The effect of accruals quality (Dechow & Dichev Model) on performance of manufacturing companies listed in Indonesia Stock Exchange period 2004 - 2010

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ABSTRACT
The objective of this study is to examine the effect of accruals quality toward company performance for manufacturing companies in Indonesian Stock Exchange 2004-2010. The company’s performance as the dependent variable in this study is measured using two indicators of the performance of the company’s operations (ROA+1) and market performance of companies (Tobin’s Q) and uses the size and leverage as a control variable. This study uses a purposive sampling method that retrieves all manufacturing companies in Indonesia Stock Exchange and with the result of 102 manufacturing company as a sample. The test the normality of data is done using the test Kolmogorof-Smirnov with the program spss 17 version for windows. The analysis hypothesis is using linear regression. The result of this study showed that accruals quality affects the company’s performance if it is measured using indicators ROA+1, but the accruals quality does not affect the company’s performance if measured using indicators Tobin’s Q.

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1. INTRODUCTION
In the era of globalization, the world is growing fast. Several new companies spring up everywhere. This condition leads to the increased competition, in turn not only make the value of company higher but also improve the company performance. One of the components used to assess company performance is through financial statement. Financial statement is the main information tool for companies to convey financial information regarding management accountability. The submission of information through financial statement is done to meet the needs of internal and external parties of the company. As stated in the conceptual framework of the Financial Accounting Standards Board (FASB), that the objective of financial statement is to provide useful information for business decisions.

Financial statement, as a reflection of information product made by the company, cannot be separated from the process of preparing the financial statement itself. In preparing financial statement, there are several policies and decisions that will affect the appraisal of company performance. If, on certain condition, management of the company is not successful in achieving the desired profit target, the management will possibly modify the reported financial statement. The aim of the management to modify financial statement is to show good performance in obtaining gains in the company. Such as in the case mentioned by Boediono (2005), that in the period 1998 to 2001, there were many financial scandals in public companies with issues involving the financial statements. One of the cases occurred in PT Kimia Farma. On December 31, 2001, management of Kimia Farma reported a net profit of 132 billion rupiahs. But after re-audit on October 3, 2002, financial statement was restated due to the existence of a very fundamental mistake found in the statement. In the new financial statement, profit presented was only 99.56 billion rupiahs or lower 32.44 billion rupiahs or 24.7% compared with the initial earnings reported. And the result of the audit states

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that there is double counting on the sale resulting misstatement in financial reporting.

In managing the company, the owner, known as principal, tends to appoint management, known as agent. According to agency theory, principal and agent have different interests (Jensen and Meckling 1976). Companies that separate the functions of management and ownership will be susceptible to agency conflicts (Lambert 2001). In the agency model, a system which involves both parties is designed in such away that a contract is quite needed to cover the interests of principal and agent. Lambert (2001) in Sunarto (2009) said that the agreement between principal and agent is expected to be able to maximize the utility of the owner and, in turn it can satisfy and guarantee the agent to receive a reward. The benefits obtained by both parties are based on the performance of the company. But, there is always possibility that agent does not always act in accordance with the principal’s best wishes. It is called agency conflict. Agency conflict can make management report the company profit as what they want. This leads to poor quality of the earnings produced. Low earnings quality will cause mistake in decision-making done by investors and creditors.

Methods for measuring earnings quality are very diverse. Francis et al. (2004) in Margani (2009) identified seven measures of earnings quality which they call earnings attributes, one of which is accruals quality. Accruals quality is a measure of earnings quality developed by Dechow and Dichev (2002). This quality measurement is based on the view that earnings, which are closer to cash flow, are better quality earnings.

A company size can determine whether the company performance is good or bad. Investors typically have more confidence in big companies, because big companies are able to improve their performance continually by increasing earnings quality. In general, capital structure, which is proxied by the amount of company leverage, makes investors less confidence in the earnings published by a company, which in turn will result in a relatively low market response. Relatively low market response will eventually reflect that the earnings of the company are less or not qualified.

The formulation of the problem in this study is whether accruals quality affects the performance of manufacturing companies in Indonesia Stock Exchange. The purpose of this study is to investigate the effect of accruals quality on the performance of manufacturing companies in Indonesia Stock Exchange empirically.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Previous Research

Ririk Retnowati (2007) examined the effect of accounting based earnings quality on the performance of manufacturing companies during the period of 2006-2007. Variables used in this study consist of independent variable, which means quality of earnings and dependent variable, which means company performance. Earnings quality is measured using 6 measurement technique; they are earnings persistence, predictability, variability, smoothness, abnormal accruals, and accruals quality. The results showed that earnings persistence affects ROA, while abnormal accruals affect Tobin’s Q.

Margani Pinasti and Meinarni Asnawi (2009) describe a variety of proxies in measuring earnings quality used in empirical research and develop a categorization of the measures of earnings quality. Result of this study is the use of some measure of earnings quality in a study which is intended to gain robustness of the results of research. In addition, separate analysis for each measure of earnings quality has so far been taken as solutions in research when facing a proxy measure of earnings quality. Results of this study explain that the use of some measure of earnings quality as well as in a study is intended to obtain the robustness of the results of research. So far, when an empirical study adopts several measures of earnings quality, solution taken is separate analysis for each measure of earnings quality.

Lesia Jang, Bambang Sugiarso, Dergibson Siagian (2007) conducted a study to determine the factors that affect earnings quality of manufacturing companies in Jakarta Stock Exchange the period 2000-2004. In this study, earnings quality becomes dependent variable, while accrual quality, liquidity, persistence, capital structure, size, and growth become independent variable. The results of this study indicate that size, persistence, liquidity, and accruals quality are significantly affect positive on the earnings quality. While capital structure does not affect negatively but significantly affect to positive, growth does not affect positively but significantly affect to negative.

Theoretical Basis

Agency Theory

Agency theory is based on the entity theory in which the company is viewed as a separate entity from its owners and creditors. It means that management is separated from the owner of the company. In accordance with agency theory, motivation of accrual management can be categorized into two categories:
opportunistic and signaling (Sunarto 2009). In opportunist motivation, management through aggressive accounting policies generates higher earnings than the actual ones. Second, in signaling motivation, management presents financial information about earnings which are expected to give prosperity signal, or earnings which grow relatively or remain stable, to shareholders.

Accruals Quality
Recording method using accrual according to Kieso and Weygand (1992:200), means that revenues and expenses are recognized and recorded when it occurred, not when cash or transaction is received or paid. In other word, expenses are recognized when goods or services are received. According to Margani and Meinarni (2009), accruals quality is a measure of quality, developed by Dechow and Dichev (2002).

Company Performance
Supriyono (1999: 420) defines performance as a process for creating how well the business activities carried out to achieve the strategy of objectives, eliminate the waste and present timely information to carry out continuous improvement. The company’s operational performance is a measurement of company performance from the internal side of company using profitability ratios, namely return on assets (ROA). ROA ratio can measure the company’s ability to generate net income under certain level of assets. ROA is also often referred to as ROI (Return On Investment) (Mamduh and Abdul 2003).

Leverage and Size
Leverage is a ratio to measure how much the assets of the company comes from debt. This ratio emphasizes on the importance of debt financing for companies in order to finance the activities of company’s operation and for the expansion of the company. The higher the leverage ratio, the greater the proportion of funding financed by debt, and the greater the company’s financial risk but also have the opportunity to earn greater profits. The lower the leverage ratio, the lower the financial risk of the company (Horne and Wachowicz 1997: 138). The decision to use leverage means to balance the possibility of higher profit with rising of the risks in the company.

Company size has a strong influence on the performance of the company. Some argue that small companies are considered more efficient than the big ones because top management has control over operational and strategic activities in the company (Himmelberg et al. 1999). In addition, Lang and Stulz (1994) claim that when the size of the company increases, the company becomes more diversified that can lower the value of the company. On the other hand, large companies may turn out to be more efficient because they tend to make use of short scale economies (Keasey 1999). Ghosh (1998) supports this view and states that the big companies do better because of their ability to diversify risk.

Research Hypothesis
Based on the results of previous research, discussion and theoretical basis which have been mentioned above, the research framework as shown in Figure 1, and the hypothesis can be made as follows:

H1 : Accrual Quality significantly affect the performance of manufacturing companies in Indonesia Stock Exchange.

3. RESEARCH METHOD
Research Design
Research in terms of its purpose is deductive research. The type of this research aims to test the hypothesis through validation theory or the test of theory application in specific circumstances. In terms of the characteristics of the problem, it includes causal comparative research that is the type of research with the characteristics of the problem in the form of a causal relationship between two or more variables. Casual comparative research is a type of ex post facto research that is the type of research on the data collected after the occurrence of fact or event.

Population and Sampling
The population of this study is manufacturing companies. The samples are manufacturing companies which have available complete data for the purpose of measuring variables studied and analyzed as many as 102 companies over the 7 period (2004-2010).

Variable Measurement
Company Performance
Company performance is measured by two indicators of measurement. First, the company’s operation performance (ROAt+1) is measured from the net profit after tax divided by total assets in the
year ended of each sample company. Second, the company’s market performance (Tobin’s Q) is measured from the Market Value Equity or closing stock price at the end of the year multiplied by the number of common shares outstanding plus the long-term debt (DEBT) and then divided by the book value of total assets of the company.

### Company Size

Company size is a control variable in the log of total assets proxies. The use of logarithms (log) in this study is intended to reduce excessive fluctuations in the data. If the total value of assets directly used alone so the value of the variable will be huge, billions and even trillions. By using the log, the value of billions and even trillions can be simplified, without changing the proportion of the value of the actual origin. The assets are all assets measured both current and fixed assets at end of period (one year) are listed in the audited financial statements.

### Leverage

Leverage, as a control variable, is measured using total debt divided by total assets of the company.

### Data Analysis Technique

This study using multiple linear regression analysis to determine whether there is a significant effect of the independent variable on the dependent variable, we use multiple linear regression model is formulated into the regression equation as follows:

\[
Y = a + b_1 EQ-DD + b_2 Size + b_3 Leverage + e.
\]

Where:

- \(Y\) = Company Performance
- \(a\) = Constancy
- \(b_i\) = Regression Coefficient

Regression Coefficient shows the strength of accrual quality influence on the performance. \(b\) value which approach 1 (one) means to show the stronger influence.

- **Size** = Size as control variable of accrual quality on performance
- **Leverage** = Leverage as control variable of accrual quality on performance
- **\(e\)** = error level.
4. DATA ANALYSIS AND DISCUSSION

Description of Variable

Descriptive analysis is to analyze explanation or description associated with the results of statistical data processing. Descriptive analysis in this study includes the description of the study variables to give an idea or an explanation of the characteristics of the variables. Variables used in the study include the dependent variables, independent variables, and control variables. The dependent variable, in this study, is the performance of the company by using a measurement indicator ROA\(_t +1\) and Tobin’s Q. While the independent variable used is the accrual quality (Dechow and Dichev models). This study also uses control variables as variable controllers; they are Size and Leverage, so that there is no bias.

Variables of accruals quality show that total data (N) is as much as 714 data sample consisting of 102 sample companies in the year 2004-2010. Accruals quality has average value of 0.32 with a standard deviation which is well above the average of 1.80. Highest value of accruals quality is PT. Betonjaya Manunggal Tbk. (BTON) in the Metal and Allied Products sector, which in 2006 amounted to 21.83

Operating performance of company (ROA) has an average value of 5.26 with a minimum value of - 86.62 and a maximum value of 96.64 with a standard deviation of 11.81. This shows that on average, the standard deviation is far above the average ROA which means that on the period of observation data is increasingly spread from the average value or the variation of the data is getting different from each other. Highest ROA value lies in PT Sekar Laut Tbk (SKLT) in the Food and Beverages sector in 2004 amounted to 96.94. While the company that has the lowest value of ROA is PT Akasha Wira International Tbk. (ADES) in the Food and Beverages sector, which in 2006 amounted to -86.62. While the market performance which is measured with value of Tobin’s has an average value of 0.57.

Company size and leverage have an average value of 3.09 trillion, with a standard deviation of 8.76 trillion. The highest value of company size is PT. Astra International Tbk (ASII) in Automotive and Allied Products sector, which in 2010 amounted to 112 trillion. While the company which has the lowest value of company size is PT. Inter Delta Tbk (INTD) in Photographic Equipment sector in 2007 amounted to 2.43 billion.

Leverage as a control variable has an average value of 0.61 with a standard deviation of 0.47. This suggests that the data may not represent the average value well as standard deviation scores are below average. The highest value of leverage Value is PT Sekar Laut Tbk (SKLT) in the Food and Beverages sector which in 2004 amounted to 4.37. Meanwhile, company that has the lowest leverage value is PT. Jaya Pari Steel Tbk. (JPRS) in the Metal and Allied Products sector in 2006 amounted to 0.05. So, the company which has the greatest proportion of debt to finance assets that were used for the company’s operations and expansion activities is PT Sekar Laut Tbk (SKLT) in 2004. While the company which has the smallest proportion of debt used to finance assets for the company’s operations and expansion activities is PT. Jaya Pari Steel Tbk. (JPRS) in 2006.

Classic Assumption Test

Normality test aims to test whether in regression model, residual or confounding variables are normally distributed. Residuals from the regression model are normally distributed if the results of normality test, using Kolmogorov Smirnov, generate significant value > 0.05. If significant < 0.05 then the residuals from the regression model are not normally distributed. Accruals quality normality test result on the performance of companies with indicators ROA and Tobin’s Q is not normally distributed. Accruals quality normality test result on complete data and not perform outlier data. Based on these results, the data used to test the hypothesis is preliminary data, with the reason, so that better reflect the test results based on complete data and not perform outlier data.

Assumption test of multicollinearity aims to test whether in regression model is found a correlation among the independent variables. In good regression models, there should not be correlation among the independent variables. The test results of ROA and Tobin’s Q show no independent variables that have Tolerance value less than 0.10 and no VIF value which is more than 10. Thus, it can be concluded that there is no multicollinearity between independent variables in the regression.

Assumption test of heterocedasticity aims to test whether in regression models there is inequality of variance from residual of one observation to another. In good regression models there should be homocedasticity or no heterocedasticity to occur. This study uses Glejser test to detect the occurrence of heterocedasticity or homocedasticity. Glejser test will be seen on the value of Sig. i.e. if the value of Sig. > 0.05. Test result on ROA and Tobin’s Q shows that there is no heterocedasticity to happen.
Assumption test of autocorrelation aims to test whether in linear regression models there is a correlation between disturber error in period t with disturber error in period t-1 (previous). Good regression model is regression which is free from autocorrelation. This test uses the Durbin-Watson test (DW-Test) by comparing the value of Durbin Watson (DW) with the value of DW table. The test result of ROA generates a value of Durbin Watson (DW) of 1.878, with Tobin's Q generates the value from Durbin Watson (DW) of 1.999. Thus, it can be concluded that there is no autocorrelation.

Hypothesis Test

Testing on the right or the absence of the models being tested is performed by F test. Based on the result of linear regression analysis using SPSS for windows (Table 1), F accruals quality on the performance of companies with ROA+1 indicators obtained F count 13.486 with a probability of 0.000. Because the probability is much smaller than 0.05, it means that Ho is rejected and H1 is accepted. Thus, it can be said that the regression model can be said good or fit with ROA+1 indicator. While the test of F toward Tobin's Q indicator resulting in the test of F count with a probability of 0.949 0.000. Because the probability is much greater than 0.05, then Ho is accepted and H1 is rejected. Thus, it can be said that regression model is not good or it can be said unfit with Tobin's Q indicator.

R2 value for the accruals quality toward company performance with ROA+1 indicator can be seen from the value of R Square of 0.054 means that only 5.4% ROA variable variation can be explained by the independent variables, i.e. accruals quality with control variables size and leverage. While the remaining (100% - 5.4% = 94.6%) is explained in addition to the variable or out of the three variables. R2 value for the accruals quality on the company performance with Tobin's Q indicator can be seen from the R Square value of 0.001 means that only 0.1% variable. Variation in Tobin's Q variable can be explained by the independent variables, i.e. accruals quality with control variables size and leverage. While the remaining (100% - 0.1% = 99.9%) is explained in addition to the variable or out of the three variables.

The assessment on the effect of each independent variable on dependent variable is done by looking at the results of the t test. The result of t test the of accruals quality on company performance with ROA+1 indicator is found that by adding control variable then the result becomes or accruals quality has significant effect on ROA. While the t test of accruals quality on company performance with Tobin's Q indicator result in significant value above 5% so that the accruals quality has no effect on company performance with Tobin's Q indicator. This shows that Ho hypothesis is rejected, accruals quality affects on company performance with ROA+1, but no effect on Tobin's Q indicator.

Table 1

<table>
<thead>
<tr>
<th>Testing</th>
<th>ROA+1</th>
<th>Tobin's Q</th>
<th>Accruals Quality</th>
<th>Size</th>
<th>Leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>F test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. F value</td>
<td>13.486</td>
<td>0.119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Significant value</td>
<td>0.000*</td>
<td>0.949</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Dependent: ROA+1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. t value</td>
<td>2.498</td>
<td>5.300</td>
<td>-2.348</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Significant value</td>
<td>0.013*</td>
<td>0.000*</td>
<td>0.019*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Dependent Tobin's Q)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. t value</td>
<td>-0.111</td>
<td>0.097</td>
<td>0.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Significant value</td>
<td>0.911</td>
<td>0.923</td>
<td>0.565</td>
<td></td>
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</tr>
<tr>
<td>R Square</td>
<td>0.054</td>
<td>0.001</td>
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</tr>
</tbody>
</table>

*) Significant on α= 5%.

Discussion

Accruals quality is a variable that is based on the view that earnings approaching cash flow is a better quality earnings or accruals quality is an estimation of the cash flow operating on prior, current,
and future periods. For example, PT Akasha Wira International Tbk. (ADES) in 2010 resulting in accrual quality value of 0.36 (in millions of rupiahs), while the cash flow PT Akasha Wira International Tbk. (ADES) in 2010 amounted to 15,670 (in millions of rupiahs). This shows that in 2010, PT Akasha Wira International Tbk generates low quality profits because it away from cash flow value.

Residual value of the regression shows that accruals are not associated with the realization of cash flow, and the standard deviation of the residuals is a measure of the accruals quality. It is assumed that if the standard deviation of the residual high (large) indicates the low accruals quality and subsequently accruals quality is used as a measure of earnings quality. If the accruals quality is low, it will have an impact on low earnings quality and vice versa if low residual standard deviation shows high accruals quality and impact on high or good earnings quality. While ROA is the company’s operational performance as seen from the company’s ability to generate profits with the level of assets owned by the company. Thus, if the accruals quality is associated with the operational performance, the higher the accruals quality the better earnings quality of the company, so it will affect corporate operating performance of the company as measured by ROA, which is also better in generating profits.

From the test results of the regression using F test show significant results that accruals quality affects company performance with indicators ROAt+1 indicator. Results of this study proved to be able to prove the theory, but in contrast to research conducted by Ririk (2007) explaining that accruals quality has no effect on the operational performance of the company. But if the partial test (t test) produced t value of 1.526 with a significance level of 0.127, indicating that the results are not significant. Testing was repeated by adding company size with leverage as the control variable, so it generates significant value i.e. t value of 5.300 with a significance level of 0.013. This means that company size has positive effect on company performance with ROA indicator and leverage also has effect but negative on ROA. So, size and leverage give significant contribution to the influence of accruals quality on the company performance with ROA indicator. This is consistent with research conducted by Mahmuda et al. (2009) that size has a positive effect on company performance and leverage has negative effect on ROA.

Researcher suspects that there is significant effect on the company performance or with ROA indicator, one of which can be seen from the proportion of ROA value based on years of observation period and the industrial sector. When compared with Tobin’s Q, ROA has balance value proportion between the proportion above average and below average i.e. if it is viewed from the periods; there are 3 years above average and 4 years under average. Likewise, if viewed from the industrial sector, there are 8 industrial sectors that are above the average and 11 industry sectors that are below average. This proves that the proportion also have important contribution in determining the effect of accruals quality on company performance.

Regression coefficient of accruals quality variable indicates positive number, it means that accruals quality positively related to ROA, and size also positively related to ROA. So if accruals quality and the company size are high, the operational performance is also higher. But leverage has negative relationship with ROA which means if the leverage value is high, then the operational performance will decline.

Tobin’s Q is used to measure the extent to which the market valuing the company from company external side. So if accruals quality has high value then it will have effect on good earnings quality. The companies hope that by having good earnings quality, they can attract investors to invest in companies with good earnings quality.

Regression results using F test show no significant result that accruals quality has no effect on company performance with Tobin’s Q indicators. Results of this study cannot prove the theory and the results of this study are consistent with research conducted by Ririk (2007) who has done similar research and produce research that accruals quality has no effect on the market performance of the company. Likewise if a partial test (t test) resulting t value -0.162 with a significance level of 0.871, indicating that the results are not significant. Testing was repeated by adding company size and leverage as control variables then resulting value which is still not significant i.e. t value of -0.111 with significance level of 0.911. This means that the company size and the level of leverage do not contribute importantly to the influence of accruals quality on company performance with Tobin’s Q indicators. Thus, accruals quality has no effect on the performance of company market. So, when the accruals quality experiences increase or decrease in value, this will affect the performance of company market.

5. CONCLUSION, IMPLICATION, SUGGESTION AND LIMITATION

Test performed in this study is using the Classic Test
Assumption. They are normality, multicollinearity, heterocedasticity, and autocorrelation. The results obtained show the results that in the regression model there are classic assumption symptoms seen in heterocedasticity test using scatterplot graph. Because the data are not normally distributed, so the researcher tries to normalize with outlier data but regression models still not normally distributed. Thus, the researcher uses initial sample that is 714 year data or 102 companies selected as samples.

Based on the analysis of the F test showed that the model fits, from the equation of variable regression of accruals quality on company performance with ROAt +1, but the model does not fit, from the equation of variable regression of accruals quality on company performance by Tobin’s Q indicator on companies listed in Indonesia Stock Exchange period from 2004 to 2010. R2 test for the accruals quality on ROA can be seen from the value of R square of 0.054 which means that the independent variables can only explain the dependent variable of 5.4 percent, while the remaining 94.6 percent is influenced by other fundamental factors that are not included in the research model. As for the accrual quality to Tobin’s Q can be seen from the value of R square of 0.001 which means that the independent variables can only explain the dependent variable of 0.1 percent, while the remaining 99.9 percent is influenced by other fundamental factors that are not included in the research model.

T test shows that Ho is rejected which means that the accruals quality affects company performance with ROAt +1 indicators, but does not affect company performance with Tobin’s Q indicators.

This study has some limitations. And therefore, it is expected that, in future studies, the results can be improved. Some limitations are: this study is based on secondary data and primary data sources. Secondary data is obtained from www.idx.co.id and completed from the Indonesian Capital Market Directory (ICMD) so there are several companies that are excluded from the sample due to the incompleteness of the company’s data, this study used manufacturing companies as the research samples, so it can only be generalized to the type of manufacturing companies and cannot be generalized to other types of companies. In addition, there are diseases that are shown in the classic assumption test that becomet limitations to this study. Future studies can be done by expanding the study sample, and or add independent variables considering that there are still many other variables that are thought to affect the company performance in addition to accruals quality seen from the coefficient of determination. It requires basic theory and findings from previous research to form the new model as a determinant of the company performance in addition to accruals quality.

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