

DOES MANAGER IN BETTER ECONOMIC VALUE ADDED'S COMPANIES FEELING MORE SATISFIED? AN INVESTIGATION OF EVA's ROLE IN MITIGATING AGENCY PROBLEM PROXIES: EMPIRICAL RESEARCH FROM EMERGING MARKET SAMPLE, NAMELY INDONESIA

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Abstract

This research is formulating the cause of agency conflict into three factors. The first one is agent unsatisfactory on the existing compensation system. The second is the high ratio of free cash flow in the company. The last is the absence of good monitoring on the company operation.

Based on those three factors, this research aims to find a full perspective of these occurrences. One of the tools to investigate it is using EVA® as investigator tools, which is relatively new as a performance measurement in Emerging Market. The proxy variables on agency conflict are new investment ratio and total asset turn over. The control variables are dividend payout ratio and leverage.

There are two research questions that being addressed in this research. The first, if there are any differences in agency conflict proxies between companies that have positive EVA® in their performance and companies with negative EVA®. The Second is to analyze if EVA® has significant role to influence the behavior of manager which tend to trigger the agency conflict within the company.

The Methodology of this research was paired t-test data comparison between positive EVA companies and negative EVA.. In addition, we analyzed the relationship of variable within the model with Data pool from 2002 until 2011To sum up the methodology; we tested the model with robustness test and Causality Test as well.

The research finds out that Manager in companies with better EVA® tend to have lower agency conflict level. In conclusion, EVA® is strongly supporting the control variable in explaining its influence on dependent variables or agency conflict proxies.

Keywords: EVA®, New Investment, Total Asset Turn Over, Dividend Payout, Leverage, Agency Conflict

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1 Introduction

One of the company's objectives is to maximize shareholder's profit (Brigham, 1992). Managers are the agent who responsible with company daily operation. However, managers as agents have their own objective in reaching the company goal. The different priority and goal between shareholder and the manager can trigger the internal problem. A problem between managers and shareholders is known as the agency problem (Michael C. Jensen & Meckling, 1976).

Brigham and Houston (1992) stated: A potential agency problem arises whenever the manager of a firm owns less than 100 percent of the firm's common stock. If the firm is a proprietorship managed by its

owner, the owner-manager will presumably operate so as to maximize his or her own welfare.

The implication is managers try to make an extra income from their authority; those efforts and the cost attached to it may not be approved by the stockholders. Examples of these conflicts are reflected in the financial decision. For example, the manager attempts to expand the size of the company without realizing the effectiveness of its current asset. When a company grows (as indicated by the high value of new investments without the proper growth on return on investment), the manager will have a raise in status, power, and incentive payment (Parrino & Weisbach, 1999). This decision will make the stockholder upset. The new investment does not have a positive impact on the company's growth. Moreover, it only raises the current cost of capital.

Based on aforementioned, the activities in expanding the company size are reflecting the ambitious side of managers in terms getting an extra income. This could happen when managers are not satisfied with the existing compensation system (Smith Jr & Watts, 1992). Manager needs to be encouraged to act with the interest of the stockholders through the proper mechanisms. (Brigham, 1992) suggests the mechanisms: (1) a compensation system based on the right financial performance for the managers; (2) policy creation by capital owners on the amount of free cash flow being held through dividend policy; and (3) tight performance control by using a high debt ratio.

This paper investigate whether manager of firms who having positive Economic Value Added take action consistent with their satisfaction on their compensation plan. Within the research the author studies the role of EVA® in disclosing the symptom of agency conflict within the company. The author takes samples of companies with positive EVA® as either companies with negative EVA®. These fundamental data was taken during 2002 until 2011 period of time.

The first mechanism that will be analyzed was the proper performance valuation system for managers (agent). A manager who can maximize the stockholder's profit must have the appropriate compensation model. This research does not see if the EVA compensation plan has been implemented by the companies or not. But this research put allegation that company with positive EVA can stimulate manager to conduct their job consequently with the objective of shareholder. Moreover, Wallace (1997) argues that the structure of compensation model must accommodate two purposes. First is to attract and hold the most capable managers in their job. Second is to guard the managers' working corridor so that it is in accordance with the stockholder's interest. Through the right performance valuation plan, the agency conflict can be minimized.

Wallace (1997) in his research "Adopting residual income-based on compensation plan: Do you get what you pay for?" Judged that there are still a lot of managers who is not satisfied with their current compensation plan. The reason is the conventional profit measurement. A measurement which based on conventional accounting measures such as earning per share, return on asset. With the growing performance of the company, this traditional financial structure does not give a positive implication to the incentives that are given to managers.

Consistent with that, a financial performance based on residual income is now being commonly implemented. One such compensation model is based on EVA® or residual income (G. C. Biddle, Bowen, & Wallace, 1997). The author is interested to analyze the compensation structure based on residual income since it can show the capital cost calculated using the Weighted Average Cost of Capital, or WACC. By

using WACC, we can see the cost of equity and the cost of debt that has been borne by the stockholders so that the residual value really shows the added value earned by the company (G. C. B. Biddle, R.M.; Wallace J.S., 1997).

The second reason in using residual income approach is the calculation which combines size and return on invested capital (ROIC) into one single value. Companies nowadays tend to focus only on one method. On the other hand, focusing only in size (earning or earnings growth) could destroy the value if the value of ROIC is lower than the value of WACC. On the other hand, having a high ROIC value with a low WACC value can trigger high opportunity cost (Stern, Shiely, & Ross, 2001).

The third reason why the author chooses compensation methods based on residual income is the current factor in research literatures. Valuation of the company based in residual income is a new concept and idea in the business world, even in Indonesia or the most recent economic environment. This is why this research is pretty interesting to look from the outcome aspects, especially the ones that correlate with agency conflict within a company. Performance valuation model using residual income has had several adjustments to become Economic Value Added, or EVA®. EVA® produces a better measurement that residual income because EVA® can correct the distortion in managerial incentives that was introduced by standard GAAP accounting (Stern et al., 2001). Based on the explanation above, this research will try to explain research allegation that whether company with better EVA®-has better compensation model which satisfy manager.

The second mechanism that can control the managers' consistency with the purpose of the company is to have a tight control of the free cash flow by having a high dividend policy (M. H. Miller, & Rock, K. , 1985). In this research, the dividend policy is reflected in the dividend payout ratio. When this dividend policy is decided, managers must accept whatever is the main objective of the company. That objective is that each profit must be able to maximize the wealth of the stockholders. A high dividend policy is natural because the capital owner has carried the highest risk of the company's operations (Husnan, 1996). Other than that, the capital owner is the last person who can actually enjoy the company's profit after the creditors and the government.

The consequence of this policy is that the free cash flow earned from the company's profit will be very limited. Managers will be very careful in using the operational cash. This is why the dividend payout ratio becomes the first control variable that can affect the potential agency conflict that may arise in the company.

The third mechanism that can control managers to be consistent with the company's objective is by implementing high leverage policy (Cronqvist, Makhija, & Yonker, 2012). Leverage "is postulated to

proxy for effects of the firm's debt structure on management decision" (Watts, 1986). Moreover increased leverage also provides increased monitoring of management and decreases the opportunity for management to waste free cash flow (Michael C. Jensen & Ruback, 1983).

That is why in this research, leverage becomes a proxy for the second control variable to understand the effect of the company's debt structure from the managers decision. An increase in leverage will increase the monitoring action of the shareholder on the performance of the managers, hence reducing the opportunity for managers to misuses the free cash flow. When a high control is being implemented, managers can increase their performance. To sum up, manager is able to generate excess value for the company.

The next step is to implement the dependent variable to a proxy of a potential agency conflict inside the company. Wallace (1997), states that there are two indicators that can be a proxy for potential agency conflict. First is by looking at the investment sector. According to Brigham and Houston (2004), a manager will add the size of the company through new investment if the workspace at that time is not able to give the desired wealth for the manager. Increasing the size of the company tend to create negative EVA®. A good EVA® will be earned if the company's profit is higher than the cost of capital. Which means, almost all the asset that the company owns has a synergic effect with the company's revenue. This new investment will also reduce the company's ability to make a dividend payment to the stockholders which then has a negative consequence for them.

The condition is aggravated when the money from debt is used to increase this investment (Widiantoro, 2012). This investment decision will be the first decision that can cause agency conflict (Smith, 1999). That is why the performance valuation structure that is based on a positive EVA® and control of free cash flow through dividend policy and leverage is predicted to prevent a manager in spending more on new investment (G. C. B. Biddle, R.M.; Wallace J.S., 1997).

The second proxy, which is able to detect a potential agency conflict, is the value of total asset turn over. The value of total asset turn over shows how much optimal use of current asset in increasing the productivity of the company (G. C. Biddle et al., 1997). Brigham and Houston (2004) defined total asset turn over as the ratio of sales over the total asset. The value of total asset turn over give information that an increase in profit can be supported by an efficient asset usage. With this efficient asset, the cost of capital will be low, and the company added value or EVA® will be higher.

Consistent with that, a high margin gives a better ability for the cash of the company to make a dividend payout with the equity that exists in the

market. In the other side, a low asset makes the company's financial structure become more flexible. This asset control decision becomes the second proxy in detecting agency conflict. By using EVA®-based performance valuation model and free cash flow control by dividend policy and leverage, we hope that managers (agent) will make a better use of asset. Based on aforementioned, (Wallace, 1997) concludes a positive EVA® variable, which is controlled by dividend payout, will positively affect the total asset turn over.

To sum up, this research found out that there is difference between company who had positive EVA and negative EVA. The companies with negative EVA® tend to not share their dividend. It is due to the uncertainty of free cash flow for the upcoming financial period. The second is the negative EVA® companies tend not use high leverage. The reason is their concerns of leverage risk, which potentially trigger company's collapse. These differences will later be one of the company's ability in keeping the managers' consistency to accomplish the objective of the company.

2 Literature Review and Hypothesis Formulation

2.1 Investment decision

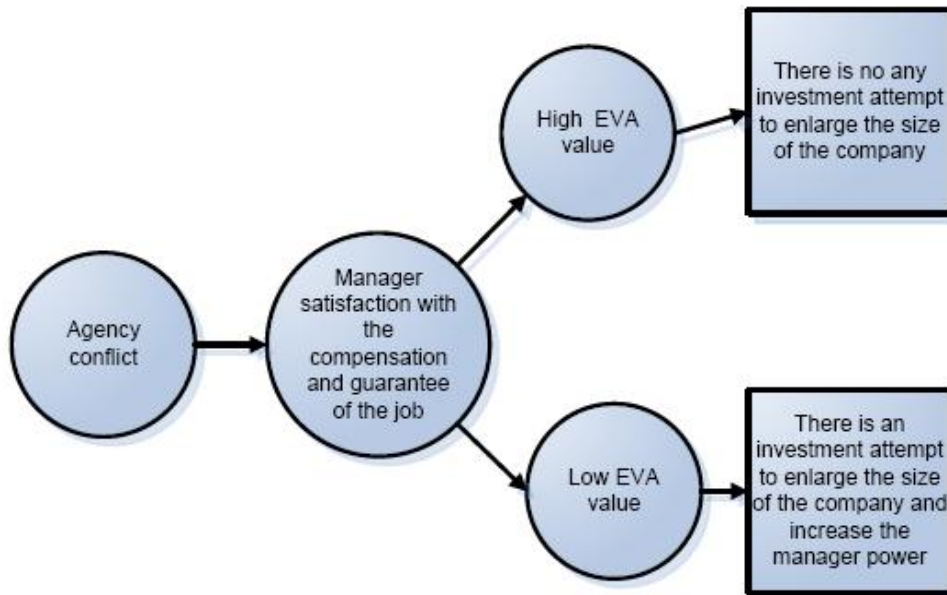
The cost of the company which came from interest of the debt has contra position with the income of the company in the balance sheet (Michael C. Jensen & Warner, 1988). Many projects, which is conducted by the company, are always expected to have bigger income rate than the cost of debt (Michael C. Jensen & Meckling, 1976). In the other word, the big amounts of debt will decrease the share of shareholder equity. The income, which is compensated based on incentive, mostly brings the company to over investment (G. C. Biddle et al., 1997). It is due to the high cost in company capital; therefore, the performance measure of the company which is based on residual income or EVA® is expected to prevent over investing.

Agency conflict in investment activity can be seen when the investment value increases but not followed by the income of the company (Wallace, 1997). This phenomenon triggers the allegation that performance valuation system is not satisfying the agent or manager. The effect is, manager tries to enlarge the size of the company to get more power and incentive (G. C. B. Biddle, R.M.; Wallace J.S., 1997).

Align with aforementioned, the test of variable control will show the information within the consistency of manager. When the investment increases, the dividend payout ratio which is the performance valuation tools of company cash expenditure will decrease, and the leverage will increase (G. C. Biddle et al., 1997).

The Model which is expected to be able to explain the relation of investment with the agency conflict is described below:

Figure 1. The Agency Conflict which is triggered by unsatisfying performance valuation plan and end up in New Investment of Manager



Based on aforementioned figure, new investment is described as the acquisition and capital expenditure, which is counted from the initial company operation. The ideal view of this occurrence is, the project should have the return which over the opportunity cost of capital in order to create positive residual income. It makes the manager to be more selective in selecting the project, as either the ongoing project.

2.2 Operation Decision

There are three chances in increasing Company residual income such as increase the Net Operation Profit after Tax (NOPAT) and Return on Asset, or decrease the Weighted Average Cost of Capital (WACC) (Michael C. Jensen & Meckling, 1976).

Equation 1. Residual Income performance valuation Plan, one of the derivative from RI is EVA Economic Value Added.

Residual Income performance valuation which based on $EVA = NOPAC - WACC * Total Assets,$ (1)

where $NOPAC = Earning\ Before\ Interest\ and\ Taxes * (1 - Tax)$

$$WACC = \frac{Debt}{Total\ Asset} \times Cost\ of\ Debt(1 - Tax) + \frac{Equity}{Total\ Asset} \times cost\ of\ Equity$$

Cost of Equity = Risk Free + $\beta * (Risk\ Market - Risk\ Free)$

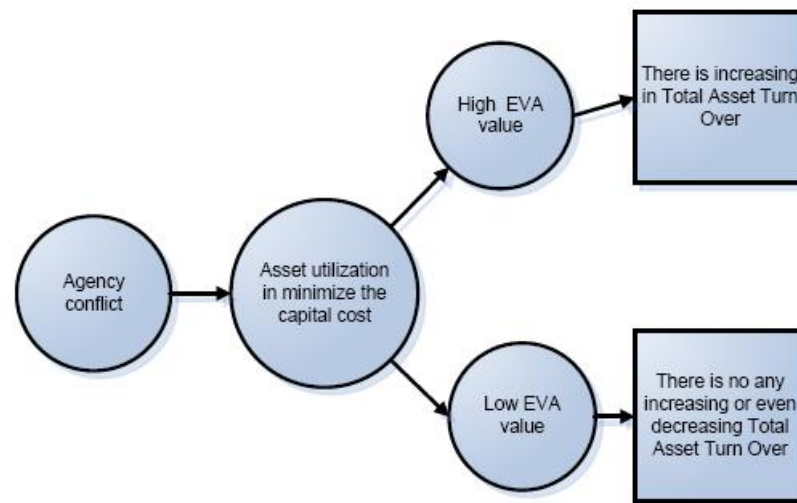
In terms of reaching the positive free cash flow, organization was enforced to utilize their asset intensively. The parameter of asset intensive is Asset turn over which come from formula of sales divided by total asset.

The high value of asset turn over indicates that management are succeeding in optimizing income without sacrifice leverage (Stern et al., 2001). The relationship of this parameter with agency theory is the high value of asset turn over indicating that the value already benefit both parties, either manager and owner. The effect is the diminishing of agency conflict potency. This means that sometime company

tries to earn high growth earning with investment and debt (M. C. Jensen, 1991). The effect is the bubble or does not represent the real occurrence of company performance. Even though, the income is high but in terms of total asset does not showing good performance. Within this research, this real condition of company performance can be seen from the value of EVA®. The high earning growth which is not align with the positive value of EVA® means that the company also increase the ratio of debt as well.

The model, which show the operation activity with agency conflict, is like graph below.

Figure 2. The relation of Agency Conflict and unproper performance valuation



2.3 Hypothesis Formulation

2.3.1 Existing Agency Conflict within Company

Agency conflict mostly happens to the company which can't accommodate the interest between manager and the equity owner (Brigham, 1992). Research from Wallace (1997) revealed that the company with bad economic added will tend to have higher agency conflict than the good one. First hypothesis that we propose here is an analysis that the company with low and negative EVA® will have higher investment rate. It is due to the value added of the company is not adequate to compensate the manager incentive. The implication is the manager tends to enlarge his responsibility by doing investment exaggeratedly and in some case doesn't give any impact toward company productivity. Moreover, the high investment in intangible asset will double the potency of agency problem (Widiantoro, 2012). On the other hand, the ratio of sales which take proxy of Total Asset Turn Over become low (Stern et al., 2001).

Hypothesis alternative 1: The Company with positive EVA® will have lower Agency conflict than the Company with negative EVA®.

2.3.2 Decision which related with Control Variable

However, there is no company wants agency conflict to be occurred in their company governance. This research put allegation that positive EVA® can give better performance valuation certainty either for stockholder or manager.

In contrast with aforementioned, the company with negative EVA® tends to have bigger potential of agency problem. Company with negative EVA® triggers the investor and shareholder to be worried with the future profit certainty. from dividend and capital gain point of view. In terms of fixing the

problem, Wallace (1997) assumes that the company will share more their dividend. Mostly the company will afraid to raise the dividend payout except they already have certainty of free cash flow in the future (M. H. Miller & Rock, 1985).

Moreover, the company will find more problem if they retain their free cash flow (Michael C. Jensen & Ruback, 1983). In addition, the company which does not share their dividend usually want to enlarge the size of the company which means increase the power and welfare and neglect the shareholder interest (Murphy, 1999).

On the other hand, leverage at operational activity will give a benefit in the company ability in creating competitive price and also be able in maintaining fixed cost (Husnan, 1996). However, the high level of leverage indicates that there is also high risk in achieving production target. This is also indicating that there is high monitoring from stockholder toward manager in running their duty constraint with the target. The company with low EVA® will need more supervise from stockholder than high EVA® (Michael C. Jensen & Meckling, 1976). It is shown by the high level of leverage. From aforementioned, paper propose hypothesis alternative, which dividend and leverage will become variable control and able to describe agency conflict, which exist in a company.

Ha2: Financial leverage and Dividend payout Ratio as the proxy of Shareholder control is able to influence the decision which potentially triggers the agency conflict.

2.3.3 Using EVA® to Mitigate the Level of Agency Conflict

The paper put allegation that there is a different policy in leverage and dividend payout ratio for the company with negative EVA® and Positive EVA®. There is an allegation that the company with EVA®

positive tends to share more dividend and put leverage higher. The high leverage will help the problem of cost of capital from fix cost and also will add the capability of stockholder monitoring (G. C. Biddle et al., 1997; Cronqvist et al., 2012; Edelen, Evans, & Kadlec, 2012; Elkamhi, Ericsson, & Parsons, 2012; Michael C. Jensen & Warner, 1988; Korkeamaki, Liljebloom, & Pasternack, 2010). Therefore, the dividend payout ratio will be more often be conducted. In this research, the author will put EVA® as to differentiate two groups of sample. The function of EVA here is classifying the level of independent variable toward dependence variable. Moreover, the research also will do additional measurement by putting EVA as the additional predictor. At the end, the research will also check the robustness and the causality effect within the model and data.

Ha3: EVA® will be able to show its role to mitigate the potency of Agency Conflict within the Companies.

3.1 Methodology and Hypothetical Test

Methodology on this research is made based on the methodology architecture from (Kallet, 2004). The first is the description of the material data. Secondly is the description of the data preparation. Third is the view of the design/ procedure / protocol of the research. Fourth is the description on how each measurement is done and how it is calculated. The last is the explanation of each statistical tools to help explain the phenomenon.

3.2 Data Collecting

This research is categorized as empirical research. In order to understand the whole perspective of the phenomenon, the author collects the financial data of each company from Bloomberg Financial Database. The data was provided by the secondary financial data provider, namely Bloomberg Financial Data. The whole type of the data is secondary data.

For each calculation of the data, the author presents the variable as below.

| Variable | Definition | Type |
|--------------------------------|---|-------------|
| Agency Conflict Proxies | | |
| Total Asset Turn Over | The ratio between Sales and Total Asset | DEPENDENT |
| New Investment Ratio | The ratio between New Investment and Total Asset | DEPENDENT |
| Fundamental Value | | |
| EVA (log) | Intangible Value based Firm Corporate Governance& Characteristic | INDEPENDENT |
| Dividend Payout Ratio | Return On Equity | CONTROL |
| Leverage ratio | The proportion of Current Debt in the company | CONTROL |

All the data here is Ratio and Log. The range of the time is between 2002 until 2011. For the value of EVA is converted into log. The negative log will be converted in the way: $\log(-x) = \log(x) + \log(-1)$, where $\log(-1)$ after a lot of tedious calculations is equal to: $\pi \cdot i / \ln(10) \approx 1.36437635i$, so: $\log(-x) = \log(x) + 1.36437635i$

3.3 Measures

According to the introduction, the problem definition will be divided into three parts:

The research attempts to analyze the performance valuation effect which based on EVA® in controlling agency conflict.

Second problem is the effort to analyze how big free cash flow control mechanism through dividend policy and leverage in percent the agency conflict.

Third problem definition is finding out how dividend policy and leverage between company which have positive EVA® and negative EVA® in controlling agency conflict.

Fourth problem definition is searching the role of EVA as the predictor variable in influence the proxy of agency conflict within the company.

This research emphasis the update data within 100 Best Performance Company based on SWA rating index and registered in Indonesian Stock Exchange during 2002-2011.

3.3.1 Detect the Existing of Agency Conflict

To test the existence of agency conflict in the company this paper will examine it with descriptive statistics (Zikmund, Babin, Carr, & Griffin, 2010). The data will be analyzed in advance and be divided into two groups: firms with positive and negative EVA®. Moreover, it can be analyzed through a proxy the average value of the proposed agency conflict is the investment ratio and total asset turnover. Alternative hypothesis is accepted if the value of the ratio of investment in companies with positive EVA® value is lower and the total value of assets valued higher turnover than firms with negative EVA®.

Average:
$$\bar{X} = \frac{\sum_{i=1}^k X}{n} \quad (2)$$

Value of deviation standard:
$$std_dev = \sqrt{\frac{\sum_{i=1}^k (X_i)^2 - (X_{i-1})^2}{n-1}} \quad (3)$$

Hypothesis Test average (Gujarati, 2003).
 Hypothesis Ho: difference between the mean average of x1 with x2 not statistically significant
 value H1: The average difference between the average of x1 with x2 value was statistically significant.

3.3.2 Testing the ability of EVA in mitigate the Agency Conflict

The study used Ordinary Least Square Pool analysis. Ordinary Least Square is chosen because of the wide range of data period (Gujarati, 2003; Hair, 2006; Zikmund et al., 2010). The OLS pool will predict the population of dependent variables based on the value of the from independent.

The model in this research was inspired by the previous research about the relation of manager performance valuation system and its role in corporate governance issue (G. C. Biddle et al., 1997; Carpenter, Stanton, & Wallace, 2010; Wallace, 1997). This model is taken from the models used before in analyzing the relationship level of financial activity with the potential emergence of agency conflict. The contribution of this research toward the literatures is the idea to separate group of companies based on EVA. This process resulted in data to be clearer and we can see the difference of risk agency between positive EVA companies and negative EVA companies.

The first calculation is showed below.

The Panel Data Model without EVA:

$$\Delta \text{Dependent}_{variable} = \alpha + \beta_1 \Delta \text{DividendPayout}_i + \beta_2 \text{Leverage}_i + \epsilon \quad (4)$$

The Panel Data with EVA:

$$\Delta \text{Dependent}_{variable} = \alpha + \beta_1 \Delta \text{DividendPayout}_i + \beta_2 \text{Leverage}_i + \beta_3 \text{EVA}_i + \epsilon \quad (5)$$

Based on the aforementioned formula, the model was expected to be able to show the potency of agency conflict. The control variables which become proxies of shareholder intervention was expected to be able to control the dependent variables. The value of the coefficient in dividend payout and Leverage hopefully can show the relation and degree of supervision toward agency conflict. To sum up, both of variables were expected to show the level of monitoring of the owners in the company's activities.

4 Empirical Result

4.1 Descriptive Statistic and The Existing of Agency Conflict Within the company

In defining the agency conflict, this paper will use two proxies, which are ratio of new investment value and Total Asset Turn Over. Investment Ratio will be used to find out the scale of manager deviation in

their responsibility. By increase the size of the company, manager will have a bigger role within the company and secure his position. On the other side, Total Asset turn over which represent the formula of Sales compare with a total asset and will be used to get know how big manager can optimize asset of the company in increasing the selling.

This discussion will be started from the regression outputs which are derived from the first alternative hypothesis, the potential existence of a higher agency conflicts in firms with negative EVA®.

First Hypothesis, which will be tested, is about the differences between company which have performance valuation structure based in positive EVA® and negative EVA® toward their new investment policy. On the other hand, H-alternative, which proposed the value of investment, will be higher in negative EVA® than the company with Positive EVA®.

Table 1. The Average Differences and Significances Level Investment Ratio Between Company who has Positive EVA® and Negative EVA®

| No | Variable | Positive Eva | Negative Eva | Hypothesis |
|----|--|-------------------------------------|-------------------------------------|------------------|
| 1 | Investment to Total Asset Ratio (in %) | Mean 4.042076 Std. Dev. 7.460618 | Mean 4.657829 Std. Dev. 9.351392 | Ha1 is supported |
| 2 | Total Asset Turn Over (in %) | Mean 9.399070 Std. Dev. 14.02825 | Mean 0.762733 Std. Dev. 0.679269 | Ha1 is supported |

The hypothesis alternative is supported by the data calculation from 2002 until 2011. What Hypothesis alternative expects is the average value of new investments in negative EVA® companies is higher than positive EVA® companies. The big magnitude of standard deviation in this data is due to the rare occurrence in investments activities. However, the difference of mean show the significance difference between companies with positive EVA and negative EVA. In the whole year, it can be seen that firms with negative EVA® tend to allocate their budgets in higher investment compared with a company that has positive EVA®.

These results indicate that in each year, the hypothesis which stated that negative EVA® has the higher agency problem is supported by data calculation (H011 denied). This is consistent with previous research (G. C. Biddle et al., 1997; G. C. B. Biddle, R.M.; Wallace J.S., 1997; Michael C. Jensen & Meckling, 1976; Wallace, 1997). Within the scope of the first hypothesis but using a proxy of total assets turn over, the first null hypothesis also be tested (H012). When it is being tested, there is a difference between the company with performance valuation structure of EVA® positive or negative in setting the

policy of asset utilization. The correlation also shows that EVA has strong negative direction with new investment. It can be concluded that company with positive EVA are tends to have lower agency conflict. The Correlation between new investment and total asset turnover also negative and significant, which means new investment, tends to affect the total asset turn over into decrease.

The proposed Hypothesis alternative 1.2 stated that the value of total assets of the company with negative EVA® is lower than the positive EVA ® Company. The rule of thumb from this test is if the average value of total assets at the company's turnover with negative EVA® value is lower than the EVA® positive then proposed alternative hypothesis is supported by data. Between 2002 and 2011, it can be seen that the value of the asset optimization is higher for positive EVA® than Company with Negative EVA®. The results display the potential agency conflict, which is caused by Total assets turnover, is bigger in negative EVA® firms than Positive EVA® firms (H012 denied). This is consistent with the previous research (G. C. Biddle et al., 1997; G. C. B. Biddle, R.M.; Wallace J.S., 1997; Wallace, 1997).

Table 2. The Correlation of Asset Turnover, Investment Ratio, Dividend Payout, Financial Leverage, and Economic Value Added

| | ASSET_TURNOVER | INVESTASSET | DPR | FNCL_LVRG | EVA |
|----------------|----------------|-------------|-----------|-----------|----------|
| ASSET_TURNOVER | 1.000000 | | | | |
| INVESTASSET | -0.204453 | 1.000000 | | | |
| DPR | -0.047285 | 0.034372 | 1.000000 | | |
| FNCL_LVRG | 0.077552 | 0.035243 | 0.006339 | 1.000000 | |
| EVA | -0.160748 | 0.311481 | -0.005617 | -0.044061 | 1.000000 |

Based on the correlation table, New Investment has significant negative correlation with Asset Turn Over. This phenomenon can be accepted because the new investment will enlarge the total asset which resulted in the lower ratio of Total Asset Turn Over. The Interesting Part on this table is the EVA that has positive correlation with New Investment. Most of the companies who did investment also have same movement with EVA. This phenomenon will get further analysis in next section.

The first discussion of the alternative hypothesis that states if positive EVA® firms have lower agency risk has been supported by the data. The assumption that put allegation if the manager’s welfare will be better accommodated when EVA® is positive is approved. Positive EVA® value provides an opportunity for managers to get higher performance valuation . Although the proportion is not as big as the owners of capital, (because capital owners bear a greater risk) but the achievements are visible from a positive EVA® value can increase the bargaining power of managers in getting the desired performance valuation and bonuses.

Hypothesis about Agency conflicts occurrences in firms will have a greater possibility in negative

EVA® company is proved. According Husnan (1996), this is because the majority of new investment company is not related to the existing core business. In the other words, these investments provide benefits only to the prosperity of the manager or agent (Husnan, 1996).

4.2 Analysis of Control Variable effect toward Dependent variable

The alternative hypothesis which will be tested from the model is whether the value of the investment ratio and total asset turnover companies listed in Indonesian Stock Exchange during the period 2002-2011 is affected by the dividend payout ratio and leverage. In addition, the null hypothesis is the dividend payout ratio and leverage does not significantly affect value ratio of new to investing their assets and the total turnover.

The calculation of panel data was conducted by using Eviews 6. The full results of the model summary which calculates t-test, and regression coefficient of each year is presented in appendix. The discussion of the results will be presented on the table.

Table 3. The Pool Data of the first model which is the difference of Company with positive EVA and negative EVA in Managing Agency Conflict, and also be separated between positive EVA and Negative EVA

| No | Dependent Variable | Group | t-statistics of Independent Variable | | R2 | Adj R2 | Hypothesis approved/ rejected |
|----|-----------------------|--------------|--------------------------------------|----------------------|--------|--------|--------------------------------------|
| | | | Blev (t-stat) | Bdpr (t-stat) | | | |
| 1. | Investment | Positive EVA | 7.83555 (0.0000) | 25.76527 (0.0000) | -0.276 | -0.276 | Ha2 is supported Ha3 is supported |
| 2. | Investment | Negative EVA | 2.168966 (0.0301) | 8.673463 (0.0000) | 0,044 | 0,011 | Ha2 is supported Ha3 is supported |
| 3. | Total Asset Turn Over | Positive EVA | 32.775 (0.000) | 8.711305 (0.0000) | -0.279 | -0.279 | Ha2 is supported Ha3 is supported |
| 4. | Total Asset Turn Over | Negative Eva | 7.639572 (0.0000) | .915238 (0.0000) | -1.23 | -1.240 | Ha2 is supported Ha3 is supported |

Based on aforementioned table, the data lead the author to believe that the treatment to manage agency conflict which is represented by control variable is significantly influence the agency conflict proxy. Hypothesis alternative 2 is supported by data. It means that the Policy of shareholder in supervising manager by put high leverage is significantly influence the dependent variable. In addition to

financial leverage, the data also shows that dividend policy which also becomes treatment to manage agency conflict is significantly affecting the dependent variable as well.

To sum up the data analysis, Hypothesis 3 is supported by data as well. The assumption that company with positive EVA will have more supervision from stake holder is supported here. It

means company who has positive EVA is designed to be always in supervision. The Manager will have less opportunity to do any activity which is not align with stakeholder objective. As the effect of the raise in economic value added, company also will have better profit margin. The assumption that company with positive EVA will tend to share more dividend is proved here as well. These result is align with previous research where using different data sample (Franzoni, 2009; Grenadier & Wang, 2005; Parrino & Weisbach, 1999; Prowse, 1990; Smith Jr & Watts, 1992).

The next step is integrating the whole sample data into one table in order to get the whole perspective of the phenomenon. First calculation of the model has shown that the indication of Agency Problem from Asset Turnover has big concern from the stakeholder. The positive coefficient and also the strong number of t-statistic has represented the concern of stakeholder toward the company performance. In terms of New Investment in Company, the stakeholder put higher concern related to dividend, which means the new policy of the dividend will impact strongly toward new investment. The way of stakeholder to retain the new investment is by push the manager to divide more dividends instead of doing new investment.

The calculation of second model shows that Dividend Payout did not have strong influence toward

agency conflict. These condition is due to the role of EVA which is very strong in affecting dependent variable. In the other word, the decision to enlarge the company size is depend on the result of EVA. If the company has big EVA, the shareholder and the manager will not really concern about the dividend. This phenomenon resulted in the decision that shareholder will not ask enforce manager to divide their dividend.

In terms of New Investment, the role of EVA is high to influence the decision of new investment. These result resulted in allegation that shareholder will give permission for the company to enlarge their role if they can increase the EVA.

4.3 Robustness Test

It is possible that the relationship between EVA and Dependent variables are due to Dependent variables and EVA being endogenously determined by each other. Higher agency conflict may induce the company to have lower EVA and therefore. EVA determines the investment and asset turn over. In order to test this allegation, we use two stages least square (2SLS) regression, where we first obtain predicted EVA by regressing EVA against various predictor variables, and the regressing each of dependent variables against predicted EVA.

Table 4. Data Pool without EVA and without separation, the dependent variables are Investment Ratio and Total Asset Turn Over, the method is Pooled Least Square, the number of sample are 1540, cross section which are included are 3, total pool balanced observations are 1383

Dependent Variable: ASSET_TURNOVER

Method: Pooled Least Squares

Date: 11/06/12 Time: 08:42

Sample: 1 540

Included observations: 540

Cross-sections included: 3

Total pool (balanced) observations: 1620

| Variable | Coefficient | Std. Error | t-Statistic | Prob. | NEW INVESTMENT Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|-------------------------------|-----------------------|-------------|-----------|
| DPR | 0.020554 | 0.006867 | 2.993435 | 0.0028 | 0.001605 | 0.000470 | 3.413564 | 0.0007 |
| FNCL_LVRG | 0.414968 | 0.116206 | 3.570973 | 0.0004 | 0.017696 | 0.007956 | 2.224244 | 0.0263 |
| R-squared | -1.972344 | Mean dependent var | | 1.127377 | -0.248072 | Mean dependent var | | 0.042896 |
| Adjusted R-squared | -1.974181 | S.D. dependent var | | 0.794892 | -0.248843 | S.D. dependent var | | 0.083985 |
| S.E. of regression | 1.370857 | Akaike info criterion | | 3.469982 | 0.093855 | Akaike info criterion | | -1.892906 |
| Sum squared resid | 3040.623 | Schwarz criterion | | 3.476637 | 14.25246 | Schwarz criterion | | -1.886251 |
| Log likelihood | -2808.686 | Hannan-Quinn criter. | | 3.472452 | 1535.254 | Hannan-Quinn criter. | | -1.890436 |
| Durbin-Watson stat | 0.197282 | | | | 0.479954 | | | |

Table 5. Data OLS with EVA, the dependent variables are asset turnover and investment ratio, the number of sample 1540, the number of cross section are 5, and total pool balanced observations 2325

Dependent Variable: ASSET_TURNOVER

Method: Pooled Least Squares

Date: 11/06/12 Time: 08:50

Sample: 1 540

Included observations: 531

Cross-sections included: 4

Total pool (balanced) observations: 2124

| Variable | Coefficient | Std. Error | t-Statistic | Prob. | NEW INVESTMENT Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|-------------------------------|-------------------|-------------|-----------|
| DPR | -0.005206 | 0.003814 | -1.365147 | 0.1724 | 0.000491 | 0.000350 | 1.402634 | 0.1609 |
| FNCL_LVRG | 0.263059 | 0.064132 | 4.101832 | 0.0000 | 0.010782 | 0.005890 | 1.830653 | 0.0673 |
| EVA | 0.199017 | 0.003574 | 55.68905 | 0.0000 | 0.008716 | 0.000328 | 26.55744 | 0.0000 |
| R-squared | -0.196298 | Mean dependent var | | 1.123458 | 0.065053 | Mean dependent | | 0.042161 |
| Adjusted R-squared | -0.197426 | S.D. dependent var | | 0.797618 | 0.064171 | S.D. dependent | | 0.082857 |
| S.E. of regression | 0.872809 | Akaike info criterion | | 2.567211 | 0.080154 | Akaike info | | -2.208314 |
| Sum squared resid | 1615.768 | Schwarz criterion | | 2.575207 | 13.62682 | Schwarz criterion | | -2.200319 |
| Log likelihood | -2723.378 | Hannan-Quinn criter. | | 2.570138 | 2348.230 | Hannan-Quinn | | -2.205387 |
| Durbin-Watson stat | 0.526349 | | | | 0.606055 | | | |

Table 6. The Two Stage Least Square Pool Data with Investment Ratio and Asset Turn over as the dependent variables. The Periods which is included here is 9 and the cross section is 27, the total panel observations is 243

Dependent Variable: ASSET_TURNOVER
 Method: Panel Two-Stage Least Squares
 Date: 11/06/12 Time: 08:55
 Sample: 1 540
 Periods included: 9
 Cross-sections included: 54
 Total panel (unbalanced) observations: 474
 Instrument list: C ASSET_TURNOVER DPR FNCL_LVRG EVA(-1)

| Variable | | | | | NEW INVESTMENT | | | | |
|--------------------|-------------|--------------------|-------------|----------|--------------------|------------|-------------|--------|-------------|
| | Coefficient | Std. Error | t-Statistic | Prob. | Coefficient | Std. Error | t-Statistic | Prob. | Coefficient |
| DPR | -0.004362 | 0.008092 | -0.539016 | 0.5901 | 0.000670 | 0.000721 | 0.929972 | 0.3529 | 0.000670 |
| FNCL_LVRG | 0.273723 | 0.131919 | 2.074933 | 0.0385 | 0.012293 | 0.011749 | 1.046280 | 0.2960 | 0.012293 |
| EVA | 0.203849 | 0.007728 | 26.37694 | 0.0000 | 0.008771 | 0.000688 | 12.74632 | 0.0000 | 0.008771 |
| R-squared | -0.209635 | Mean dependent var | 1.135455 | 0.069051 | Mean dependent var | | | | 0.041670 |
| Adjusted R-squared | -0.214771 | S.D. dependent var | 0.805262 | 0.065098 | S.D. dependent var | | | | 0.081752 |
| S.E. of regression | 0.887533 | Sum squared resid | 371.0137 | 0.079046 | Sum squared resid | | | | 2.942934 |
| Durbin-Watson stat | 0.294307 | Second-Stage SSR | 358.0656 | 0.437508 | Second-Stage SSR | | | | 2.919412 |
| Instrument rank | 5.000000 | | | 5.000000 | | | | | 5.000000 |

4.5 Causality Test

There is possibility that the occurrence of new investment is caused by some of variable in the

predictor and vice versa. Therefore in this test, we use granger test to check the causality relation within the model.

Table 7. The Pairwise Granger Causality Tests, the samples are 1540 with two lags (Pairwise Granger Causality Tests, Date: 11/06/12 Time: 08:58, Sample: 1 540, Lags: 2

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|--|-----|--------------------|------------------|
| ASSET_TURNOVER does not Granger Cause INVESTASSET INVESTASSET does not Granger Cause ASSET_TURNOVER | 432 | 2.21707 0.56915 | 0.1102 0.5664 |
| DPR does not Granger Cause INVESTASSET INVESTASSET does not Granger Cause DPR | 432 | 0.88731 0.22886 | 0.4125 0.7955 |
| FNCL_LVRG does not Granger Cause INVESTASSET INVESTASSET does not Granger Cause FNCL_LVRG | 432 | 0.02833 3.15789 | 0.9721 0.0435 |
| EVA does not Granger Cause INVESTASSET INVESTASSET does not Granger Cause EVA | 417 | 2.11583 4.55558 | 0.1218 0.0110 |
| DPR does not Granger Cause ASSET_TURNOVER ASSET_TURNOVER does not Granger Cause DPR | 432 | 0.08738 0.34343 | 0.9163 0.7095 |
| FNCL_LVRG does not Granger Cause ASSET_TURNOVER ASSET_TURNOVER does not Granger Cause FNCL_LVRG | 432 | 0.93892 1.12458 | 0.3919 0.3257 |
| EVA does not Granger Cause ASSET_TURNOVER ASSET_TURNOVER does not Granger Cause EVA | 417 | 2.60925 1.44911 | 0.0748 0.2360 |
| FNCL_LVRG does not Granger Cause DPR DPR does not Granger Cause FNCL_LVRG | 432 | 0.01151 0.00127 | 0.9886 0.9987 |
| EVA does not Granger Cause DPR DPR does not Granger Cause EVA | 417 | 1.39628 0.20480 | 0.2487 0.8149 |
| EVA does not Granger Cause FNCL_LVRG FNCL_LVRG does not Granger Cause EVA | 417 | 0.67438 0.33356 | 0.5100 0.7166 |

We didn't find any causality problem related to this model, therefore the model is free from causality problem. Neither EVA, financial leverage, nor Dividend Payout automatically affect the occurrence of New Investment and the low number in Asset Turn Over.

5 Conclusion and Further Research Suggestion

The first hypothesis (H1) stated that the potential for agency conflict activities in companies with positive EVA® value is lower than the company with the negative EVA®. This hypothesis alternative is strongly supported by the calculation during the period of research from 2002 until 2011. It is due to the different policy between positive EVA companies with negative EVA® companies. Companies with positive EVA® tend to optimize the distribution of

dividends and the use of leverage in improving the productivity of the company. While firms with negative EVA® tend to be more careful in giving dividends. The reason is about the lack of certainty of future free cash flow. The effect is the companies tend to hold their cash and prefer to save it as retained earnings. In terms of leverage, firms with negative EVA® tend to have lower leverage because they are not convinced by the sales. Moreover, most of negative EVA company is overwhelmed with the cost of capital that is represented by the leverage the company.

By seeing the two different policies between companies with negative EVA® and positive, this research enter EVA® for differentiate the group of sample. These efforts show significant results. Companies with positive EVA® were able to take advantage of leverage and high dividend in order to increase value-added enterprises.

Second hypothesis (H2) states that the control variables such as leverage and dividend payout ratio affect the policy that potentially raises agency conflict. This hypothesis is fully supported by the data. Either company is separated based on EVA or being integrated, show that the stakeholder policy toward dividend payout ratio and leverage are able to reduce the agency conflict. Third hypothesis (H3) states that EVA® can determine the agency conflict level has been supported by the data. The influence of Financial Leverage and Dividend payout ratio to the possibility of agency conflict is decreasing by the appearance of EVA. The policy and the conflict within company between Manager and Shareholder is decrease when company has strong number of residual income, namely EVA.

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Appendix 1. Descriptive Statistic for Total Investment to Asset for Positive Eva

| | |
|--------------|----------|
| Mean | 4.042076 |
| Median | 0.227950 |
| Maximum | 40.37730 |
| Minimum | 0.000000 |
| Std. Dev. | 7.460618 |
| Skewness | 2.119071 |
| Kurtosis | 6.892486 |
| Jarque-Bera | 372.5245 |
| Probability | 0.000000 |
| Sum | 1091.361 |
| Sum Sq. Dev. | 14972.76 |
| Observations | 270 |

Appendix 2. Descriptive Statistic for Total Investment of Negative EVA

| | |
|--------------|----------|
| Mean | 4.657829 |
| Median | 0.121900 |
| Maximum | 60.98230 |
| Minimum | 0.000000 |
| Std. Dev. | 9.351392 |
| Skewness | 3.010624 |
| Kurtosis | 13.49025 |
| Jarque-Bera | 1603.212 |
| Probability | 0.000000 |
| Sum | 1225.009 |
| Sum Sq. Dev. | 22911.51 |
| Observations | 270 |

Appendix 3. Descriptive Statistic for Total Asset Turn Over of Positive EVA

| | |
|--------------|--------------------|
| | ASSET_TURN OVER |
| Mean | 9.399070 |
| Median | 10.54205 |
| Maximum | 34.75610 |
| Minimum | -45.38970 |
| Std. Dev. | 14.02825 |
| Skewness | -1.458176 |
| Kurtosis | 6.363801 |
| Jarque-Bera | 222.9780 |
| Probability | 0.000000 |
| Sum | 2537.749 |
| Sum Sq. Dev. | 52937.01 |
| Observations | 270 |

Appendix 4. Descriptive Statistic for Total Asset Turn Over of Negative EVA

| | ASSET_TURNOVER |
|--------------|----------------|
| Mean | 0.762733 |
| Median | 0.628200 |
| Maximum | 6.401600 |
| Minimum | 0.000000 |
| Std. Dev. | 0.679269 |
| Skewness | 2.707931 |
| Kurtosis | 19.61541 |
| Jarque-Bera | 3435.789 |
| Probability | 0.000000 |
| Sum | 205.9378 |
| Sum Sq. Dev. | 124.1182 |
| Observations | 270 |

Appendix 5. Positive EVA with INVEST ASSET

Dependent Variable: INVESTASSET

Method: Pooled Least Squares

Date: 10/07/12 Time: 08:25

Sample: 1 270

Included observations: 270

Cross-sections included: 26

Total pool (balanced) observations: 7020

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| DPR | 8.360097 | 0.324472 | 25.76527 | 0.0000 |
| FNCL_LVRG | 30.48501 | 3.890598 | 7.835559 | 0.0000 |
| R-squared | -0.276263 | Mean dependent var | | 9.063630 |
| Adjusted R-squared | -0.276445 | S.D. dependent var | | 13.66516 |
| S.E. of regression | 15.43888 | Akaike info criterion | | 8.311940 |
| Sum squared resid | 1672803. | Schwarz criterion | | 8.313893 |
| Log likelihood | -29172.91 | Hannan-Quinn criter. | | 8.312613 |
| Durbin-Watson stat | 1.303259 | | | |

Appendix 6

Dependent Variable: ASSET_TURNOVER

Method: Pooled Least Squares

Date: 10/07/12 Time: 08:28

Sample: 1 270

Included observations: 270

Cross-sections included: 27

Total pool (balanced) observations: 7290

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| DPR | 8.711305 | 0.326732 | 26.66190 | 0.0000 |
| FNCL_LVRG | 32.77522 | 3.917706 | 8.365923 | 0.0000 |
| R-squared | -0.279788 | Mean dependent var | | 9.399070 |
| Adjusted R-squared | -0.279964 | S.D. dependent var | | 14.00321 |
| S.E. of regression | 15.84260 | Akaike info criterion | | 8.363556 |
| Sum squared resid | 1829200. | Schwarz criterion | | 8.365448 |
| Log likelihood | -30483.16 | Hannan-Quinn criter. | | 8.364207 |
| Durbin-Watson stat | 1.315388 | | | |

Appendix 7

Dependent Variable: INVESTASSET

Method: Pooled Least Squares

Date: 10/07/12 Time: 08:53

Sample: 1 270

Included observations: 270

Cross-sections included: 27

Total pool (balanced) observations: 7290

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| DPR | 0.148818 | 0.017158 | 8.673463 | 0.0000 |
| FNCL_LVRG | 0.632043 | 0.291403 | 2.168966 | 0.0301 |
| R-squared | -0.227496 | Mean dependent var | | 4.537071 |
| Adjusted R-squared | -0.227665 | S.D. dependent var | | 9.242135 |
| S.E. of regression | 10.24029 | Akaike info criterion | | 7.490811 |
| Sum squared resid | 764245.4 | Schwarz criterion | | 7.492703 |
| Log likelihood | -27302.01 | Hannan-Quinn criter. | | 7.491462 |
| Durbin-Watson stat | 0.601879 | | | |

Appendix 8

Dependent Variable: ASSET_TURNOVER

Method: Pooled Least Squares

Date: 10/07/12 Time: 08:51

Sample: 1 270

Included observations: 270

Cross-sections included: 27

Total pool (balanced) observations: 7290

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| DPR | 0.008358 | 0.001700 | 4.915238 | 0.0000 |
| FNCL_LVRG | 0.220629 | 0.028880 | 7.639572 | 0.0000 |
| R-squared | -1.239924 | Mean dependent var | | 0.762733 |
| Adjusted R-squared | -1.240231 | S.D. dependent var | | 0.678056 |
| S.E. of regression | 1.014874 | Akaike info criterion | | 2.867680 |
| Sum squared resid | 7506.413 | Schwarz criterion | | 2.869571 |
| Log likelihood | -10450.69 | Hannan-Quinn criter. | | 2.868330 |
| Durbin-Watson stat | 0.441993 | | | |