J. Basic. Appl. Sci. Res., 3(1)934-946, 2013
© 2013, TextRoad Publication

ISSN 2090-4304
Journal of Basic and Applied Scientific Research
www.textroad.com

Investigating the Relationship between Cash Flow, Current and Non-Current Accruals and Market Value of Firms

Farzin Rezaei[1], Zahra Safari[2]

[1]Assistant Professor of accounting and Faculty Member of Islamic Azad University, Qazvin Branch, Iran
[2]Master of Accounting, Kar University, Qazvin, Iran

ABSTRACT

Determining the effective factors on market value of equity can help shareholders to make an appropriate decision and allocate economic resources efficiently. Profitability of companies is one of the most important criteria for investors to assess companies, but relying on net profit regardless of its constituent items will lead to loss of important and effective information on decision making and therefore making improper decisions. The present study was carried out in order to investigate and compare the explanatory power of different components of profit including operating cash flow (OCF), current accruals, non-current accruals and free cash flow, as well as to help explain the behavior of abnormal accruals in Tehran Stock Exchange. For this purpose five hypotheses were developed and four regression models were used by panel data method for data analysis. Based on this, a sample consisted of 83 companies during period of 2004-2010 were selected by screening method. The results indicate that information content of cash components of earnings is higher than other components of earnings and also findings of the research show that division of profit into two components of operating cash flow and accruals relative to other profit combinations has a higher explanatory value.

KEYWORDS: Current Accruals, Non-Current Accruals, Free Cash Flow, Operating Cash Flow, Information Content

1. INTRODUCTION

The primary emphasis in financial reporting is to provide information on firm performance that is provided by earnings and its components. In other words, users of accounting information to assess and predict business unit profitability and making economic decisions rely more on information arising from earnings and its components rather than any other information. They predict profit and future cash flows by using reported earnings and also valuate the firm based on these predictions, for one of the basic objectives of financial statements in evaluating the company flexibility is to provide useful information [24].In studies based on "fundamentalism" that rely on information content of accounting information, the explanation power and prediction of accruals have been emphasized. But, positive research conducted in many countries show information content of abnormal accruals.Many effective factors including the structure of company governance, capital market structure, countries macroeconomic structure and companies exclusive properties have been investigated. Some researchers apart from the above factors have sought to decomposition of accruals into two current and noncurrent accruals and some researchers decomposed accruals into short-term and long-term in order to explain the reasons for abnormally market reaction to accruals in some countries capital markets. Therefore, in this study to investigate the market reaction to this accounting information accruals are decomposed into current and non-current and they are reviewed besides the two major categories of operating free cash flow (OCF) and free cash flow (FCF). Therefore, this study in addition to express the explanatory power of cash and accrual component of earnings is seeking to explain how current and non-current accruals behave as accrual components of earnings. In fact, the aim of this study is to investigate the following cases:1. On determining value of company, operating cash flow and total accruals have more relevant value than operating profit.2. Alternative earnings have more relevant value than measure of cash flow and non-current accruals.3. Division of profit into three components of cash flow, current and non-current accruals has more relevant value than the other two methods. These three components enable us to analyze the value related to cash flow, current and non-current accruals.

Corresponding Author: Farzin Rezaei, Assistant Professor of accounting and Faculty Member of Islamic Azad University, Qazvin Branch, Iran, Email: Farzin.rezaei@qiau.ac.ir,Tel: 09122812542

2. LITERATURE REVIEW AND PRIOR STUDIES

2.1 Information content of accounting earnings and market value of firm

The issue that different groups such as investors, shareholders, managers, employees and the government concentrate on and use profit has led to profit being introduced as an fundamental concept in accounting[30]. So, profit is one of the most important financial information reported by companies. In fact, investors and many other users of accounting information consider profit as an important source of information to evaluate the performance of companies and regard it as one of the main components regarding pricing of stocks. Results of the first study that carried out in the area of the usefulness of accounting information by Ball and Brown showed that the securities market price reacted to announcement of net profit[32]. In this context Penman et al (2007) state that if accounting earnings is able to predict the company's value it has a good quality[40].

2.2 Accruals Information Content and Market Value of Firm

Financial statements presented by companies' managers disclose the information of company that is effective on their stock prices. Researchers have applied many methods to determine how financial statements are real. A group of researchers have tried to create models that predict fraud management. Another group of researchers have also tried to determine some of financial statements artificial indicators by using financial ratios analyses. Francis and Michel (2005) by investigating quality of accruals as risk of information related to profit indicate that the weaker is quality of accruals (which is defined error standard deviation, changes in current accruals and cash flows), the more is cost of debt and cost of capital of companies. This issue reflects the effect of accruals quality on individuals' decision-making. Many past studies suggest that there is a creative accounting due to efforts of managers to manipulate financial statements and profit figures. These manipulations can make a difference in the actual value of stock returns and lead to a misleading picture of the market and the relationship between profits and returns. Hence, taking into account the effective measures for relevance profit can be useful in evaluating the future movement of stock prices and the overall relationship between earnings and returns. Accruals as one of these measures have attracted the attention of many researchers [4].

2.2.1 Classification of accruals to current and non-current

Many financial analysts believe that operating cash flows relative to earnings are a better measure for assessing the financial performance of business units because operating cash flows are less subject to distortion. So, the main question that arises is that whether accruals increase or decrease the ability of earnings in measuring company performance. It is predicted that accruals increase the ability of earnings in measuring the company performance in market (stock returns). Accordingly, the current and non-current accruals can also have different effects on firm value and performance.

2.3 Information Content of Operating Cash and Market Value of Firm

One of the important and vital sources of each economic unit is cash. Cash flows have central role in many financial decisions, models of securities valuation, methods of evaluating capital projects etc. Also, using future operating cash flows is growing in new financial analyses[35]. Lie (2006) believes that survival of a company is one of the first considerations and cash is one of the most important factors in survival of any company. Only can companies survive that are profitable and able to supply their financial needs. Understanding a company's ability to pay is one of the necessities and profit does not provide clearly this information, while cash flow statement provides clearly this information. Brochet et al (2008) to predict future cash flows examined the role of cash components and accounting accrual of profit. They predicted future operating cash flows as well as market value of equity as dependent variables and found that on average accruals relative to current operating cash flows improve prediction of future cash flows. They also reviewed determinants of predictive power of accruals to predict future cash flows and found that the probability of contribution of positive accruals was more in predicting future cash flows, contribution of accruals in cash flow volatility increased and it is reduced in domain of discretionary accruals and special items. Whatever has been researched about stock returns and value of firm have been mainly variables that shareholders noticed them and seen from this perspective. While a variable such as operating cash flow that is calculated based on accounting information to variables such as accruals that are more based on company policies, is less dependent on management policies and in this respect is largely immune of management interference and manipulations. Therefore, this study is trying to determine how much pricing of stock is affected by specific accounting information such as operating cash flow. In other words, the relationship between operating cash flow as independent variable and stock price as dependent variable is determined to define that whether dependent variable can be explained by independent variables[17].

2.4 Information Content of Free Cash and Market Value of Firm

In cash flow statement usually cash from operating activities represents company's ability to generate cash flows. Comail et al believe that cash from operating activities not only should be invested in new fixed assets so that the company can maintain its current operational activities, but also a portion of these funds should be distributed among shareholders as dividends or stock redemption in order to satisfy them. Therefore, cash from operating activities cannot be considered alone as a business unit ability to create cash flows[26].Hence, in order to assess the ability of a business unit it is necessary to calculate and evaluate free cash flows alongside the cash from operating activities. On the other hand, value of each company is greatly dependent on the ability of that company in making free cash and the method of using them. This important measure due to numerous applications that can refer to reinvestment, dividend increase, stock redemption and repay the debt at maturity is very significant and extremely important for investors and creditors as these funds are considered hedge funds, distributed dividends and repay the debt at maturing. For this reason, the increase of free cash can be effective on investors' willingness to invest and building trust with creditors to accreditation. In the free cash flow theory it is stated that firms with relative high investment opportunities in order to maximize their value usually invest their free funds in such opportunities that this will lead to maximization of shareholders wealth and it is expected that companies with low investment opportunities have higher free cash flows due to lack of profitable opportunities[29].Also Martin and Petty believe that the old accounting measures such as earnings per share and return on assets cannot represent alone the performance of a business unit but these measures should be applied alongside measures such as free cash flows of business unit, because while the profit is frequently manipulated by business unit managers, concealment and manipulation of free cash flows is very difficult[26].Results show that management of cash flows, especially free cash flows, is one of the significant information tools for managers and investors because it has extraordinary importance in maximizing shareholders wealth, increasing the incentive and making appropriate background for investment and internal financing [33]

2.5 Relationship between Earnings and its Components and Market Value of Firms

It is necessary to decompose earnings information to components of cash and current, non-current accruals. Particularly that such concept is useful to predict future cash flow and valuate the companies. Krishnan and Kumar (2008) show that there is a different relationship between cash flow and accruals in high and low levels of investment opportunities; therefore value of cash flow and accruals can be different among companies. Barreto et al (2001) state that the value relevance of earnings is not different on cash flow and it is dependent on financial reporting and other institutional factors. Also, some studies considered value relevance of cash and accruals in terms of effect on stock returns[1,5,10,9]. Therefore, there are still conflicting results about separation of value of accruals and cash flow.In researches on value relevance, evaluation and efficiency models have been complementary and advantages and disadvantages of valuation have been expressed by different researchers[11,16,20]. Saeed Akbar et al (2011) in a study state that operational cash flow or accruals have information related to profit. Mamoun L.B. (2011) compared the predictive ability of operating cash flow to profit in Jordan stock market. The period of his study was 2009 to 2011. His results showed that the predictive ability of operating cash flow was stronger than earnings to predict cash and thus market value of firm. Saeedi and Ghaderi (2007) examined the predictive power of book value, net profit, operating cash flow and investment as representative of accounting information related to market value of firms. Their results showed that book value and accounting profit were more related items and considering cash flow (operating and investment) could not increase explanatory power of models significantly. Khodadadi et al (2009) investigated the ability of cash and accruals accounting information of profit in prediction of future cash flows of listed companies in Tehran Stock Exchange. The investigated sample of that study was selected among non-financial firms listed in Tehran Stock Exchange whose financial statements were available in the period 2001-2006. The results of their study showed that variables of past cash flows and accrual components of past earnings had ability to predict future cash flows. The results of testing their models indicated that the addition of accrual components of earnings into cash flows increased the predictive power of this model. Kordestani and Roodneshin (2006) assessed the relevance of cash components and accounting accrual of profit to market value of firm. They stated that accounting profit reported in financial statements was divisible into two cash and accrual components. In that study, operating cash flows as profit cash component and changes in accounts receivable, inventory changes and accounts receivable changes were considered as the three main components forming accrual of profit component. Their findings indicate that accounting profit cash components have prediction and explanatory power of market value of firm. But three components of accounting accrual of profit i.e. accounts receivable changes, inventory changes, and accounts payable did not have prediction and explanatory power of market value of firm. Hence, they stated that accounting profit cash components are more relevant to market value of firm and are more useful than accrual components. Charitou and Clubb (2000) in their study titled "The Value Relevance of

Earnings and Cash Flows: Empirical Evidence for Japan" studied information content of earnings and cash flows. The results of their study suggest that profit relative to cash flows has increasing information content. On the other hand, the results of their study show that Japanese investors by using profit and cash flows information valuate the company. Saeed Akbar et al (2011) found that different components of profit including measures of operating cash and measures of current and non-current accruals had ability to explain market value of firms in the UK market. Their results show that cash flow has increased value relevance for profit or cash flows. As a result, cash flow can be a relevant added value for profit. There was little evidence that the current and non-current accruals had separate values relevance. Their findings show that considering cash flow is the main source of increasing exploratory power of market. Consequently, cash flows statement in the UK provides useful information for investors.

3. HYPOTHESES

1. The relationship between operating cash flows and accruals is more relevant than operating profit and market value of firms.
2. The relationship between operating profit and free cash flow is more relevant than non-current accruals and market value of firm.
3. The relationship between operating cash flow and current and non-current accruals is more relevant than operating profit and market value of firm.
4. The relationship between operating cash flow and current and non-current accruals is more relevant than free cash flow and non-current accruals and market value of firm.
5. The relationship between operating cash flow and current and non-current accruals is more relevant than operating cash flow and accruals for general and market value of firms.

4. RESEARCH METHODOLOGY

4.1 Statistical Community, Sample and Period

The present study is based on applied objective and its data are collected by ex post facto approach (through the past information) and the method of data collection is descriptive – correlative because its main purpose is to determine the existence, degree and type of relationship between test variables. Statistical community of this study is all non-financial companies (manufacturing) listed on Tehran Stock Exchange from 2004 until the end of 2010. The samples studied in this research have been selected by screening method and according to the following criteria:1. Complete information of all studied companies should exist during two years prior to time domain of the present study.2. The companies should not have changed their financial year during the study period.3. The type of companies' activity should be productive, therefore, financial, investment institutions, banks, insurance firms, leasing and holding companies have not considered in the sample.4. In order to increase comparability the end of companies' fiscal year should be on March 19.5. The maximum of trading halt should be 6 months in the year.

4.2 Operational Definition of Research Variables

Table 1: The method of measuring research variables

Calculation Method	Notation	Variable	
$MVE_{it} = P_{it} \times N_{it}$ P_{it}: The last trading price of company stock i in year t N_{it}: The number of issued shares of company i in year t	**MVE**	**Market Value of Equity**	**dependent**
Extractable from the profit and loss statement	E	operating profit	**independent**
Extractable from cash flow statement	CFO	Cash Flow from Operations	
$TACC_{it} = E_{it} - CFO_{it}$	TACC	Total Accruals	
$CACC_{it} = (\Delta INV_{it} + \Delta REC_{it} + \Delta FPAY_{it}) - (\Delta PAY_{it} + \Delta FREC_{it})$ ΔINV_{it}: changes in company's inventory i from year t to year t-1 ΔREC_{it}: changes in notes& accounts receivables of company i from year t to year t-1 $\Delta FPAY_{it}$: changes of advance payment of company i from year t to year t-1 ΔPAY_{it}: changes in notes& accounts receivables of company i from year t to year t-1 $\Delta FREC_{it}$: changes of unearned revenue of company i from year t to year t-1	CACC	Current Accruals	
$NCACC_{it} = TACC_{it} - CACC_{it}$	NCACC	Non-Current Accruals	

$FF_{it} = CFO_{it} + CACC_{it}$	FF	Free Cash Flow	control
$ER_{i,t} = N_{i,t} - N_{i,t-1}$ N_{it}: The number of issued shares of company i at the end of year t N_{it-1}: The number of issued shares of company i at the end of year t-1	ER	Increased Capital	
Extractable from the profit and loss statement	DIV	dividends	
based on the regression model of Saeed Akbar et al (2011)	OI	Other Information	

4.2.1 Method of Calculation of Other Information Variable

Saeed Akbar et al (2011) state that the residual values of the following regression model (ε_{it-1}) is effective on market value of firm:

$$MVE_{it-1} = \alpha_0 + \alpha_1 E_{it-1} + \alpha_2 ER_{it-1} + \alpha_3 DIV_{it-1} + \varepsilon_{it-1}$$

To estimate the above model residual values at first all variables are divided by the book value of equity at the beginning of the period in order to homogenize the data. Therefore, the above model is rewritten as follows:

$$DMVE_{it-1} = \alpha_0 DInv_{it-1} + \alpha_1 DE_{it-1} + \alpha_2 DER_{it-1} + \alpha_3 DDiv_{it-1} + \varepsilon_{it-1}$$

where:

Table 2:

Method of measurement	Name of variable	Name of variable	notation
$\boldsymbol{DER_{it-1} = \frac{ER_{it-1}}{BV_{it-1}}}$ ER: increased capital of firm i in year t-1	DER	$DMVE_{it-1} = \frac{MVE_{it-1}}{BV_{it-1}}$ MVE: Market Value of Firm i in year t-1 BV: company's equity i in year t-1	DMVE
$\boldsymbol{DDiv_{it-1} = \frac{Div_{it-1}}{BV_{it-1}}}$ Div: Dividends of company i in year t-1	DDIV	$DInv_{it-1} = \frac{1}{BV_{it-1}}$	DInv
residual term of regression model	ε	$DE_{it-1} = \frac{E_{it-1}}{BV_{it-1}}$ E: Net profit of company i in year t-1	DE

After estimating the above relationship in each year, the residual values (ε) are calculated from the following relationship:

$$\varepsilon_{it-1} = DMVE_{it-1} - \hat{\alpha}_0 DInv_{it-1} + \hat{\alpha}_1 DE_{it-1} + \hat{\alpha}_2 DER_{it-1} + \hat{\alpha}_3 DDPS_{it-1}$$

Finally, because residual values from the above model were divided by the book value of equity (for information assimilation), to neutralize the effect of this action, in calculation of variable of other information (OI) residual values were multiplied by the book value of equity. Therefore, the variable of other information (OI) is obtained as follows:

$$\boldsymbol{OI_{it} = BV_{it-1} \times \varepsilon_{it-1}}$$

5. Hypotheses Test 5.1 Descriptive Statistics

Indicator of central tendency and dispersion index are presented in independent, control and dependent variables in

Table 3: Table of descriptive statistics

Control			Independent						Dependent	Type of Variable
ER	Div	OI	FF	NCACC	CACC	TACC	CFO	E	MV	Notation
581	581	581	581	581	581	581	581	581	581	Number of observations
66.561	0.355	-0.481	0.544	-0.053	0.172	0.133	0.359	0.502	2.691	Mean
136.334	0.308	2.031	0.782	0.723	0.723	0.611	0.477	0.450	3.067	Standard Deviation
2.624	1.979	-0.826	0.070	0.662	0.706	1.078	0.390	2.896	4.697	Skewness
9.356	6.330	15.985	16.128	26.539	16.789	30.108	9.190	19.329	33.066	Elongation
-132.566	-0.530	-17.190	-5.444	-6.144	-4.569	-4.922	-2.745	-1.316	-1.633	Minimum
1118.192	0.355	10.936	6.218	6.097	5.982	5.921	2.931	4.684	31.592	Maximum

BV: Book Value of Equity, E: Operating Profit, TACC: Accruals which is equal to operating profit minus operating cash flow, CACC: Current Accruals, NCACC: Non-Current accruals, FF: Free cash flow which is equal to sum of operating cash flows and current accruals, OI: other information calculated based on the model of Saeed Akbar et al, Div: dividends, ER: increased capital which is equal to number of shares in year t minus the number of shares in year t-1

Source: Researcher findings

5.2 Hypotheses Test

First hypothesis: The relationship between operating cash flow and accruals is more relevant than operating profit and market value of firms.

Table 4: Results of the first hypothesis test

Model 2			Model 1			Variables
Significance level	t-statistic	coefficient	Significance level	t-statistic	coefficient	
0.00	4.401	61930	0.00	4.44	61101	1/BV
-	-	-	0.00	10.75	2.49	E/BV
0.00	9.519	2.899	-	-	-	CFO/BV
0.00	7.21	1.517	-	-	-	TACC/BV
0.336	0.962	0.001	0.96	0.05	0.00	ER/BV
0.00	5.197	2.050	0.00	5.00	1.94	DIV/BV
0.00	7.158	0.381	0.00	7.67	0.39	OI/BV
0.609935			0.614920			coefficient of determination
0.540167			0.538729			adjusted coefficient of determination
8.742362			8.641221			F Fisher statistic
0.0000			0.0000			Significance of F Fisher statistic
1.65798			1.71			Durbin-Watson statistic
3.868755			4.260271			F Limer statistic
0.0000			0.0000			Significance of F Limer statistic
Model1: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{E_{it}}{BV_{it}} + \alpha_2 \frac{ER_{it}}{BV_{it}} + \alpha_3 \frac{DIV_{it}}{BV_{it}} + \alpha_4 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						
Model2: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{CFO_{it}}{BV_{it}} + \alpha_2 \frac{TACC_{it}}{BV_{it}} + \alpha_3 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_5 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						

According to results shown in Table 4, the probability value of F Limer statistic in both models is less than 0.01, so the null hypothesis is rejected at 99% confidence level and panel data method is used. Since the models do not have intercept, there is no need to perform Hausman test. Durbin-Watson statistic for the first and second model with values 1.71 and 1.66, respectively, confirms lack of self correlation between the error components in both models. Probability of F Fisher statistic is less than 0.01 and at 99% confidence level the regression model is generally confirmed. Coefficient of determination of the first model is 53%. This shows that 53% of market value of equity changes can be explained by independent and control variables of this model. The same value of the second model is 54%; therefore the second model explains 54% of changes of market value of equity. Probably one of the reasons of difference between coefficient of determination and adjusted coefficient of determination is the variable of capital increase that has had no significant effect on dependent variable. Given the test results of regression coefficients significance that can be seen in the table, the probability of all variables (Operating profit (E), cash flow from operations (CFO), total accruals (TACC), dividend (Div) and other information (OI) except capital increase variable (ER)), is less than 0.01 at 99% confidence level and there is a significant relationship between these variables and market value of equity. The positive coefficient of operating profit variables, operating cash flow and accruals indicate that the more is value of these variables in a company, the more is the price and consequently market value of firm. The first hypothesis of this study suggests that the second model coefficient of determination is 54% and higher than of 53% of the first model and it shows that division of profit into cash and accrual components can increase the explanatory power of net profit and provide more relevant information about net profit to users. Therefore, according to the results of Table 4, this hypothesis is acceptable.

Second hypothesis: The relationship between operating profit and free cash flow is more relevant than non-current accruals and market value of firms.

To test this hypothesis it is necessary that coefficient of determination in models 1 and 3 be compared. The results from these models are presented in Table 5:

Table 5: Results of the second hypothesis test

Model 3			Model 1			Variables
Significance level	t-statistic	coefficient	Significance level	t-statistic	coefficient	
0.00	4.893	72982	0.00	4.44	61101	1/BV
-	-	-	0.00	10.75	2.49	E/BV
0.00	4.842	0.895	-	-	-	FF/BV
0.00	-3.49	-0.650	-	-	-	NCACC/BV
0.793	0.263	0.000	0.96	0.05	0.00	ER/BV
0.00	6.471	2.668	0.00	5.00	1.94	DIV/BV
0.00	9.468	0.513	0.00	7.67	0.39	OI/BV
0.558038			0.614920			coefficient of determination
0.478987			0.538729			adjusted coefficient of determination
7.059283			8.641221			F Fisher statistic
0.0000			0.0000			Significance of F Fisher statistic
1.515335			1.71			Durbin-Watson statistic
5.350379			4.260271			F Limer statistic
0.0000			0.0000			Significance of F Limer statistic
Model1: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{E_{it}}{BV_{it}} + \alpha_2 \frac{ER_{it}}{BV_{it}} + \alpha_3 \frac{DIV_{it}}{BV_{it}} + \alpha_4 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						
Model3: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{FF_{it}}{BV_{it}} + \alpha_2 \frac{NCACC_{it}}{BV_{it}} + \alpha_3 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_5 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						

According to results obtained from Table 5, the probability value of F Limer statistic in both models is less than 0.01, so the null hypothesis is rejected at 99% confidence level and panel data method is used. Since the models do not have intercept, there is no need to perform Hausman test. Durbin-Watson statistic for the first and second model with values 1.71 and 1.51, respectively, confirms lack of self correlation between the error components in both models. Probability of F Fisher statistic is less than 0.01 and at 99% confidence level the regression model is generally confirmed. Probably one of the reasons of difference between coefficient of determination and adjusted coefficient of determination is the variable of capital increase that has had no significant effect on dependent variable. Given the test results of regression coefficients significance that can be seen in the table, the probability of all variables (Operating profit (E), free cash flow (FF), non-current accruals (NCACC), dividend (Div) and other information (OI) except capital increase variable (ER)), is less than 0.01 at 99% confidence level and there is a significant relationship between these variables and market value of equity. The positive coefficient of operating profit variables, free cash flow and dividends indicate that the more is value of these variables in a company, the more is the price and consequently market value of firm. If the coefficient of accruals shows an inverse relationship with market value of equity, a unit increase in non-current accruals will lead to 65% reduction of market value of equity. Coefficient of determination of the first model is 53%. This shows that 53% of market value of equity changes can be explained by independent and control variables of this model. The same value of the second model is 47%; therefore the second model explains 47% of changes of market value of equity. The second hypothesis of this study suggests that the second model adjusted coefficient of determination is 47% and lower than 53% of the first model and it shows that division of profit into free cash flow and accruals components can decrease the explanatory power of net profit. In other words, net profit can provide more relevant information to users than free cash flow and non-current accruals. Therefore, according to results this hypothesis is acceptable.

Third hypothesis: The relationship between operating cash flow and current and non-current accruals is more relevant than operating profit and market value of firms.

To test this hypothesis it is necessary that coefficient of determination in models 1 and 3 be compared. The results from these models are presented in Table 6:

Table 6: The results of the third hypothesis test

Model 4			Model 1			Variables
Significance level	t-statistic	coefficient	Significance level	t-statistic	coefficient	
0.00	4.516	63515	0.00	4.44	61101	1/BV
-	-	-	0.00	10.75	2.49	E/BV
0.00	9.536	2.931	-	-	-	CFO/BV
0.00	6.583	1.456	-	-	-	CACC/BV

0.00	7.112	1.610	-	-	-	NCACC/BV
0.358	0.921	0.001	0.96	0.05	0.00	ER/BV
0.00	5.183	2.046	0.00	5.00	1.94	DIV/BV
0.00	7.342	0.390	0.00	7.67	0.39	OI/BV
0.610369			0.614920			coefficient of determination
0.534397			0.538729			adjusted coefficient of determination
8.640316			8.641221			F Fisher statistic
0.0000			0.0000			Significance of F Fisher statistic
1.684437			1.71			Durbin-Watson statistic
5.029677			4.260271			F Limer statistic
0.0000			0.0000			Significance of F Limer statistic
Model1: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{E_{it}}{BV_{it}} + \alpha_2 \frac{ER_{it}}{BV_{it}} + \alpha_3 \frac{DIV_{it}}{BV_{it}} + \alpha_4 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						
Model4: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{CFO_{it}}{BV_{it}} + \alpha_2 \frac{CACC_{it}}{BV_{it}} + \alpha_3 \frac{NCACC_{it}}{BV_{it}} + \alpha_4 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_6 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						

The probability value of F Limer statistic in both models is less than 0.01, so the null hypothesis is rejected at 99% confidence level and panel data method is used. Since the models do not have intercept, there is no need to perform Hausman test. Variance inflation factor (VIF) is less than 5 for all variables which shows there is no collinearity problem (strong correlation) between independent and control variables. Durbin-Watson statistic for the first and second model with values 1.71 and 1.68, respectively, confirms lack of self correlation between the error components in both models. Probability of F Fisher statistic is less than 0.01 and the regression model is generally confirmed at 99% confidence level. Probably one of the reasons of difference between coefficient of determination and adjusted coefficient of determination is the variable of capital increase that has had no significant effect on dependent variable. According to the results and regression coefficients in Table 6, the probability of all variables (operating profit (E), cash flow from operations (CFO), current accruals (CACC), non-current accruals (NCACC), dividend (Div) and other information (OI)) except capital increase variable (ER)), is less than 0.01 at 99% confidence level and there is a significant relationship between these variables and market value of equity. The positive variables indicate that the more is value of these variables in a company, the more is the price and consequently market value of firm.Coefficient of determination of the first model is 8.53%. This shows that 8.53% of market value of equity changes can be explained by independent and control variables of this model. The same value of the fourth model is 4.53%; therefore the second model explains 4.53% of changes of market value of equity. The third hypothesis of this study suggests that the fourth model adjusted coefficient of determination is less than the first model and it shows that division of profit into three components of operating cash flow, current accruals and non-current accruals cannot increase significantly the explanatory power of net profit. In other words, net profit can provide more relevant information to users than operating cash flow, current and non-current accruals. Therefore, according to results this hypothesis is not acceptable.

Fourth hypothesis: The relationship between operating cash flow and current and non-current accruals is more relevant than free cash flow and non-current accruals and market value of firms.

Table 7: The results of fourth hypothesis test

Model 4			Model 3			Variables
Significance level	t-statistic	coefficient	Significance level	t-statistic	coefficient	
0.00	4.516	63515	0.00	4.893	72982	1/BV
-	-	-	0.00	4.842	0.895	FF/BV
0.00	9.536	2.931	-	-	-	CFO/BV
0.00	6.583	1.456	-	-	-	CACC/BV
0.00	7.112	1.610	0.00	-3.49	-0.650	NCACC/BV
0.358	0.921	0.001	0.793	0.263	0.000	ER/BV
0.00	5.183	2.046	0.00	6.471	2.668	DIV/BV
0.00	7.342	0.390	0.00	9.468	0.513	OI/BV
0.610369			0.558038			coefficient of determination
0.534397			0.478987			adjusted coefficient of

		determination
8.640316	7.059283	F Fisher statistic
0.0000	0.0000	Significance of F Fisher statistic
1.684437	1.515335	Durbin-Watson statistic
5.029677	5.350379	F Limer statistic
0.0000	0.0000	Significance of F Limer statistic
Model3: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{FF_{it}}{BV_{it}} + \alpha_2 \frac{NCACC_{it}}{BV_{it}} + \alpha_3 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_5 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$		
Model4: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{CFO_{it}}{BV_{it}} + \alpha_2 \frac{CACC_{it}}{BV_{it}} + \alpha_3 \frac{NCACC_{it}}{BV_{it}} + \alpha_4 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_6 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$		

According to Table 7, adjusted R^2 in model (4) is more than model (3). Therefore, model (4) by decomposing profit into three components of cash, current and non-current accruals has higher explanatory power than model (3) by decomposing profit into two components of free cash flow and non-current accruals and provides more relevant information to users.

Fifth hypothesis: The relationship between operating cash flow and current and non-current accruals is more relevant than operating cash flow and accruals for general and market value of firms.

Table 8: The results of fifth hypothesis test

Model 4			Model 2			Variables
Significance level	t-statistic	coefficient	Significance level	t-statistic	coefficient	
0.00	4.516	63515	0.00	4.401	61930	1/BV
0.00	9.536	2.931	0.00	9.519	2.899	CFO/BV
-	-	-	0.00	7.21	1.517	TACC/BV
0.00	6.583	1.456	-	-	-	CACC/BV
0.00	7.112	1.610	-	-	-	NCACC/BV
0.358	0.921	0.001	0.336	0.962	0.001	ER/BV
0.00	5.183	2.046	0.00	5.197	2.050	DIV/BV
0.00	7.342	0.390	0.00	7.158	0.381	OI/BV
0.610369			0.609935			coefficient of determination
0.534397			0.540167			adjusted coefficient of determination
8.640316			8.742362			F Fisher statistic
0.0000			0.0000			Significance of F Fisher statistic
1.684437			1.65798			Durbin-Watson statistic
5.029677			3.868755			F Limer statistic
0.0000			0.0000			Significance of F Limer statistic
Model2: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{CFO_{it}}{BV_{it}} + \alpha_2 \frac{TACC_{it}}{BV_{it}} + \alpha_3 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_5 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						
Model4: $\frac{MVE_{it}}{BV_{it}} = \alpha_0 \frac{1}{BV_{it}} + \alpha_1 \frac{CFO_{it}}{BV_{it}} + \alpha_2 \frac{CACC_{it}}{BV_{it}} + \alpha_3 \frac{NCACC_{it}}{BV_{it}} + \alpha_4 \frac{ER_{it}}{BV_{it}} + \alpha_4 \frac{Div_{it}}{BV_{it}} + \alpha_6 \frac{OI_{it}}{BV_{it}} + \varepsilon_{it}$						

According to Table 8, adjusted R^2 in model (2) is more than model (4). Therefore, model (2) by decomposing profit into two components of cash accrual has higher explanatory power than decomposing profit into three components of cash, current and non-current accruals and provides more relevant information to users. In other words, decomposition of total accruals into it components could not increase the model explanatory power so there is no reason to accept this hypothesis.

6. Summary of conclusions and recommendations

6.1 Summary of Findings

Comparing adjusted coefficient of determination in models shows that the model consists of accruals and operating cash flow with 55% explanatory power provides more relevant information to users than other models, profit model with 54% explanatory power is in the second place, the profit components model including cash component, current accruals and non-current accruals with negligible difference compared to previous state is in the

third place and finally profit components model including cash flow component and non-current accruals with 47% explanatory power has the last place. This result indicates that standard setting bodies' decision to change cash flow statement is completely consistent with users needs and users in their investment decisions prefer using cash flow significantly rather than total cash flow (total of cash flow and current accruals).

Lower adjusted coefficient of determination in model (4) to model (2) shows that decomposition of accruals into two components of current and non-current could not increase the explanatory power of the model. This result is contrary to what Barth et al (2001) found in their study. They stated that decomposition of accruals into its components increased models prediction power significantly. Comparison of estimated coefficients of models shows that cash component of earnings is a superior measure than other components to describe market value of firm and after it operating profit has more application in investors' decisions. This result indicates that compared to items of accrual of profit that are contracting and selective and can be manipulated and deviated by management, as the items of cash flow statement are real and concrete they are more reliable and investors pay more attention to them. Also, the results indicate that investors pay attention the point that compared to variables such as accruals which are more based on company policies; a variable such as operating cash flow which is calculated based on accounting information is less dependent on management policies and in this respect is largely immune to interference and manipulation of management.In this study, the variables of dividends, capital increase and other information are used as control variables and despite theoretical foundations that there is a relationship between capital increase variable and market value of firm, it is shown that there is no significant relationship between capital increase and market value of firm and even considering it in the model has reduced the model power. Probably no significance of this variable can be attributed to the fact that it is not considered in Iranian investors' decisions. Summary of hypotheses results are presented in Table 9:

Table 9: Summary of study hypotheses results

3	4	1	2	Model Number
FF+NCACC	**CFO+CACC+NCACC**	**E**	**TACC+CFO**	**division of profit**
0.478987	0.534397	0.538729	0.540167	**Adjusted R^2**

Result	Hypothesis	Number
Accepted	The relationship between operating cash flows and accruals is more relevant than operating profit and market value of firms.	**1**
Accepted	The relationship between operating profit and free cash flow is more relevant than non-current accruals and market value of firm.	**2**
Non-Accepted	The relationship between operating cash flow and current and non-current accruals is more relevant than operating profit and market value of firm.	**3**
Accepted	The relationship between operating cash flow and current and non-current accruals is more relevant than free cash flow and non-current accruals and market value of firm.	**4**
Non-Accepted	The relationship between operating cash flow and current and non-current accruals is more relevant than operating cash flow and accruals for general and market value of firms.	**5**

6.2 Consistency with findings of others

Moradzadeh et al (2010) investigated the effect of free cash flow on the stock price and found that there is no significant relationship between them at 95% confidence level. However, the results of the present study confirm that there is a significant relationship between free cash flow and market value of equity but this relationship is weaker than other profit components and has less information content than other profit components. The result acknowledges that legislative bodies' decision to replace cash flow statement with cash statement were completely consistent with the needs of users.Kordestani and Roodneshin (2006) in examining the relevance of cash component and accrual of profit obtained the same results, in other words, they also found that in companies listed in Tehran Stock Exchange the cash component of profit relative to two components of accrual i.e. current and non-current accruals has increasing information content. Muhammad Jawad Sheikh et al (2011) reviewed information content of items related to the basic financial statements including accruals, operating profit and cash flows. Their results showed that profit had the highest information content among the mentioned items. Also, Dechow, Kothari and Watts (1998), Bowen, Burgstahler and Raleigh (1987), Carito and Clubb (2000), Loftus and Sin (1997), Mashayekhi et al (2009), Saber Sheri et al (2010), Dastgir et al (2010) in their studies found the same results of Sheikh et al. However, the results of this research is similar to results of studies of researchers such as Kordestani and Roodneshin (2006), Brochet et al (2008), Saeed Akbar, et al (2011) that they also showed that cash component of profit has higher information content than net profit figure. This difference between the results of these researchers and the result of this study is probably due to difference in models used and different conditions of capital markets during the years under study.Lower adjusted coefficient of determination in model (4) to model (2) shows that decomposition of accruals into two components of current and non-current could not increase the

explanatory power of the model. This result is contrary to what Barth et al (2001) found in their study. They stated that decomposition of accruals into its components could increase models prediction power significantly. One of the reasons that can express related to this result is that maybe accruals details that are used in cash flow reconciliation statement are not real, while total accruals that are obtained from difference between operating profit and operating cash flow are accurate. In accordance with the result of this research, some researchers such as Ray Boone (1986), Barth, Cram and Nelson (2001), Saeed Akbar et al (2011) by reviewing and comparing models of division of profit into its components also showed that division of profit into two components of cash and accrual can increase the explanatory power of market value of equity or stock returns.Lork and Velinger (2009) in a different study investigated the ability of past operating flows and previous profits to predict future operating cash flows and showed that the model based on past cash flows had more accurate prediction than historical profits from future operating cash flows. Comparing this result with result of the present study indicates that not only there is a strong relationship between operating cash flows and market value of firm rather than net profit and market value of firm, but also this component of profit has a stronger predicting power. Therefore, according to results of this study and studies carried out by previous researchers, operating cash flow plays an important role in investors' decisions, and probably this is because that management does not have any purposive intervention in its preparing and cannot manipulate it such as accrual figures and consequently the net profit and thus cannot mislead the market for its benefit.

6.3 The applied suggestions:

According to results of this study decomposition of profit into two components of accruals and operating cash flows can increase the explanatory power of market value of firm compared with relying solely on net income figure, thus it is recommended that users of financial statements in order to make more rational decisions use two-component analysis in their decisions regarding accounting information instead of other combinations.

6.4 Suggestions for future studies:

1. In the present study components of current and non-current accruals were considered. Thus, it is suggested that in future studies information content of current and non-current discretionary accruals be considered.
2. In the present study free cash flow was used as a function of operating cash flow and current accruals. It is recommended that information content of the company's free cash flow and shareholders' free cash flow be investigated.

6.5 Study Limitation:

In the present study the macroeconomic conditions factor (inflation) has not been considered. Clearly, in case of figures adjustment particularly historical figures in special circumstances of Iran the results of study will be likely different, therefore, paying enough attention to generalize the results is necessary.

REFERENCES

1. Ali, A., & Pope, P. F. (1995). "The incremental information content of earnings, funds flow and cash flow: The UK evidence". Journal of Business Finance and Accounting, 22(1),19–34
2. Barth, M. E., Cram, D., & Nelson, K. (2001). Accruals and the prediction of future cash flows. The Accounting Review, 76(1), 27–58
3. Bartov, E., Goldberg, S. R., & Kim, M. -S. (2001). The valuation-relevance of earnings and cash flows: An international perspective. Journal of International Financial Management and Accounting, 12(2), 103–132
4. Behzadfar, Fatemeh, (2010) The Evaluation of the Relationship Between the Informational Content of Accruals and Selected Financial Ratios with Stock Price of Listed Companies in Tehran Stock Exchange, Accounting Master's thesis, University of Isfahan.
5. Board, J. L. G., & Day, J. F. S. (1989). The information content of cash flow figures. Accounting and Business Research, 20(77), 3–11
6. Bowen ,R.Burgstahler,D and L.Daley(1987).The incremental information content of accruals versus cash flows.The Accounting Review,62,723-747
7. Bowen,R.M,Burgstahler,D&Daley,L.A,(1986).Evidence on the relationships between earnings and various measures of cash flow ,TheAccounting Review,Vol LXI,no 4,pp 713-25

8. Brochet.F, Nam.s ,and J.Ronen.(2008) . The role of accruals in predicting future cash flows and stock returns.Working paper, Harvard University , Rutgers University, New York University
9. Charitou, A., Clubb, C. D. B., & Andreou, A. (2001). The effect of earnings permanence, growth and firm size on the usefulness of cash flows and earnings in explainingsecurity returns: Empirical evidence for the UK. Journal of Business Finance and Accounting, 28(5 & 6), 563–594.
10. Charitou, A., & Clubb, C. D. B. (1999). Earnings, cash flows and security returns over long return intervals: Analysis and UK evidence. Journal of Business Finance and Accounting, 26(3 & 4), 283–312
11. Christie, A. A. (1987). On cross-sectional analysis in accounting research. Journal of Accounting and Economics, 9(3), 231–258
12. Charitou, A., and C. Clubb. (2000). " The value relevance of earnings and cash flows: Empirical evidence for Japan". Journal of International Financial Management & Accounting. 11(1). pp 1-22.
13. Dastgir, Mohsen, and Payrvand, Bahman (2010) The Role of Current and Non-Current Accruals in Relationship Between Stock Returns and Earnings of Listed Companies in Tehran Stock Exchange, Quarterly Journal of Accounting Research, No. 28, Winter 2009, pp. 41-62.
14. Dechow,P.M,Kothari,S.P&Watts.R.L.(1998),The relation between earning and cash flows,Journal of Accounting and Economics,Vol 25,no2,pp133-68.
15. Dechow.p. and Dichev, I. (2002).The Quality of Accruals and Earning: The Role of Accruals in Estimation of Errors Accounting Review, Vol. 77, pp. 35-59
16. Gu, Z. (2005). Scale factor, R2, and the choice of levels versus returns models. Journal of Accounting, Auditing and Finance, 20(1), 71–91
17. Khodadadi, Vali, and Kargarpour, Khatereh (2009) The Evaluation of the Relationship Between Operating Cash Flow and Liquidity Ratios and Stock Returns of Listed Companies in Tehran Stock Exchange, Quarterly Journal of Financial Accounting, Year 1, No. 1, Spring 2009, pp. 60-75.
18. Khodadadi, Vali, Dastgir, Mohsen, and Jalili, Amir (2009) The Evaluation of Ability to Predict Future Cash Flows by Using Cash Flows and Accrual Components of Past Profits, Accounting Research, Winter 2009, pp. 26-53.
19. Kordestani, Gholam Reza, and Roodneshin, Hamid (2006) Evaluation of Relevance of Cash Components, Accounting Profit Accrual to Market Value of Firm, Studies of Accounting and Auditing, No. 45, Fall 2006, pp. 45-68.
20. Kothari, S. P., & Zimmerman, J. (1995). Price and return models. Journal of Accounting and Economics, 20(2), 155–192
21. Kumar, K. R., & Krishnan, G. V. (2008). The value-relevance of cash flows and accruals:The role of investment opportunities. The Accounting Review, 83(4), 997–1040
22. Lie,Q(2006),Cash distribution and returns,University of Michigan ,pp1-320
23. Loftus, Janice.A & Sin, Samananta. (1997)." The Role of current and non-accruals in the relation between stock returns & Earning". Journal of Accounting and Finance 37 (1997) 147-161
24. Laitinen, E. K. (2006). Financial statement data in assessing the future potential of a technology firm: The case of Nokia. International Review of Financial Analysis, 15, 256–286
25. Lee, T Lork K.S. Willinger G.L (2009), 'New evidence pertaining to prediction of operating'. Rev.A., Ingram, R.W. & Howard, T.P. 1999, 'The difference between earnings and operating cash flow as an indicator of financial reporting fraud', Contemporary Accounting Research, vol. 16, no. 4, pp. 749-86
26. Martin.J.D,and petty.j.w.(2000).Value –based Management :The corporate Response to the shareholder Revolution .Boston ,Massachusetts:Harvrd Bussiness school press
27. Mashayekhi, Bita and Shariati Ayouri, Alireza (2009) Comparison of Profit and Cash Flows as Measures for Evaluating Company Performance: Evaluation of Role of Accruals, Quarterly Scientific Research Journal of Financial Accounting, Year 1, No. 4, Winter 2009, pp. 1-25.
28. Mashayekhi, Bita et al (2005) The Role of Discretionary Accruals in Earnings Management of Listed Companies in Tehran Stock Exchange, Studies of Accounting and Auditing, No. 42, Winter 2005, pp. 61-74.

29. Michael C. Jensen(1986), Agency Costs of Free Cash Flow,Corporate Finance, and Takeovers, Harvard Business School, *American Economic Review*, May 1986, Vol. 76, No. 2, pp. 323-329.
30. Moradzadeh Fard, Mehdi, Gheitasi, Roohallah, and Masjed Mousavi, Mir Seyed (2010) Evaluation of Relationship between Company's Free Cash Flow and Shareholder's Free Cash Flow and Market Value of Equity, Journal of Financial Studies, No. 7, Fall 2010.
31. Pourheidari, Omid, and Karamshahi, Behnam (2010) The Evaluation of Information Content of Accounting Profit by Considering Market Efficiency of Listed Companies in Tehran Stock Exchange, Quarterly Journal of Securities Exchange, No. 12, Third Year, Winter 2010, pp. 87-108.
32. Rezaei, Farzin, Jabbari Khamenei, Hossein, and Shafiei Dizaji, Hadi (2012) The Evaluation of Gradual Process of Accounting Variables Relationship and Stock Prices by Using Hierarchical Bayesian Model, A Collection of Articles the Tenth National Conference on Accounting of Iran, Alzahra University, June 2012.
33. Rezvani Raz, Karim, Rekabdar Ghasem, and Ramezan Ahmadi, Mohammad (2009) The Evaluation of Relationship Between Free Cash Flows and Dividend Policy of Listed Companies in Tehran Stock Exchange, Quarterly Scientific Research Journal of Financial Accounting, Year 1, No. 4, Winter 2009, pp. 92-107.
34. Saidi, Ali, and Ghaderi, Ehsan (2007) The Evaluation of Relevance of Accounting Profit, Book Value and Operating Cash Flow and Investment in Valuation Models Based on Price, Studies of Accounting and Auditing, Volume 14, No. 50.
35. Saghafi, Ali, and Hashemi, Seyed Abbas (2004) An Analytical Study of the Relationship Between Operating Cash Flows and Accruals, Providing a Model to Predict Operating Cash Flows, Studies of Accounting and Auditing, Year 11, No. 38, Winter 2004, pp. 29-52.
36. Saeed Akbar, Syed Zulfiqar Ali Shah , Andrew W. Stark(2011), The value relevance of cash flows, current accruals, and non-current accruals in the UK, International Review of Financial Analysis 20 (2011) 311–319
37. Sheikh, Mohammad Jawad, and Roozbakhsh, Najmeh (2011) The Evaluation of Value of Increasing Information Content of Balance Sheet Accruals, Operating Profit and Operating Cash Flows in Prediction of Operating Cash Flows, Accounting and Auditing Research, Year 3, No. 11, Fall 2011.
38. Sheri, Saber and Hassas Yeganeh, Yahya, and Mirzagol, Fatemeh (2010) The Power of Accruals in Predicting Future Cash Flows, Quarterly Journal of Accounting Research, No. 26, Summer 2010, pp. 47-70.
39. Stephen H. Penman, Scott A. Richardson, İrem Tuna(2006) The Book-to-Price Effect in Stock Returns: Accounting for Leverage, Columbia University,working paper.
40. Zarif Fard, Ahmad, and Nazemi, Amin (2005) The Evaluation of role of Market Possible Inefficiency in Relationship Between Accounting Variables and Prices and Stock Returns of Listed Companies in Tehran Stock Exchange, Journal of Humanities and Social Sciences, Shiraz University, Volume 22, No. 2, Summer 2005 .