The relationship between stock prices and debt ratio and Capital flows with assets

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Abstract
Some researchers are emphasized on the role of mind the accruals measure in lower of sustainability. Some other are attribute that to economic indicators such as the growth of the company. Discretionary and non-discretionary components of accruals information, including information that has been extracted from the financial statements and this information along with the stock prices of the major factors for achieving the goal analysis followed by investors. In this study, by using systematic elimination, the required data of 144 listed companies in Tehran Stock Exchange during the period 2006 to 2011 were reviewed. Also were used the modified Jones model to the calculation discretionary and non-discretionary accruals. The results of hypothesis testing on the combined data showed that there is significant and direct relationship between the ratio of inventories to net sales and stock prices. In addition, the results of hypothesis testing on the combined data showed significant and direct relationship between the ratio of the sum debt to of total assets and stock prices.

Keywords: The ratio of inventories to net sales, the ratio of the sum debt to of total assets, stock prices

Introduction
Primary aim in Financial reporting is to provide information about the performance firms provided by earning and its components. In other words, Users of accounting information in order to evaluate and forecast cash flows and future earnings of business entity and subsequent economic decisions rely more than any other information to data arising of earning or its components. Earning quality on financial reporting could affect at investor confidence in financial markets. Investors are looking for opportunities to invest additional resources in the
most efficient capital markets and one of the main factors that every investor in his decision to give a special attention is "stock price". The cash and accrual components of earnings can be used as tools to predict future benefits by investors that in this regard, the accrual component of earnings for manipulated can be benefit special interest. Moreover, separate accruals into discretionary and non-discretionary components could be provided more appropriate context for belter analysis of accruals and subsequent more earnings quality analysis. Investors to make optimal decisions at the purchase, possession or sale of shares in addition to earning and its components pay attention to the other information contained in the financial statements, which can be effective to the stock price and import them to their decisions models, information obtained through the analysis of financial ratios that are underlying the financial statements and can be considered very useful tools in the evaluation of existing and projected future state business.

Literature research

Identify of components earning behaviors in recent years is form an important part of studies of market efficiency has started with Sloans research. (1996). Studies at Identify of components earning behaviors show that Profits of nonfinancial items (accruals) has different behavior than financial items (cash flows) about earning of Sustainability. That if investors and other users of financial reports to identify the differences in the behavior of the interest component will have, the data related once provided will be absorbed by the market (Sloan, 1996).

Pelk and Sapinza (2012) in their study who were seeking answers to the question whether the incorrect pricing of the stock market are affected investment decisions or not? They respond to the above questions were discretionary accruals as a proxy for the incorrect pricing of stock market. The results of this study indicate that discretionary accruals and capital expenditures are affected at future stock returns.

David at el (2012) in a study to answer this question whether cash flows and accruals of the company can be expanded on the stock market Was to investigate the relation between accruals, cash flows and the cumulative stock returns the results showed retained accruals are a positive predictive power of described above and cash flows are a negative predictor for the cumulative stock returns.

Ball and Brown in 2011 in his study as an empirical evaluation of accounting earning numbers have to investigate the relationship between changes in stock prices and earnings for the 261
companies listed on the New York Stock Exchange in the period 2004 to 2008. The researchers found that the reaction of the stock price occurs before the announcement of annual interest only about 10% of changes are happening in the month of earnings announcement concluded with the idea that prices should reflect the expected earnings are based. Jones (2009) was the first steps to distinguish accruals to discretionary and non-discretionary, Then Difand and Jiambalow (2009), following Jones tries to satisfy the non-discretionary accruals based on changes in the level of sales of property and equipment. They said accruals are a distinct factor from associated efficiency gains. Dichow (2008) in a study was paying to analyze the role of accruals in assessing the performance of companies in a short period of time and concluded that the accruals, better cash flow, which reflects the company's short-term performance. He also found that the earning accruals are the more cash that can reflect information about the stock returns. In addition, cash flow as a measure of evaluation, along with the earning accruals, can be meaningful accounting earning and the subsequent accrual of income to changes in cash resulting from the operational activities and investment and the financing of the company, is meaningful to communicate Return of the shares. Demiter et al (2009) in research paid to the impact of accruals and cash flows of the related profits - in stock returns, to examine the impact of changes in earnings and cash flows associated with the stock returns over the period 1996 to 2006 in the capital market in Greece. The results indicate there is a positive explanatory power and higher earnings compared to cash flows associated with changes in stock returns. The results showed that investors evaluate companies with big are concerned earnings and cash flows as a measure, however, evaluate enterprises have opportunities with growing pay more attention to cash flow. Kiang at el (2010) in a study paid to predict the stock returns with using discretionary accruals. The results showed that the cumulative accruals and the stock returns have a significant positive association and this relationship is driven by discretionary accruals. Further analysis showed that the cumulative discretionary accruals unlike the cumulative normal accruals are less information about commercial condition and cash flows. Mehrani (2011), research on the relationship between profitability rates and he stock returns has been tested on the Tehran Stock Exchange. Time domain is consisted of a two-year period 2010 to 2011. All companies listed were classified into 70 different types, among them 19 activity due to more extensive volume selected other activity.
Ratios examined in this study are include the return on equity, earning before tax, earning margin, asset efficiency, earning growth, sales growth and asset turnover

The research hypothesis

Hypothesis 1-1: The ratio of inventories to net sales is positive and significant impact on stock prices.
Hypothesis 1-2: The ratio of the sum debt to of total assets is positive and significant impact on stock prices.

Population, sampling method and sample size

The statistics population of all firms listed in Tehran Stock Exchange, which from the beginning of 2006 until March of 2011 has been enabled at the exchange. Sampling in this study has been a systematic knockout (screening).

Methods of data analysis

After collecting the required information from the financial statements, attachments notes and various applications, data focused in Excel database and have obtained the required data of research variables. Then, the data are entered Eviews software with using Dickey - Fuller, Haderi and Kao, Compatibility and co-integration s tests, variable is tested. Then, using F Limer and Hausman test, set data and assumptions of the classical model has been tested using appropriate statistical tests. Finally, the criteria has been used adjusted R and R2 for determining the power of explaining of regression equation, the F statistic for testing the significance of the regression line equation and the t-statistic for testing the significance of each of the regression coefficients and test the hypothesis.

Research variables

Dependent variable:

One of the variables needed to test the presented hypotheses as the dependent variable is the market price of the common stock. In order to the stock price, the market price of ordinary shares is the end of February each year, which can be accessed through the SEC.
Independent variables:
The ratio of inventories to net sales: represents the inventory turnover during the financial period and the share of net selling balance is achieved. (Alivar, Aziz, 2004)
Debt to asset ratio: Measures total debt and ratio to total assets and the percentage of funds shows that the debt is secured and is obtained by the share of total debt to total assets. (Sadeghi, Mohsen, 2009)
Eit*INV/SALESit: Ratio of inventories to net sales of firm i in year t multiplied by the company's earnings per share for the year (independent variable).
Eit*TD/Tait: The ratio of debt collectors to collect the assets of firm i in year t multiplied by the company's earnings per share for the year (independent variable).

Discretionary and non-discretionary accruals analysis
Discretionary and non-discretionary accruals is calculated from Jones modified model therefore the total item is determined by calculating the ratio of non-discretionary accruals and the discretionary accruals measure is obtained.

Table 2: Results of analysis data to calculate discretionary and non-discretionary accruals

<table>
<thead>
<tr>
<th>p-value</th>
<th>The t-statistic</th>
<th>Standard error</th>
<th>Coefficient</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.000</td>
<td>9.889</td>
<td>0.005</td>
<td>0.051</td>
<td>C</td>
</tr>
<tr>
<td>0.000</td>
<td>4.472</td>
<td>0.014</td>
<td>0.064</td>
<td>(SALES- ΔREC)TA</td>
</tr>
<tr>
<td>0.000</td>
<td>-6.885</td>
<td>0.014</td>
<td>0.100</td>
<td>PPE/TA</td>
</tr>
<tr>
<td>0.000</td>
<td>-5.242</td>
<td>0.028</td>
<td>-0.149</td>
<td>AR(1)</td>
</tr>
<tr>
<td>2.074</td>
<td>Dorbin-Watson test</td>
<td>26.062</td>
<td></td>
<td>F Fisher statistic</td>
</tr>
<tr>
<td>0.072</td>
<td>R 2</td>
<td>0.000</td>
<td></td>
<td>P-Value</td>
</tr>
</tbody>
</table>

According to the results of the data analysis are reflected in the table:
A. Comparing the obtained value with the value calculated by Fisher's statistical f in the table according to the values obtained for p-Value of regression is equal to zero, the null hypothesis is rejected and the shows that all regression coefficients are not zero simultaneously.
B. Comparing the obtained value of the t-statistic and its calculated value in the table with respect to the p-value obtained for each of the coefficients, the null hypothesis for the variables and PPE / TA is rejected, so between the independent variables with non-discretionary accruals can be found relationship.

C. Comparing the statistics of the Dorbin - Watson earned its calculated value in the table, it was found that the model with autocorrelation is to eliminate the AR component of the model has been added to By comparing this with the computed value of the statistic, it was found that the autocorrelation in the table have been met.

D. - R2 obtained show that the independent variables, we are able to account for only 7% of the dependent variable relationship. So there is a very weak relationship between the independent variables and the dependent variable.

Analysis of hypotheses

Pattern Analysis, using fixed

Limer the F-test, the hypothesis of equal intercept $H_0$ (Combined data) versus the opposite hypothesis, the intercept anisotropy $H_1$ (panel data) is placed. Therefore, we can write:

$H_0 : \alpha_1 = \alpha_2 = \cdots = \alpha$

$H_1 = \text{at least one intercepts is different}$

In the first test, according to the calculated probability of F-statistic Lymr Table (4-4) and error $0.05/0 = \alpha$, will not be accepted hypothesis $H_0$ ($0.05/0 > 0.00/0 P =$) and using the panel is more appropriate. Also, due to the use of panel data, we use the Hausman test to determine which of the fixed or random effects methods should be used. Hausman test, the hypothesis of random effect $H_0$ is in the opposite hypothesis $H_1$, using fixed effects. In this study, according to the Hausman test probability and error $5.0 = \alpha$, will not be accepted hypothesis $H_0$ ($5.0 > 4.0P =$) and using fixed effects method is more suitable. Results of regression estimates are presented based on fixed methods of entering all independent variables (Table 1).
Table 1: Estimation results based on fixed methods for the years 2006 to 2011

<table>
<thead>
<tr>
<th>Pit = α0 + β1Eit<em>INV/SALESit + β2Eit</em>TD/TAit + μit</th>
</tr>
</thead>
<tbody>
<tr>
<td>significant factor</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0/0265</td>
</tr>
<tr>
<td>0/0046</td>
</tr>
</tbody>
</table>

The coefficient of determination $R^2$ = .84

Test Dorbin-Watson = 1.79

Adjusted $R^2$ = 0.84

Test - Statistical significance F = 5.51

Limer-test F= 4.93

Prob F = 0

Probability :0.05

Chi-square statistic :7.71

Hausman test

Limer F-test, the hypothesis of equal intercept (combined data) versus the opposite hypothesis, the intercept anisotropy (using panel data) is placed. Therefore, we can write:

$H_0 : \alpha_1 = \alpha_2 = \cdots = \alpha$

$H_1 = \text{at least one intercept is different}$

Coefficient of determination, proper fit regression line based on a set of data is analyzed. The higher the value of this coefficient indicated that the independent variables have more power in explaining the behavior of the dependent variable. As shown in Table (4-4) is shown in the coefficient of determination, the results of the estimated regression model is equal $R^2 = 84$

The estimated value of the coefficient of determination, is the fact that about 84% of the behavior of the dependent variable is explained by the independent variables, which is an indication of a relatively high correlation between the independent variables and the dependent variable.
Conclusions
The main results of the hypothesis test:
According to the theoretical expression, investors can use to the analysis of the quality of earning from accruals quality measure to determine how much earning accounts accruals in addition, separate the rate and amount of discretionary and non-discretionary accruals to analysis of each component of accruals to achieve their goals. Hypothesis states that there are relationship between non-discretionary and discretionary accruals and stock prices.
The results of the first sub-hypothesis test:
As previously explained, however the manager of a company have more freedom to create discretionary accruals is more likely to affect the profits of the items (Management profit) as the expression used to 1-1 hypothesis that there is a relationship between discretionary accruals and stock prices.
The hypothesis was tested that the combined data:
The results obtained on synthetic data show that between discretionary accruals and stock prices, there is no significant relationship.
According to the results of the combined data seem to be in investors' decisions might not notice to discretionary accruals, it is not compatible with the theoretical.
The results of the test compound indicates that the stock price is not influenced by the level of discretionary accruals.
The second sub-hypothesis test results:
According to the theoretical discussion, much accruals is a sign of lower earning quality of company low quality of earning is as well as a decline in the stock price.
Non-discretionary accruals as well as an important part of accruals, this is no exception. Hypothesis states that the non-discretionary accruals and stock prices are related.
The hypothesis was tested that the combined data:
The results obtained from the combined data shows a statistically significant relationship between non-discretionary accruals and stock prices are involuntary. But since this is a direct relationship, so it is not compatible with the theory.
Combining the results of the test data shows that companies that have more non-discretionary accruals, their stock prices are higher.
Suggestion

Suggestion based on research findings.

The results of the second research hypothesis show that there is a significant relationship between stock prices with selected financial ratios (excluding net income to net sales).

So for investors, analysts and all capital market participants recommended are more attention to the financial ratios and incorporate them into their decision models.

The results of the second research hypothesis suggests that there is no significant relationship between discretionary accruals and stock prices.

Suggestions for future research

This issue deserves further investigation with regard to other aspects of the issue by researchers.

What is being proposed for future research include the following:

1- Use Income approach to calculate accruals and compare its results with the results of this study
2 - Use other discretionary and non-discretionary components of accruals resolution models such as Haley, Di Angelo and Jones model and compare its results with the results of this study
3 - The use of other financial ratios or increased financial ratios and comparing its results with the results of this study.
References


9- Torabi, Mohammad Hossein (1387), examining the relationship between economic value added, EVA, earnings per share, EPS and operating cash flow, OCF, with an annual output shares of the listed companies in Tehran Stock Exchange, completed a master degree in accounting.