# Accounting Conservatism and the Effects of Earning Quality on the Return of Assets and Stock Return

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## Abstract

Decision making in the economic affairs needs information. The shortage of information causes the ambiguity of the decision making process. The financials provide some of the needed information of this process. The perception of the earnings as the most important information source of the company was being supported by empirical studies. The mentioned researches have shown that the decision makers anchor on the accounting earnings more than any other benchmarks. The purpose of the following research is to help investors and other users to be able to assess the degree of the effects of the conservatism on the earning quality and ROI. The results show that the earning quality index presented based on the conservatism index has the ability to describe some of the differences between return on the operational assets and the current stock returns from the current year to the next year. In other word, economic entities that use the conservative procedures are able to change the earning quality with making some changes in the investments of the operational assets.


**Keywords:** Conservatism Index, Earning Quality, Earning Quality Index, Rate of Return on Operational Assets, Rate of Return.

## Introduction

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The financials are part of the needed data for the decision making process. According to the statements of the financial accounting concepts, NO.1 (FASB, 1978), the main purpose of the accounting is to provide information about the outcomes of the financial transactions, operations and events affecting the financial position and the results of the entities operations.

In the following research, the effects of the accounting procedures on the earning quality are being tested. Because the related body has no consensus on the concept of the earning quality, in this research the earning quality is being defined as the ability to predict of the future earnings.

Healy and Whalen(1999) believe that the majority of the researchers are focusing on the effects of the changes in accounting estimates regarding to the earning quality. But in the present research, the emphasis would be on the ability of affecting earning quality using the conservatism accounting in the periods and changing the investments in the operational assets. But if changes in the investment were temporary, these effects would be temporary.

## Literature review

Conservatism in accounting is a concept with the historic bases. Bliss (1924) believes that from the far past, this concept was being used as" anticipate no profit, but anticipate all losses". Anticipating profits means recognizing profits before there is legal claim to the revenues generating them and the revenues are verifiable. Conservatism does not imply that all revenue cash flows should be received before profits are recognized—credit sales are recognized—but rather that those cash flows should be verifiable. In the empirical literature the adage is interpreted as representing "the accountant's tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses" (Basu, 1997).

Ross and watts (2002) define the conservatism as the degree of the difference between the verifiability of the anticipation of the earnings and losses. In this description, the emphasis is on the verifiability of the earnings versus losses. The differentiated degree of verifiability of earnings versus losses causes to the asymmetric realization of earnings and losses. Asymmetry in the realization of earnings versus losses or in other words the conservatism results in the reporting of the assets with the value less than their real value. Therefore, the reported value for net assets in the current period will touch the values less than the future period's values.

Notwithstanding the presence of the critics, regarding the time period and the valuing the assets, the dominance of conservatism in accounting are material.

Sterling (1970) points to conservatism as the most dominant principle in the valuing. Thus, it is possible to say that from the historic records and evaluation, conservatism is important in accounting. Ross and watts (2002) showed that moreover than the long records of the conservatism in accounting, use of the conservatism has grown in the past 30 years. Regarding to the critics (regulators, standard setters and academics), the results of the Ross and watts work are so important. Because of the long existence of the conservatism in accounting and its growth in the few past years this view has been strengthened that the conservatism benefits all. The researchers have some explanations for the conservatism in reporting (contract explanation, income tax explanation, litigation explanation, and regulatory explanation). All of them believe that use of conservatism in accounting benefits the users of the financial reports.

**Contract explanation for conservatism**

Watts and Zimmerman (1986) believe that the contracts result in agency costs. The search for a good mechanism reducing these costs results in the demand for the accounting services as an effective tool in the contracting process of the entities. The majority of the contracts of the entity with the individuals and legal entities is done based on the accounting numbers, to reduce the agency costs. Timeliness, Verifiability and Asymmetric Verifiability of the accounting numbers are important and demand acting conservatively.

**Income tax explanation**

There has been a long time that the relationship between accounting and income tax is undeniable, and affected accounting earnings seriously. Watts (1977) and Watts and Zimmerman (1979) found that as a result of the enforcement of the Internal Service of America, the depreciation of the assets of the American companies is being calculated and recorded as expense and being reported in the financial statements. The extended acceptation of this enforcement resulted to the Tax Law of 1907, which was a beginning for the 1913 Tax Law.

Gunther et.al (1997) suggested accounting procedures that affected the income tax. Shackelford Shevlin (2001) found that as the company is profitable and the tax rate is positive, the tax causes the initiative to match the reported accounting earning to tax earnings. The present value of the tax and the net value of assets have the ability to lessen with deferring the realization of the earnings. As mentioned, the income tax is an explanation for the conservatism.

**Litigation explanation**

Watts (1993) discussed the performance of the stock exchange as the litigation as an explanation for the usage of conservatism in accounting. He believes that litigation is usually used as the accounting earning and the net assets of the entity are overstated.

Kellogg (1984) found that the proportion of the litigation of the investors in the securities against the entity and the auditors in the courts is much more than the litigation of the sellers of the securities against the mentioned people (1 against 13). According to the findings, it seems that when the litigation expenses exceeds the benefits of the earning and net assets reporting, the auditors and the managers would be motivated for understating the earnings and net assets.

**The regulations, another explanation for conservatism**

The regulatory bodies are the source of the conservatism in accounting, Watts (1977) describes. In the political process, the loss of not using the conservatism in the earning and asset reporting is high. The loss of not using conservatism in earning and asset reporting is more; therefore there will be the motivation for the managers to report the accounting numbers conservatively.

Zeff (1972) and Walker (1992) pointed that the cited discussion was so important for the regulators and the standard setters, so that their motivation to act conservatively got high and the SEC banned the reporting of the assets without conservatism.

The 1929 crisis in the America and the breakdown of the big companies, made the looks toward the SEC and the commission acted responded quickly, and afterwards the SEC blamed the companies whose overstating of assets made investors loose, but the understating of assets and earning were overlooked. Therefore the focus of the commission was only on the prevention the crisis from the overstating of assets. For this reason, there was an asymmetry in the performance of the commission. Comparing to the loss of the asymmetry, the performance of the commission and the loss of not realizing the loss, the motivation to act conservatively in the accounting number was from the regulations, because companies suffered less expenses.

### Measuring conservatism

Most of the researchers discussed three indices in order to measure the conservatism:

1. the stock return and earning related measurement;
2. the net assets related measurement; and
3. the accruals and accrual earning related measurements.

Beaver and Ryan (2000) found that the net asset's conservatism changes with the changes of the three accounting conservatism indices. The three accounting conservatism indices are as follows:

1. The accumulated depreciation to book value of the properties and equipments rate for the companies that use the quick recovery depreciation method.
2. The accumulated R&D expenses and advertising expenses to sales ratio.
3. The hidden reserves generated from not using the Lifo in valuation of the inventories to the total assets ratio

The results of the studies show that the three mentioned points are related to the conservatism.

### Earning quality and conservatism

Some of the questions that the investors and other users of financial reports have in mind are as follows:

1. Do the managers of the companies have authority to infer and use accounting principles and procedures in the reporting of income?
2. Is there any evidence showing that the managers use this authority in inferring and using accounting principles and procedures in earning reporting?

The positive answer to the mentioned answer results in the more carefulness between the investors in order to decision making. If the financial reports of the company give a different picture from what it is to the users, the earning quality of the company will be deteriorated. Stickney (2003) believes that one of the aspects of measuring the earning quality is determining the things that results in some biases in the management's perspective in preparing financial reports. It seems that the managers majorly use 1- overestimating, 2- deferring the negative items, 3- hidden reserves and 4- leasing instead of the purchasing to do the income smoothing (Kurdistani, 2004).

Stickney (2003) believes that although the alternative accounting procedures that the managers choose affect the earning quality, but in the long term, the reported earnings will equal the aggregate cash inflows after subtracting the cash outflows. Badri (1999) showed that the income smoothing phenomenon does exist in the Tehran Exchange Market. The existing literature has shown some scales in order to measure the earning quality.

Dechow and Dechev (2002) introduced the quality of the accruals as a benchmark for the income stability, and accordingly believe that the more quality of accruals that a company has, the more its earning has stability, that is called earning with quality. Balsam et al., (2003) discussed that the earning with more quality of accruals and ERC are the earnings with the quality. Myers (1999) believes that the earning with the high quality in accruals and the less extraordinary accruals is the earning that has the quality. Lang et al., (1996) believe that the earning that shows the effects of the bad news and has a significant relation with the stock price is the earning with the quality.

Ball and Shivakumar (2004) discussed that the earning quality will be increased if the earning absorbs the losses timely and shows that. Defond et al., (2004) believed that quality in earnings mean that the earning has the ability to reflect the economic events of the company. Beneish and Regous (2002) introduced the earning stability as the benchmark for the the earning quality. Accordingly, the income stability in the current period is a good signal of the quality of earnings in the future periods. Richardson (2003) mentions that the quality in earnings means that the earnings is stable.Micheal et al (2003) have based their definition on the predictability of the earnings and mentioned that the earning that has less vitality and is more predictable has more quality.

Penman and Zhang (2002) introduced the earning stability as the quality of earnings and mentioned that the quality of earning is defined as the earning that is a good index for predicting the future periods earning and is stable. The stability of the earnings show the degree of the persistence, and researchers like penman and Zhang (2002); Rousin (2002); and Richardson

(2003) emphasized on this concept. Emphasizing on the accounting earning may cause the managers act aggressively in order to deserve the persistency and stability in earnings. The empirical evidence in the studies of Degeorge (1999); and Teoh et al (1998) mention that the managers do the act of income smoothing. Generally, the thoughts about the earning quality or not reflecting the economic events in the financials are so comprehensive. Jones (1979), Bernard and Thomas (1989) believe that there are much evidence that show that the unexpected increase in the earnings is in relation with the positive abnormal earnings.

But this relationship will differ according to the fact that the increase in the earnings is a reflection of the real performance of the company or as a result of the usage of the aggressive accounting procedures in order to income smooth. In this situation, the adjustment in the net income in order to reflect the earning quality gets important.

Empirically, sloan (1996); Houge and Loughran (2000) fond that the earnings with the more accruals that have more accrual earning against cash flows, have less returns comparing to the stocks with less accruals in the body of earnings.

Abarbanell and Lehavy (2001) believed that GAAP gives the managers some authorities in the timing of income and expense recognition. The accruals will increase if the managers increased the earnings comparing to the cash flows. Earning increasing will be a sign of the low quality of earnings if is next to the more accruals and ends up with fewer returns.

## The purpose of the research

The capital market is an important construction in the economic development in any country. The act of investing is one of the most major factors in any countries' economics.  Markets such as money, labor and commodity market next to the capital market play an important role in the optimal allocation of financial resources and capital.

In this regards, the information affects the performance of the capital markets. Because all the decisions like as the investing ones are being made in the uncertainty, the information result in the declining of the uncertainty. In order to decline the uncertainty, the needed information are gathered from different sources. One of the most important information sources is financial information.

Accounting information is so important in this regard, and there have been lots of studies around the effects accounting information has on the stock price behavior, and the usefulness of these information has been verified from different aspects. For the mentioned reason, the different decision makers focus on the accounting earnings as one of the important information. Earning is the best index in measuring the performance of the activities of an entity (Saghafi and Aghai'e, 1993). Because of the fact that accounting procedures and changes in earning have always been on the hot discussions, assessing the usage of the conservative procedures and changing the investments is the core discussion in this study.

## Hypothesis extension

As mentioned in the literature review, the existing literature about the application of the conservatism and the degree of the influence of the accounting figures on the stock price and their usefulness in decision making, have a significant contribution to this field. In order to develop the existing understandings about the influences conservatism has on earning quality and stock return, the objectives present study are as follows:

Q1: Are the conservative accounting procedures next to the changes of investment in assets results in changed earnings?

Q2: Does the stock market reflect the effects of the conservative procedures and changes in investments in assets in stock price?

## Hypotheses

H1. There is a significant relationship between earning quality index (based on the conservatism) and operational assets rate of return.

H2. There is a significant relationship between earning quality index (based on the conservatism) and stock rate of return.

## Research method

The present study investigates and determines the relationship between earning quality index (based on the conservatism) and the stock return and the rate of return on assets; the research uses correlation.

### Sample

The samples of the present study are the companies listed in the TSE each sample will be entitled in the study provided these three things:

a. Inventories;

b. Research and development expenditures; and

c. Advertisement expenses.

**Time period of study**

In order to measuring the variables in the study, the financial information of the listed companies in the T.S.E was used (the financial data from 1372 to 1384 fiscal year; the aggregate companies studied were about 4069 firm-years).

**Information sources and sample, data gathering**

The needed information was from the audited financials, the CDs in the Rahavard databank of Iran's Stock Exchange and the reports of Central Bank of the Islamic republic of Iran (CBI) about the price index.

**Measurement of the variables**

The measurement of the independent and dependent variables was done using the financial reports and the related analyzing software's.

**Dependent variables**

The rate of return of operational assets and return of assets at time t+1 are the dependent variable in the study, and are computed using the following formulas:

Rate of return on assets:

$$ROA = \frac{OI}{TOA}$$

That OI stands for operational earnings and TOA for total operational assets.

Stock return:

The stock return, R is extracted from the software available in the library of Iran's Stock Exchange Organization.

**The primary independent variable**

The analysis of this variable entitles using the earning quality as the basic variable of the present study that is as follows:

$$Q_{it} = C_{it} - C_{it-1}$$

$Q_{it}$ Stands for the earning quality index for company i in year t

$C_{it}$ Stands for the conservatism index of company i in year t

$C_{it-1}$ Stands for the conservatism index of company i in year t+1

**Measuring conservatism index**

The conservatism index for the studied companies is calculated based on the following formula:

$$C_{it} = \frac{ER_{it}}{TOA_{it}}$$

Where, $ER_{it}$ stands for the reserves generated from using the conservative procedures to other procedures used in company i in time t; and

$TOA_{it}$ Stands for operational assets of company i in time t.

**Other independent variables**

Rate of return of operational assets and the stock return in time t are the other independent variables of the study.

## Hypotheses examination

The statistic models used in this study are the linear multi regression model. According to the performed tests, the basic consumption needed for the data of the linear regression holds in this study. For the F statistic was used for significance test and in order to examine the relations of the explanatory variables with the dependent variable the t statistic was used.

Hypothesis 1: there is a significant relationship between earning quality index and return on the operational assets.

Model 1**:** $ROA_{t+1} = a_0 + a_1 ROA_t + a_2 Q + e_{t+1}$

**Table 1: The regression results of the model 1**

| Variables | Coefficient | t-stat | Sig | Results |
|---|---|---|---|---|
| Constant | 0.042 | 1.992 | 0.04 | significant |
| $ROA_t$ | 0.536 | 33.679 | 0.000 | significant |
| Q | 0.016 | 2.046 | 0.041 | significant |
| F-Stat | 571.349 | Sig(F-Stat) | 0.000 | |
| $AdjR^2$ | 0.25 | | | |

According to Table 1, the explanation variable of earning quality (Q) describes some of the dependent variable (rate of return on assets in time t+1).

Hypothesis 2: there is a significant relationship between earning quality index and stock return.

Because the distribution of the rate of return on assets is not normal, model 2 will be replaced by model 3.

Model 2: $R_{t+1} = a_0 + a_1 R_t + a_2 Q + e_{t+1}$

Model 3: $LnR_{t+1} = a_0 + a_1 LnR_t + a_2 Q + e_{t+1}$

**Table 2: the regression results of the model 2**

| Variables | Coefficient | t-stat | Sig | Results |
|---|---|---|---|---|
| Constant | 3.706 | 35.738 | 0.000 | significant |
| $LnR_t$ | 0.120 | 5.948 | 0.000 | significant |
| Q | .187 | 15.773 | 0.000 | significant |
| F-Stat | 140.586 | $AdjR^2$ | 0.108 | |
| Sig(F-Stat) | 0.000 | | | |

According to Table 2, the explanatory variable of earning quality (Q) describes some of the changes in of dependent variable in time t+1 (0.187) the results received.

## Discussion and results

In the present study, the earning quality (based on the conservatism) was introduced as a factor to predict the stock return. The results of examining the hypotheses show that the entities are able to change the quality of earnings by choosing alternative conservative accounting procedures routinely and changing the investment in operational assets. In these entities, increasing in investment results in the decline of the reported earnings to the expected earnings, and inversely the increase or decrease in the reported earnings would be temporary if the change in the investment was temporary. Regarding to the results of the Fama and French's model, the introduced index of quality of earnings is able to be defined as the risk factor in predicting the stock rate of return.

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