	-,1429	-,1667	,0000
2	,125	-,03	,131	-,04	-,05	-,17	-,10	-,15	-,03	-,10	,0286	-,1944	,0345
3	,000	,227	,111	-,07	-,07	-,19	-,05	-,10	-,11	-,01	,0253	-,0988	,0274
4	,132	,000	,150	-,09	-,05	-,15	-,08	-,17	-,15	,000	,0303	-,2647	,0800
5	,237	,042	,200	-,13	,038	-,11	-,08	-,05	-,07	,000	,0204	-,1400	-,0930
6	,000	,410	-,07	-,04	,039	-,05	-,22	-,22	-,02	,000	,0000	,0000	,0000
7	-,02	,138	,212	,063	-,04	-,06	-,01	-,07	,014	-,07	,1493	-,1299	-,0597
8	,000	-,09	-,12	,000	-,07	,048	,045	-,07	-,02	,024	,3953	,0333	,2258
9	,000	,176	,050	,048	-,09	-,15	-,12	-,07	,000	-,14	,3333	-,1875	,0769
10	,048	,045	,043	,000	,042	-,08	,043	-,08	-,14	,105	,0952	-,0870	,0476
11	,018	,017	,153	-,09	-,08	-,05	,037	-,14	-,13	,048	,2273	-,0370	,0385
12	,042	-,04	,042	-,04	-,04	-,09	,000	-,33	,014	,042	,0811	-,0125	,1772
13	,034	-,07	,036	-,07	,037	-,01	,205	,000	,000	,000	-,0800	,3043	,0000
14	,308	,265	,093	,021	-,06	-,09	-,05	-,10	-,11	,000	,0968	,0588	,0833
15	,000	,000	-,16	,000	,269	,000	,061	,029	,000	,000	,0000	,0000	,0000
16	,070	-,13	,050	,060	-,08	-,02	-,04	,039	-,05	-,03	,1351	,0000	-,1190
17	,000	,123	,022	-,13	-,02	,051	,133	,170	-,12	,082	,0000	-,3238	-,0563
18	,250	1,17	,118	-,05	-,05	,169	,011	,154	-,09	,198	,0000	-,0870	-,3238
19	,000	-,06	,000	-,12	-,07	-,21	,273	,000	,000	,143	-,1250	,3571	,2105
20	,068	,108	,075	-,06	-,04	-,04	,160	,271	-,04	,304	,0000	,0667	-,1250
21	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,0000	,0000	,0000
22	,000	-,07	,031	,000	,179	,013	,000	,000	,000	,025	,0000	,7073	,1786
23	,118	,404	,375	,091	-,13	,143	,042	,280	,000	,250	,0000	-,3000	,0357
24	,061	,257	,023	,044	,000	,064	-,06	,149	-,04	,058	,0000	-,1455	-,0213
25	,721	,216	,167	-,06	-,03	,094	-,05	-,07	,075	-,10	,0000	1,0000	,0000
26	,000	,000	,000	,000	,000	,000	-,09	,000	,000	,000	,0000	-,1143	-,0968
27	,008	,000	,000	-,02	,000	,000	,000	,000	,000	,000	,0000	,0000	,0000
28	,114	-,10	-,03	-,09	-,23	,167	,000	,000	,071	,000	,0000	,0000	,0000
29	-,09	-,10	-,02	-,21	,083	-,03	-,14	-,26	-,04	-,03	-,0833	,1636	,1094
30	-,05	,007	-,06	-,18	,088	,00	-,06	-,04	-,14	,021	-,1633	,2317	,1584
31	,000	,000	-,07	,000	,000	,001	,079	,000	,000	,000	,1389	,0000	-,0244
32	,008	-,01	,000	,000	,000	,000	,008	-,01	,000	,000	,0000	,0000	,0000
33	-,07	,000	,000	,037	,000	,129	-,35	-,02	-,82	,000	-,0556	,0000	-,1176
34	-,17	,035	,094	-,06	-,08	-,03	,058	-,14	-,05	,075	-,0465	-,0325	,0588
35	,000	,410	-,07	-,04	,039	-,05	-,22	-,22	-,02	,000	,0000	,0000	,0000
36	-,02	,089	,020	,100	,273	-,07	,077	-,23	-,24	,146	,0426	-,0612	,0217
37	,042	,890	-,21	,278	,000	-,30	,000	,000	,037	,000	,0000	-,2500	,1429
38	,167	-,14	,250	-,13	-,08	-,17	-,10	-,22	-,14	,167	-,1429	-,1667	,0000
39	,125	-,03	,131	-,04	-,05	-,17	-,10	-,15	-,03	-,10	,0286	-,1944	,0345
40	,000	,227	,111	-,07	-,07	-,19	-,05	-,10	-,11	-,01	,0253	-,0988	,0274
41	,132	,000	,150	-,09	-,05	-,15	-,08	-,17	-,15	,000	,0303	-,2647	,0800
42	,237	,042	,200	-,13	,038	-,11	-,08	-,05	-,07	,000	,0204	-,1400	-,0930

	ret_14	ret_15	ret_16	ret_17	ret_18	ret_19	ret_20	ret_21	ret_22
1	-2000	,5000	,3333	,0000	,0000	,0000	,0000	,0000	,0000
2	,0000	,3667	,5366	-,1587	,0566	,1071	-,0484	,0339	-,0656
3	,0000	,2267	-,0217	,2778	,0000	-,0435	,2727	-,0357	-,1111
4	-,0741	,6000	,1250	-,0667	-,0714	,0513	,0244	-,0238	-,0244
5	,0128	,3291	-,0571	,0606	-,1333	,0440	,0105	,0417	,0100
6	-,0667	,4286	,0167	,1803	-,8250	-,0476	-,1833	-,1429	,0238
7	,1111	,0143	-,0563	-,0597	,0000	,6667	-,3238	-,0563	-,0597
8	,2237	,1290	,2381	-,1923	-,0571	-,0606	,1290	,2381	-,1923
9	-,1429	,5833	,2105	,3478	,3226	1,2439	,0435	-,1667	-,0125
10	,0455	,0000	,6957	,1538	,9333	,1494	,1500	,2174	-,0714
11	-,0185	,0189	-,0741	-,0400	-,0417	,0652	,0408	,0196	-,0500
12	,0753	,4000	,1786	,2121	,0250	,1951	-,1633	,0000	-,0244
13	,0833	,0769	,0357	,1034	,0000	,0313	-,1515	,0714	,0000
14	,0256	,1750	,0213	,1250	,0556	-,0702	,0566	-,0536	,0000
15	,0000	,0000	,0000	,0000	,0000	,0000	,0278	,0000	,0000
16	-,0811	,3676	-,0968	,1905	,0000	,0000	,0500	,2381	-,0769
17	-,0597	,0000	,1270	-,0423	-,0588	,0625	,0294	-,1000	,6667
18	-,0563	-,0597	,0000	,6667	-,3238	-,0563	-,0597	,0000	,1270
19	,3478	,3226	1,2439	,0435	-,1667	-,0125	,0380	,0976	-,0889
20	-,1857	-,0395	-,0046	,0505	-,0524	-,0276	-,0521	-,0475	-,1549
21	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
22	-,5758	,0000	-,0714	,0308	,0000	,1791	,0127	,0000	,0000
23	-,6483	,1176	,4035	,3750	,0909	-,1250	,1429	,0417	,2800
24	-,3125	,0606	,2571	,0227	,0444	,0000	,0638	-,0600	,1489
25	-,7611	,7209	,2162	,1667	-,0571	-,0303	,0938	-,0476	-,0700
26	,3690	,0000	,0000	,0000	,0000	,0000	,0000	,0000	-,0870
27	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	-,0167
28	-,0500	,0000	,0000	,4035	,0000	,0000	,0000	,0000	,0000
29	-,1690	-,0678	,2545	,0000	,0000	-,1594	-,2414	-,0909	-,5400
30	-,1709	-,0103	,2500	,0667	-,0703	-,0084	-,1017	,0660	-,0265
31	,0000	-,0833	,0000	,0000	,0000	,0000	,0000	,0000	,0000
32	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000	,0000	-,0545
33	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250	,0000	,0000
34	-,1270	-,1182	,1649	,1150	-,0317	-,0410	-,1111	,1731	,0000
35	-,0667	,4286	,0167	,1803	-,8250	-,0476	-,1833	-,1429	,0238
36	-,0426	,0222	-,0217	,0889	,0204	,1600	,0172	-,3729	-,0541
37	,2500	,0000	-,1333	,0923	,0704	,0395	-,0348	-,1148	,0000
38	-,2000	,5000	,3333	,0000	,0000	,0000	,0000	,0000	,0000
39	,0000	,3667	,5366	-,1587	,0566	,1071	-,0484	,0339	-,0656
40	,0000	,2267	-,0217	,2778	,0000	-,0435	,2727	-,0357	-,1111
41	-,0741	,6000	,1250	-,0667	-,0714	,0513	,0244	-,0238	-,0244
42	,0128	,3291	-,0571	,0606	-,1333	,0440	,0105	,0417	,0100

	ret_23	ret_24	ret_25	ret_26	ret_27	ret_28	ret_29	ret_30	ret_31
1	,0000	,5000	,1667	-,1429	,2500	-,1333	-,0769	-,1667	-,1000
2	,0000	-,0175	,1250	-,0317	,1311	-,0435	-,0455	-,1746	-,0962
3	,0417	-,1200	,0000	,2273	,1111	-,0667	-,0714	-,1923	-,0476
4	,0500	-,0714	-,1538	,0000	,0303	-,2647	,0800	-,0741	,6000
5	,0396	,0000	-,0667	,0000	,0204	-,1400	-,0930	,0128	,3291
6	,0465	,4000	-,0476	-,1833	-,1429	,0238	,0465	,4000	-,0476
7	,0000	,1270	,3521	-,1667	-,0125	,0380	,0976	-,0889	-,0122
8	-,1143	,1290	,2381	-,1923	-,0571	-,4343	,0000	-,0893	-,1176
9	,0380	,0976	-,0889	-,0122	,0741	-,0460	-,0361	,0000	-,0250
10	,0769	-,8286	,1250	,0370	,4286	-,0500	-,1053	,3529	-,1364
11	,0931	2,2037	,0405	,0056	-,0331	,0457	-,1038	-,0366	-,0190
12	,2250	-,3673	-,0323	,0000	,5667	,2340	,0000	-,1379	,0000
13	,0333	-,8065	-,3000	,2381	-,0769	-,1667	-,1000	,3333	,0000
14	,0566	-,4821	-,1034	-,1154	,2174	,0714	,0667	-,1563	,0000
15	,0000	4,4595	,0099	,1569	-,0169	,0345	-,0500	-,1491	,0722
16	,0833	,1923	-,0323	,0667	,3125	,0476	-,0227	,0465	-,1778
17	-,3238	-,0563	-,0597	,0000	,1270	-,0704	-,0303	-,1250	,0000
18	-,0704	-,0303	-,1250	,0000	-,0893	,4902	,1184	-,0471	-,0494
19	-,0122	,0741	-,0460	-,0361	,0000	-,7875	,0000	-,1176	-,0667
20	,0000	,0000	,0000	-,0062	,0000	,0000	,0000	,0000	,1563
21	,0000	,0000	,0000	,9286	-,0741	-,0400	-,0417	,0652	,0408
22	,0000	,0250	,0000	,7073	,1786	,2121	,0250	,1951	-,1633
23	,0000	,2500	,0000	-,3000	,0357	,1034	,0000	,0313	-,1515
24	-,0370	,0577	,0000	-,1455	,0213	,1250	,0556	-,0702	,0566
25	,0753	-,1000	,0000	1,0000	,0000	,0000	,0000	,0000	,0278
26	,0000	,0000	,0000	-,1143	-,0968	,1905	,0000	,0000	,0500
27	,0000	,0169	,0000	,0000	,0000	,0000	,0000	,0000	,0000
28	,0000	-,2250	-,2258	,1667	,0000	,0000	,0714	,0000	,0000
29	-,0652	4,5814	,0833	-,0288	-,1386	-,2598	-,0373	-,0323	-,0833
30	,1636	-,1172	,0885	-,0033	-,0571	-,0381	-,1367	,0208	-,1633
31	,0000	-,0909	,0000	,0010	,0789	,0000	,0000	,0000	,1389
32	-,0769	,2396	,0000	,0000	,0084	-,0083	,0000	,0000	,0000
33	,0714	8,3333	,0000	,1286	-,3544	-,0196	-,8200	,0000	-,0556
34	,0656	,0923	-,0254	,0578	-,1393	-,0476	,0750	-,0465	-,0325
35	,0465	,4000	-,0476	-,1833	-,1429	,0238	,0465	,4000	-,0476
36	-,0286	-,4118	-,1000	,3333	,0000	,0000	,0000	,0000	,2500
37	,0000	,0370	,0000	,0000	-,2500	,1429	,2500	,0000	-,1333
38	,0000	,5000	,1667	-,1429	,2500	-,1333	-,0769	-,1667	-,1000
39	,0000	-,0175	,1250	-,0317	,1311	-,0435	-,0455	-,1746	-,0962
40	,0417	-,1200	,0000	,2273	,1111	-,0667	-,0714	-,1923	-,0476
41	,0500	-,0714	-,1538	,0000	,0303	-,2647	,0800	-,0741	,6000
42	,0396	,0000	-,0667	,0000	,0204	-,1400	-,0930	,0128	,3291

	ret_32	ret_33	ret_34	ret_35	ret_36	ret_37	ret_38	ret_39	ret_40
1	-,2222	-,1429	,1667	-,1429	-,1667	,0000	-,2000	,5000	,3333
2	-,1489	-,0250	-,1026	,0286	-,1944	,0345	,0000	,3667	,5366
3	-,1000	-,1111	-,0125	,0253	-,0988	,0274	,0000	,2267	-,0217
4	,1250	-,0667	-,0714	,0513	,0244	-,0238	-,0488	-,1538	,0000
5	-,0571	,0606	-,1333	,0440	,0105	,0417	,0500	-,0667	,0000
6	-,1833	-,1429	,0238	,4651	-,0476	-,1833	-,1429	,0238	,0465
7	,0741	-,0460	-,0361	,0000	-,0250	,0000	,0128	,0633	,3095
8	,0000	-,0667	,0476	,0455	-,0652	-,0233	,0238	,3953	,0333
9	,0000	,0128	,0633	,3095	-,0455	,0476	,0455	-,0435	-,0455
10	,0000	,1053	-,0476	,1000	-,1364	,0000	1,0000	,5789	-,2667
11	-,1290	-,1185	,0672	,1654	-,1959	-,0084	,0000	,2119	,0769
12	,0000	-,3200	,0588	-,1111	,0000	,0938	-,0571	,1818	,0769
13	,0000	,0000	,0000	,2500	-,0333	-,0345	-,0714	-,2308	,1500
14	-,1852	-,1818	,2222	,1818	,0000	,1538	,0667	-,0938	,1034
15	-,1346	-,1667	-,0867	,0730	,3265	,3128	-,0234	,0400	,0769
16	-,1892	-,1667	-,0800	,0435	-,0417	,0000	,0435	,2083	,2069
17	-,0893	,2353	,6667	-,3238	-,0563	-,0597	,0000	,1270	-,0704
18	,1688	,0111	,1538	-,0857	,1979	,0000	-,0870	-,3238	-,0563
19	-,2143	,2727	,0000	,0000	,1429	-,1250	,3571	,2105	,3478
20	-,0865	,0592	-,2011	,0699	,0850	-,1084	,0203	-,0199	,1689
21	,0196	-,0500	,0931	2,2037	,0405	,0056	-,0331	,0457	-,1038
22	,0000	-,0244	,2250	-,3673	-,0323	,0000	,5667	,2340	,0000
23	,0714	,0000	,0333	-,8065	-,3000	,2381	-,0769	-,1667	-,1000
24	-,0536	,0000	,0566	-,4821	-,1034	-,1154	,2174	,0714	,0667
25	,0000	,0000	,0000	,0811	,0250	,1951	-,1633	,0000	-,0244
26	,2381	-,0769	,0833	,1923	-,0323	,0667	,3125	,0476	-,0227
27	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
28	,0000	,0000	-,0500	,0000	,0000	,4035	,0000	,0000	,0000
29	,1636	,1094	-,1690	-,0678	,2545	,0000	,0000	-,1594	-,2414
30	,2317	,1584	-,1709	-,0103	,2500	,0667	-,0703	-,0084	-,1017
31	,0000	-,0244	,0000	-,0833	,0000	,0000	,0000	,0000	,0000
32	,0000	,0000	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000
33	,0000	-,1176	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250
34	,0588	-,1270	-,1182	,1649	,1150	-,0317	-,0410	-,1111	,1731
35	-,1833	-,1429	,0238	,4651	-,0476	-,1833	-,1429	,0238	,0465
36	-,0333	-,0345	-,0714	-,2308	,1500	-,2174	,0556	,1579	,6364
37	,0923	,0704	,0395	-,0348	-,1148	,0000	,0000	,0370	,0000
38	-,2222	-,1429	,1667	-,1429	-,1667	,0000	-,2000	,5000	,3333
39	-,1489	-,0250	-,1026	,0286	-,1944	,0345	,0000	,3667	,5366
40	-,1000	-,1111	-,0125	,0253	-,0988	,0274	,0000	,2267	-,0217
41	,1250	-,0667	-,0714	,0513	,0244	-,0238	-,0488	-,1538	,0000
42	-,0571	,0606	-,1333	,0440	,0105	,0417	,0500	-,0667	,0000

	ret_41	ret_42	ret_43	ret_44	ret_45	ret_46	ret_47	ret_48	ret_49
1	,0000	,0000	,5000	,1667	-,1429	,2500	-,1333	-,0769	-,1667
2	-,1587	,0566	,0000	,1250	-,0317	,1311	-,0435	-,0455	-,1746
3	,2778	,0000	-,0435	,0000	,2273	,1111	-,0667	-,0714	-,1923
4	,0303	-,2647	,0800	-,0741	,6000	,1250	-,0667	-,0714	,0513
5	,0204	-,1400	-,0930	,0128	,3291	-,0571	,0606	-,1333	,0440
6	-,0444	,0465	-,0444	,0465	,4000	-,0476	-,1833	-,1429	,0238
7	-,0455	,0476	15,727	-,9457	,1000	,3182	,1724	-,1176	-,2333
8	,2258	,2237	,1290	,2381	-,1923	-,0571	,1111	-,4273	,0000
9	,0476	,0000	,0909	,0000	,0000	,0417	-,3440	1,0732	,0000
10	-,1818	,5278	,2727	,2714	-,1236	,1538	,1364	,0133	,2237
11	,0779	-,0120	-,0122	,1173	-,0387	-,0230	,0529	-,7095	,0192
12	-,1429	,0000	,0000	,1111	,1750	,0851	-,0784	-,6128	,0000
13	-,2174	,0556	,1579	,6364	-,2222	-,1071	,0000	1,2400	,1250
14	,0938	,0000	-,1143	,2258	,0000	,0526	,0000	,0000	-,0250
15	,0643	,2416	,2703	,0723	-,1548	-,0610	,0150	,2562	-,0784
16	-,0286	-,0882	-,1290	,0741	-,0345	-,0357	,1852	,1875	-,0263
17	-,0303	-,1250	,0000	-,0893	,2353	,6667	-,3238	-,0563	-,0597
18	-,0597	,0000	,6667	-,3238	-,0563	-,0597	,0000	,1270	-,0704
19	,3226	1,2439	,0435	-,1667	-,0125	,0380	,0976	-,0889	-,0122
20	,1561	,0200	-,0686	-,0316	,2228	,1689	-,0342	,0709	-,0625
21	-,0366	-,6962	-,0417	,0652	,0408	,0196	-,0500	,0931	2,2037
22	-,1379	-,2000	,0250	,1951	-,1633	,0000	-,0244	,2250	-,3673
23	,3333	5,6667	,0000	,0313	-,1515	,0714	,0000	,0333	-,8065
24	-,1563	1,0000	,0556	-,0702	,0566	-,0536	,0000	,0566	-,4821
25	,2250	-,2653	,0000	,0000	,0278	,0000	,0000	,0000	,0811
26	,0465	-,5556	,0000	,0000	,0500	,2381	-,0769	,0833	,1923
27	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
28	-,2250	-,2258	,2917	-,2258	,1667	,0000	,0000	,0714	,0000
29	1,1818	,0833	-,0769	,0833	-,0288	-,1386	-,2598	-,0373	-,0323
30	,0660	,0885	-,0813	,0885	-,0033	-,0571	-,0381	-,1367	,0208
31	-,0909	,0000	,0000	,0000	,0010	,0789	,0000	,0000	,0000
32	,0818	,0000	,0000	,0000	,0000	,0084	-,0083	,0000	,0000
33	9,0000	,0000	,0000	,0000	,1286	-,3544	-,0196	-,8200	,0000
34	,0000	,0656	-,0615	,0656	,0923	-,0254	,0578	-,1393	-,0476
35	-,0444	,0465	-,0444	,0465	,4000	-,0476	-,1833	-,1429	,0238
36	-,2222	-,1071	,0000	1,2400	,1250	,0476	-,6364	,2500	-,0333
37	,0000	-,2500	,1429	,2500	,0000	-,1333	,0923	,0704	,0395
38	,0000	,0000	,5000	,1667	-,1429	,2500	-,1333	-,0769	-,1667
39	-,1587	,0566	,0000	,1250	-,0317	,1311	-,0435	-,0455	-,1746
40	,2778	,0000	-,0435	,0000	,2273	,1111	-,0667	-,0714	-,1923
41	,0303	-,2647	,0800	-,0741	,6000	,1250	-,0667	-,0714	,0513
42	,0204	-,1400	-,0930	,0128	,3291	-,0571	,0606	-,1333	,0440

	ret_50	ret_51	ret_52	ret_53	ret_54	ret_55	ret_56	ret_57	ret_58
1	-1,000	-2,222	-1,429	,1667	-1,429	-1,667	,0000	-2,000	,5000
2	-,0962	-1,489	-,0250	-1,1026	,0286	-1,944	,0345	,0000	,3667
3	-,0476	-1,000	-1,111	-,0125	,0253	-0,988	,0274	,0000	,2267
4	,0244	-0,238	-,0244	,0500	,0714	-0,667	-0,714	,0513	,0244
5	,0105	,0417	,0100	,0396	-,0571	,0606	-1,333	,0440	,0105
6	,0465	,4000	-,0476	-1,833	-1,429	,0238	,4651	-,0476	-1,833
7	-1,304	-0,500	-0,526	-0,556	-,0353	,0976	,0000	-0,556	-0,353
8	-2,381	,0833	-1,731	,0698	-3,261	,0000	-0,968	-1,429	,1667
9	,0000	,0588	-,0278	,4000	-1,837	-,0250	-1,282	-2,353	,0769
10	,1290	,2381	-1,923	-,0571	,1111	-4,273	,0000	23,762	,0705
11	,0000	,0000	,0189	,0000	,0000	,0000	,0000	,0000	-,4815
12	,0000	,0000	,0110	-2,391	,0000	,0000	,0000	,0000	,0000
13	,0476	,2121	-,0250	,0513	-1,341	,0141	-3,333	-0,208	,1064
14	,0256	,0500	,0000	-0,952	-0,789	-,0571	-1,515	,0714	,0333
15	-,0681	-1,689	,0055	-,0273	-1,236	,0705	,1078	-,0108	-,0273
16	-1,892	,0000	-1,000	-1,111	-,0417	,0000	,0000	,0000	,0000
17	,0000	,1270	-0,704	-0,303	-1,250	,0000	-0,893	,3922	-,0563
18	-,0303	-1,250	,0000	-0,893	,2353	,1270	-0,704	-0,303	-1,250
19	,0741	-0,460	-,0361	,0000	,1250	-0,889	-,0122	,0741	-,0460
20	-,0784	-0,681	-1,689	,0055	-,0273	-1,236	,0705	,1377	-,0316
21	,0405	,0056	-0,331	-7,371	,0652	,0408	,0196	-,0500	,0931
22	-,0323	,0000	,5667	-1,277	,1951	-1,633	,0000	-0,244	,2250
23	-,3000	,2381	-0,769	5,6667	,0313	-1,515	,0714	,0000	,0333
24	-,1034	-1,154	,2174	1,0357	-,0702	,0566	-0,536	,0000	,0566
25	,0250	,1951	-1,633	-1,220	,0000	,0278	,0000	,0000	,0000
26	-,0323	,0667	,3125	-5,238	,0000	,0500	,2381	,0000	,0000
27	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
28	,0000	,0000	,0000	-0,0500	,0000	,0000	,0000	,0000	,4035
29	-,0833	,1636	,1094	-1,690	-,0678	,2545	,0000	,0000	-1,594
30	-1,633	,2317	,1584	-1,709	-,0103	,2500	,0667	-0,703	-,0084
31	,1389	,0000	-,0244	,0000	-0,833	,0000	,0000	,0000	,0000
32	,0000	,0000	,0000	,0000	,0000	-0,588	,0000	,0000	-,0179
33	-,0556	,0000	-1,176	-0,667	-2,143	,2727	,0000	,0000	,1429
34	,0750	-,0465	-0,0325	,0588	-1,270	-1,182	,1649	,1150	-,0317
35	,0465	,4000	-0,476	-1,833	-1,429	,0238	,4651	-,0476	-1,833
36	-,0345	-0,714	-2,308	,1500	-2,174	,0556	,1579	,6364	-2,2222
37	-,0348	,0361	-0,348	-1,148	,0000	,0000	,0370	-0,714	,0923
38	-1,000	-2,222	-1,429	,1667	-1,429	-1,667	,0000	-2,000	,5000
39	-,0962	-1,489	-,0250	-1,026	,0286	-1,944	,0345	,0000	,3667
40	-,0476	-1,000	-1,111	-,0125	,0253	-,0988	,0274	,0000	,2267
41	,0244	-0,238	-,0244	,0500	,0714	-0,667	-0,714	,0513	,0244
42	,0105	,0417	,0100	,0396	-,0571	,0606	-1,333	,0440	,0105

## Data Manova.sav

	ret_59	ret_avg	industri
1	,3333	,0130	Agriculture
2	,5366	,0150	Agriculture
3	-,0217	,0034	Animal Husban
4	-,0238	,0074	Animal Husban
5	,0417	,0059	Mining
6	-,1429	-,0033	Mining
7	,0976	,2687	Manufacture
8	,0357	,0042	Manufacture
9	-,0357	,0596	Manufacture
10	,1078	,4680	Manufacture
11	,0000	,0204	Manufacture
12	,0000	,0078	Manufacture
13	,0577	,0249	Manufacture
14	,0323	,0124	Manufacture
15	-,1236	,0918	Manufacture
16	,0000	,0116	Manufacture
17	-,0597	,0127	Manufacture
18	,0000	,0340	Manufacture
19	-,0361	,0627	Manufacture
20	,2228	,0128	Manufacture
21	,0000	,0702	Manufacture
22	,0000	,0442	Manufacture
23	,0000	,1956	Manufacture
24	,0000	,0307	Manufacture
25	,0000	,0567	Manufacture
26	,0000	,0154	Manufacture
27	,0000	-,0001	Manufacture
28	,0000	,0103	Manufacture
29	-,2414	,0480	Manufacture
30	-,1017	,0008	Manufacture
31	,0000	,0013	Manufacture
32	,0000	-,0007	Manufacture
33	-,1250	,2320	Manufacture
34	-,0410	-,0025	Manufacture
35	-,1429	-,0033	Manufacture
36	,0000	,0221	Manufacture
37	-,1549	,0154	Manufacture
38	,3333	,0130	Manufacture
39	,5366	,0150	Manufacture
40	-,0217	,0034	Manufacture
41	-,0238	,0074	Manufacture
42	,0417	,0059	Manufacture

## Data Manova.sav

	ret_1	ret_2	ret_3	ret_4	ret_5	ret_6	ret_7	ret_8	ret_9	ret_10	ret_11	ret_12	ret_13
43	,000	,410	-,07	-,04	,039	-,05	-,22	-,22	-,02	,000	,0000	,0000	,0000
44	-,02	,138	,212	,063	-,04	-,06	-,01	-,07	,014	-,07	,1493	-,1299	-,0597
45	,000	-,09	-,12	,000	-,07	,048	,045	-,07	-,02	,024	,3953	,0333	,2258
46	,000	,176	,050	,048	-,09	-,15	-,12	-,07	,000	-,14	,3333	-,1875	,0769
47	,048	,045	,043	,000	,042	-,08	,043	-,08	-,14	,105	,0952	-,0870	,0476
48	,018	,017	,153	-,09	-,08	-,05	,037	-,14	-,13	,048	,2273	-,0370	,0385
49	,042	-,04	,042	-,04	-,04	-,09	,000	-,33	,014	,042	,0811	-,0125	,1772
50	,034	-,07	,036	-,07	,037	-,01	,205	,000	,000	,000	-,0800	,3043	,0000
51	,308	,265	,093	,021	-,06	-,09	-,05	-,10	-,11	,000	,0968	,0588	,0833
52	,000	,000	-,16	,000	,269	,000	,061	,029	,000	,000	,0000	,0000	,0000
53	,070	-,13	,050	,060	-,08	-,02	-,04	,039	-,05	-,03	,1351	,0000	-,1190
54	,000	,123	,022	-,13	-,02	,051	,133	,170	-,12	,082	,0000	-,3238	-,0563
55	,250	1,17	,118	-,05	-,05	,169	,011	,154	-,09	,198	,0000	-,0870	-,3238
56	,000	-,06	,000	-,12	-,07	-,21	,273	,000	,000	,143	-,1250	,3571	,2105
57	,068	,108	,075	-,06	-,04	-,04	,160	,271	-,04	,304	,0000	,0667	-,1250
58	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000	,0000	,0000	,0000
59	,000	-,07	,031	,000	,179	,013	,000	,000	,000	,025	,0000	,7073	,1786
60	,118	,404	,375	,091	-,13	,143	,042	,280	,000	,250	,0000	-,3000	,0357
61	,061	,257	,023	,044	,000	,064	-,06	,149	-,04	,058	,0000	-,1455	,0213
62	,721	,216	,167	-,06	-,03	,094	-,05	-,07	,075	-,10	,0000	1,0000	,0000
63	,000	,000	,000	,000	,000	,000	,000	-,09	,000	,000	,0000	-,1143	-,0968
64	,008	,000	,000	-,02	,000	,000	,000	,000	,000	,000	,0000	,0000	,0000
65	,114	-,10	-,03	-,09	-,23	,167	,000	,000	,071	,000	,0000	,0000	,0000
66	-,09	-,10	-,02	-,21	,083	-,03	-,14	-,26	-,04	-,03	-,0833	,1636	,1094
67	-,05	,007	-,06	-,18	,088	,00	-,06	-,04	-,14	,021	-,1633	,2317	,1584
68	,000	,000	-,07	,000	,000	,001	,079	,000	,000	,000	,1389	,0000	-,0244
69	,008	-,01	,000	,000	,000	,000	,008	-,01	,000	,000	,0000	,0000	,0000
70	-,07	,000	,000	,037	,000	,129	-,35	-,02	-,82	,000	-,0556	,0000	-,1176
71	-,17	,035	,094	-,06	-,08	-,03	,058	-,14	-,05	,075	-,0465	-,0325	,0588
72	,000	,410	-,07	-,04	,039	-,05	-,22	-,22	-,02	,000	,0000	,0000	,0000
73	-,02	,089	,020	,100	,273	-,07	,077	-,23	-,24	,146	,0426	-,0612	,0217
74	,008	-,01	,000	,000	,000	,000	,008	-,01	,000	,000	,0000	,0000	,0000
75	-,07	,000	,000	,037	,000	,129	-,35	-,02	-,82	,000	-,0556	,0000	-,1176

## Data Manova.sav

	ret_14	ret_15	ret_16	ret_17	ret_18	ret_19	ret_20	ret_21	ret_22
43	-,0667	,4286	,0167	,1803	-,8250	-,0476	-,1833	-,1429	,0238
44	,1111	,0143	-,0563	-,0597	,0000	,6667	-,3238	-,0563	-,0597
45	,2237	,1290	,2381	-,1923	-,0571	-,0606	,1290	,2381	-,1923
46	-,1429	,5833	,2105	,3478	,3226	1,2439	,0435	-,1667	-,0125
47	,0455	,0000	,6957	,1538	,9333	,1494	,1500	,2174	-,0714
48	-,0185	,0189	-,0741	-,0400	-,0417	,0652	,0408	,0196	-,0500
49	,0753	,4000	,1786	,2121	,0250	,1951	-,1633	,0000	-,0244
50	,0833	,0769	,0357	,1034	,0000	,0313	-,1515	,0714	,0000
51	,0256	,1750	,0213	,1250	,0556	-,0702	,0566	-,0536	,0000
52	,0000	,0000	,0000	,0000	,0000	,0278	,0000	,0000	
53	-,0811	,3676	-,0968	,1905	,0000	,0000	,0500	,2381	-,0769
54	-,0597	,0000	,1270	-,0423	-,0588	,0625	,0294	-,1000	,6667
55	-,0563	-,0597	,0000	,6667	-,3238	-,0563	-,0597	,0000	,1270
56	,3478	,3226	1,2439	,0435	-,1667	-,0125	,0380	,0976	-,0889
57	-,1857	-,0395	-,0046	,0505	-,0524	-,0276	-,0521	-,0475	-,1549
58	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
59	-,5758	,0000	-,0714	,0308	,0000	,1791	,0127	,0000	,0000
60	-,6483	,1176	,4035	,3750	,0909	-,1250	,1429	,0417	,2800
61	-,3125	,0606	,2571	,0227	,0444	,0000	,0638	-,0600	,1489
62	-,7611	,7209	,2162	,1667	-,0571	-,0303	,0938	-,0476	-,0700
63	,3690	,0000	,0000	,0000	,0000	,0000	,0000	,0000	-,0870
64	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	-,0167
65	-,0500	,0000	,0000	,4035	,0000	,0000	,0000	,0000	,0000
66	-,1690	-,0678	,2545	,0000	,0000	-,1594	-,2414	-,0909	-,5400
67	-,1709	-,0103	,2500	,0667	-,0703	-,0084	-,1017	,0660	-,0265
68	,0000	-,0833	,0000	,0000	,0000	,0000	,0000	,0000	,0000
69	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000	,0000	-,0545
70	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250	,0000	,0000
71	-,1270	-,1182	,1649	,1150	-,0317	-,0410	-,1111	,1731	,0000
72	-,0667	,4286	,0167	,1803	-,8250	-,0476	-,1833	-,1429	,0238
73	-,0426	,0222	-,0217	,0889	,0204	,1600	,0172	-,3729	-,0541
74	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000	,0000	-,0545
75	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250	,0000	,0000

## Data Manova.sav

	ret_23	ret_24	ret_25	ret_26	ret_27	ret_28	ret_29	ret_30	ret_31
43	,0465	,4000	-,0476	-,1833	-,1429	,0238	,0465	,4000	-,0476
44	,0000	,1270	,3521	-,1667	-,0125	,0380	,0976	-,0889	-,0122
45	-,1143	,1290	,2381	-,1923	-,0571	-,4343	,0000	-,0893	-,1176
46	,0380	,0976	-,0889	-,0122	,0741	-,0460	-,0361	,0000	-,0250
47	,0769	-,8286	,1250	,0370	,4286	-,0500	-,1053	-,3529	-,1364
48	,0931	2,2037	,0405	,0056	-,0331	,0457	-,1038	-,0366	-,0190
49	,2250	-,3673	-,0323	,0000	,5667	,2340	,0000	-,1379	,0000
50	,0333	-,8065	-,3000	,2381	-,0769	-,1667	-,1000	,3333	,0000
51	,0566	-,4821	-,1034	-,1154	,2174	,0714	,0667	-,1563	,0000
52	,0000	4,4595	,0099	,1569	-,0169	,0345	-,0500	-,1491	,0722
53	,0833	,1923	-,0323	,0667	,3125	,0476	-,0227	,0465	-,1778
54	-,3238	-,0563	-,0597	,0000	,1270	-,0704	-,0303	-,1250	,0000
55	-,0704	-,0303	-,1250	,0000	-,0893	,4902	,1184	-,0471	-,0494
56	-,0122	,0741	-,0460	-,0361	,0000	-,7875	,0000	-,1176	-,0667
57	,0000	,0000	,0000	-,0062	,0000	,0000	,0000	,0000	,1563
58	,0000	,0000	,0000	,9286	-,0741	-,0400	-,0417	,0652	,0408
59	,0000	,0250	,0000	,7073	,1786	,2121	,0250	,1951	-,1633
60	,0000	,2500	,0000	-,3000	,0357	,1034	,0000	,0313	-,1515
61	-,0370	,0577	,0000	-,1455	,0213	,1250	,0556	-,0702	,0566
62	,0753	-,1000	,0000	1,0000	,0000	,0000	,0000	,0000	,0278
63	,0000	,0000	,0000	-,1143	-,0968	,1905	,0000	,0000	,0500
64	,0000	,0169	,0000	-,0000	,0000	,0000	,0000	,0000	,0000
65	,0000	-,2250	-,2258	,1667	,0000	,0000	,0714	,0000	,0000
66	-,0652	4,5814	,0833	-,0288	-,1386	-,2598	-,0373	-,0323	-,0833
67	,1636	-,1172	,0885	-,0033	-,0571	-,0381	-,1367	,0208	-,1633
68	,0000	-,0909	,0000	,0010	,0789	,0000	,0000	,0000	,1389
69	-,0769	,2396	,0000	,0000	,0084	-,0083	,0000	,0000	,0000
70	,0714	8,3333	,0000	,1286	-,3544	-,0196	-,8200	,0000	-,0556
71	,0656	,0923	-,0254	,0578	-,1393	-,0476	,0750	-,0465	-,0325
72	,0465	,4000	-,0476	-,1833	-,1429	,0238	,0465	,4000	-,0476
73	-,0286	-,4118	-,1000	,3333	,0000	,0000	,0000	,0000	,2500
74	-,0769	,2396	,0000	,0000	,0084	-,0083	,0000	,0000	,0000
75	,0714	8,3333	,0000	,1286	-,3544	-,0196	-,8200	,0000	-,0556

## Data Manova.sav

	ret_32	ret_33	ret_34	ret_35	ret_36	ret_37	ret_38	ret_39	ret_40
43	-,1833	-,1429	,0238	,4651	-,0476	-,1833	-,1429	,0238	,0465
44	,0741	-,0460	-,0361	,0000	-,0250	,0000	,0128	,0633	,3095
45	,0000	-,0667	,0476	,0455	-,0652	-,0233	,0238	,3953	,0333
46	,0000	,0128	,0633	,3095	-,0455	,0476	,0455	-,0435	-,0455
47	,0000	,1053	-,0476	,1000	-,1364	,0000	1,0000	,5789	-,2667
48	-,1290	-,1185	,0672	,1654	-,1959	-,0084	,0000	,2119	,0769
49	,0000	-,3200	,0588	-,1111	,0000	,0938	-,0571	,1818	,0769
50	,0000	,0000	,0000	,2500	-,0333	-,0345	-,0714	-,2308	,1500
51	-,1852	-,1818	,2222	,1818	,0000	,1538	,0667	-,0938	,1034
52	-,1346	-,1667	-,0867	,0730	,3265	,3128	-,0234	,0400	,0769
53	-,1892	-,1667	-,0800	,0435	-,0417	,0000	,0435	,2083	,2069
54	-,0893	,2353	,6667	-,3238	-,0563	-,0597	,0000	,1270	-,0704
55	,1688	,0111	,1538	-,0857	,1979	,0000	-,0870	-,3238	-,0563
56	-,2143	,2727	,0000	,0000	,1429	-,1250	,3571	,2105	,3478
57	-,0865	,0592	-,2011	,0699	,0850	-,1084	,0203	-,0199	,1689
58	,0196	-,0500	,0931	2,2037	,0405	,0056	-,0331	,0457	-,1038
59	,0000	-,0244	,2250	-,3673	-,0323	,0000	,5667	,2340	,0000
60	,0714	,0000	,0333	-,8065	-,3000	,2381	-,0769	-,1667	-,1000
61	-,0536	,0000	,0566	-,4821	-,1034	-,1154	,2174	,0714	,0667
62	,0000	,0000	,0000	,0811	,0250	,1951	-,1633	,0000	-,0244
63	,2381	-,0769	,0833	,1923	-,0323	,0667	,3125	,0476	-,0227
64	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
65	,0000	,0000	-,0500	,0000	,0000	,4035	,0000	,0000	,0000
66	,1636	,1094	-,1690	-,0678	,2545	,0000	,0000	-,1594	-,2414
67	,2317	,1584	-,1709	-,0103	,2500	,0667	-,0703	-,0084	-,1017
68	,0000	-,0244	,0000	-,0833	,0000	,0000	,0000	,0000	,0000
69	,0000	,0000	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000
70	,0000	-,1176	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250
71	,0588	-,1270	-,1182	,1649	,1150	-,0317	-,0410	-,1111	,1731
72	-,1833	-,1429	,0238	,4651	-,0476	-,1833	-,1429	,0238	,0465
73	-,0333	-,0345	-,0714	-,2308	,1500	-,2174	,0556	,1579	,6364
74	,0000	,0000	,0000	,0000	-,0588	,0000	,0000	-,0179	,0000
75	,0000	-,1176	-,0667	-,2143	,2727	,0000	,0000	,1429	-,1250

## Data Manova.sav

	ret_41	ret_42	ret_43	ret_44	ret_45	ret_46	ret_47	ret_48	ret_49
43	-,0444	,0465	-,0444	,0465	,4000	-,0476	-,1833	-,1429	,0238
44	-,0455	,0476	15,727	-,9457	,1000	,3182	,1724	-,1176	-,2333
45	,2258	,2237	,1290	,2381	-,1923	-,0571	,1111	-,4273	,0000
46	,0476	,0000	,0909	,0000	,0000	,0417	-,3440	1,0732	,0000
47	-,1818	,5278	,2727	,2714	-,1236	-,1538	,1364	,0133	,2237
48	,0779	-,0120	-,0122	,1173	-,0387	-,0230	,0529	-,7095	,0192
49	-,1429	,0000	,0000	,1111	,1750	,0851	-,0784	-,6128	,0000
50	-,2174	,0556	,1579	,6364	-,2222	-,1071	,0000	1,2400	,1250
51	,0938	,0000	-,1143	,2258	,0000	,0526	,0000	,0000	-,0250
52	,0643	,2416	,2703	,0723	-,1548	-,0610	,0150	,2562	-,0784
53	-,0286	-,0882	-,1290	,0741	-,0345	-,0357	,1852	,1875	-,0263
54	-,0303	-,1250	,0000	-,0893	,2353	,6667	-,3238	-,0563	-,0597
55	-,0597	,0000	,6667	-,3238	-,0563	-,0597	,0000	,1270	-,0704
56	,3226	1,2439	,0435	-,1667	-,0125	,0380	,0976	-,0889	-,0122
57	,1561	,0200	-,0686	-,0316	,2228	,1689	-,0342	,0709	-,0625
58	-,0366	-,6962	-,0417	,0652	,0408	,0196	-,0500	,0931	2,2037
59	-,1379	-,2000	,0250	,1951	-,1633	,0000	-,0244	,2250	-,3673
60	,3333	5,6667	,0000	,0313	-,1515	,0714	,0000	,0333	-,8065
61	-,1563	1,0000	,0556	-,0702	,0566	-,0536	,0000	,0566	-,4821
62	,2250	-,2653	,0000	,0000	,0278	,0000	,0000	,0000	,0811
63	,0465	-,5556	,0000	,0000	,0500	,2381	-,0769	,0833	,1923
64	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
65	-,2250	-,2258	,2917	-,2258	,1667	,0000	,0000	,0714	,0000
66	1,1818	,0833	-,0769	,0833	-,0288	-,1386	-,2598	-,0373	-,0323
67	,0660	,0885	-,0813	,0885	-,0033	-,0571	-,0381	-,1367	,0208
68	-,0909	,0000	,0000	,0000	,0010	,0789	,0000	,0000	,0000
69	,0818	,0000	,0000	,0000	,0000	,0084	-,0083	,0000	,0000
70	9,0000	,0000	,0000	,0000	,1286	-,3544	-,0196	-,8200	,0000
71	,0000	,0656	-,0615	,0656	,0923	-,0254	,0578	-,1393	-,0476
72	-,0444	,0465	-,0444	,0465	,4000	-,0476	-,1833	-,1429	,0238
73	-,2222	-,1071	,0000	1,2400	,1250	,0476	-,6364	,2500	-,0333
74	,0818	,0000	,0000	,0000	,0000	,0084	-,0083	,0000	,0000
75	9,0000	,0000	,0000	,0000	,1286	-,3544	-,0196	-,8200	,0000

## Data Manova.sav

	ret_50	ret_51	ret_52	ret_53	ret_54	ret_55	ret_56	ret_57	ret_58
43	,0465	,4000	-,0476	-,1833	-,1429	,0238	,4651	-,0476	-,1833
44	-,1304	-,0500	-,0526	-,0556	-,0353	,0976	,0000	-,0556	-,0353
45	-,2381	,0833	-,1731	,0698	-,3261	,0000	-,0968	-,1429	,1667
46	,0000	,0588	-,0278	,4000	-,1837	-,0250	-,1282	-,2353	,0769
47	,1290	,2381	-,1923	-,0571	,1111	-,4273	,0000	23,762	,0705
48	,0000	,0000	,0189	,0000	,0000	,0000	,0000	,0000	-,4815
49	,0000	,0000	,0110	-,2391	,0000	,0000	,0000	,0000	,0000
50	,0476	,2121	-,0250	,0513	-,1341	,0141	-,3333	-,0208	,1064
51	,0256	,0500	,0000	-,0952	-,0789	-,0571	-,1515	,0714	,0333
52	-,0681	-,1689	,0055	-,0273	-,1236	,0705	,1078	-,0108	-,0273
53	-,1892	,0000	-,1000	-,1111	-,0417	,0000	,0000	,0000	,0000
54	,0000	,1270	-,0704	-,0303	-,1250	,0000	-,0893	,3922	-,0563
55	-,0303	-,1250	,0000	-,0893	,2353	,1270	-,0704	-,0303	-,1250
56	,0741	-,0460	-,0361	,0000	,1250	-,0889	-,0122	,0741	-,0460
57	-,0784	-,0681	-,1689	,0055	-,0273	-,1236	,0705	,1377	-,0316
58	,0405	,0056	-,0331	-,7371	,0652	,0408	,0196	-,0500	,0931
59	-,0323	,0000	,5667	-,1277	,1951	-,1633	,0000	-,0244	,2250
60	-,3000	,2381	-,0769	5,6667	,0313	-,1515	,0714	,0000	,0333
61	-,1034	-,1154	,2174	1,0357	-,0702	,0566	-,0536	,0000	,0566
62	,0250	,1951	-,1633	-,1220	,0000	,0278	,0000	,0000	,0000
63	-,0323	,0667	,3125	-,5238	,0000	,0500	,2381	,0000	,0000
64	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000	,0000
65	,0000	,0000	,0000	-,0500	,0000	,0000	,0000	,0000	,4035
66	-,0833	,1636	,1094	-,1690	-,0678	,2545	,0000	,0000	-,1594
67	-,1633	,2317	,1584	-,1709	-,0103	,2500	,0667	-,0703	-,0084
68	,1389	,0000	-,0244	,0000	-,0833	,0000	,0000	,0000	,0000
69	,0000	,0000	,0000	,0000	,0000	-,0588	,0000	,0000	-,0179
70	-,0556	,0000	-,1176	-,0667	-,2143	,2727	,0000	,0000	,1429
71	,0750	-,0465	-,0325	,0588	-,1270	-,1182	,1649	,1150	-,0317
72	,0465	,4000	-,0476	-,1833	-,1429	,0238	,4651	-,0476	-,1833
73	-,0345	-,0714	-,2308	,1500	-,2174	,0556	,1579	,6364	-,2222
74	,0000	,0000	,0000	,0000	,0000	-,0588	,0000	,0000	-,0179
75	-,0556	,0000	-,1176	-,0667	-,2143	,2727	,0000	,0000	,1429

Data Manova.sav

	ret_59	ret_avg	industri
43	-,1429	-,0033	Manufacture
44	,0976	,2687	Transp&Comm
45	,0357	,0042	Transp&Comm
46	-,0357	,0596	Transp&Comm
47	,1078	,4680	Wholesaler&Re
48	,0000	,0204	Wholesaler&Re
49	,0000	,0078	Wholesaler&Re
50	,0577	,0249	Wholesaler&Re
51	,0323	,0124	Banking
52	-,1236	,0918	Banking
53	,0000	,0116	Banking
54	-,0597	,0127	Banking
55	,0000	,0340	Banking
56	-,0361	,0627	Banking
57	,2228	,0128	Banking
58	,0000	,0702	Banking
59	,0000	,0442	Banking
60	,0000	,1956	Banking
61	,0000	,0307	Banking
62	,0000	,0567	Banking
63	,0000	,0154	Banking
64	,0000	-,0001	Banking
65	,0000	,0103	Banking
66	-,2414	,0480	Banking
67	-,1017	,0008	Banking
68	,0000	,0013	Banking
69	,0000	-,0007	Banking
70	-,1250	,2320	Banking
71	-,0410	-,0025	Banking
72	-,1429	-,0033	Banking
73	,0000	,0221	Banking
74	,0000	-,0007	Hotel
75	-,1250	,2320	Hotel

	agriculture	husbandr	mining	manufacture	transp	grosir	banking	hotel	cspri	pdb	shi	ccpi
1	,1458	,0660	,1186	,0581	-,0056	,0353	,0576	-,0303	382,00	216514	25,65	636372,0
2	-,0873	,1136	,2258	,1133	,0750	-,0110	,1137	-,0042	420,00	216514	28,61	576542,0
3	,1906	,1306	,0651	,0444	,0482	,0684	,0285	,0000	441,00	216514	44,54	583276,0
4	-,0884	-,0768	-,0854	-,0259	,0367	-,0493	-,0282	,0185	458,00	243592	50,57	526737,0
5	-,0612	-,0595	,0387	-,0067	-,0643	-,0109	,0066	,0000	484,00	243592	57,43	454357,0
6	,1706	-,1712	-,0806	-,0339	-,0545	-,0579	,0122	,0643	507,00	243592	52,92	515110,0
7	-,0981	-,0630	-,1522	-,0133	-,0284	,0713	-,0028	-,1730	246,00	256919	50,99	492193,0
8	-,1856	-,1351	-,1342	-,0473	-,0659	-,1399	-,0037	-,0140	261,00	256919	55,43	466380,0
9	-,0839	-,1325	-,0442	-,0633	-,0031	-,0618	-,0696	-,4100	279,00	256919	61,76	421336,0
10	,0321	-,0063	,0000	,0325	-,0628	,0488	,0497	,0000	283,00	272548	60,38	405347,0
11	-,0571	,0278	,0102	,0298	,2926	,0809	-,0026	-,0278	284,00	272548	52,99	429214,0
12	-,1806	-,1817	-,0700	,0078	-,0947	,0420	,0661	,0000	287,00	272548	41,42	416321,0
13	,0172	,0537	-,0465	,0193	,0810	,0658	,0006	-,0588	667,00	85997,1	37,89	411932,0
14	-,1000	-,0370	-,0269	-,0630	,0640	,0644	-,1144	-,0333	677,00	85997,1	37,95	396089,0
15	,4333	,4133	,3788	,1431	,2422	,1239	,0705	-,1071	679,00	85997,1	37,26	393625,0
16	,4350	,0516	-,0202	,1352	,1308	,2090	,1293	,1070	683,00	85478,0	37,39	495222,0
17	-,0794	,1056	,1205	,0917	,0319	,1074	,1080	,0000	685,00	85478,0	34,61	585242,0
18	,0283	-,0357	-,4792	-,0296	,0885	,2292	-,0598	,0000	685,00	85478,0	35,15	662025,0
19	,0536	,0039	-,0018	,0646	,6167	,1103	-,0023	,0625	301,00	87912,2	35,25	597874,0
20	-,0242	,1486	-,0864	-,0156	-,0504	-,0310	-,0149	-,0625	300,00	87912,2	35,39	567026,0
21	,0169	-,0298	-,0506	-,0059	,0050	,0771	-,0130	,0000	300,00	87912,2	36,40	547937,0
22	-,0328	-,0678	,0169	-,0135	-,0882	-,0365	,0033	-,0273	303,00	86415,5	36,55	593869,0
23	,0000	,0458	,0431	,0129	-,0254	,1071	-,0023	-,0027	303,00	86415,5	30,95	583769,0
24	,2412	-,0957	,2000	,4998	,1179	,0503	,7482	,42865	303,00	86415,5	32,35	676919,0
25	,1458	-,0769	-,0571	-,0061	,1671	-,0417	-,0254	,0000	305,00	900195	11,91	485938,0

	agriculture	husbandr	mining	manufacture	transp	grossir	banking	hotel	csp <i>i</i>	pdb	sbi	ccpi
26	-0873	,1136	-,0917	,0647	-,1237	,0702	,1136	,0643	310,00	90019,5	11,33	482378,0
27	,1906	,0707	-,0612	,0246	,0015	,2213	-,0056	-,1730	312,00	90019,5	10,80	541425,0
28	-0884	,1657	-,0581	-,0225	-,1474	,0158	,0012	-,0140	315,00	90108,0	10,50	460135,0
29	-0612	,0043	-,0233	-,0227	,0205	-,0773	-,0296	-,4100	318,00	90108,0	10,43	420465,0
30	-1706	-,1332	,2064	-,0149	-,0594	-,0485	,0006	,0000	321,00	90108,0	10,37	445920,0
31	-0981	,2762	,1407	-,0001	-,0516	-,0388	-,0086	-,0278	325,00	92268,7	10,59	481717,0
32	-1856	,0125	-,1202	-,0207	,0247	-,0323	-,0094	,0000	323,00	92268,7	11,30	342436,0
33	-0839	-,0889	-,0411	-,0286	-,0333	-,0833	-,0116	-,0588	325,00	92268,7	11,42	276150,0
34	,0321	-,0420	-,0548	,0164	,0249	,0196	,0236	-,0333	328,00	91468,0	11,56	300770,0
35	-0571	,0383	,2545	,0540	,1183	,1011	,0349	-,1071	332,00	91468,0	11,85	386271,0
36	-1806	-,0372	-,0185	,0027	-,0452	-,0914	,0516	,1070	337,00	91468,0	11,96	398038,0
37	,0172	,0018	-,0708	,0155	,0081	,0127	,0261	,0000	343,00	93464,4	12,95	425614,0
38	-1000	-,0244	-,0464	,0436	,0274	,2179	,0436	,0000	349,00	93464,4	13,66	428303,0
39	,4333	,0364	-,0214	,0675	,1384	,1855	,0178	,0625	353,00	93464,4	13,82	381050,0
40	,4350	-,0109	,0233	,0597	,0991	,0093	,0426	-,0625	360,00	93807,8	13,68	358232,0
41	-0794	,1540	-,0120	,2818	,0760	-,1160	,4582	4,5409	368,00	93807,8	13,91	405863,0
42	,0283	-,1324	-,0467	,1752	,0904	,1428	,2693	,0000	380,00	93807,8	14,01	437620,0
43	,2500	,0183	-,0687	,4768	5,3157	,1046	,0319	,0000	384,00	96033,6	14,25	444081,0
44	,1458	-,0370	,0297	,0604	-,2359	,2840	,0557	,0000	381,00	96033,6	14,82	435552,0
45	-0873	,4136	,3646	,0546	-,0308	-,0524	,0410	,0643	,381,00	96033,6	15,49	392479,0
46	,1906	,1181	-,0524	,0281	,1009	-,0497	,0242	-,1730	383,00	96250,0	15,74	383735,0
47	-0884	-,0667	-,0614	-,0430	-,0202	,0277	-,0565	-,0140	389,00	96250,0	15,87	380308,0
48	-0612	-,0714	-,1381	,0006	,1761	-,0172	,0014	-,4100	393,00	96250,0	16,07	392036,0
49	-1706	-,0705	,0339	,0048	-,0778	,0920	,0182	,0000	402,00	104917	16,05	451636,0
50	-0981	-,0116	,0285	-,0307	-,1228	,0442	-,0324	-,0278	407,00	104917	15,79	453246,0

	agriculture	husbandr	mining	manufacture	transp	grosir	banking	hotel	cspi	pdib	sbi	ccpi
51	-1856	-0619	,2208	,0368	,0307	,1126	,0364	,0000	408,00	104917	15,64	481775,0
52	-0839	-0678	-0188	-0148	-0845	-0469	,0117	-,0588	403,00	106278	15,44	534062,0
53	,0321	,0188	-0719	,1196	,1381	-0612	,1919	-,0333	404,00	106278	15,06	530790,0
54	-0571	,0484	-1000	-0396	-1817	-,0058	-,0295	-1071	405,00	106278	14,76	505009,0
55	-1806	-0827	,0422	-0085	,0242	-,1033	,0203	,1070	404,00	109200	14,15	463669,0
56	,0172	-0220	,1659	,0212	-,0750	-,0833	,0428	,0000	402,00	109200	13,86	443674,0
57	-1000	,0256	-,0018	,6561	-,1446	5,9353	,0519	,0000	403,00	109200	13,50	419307,0
58	,4333	,1255	-,0864	,0276	,0694	-,0761	,0034	,0625	407,00	106346	13,06	369044,0
59	,4350	-,0228	-,0506	,0058	,0325	,0414	-,0268	-,0625	414,00	106346	12,87	390425,0

**Correlations**

		Correlations							
		Pertanian	Peternakan	Pertambangan	Manufaktur	Transportasi & Komunikasi	Grosir&Eceran	Keuangan	Perhotelan
Pertanian	Pearson Correlation	1.000	.320*	.057	.261*	.235	-.040	.163	.069
	Sig. (2-tailed)		.014	.666	.046	.073	.764	.217	.605
	N	59	59	59	59	59	59	59	59
Peternaka n	Pearson Correlation	.320*	1.000	.448**	.173	.048	.031	.058	.050
	Sig. (2-tailed)	.014		.000	.191	.721	.817	.665	.707
	N	59	59	59	59	59	59	59	59
Pertambangan	Pearson Correlation	.057	.448**	1.000	.210	-.057	-.009	.263*	.140
	Sig. (2-tailed)	.666	.000		.111	.668	.944	.044	.290
	N	59	59	59	59	59	59	59	59
Manufaktur	Pearson Correlation	.261*	.173	.210	1.000	.441***	.626***	.631***	.498**
	Sig. (2-tailed)	.046	.191	.111		.000	.000	.000	.000
	N	59	59	59	59	59	59	59	59
Transportasi&Komunikasi	Pearson Correlation	.235	.048	-.057	.441***	1.000	-.032	.014	.001
	Sig. (2-tailed)	.073	.721	.668	.000		.810	.915	.995
	N	59	59	59	59	59	59	59	59
Grosir&Eceran	Pearson Correlation	-.040	.031	-.009	.626***	-.032	1.000	.013	-.032
	Sig. (2-tailed)	.764	.817	.944	.000	.810		.920	.808
	N	59	59	59	59	59	59	59	59
Keuangan	Pearson Correlation	.163	.058	.263*	.631***	.014	.013	1.000	.855**
	Sig. (2-tailed)	.217	.665	.044	.000	.915	.920		.000
	N	59	59	59	59	59	59	59	59
Perhotelan	Pearson Correlation	.069	.050	.140	.498***	.001	-.032	.855***	1.000
	Sig. (2-tailed)	.605	.707	.290	.000	.995	.808	.000	
	N	59	59	59	59	59	59	59	59

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

# General Linear Model

## Between-Subjects Factors

		Value Label	N
Industri	1	Pertanian	2
	2	Peternakan	2
	3	Pertambangan	2
	4	Manufaktur	37
	5	Transportasi&Komunikasi	3
	6	Grosir&Eceran	4
	7	Keuangan	23
	8	Perhotelan	2

## Multivariate Tests<sup>c</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.935	13.634 <sup>a</sup>	35.000	33.000	.000
	Wilks' Lambda	.065	13.634 <sup>a</sup>	35.000	33.000	.000
	Hotelling's Trace	14.460	13.634 <sup>a</sup>	35.000	33.000	.000
	Roy's Largest Root	14.460	13.634 <sup>a</sup>	35.000	33.000	.000
INDUSTRI	Pillai's Trace	2.687	.694	245.000	273.000	.998
	Wilks' Lambda	.027	.677	245.000	239.561	.999
	Hotelling's Trace	5.061	.646	245.000	219.000	1.000
	Roy's Largest Root	1.043	1.162 <sup>b</sup>	35.000	39.000	.323

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance level.

c. Design: Intercept+INDUSTRI

## Parameter Estimates

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	Return t1	-3.0E-02	.105	-.287	.775	-.241	.180
	Return t2	-4.2E-03	.182	-.023	.982	-.366	.358
	Return t3	6.25E-16	.078	.000	1.000	-.155	.155
	Return t4	1.85E-02	.057	.326	.746	-9.493E-02	.132
	Return t5	8.84E-17	.069	.000	1.000	-.137	.137
	Return t6	6.43E-02	.067	.959	.341	-6.953E-02	.198
	Return t7	-.173	.084	-2.062	.043	-.340	-5.553E-03
	Return t8	-1.4E-02	.095	-.148	.883	-.203	.175
	Return t9	-.410	.116	-3.527	.001	-.642	-.178
	Return t10	-5.6E-17	.065	.000	1.000	-.130	.130
	Return t11	-2.8E-02	.070	-.397	.693	-.168	.112
	Return t12	1.44E-16	.180	.000	1.000	-.359	.359
	Return t13	-5.9E-02	.076	-.778	.439	-.210	9.210E-02
	Return t14	-3.3E-02	.162	-.206	.837	-.356	.290
	Return t15	-.107	.156	-.686	.495	-.419	.205
	Return t16	.107	.187	.573	.568	-.266	.479
	Return t17	-1.5E-16	.118	.000	1.000	-.236	.236

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	Return t18	-9.1E-17	.178	.000	1.000	-.356	.356
	Return t19	6.25E-02	.152	.411	.683	-.241	.366
	Return t20	-6.3E-02	.082	-.764	.448	-.226	.101
	Return t21	-5.2E-17	.081	.000	1.000	-.163	.163
	Return t22	-2.7E-02	.119	-.229	.820	-.265	.211
	Return t23	-2.7E-03	.060	-.046	.964	-.122	.117
	Return t24	4.286	1.356	3.162	.002	1.581	6.992
	Return t25	3.27E-17	.077	.000	1.000	-.154	.154
	Return t26	6.43E-02	.200	.322	.748	-.334	.463
	Return t27	-.173	.119	-1.448	.152	-.411	6.542E-02
	Return t28	-1.4E-02	.143	-.097	.923	-.300	.272
	Return t29	-.410	.120	-3.409	.001	-.650	-.170
	Return t30	-6.4E-17	.104	.000	1.000	-.207	.207
	Return t31	-2.8E-02	.100	-.278	.782	-.227	.172
	Return t32	1.47E-17	.083	.000	1.000	-.166	.166
	Return t33	-5.9E-02	.084	-.700	.487	-.227	.109
	Return t34	-3.3E-02	.109	-.307	.760	-.250	.183
	Return t35	-.107	.317	-.338	.736	-.739	.525
	Return t36	.107	.096	1.113	.270	-8.491E-02	.299
	Return t37	-4.2E-17	.090	.000	1.000	-.180	.180
	Return t38	-1.1E-16	.154	.000	1.000	-.307	.307
	Return t39	6.25E-02	.129	.483	.630	-.196	.321
	Return t40	-6.3E-02	.127	-.492	.625	-.316	.191
	Return t41	4.541	1.216	3.734	.000	2.114	6.968
	Return t42	6.21E-17	.720	.000	1.000	-1.437	1.437
	Return t43	4.69E-15	1.735	.000	1.000	-3.463	3.463
	Return t44	3.17E-16	.213	.000	1.000	-.424	.424
	Return t45	6.43E-02	.114	.562	.576	-.164	.293
	Return t46	-.173	.117	-1.477	.144	-.407	6.087E-02
	Return t47	-1.4E-02	.112	-.125	.901	-.237	.209
	Return t48	-.410	.271	-1.513	.135	-.951	.131
	Return t49	4.89E-17	.302	.000	1.000	-.602	.602
	Return t50	-2.8E-02	.064	-.433	.666	-.156	.100
	Return t51	-2.6E-16	.097	.000	1.000	-.194	.194
	Return t52	-5.9E-02	.105	-.563	.575	-.267	.150
	Return t53	-3.3E-02	.710	-.047	.963	-1.450	1.384
	Return t54	-.107	.080	-1.338	.186	-.267	5.273E-02
	Return t55	.107	.092	1.167	.247	-7.600E-02	.290
	Return t56	1.81E-17	.101	.000	1.000	-.202	.202
	Return t57	-6.4E-15	2.696	.000	1.000	-5.381	5.381
	Return t58	6.25E-02	.116	.539	.592	-.169	.294
	Return t59	-6.3E-02	.081	-.775	.441	-.224	9.854E-02

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =1]	Return t1	.176	.149	1.181	.242	-.122	.474
	Return t2	-8.3E-02	.257	-.324	.747	-.595	.429
	Return t3	.191	.110	1.733	.088	-2.896E-02	.410
	Return t4	-.107	.080	-1.330	.188	-.267	5.352E-02
	Return t5	-6.1E-02	.097	-.631	.530	-.255	.132
	Return t6	-.235	.095	-2.478	.016	-.424	-4.568E-02
	Return t7	7.49E-02	.119	.632	.530	-.162	.312
	Return t8	-.172	.134	-1.284	.204	-.438	9.524E-02
	Return t9	.326	.164	1.983	.051	-2.109E-03	.654
	Return t10	3.21E-02	.092	.348	.729	-.152	.216
	Return t11	-2.9E-02	.099	-.297	.768	-.227	.168
	Return t12	-.181	.255	-.709	.481	-.689	.327
	Return t13	7.61E-02	.107	.711	.479	-.137	.290
	Return t14	-6.7E-02	.229	-.291	.772	-.524	.390
	Return t15	.540	.221	2.448	.017	9.971E-02	.981
	Return t16	.328	.264	1.243	.218	-.199	.855
	Return t17	-7.9E-02	.167	-.475	.637	-.413	.254
	Return t18	2.83E-02	.252	.112	.911	-.475	.531
	Return t19	-8.9E-03	.215	-.041	.967	-.438	.421
	Return t20	3.83E-02	.116	.331	.742	-.193	.269
	Return t21	1.69E-02	.115	.147	.884	-.213	.247
	Return t22	-5.5E-03	.169	-.033	.974	-.342	.331
	Return t23	2.75E-03	.085	.032	.974	-.166	.172
	Return t24	-4.045	1.917	-2.110	.039	-.7872	-.219
	Return t25	.146	.109	1.337	.186	-7.189E-02	.364
	Return t26	-.152	.282	-.537	.593	-.715	.412
	Return t27	.364	.169	2.152	.035	2.639E-02	.701
	Return t28	-7.4E-02	.203	-.367	.715	-.479	.330
	Return t29	.349	.170	2.051	.044	9.318E-03	.688
	Return t30	-.171	.147	-1.163	.249	-.464	.122
	Return t31	-7.0E-02	.141	-.497	.621	-.352	.212
	Return t32	-.186	.117	-1.582	.118	-.420	4.863E-02
	Return t33	-2.5E-02	.119	-.211	.833	-.262	.212
	Return t34	6.54E-02	.154	.426	.672	-.241	.372
	Return t35	5.00E-02	.448	.112	.911	-.844	.944
	Return t36	-.288	.136	-2.115	.038	-.559	-1.618E-02
	Return t37	1.72E-02	.128	.135	.893	-.238	.272
	Return t38	-1.0E-01	.217	-.460	.647	-.534	.334
	Return t39	.371	.183	2.028	.047	5.760E-03	.736
	Return t40	.497	.180	2.767	.007	.139	.856
	Return t41	-4.620	1.720	-2.687	.009	-.8053	-1.188
	Return t42	2.83E-02	1.018	.028	.978	-2.004	2.060
	Return t43	.250	2.454	.102	.919	-4.648	5.148
	Return t44	.146	.301	.485	.629	-.454	.746
	Return t45	-.152	.162	-.937	.352	-.474	.171
	Return t46	.364	.166	2.194	.032	3.282E-02	.694
	Return t47	-7.4E-02	.158	-.470	.640	-.390	.242

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =1]	Return t48	.349	.383	.910	.366	-.416	1.114
	Return t49	-.171	.427	-.400	.691	-1.022	.681
	Return t50	-7.0E-02	.091	-.775	.441	-.251	.111
	Return t51	-.186	.138	-1.348	.182	-.460	8.920E-02
	Return t52	-2.5E-02	.148	-.170	.866	-.320	.270
	Return t53	6.54E-02	1.004	.065	.948	-1.939	2.069
	Return t54	5.00E-02	.113	.441	.660	-.176	.276
	Return t55	-.288	.130	-2.218	.030	-.546	-2.877E-02
	Return t56	1.72E-02	.143	.120	.905	-.269	.304
	Return t57	-1.0E-01	3.812	-.026	.979	-7.709	7.509
	Return t58	.371	.164	2.262	.027	4.362E-02	.698
	Return t59	.497	.114	4.360	.000	.270	.725



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =2]	Return t1	9.63E-02	.149	.646	.521	-.201	.394
	Return t2	.118	.257	.459	.648	-.395	.630
	Return t3	.131	.110	1.187	.239	-8.898E-02	.350
	Return t4	-9.5E-02	.080	-1.186	.240	-.256	6.512E-02
	Return t5	-6.0E-02	.097	-.614	.541	-.253	.134
	Return t6	-.235	.095	-2.483	.016	-.425	-4.620E-02
	Return t7	.110	.119	.927	.357	-.127	.347
	Return t8	-.121	.134	-.906	.368	-.388	.146
	Return t9	.278	.164	1.688	.096	-5.066E-02	.606
	Return t10	-6.2E-03	.092	-.068	.946	-.190	.178
	Return t11	5.56E-02	.099	.561	.576	-.142	.253
	Return t12	-.182	.255	-.714	.478	-.690	.326
	Return t13	.113	.107	1.052	.296	-.101	.326
	Return t14	-3.7E-03	.229	-.016	.987	-.461	.453
	Return t15	.520	.221	2.357	.021	7.971E-02	.961
	Return t16	-5.5E-02	.264	-.210	.835	-.582	.471
	Return t17	.106	.167	.631	.530	-.228	.439
	Return t18	-3.6E-02	.252	-.142	.888	-.539	.467
	Return t19	-5.9E-02	.215	-.272	.786	-.488	.371
	Return t20	.211	.116	1.823	.073	-1.997E-02	.442
	Return t21	-3.0E-02	.115	-.258	.797	-.260	.200
	Return t22	-4.0E-02	.169	-.240	.811	-.377	.296
	Return t23	4.86E-02	.085	.574	.568	-.120	.217
	Return t24	-4.382	1.917	-2.286	.025	-8.209	-.555
	Return t25	-7.7E-02	.109	-.705	.483	-.295	.141
	Return t26	4.94E-02	.282	.175	.862	-.514	.613
	Return t27	.244	.169	1.443	.154	-9.348E-02	.581
	Return t28	-.152	.203	-.748	.457	-.557	.253
	Return t29	.414	.170	2.436	.018	7.479E-02	.754
	Return t30	-.133	.147	-.908	.367	-.426	.160
	Return t31	.304	.141	2.150	.035	2.181E-02	.586
	Return t32	1.25E-02	.117	.107	.915	-.222	.247
	Return t33	-3.0E-02	.119	-.253	.801	-.267	.207
	Return t34	-8.6E-03	.154	-.056	.955	-.315	.298
	Return t35	.145	.448	.325	.746	-.748	1.039
	Return t36	-.144	.136	-1.060	.293	-.415	.127
	Return t37	1.79E-03	.128	.014	.989	-.253	.257
	Return t38	-2.4E-02	.217	-.112	.911	-.458	.409
	Return t39	-2.6E-02	.183	-.143	.887	-.391	.339
	Return t40	5.16E-02	.180	.287	.775	-.307	.411
	Return t41	-4.387	1.720	-2.551	.013	-7.819	-.954
	Return t42	-.132	1.018	-.130	.897	-2.164	1.899
	Return t43	1.83E-02	2.454	.007	.994	-4.880	4.916
	Return t44	-3.7E-02	.301	-.123	.902	-.637	.563
	Return t45	.349	.162	2.159	.034	2.644E-02	.672
	Return t46	.291	.166	1.756	.084	-3.970E-02	.622
	Return t47	-5.3E-02	.158	-.333	.740	-.369	.263

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =2]	Return t48	.339	.383	.883	.380	-.426	1.104
	Return t49	-7.1E-02	.427	-.165	.869	-.922	.781
	Return t50	1.62E-02	.091	.178	.859	-.165	.197
	Return t51	-6.2E-02	.138	-.450	.654	-.337	.213
	Return t52	-8.9E-03	.148	-.060	.952	-.304	.286
	Return t53	5.21E-02	1.004	.052	.959	-1.952	2.056
	Return t54	.156	.113	1.373	.174	-7.058E-02	.382
	Return t55	-.190	.130	-1.463	.148	-.448	6.907E-02
	Return t56	-2.2E-02	.143	-.153	.878	-.308	.264
	Return t57	2.56E-02	3.812	.007	.995	-7.584	7.635
	Return t58	6.30E-02	.164	.384	.702	-.264	.390
	Return t59	3.97E-02	.114	.348	.729	-.188	.267



### Parameter Estimates

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =3]	Return t1	.149	.149	.998	.322	-.149	.446
	Return t2	.230	.257	.896	.374	-.282	.742
	Return t3	6.51E-02	.110	.592	.556	-.154	.285
	Return t4	-.104	.080	-1.293	.200	-.264	5.651E-02
	Return t5	3.87E-02	.097	.399	.691	-.155	.232
	Return t6	-.145	.095	-1.528	.131	-.334	4.440E-02
	Return t7	2.08E-02	.119	.175	.861	-.216	.258
	Return t8	-.120	.134	-.899	.372	-.387	.147
	Return t9	.366	.164	2.225	.029	3.762E-02	.694
	Return t10	6.96E-17	.092	.000	1.000	-.184	.184
	Return t11	3.80E-02	.099	.384	.702	-.160	.236
	Return t12	-7.0E-02	.255	-.275	.784	-.578	.438
	Return t13	1.23E-02	.107	.115	.909	-.201	.226
	Return t14	6.41E-03	.229	.028	.978	-.450	.463
	Return t15	.486	.221	2.201	.031	4.522E-02	.927
	Return t16	-.127	.264	-.482	.631	-.654	.400
	Return t17	.120	.167	.720	.474	-.213	.454
	Return t18	-.479	.252	-1.902	.062	-.982	2.374E-02
	Return t19	-6.4E-02	.215	-.299	.766	-.494	.365
	Return t20	-2.4E-02	.116	-.207	.837	-.255	.207
	Return t21	-5.1E-02	.115	-.439	.662	-.281	.179
	Return t22	4.42E-02	.169	.262	.794	-.293	.381
	Return t23	4.58E-02	.085	.541	.590	-.123	.215
	Return t24	-4.086	1.917	-2.132	.037	-7.913	-.260
	Return t25	-5.7E-02	.109	-.524	.602	-.275	.161
	Return t26	-.156	.282	-.552	.582	-.719	.408
	Return t27	.112	.169	.662	.510	-.225	.449
	Return t28	-4.4E-02	.203	-.218	.828	-.449	.361
	Return t29	.387	.170	2.274	.026	4.725E-02	.726
	Return t30	.206	.147	1.406	.164	-8.653E-02	.499
	Return t31	.169	.141	1.192	.237	-.114	.451
	Return t32	-.120	.117	-1.025	.309	-.354	.114
	Return t33	1.77E-02	.119	.149	.882	-.220	.255
	Return t34	-2.1E-02	.154	-.140	.889	-.328	.285
	Return t35	.362	.448	.808	.422	-.532	1.255
	Return t36	-.125	.136	-.923	.359	-.397	.146
	Return t37	-7.1E-02	.128	-.554	.581	-.326	.184
	Return t38	-4.6E-02	.217	-.214	.832	-.480	.387
	Return t39	-8.4E-02	.183	-.459	.648	-.449	.281
	Return t40	8.58E-02	.180	.477	.635	-.273	.445
	Return t41	-4.553	1.720	-2.647	.010	-7.986	-1.120
	Return t42	-4.7E-02	1.018	-.046	.964	-2.079	1.985
	Return t43	-6.9E-02	2.454	-.028	.978	-4.967	4.829
	Return t44	2.97E-02	.301	.099	.922	-.570	.630
	Return t45	.300	.162	1.856	.068	-2.264E-02	.623
	Return t46	.121	.166	.728	.469	-.210	.451
	Return t47	-4.7E-02	.158	-.299	.766	-.363	.269

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =3]	Return t48	.272	.383	.709	.480	-.493	1.037
	Return t49	3.39E-02	.427	.079	.937	-.818	.886
	Return t50	5.63E-02	.091	.621	.537	-.125	.237
	Return t51	.221	.138	1.604	.113	-5.395E-02	.496
	Return t52	4.00E-02	.148	.271	.787	-.255	.335
	Return t53	-3.9E-02	1.004	-.038	.970	-2.043	1.966
	Return t54	7.14E-03	.113	.063	.950	-.219	.233
	Return t55	-6.5E-02	.130	-.499	.619	-.323	.194
	Return t56	.166	.143	1.157	.252	-.120	.452
	Return t57	-1.8E-03	3.812	.000	1.000	-7.611	7.608
	Return t58	-.149	.164	-.908	.367	-.476	.178
	Return t59	1.19E-02	.114	.104	.917	-.216	.240



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =4]	Return t1	8.84E-02	.108	.817	.417	-.128	.305
	Return t2	.117	.186	.630	.531	-.255	.489
	Return t3	4.44E-02	.080	.556	.580	-.115	.204
	Return t4	-4.4E-02	.058	-.761	.449	-.161	7.205E-02
	Return t5	-6.7E-03	.070	-.096	.924	-.147	.134
	Return t6	-9.8E-02	.069	-1.427	.158	-.236	3.916E-02
	Return t7	.160	.086	1.855	.068	-1.217E-02	.332
	Return t8	-3.3E-02	.097	-.344	.732	-.227	.160
	Return t9	.347	.119	2.905	.005	.108	.585
	Return t10	3.25E-02	.067	.486	.629	-.101	.166
	Return t11	5.76E-02	.072	.801	.426	-8.587E-02	.201
	Return t12	7.85E-03	.185	.042	.966	-.361	.377
	Return t13	7.81E-02	.078	1.006	.318	-7.686E-02	.233
	Return t14	-3.0E-02	.166	-.179	.859	-.361	.302
	Return t15	.250	.160	1.561	.123	-6.972E-02	.570
	Return t16	2.82E-02	.192	.147	.883	-.354	.411
	Return t17	9.17E-02	.121	.756	.453	-.151	.334
	Return t18	-3.0E-02	.183	-.162	.872	-.395	.335
	Return t19	2.09E-03	.156	.013	.989	-.310	.314
	Return t20	4.69E-02	.084	.558	.578	-.121	.215
	Return t21	-5.9E-03	.084	-.070	.944	-.173	.161
	Return t22	1.37E-02	.123	.112	.911	-.231	.258
	Return t23	1.57E-02	.061	.255	.799	-.107	.138
	Return t24	-3.787	1.392	-2.721	.008	-6.565	-1.009
	Return t25	-6.1E-03	.079	-.077	.939	-.164	.152
	Return t26	3.83E-04	.205	.002	.999	-.409	.409
	Return t27	.198	.123	1.611	.112	-4.719E-02	.442
	Return t28	-8.6E-03	.147	-.058	.954	-.302	.285
	Return t29	.387	.123	3.137	.003	.141	.634
	Return t30	-1.5E-02	.107	-.140	.889	-.228	.198
	Return t31	2.77E-02	.103	.270	.788	-.177	.232
	Return t32	-2.1E-02	.085	-.243	.809	-.191	.149
	Return t33	3.02E-02	.086	.350	.727	-.142	.203
	Return t34	4.97E-02	.111	.446	.657	-.173	.272
	Return t35	.161	.325	.496	.622	-.488	.810
	Return t36	-.104	.099	-1.057	.294	-.301	9.270E-02
	Return t37	1.55E-02	.093	.167	.868	-.170	.201
	Return t38	4.36E-02	.158	.276	.783	-.271	.359
	Return t39	5.04E-03	.133	.038	.970	-.260	.270
	Return t40	.122	.131	.936	.352	-.138	.383
	Return t41	-4.259	1.248	-3.411	.001	-6.751	-1.767
	Return t42	.175	.739	.237	.813	-1.300	1.650
	Return t43	.477	1.781	.268	.790	-3.079	4.033
	Return t44	6.04E-02	.218	.277	.783	-.375	.496
	Return t45	-9.6E-03	.117	-.082	.935	-.244	.225
	Return t46	.201	.120	1.672	.099	-3.900E-02	.441
	Return t47	-2.9E-02	.115	-.252	.802	-.258	.200

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =4]	Return t48	.411	.278	1.476	.145	-.145	.966
	Return t49	4.80E-03	.310	.015	.988	-.613	.623
	Return t50	-2.9E-03	.066	-.044	.965	-.134	.129
	Return t51	3.68E-02	.100	.368	.714	-.163	.236
	Return t52	4.40E-02	.107	.410	.683	-.170	.258
	Return t53	.153	.729	.210	.834	-1.302	1.608
	Return t54	6.76E-02	.082	.822	.414	-9.655E-02	.232
	Return t55	-.115	.094	-1.227	.224	-.303	7.237E-02
	Return t56	2.12E-02	.104	.204	.839	-.187	.229
	Return t57	.656	2.768	.237	.813	-4.868	6.180
	Return t58	-3.5E-02	.119	-.294	.770	-.272	.203
	Return t59	6.83E-02	.083	.825	.412	-9.703E-02	.234



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI=5]	Return t1	2.46E-02	.136	.181	.857	-.247	.296
	Return t2	7.92E-02	.234	.338	.736	-.389	.547
	Return t3	4.82E-02	.100	.480	.633	-.152	.249
	Return t4	1.82E-02	.073	.248	.805	-.128	.165
	Return t5	-6.4E-02	.089	-.726	.470	-.241	.112
	Return t6	-.119	.087	-1.372	.175	-.291	5.401E-02
	Return t7	.145	.108	1.335	.186	-7.157E-02	.361
	Return t8	-5.2E-02	.122	-.425	.672	-.296	.192
	Return t9	.407	.150	2.711	.009	.107	.707
	Return t10	-6.3E-02	.084	-.747	.458	-.231	.105
	Return t11	.320	.090	3.545	.001	.140	.501
	Return t12	-9.5E-02	.232	-.408	.685	-.558	.369
	Return t13	.140	.098	1.432	.157	-5.501E-02	.335
	Return t14	9.73E-02	.209	.466	.643	-.320	.514
	Return t15	.349	.202	1.733	.088	-5.300E-02	.752
	Return t16	2.38E-02	.241	.099	.922	-.457	.505
	Return t17	3.19E-02	.153	.209	.835	-.273	.337
	Return t18	8.85E-02	.230	.385	.702	-.371	.548
	Return t19	.554	.196	2.821	.006	.162	.946
	Return t20	1.21E-02	.106	.114	.909	-.199	.223
	Return t21	5.03E-03	.105	.048	.962	-.205	.215
	Return t22	-6.1E-02	.154	-.395	.694	-.368	.247
	Return t23	-2.3E-02	.077	-.294	.770	-.177	.131
	Return t24	-4.169	1.750	-2.382	.020	-.7.662	-.675
	Return t25	.167	.100	1.678	.098	-3.164E-02	.366
	Return t26	-.188	.258	-.730	.468	-.702	.326
	Return t27	.174	.154	1.131	.262	-.133	.482
	Return t28	-.133	.185	-.721	.473	-.503	.236
	Return t29	.430	.155	2.772	.007	.121	.740
	Return t30	-5.9E-02	.134	-.443	.659	-.327	.208
	Return t31	-2.4E-02	.129	-.185	.854	-.281	.234
	Return t32	2.47E-02	.107	.231	.818	-.189	.238
	Return t33	2.55E-02	.109	.235	.815	-.191	.242
	Return t34	5.83E-02	.140	.416	.679	-.221	.338
	Return t35	.225	.409	.552	.583	-.590	1.041
	Return t36	-.152	.124	-1.226	.224	-.400	9.551E-02
	Return t37	8.12E-03	.117	.070	.945	-.225	.241
	Return t38	2.74E-02	.198	.138	.891	-.369	.423
	Return t39	7.59E-02	.167	.455	.651	-.257	.409
	Return t40	.162	.164	.985	.328	-.166	.489
	Return t41	-4.465	1.570	-2.844	.006	-7.598	-1.331
	Return t42	9.04E-02	.929	.097	.923	-1.764	1.945
	Return t43	5.316	2.240	2.373	.021	.845	9.787
	Return t44	-.236	.274	-.859	.393	-.784	.312
	Return t45	-9.5E-02	.148	-.644	.522	-.390	.200
	Return t46	.274	.151	1.811	.075	-2.803E-02	.576
	Return t47	-6.2E-03	.145	-.043	.966	-.295	.282

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =5]	Retum t48	.586	.350	1.675	.099	-.112	1.284
	Retum t49	-7.8E-02	.390	-.200	.842	-.855	.700
	Retum t50	-9.5E-02	.083	-1.148	.255	-.260	7.016E-02
	Retum t51	3.07E-02	.126	.244	.808	-.220	.282
	Retum t52	-2.6E-02	.135	-.190	.850	-.295	.244
	Retum t53	.171	.917	.187	.852	-1.658	2.001
	Retum t54	-7.5E-02	.103	-.721	.473	-.281	.132
	Retum t55	-8.3E-02	.118	-.699	.487	-.319	.153
	Retum t56	-7.5E-02	.131	-.573	.569	-.336	.186
	Retum t57	-.145	3.480	-.042	.967	-7.091	6.802
	Retum t58	6.93E-03	.150	.046	.963	-.292	.306
	Retum t59	9.50E-02	.104	.912	.365	-.113	.303



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =6]	Return t1	6.56E-02	.129	.508	.613	-.192	.323
	Return t2	-6.8E-03	.222	-.031	.976	-.451	.437
	Return t3	6.84E-02	.095	.718	.476	-.122	.258
	Return t4	-6.8E-02	.070	-.974	.333	-.207	7.113E-02
	Return t5	-1.1E-02	.084	-.130	.897	-.179	.157
	Return t6	-.122	.082	-1.488	.141	-.286	4.173E-02
	Return t7	.244	.103	2.378	.020	3.925E-02	.449
	Return t8	-.126	.116	-1.087	.281	-.357	.105
	Return t9	.348	.142	2.446	.017	6.402E-02	.632
	Return t10	4.88E-02	.080	.611	.543	-.110	.208
	Return t11	.109	.086	1.268	.209	-6.246E-02	.280
	Return t12	4.20E-02	.220	.190	.850	-.398	.482
	Return t13	.125	.093	1.346	.183	-6.019E-02	.309
	Return t14	7.97E-02	.198	.402	.689	-.316	.475
	Return t15	.231	.191	1.208	.231	-.151	.613
	Return t16	.102	.229	.446	.657	-.354	.558
	Return t17	.107	.145	.741	.461	-.182	.396
	Return t18	.229	.218	1.050	.297	-.206	.665
	Return t19	4.78E-02	.186	.256	.799	-.324	.420
	Return t20	3.15E-02	.100	.314	.754	-.169	.232
	Return t21	7.71E-02	.100	.773	.442	-.122	.276
	Return t22	-9.2E-03	.146	-.063	.950	-.301	.283
	Return t23	.110	.073	1.499	.139	-3.640E-02	.256
	Return t24	-4.236	1.660	-2.551	.013	-7.550	-.922
	Return t25	-4.2E-02	.094	-.441	.660	-.230	.147
	Return t26	5.89E-03	.244	.024	.981	-.482	.494
	Return t27	.394	.146	2.695	.009	.102	.686
	Return t28	2.97E-02	.176	.169	.866	-.321	.380
	Return t29	.333	.147	2.259	.027	3.872E-02	.627
	Return t30	-4.9E-02	.127	-.382	.704	-.302	.205
	Return t31	-1.1E-02	.122	-.090	.928	-.255	.233
	Return t32	-3.2E-02	.102	-.317	.752	-.235	.171
	Return t33	-2.4E-02	.103	-.238	.813	-.230	.181
	Return t34	5.29E-02	.133	.398	.692	-.212	.318
	Return t35	.208	.388	.537	.593	-.566	.982
	Return t36	-.198	.118	-1.685	.097	-.433	3.662E-02
	Return t37	1.27E-02	.111	.115	.909	-.208	.234
	Return t38	.218	.188	1.157	.251	-.158	.594
	Return t39	.123	.158	.776	.440	-.193	.439
	Return t40	7.18E-02	.156	.461	.646	-.239	.383
	Return t41	-4.657	1.489	-3.127	.003	-7.630	-1.684
	Return t42	.143	.882	.162	.872	-1.617	1.902
	Return t43	.105	2.125	.049	.961	-4.137	4.346
	Return t44	.284	.260	1.091	.279	-.236	.804
	Return t45	-.117	.140	-.833	.408	-.396	.163
	Return t46	.123	.144	.859	.393	-.163	.410
	Return t47	4.17E-02	.137	.304	.762	-.232	.315

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =6]	Return t48	.393	.332	1.183	.241	-.270	1.055
	Return t49	9.20E-02	.370	.249	.804	-.646	.830
	Return t50	7.19E-02	.079	.916	.363	-8.481E-02	.229
	Return t51	.113	.119	.944	.349	-.125	.351
	Return t52	1.20E-02	.128	.093	.926	-.244	.267
	Return t53	-2.8E-02	.870	-.032	.974	-1.764	1.708
	Return t54	.101	.098	1.033	.305	-9.442E-02	.297
	Return t55	-.210	.112	-1.873	.065	-.434	1.383E-02
	Return t56	-8.3E-02	.124	-.671	.505	-.331	.165
	Return t57	5.935	3.302	1.798	.077	-.655	12.525
	Return t58	-.139	.142	-.977	.332	-.422	.145
	Return t59	.104	.099	1.051	.297	-9.337E-02	.301



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =7]	Return t1	8.79E-02	.110	.799	.427	-.132	.307
	Return t2	.118	.189	.623	.535	-.260	.496
	Return t3	2.85E-02	.081	.352	.726	-.133	.190
	Return t4	-4.7E-02	.059	-.788	.433	-.165	7.158E-02
	Return t5	6.57E-03	.071	.092	.927	-.136	.149
	Return t6	-5.2E-02	.070	-.745	.459	-.192	8.744E-02
	Return t7	.170	.087	1.946	.056	-4.355E-03	.345
	Return t8	1.03E-02	.099	.105	.917	-.186	.207
	Return t9	.340	.121	2.809	.007	9.849E-02	.582
	Return t10	4.97E-02	.068	.732	.467	-8.583E-02	.185
	Return t11	2.52E-02	.073	.345	.731	-.121	.171
	Return t12	6.61E-02	.188	.352	.726	-.308	.441
	Return t13	5.95E-02	.079	.754	.453	-9.788E-02	.217
	Return t14	-8.1E-02	.169	-.480	.633	-.418	.256
	Return t15	.178	.163	1.091	.279	-.147	.503
	Return t16	2.24E-02	.195	.115	.909	-.366	.411
	Return t17	.108	.123	.876	.384	-.138	.354
	Return t18	-6.0E-02	.186	-.322	.749	-.431	.311
	Return t19	-6.5E-02	.159	-.408	.684	-.381	.252
	Return t20	4.76E-02	.085	.558	.579	-.123	.218
	Return t21	-1.3E-02	.085	-.153	.879	-.183	.157
	Return t22	3.06E-02	.124	.246	.806	-.218	.279
	Return t23	4.94E-04	.062	.008	.994	-.124	.125
	Return t24	-3.538	1.413	-2.503	.015	-6.359	-.717
	Return t25	-2.5E-02	.080	-.315	.753	-.186	.135
	Return t26	4.94E-02	.208	.237	.813	-.366	.465
	Return t27	.167	.125	1.344	.184	-8.121E-02	.416
	Return t28	1.52E-02	.150	.101	.920	-.283	.314
	Return t29	.380	.125	3.034	.003	.130	.631
	Return t30	6.48E-04	.108	.006	.995	-.215	.217
	Return t31	1.92E-02	.104	.184	.855	-.189	.227
	Return t32	-9.4E-03	.087	-.109	.913	-.182	.163
	Return t33	4.72E-02	.088	.539	.592	-.128	.222
	Return t34	5.70E-02	.113	.503	.616	-.169	.283
	Return t35	.142	.330	.430	.668	-.517	.801
	Return t36	-5.5E-02	.100	-.552	.583	-.255	.145
	Return t37	2.61E-02	.094	.278	.782	-.162	.214
	Return t38	4.36E-02	.160	.272	.787	-.276	.363
	Return t39	-4.5E-02	.135	-.332	.741	-.314	.224
	Return t40	.105	.133	.793	.430	-.159	.370
	Return t41	-4.083	1.268	-3.220	.002	-6.613	-1.552
	Return t42	.269	.750	.359	.721	-1.229	1.767
	Return t43	3.19E-02	1.809	.018	.986	-3.579	3.643
	Return t44	5.57E-02	.222	.251	.802	-.387	.498
	Return t45	-2.3E-02	.119	-.196	.845	-.261	.215
	Return t46	.197	.122	1.614	.111	-4.661E-02	.441
	Return t47	-4.3E-02	.117	-.364	.717	-.275	.190

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =7]	Return t48	.411	.283	1.456	.150	-.152	.975
	Return t49	1.82E-02	.315	.058	.954	-.610	.646
	Return t50	-4.6E-03	.067	-.069	.945	-.138	.129
	Return t51	3.64E-02	.101	.358	.721	-.166	.239
	Return t52	7.05E-02	.109	.647	.520	-.147	.288
	Return t53	.225	.740	.304	.762	-1.252	1.703
	Return t54	7.77E-02	.084	.930	.356	-8.901E-02	.244
	Return t55	-8.7E-02	.096	-.906	.368	-.277	.104
	Return t56	4.28E-02	.106	.405	.687	-.168	.254
	Return t57	5.19E-02	2.810	.018	.985	-5.558	5.662
	Return t58	-5.9E-02	.121	-.489	.627	-.300	.182
	Return t59	3.57E-02	.084	.424	.673	-.132	.204



**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =8]	Return t1	4.76E-02	.117	.018	.850	-.381	.163
	Return t2	-1.3E-02	.283	.251	.183	-.123	.222
	Return t3	3.06E-02	.315	-.196	.689	-.183	.283
	Return t4	4.94E-04	.067	1.614	.231	-.218	.801
	Return t5	-3.538	.101	-.364	.657	-.124	.145
	Return t6	-2.5E-02	.109	1.456	.461	-6.359	.214
	Return t7	4.94E-02	.740	.058	.297	-.186	.363
	Return t8	.167	.113	-.069	.799	-.366	.224
	Return t9	1.52E-02	.330	.358	.754	-8.121E-02	.370
	Return t10	.380	.100	.647	.442	-.283	-1.552
	Return t11	6.48E-04	.094	.304	.950	.130	1.767
	Return t12	1.92E-02	.160	.776	.139	-.215	3.643
	Return t13	-9.4E-03	.135	.461	.013	-.189	.498
	Return t14	4.72E-02	.133	-3.127	.660	-.182	.215
	Return t15	5.70E-02	1.268	.162	.981	-.128	.441
	Return t16	.142	.750	.049	.009	-.169	.190
	Return t17	-5.5E-02	1.809	1.091	.866	-.517	.975
	Return t18	2.61E-02	.222	-.833	.027	-.255	.646
	Return t19	4.36E-02	.119	.859	.704	-.162	.129
	Return t20	-4.5E-02	.122	.304	.928	-.276	.239
	Return t21	.105	.117	1.183	.752	-.314	.288
	Return t22	-4.083	.283	.249	.813	-.159	1.703
	Return t23	.269	.315	.916	.692	-6.613	.244
	Return t24	3.19E-02	.067	.944	.593	-1.229	.104
	Return t25	5.57E-02	.101	.093	.097	-3.579	.254
	Return t26	-2.3E-02	.109	-.032	.909	-.387	5.662
	Return t27	.197	.740	1.033	.251	-.261	.182
	Return t28	-4.3E-02	.084	-1.873	.440	-4.661E-02	.204
	Return t29	.411	.096	-.671	.646	7.971E-02	.961
	Return t30	1.82E-02	.115	1.798	.003	-.582	.471
	Return t31	-4.382	.169	.181	.872	-.228	.439
	Return t32	-7.7E-02	.085	.338	.242	-.539	.467
	Return t33	4.94E-02	1.917	.480	.747	-.488	.371
	Return t34	.244	.109	.248	.088	-1.997E-02	.442
	Return t35	-.152	.282	-.726	.188	-.260	.200
	Return t36	.414	.169	-1.372	.530	-.377	.296
	Return t37	-.133	.203	1.335	.016	-.120	.217
	Return t38	.304	.170	-.425	.530	-8.209	-.555
	Return t39	1.25E-02	.147	2.711	.204	-.295	.141
	Return t40	-3.0E-02	.141	-.747	.051	-.514	.613
	Return t41	-8.6E-03	.117	3.545	.729	-9.348E-02	.581
	Return t42	.145	.119	-.408	.768	-.557	.253
	Return t43	-.144	.154	1.432	.481	7.479E-02	.754
	Return t44	1.79E-03	.448	.466	.479	-.426	.160
	Return t45	-2.4E-02	.136	1.733	.772	2.181E-02	.586
	Return t46	-2.6E-02	.128	.552	.017	-.222	.247
	Return t47	5.16E-02	.217	-1.226	.218	-.267	.207

**Parameter Estimates**

Parameter	Dependent Variable	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[INDUSTRI =8]	Return t48	-4.387	.183	.552	.637	-.315	.298
	Return t49	-.132	.180	-1.226	.911	-.748	1.039
	Return t50	1.83E-02	1.720	.070	.967	-.415	.127
	Return t51	-3.7E-02	1.018	.138	.742	-.253	.257
	Return t52	.349	2.454	.455	.884	-.458	.409
	Return t53	.291	.301	.985	.974	-.391	.339
	Return t54	-5.3E-02	.162	-2.844	.974	-.307	.411
	Return t55	.339	.166	.097	.039	-7.819	-.954
	Return t56	-7.1E-02	.158	2.373	.186	-2.164	1.899
	Return t57	1.62E-02	.383	-.859	.593	-4.880	4.916
	Return t58	-6.2E-02	.427	-.644	.035	-.637	.563
	Return t59	-8.9E-03	.091	1.811	.715	2.644E-02	.672



## Regression of Macroeconomic Factors

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, a		Enter

a. All requested variables entered.

b. Dependent Variable: Agriculture

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.288 <sup>a</sup>	.083	.015	.178263

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.	
					Regression	Residual
1	.156	4	3.889E-02	1.224		.312 <sup>a</sup>
	1.716	54	3.178E-02			
	1.872	58				

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

b. Dependent Variable: Agriculture

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	.0169	.177	.096	.924		
	CSPI	.0251	.000	.157	1.058	.295	.771 1.298
	GDP	-.0073	.000	-.257	-1.138	.260	.333 3.001
	SBI	.0102	.003	.090	.382	.704	.308 3.247
	CCPI	-.0075	.000	-.036	-.253	.802	.852 1.174

a. Dependent Variable: Agriculture

### Collinearity Diagnostics<sup>b</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

a. Dependent Variable: Agriculture

## Regression

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, SBI		Enter

- a. All requested variables entered.  
 b. Dependent Variable: Animal Husbandry

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319 <sup>a</sup>	.102	.035	.116203

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.283E-02	4	2.071E-02	1.533	.206 <sup>a</sup>
	Residual	.729	54	1.350E-02		
	Total	.812	58			

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI  
 b. Dependent Variable: Animal Husbandry

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	-.0379	.115		-.328	.744		
	CSPI	.2355	.000	.223	2.521	.013	.771	1.298
	GDP	-.0031	.000	-.167	-.749	.457	.333	3.001
	SBI	-.0035	.002	-.047	-.203	.840	.308	3.247
	CCPI	-.0005	.000	.000	-.003	.998	.852	1.174

- a. Dependent Variable: Animal Husbandry

### Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

- a. Dependent Variable: Animal Husbandry

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, SBI	.	Enter

a. All requested variables entered.

b. Dependent Variable: Mining

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.118 <sup>a</sup>	.014	-.059	.136607

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

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

Model		Sum of Squares	df	Mean Square	F	Sig.
		Regression	4	3.538E-03	.190	.943 <sup>a</sup>
	Residual	1.008	54	1.866E-02		
	Total	1.022	58			

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

b. Dependent Variable: Mining

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

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	-.0187	.136	-.138	.891		
	CSPI	.0070	.000	.059	.384	.703	.771 1.298
	GDP	.0013	.000	.063	.271	.788	.333 3.001
	SBI	-.0140	.002	-.166	-.682	.498	.308 3.247
	CCPI	.0002	.000	.015	.105	.917	.852 1.174

a. Dependent Variable: Mining

**Collinearity Diagnostics<sup>b</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	ICSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

a. Dependent Variable: Mining

## Regression

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, SBI	.	Enter

a. All requested variables entered.

b. Dependent Variable: Manufacture

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229 <sup>a</sup>	.052	-.018	.132651

a. Predictors: (Constant), CPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.243E-02	4	1.311E-02	.745	.566 <sup>a</sup>
	Residual	.950	54	1.760E-02		
	Total	1.003	58			

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

b. Dependent Variable: Manufacture

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	-.0381	.132		-.290	.773		
	IHSG	.0054	.000	.046	.304	.762	.771	1.298
	PDB	-.0008	.000	-.039	-.172	.864	.333	3.001
	SBI	-.0149	.002	-.179	-.749	.457	.308	3.247
	CPI	.2488	.000	.162	2.131	.026	.852	1.174

a. Dependent Variable: Manufacture

### Collinearity Diagnostics<sup>b</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

a. Dependent Variable: Manufacture

## Regression

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	CCPI, PDB, CSPI, SBI	.	Enter

- a. All requested variables entered.  
 b. Dependent Variable: Wholesale and Retail Trade

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.128 <sup>a</sup>	.016	-.057	.796199

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.569	4	.142	.224	.924 <sup>a</sup>
	Residual	34.232	54	.634		
	Total	34.802	58			

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI  
 b. Dependent Variable: Wholesale and Retail Trade

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	-.0316	.790	-.040	.968		
	CSPI	.0007	.001	.619	.539	.771	1.298
	GDP	.0012	.000	.403	.688	.333	3.001
	SBI	-.0088	.012	-.178	.733	.467	.308
	CCPI	-.0042	.000	-.005	-.032	.975	.852

- a. Dependent Variable: Wholesale and Retail Trade

### Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

- a. Dependent Variable: Wholesale and Retail Trade

## Regression

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, SBI		Enter

- a. All requested variables entered.  
 b. Dependent Variable: Transportation&Communication

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.080 <sup>a</sup>	.006	-.067	.724147

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.182	4	4.560E-02	.087	.986 <sup>a</sup>
	Residual	28.317	54	.524		
	Total	28.499	58			

- a. Predictors: (Constant), CCPI, GDP, CSPI, SBI  
 b. Dependent Variable: Transportation&Communication

### Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	.1882	.719	.262	.794		
	CSPI	.0096	.001	.015	.099	.921	.771
	GDP	-.0058	.000	-.052	-.221	.826	.333
	SBI	-.0014	.011	-.030	-.124	.901	.308
	CCPI	-.0018	.000	-.002	-.015	.988	.852
							1.174

- a. Dependent Variable: Transportation&Communication

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

- a. Dependent Variable: Transportation&Communication

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CCPI, GDP, CSPI, SBI	.	Enter

a. All requested variables entered.

b. Dependent Variable: Banking

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298 <sup>a</sup>	.089	.022	.123189

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.011E-02	4	2.003E-02	1.320	.274 <sup>a</sup>
	Residual	.819	54	1.518E-02		
	Total	.900	58			

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

b. Dependent Variable: Banking

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

Model		Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	-.0697	.122		-.570	.571		
	CSPI	-.0010	.000	-.091	-.616	.540	.771	1.298
	GDP	-.0020	.000	-.103	-.460	.648	.333	3.001
	SBI	-.0053	.002	-.068	-.289	.774	.308	3.247
	CCPI	.0409	.000	.282	2.003	.045	.852	1.174

a. Dependent Variable: Banking

### Collinearity Diagnostics<sup>a</sup>

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	CSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

a. Dependent Variable: Banking

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CCPI, PDB, CSPI, SBI		Enter

a. All requested variables entered.

b. Dependent Variable: Hotel and Travel Services

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.259 <sup>a</sup>	.067	-.002	.820045

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

### ANOVA<sup>b</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.608	4	.652	.970	.432 <sup>a</sup>
	Residual	36.314	54	.672		
	Total	38.922	58			

a. Predictors: (Constant), CCPI, GDP, CSPI, SBI

b. Dependent Variable: Hotel and Travel Services

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

Model	Unstandardized Coefficients			t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.0063	.814		.008	.994	
	CSPI	-.0011	.001	-.150	-1.004	.320	.771
	GDP	-.0032	.000	-.248	-1.091	.280	.333
	SBI	.0625	.012	.120	.507	.614	.308
	CCPI	.0172	.000	.180	1.265	.211	.852
							1.174

a. Dependent Variable: Hotel and Travel Services

**Collinearity Diagnostics<sup>b</sup>**

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	ICSPI	GDP	SBI	CCPI
1	1	4.604	1.000	.00	.00	.00	.00	.00
	2	.267	4.154	.01	.04	.06	.12	.01
	3	7.987E-02	7.592	.02	.17	.27	.35	.01
	4	3.880E-02	10.894	.00	.48	.30	.17	.30
	5	1.044E-02	21.004	.97	.31	.36	.36	.68

a. Dependent Variable: Hotel and Travel Services

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> , CSPI, SBI	-	Enter

- a. All requested variables entered.
- b. Dependent Variable: Agriculture

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224 <sup>a</sup>	.050	.035	.397628

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.450	4	.113	.712	.588 <sup>a</sup>
	Residual	8.538	54	.158		
	Total	8.988	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Agriculture

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

Model		Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	.0818	.395		.207	.836		
	CSPI	.0036	.001	.102	.677	.501	.771	1.298
	GDP	-.0011	.000	-.183	-.798	.428	.333	3.001
	SBI	.0018	.006	.007	.030	.976	.308	3.247
	CPI	-.0012	.000	-.026	-.182	.856	.852	1.174

- a. Dependent Variable: Agriculture

Correlations

		Correlations								
Pearson Correlation		Pertanian	Peternakan	Pertambangan	Manufaktur	Transportasi& Komunikasi	Grosir& Eceran	Keuangan	Perhotelan	
		1	.475**	.180	.627**	.285*	.226	-.019	-.049	
Pertanian	Perternakan	.475**	1	.627**	.303*	.074	.041	.227	.159	
Pertanian	Pertambangan	.180	.627**	1	.153	-.043	.007	.122	-.001	
Pertambangan	Manufaktur	.285*	.303*	.153	1	.490***	.704***	.509***	.296*	
Manufaktur	Transportasi& Komunikasi	.226	.074	-.043	.490***	1	-.030	.025	.000	
Transportasi& Komunikasi	Grosir&Eceran	.019	.041	.007	.704***	.030	1	.043	.028	
Grosir&Eceran	Keuangan	.155	.227	.122	.509***	.025	.043	1	.708***	
Keuangan	Perhotelan	-.049	.159	-.001	.296*	.000	-.028	.708***	1	
Sig. (2-tailed)										
Pertanian	Perternakan	.000	.171	.029	.085	.887	.241	.710		
Pertanian	Pertambangan	.000	.000	.020	.579	.760	.083	.229		
Pertanian	Manufaktur	.029	.020	.247	.745	.956	.359	.995		
Pertanian	Transportasi& Komunikasi	.085	.579	.745	.000	.000	.000	.023		
Pertanian	Grosir&Eceran	.887	.760	.956	.000	.819	.854	.998		
Pertanian	Keuangan	.241	.083	.359	.000	.854	.745	.836		
Pertanian	Perhotelan	.710	.229	.995	.023	.998	.836	.000		
N										
Pertanian	Perternakan	59	59	59	59	59	59	59	59	
Pertanian	Pertambangan	59	59	59	59	59	59	59	59	
Pertanian	Manufaktur	59	59	59	59	59	59	59	59	
Pertanian	Transportasi& Komunikasi	59	59	59	59	59	59	59	59	
Pertanian	Grosir&Eceran	59	59	59	59	59	59	59	59	
Pertanian	Keuangan	59	59	59	59	59	59	59	59	
Pertanian	Perhotelan	59	59	59	59	59	59	59	59	

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Animal Feed and Husbandry

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.237 <sup>a</sup>	.056	.015	.264612

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.225	4	5.624E-02	.803	.528 <sup>a</sup>
	Residual	3.781	54	7.002E-02		
	Total	4.006	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Animal Feed and Husbandry

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

Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta					Tolerance	VIF
1	(Constant)	-.0109	.263			-.041	.967		
	CSPI	.0006	.000		.027	.177	.860	.771	1.298
	PDB	-.0084	.000		-.203	-.884	.380	.333	3.001
	SBI	-.0005	.004		-.031	-.130	.897	.308	3.247
	CPI	.0025	.000		.083	.580	.564	.852	1.174

- a. Dependent Variable: Animal Feed and Husbandry

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Mining

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.193 <sup>a</sup>	.037	-.049	.252119

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression .132	4	3.307E-02	.520	.721 <sup>a</sup>
	Residual 3.432	54	6.356E-02		
	Total 3.565	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Mining

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

Model	Unstandardized Coefficients			t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant) -.218	.250		-.870	.388		
	CSPI .0020	.000	.090	.592	.556	.771	1.298
	PDB .0011	.000	.028	.120	.905	.333	3.001
	SBI -.0028	.004	-.175	-.728	.470	.308	3.247
	CPI .0045	.000	.157	1.082	.284	.852	1.174

- a. Dependent Variable: Mining

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Manufacture

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.230 <sup>a</sup>	.053	.018	4.458857

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.040	4	15.010	.755
	Residual	1073.596	54	19.881	.559 <sup>a</sup>
	Total	1133.636	58		

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Manufacture

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

Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta					Tolerance	VIF
1	(Constant)	1.090	4.424			.246	.806		
	CSPI	.0277	.006	.070	2.467	.042	.771	.1298	
	PDB	.0071	.000	.101	.439	.662	.333	.3001	
	SBI	-.0885	.067	-.315	-1.320	.192	.308	.3247	
	CPI	.0167	.000	.032	2.226	.049	.852	.1174	

- a. Dependent Variable: Manufacture

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB, <sup>a</sup> CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Transportation&Communication

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.079 <sup>a</sup>	.006	.063	2.165301

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression 1.582	4	.395	.084	.987 <sup>a</sup>
	Residual 253.181	54	4.689		
	Total 254.762	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Transportation&Communication

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

Model	Unstandardized Coefficients			Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta					Tolerance	VIF
1	(Constant) .683	2.149		.008	.053	.318	.752	.771	1.298
	CSPI .0002	.003		.008	.958	.053	.958	.333	3.001
	PDB -.0014	.000		-.044	.853	-.186	.853	.308	3.247
	SBI -.0049	.033		-.037	.881	-.151	.881	.852	1.174
	CPI -.0026	.000		-.011	.943	-.072	.943		

- a. Dependent Variable: Transportation&Communication

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Wholesale and Retail Trade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.122 <sup>a</sup>	.015	-.058	3.188925

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8.330	4	2.082	.205	.935 <sup>a</sup>
Residual	549.139	54	10.169		
Total	557.469	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Wholesale and Retail Trade

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

Model	Unstandardized Coefficients			t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.513	3.164		.162	.872		
CSPI	.1553	.004	.056	3.365	.007	.771	1.298
PDB	.0043	.000	.087	.372	.712	.333	3.001
SBI	-.0340	.048	-.172	-.709	.482	.308	3.247
CPI	-.0063	.000	-.017	-.119	.906	.852	1.174

- a. Dependent Variable: Wholesale and Retail Trade

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sup>a</sup> , CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Banking

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.233 <sup>a</sup>	.054	.024	1.960679

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.915	4	2.979	.775	.546 <sup>a</sup>
	Residual	207.590	54	3.844		
	Total	219.505	58			

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Banking

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

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	.171	1.946		.088	.930	
	CSPI	.0002	.003	.014	.094	.925	.771 1.298
	PDB	.0569	.000	.185	2.081	.042	.333 3.001
	SBI	-.0449	.029	-.363	-1.522	.134	.308 3.247
	CPI	.0019	.000	.082	.570	.571	.852 1.174

- a. Dependent Variable: Banking

## Regression

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

Model	Variables Entered	Variables Removed	Method
1	CPI, PDB <sub>a</sub> , CSPI, SBI		Enter

- a. All requested variables entered.
- b. Dependent Variable: Hotel

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.131 <sup>a</sup>	.017	.042	1.249774

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI

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

Model	Sum of Squares	df	Mean Square	F	Sig.	
					Regression	Residual
1	1.478	4	.370	.237		.916 <sup>a</sup>
	84.344	54	1.562			
	85.823	58				

- a. Predictors: (Constant), CPI, PDB, CSPI, SBI
- b. Dependent Variable: Hotel

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

Model	Unstandardized Coefficients		Beta	t	Sig.	Collinearity Statistics	
	B	Std. Error				Tolerance	VIF
1	(Constant)	.7007	1.240		.565	.574	
	CSPI	-.0004	.002		-.024	.981	.771
	PDB	.1976	.000		3.044	.010	.333
	SBI	-.0076	.019		-.402	.689	.308
	CPI	-.0097	.000		-.470	.640	.852
							1.174

- a. Dependent Variable: Hotel