# Effect of Financial Fundamental Factors and Macroeconomics to Stock Return with Implications on Corporate Value (Tobin's Q) Real Estate and Property Go Public in Indonesia 

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#### Abstract

This research aims to test empirically the effects of financial fundamentals (ROA, DER, PBV) and macroeconomics (rupiah exchange rate, interest rate, and inflation) of stock returns and its implications on corporate value (Tobin's $Q$ ). The research was conducted on go-public property and real estate industry in Indonesia. The data used is the panel data. Data sources were obtained from the economic and financial statistics published by Bank Indonesia, ICMD (Indonesian Capital Market Directory, and the Jakarta Stock Exchange (JSX) Monthly Statistics periods between 2008, 2009, and 2010. Sampling companies used the purposive samping method that listed by BEI, 35 companies met the criteria, whereas analytical technique used the multiple regression analysis model with Mathematics equations: 1) Common Effect Model (CEM), 2) Fixed Effect Model (Least Square Dummy Variable), 3) Random Effect Model (REM). The three were tested by Chow Test, Lagrange Multiplier (LM) Test, and Hausman Test.The selected models are Common Effect Model (CEM) for measuring stock return and Random Effect Model for measuring corporate value. Processing the data used Eviews 7 software and evaluating corporate value used ratio analysis of Tobin's $Q$. The results showed that the first variable DER, Exchange rate, and INF significant effect on stock returns and ROA variables TSB whereas no significant effect on stock returns. Second, PBV variable, Exchange rate, and TSB significant effect on corporate value while variable ROA, DER, and INF had no significant effect on corporate value. Third, based on the $R$-square is formed, the independent variable can explain the growth of the stock return of $52.35 \%$ and explained $23.72 \%$ growth in corporate value. Fourth, variable stock returns (RS) high significant positive effect on corporate value (Tobin's Q) on the property and real estate industry go-public in Indonesia. These results can be used to guide or provide benefits to management in managing the company effectively and efficiently as well as investors in determining investment strategy.


Keywords: financial and macroeconomics fundamental factors, stock return, and corporate value (Tobin's Q)

## INTRODUCTION <br> Background Research

Stock returns is a representation of the value of the company is not only determined by internal factors but also by external factors of the company. Internal factors that are controllable and external factors that are uncontrollable company is a fundamental factor that is often used as a base by the investors in the capital market for investment decisions.
Researchers observed property and real estate companies to go public in Indonesia. The rapid development of the property and real estate sector is followed by increasing demand, the board, making issuers of real estate property and require funding from external sources. Funds from external sources can be acquired through capital markets (Husnan, 2005). This sector has been the object of research because this sector has experienced growth after the financial crisis and is starting to show its contribution to economic growth in recent years. Development of the property industry has also shown growth very convincing.
It is characterized by rampant construction of homes, apartments, offices, and hospitality. In addition, the development of the property sector can also be seen from the proliferation of real estate in major cities. From a macroeconomic perspective, the property industry has a very broad scope of business so passionate property business will in turn affect economic growth and employment and to be an important indicator of the economic health of a country. Observations researchers during the 2008 to 2010 growth of trading by property and real estate industry can be seen from the total market capitalization has increased $79 \%$, an increase of $42 \%$ trading volume, trading value of $200 \%$, with a frequency increase of $34 \%$. Average has increased rapidly, especially in 2009 to 2010. (IDX Statistics, data processed EA., 2011) Furthermore, researchers looked at the condition of the stock return is negative $(-0.44)$ or negative $44 \%$. This phenomenon occurs because of the impact of the economic crisis and the impact of the global financial crisis in 2008 which caused the majority of the property and stock prices plummeted and the real estate industry can be seen year average inflation rate is too high ( $10.31 \%$ ) when compared with the interest rate ( $8.69 \%$ ) even the average exchange rate is also high when compared with the condition in 2009. The conditions of the following years (2009 and 2010) appear to normal (see the conditions the interest rate is greater than the inflation rate conditions) and began to improve even fluctuate. If we look at the amount of the highest stock returns occurred in 2009 amounted to 0.72 or $72 \%$ and the lowest occurred in 2008 that had a negative (0.44). (IDX Statistics, BPS, Bank Indonesia, the data processed EA., 2011). Furthermore, other factors that appear ROA, DER, PBV indicates conditions are not
consistent with stock returns on property and real estate industry are listed in the Indonesia Stock Exchange 2008-2010 period.

## Theory and Literature Review study

(1) Return of shares is the level of benefits enjoyed by investors on a stock investment is doing. According to some theoretical concepts presented Ang (2000) that every investment both short term and long term has the main goal to profit called the return, either directly or indirectly. Furthermore Jogiyanto (2000 declared Return consists of capital gain (loss) and yield), but not always given the company's periodic cash dividend to its shareholders the stock returns can be calculated as follows:

Stock Return $=\frac{P_{\boldsymbol{t}}-P_{t-1}}{P_{t-1}}$ next Pancawati et al. (2002) suggests a high stock return indicates that the stock is actively traded, in which case the stock exchanges in Indonesia.
(2) Arbitrage Pricing Theory (APT) According to Ross et. al. (2003), arbitrage pricing theory (APT) is based on the premise that states that two investment opportunities have identical characteristics can not be sold at different prices, further this theory assumes that the rate of profit may be affected by various factors in the economy and in industries. According to some theoretical concepts presented Weston and Copeland (1997) states the demand and supply of shares is strongly influenced by investor expectations of an investor, while the courage to bid the stock price is determined by market conditions, economic conditions, and the value of the company itself. Furthermore Husnan (2005) claim that if the same assets characterized by different prices there will be opportunities for arbitrage by buying assets cheap and sell it at the same time with a higher price so that makes a profit without risk, then Rodoni and Ali (2010) stated APT models can be formulated as follows : $\boldsymbol{R}_{i t}=\boldsymbol{E}\left(\boldsymbol{R}_{i}\right)+\boldsymbol{B}_{i t} \boldsymbol{F}_{i t}+\boldsymbol{B}_{i 2} \boldsymbol{F}_{2 \boldsymbol{t}}+\ldots+$ $\boldsymbol{B}_{\boldsymbol{i} \boldsymbol{h}} \boldsymbol{F}_{\boldsymbol{h} \boldsymbol{t}}+\boldsymbol{\varepsilon}_{\boldsymbol{i} \boldsymbol{t}}$ This model shows the actual gain for security $i$ in period $t$, which he composed than: (a) the expected benefits (b) positive or negative impressions that arise rather than factors (Fh) and (c) the impression of remaining or "residual" for any securities.
(3) Multifactor Models. To overcome the problem of implementation of the APT. Multifactor model emerged as a solution although it does have a weakness. This model can compensate for the shortcomings of the Capital Asset Pricing Model and the Arbitrage Pricing Theory (APT). The weakness of the multifactor model is that this model is not very much support his theory (Reilly and Brown, 2003). According Amenc and Sourd (2003), multifactor models explicitly model can be divided into: (1) macroeconomic variables that factor model is derived
directly of the Arbitrage Pricing Theory (APT). Risk factors affecting the return of an asset is approximated by the observed macroeconomic variables that can be predicted by economists. (2) model with factors specific attributes that the company's approach to explain the return of an asset based on a variable that depends on the characteristics of the company. The multifactor model can be formulated as follows (Reilly and Brown, 2003). $\boldsymbol{R}_{\boldsymbol{i t}}=\boldsymbol{\alpha}_{\boldsymbol{i} 1}+\left[\boldsymbol{b}_{\boldsymbol{i} 1} \boldsymbol{F}_{1 i}+\right.$ $\left.b_{i 2} F_{2 i}+\ldots \ldots .+b_{i k} F_{k i}\right]+\varepsilon_{i t}$

Description: $\mathrm{R}_{\mathrm{it}}=$ return on asset i during period t , both nominal return and the excess return with $\mathrm{i}=$ $1,2,3, \ldots . . n, \alpha_{i}=$ intercept or constant; $b_{i K}=$ response or reaction from the return on assets i to the movement of K risk factors or can be called sensitivity factors; $\mathrm{F}_{\mathrm{Ki}}=\mathrm{K}$ yields a risk factor for period $\mathrm{t} ; \varepsilon_{i t}=$ unique risks on return on assets during the period i assumed perfectly diversified portfolio with assets in the very numerous and have zero mean.
(4) Corporate Value (Tobin's Q) is very important because of the high value of the company which will be followed by higher shareholder wealth. According to some theoretical concepts presented Fama and French (1992) states the value of the company will be reflected in its stock price. To evaluate the value of the company is to use Tobin's Q (Q ratio)., Chung and Stephen (1994), measuring the value of the company using Tobin's Q are formulated $: \boldsymbol{Q}=(\boldsymbol{E M V}+\boldsymbol{D}) /(\boldsymbol{E B V}+\boldsymbol{D})$ where EMV (Market Value of Equity) $=\mathrm{P}$ (Closing Price) x Qshares (number of shares outstanding), D (Debt) = Book Value of Total Debt; EBV = Book Value of Total Assets. Furthermore, Brigham and Gapenski (1997), states the higher the stock price the higher the corporate value. Ross et al (2003) explain Tobin's Q as "the market value of assets divided by replacement value of assets. A Tobin's Q ratio greater $\tan 1$ indicates the firm has done well with its investment decisions ".
(5) Return on assets (ROA) is a measure of the ability of the company's overall profit in the total amount of assets available within the company. The higher this ratio, the better the state of a company. Thus the concept of the theory is presented according to Weston and Copeland (1997), Geoffrey and Stanley (1999), Keown, et.al. (2004) stated the effectiveness of management in generating operating profit of the company's assets is measured by comparing the operating profit to total assets. Furthermore, Brigham and Houston (2006) formulate ROA = Net Income available to Common Stockhorders / Total Assets.
Next review of the literature / empirical studies Syamsul (1997) stated ROA insignificant effect on stock return, Natarsyah (2000) stating its findings ROA affect the stock price index, while the Imam and Irwansyah (2002) states ROA has no significant effect on stock returns, Pancawati et al. (2002) stated ROA has a positive effect on stock returns, Pacal (2004)
states delta ROA has a significant correlation to stock returns, Ochida (2006) found results that ROA has positive and significant impact on Tobin's Q. So researchers can infer and make a synthesis on the basis of theoretical and empirical studies of previous studies as follows: (a) Return on Assets (ROA) has a positive effect on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the Return on Assets (ROA), the higher the stock return. (b) Return on Assets (ROA) has a positive effect on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the Return on Assets (ROA), the higher the corporate value (Tobin's Q).
(6) Debt to equity ratio (DER) reflects the company's ability to meet its obligations represented by some part of its own capital or equity is used to pay the debt. by Ang (2000) then formulated DER = Total Debt / Total Shareholders' Equity. According to the theoretical concepts presented later Modigliani and Miller (1958) states that a company's value will increase as the debt to equity ratio (DER) due to the effects of the corporate tax shield. Instead Pacal (2004) stated adding debt to its balance sheet, it will lower the profitability of the company, then Gitman and Joehnk (2007) states that the decision to increase the debt not only have a negative impact, but it can also have a positive impact because the company should seek to balance the benefits with the costs caused by debt.
Next in the review of the literature / empiritical study Liestyowati (2002) states that the DER to the average return has negative and insignificant, while Ratnasari (2003), stating its findings that the DER significant negative effect on stock return. So researchers can infer and make a synthesis on the basis of theoretical and empirical studies of previous studies as follows: (a) Debt to Equity Ratio (DER) has a negative influence on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the Debt to Equity Ratio (DER), the lower stock returns. (b) Debt to Equity Ratio (DER) has a negative influence on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the Debt to Equity Ratio (DER), the lower the corporate value (Tobin's Q).
(7) Price to book value (PBV) is the ratio of the market (market ratio) is used to measure the performance of the stock market price to book value. The company is performing well, usually its PBV ratio above one. This suggests that the greater the stock market value of its book value. The larger the PBV ratio the higher the value of the company. So the theory is presented according to Ang (2000), then Brigham and Houston (2006) formulate PBV = Market Price per Shares / Book Value per Shares. Next in the review of the literature / empirical study Liestyowati (2002) stated that the findings PBV positive effect on stock returns, while Pancawati et al.
(2002) also states that the results temuanya PBV positive effect on stock returns. Hence, PBV is one of the factors that influence stock returns and corporate value. So researchers can infer and make a synthesis on the basis of theoretical and empirical studies of past research as follows: (a) Price to Book Value (PBV) has a positive effect on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the Price to Book Value (PBV), the higher the stock return. (b) Price to Book Value (PBV) has a positive effect on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. That is, the higher the Price to Book Value (PBV), the higher the corporate value (Tobin's Q).
(8) Exchange Rate (Kurs) is the value of one unit of a particular currency is required to obtain one unit of foreign exchange (forex). According to some theoretical concepts presented Dornbusch and Fischer (1992) currency exchange rates or foreign currency exchange rates of four types, namely: (a) Selling rate is the rate set by the bank for the sale of certain foreign exchange markets. (b) Middle rate is the middle rate between the buying and selling rates for foreign currency against the national currency, which has been established by the Central Bank at a given time. (c) Buying rate is the rate set by the bank for the purchase of a specific foreign currency at a given time. (d) Flat rate is the rate prevailing in the buying and selling bank notes and travelers checks., Fabozzi and Franco (1996) an exchange rate is defined as the amount of one currency that can be exchange per unit of another currency, or the price of one currency in items of another currency.
Dominick (2005) the exchange rate between the USD/U.S. $\$$ is essentially the same as a certain amount of dollars required to earn U.S.\$ 1. The symbol commonly used to refer to the exchange rate was $\mathrm{R}=$ Rp / U.S. \$, Hady (2009) foreign exchange (forex) or foreign currency is defined as foreign currency and other payment instruments used to conduct or finance economic transactions international finance and who have a record of the official exchange rate of the Central Bank. Next in the review of the literature / empirical studies Mougoue and Ajayi (1996) research findings stating that there is a significant relationship between capital market and money market, Nathan Lael (2002) states exchange research results and significant negative effect on stock returns, while Sudjono (2002 ) said the exchange rate significantly influence the stock price index, Kurniasari and Sitinjak (2003) states that exchange rates have a significant negative effect on stock returns, Sa'adah and Panjaitan (2006), stating that there is no dynamic interaction between stock prices and exchange rates. So researchers can infer and make a synthesis on the basis of theoretical and empirical studies of previous studies as follows: (a) Rupiah Exchange (Kurs) have a negative influence on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the value of the rupiah against the
dollar, the lower stock returns. (b) Rupiah Exchange (Kurs) have a negative influence on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the value of the rupiah against the dollar, the lower the corporate value (Tobin's Q).
(9) Interest Rates (TSB) is the real interest rate or interest rate risk free. Some theoretical concepts presented According to Rose et. al. (2002) Changes in interest rates affect the stock for three reasons: (1) The amount of interest expense that is charged to the loan interest rates affect corporate profits in the following ways: (a) In order to support its business activities, companies can obtain loans from other parties. On this loan company should bear the burden of interest, the higher the interest charges will be smaller anyway company's ability to generate profits. Therefore, changes in the interest rate has a great impact on corporate profits. (b) The higher the interest rate will reduce the willingness of consumers to buy the products sold by the company, especially if the product is purchased with the loan facility. Consumers' desire for reduced interest expense to be paid will be greater, as a result will reduce the company's sales. (2) Changes in interest rates will affect the choice of investors to invest in the stock market. If interest rates are rising, the investor will choose the deposit because it will provide more definitive results. (3) For investors who buy shares with a loan, it will bear the burden of greater interest in the event of rising interest rates. As a result, investors' willingness to buy shares on the wane.
Ang (2000) if the interest rates go up it will be a negative impact on equity markets, further Samuelson and Nordhaus (2001) stated that in a country's interest rates have a strategic role in economic development. High interest rates are a negative signal for the stock price. Tandelilin (2001), states that the interest rate is too high will affect the present value so that the company's cash flow opportunities - there are no investment opportunities that will attract more.
Next in the review of the literature / empirical studies Titman and Warga (1989) states that the interest rate findings positive effect on stock returns, Lee (1992) research results prove that the interest rate significantly influence the stock price index, while Nurdin (1999), Nathan Lael (2002) stated interest rate and a significant negative effect on stock returns. So researchers can infer and make a synthesis on the basis of theoretical and empirical studies of previous studies as follows: (a) Interest Rate (TSB) has a negative influence on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the interest rate, the lower the stock returns. (b) Interest Rate (TSB) has a negative influence on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the interest rate, the lower the corporate value (Tobin's Q).
(10) Inflation (INF) is a change in the form of increases in the prices of goods in general and long-lasting. According Sadono (2010), then according to Rodoni and Ali (2010) inflation has a sense of a process of rising prices in general and continuously. In other words, inflation is a process not an event and the high and low price levels. That is a high price to be considered not necessarily indicate inflation, inflation is considered if there is a process of continuous price increases and influence each other. Therefore, the higher the average inflation rising prices of goods are rising, and this condition will reduce investment. Next in the review of the literature / empirical studies Titman and Warga (1989) stated that the findings Inflation positive effect on stock returns, Lee (1992) stated that inflation is a positive influence on stock returns, Boudoukh and Richardson (1993) states that inflation is positive and significant to stock return, while Nurdin (1999) states that inflation negatively affect stock returns, further Agrawalla and Suteja (2008) also stated its findings that inflation positive effect on stock returns. So researchers can infer and make synthetic on the basis of theoretical and empirical studies of previous studies as follows: (a) Inflation (INF) has a negative influence on stock return Property and Real Estate companies go public in Indonesia. This means that the higher the inflation rate, the lower the stock returns. (b) Inflation (INF) has a negative influence on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the inflation rate, the lower the corporate value (Tobin's Q ).
11) Furthermore, interrelationships between stock returns of the Company's value (Tobin's Q) Property and Real Estate Go Public in Indonesia. researchers can infer and make a synthesis on the basis of the theory by Fama and French (1992), Brigham and Gapenski (1997) as follows: Return of Shares having a positive influence on corporate value (Tobin's Q) Property and Real Estate Go Public in Indonesia. This means that the higher the stock return, the higher the corporate value (Tobin's Q).
Refresh research study concerning the influence gap ROA, DER, PBV, exchange rates, interest rates, and inflation on stock returns, among others, Titman and Warga (1989), Lee (1992), Boudoukh and Richardson (1993), Syamsul (1997), Nurdin (1999), Natarsyah (2000), Imam and Irwansyah (2002), Liestyowati (2002), Pancawati et al. (2002), Sudjono (2002), Nathan Lael (2002), Ratnasari (2003), Pacal (2004), Sa'adah and Panjaitan (2006), Agrawalla and Suteja (2008). Study, they do suggest a different statement of the phenomena seen stock returns property and real estate industry go public in Indonesia during the period 2008 to 2010 as well as the existence of some previous studies are conflicting. As the description of the condition of the average stock return, financial fundamentals, and macroeconomic factors and research gaps).

## Identification of Problems

(1) Whether the financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, and INF) effect on stock return real estate and property go public in Indonesia?
(2) Whether the financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, and INF) effect on corporate value (Tobin's Q) real estate and property go public in Indonesia?
(3) Whether the stock return effect on corporate value (Tobin's Q) real estate and property go public in Indonesia?

## Research Objectives

(1) To demonstrate empirically the effect of financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, and INF) on stock return real estate and property go public in Indonesia
(2) To demonstrate empirically the effect of financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, and INF) on corporate value (Tobin's Q) real estate and property go public in Indonesia
(3) In order to empirically prove that the effect of stock returns on corporate value (Tobin's Q) real estate and property go public in Indonesia

## RESEARCH METHODS

This study uses panel data which combines time series data and cross section Djalal and Usman (2006). Time series data covering the object / partial (ROA, DER, PBV, KURS, TSB, and INF) in some periods (monthly or yearly). Data Cross consists of several or many objects / unit (property and real estate company) in Indonesia with some types of data (stock price) within a specific time period. Source of data obtained through the financial and economic statistics issued by Bank Indonesia,ICMD (Indonesian Capital Market Directory) and Jakarta Stock Exchange (JSX) Monthly Statistic, period of 2008, 2009, and 2010. Sampling was purposive sampling method companies are listed on the Indonesia Stock Exchange, which meets the criteria of 35 companies. To test the data using:

1) Testing Assumptions Classic

To determine the accuracy of the regression model needs to be tested on some of the assumptions underlying the classical regression model. Testing the assumptions of classical regression analysis was performed in order to ascertain criteria BLUE (Best

Linear Unbiased Estimates) which has properties of linear, unbiased, efficient, minimum variance, while the theory of testing According Ghozali (2005) as follows: (1) Normality test, (2) Multicolinearity test, (3) Heteroskedasticity test, (4) Autocorrelation test.
2) Test the hypothesis

This test is performed to determine whether the regression model that meets the goodness of fit. Testing is done by looking at the value of R-square (R2) and calculate the value of F and t value of Output Program Eviews 7.

## 3) Regression Analysis Model of Panel Data

Analysis of the data used to test the hypothesis and declare clarity about the strength of certain variables on stock returns and corporate value in this study is multiple regression analysis with panel data. The selection method of multiple regression analysis because more than one independent variable and the dependent variable is parametric while only two and is parametric. The model to test the hypothesis used in this study using the following equation:

## (1) Common Effect Model (CEM)

The model used pooled using least square model or pattern Common Effect Model with the following equation:

$$
\begin{array}{r}
R S_{i t}= \\
b o+b_{1} R O A_{i t}+b_{2} D E R_{i t}+b_{3} P B V_{i t}+b_{4} \text { Kurs }_{i t}+ \\
b_{5} T S B_{i t}+b_{6} I N F_{i t}+\varepsilon_{i t} \tag{1}
\end{array}
$$

$$
\begin{aligned}
& N P T_{i t}= \\
& b o+b_{1} R O A_{i t}+b_{2} D E R_{i t}+b_{3} P B V_{i t}+b_{4} \text { Kurs }_{i t}+ \\
& b_{5} T S B_{i t}+b_{6} I N F_{i t}+b_{7} R S_{i t}+\varepsilon_{i t} \\
& \text { (3b) }
\end{aligned}
$$

```
\varepsilonit = Ui}+\mp@subsup{V}{t}{}+\mp@subsup{W}{it}{
```

Description : $R S_{i t}=$ Annual stock return in year t for property and real estate company i ; NPT $T_{i t}=$ Corporate value (Tobin's Q) Annual PRE firm in year ti ; bo $=$ intercept which varies across cross section units $; b_{1}, b_{2}, . .=$ parameters for variables to n ; $\varepsilon_{i t}=$ error in year $t$ for real estate and property company i
$U_{i} \quad=$ error component cross section
$V_{t} \quad=\quad$ error component time series
$W_{i t}=$ error component combinations

## RESULTS DISCUSSION

## Discussion Effect of Independent Variables on Stock Return (RS).

Panel data regression model stock returns illustrates the relationship of each independent variable used in the specification of the panel data regression model to stock return of each company. Panel data regression models selected were common effect models with variant-covariant residual structure is heteroskedastik. Can be seen in table 1

## (2) Fixed Effect Model (FEM)

$$
\begin{array}{r}
R S_{i t}= \\
b o+b_{1} R O A_{i t}+b_{2} D E R_{i t}+b_{3} P B V_{i t}+b_{4} \text { Kurs }_{i t}+ \\
b_{5} T S B_{i t}+b_{6} I N F_{i t}+\varepsilon_{i t}+\sum b_{i+7} D_{i}+\varepsilon_{i t} \\
(2 \mathrm{a}) \\
\hline
\end{array}
$$

$$
\begin{aligned}
& N P T_{i t}= \\
& b o+b_{1} R O A_{i t}+b_{2} D E R_{i t}+b_{3} P B V_{i t}+b_{4} \text { Kurs }_{i t}+ \\
& b_{5} T S B_{i t}+b_{6} I N F_{i t}+b_{7} R S_{i t}+\varepsilon_{i t}+\sum b_{i+8} D_{i}+\varepsilon_{i t} \\
& \text { (2b) }
\end{aligned}
$$

(3) Random Effect Model (REM)

$$
\begin{aligned}
& R S_{i t}= \\
& b o+b_{1} R O A_{i t}+b_{2} D E R_{i t}+b_{3} P B V_{i t}+b_{4} \text { Kurs }_{i t}+ \\
& b_{5} T S B_{i t}+b_{6} I N F_{i t}+\varepsilon_{i t} \\
& \text { (3a) }
\end{aligned}
$$

Table 1 Selected Models Common Effect Model (CEM) Effect of ROA, DER, PBV, KURS, TSB, INF against RS. *)

## Dependent Variable: RS?

Method: Pooled EGLS (Cross-section weights)
Date: 04/20/12 Time: 21:07
Sample: 2008-2010
Included observations: 3
Cross-sections included: 35
Total pool (balanced) observations: 105
Linear estimation after one-step weighting matrix

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| :--- | ---: | ---: | ---: | ---: |
| C | 0.654467 | 0.518933 | 1.261179 | 0.2102 |
| ROA? | 0.020848 | 0.017029 | 1.224227 | 0.2238 |
| DER? | -0.128039 | 0.057535 | -2.225430 | $\mathbf{0 . 0 2 8 3}$ |
| PBV? | 0.218891 | 0.069867 | 3.132979 | $\mathbf{0 . 0 0 2 3}$ |
| KURS? | -0.086651 | 0.021828 | -3.969679 | $\mathbf{0 . 0 0 0 1}$ |
| TSB? | -0.030744 | 0.081553 | -0.376981 | 0.7070 |
| INF? | -0.039707 | 0.012988 | -3.057222 | $\mathbf{0 . 0 0 2 9}$ |
|  | Weighted Statistics |  |  |  |
| R-squared <br> Adjusted R- <br> squared | $\mathbf{0 . 5 2 3 5 8 8}$ | Mean dependent var | 0.087451 |  |
| S.E. of <br> regression <br> F-statistic <br> Prob(F- | 0.494420 | S.D. dependent var | 1.277431 |  |
| statistic) | 0.907283 | Sum squared resid | 80.66993 |  |


| Unweighted Statistics |  |  |  |
| :--- | ---: | :--- | :--- |
| R-squared <br> Sum squared <br> resid | 0.274886 | Mean dependent var | 0.199619 |
| *) Source Processing Results Eviews7 | 2.957187 |  |  |

The results of the panel data regression models show that stock returns together at the alpha of $5 \%$, by looking at the value of R-square is formed, the independent variable can explain the growth of the stock return of 52.35 percent. Together the independent variables have a statistically significant effect on stock return. This is explained by the value of prob (F-statistic) for less than $5 \%$ which is 0.00000 . Meanwhile, based on the statistical t-test, partial four independent variables significantly influence stock returns. While the two variables had no significant effect on the growth rate of stock returns. Stock Return Model regression equation is as follows: $\boldsymbol{R S}=$ $0,6544+0,0208$ ROA - 0,1280 DER + 0,2188 PBV 0,0866 KURS - 0,0307 TSB - 0,0397 INF. Based on the output of the above can be determined most
dominant variable affecting stock returns. This test can be done by looking at the value of the significant regression coefficients of the model chosen above for units used in the model are the same. Therefore, it can be seen that the variable price to book value is the most dominant variable with regression coefficient of 0.2188 .

## Discussion Effect of Independent Variables on Corporate Value (NPT).

Panel data regression model describes the relationship of the enterprise value of each of the independent variables used in the specification of the panel data regression model on corporate value (Tobin's Q ) of each company. Panel data regression model selected is the random effect models. Can be seen in Table 2

## Table 2

Random Effect Model (RAM) Effect of ROA, DER, PBV, KURS, TSB, INF, RS against NPT *)

Dependent Variable: NPT?
Method: Pooled EGLS (Cross-section random effects)
Date: 04/19/12 Time: 13:53
Sample: 2008-2010
Included observations: 3
Cross-sections included: 35
Total pool (balanced) observations: 105
Swamy and Arora estimator of component variances
White cross-section standard errors \& covariance (no d.f. correction)
WARNING: estimated coefficient covariance matrix is of reduced rank

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| :---: | :---: | :---: | :---: | :---: |
| C | $\mathbf{0 . 9 3 0 2 9 2}$ | 0.136506 | 6.815009 | $\mathbf{0 . 0 0 0 0}$ |
| ROA? | 0.010359 | 0.019609 | 0.528259 | 0.5985 |
| DER? | -0.016363 | 0.024704 | -0.662348 | 0.5093 |
| PBV? | $\mathbf{0 . 1 2 0 9 9 0}$ | 0.020600 | 5.873265 | $\mathbf{0 . 0 0 0 0}$ |
| KURS? | $\mathbf{0 . 0 1 6 0 4 4}$ | 0.004434 | 3.618542 | $\mathbf{0 . 0 0 0 5}$ |
| TSB? | $\mathbf{- 0 . 0 8 0 0 5 7}$ | 0.005261 | -15.21744 | $\mathbf{0 . 0 0 0 0}$ |
| INF? | -0.002437 | 0.008495 | -0.286851 | 0.7748 |
| RS? | $\mathbf{0 . 0 3 0 5 5 8}$ | 0.008960 | 3.410484 | $\mathbf{0 . 0 0 0 9}$ |
| Random Effects |  |  |  |  |
| (Cross) | 0.345373 |  |  |  |
| _ASRI--C | 0.361136 |  |  |  |
| _ELTY--C | -0.155336 |  |  |  |
| _BAPA--C | -0.026594 |  |  |  |
| _BIPP--C | 0.081521 |  |  |  |
| _BKDP--C | -0.034758 |  |  |  |
| _BSDE--C | -0.101026 |  |  |  |
| _CTRA--C | 0.023398 |  |  |  |
| _CTRP--C | 0.001833 |  |  |  |
| _CTRS--C | -0.231800 |  |  |  |
| _CKRA--C | $\mathbf{0 . 5 4 1 3 9 5}$ |  |  |  |
| _COWL--C |  |  |  |  |


| _SCBD--C | -0.181315 |
| :--- | :---: |
| _DART--C | 0.005696 |
| _DUTI--C | -0.036241 |
| _FMII--C | -0.161488 |
| _KPIG--C | -0.116586 |
| _GMTD--C | 0.001380 |
| _OMRE--C | -0.181980 |
| _DILD--C | -0.024701 |
| _JIHD--C | -0.077296 |
| _JRPT--C | -0.187679 |
| _KIJA--C | 0.255687 |
| _LCGP--C | 0.059513 |
| _LAMI--C | -0.021015 |
| _LPCK--C | -0.002076 |
| _LPKR--C | 0.240954 |
| _MDLN--C | 0.003370 |
| _PTRA--C | -0.026940 |
| _PWON--C | $-\mathbf{0 . 2 7 2 6 3 2}$ |
| _GPRA--C | -0.052478 |
| _RBMS--C | 0.110250 |
| _BKSL--C | 0.049969 |
| _SMRA--C | -0.012598 |
| _SIIP--C | -0.051186 |
| _SMDM--C | -0.125751 |


|  |  |  |  |
| :--- | :--- | :--- | :--- |
|  | Effects Specification |  |  |
|  | S.D. | Rho |  |
| Cross-section random | 0.222953 | 0.4042 |  |
| Idiosyncratic random | 0.270675 | 0.5958 |  |

Weighted Statistics

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| R-squared | $\mathbf{0 . 2 3 7 2 0 8}$ | Mean dependent var | 0.298084 |
| Adjusted $R$-squared | 0.182161 | S.D. dependent var | 0.299207 |

## CONCLUSION

## Findings on Stock Return Model and Corporate Value Model.

(1) financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, INF) significant effect on stock returns together (overall). Individually (partial) regression results found that ROA does not significantly influence stock returns, DER significant negative effect on stock returns, PBV significant positive effect on stock returns, exchange rate a significant negative effect on stock returns, TSB no significant effect on stock returns, and significant negative effect of inflation on stock returns (Table 1)
(2) financial and macroeconomic fundamentals (ROA, DER, PBV, KURS, TSB, INF, and RS) have a

| S.E. of regression | 0.270586 | Sum squared resid | 7.102047 |
| :--- | :--- | :--- | :--- |
| F-statistic | 4.309205 | Durbin-Watson stat | 1.837189 |
| Prob(F-statistic) | $\mathbf{0 . 0 0 0 3 4 4}$ |  |  |
|  |  |  |  |
|  | Unweighted Statistics |  |  |
| $R$-squared | 0.198952 | Mean dependent var | 0.519333 |
| Sum squared resid | 11.69806 | Durbin-Watson stat | 1.115382 |

Results of random effects panel data regression showed that together the alpha $5 \%$, by looking at the value of R -square is formed, the independent variable can explain the growth in value of the company amounted to 23.72 per cent. Together the independent variables have a statistically significant effect on firm value. This is explained by the value of prob (Fstatistic) for less than $5 \%$ which is 0.00034 . Meanwhile, based on the statistical t-test, partial four independent variables have a significant effect on firm value. While the three variables had no significant effect on the growth rate of firm value.

The regression equation model of value are as follows: $N P T=0,9302+0,0103 \mathrm{ROA}-0,0163 \mathrm{DER}$ $+0,1209$ PBV + 0,0160 KURS - 0,0800 TSB 0,0024 INF + 0,0305 RS.

Based on the output of the above can be determined that the most dominant variable affecting the Company's value (Tobin's Q). This test can be done by looking at the value of the significant regression coefficients of the model chosen above for units used in the model are the same. Therefore, it can be seen that the variable price to book value is the most dominant variable with regression coefficient of 0.1209
significant effect on corporate value (Tobin's Q) together (overall). Individually (partial) results of regression tests found that the ROA has no significant effect on corporate value (Tobin's Q), DER no significant effect on corporate value (Tobin's Q), PBV significant positive effect on corporate value (Tobin's Q), Exchange rate significant positive on corporate value (Tobin's Q), TSB significant negative effect on corporate value (Tobin's Q), INF no significant effect on corporate value (Tobin's Q) (Table 2)
(3) Stock returns significant positive effect on corporate value (Tobin's Q), empirical findings are consistent with the hypothesis of research and proven. changes in the stock return will cause a change in corporate value (Tobin's Q) means that the higher the stock return, the higher the corporate value (Tobin's
Q) property and real estate go public in Indonesia. (Table 2)

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