Investigating the effect of conservatism on abnormal returns at the portfolio level

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ABSTRACT

The purpose of this study is to investigate the effect of conservatism on stock abnormal returns at the portfolio level. Earnings that often consist of accruals do not persist in future periods, knowing that investors not paying attention to less persistence of accruals, which causes a negative relationship between accruals and future abnormal returns. On the other hand, conservatism is the asymmetrical verification requirements for gains and losses. Greater degree of verification required for gains versus losses. Hence expected increase in conservatism led to increase earnings persistence and reduce abnormal returns.

To examine the issue, hedge portfolios formed by assigning stocks into quartiles by using a dual sorting based on their magnitude of annual deflated accruals then degrees of conservatism quartiles within each accrual quartile. For 208 companies (4*4 portfolios per year) during the years 2011-2018 the abnormal returns of the portfolios were calculated and compared using spss.26 software. The results showed that the return of a hedge portfolio that is long in low accrual quartile and short in high accrual quartile firms that also have a lower overall degree of conservatism is greater than the returns of a similar hedge portfolio that invests in higher overall degree of conservatism

Keywords:

Abnormal Returns, Conservatism, Accrual Anomalies, Hedge portfolio.

1. Introduction

Some observed prices for stocks, or stock market anomalies, cannot be justified by asset pricing theories (Schwert, 2001). Accrual anomalies are one of these anomalies because researchers have shown that stock trading based on accruals leads to abnormal returns and erroneous pricing of stocks, which is justified by different asset pricing theories. In the past, researchers used a zero-weight portfolio to show accrual anomalies, in which the portfolio consisted of long position a specific weight of stocks with the lowest accruals and short position the same ratio of stocks with the highest accruals. Holding this zero-weighted stock portfolio yielded more than zero returns. Researchers attribute this result to the accruals anomaly that is a violation of market efficiency hypothesis (Lev & Nissim, 2006; Kothari et al., 2008).

Previous researches has shown that investors use current period earnings to predict future earnings and dividends. In his famous 1996 study, Sloan examined the effect of accrual and cash portion of current period earnings on future stock prices. The results showed that investors did not pay attention to the earnings components. Sloan in this study showed that accruals are less permanent and earnings that are often accrued do not persist in future periods, due to the negative relationship between accruals and future period returns as accruals anomalies (Kothari, 2001; Richardson et al., 2011; Khani and Azarpour, 1986). Failure to paying attention by investors to less stability of the accruals in earnings creates an opportunity for abnormal returns.

Conservatism is a concept or mechanism created to deal with the challenge of information uncertainty or asymmetry. Conservatism, in other words, is the tendency of the company to timely record accounting losses and accounting requirements that reduce the book value of the company. Given the limitations that conservatism has on managers' judgments, it is expected that tightening will increase accrual persistence and reduce accrual anomalies and anomalous stock returns.

In this study, the effect of conservatism on stock anomalies at the portfolio level is investigated, and we expect the return of a hedge portfolio that is long in low accrual quartile and short in high accrual quartile firms that also have a lower overall degree of conservatism be greater than the returns of a similar hedge portfolio that invests in higher overall degree of conservatism.

2. Literature review
2.1. Abnormal returns and accruals anomaly

The accruals are result of the current accrual accounting regime and a part of the reported profit is from accruals (Ohlsom, 2014). Since the determination of the accrual portion of profit involves more than its cash component with subjectivity, it is therefore claimed that the quality of the accrual component of profit is relatively less than its cash component (Foroghi et al., 2017).

Sloan (1996) for the first time showed that investors do not pay attention to the characteristics of accruals (less persistence of accruals than cash flows). He used investors fixate theory to justify this behavior of investors. According to this theory, investors pay attention to the number of profits, not to the components of profit. In that study, Sloan categorized companies into 10 categories based on the amount of accruals, and created hedge portfolios that were long in stocks with fewer accruals and short in stocks with higher accruals, from 1962 to 1991, it showed that this strategy (trading on accrual basis) would generate a positive return of 10.4%. This result was not justified by asset pricing theories. Investigations into accrual anomalies have been ongoing so far. Hirshleifer (2007) states that the ability of accruals to predict returns is greater than the model of Capital Assets Pricing Model (CAPM), firm size, book to market ratio, and Fama and French 3-factor model.

Wakil (2014) in a study investigating accrual anomalies, earnings persistence, and conservatism formed a hedge portfolio similar to Sloan (1996) in 10 and 5 classes of stocks based on accruals, and the results It showed that the transaction based on accruals strategy yielded 8.4% in 10 categories and 7.8% in 5 categories. These results indicate accrual anomalies and non-elimination of these anomalies. By applying the conservatism feature in the secondary test and classification on the basis of conservatism, the anomalous return on the portfolio was reduced to 4.9%, indicating a conservative effect on the decrease in the anomalous return on the portfolio.

Ozkan and Mesut kayali (2015) examined accrual anomalies in the Istanbul Stock Exchange. The test method of these researchers was Mishkin test and the formation of a portfolio of coated stocks. The portfolio was formed on the basis of accruals and once at the whole level of the companies and once again by eliminating the

losers. The criterion for anomalous returns in this study was size-adjusted returns. The results showed that there was no accruals anomaly at the whole level of companies, but in the case of elimination of losers, there was an abnormal return of 18.58%.

2.2. Conservatism and Abnormal returns

Watts (2003) describes conservatism is the asymmetrical verification requirements for gains and losses. The requirements for recognizing profits are greater than the requirements for recognizing the losses. Watts describes conservatism as an efficient mechanism used in corporate contracts with others. Others are often out of the company and have less information on their contracts than managers, and the losses of executives created by their own inefficiency may be less than the losses on the contracts of the company (asymmetric losses). Demand for this type of loss reduces the incentive to contract with the company, which is referred to as contractual conservatism. Studies such as (Ahmed et al., 2002; Beatty et al., 2008; Jiang, 2007) have shown the positive role of conservatism in debt contracts. In that research, conservatism has reduced the risk of bankruptcy by sending a signal and indicate lowering earnings and decreases the risk of bankruptcy.

Givoly and Hayn (2000) point out that conservatism is the choice of accounting principles that reduces profit in financial statements. Conservatism always reduces the accumulated profits from operating cash flows. However, Givoly et al. (2007) stated that there is no formal definition of conservatism, but they often believe that conservative accounting causes the net asset valuation of a company to be less than the net economic value of the company assets.

In the stock valuation literature using accounting data, Feltam and Ohlsom (1995) argue that the net worth of a firm's assets in the long run will be less than the market value of the firm due to conservatism. Beaver and Ryan (2005, 269) define conservatism as the lower average of the net book value of assets relative to their market value.

Accruals anomaly have been the subject of much research since its initial definition by Sloan (1996). Most research has attributed accruals anomaly to lower persistence of accruals and lack of attention by investors. Conservatism in financial reporting imposes greater requirements for identifying incremental accruals of profits and assets than of deductions of profits and assets.

Given the definitions of conservatism, accruals are expected to be more stable in conservative companies. Therefore, between firms with higher accruals, those with more conservatism, lower profit reduction in the next period and lower anomalous returns, thereby anticipated the inverse relationship between accruals and future profit reduction (accruals anomaly) among conservative firms be less.

Mehrani et al. (2009) examined conservatism in accounting profit and its relationship with accruals in Tehran Stock Exchange. The data of 106 Tehran Stock Exchange member companies during the period 1997 to 2006 have been analyzed using the combination regression analysis, and the results show that the accounting profit is about 3.66 times is sensitive than the negative stock return and about 78 percent of the time asymmetry in accounting profit is explained by accruals.

Hashemi et al. (2013) investigated the accruals anomaly considering the risk of financial default in companies listed on the Tehran Stock Exchange. The dependent variable in their research was abnormal future stock returns and the independent variable included accruals and risk of financial default. The results of their research indicate that there are anomalies in the Iranian capital market and the impact of financial risk on the relationship between accruals and abnormal future stock returns.

Dastgir et al. (2014) investigated the sustainability of the cash part relative to earnings accruals and the role of firm characteristics on accrual anomalies in the Tehran Stock Exchange during the period 2001 to 2011. The results indicated that, according to the literature, the cash part is more stable than the accrual part and the cash part is able to predict market value. They also observed deletion of accruals anomaly by adding company attribute variables.

Bolu et al. (2014) examined the relationship between abnormal returns and conservative accounting in the Tehran Stock Exchange. In this study, the time asymmetry criterion of profit and loss recognition (Basu, 1997) was used to measure conservatism and capital asset pricing model based on a well-known market model to measure abnormal returns. The results indicated that there was a relationship between abnormal returns and the degree of conservatism.

Nikbakht and Ghasemi (2015) examined the impact of stock over-valuation on anomalous returns and their fluctuation over time in listed companies in Tehran Stock Exchange. To measure anomalous returns and their fluctuation over time, they used the

Fama and French three-factor model (1995). The results indicated that over-valuation of stocks had a significant positive effect on anomalous returns and their volatility over time. In other words, with the rise of overvalued and overvalued stocks over time, their

Previous researches using accrual trading strategy formed a hedge portfolio that consist of long position a specific weight of stocks with the lowest accruals and short position the same ratio of stocks with the highest accruals. Due to lower persistence of accruals, the future

Table 1. Dual Sorting and Hedge Portfolio Formation

Dual sorting by accruals and then by conservatism		Conservatism Quartiles			
		Q1- Least	Q2	Q3	Q4- Most
Accruals Quartiles	Q4- Most	P_{11}	P_{12}	P_{13}	P_{14}
	Q3	P_{21}	P_{22}	P_{23}	P_{24}
	Q2	P_{31}	P_{32}	P_{33}	P_{34}
	Q1- Least	P_{41}	P_{42}	P_{43}	P_{44}
First hedge portfolio		Including the long position in P_{41} and short position in P_{11}			
Second hedge portfolio		Including the long position in P_{14} and short position in P_{44}			
Hypothesis: The abnormal return of first hedge portfolio is greater than the abnormal return of second hedge portfolio.					

Since abnormal returns have been used in different ways in the literature of the research, in this research anomalous returns have been calculated by three methods: size adjusted return (AR_{it}^{SAB}), market index- the return ( ) and CAPM modified return AR_{it}^{m}

Hypothesis 1: The size adjusted return on the hedge portfolio based on accruals is higher than the size (AR_{it}^{c}). formed on conservatism.

anomalous returns and volatility significantly increase.

Salehi et al. (1998) investigated the relationship between two dimensions of conservatism on variables of investment behavior and future returns of firms. The results showed that conditional conservatism leads to a decrease in corporate investment tendencies, while unconditional conservatism encourages companies to invest more. The study of the relationship between conservatism and future returns showed that there is a negative (positive) and significant relationship between conditional (unconditional) conservatism and future returns of companies. Therefore, increasing conditional (unconditional) conservatism will decrease (increase) the future returns of companies. Overall, the results showed that conservatism can influence the behavior and amount of investment and return on companies.

3. Methodology
3.1. Hypotheses

adjusted return on the hedge portfolio formed on conservatism.

Hypothesis 2: The market index-modified return on the hedge portfolio based on accruals is higher than the modified return market index-modified return on the hedge portfolio

Hypothesis 3: The CAPM-modified returns on the hedge portfolio based on accruals is higher than the

returns of more accrual companies decreases and hence the return on the portfolio of the aforementioned in previous research is in line with the positive forecasts.

In this study, the dual sorting is based on accruals and conservatism and using the hedge portfolio return to investigate the effect of conservatism on abnormal returns. The method of dual sorting and portfolio formation is presented in Table 1.

The Main Hypothesis

The abnormal return on the hedge portfolio based on accruals is higher than the anomalous return on the hedge portfolio formed on conservatism.

CAPM-modified returns on the hedge portfolio formed on conservatism.

Nikoomaram et al. (2017) examined the topic of overreaction and under reaction: evaluating the performance and speed of adjusting investment strategy in Tehran Stock Exchange. The method used by these researchers to compare the different strategies, was form portfolio and compare the

strategies by the t-student test. In this study, t-student test or Mann-Whitney U test were used to compare portfolio returns.

Conservatism has been computed by the method of Givoly and Hayn (2000). Abnormal returns have been used in three ways: Size Adjusted Return, deviation from market returns, and deviation from return predicted by capital asset pricing model. For the purpose of dual sorting, we first classify the companies according to the amounts of accruals into four quartiles, with the first quartile having the least accruals and the fourth quartile having the highest accruals. At this stage, we expect the hedge portfolio return that consist long position on first class stocks (lowest accruals) and short position on fourth class (most accruals) stocks be positive. Because, according to previous research, stock prices of companies with high accruals have declined in subsequent years due to less persistence of accruals than investors do not pay attention this.

In this study, we go beyond previous research and make another classification in addition to accruals and based on the degree of corporate conservatism. In the previous four classes (based on accruals) we re-sort companies according to the level of conservatism. The second classification is that the first quartile has the least conservatism and the fourth quartile has the most conservatism. We expect that conservatism by limiting corporate governance will limit their ambition to use accruals and make accruals more stable, hence the unusual return on the hedge portfolio from the firstclass stock position (The lowest accruals and the most conservative) and the fourth-class stock position (the highest accruals and the most conservative) were the fewer hedge portfolio that were created regardless of conservatism.

3.2. Variables and Data

Required information of companies listed on the Tehran Stock Exchange and Iran Fara Bourse was collected during 2011-2018, when their financial information was available. The data of banks and credit institutions and investment companies were excluded because of their type of activity and in accordance with the research background. With the above requirements, the financial data of 208 companies over 8 years (2011-2018) were reviewed.

Accruals

Rezaei Lashkjani and Samadi Largani (2017) defined accruals as net income minus cash flows from operations in a study that examined the relationship between actual earnings management and earnings management based on accruals to achieve average profitability. The accruals in this study were calculated in accordance with the theoretical foundations of the research using the balance sheet method (Sloan, 1996; Wakil, 2011; Khani & Azarpour, 2017). The accruals are calculated using the following formula, the necessary information is extracted from the financial statements and divided into total assets of each company in order to establish comparability:
Equation 1.

$$OAC = [(\Delta CA - \Delta CL - \Delta CASH + \Delta STD + \Delta TP) - DEP)]/AVGTA$$

OAC: Operational accruals are calculated in this section.
ΔCA: Current asset changes are the current period compared to the previous period. ΔCL: Current debt changes are the current period compared to the previous period. $\Delta CASH$: Cash changes and cash equivalents are the current period compared to the previous period. Cash equivalents are shown in the form of cash in the balance sheet.
ΔSTD: Total debt changes (including current debt) are the current period compared to the previous period.
ΔTP: Changes in taxable profit (pre-tax profit) for the current period compared to the previous period.
DEP: Depreciation expense is calculated from the financial statements of companies.
AVGTA: The average book value of assets at the first and the end of the financial period is calculated from the successive financial statements of the corporations.

Conservatism - The Givoly and Hayn Method (2000)
Conservatism is calculated as follows:
Equation 2.

$$NOACC_{it} = ACC_{it} - OACC_{it}$$
$$ACC_{it} = NI_{it} + DEP_{it} - CFO$$
$$OACC_{it} = \Delta AR_{it} + \Delta I_{it} + \Delta PE_{it} - \Delta AP_{it} - \Delta TP_{it}$$

All variables used in this model have been extracted from the financial statements of the corporations and are

intended to be changed, increased or decreased compared to the previous period.

$NOACC_{it}$: Non- operational Accruals (Conservative Criteria)

ACC_{it} : accruals

NI_{it}: net profit

DEP_{it} : depreciation expense

CFO_{it}: operational cash flow

$OACC_{it}$: operational accruals

ΔAR_{it}: Change in accounts receivable

ΔI_{it}: change in inventory

ΔPE_{it}: change in prepayment

ΔAP_{it}: Change in accounts payable

ΔTP_{it}: change in tax payable

Under this model, conservative non-operating accruals are considered conservative, and smaller (negative) items represent more conservatism, so they multiply negative in order to match variables.

Abnormal Returns – Size Adjusted Return

Rahimpoor and Ebrahimi (2016) examined the relationship between earnings quality and the abnormal return of companies listed on the Bombay exchange during 2009 and 2013. To calculate the anomalous returns of companies based on two criteria of company size (asset logarithm) and stock price to book value ratio, they were classified into five categories and numbered 10 portfolio in each financial period. With the portfolio they owned, they were considered the difference of stock return with the portfolio return that stock belong it, as abnormal returns.

In this study first, companies are classified into 10 classes (deciles) based on their sales volume, and the deviation of the return of the share and the class return to which it belongs in terms of size (sales volume) is considered as abnormal returns.
Equation 3.

$$AR_{it}^{SAR} = R_{it} - RPS_t$$

SAR_{it}: Size-adjusted return

R_{it}: Returns the share of i in year t

RPS_t: Returns on the portfolio of a portfolio whose share i is the size of the portfolio.

Abnormal Returns - Adjusted to Market Returns

Mirzajani and Heidarpour (2018) conducted a study on earnings smoothing, investor reaction and earnings sustainability in listed companies in Tehran Stock Exchange. In this study, annual anomalous returns are defined as the reaction of investors, and anomalous returns are also defined as the difference between company returns and market returns. According to this method, deviation of market shares from market return in the year under review is considered anomalous. This method has been used in the research of Hashemi et al. (2013) and Mirzajani and Heidarpour (2018) to calculate anomalous returns.
Equation 4.

$$AR_{it}^m = R_{it} - RM_t$$

AR_{it}: Abnormal return on i share in year t by deviation from market return

R_{it}: (cash and price) return on share i in year t (cash and price return on a share is obtained by dividing the sum of dividends by the sum of the change in the share price to the beginning of the share price). RM_t: Market returns per year t

Abnormal Returns - Adjusted for CAPM Capital Asset Pricing Model

In this method, the expected return on equity is estimated using the capital asset valuation method and the difference between the actual return on the share and the expected return is considered as anomalous.
Equation 5.

$$AR_{it}^C = R_{it} - RC_{it}$$

AR_{it}^C: Abnormal return on i share in year t with CAPM capital asset valuation method

R_{it}: Returns the share of i in year t

RC_{it}: Estimated return for share i in year t.
The following model is used to estimate this return:

$$RC_{it} = R_{if} + \beta_i(R_{im} - R_{if})$$

R_{if}: The rate of return is risk free rate. For this purpose, interest rates on the declared bank deposits of the Central Bank are used for each year.

β_i: Beta per share. The stock beta is calculated monthly for each company during the research period using the following regression. r_i is monthly

return i share, r_m is the monthly return on the total market index.

$$r_i = \alpha + \beta_i r_m$$

R_{im}: The total return (price and cash) of the Tehran Stock Exchange.

4. Results

Necessary information was extracted from corporate financial statements, Rah Avard Novin software, central bank website[1] and Tehran Stock

After calculating the required variables and performing a double sorting, stock portfolios were formed. The first hedge portfolio return (0.0768) is greater than second hedge portfolio return (0.0248) that it is in line with prediction.

According to the calculations in Table 2, trading strategy based on accruals in 2011 produces 3.73% abnormal return, while the portfolio formed on the basis of conservatism is 2.48%. These calculations were made for the duration of the research period and the abnormal returns from the portfolio based on accruals and the returns from the portfolio based on conservatism and

Table 2. The Size Adjusted Return of Portfolios Formed on Accruals and Conservatism - 2011

Dual sorting based on accruals and conservatism - 2011		Conservatism Quartiles				Accrual Quartiles Size Adjusted Return
		Q1-Least	Q2	Q3	Q4- Most	
Accrual Quartiles And Number of Stocks in Portfolios	Q4- Most	0.0661	0.0730	0.0510	0.0153	0.0514
		13	13	13	13	52
	Q3	0.1054	0.0869	0.0556	0.0192	0.0668
		13	13	13	13	52
	Q2	0.1287	0.0981	0.0419	0.0243	0.0733
		13	13	13	13	52
	Q1-Least	0.1429	0.1229	0.0487	0.0401	0.0887
		13	13	13	13	52
First hedge portfolio: Including the long position in P_{41} and short position in P_{11} = 0.1429 – 0.0661 = 0.0768						
Second hedge portfolio: Including the long position in P_{44} and short position in P_{14} = 0.0401 – 0.0270 = 0.0248						

Table 3. Comparison of Hedge Portfolio Returns Formed Based on Accrual and Conservatism – Size Adjusted Return

First hypothesis test	2011	2012	2013	2014	2015	2016	2017	2018
Accrual based portfolio returns (ACC)	0.5002	0.9845	0.3909	0.2795	-0.0438	1.0536	1.4830	0.4565
Conservatism based portfolio returns (CONS)	0.2424	-0.2127	-0.2549	-0.5179	-0.6776	0.4697	-0.3765	-0.3035
The result of K-S test				The result of t-student test				
Variable		ACC	CONS	Variable		ACC	CONS
Number		8	8	Mean		0.6381	-0.2039
Mean		0.6381	0.2039	Variance		0.1454	0.2447
Test statics		0.259	0.235	t-value		1.7709	
Sig.		0.200	0.121	Sig.		0.002	

Exchange Technology Management Company[2] web site and analyzed in SPSS.26 software. Investment portfolios were formed each year for three methods of calculating abnormal returns and conservatism. For conservatism calculation and abnormal return .

calculation method, 8 series (per year) of abnormal return were generated. An example of a classification is shown in Table 2.

statistical comparison of their mean are listed in Table 3.

In order to select the appropriate method for testing between yields, after controlling for the normality

The normality test was not validated in this model and the Mann-Whitney U nonparametric test was used.

Given the statistical confirmation of the difference

Table 4. comparison of hedge portfolio returns formed based on accrual and conservatism – market index-modified return

Second hypothesis test	2011	2012	2013	2014	2015	2016	2017	2018
Accrual based portfolio returns (ACC)	0.0768	0.8270	0.2413	0.3034	-0.0657	0.6111	0.4621	0.4203
Conservatism based portfolio returns (CONS)	0.0248	-0.3729	-0.2620	-0.4549	-0.6770	0.4689	-0.3226	0.2680
The result of K-S test				**The result of t-student test**				
Variable		ACC	CONS	Variable			ACC	CONS
Number		8	8	Mean			0.3595	-0.1659
Mean		0.3595	-0.1659	Variance			0.3871	0.2663
Test statics		0.110	0.222	t-value			3.087	
Sig.		0.200	0.200	Sig.			0.008	

Table 5. comparison of hedge portfolio returns formed based on accrual and conservatism – CAPM-modified return

Third hypothesis test	2011	2012	2013	2014	2015	2016	2017	2018
Accrual based portfolio returns (ACC)	13.4702	0.6530	0.7309	0.3409	0.6119	0.6428	2.3656	0.6489
Conservatism based portfolio returns (CONS)	-4.0367	0.2722	0.2281	-0.1235	-0.0360	-0.0641	1.3772	-0.0472
The result of K-S test				**The result of Mann-whitney U test**				
Variable		ACC	CONS	Variable			ACC	CONS
Number		8	8	Mean (Ranks)			11.75	5.25
Mean		4.5031	-0.3038	Sum (Ranks)			94.00	42.00
Test statics		0.4200	0.3970	Mann-whitny U statics			6.0000	
Sig.		0.0000	0.0010	Sig.			0.0060	

conditions using k-s method, t-student test was used to compare the mean since the data were normal. The test results indicate that the averages are not equal, and given that the average portfolio yield on accruals is higher than the average on conservative portfolio anomalies, it can be concluded that conservatism reduced abnormal returns – size adjusted return, this result is consistent with the prediction of the first hypothesis of the study.

Table 4 shows the results of the calculations required to test the second research hypothesis that based the market index-modified abnormal return.

According to the data in Table 4, which is prepared for testing the second hypothesis of the research, the average return on the portfolio formed on accruals is higher than the abnormal return on the portfolio based on conservatism, which is in line with the prediction of the second hypothesis.

Table 5 compares the average of the abnormal returns calculated on the basis of the capital asset pricing model.

between the averages and the larger mean average return on the portfolio of accruals, it can be concluded that conservatism has reduced the anomalous return on the portfolio of the accruals.

The test results of all three hypotheses are in line with the predictions and research literature. Given that the abnormal return on the accrual-based hedge portfolio is positive, there is evidence of accruals anomaly the Iranian capital market. Also, due to the lower abnormal return on the portfolio formed by conservatism than the abnormal return on the accrualbased portfolio, all three hypotheses were confirmed. By acknowledging the effect of conservatism on reducing abnormal returns, it can be concluded that conservatism reduces abnormal stock returns at portfolio level.

5. Discussion and Conclusions

Accounting conservatism is a tool for controlling managers' ambition to use judgment in accounting estimates and a characteristic of conservatism is that it increases the reliability of accruals. According to the research literature, accrual part of income is less persistence than cash part, and investors generally disregard this. Hence future stock returns with higher accruals is decreasing. This provides the opportunity to earn returns by creating a hedge portfolio by getting short position on stocks with high accruals and long position on stocks with less accruals. Conservatism was expected to reduce the portfolio's abnormal returns. As seen in the preceding section, the results of the research tests confirmed the research hypotheses.

The research prediction is a hedge portfolio that consists of a long position in low accrual quartile firms and a short position in high accrual quartile firms with lower degrees of conservatism will earn greater abnormal returns than would a similar hedge portfolio that takes a long position in low accrual quartile firms and a short position in high accrual quartile firms with higher degrees of conservatism.

The higher abnormal returns (the difference between two hedge portfolio returns) was 6.5, 52 and 84 percent in using CAPM-modified method, marketindex modified method and size-adjusted method respectively. In other words, conservatism has reduced abnormal returns to that mentioned amounts. The range of returns is wider than the range of previous studies, it may be result of Tehran security exchange index large fluctuations in the research period.

The findings of the study confirmed the effect of conservatism on the portfolio's abnormal returns. This illustrates the importance of accounting conservatism in financial reporting. The abnormal returns in the financial markets are seen as some kind of market anomaly. Because it leads to non-optimal allocation of capital. Therefore, standard formulators and financial regulators should pay particular attention to conservatism and conservative accounting practices. The findings of this study are in line with a recent version (2018) of the International Financial Reporting Theoretical Framework. In the theoretical framework of international financial reporting, unlike the previous version (2010), conservatism has been defined as an accounting approach that provides useful financial information. This study also confirms the effect of conservatism on the reduction of abnormal returns at the portfolio level, which reduces market anomalies.

Previous research has advised investors to pay attention to accruals and cash components of their investments, since the accrual component of the profit is less persistence and will not continue in future periods. In addition to emphasizing the importance of accruals, this study recommends that investors also pay attention to the degree of conservatism of companies. Companies with conservative reporting have lower abnormal returns and their profit are more likely to predict by conventional methods.

The portfolio-level method for investigating the effect of conservatism on abnormal returns has limitations and it is better that future researches review topic again at the firm-level. The firm-level analysis avoids the loss of information that occurs from averaging in the portfolio-generating process and from averaging associated with some independent variables.

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Note

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