

## Systematical Risks Toward Banking And Manufacturing Company; Validation Test of Capital Asset Pricing Model In Indonesia

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**Abstract :** The existence of the capital market is expected to be an alternative fundraising in addition to the banking system, it also bears investors to have some investment options in accordance with risk preferences. Stock market conditions are always changing, causing uncertainty for investors to gain profits, so almost all investments have risks. The risk caused by aggregate market movements, where stocks move depends on market movements, known as Beta ( $\beta$ ). In the Capital Asset Pricing Model (CAPM) beta is defined as a measure of the volatility return of securities to market return. Therefore, before taking an investment, the investors should always pay attention and remember what factors that could affect the amount of risk that it bears. One factor that carefully must be paid attention by the investor is deposit rate. This research proposed to analyze the risk difference between banking companies and manufacturing companies: validation test of CAPM in Indonesia period 2003 - 2006. The result courage to indicate the influence of excess return of market to excess return individual in the operational company and manufacturing company, interest on deposits, both the 3-months and 6-months Depsito rates have no effect on the individual's excess return, either on bank or manufacturing company. The second result is no difference between market beta excess return, 3-month or 6-month deposit rate, both in railway and manufacturing companies. In addition, the results of this study also mention Asset Capital pricing models on manufacturing companies is more valid rather than the banking.

**Keywords:** CAPM, JSX, Market Excess Return, 3 Months Deposit Rate, 6 Months Deposit Rate.

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### I. Introduction

Capital markets have an important role in supporting the economy. The existence of capital markets in a country is expected to be an alternative investment in addition to the banking system. Throughout the capital markets, investors have investment options in accordance with investor risk preferences (Husnan, 2001: 4). The place where the sale and purchase of securities are called the stock exchange. Therefore, the stock exchange is the meaning of the physical capital market. For the case in Indonesia, there are two stock exchanges namely Jakarta Stock Exchange (JSX) and Surabaya Stock Exchange (SSX). The first development of the Indonesian capital market is very slow if measured by the number of companies that issued its shares on the Jakarta Stock Exchange as well as measured from trading activities shares. Up to 1982, the number of companies listed on the JSX is only 23 companies. Then, in the following years, there is a fairly rapid increase in 1990. This phenomenon can be seen by the increase in volume and value of trade transactions and the number of public companies so that the types of shares offered more varied. In 1997 the number of listed companies had been 282 companies (Husnan, 2001: 14). The development of capital market in Indonesia in 2000 - 2005 is presented in Table 1.1.

**Table 1.1** Description of the Development of Number of Companies and Shares Listed at the Indonesian Capital Market and the Jakarta Stock Exchange

Tahun	Jumlah Perusahaan	Jumlah Saham yang Tercatat (Juta lembar)	Nilai Kumulatif Perdana (Milyar Rp.)	Nilai Kapitalisasi (Milyar Rp.)	IHSG di BEJ
2000	287	134,531	122,775	239,259	416.32
2001	316	148,381	97,523	268,423	392.04
2002	331	171,207	120,763	460,366	424.95
2003	333	234,031	125,438	67,949	691.90
2004	331	411,768	247,007	801,253	1,000.23
2005	336	401,868	406,006	910,557	1,162.64

Source: Indonesian Capital Market Directory 2006

In other sides, The ongoing changing of the stock market and economic conditions, causing uncertainty for investors to gain profit. Since, the Uncertainty factors will always be inherent in the world of investment, so that investors will often get a different return than expected. Risk factors arise as a result of an uncertainty. The risk will be higher if there is a bigger deviation to the expected return. On the strength of investor's view, the investment risk is divided into two types, namely the systematic risk that is often called market risk. the impact of this risk can not be eliminated even if it is applied even combination forms of efficient investment. Second, the unsystematic risk that is often known as the unique risk, this risk can be minimized by diversifying the portfolio. the remains risk is market risk or risk caused by aggregate market movements, where stocks move depending on market movements, known as Beta ( $\beta$ ). Beta factors can be tested using the Capital Asset Pricing Model (CAPM). In the CAPM, beta is defined as a measure of the volatility return of securities to market returns. The CAPM is a balanced model allowing investors to determine the relevant risks and previously know how the relationship between risk for each asset when the capital market is in equilibrium. Thus, before carrying out investment, the investors should always pay attention and well considered what factors could affect the amount of risk that it bears. One of the factors that must be paid attention and considered by investors is the interest rate on deposits. Given the banking industry also greatly affect the economic development of a country and almost all economic transactions are always associated with the bank. If banks are sluggish, the country's economy will also experience sluggishness. A controlled deposit rate can also be used to influence economic growth for the better, both in the financial sector and in other sectors.

**1.1 Based on the description above, then the formulation of the problem is as follows:**

1. Is there any effect of market excess return, an excess of 3-month deposit rate and excess 6-month deposit rate toward the individual excess return of both banking and manufacturing company in Indonesia?
2. Is there any difference between the beta excess return market, the beta excess of the 3-month deposit rate and the beta excess of the 6-month deposit rate within the banking and manufacturing companies in Indonesia?
3. Is the CAPM more valid for both banking and manufacturing company in Indonesia?

## **II. Literatures Review**

### **2.1 Capital Asset Pricing Model**

Capital Asset Pricing Model (CAPM) was first introduced by Sharpe, Lintner and Mossin in the mid-1960s. The ability to estimate the individual return of a security is very important and needed by the investor. To be able to estimate the return of securities with good and easy required an estimation model. Therefore, the presence of CAPM can be used to estimate the return of securities that are considered very important in the financial sector, Jogianto (2003: 339). In addition, the CAPM is a model that links the expected return level of a risky asset to the risk of the asset in a balanced market condition, Tandelilin (2001: 90)

### **2.2 The Connection of Risk and Profit Within Capital Asset Pricing Model**

The risk measurement used in the CAPM by beta as an investment measure, no longer by a standard deviation. Investors also know that an efficient investment is an investment that poses a certain risk with the greatest profit level or a certain profit level with the smallest risk. In other words, if there are two investment proposals that provide the same benefits, but have different risks, then a rational investor will choose an investment that has a smaller risk. Based on the above principles, investors are encouraged to include risk factors that are measured by using beta into the assessment of an investment. Since the asset value of one depends on the appropriate level of profit ( $= r$ ) of the investment or the asset. By using the Capital Asset Pricing Model the investor could determine what  $r$  is reasonable for an investment considering the investment risk, Husnan (2001: 169).

### **2.3 Risk And Return**

It is driven into two separate explanation as below:

#### **1. Risk**

Based on the investor point of view, there are two types of risks:

**First;** Systematic risk, which is often called market risk, the impact risk that can not be eliminated even if applied to combination forms of efficient investment. The cause is the macroeconomic conditions, so it affects all business entities activities. These systematic risk-forming factors derive from external factors that are uncontrollable to management.

**Second;** Unsystematic risk is also known as unique risk, this systematic risk can be eliminated by diversifying the portfolio. The risk is not systematic relating to the condition of the business entity specifically, so it only affects a small or a group of business entities. Factors that cause the occurrence of systematic risk is

more dominated by the internal factors of business entities that are controllable for business entities. The extent to which these systematic risks are not mitigated depends on the factors that influence the creation of an efficient portfolio. In addition, this systematic risk is also known as diversifiable risk, Fabozzi and Modigliani (2003: 146).

### III. Return

One of the investor's goal while investing is to maximize return, without forgetting the investment risk factors it faces. Jogiyanto (2003: 109), states that the return is the investment result. Return can be in the form of realized return (done return) and the expected return (will be obtained in the future).

The expected return calculation can be done by calculating the average of all possible returns, Tandelilin (2001: 51-52). The equation for calculating the expected return of a security, as follows:

$$E(R) = \sum_{i=1}^n R_i \cdot pr_i \quad (2.1)$$

E(R) = the expected Return from a security

R<sub>i</sub> = Return of i-th may be run

pr<sub>i</sub> = the probability of return i-th

n = the number of return may be run

### IV. Beta

Beta is the measuring tool for volatility return of a securities or return portfolio to market return, Jogianto (2003: 265). The securities beta i-th measures the volatility of the return of the i-th security with the market return. While Beta portfolio measures the volatility of portfolio returns with market returns. Thus, beta is a systematical risk tool of relative securities toward market risk. According to CAPM theory, beta is the only relevant risk factor for measuring systematical risk, Tandelilin (2001: 103). Volatility itself can be defined as the fluctuation of the returns of a securities or portfolio within a given time period. If a securities have a beta of less than 1, it is said to be less risk than the risk of markets portfolio. Conversely, a security that has a beta value greater than 1, is said to have greater systematical risk than market risk. If the security has a beta equal to a beta portfolio or equal to 1, then it is expected that the securities will have the same expected return on market expectations or E (R<sub>M</sub>), Jogiyanto (2003: 350-351) Beta can be calculated using the regression technique. Regression technique within estimating beta of a security can be done by using return-return of securities as the dependent variable and market return as the independent variable. The regression equation used to estimate the beta can be based on a single index model or a market model by using the CAPM.

If using a single index model or market model, beta can be calculated based on the following equation:

$$R_i = \alpha_i + \beta_i \cdot R_M + e_i \quad (2.3)$$

If using the CAPM, the beta can be calculated based on the following equation:

$$R_i = R_{BR} + \beta_i \cdot (R_M - R_{BR}) + e_i \quad (2.4)$$

With Note:

R<sub>i</sub> = Return of i-th security

R<sub>BR</sub> = Return of risk-free assets

R<sub>M</sub> = Return of market portfolio

B<sub>i</sub> = Beta of the i-th security

To apply this CAPM model into the regression equation, the R<sub>BR</sub> value needs to be moved from the right-side to the left-side of the equation, so that the equation can be as follows:

$$R_i - R_{BR} = \beta_i (R_M - R_{BR}) + e_i \quad (2.5)$$

So the dependent variable of regression equation is (R<sub>i</sub> - R<sub>BR</sub>) with independent variable is (R<sub>M</sub> - R<sub>BR</sub>).

### V. Research Design

This quantitative approach research that is done with the purpose to know and analyze the difference of systematic risk in banking and manufacturing company in Indonesia. The data in this study revealed from publications of JSX. In this research, the total shares listing on the JSX become the population. The stock selected as the test sample is banking and manufacturing company period 2003 - 2006. Based on the

determined population, then the determination of the sample using purposive sampling method, it is the sampling using certain criteria according to its own consideration:

1. Banking companies listed on the JSX for the period of 2003 - 2006 and has a complete and clear financial report for the period 2003 - 2006.
2. Manufacturing companies listed on the JSX for the period 2003 - 2006 taken at random have complete and clear financial statements for the period 2003 - 2006.

Based on the sample determination criteria, it is revealed 21 firms with banking and manufacturing companies were qualified as the selected samples. This research applied two kinds variables; Independent and Dependent variable. The independent variables are identified as variable X, while the dependent variable which is suspected to be influenced by the independent variables is identified as variable Y. Both variables are:

1. Free variables are market excess return ( $R_{Mt}-R_{ft}$ ), excess 3-month deposit rate ( $R_{D3}-R_{ft}$ ) and excess 6-month deposit rate ( $R_{D6}-R_{ft}$ ).
2. The dependent variable identified as Y variable is the excess return individual ( $R_{it}-R_{ft}$ ).

Whereas, the variables measurements from this study are as follows:

1. Excess market return ( $R_{Mt}-R_{ft}$ ) is the difference between the profit rate of the market index contained in the JSX and the level of risk-free profit derived from the Bank Indonesia Rate during the period 2003 - 2006.
2. Excess return individual ( $R_{it}-R_{ft}$ ) is the difference between the rate of return of shares i on the JSX and the level of risk-free profit derived from the Bank Indonesia Rate during the period 2003 - 2006.
3. Excess 3-month deposit rate ( $R_{D3}-R_{ft}$ ) is the difference between the rate of profit of the 3-month time deposit rate and the risk-free rate gained from Bank Indonesia during the 2003-2006 period.
4. Excess 6-month deposit interest rate ( $R_{D6}-R_{ft}$ ) is the difference between the rate of return of the 6-month deposit rate and the risk-free rate gained from Bank Indonesia during 2003-2006.

This research uses secondary data in the form of quantitative coming from Jakarta Stock Exchange (JSX), JSX Statistics ([www.jsx.com](http://www.jsx.com)) website, Indonesian Capital Market Directory (ICMD). While the data for the risk-free and deposit rates come from Bank Indonesia. The data in this research means the data on the level of securities return ( $R_i$ ), the level of market index profit ( $R_M$ ) from the sample company that is banking and manufacturing company in the period 2003-2006 obtained from JSX, 3 and 6-month deposit rate from Bank Indonesia. While the data for risk-free ( $R_f$ ) comes from the interest rate of SBI (Bank Indonesia Rate).

## VI. Data Analysis Techniques

Conducting first-stage regression, with the first aim to disclose and analyze the influence of excess return market, excess of both 3 and 6 month deposit rate toward individual excess return, second; to disclose and analyze difference between beta excess return market, beta excess of both 3 and 6 month deposit rate in banking and manufacturing company, then the regression equation is as follows:

$$R_{it}-R_{ft} = \alpha_i + \beta_1 (R_{Mt}-R_{ft}) + \beta_2 (R_{D3}-R_{ft}) + \beta_3 (R_{D6}-R_{ft}) + \text{eit} \quad (3.1)$$

With Note :

- $R_{it}$  = Profit rate of i-stock in time period t-th  
 $R_{Mt}$  = Market profit rate index in time period t-th  
 $R_{ft}$  = Risk-free profit rate in time period t-th  
 $\beta_1, \beta_2, \beta_3$  = Regression parameters  
 $R_{D3}$  = Profit rate of 3-month deposit rate  
 $R_{D6}$  = Interest rate of 6-month deposit rate

From the result of 3.1 equation, it can be known the validity of CAPM. CAPM is valid if the result of 3.1 equation shows that  $\alpha_i$ ,  $\beta_2$  and  $\beta_3$  are not significant, whereas  $\beta_1$  is significant. For testing the prevalence and Capital Asset Pricing Model further, it is necessary to test the Capital Asset Pricing Model itself.

1. Conducting second stage regression as the CAPM testing in which according to Black, Jensen and Scholes models, the regression equation is as follows:

$$R_{it}-R_{ft} = \alpha_i + \beta_1 \cdot (R_{Mt}-R_{ft}) + \text{eit} \quad (3.2)$$

With note :

- $R_{it}$  = Profit rate of i-stock in time period to t-th  
 $R_{Mt}$  = Market profit rate index in time period t-th  
 $R_{ft}$  = Risk-free profit rate in time period t-th

$\alpha_i$  and  $\beta_1$  = Regression parameters

$e_{it}$  = Residual stock  $i$  at time period  $t$

If the standard of CAPM is valid, then when equation (3.2) is tested for time series data the regression coefficient for  $\alpha_i$  should be zero, so the formula of the model to be tested as follows:

$$R_{it} - R_{ft} = \beta_1 \cdot (R_{Mt} - R_{ft}) + e_{it} \quad (3.3)$$

## VII. Counting variables

The calculation of variables is done by using Microsoft Excel program and SPSS version 11. Here are the variables that will be calculated is

a. Counting Stock Returns

$$E(R_{it}) = \frac{P_{it} - P_{it-1}}{P_{it-1}} \quad (3.4)$$

With note :

$P_{it}$  = Current stock price

$P_{it-1}$  = Stock price in the past period

$E(R_{it})$  = The expected rate of return of a stock in a given period

b. Counting Market Returns

$$R_m = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \quad (3.5)$$

Whit note :

$R_{Mt}$  = Market profit rate index in time period  $t$ -th

$IHSG_t$  = IHSG in period  $t$ -th

$IHSG_{t-1}$  = JCI in the past period

## VIII. Finding And Analysis

The calculation result on monthly stock excess returns for all used securities during the study period are presented in Appendix 4 for banking and manufacturing companies. The calculation result of the excess return descriptive highest shares of banking companies achieved by Bank Artha Graha Internasional Tbk (INPC), amounting to 0.9147 in the period from 2003 to 2004, the period from 2005 to 2006 and the period from 2003 to 2006 occurred in Mayapada Bank Tbk (MAYA) amounting to 1.8595. While the calculation result of the excess return descriptive highest share of manufacturing in the period 2003 - 2004 and the period 2003 - 2006 occurred in Ever Shine Textile Industry Tbk (ESTI), amounting to 1.8252, in the period from 2005 to 2006 occurred in Lasting Industry Makmur Tbk (LMPI) of 1.7258. The average monthly share return on banking and manufacturing companies in 2005 - 2006 was higher than the average monthly share excess return for 2003 - 2004 and 2003 - 2006 period. The Beta can be counted by the regression technique. Regression in this study using the SPSS program version 11.00. whereas, the dependent variable is the excess return of individual ( $R_{it} - R_{ft}$ ), while the independent variable in this study is the excess return of the market ( $R_{Mt} - R_{ft}$ ), excess deposit rate 3-month ( $R_{D3} - R_{ft}$ ) and excess deposit rate for 6-month ( $R_{D6} - R_{ft}$ ). Based on the results of the analysis there are 42 selected companies as samples, consisting of 21 banking companies and 21 manufacturing companies. This is because there are two banking firms period 2003 to 2006 were excluded from the sample because it did not correspond with the criteria used in the study, which has no monthly share price index began in January 2003. Both samples are Bank Rakyat Indonesia Tbk (BRI) which has a stock price index began in November 2003 and Bank Mandiri (Persero) Tbk (BMRI), which has a stock price index starting in July 2003. While the samples of manufacturing companies were represented by 21 companies with the intention as a comparison of banking companies. The first and second stage regression results for the period of 2003-2006 can be seen in Appendix 5 for banking companies and Appendix 6 for manufacturing companies, with the information that \*) Significant at level = 1%, \*\*) Significant at level = 5%, \*\*\*) Significant at level = 10%.

In Appendix 5, the first stage regression done to banking companies shows that  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  in the period 2003-2004 are significant of 9, 2, and 1 companies. while in the period 2005 - 2006 of 9, 2 and 3 companies. In the period 2003 - 2006 showed that  $\beta_1$  and  $\beta_2$  were significant of 9 and 1 companies, whereas the  $\beta_3$  value in the 2003 - 2006 period all showed insignificant results of financial company Alpha in the period 2003 - 2004, 2005 - 2006, and 2003 - 2006 not as significant as 18, 15, and 17 companies. The second stage regression performed on banking companies showed that significant  $\beta_1$  in the period 2003 - 2004, 2005 - 2006, and 2003 - 2006 of 9, 10, and 9 companies and showed an insignificant alpha of 18, 14 and 17 companies from period 2003 - 2006, 2005 - 2006 and 2003 - 2006. In addition, from the second stage regression results can be seen that the alpha value is different or not different from zero for all samples of companies studied, then tested by using One-Sample-T-Test based on probability value  $> 0.05$ , then the alpha is not different from zero and vice versa if the

probability value <0.05, then the alpha is different from zero. The test results stated that alpha in banking companies in the period 2003 - 2004, 2005 - 2006, and 2003 - 2006 had alpha not different from zero. The following is the alpha value in the period 2003 - 2004, 2005 - 2006, and 2003 - 2006 amounted to 0.469; 0.226; and 0.538.

The results of both first and second stage regression could be seen in Appendix 6 for the manufacturing company. The first stage regression performed on the manufacturing company showed that the significant  $\beta_1$  and  $\beta_2$  of 11 and 1 companies and the regression results for  $\beta_3$  values in the period 2003 - 2004 showed insignificant results, while in the 2005 - 2006 periods of 11, 2 and 1 company. In the period 2003 - 2006 shows that  $\beta_1$  and  $\beta_3$  are significant of 13 and 2 companies, while for  $\beta_2$  value in the period 2003 - 2006 showed insignificant for all companies in the period 2003 - 2006. The alpha manufacturing company in the period 2003-2004, 2005 - 2006, and 2003 - 2006 are not as significant of 18, 18, and 17 companies.

Whereas, the second stage regression in the manufacturing company such shown in Appendix 6 shows that  $\beta_1$  is significant in the periods 2003 - 2004, 2005 - 2006, and 2003 - 2006 of 10, 15 and 15 companies and shows an insignificant alpha of 18, 16 and 15 companies from 2003 - 2004, 2005 - 2006, and 2003 - 2006 periods. Based on the result of second stage regression done to banking and manufacturing companies (Appendix 5 and Appendix 6) also shows the validity of the CAPM. Since CAPM is valid if it has significant beta ( $\beta$ ) with no significant alpha ( $\alpha$ ). The first stage regression results conducted on 21 banking companies and 21 manufacturing companies in the period 2003 - 2006 on the validity of the CAPM test are as follows:

**Table 4.1** bCAPM Collate Validation of Banking and Manufacturing Companies

Period	Banking Companies		Manufacturing companies	
	Valid	Invalid	Valid	Invalid
2003 - 2004	8	13	8	13
2005 - 2006	9	12	11	10
Total Periode (2003 - 2006)	8	13	11	10

Source: Appendix 9

As the Table 4.1 states that the valid banking companies in the testing of CAPM as many as 8 companies in the period 2003 - 2004, 9 companies in the period 2005 - 2006, 8 companies in the period 2003 - 2006. Whereas, for manufacturing companies, testing CAPM in which is considered valid as many as 8 companies in the period 2003 - 2004, 11 companies in the period 2005 - 2006, and 11 companies in the period 2003 - 2006. Furthermore, the table 4.1, also shows that the validity testing of CAPM in banking companies from period to period is less when compared with the testing of the prevalence and Capital Asset Pricing Model in manufacturing companies for the period 2005-2006 and the period 2003 - 2006.

## IX. Discussion

### A. First Stage Regression

The CAPM testing in the period 2003 - 2006 provide to analyze the CAPM validity. Within the test, the data used are the companies listed on the Jakarta Stock Exchange period 2003-2006 and has complete and clear financial statements of the period 2003 - 2006, that are Banking company data as many as 21 companies and data of manufacturing companies as many as 21 companies. This study used the banking as the sample with the consideration that banks greatly affect to the state economic development as well as almost all economic transactions are always associated with the bank. While the sample manufacturing company used with consideration as a comparison against banking companies. In addition, the manufacturing company is also one of the dominating shares in the Stock Exchange. The first step regression is to disclose and analyze the presence or absence of market excess return effect, excess of either 3 or 6-month deposit rate toward an individual excess return, and to reveal and discuss the differences among beta excess return market, beta excess 3-month deposit rate and beta excess of 6-month deposit rate. The first stage regression equation is as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_1 (R_{Mt} - R_{ft}) + \beta_2 (R_{D3t} - R_{ft}) + \beta_3 (R_{D6t} - R_{ft}) + e_{it} \quad (5.1)$$

The result of the first-stage regression states that the first stage regression performed model is no use. This can be proved by the abundance of  $\beta_2$  and  $\beta_3$  values not significant, so that the CAPM model is more applicable, assuming that the alpha value is not significant and the value of  $\beta_1$  is significant. This insignificant result is not in accordance with the results of research conducted by Soejoto (2002), which states that the interest rate can affect the stock price. This is due to the research conducted by Soejoto conducted in the period 1992 - 1997, which at that time worsening economic conditions that may affect market conditions. With the market condition, the market condition will affect the capital market. While this study used the period 2003 - 2006,

where the condition of the economy in Indonesia in a stable or better than in the period 1992 -1997, so that excess return deposit rates have no effect on the excess return of individual stocks.

#### B. Second Stage Regression

The second stage regression for CAPM testing is based on the Black, Jensen and Scholes models in which the regression equation is as follows:

$$R_{it} - R_{ft} = \alpha_i + \beta_{it} \cdot (R_{Mt} - R_{ft}) + e_{it} \quad (5.2)$$

With note if the standard of CAPM applies, then when equation (5.2) is tested for time series data the regression coefficients for  $\alpha_i$  should be zero, so the formula of the model to be tested is as follows:

$$R_{it} - R_{ft} = \beta_{it} \cdot (R_{Mt} - R_{ft}) + e_{it} \quad (5.3)$$

The alpha value ( $\alpha$ ) for each stock selected as a sample can be counted so that the  $\alpha_i$  distribution will be revealed. But the distribution can not be used to infer whether overall alpha is different from zero or not. To examine whether all selected banking and manufacturing companies have alpha different from zero, the test One-Sample t-Test is done. The results of the One-Sample t-Test shows that the samples of banking and manufacturing companies for the 2003 - 2006 period as a whole have no alpha different from zero, so this test supports the enactment of the CAPM Standard. In addition, the study is in line with research conducted by Husnan (1998); Tandelilin, Kaaro and Mahadwartha (2003); and Kurniawan (2006), who tested alpha that is alpha is not different from zero and that means the applicable CAPM is not Zero Beta. This means that this study is not in line with research conducted by Sharpe and Cooper in 1972 and Black et al. in 1972 stating that the Zero Beta CAPM is more applicable than the applicable CAPM Standard. With the enactment of the CAPM, it also supports the theory of the CAPM itself through the statement that the CAPM is considered as a balanced model that can assist investors in simplifying the realistic picture of the relationship between return and risk in the real world sometimes very complex. In addition, the previous table 4.1 has shown that validity test toward CAPM within banking companies from period to period is less than the validity test toward CAPM within manufacturing companies from 2005-2006 and 2003-2006. From the analysis, it was found that The CAPM of a manufacturing company is more valid than the CAPM of a banking company, and it means that  $H_0$  is accepted. The results of this study are in line with research conducted by Wahyudi and Hartini (2002) and Kurniawan (2006), this is because the manufacturing company is considered as a stable sector compared with financial companies. Within the manufacturing companies being sampled, there is a pharmaceutical sector and consumption sector supported by several stocks, such as Gudang Garam Tbk (GGRM) and Indofood Sukses Makmur Tbk (INDF) are companies that have an increasing rate of profit, and also because of the activities this business is not affected by booming conditions or crises when compared to other manufacturing firms sampled in research or even for banking companies that have a profound effect on a country's economy.

The Invalid CAPM both in the banking and manufacturing companies concerning the CAPM test may be due to the resulting beta value being a biased beta. However, biased beta may occur due to the inequality time between the return of a securities and the market return in the beta calculation caused by the trade being out of sync. While the low attention of beta coefficient in the period 2003 - 2006 due to data used for each period is too short distance, ie for the period 2003 - 2004 and the period 2005 - 2006 used data for 2 years and for 2003 - 2006 data used for 4 years. If the data used is longer, then the result will be more significant. Because in the long run beta value is estimated to be close to the true beta value. From the discussion, it can be said that the beta can be used as a measure of risk and is also an important indicator in estimating the return or the level of profit to be obtained from an investment.

## X. Conclusion

**10.1** Based on the overall result above, it can be triggered the conclusion as below:

**First**, There is a significant influence between market excess return to individual excess return in banking companies as well as manufacturing companies, but there is no influence between excess deposit rate, either for excess 3-month deposit rate or excess rate of 6-month deposit toward excess return individual neither in Indonesian banking companies nor manufacturing companies

**Second**, There is no any difference among beta excess return market, beta excess 3-month deposit rate and beta M excess 6-month deposit rate in Indonesian banking companies and manufacturing companies.

**Third**, the Capital Asset Pricing Model (CAPM) in manufacturing companies is more valid when compared to Capital Asset Pricing Model in banking companies.

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