

Informational Effects of Accounting Conservatism and its Relation to Income and next Period Operating Cash Flows

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Abstract: This new age is known as information and communication age. The time in which news travels from sender to receptor as soon as broadcast so every body knows news. In this period of human life, paying attention to information is counted as a paradigm in all sciences. In economics and accounting the same is true, financial information has an important role in individual decision making and behavioral processes of investors. Information, in accounting is so important that number one standard of international accounting considers providing financial accounts as major purpose of accounting and the major purpose of preparing basic financial accounts is providing information for users. So the more relevant and predictable information prepared for investors, the more ideal it will be considered. Because of this, information like prediction of earning /income flows and cash flows is considered very important for those who use financial accounts particularly investors. This causes many researchers which have been done so far look for variables which can effect on a logical investor regarding the way of decision making. Among these variables we can point to conservatism. In fact conservatism is considered as an accounting convention which has an effective role in theoretical bases of accounting. A dictionary defines the word conservatism as a kind of prudence which reduces reported retained earnings through later recognition of income, sooner recognition of expenses, lower asset evaluation and higher debt evaluation. Conservatism is a phenomenon which has a considerable informational role and this research shows that using this phenomenon, next year income and operating cash flows can be forecasted. In this research the relationship between the rate of conservatism used in financial accounts of eighty one accepted companies in Tehran Stock Exchange and their next period operating cash flow were investigated and the result shows a positive correlation between current year conservatism and next year operating income.

Key words: Conservatism • Accruals • Operating income • Operating cash flows

INTRODUCTION

The end product of accounting is information which is provided through basic financial accounts, in order to be a base for investors' logical decision making. Of course these financial accounts provide valuable information for states men, legislators; fund providers and stock exchange because these people always need information which enables them evaluate their strategic decisions. So we can say that common purpose of accounting is preparing useful information to predict economical events [1]. These events make investors decide, predict or judge. Those who use financial accounts make decision and predict according to information which they receive

through financial accounts and in this situation prediction of income and cash flows is very important. Because these two factors have great influence over users decision making and judgments. These people, to be sure that invested money will be returned, are interested in prediction of income and next period cash flows. Therefore every factor which can give users some information about these variables is considered valuable [2]. According to dominant theories over accounting, conservatism is one of the most important factors influences next period cash flows. So in this research, the relationship between the rate of employed conservatism in preparing financial accounts with next period operating income and next period operating cash flows is

investigated. It should be noted that next period operating income and next period cash flows mean operating income and operating cash flows related to one, two or three years later. The results of this research facilitate the process of users' decision making through explaining the relationship between conservatism and income and next period cash flows.

Research Literature and Definition of Conservatism:

Prediction of future events has been among interesting subjects for human and this caused that fortune telling and augury received a lot of attention by human societies. The main reason for human interest to these cases is the superiority that knowing about future can give a person. The least advantage of knowing about future is preventing instantaneous stress and excitement while an event occurs, it also enables a person to save him/her from getting surprised by occurrence of events. In economic world knowing about future under any possible circumstances is a considerable subject for researchers. Because of this, researchers are looking for instruments which enable them to predict important events which are going to happen in future. The most important events which financial information users are most interested in predicting include: bankruptcy, the amount of income, stock yield and next period cash flows [3]. Among mentioned variables the amount of income and next period cash flows are factors which are difficult to discover and awareness of them is largely effective on investors' decisions. So far different methods have been suggested to forecast income and next period cash flows, by researchers and in this research a new method based on informational role of conservatism is presented. Conservatism is one of the regulating concepts in accounting which presents necessary guidelines for identification of assets, debts, owners' rights, incomes and expenses. According to this idea in cases where there are different assessing methods to register financial events and activities, the method is selected which has the least positive and immediate effect on assets, income and owners rights and simultaneously the most positive effect on debts and expenses [4]. Conservatism is one of the important covenants in financial reporting which causes prudence in identification and assessment of assets and income. Conservatism is a discretionary reaction which is applied in condition of misgiving/ cases of lack assurance and tries to assure that misgiving and nature risk are presented in company's condition adequately [5]. Conservatism is considered as an effective mechanism in signed contracts between the company and fund providers and stockholders which protects fund

providers and stock holders against management opportunism [6]

In addition conservatism can be a suitable cover to prevent litigation against the company so conservatism can decrease the risk of litigation against the company and the expenses related to these kinds of litigations.

According to [7] conservatism is the margin between market value and book value which is created through registering and retaining earning and economical losses to book value. [8] conservatism from investors view (market value of stock holder's rights) in their assessing model, it is market which predicts that the value of company's reported asset will not be lower than company's economical value (According to Givoly and hayn conservatism is considered one of important covenants in financial reporting which causes prudence in identification and evaluation of assets and incomes (Number two conceptual statement issued by Financial Accounting Standards Board (FASB) defines conservatism as a discretionary reaction which occurs in condition of misgiving/ in case of lack assurance and tries to create a reasonable assurance that misgiving and nature risk in company's condition is noted adequately. According to some other researchers, like Basu, and Penman and Zhang conservatism is a phenomenon which has higher level in business environments with more stock holders pressure and supervision [6]. Special Committee of American Institute of Certificate Public Accountants (AICPA) defines conservatism through process of accounting in identification of income and loss. In this method losses are identified pending to occurrence, not at the time of achievement and income is not identified unless it achieves. In other words in cases of any doubt, assets are evaluated lower and debts are evaluated higher. In fact conservatism can have effective informational role in a method that through verifiability impose limitations on managers' tendentious behavior to inform investors. Imposed limitations through conservatism in assets and income can cause a reduction in income and consequently company's operating cash flow. In this research this relationship is studied. The existence of any relationship between conservatism and income and the next period cash flows can indicate the informational role of conservatism and market efficiency.

Difference Between Conservatism and Prudence: Mostly when the word conservatism is mentioned, some mistake it for prudence. It is not correct. There is a great difference between these two words. Conservatism is one of accounting concepts which leads to degrees of reported retained income through later identification of income and

sooner identification of expenses, lower evaluation of asset and high evaluation of debts [7] However prudence is application of some degrees of supervision which is required to make estimate in an ambiguous situation to make a judgment in the manner that assets or incomes are not presented more than reality and also expenses and debts are not presented less than reality. Prudence should not lead to create hidden reserves or unnecessary reserves or show assets and income deliberately less than reality and debts and expenses more than reality because this leads to violation of impartiality and influence information reliability [8]

For instance based on conservatism after we predict that debts are not collectible in future (prediction of bad news) bad debt reserves should compute and register in accounts. But in prudence beside computation and registration of bad and doubtful reserves you should be quiet carefull with estimation of the amount of non-collectible debts/ bad debts in order not to create negative reserves. Creation of negative reserves leads to transimtion of part of this period earnings/ income to next period. Therefore considering prudence, as well as being foresight about prediction of bad news, great attention should be given to prediction of bad news. So as not to show income and assets deliberately less than reality and debts more than reality. Prudence emphasizes more on reliability. Correct use of prudence causes less contradiction between qualitative characteristics. It means contradiction between conservatism and partiality [8]

Research Background: So far many attempts have been made by researchers and financial analysts about conservatism. Findings of researches have been done in this case show that conservatism has an informational role and can affect on company s value, earning forecast, next period operating cash flows, decreasing contradiction in income sharing among stock holders and bond holders, decreasing debt expenditure and earning quality.

Bahman Bani Mahd [9] in this research explained and presented a pattern to measure conservatism. His purposes in his research were, first: identification of effective components on conservatism in Iran. Second: if the first goal is reached an assessable pattern is presented for conservatism. The result of this research indicated that conservatism decreased in companies under research. This reduction was due to reduction in cash and obligated yield assets in under research companies. Mentioned evidences show that reduction in cash and obligated yield assets is probably due to not applying brokerage theory in Iran and lack of responsibility among managers. In

another research Abedi studied the relationship between earning accruals and operating income and next period operating cash flows and emphasized that accounting earning/ income which is under the influence of accruals, express company s performance more clearly. Acquired results from this research indicated that there is not a direct and meaningful relationship between earning accruals and next period operating income. This finding is compatible with return phenomenon about accruals. Meanwhile there is a direct and meaningful relationship between earning accruals and next period operating cash flows and this expresses informational content of earning accruals in prediction of operating cash flows.

[10] in a research under the heading "Accounting conservatism and earning expectations", investigate the effect of conservatism on future earnings and the point that whether financial analysts or investors on stock exchange market use information of current period conservatism to predict future earnings. The results of this research indicated that analysts notice conservatism in their predictions. Therefore their predictions include systematic error related to conservatism and the error in analysts prediction is not responsible for incorrect pricing in stock exchange market. In a similar research [11] studied and tested the relationship between conservatism, income quality and stock yield. Their findings showed conservatism processes lead to create high quality income. Conservatism reduces income and conservatism earning are more qualitative. So conservatism accounting accompanied by investment growth, decrease income and accounting yield rate . [12] considered the informational role of conservatism in a research under the heading " The Role of Accounting Conservatism in Mitigating Bondholder-Shareholder Conflicts over Dividend Policy and in Reducing Debt Costs" . In his research he used two six- year periods, It means 1993 - 1998 and 1992 - 1987. Collected evidences indicated that the higher contradiction of income sharing, the more negative conservatism criterion would be. These indexes include income sharing ratio to whole assets, yield deviation to assets and lever. Acquired results showed the more reflected conservatism in these two criteria, the less financial expenses. Because when conservatism increases, companies borrow less and financial expenses reduce. these collective evidence is consistent with the notion that accounting conservatism plays an important role in mitigating bondholder-shareholder conflicts over dividend policy and in reducing firms' debt costs. [13]studied changes in income behavior, cash flows and accruals in four decades. In his research 897 companies were tested during two subsidiary period 1981-1998 and 1951 - 1998. The results shows that cash flows acquired

by operation remained fixed during this period but non operating accruals decreased a lot in other words their reduction increased in two periods. So this leads to large reduction of accruals. This expresses that accounting income were computed with the most conservatism during this time. The results also indicated that the more company's profitability, the more conservatism would be and conservatism is in direct relation with profitability as well as index of cash return on assets which is measured by operating cash flows. Recently, several papers examine the positive role that accounting information plays in debt contracting. For example, [14] show that debt contract modifications do not fully provide lenders with desired level of conservatism. Similar to [14], this paper also explores the positive role of accounting in debt contracting by providing evidence that accounting conservatism generates benefits that lenders and borrowers share.

Watts [15] summarizes the extant theory and evidence on accounting conservatism. He points out that because lenders are concerned with downside risk, they tend to concentrate on the lower ends of the earnings and net assets distributions. In addition, because net assets are more verifiable under conservative reporting than in its absence, conservative reporting allows lenders to make better lending decisions and more efficiently monitor a borrower's ability to pay. Watts [16] therefore argues that "The long survival of conservatism and its apparent resilience to criticism strongly suggests that conservatism's critics overlook its significant benefits." However, the literature provides only indirect evidence on the benefits of conservatism to lenders and limited evidence on the benefits of conservatism to borrowers [17].

[18] studied the effects of conservatism on content of cash information and accruals in the framework of Feltham and Ohlson model (1995). The results of hypothesis test in this research indicated: there is a positive relationship between informational content regarding accruals and cash and the rank of conservatism. Yield reaction to accruals is more than compared to cash. Also yield reaction to accruals in companies with higher conservatism rank is more.

LaFond and Watts [19] find evidence that information asymmetry between firm insiders and outside equity investors generates conservatism in financial statements. Conservatism reduces the manager's incentives and ability to manipulate accounting numbers and so reduces information asymmetry and the deadweight losses that information asymmetry generates.

This increases firm and equity values. In the next research, LaFond and Watts [20], using a U.S. data set, find evidence that information asymmetry is positively related to accounting conservatism and, more importantly, that changes in information asymmetry affect conservatism rather than conservatism driving information asymmetry. They conclude that the roles of accounting conservatism not only relate to debt and compensation contracts, but also cover equity investors. However, the disparate degree of accounting conservatism around the world calls for an investigation into the role of conservatism in different countries.

[21] shows that conditional conservatism benefits lenders ex-post through the timely signaling of default risk, as manifested by accelerated covenant violations and that it benefits borrowers ex-ante through lower interest rates.

Research Hypotheses: As mentioned before conservatism means indicating assets and income less and to assess debts and expenses more in a misgiving condition. So conservatism has an informational role that users of financial information reviewing changes in companies conservatism rate can acquire valuable information like income, stock yield and possibility of bankruptcy. In this research the relationship between conservatism and next period operating income and next period operating cash flows is investigated. So first Two general questions are raised:

- Is there a meaningful relationship between current year conservatism and next period operating income.
- Is there a meaningful relationship between current year conservatism and next period operating cash flows.

Answer to these questions can indicate the importance of prepared financial accounts by companies and prove that considering changes in conservatism rate we can reduce informational asymmetry among managers and those who use financial accounts. So in this research six hypotheses are presented to answer these two essential questions. These hypotheses are as follow:

Hypothesis 1: There is a meaningful relationship between current year conservatism and next year operating income.

Hypothesis 2: There is a meaningful relationship between current year conservatism and two years later operating income.

Hypothesis 3: There is a meaningful relationship between current year conservatism and three years later operating income.

Hypothesis 4: There is a meaningful relationship between current year conservatism and next year operating cash flows.

Hypothesis 5: There is a meaningful relationship between current year conservatism and two years later operating cash flows.

Hypothesis 6: There is a meaningful relationship between current year conservatism and three years later operating cash flows.

Research Method: Methodologically this research can be classified as sectional correlation researches. In this research two- valuable regression is used to analyze data. To test the hypotheses in this research we use operating income ratio to whole assets, the ratio of operating cash flows to whole assets and conservatism. Moreover it should be mentioned that different measurement models are defined to assess conservatism, The most important ones are: Feltham and Ohlson model, Basu model, Givoly and Hayn model, Beaver and Ryan model, Penman and Zhang model. In this research Givoly and Hayn model is used to measure conservatism. This model uses accruals and beginning assets to measure conservatism. Givoly and Hayn model in the following model: [22] focus on the income-statement effects of conservatism over extended periods, they argue that conservative accounting leads to persistently negative accruals, in contrast with the expected pattern of accrual reversals. This suggests that a firm's mean accrual over a reasonably long period provides a firm-specific proxy for conservatism. [23] (2000), we use accruals before depreciation as a proxy for conservative accounting. Specifically, we use the sum of total accruals excluding depreciation (net income before extraordinary items plus depreciation expense less operating cash flows) deflated by assets and averaged within each of the two sample periods, 1993-1998 and 1987-1992, respectively, as our accrual-based proxy for conservatism. We also multiply this measure by -1 so it is increasing in the amount of negative accruals and refer to it as CONACC. We expect more conservative accounting to yield higher measures of CONACC. CONACC includes changes in current assets and current liabilities, deferred taxes, pension accruals, asset write-downs, gains or losses on sale of assets, bad debt provisions,

restructuring accruals and other accrued or deferred expenses and revenues. Managers can exercise discretion over the conservatism with which they record most of these items in terms of the amount and timing. However, these accruals also reflect economic characteristics unrelated to conservatism, such as growth in operations [24]

$$\text{Conservatism index} + \frac{\text{operating accruals}}{\text{whole beginning assets}} \times (-1)$$

Accruals are calculated in two following methods:

- OPACC= $\Delta \text{AR} + \Delta \text{INV} + \Delta \text{PE} - \Delta \text{AP} - \Delta \text{TP}$
- Operating Accruals = Operating Cash Flows - (Depreciation expenses + Income)

Advance payment changes	ΔPE
Accounts payables changes	ΔAP
Tax payables changes	ΔTP
Operating accruals	OPACC
Accounts receivable changes	ΔAR
Inventory changes	ΔINV

In this research the first method is used to calculate accruals and related information is extracted from balance sheet.

Data Analysis and Testing Hypotheses:

The Results of Testing First Hypothesis: First hypothesis considers the relationship between current year conservatism rate and next year operating income. Accepting this hypothesis means there is a relationship between current year conservatism rate and next year operating income. Secondly conservatism has an informational role and we can use it to predict operating income. Testing hypothesis indicates that (as observed in table (1) probability sample (sig) related to kolmogorov-smirnov (K S)test equals 0.191 which is more than 0.05. Therefore probability of normal data is 0.95 Considering table (2) we can observe that probability sample equals 0.007 which is less than 0.05 and this indicates the relationship between two variables and correlation coefficient between these two variables is 0.149. So this relationship is a positive and meaningful relationship. Coefficient of model determination is 0.022 as well. It means 0.022 of changes in next year operating income can be covered by conservatism so the first hypothesis is confirmed.

The Results of Testing Second and Third Hypotheses:

The second and third hypotheses consider the relationship between current year conservatism and two or three years later operating income. The results of test show that there is no relationship. It means that probability sample (sig) of test equals 0.103 which is more than 0.05. So the probability of normal data is 0.95. Considering table two we can observe that the amount of sig is 0.123 which is more than 0.05 and statistical test of third hypothesis indicates that probability sample (sig) related to kolmogorov-smirnov (K S) equals 0/262 which is more than 0.05. So data is normal and the amount of sig is 0.524 which is more than 0.5. Therefore there is no linear model and no relationship between these two variables. So the second and third hypotheses are refuted.

The Results of Fourth Hypothesis:

Fourth hypotheses test the relationship between current year conservatism and next year operating cash flows. Statistical results of this hypothesis indicate that 1- data is normal. 2- there is not a meaningful relationship between two variables of current year conservatism and next year operating cash flows. Table (1) and (2) show this.

The Results of Fifth and Sixth Hypotheses:

As you can observe in table (1), data related to fifth and sixth hypotheses is normal because probability sample (sig) related to kolmogorov-smirnov (K S) test is 0.136 for fifth hypotheses and 0.156 regarding sixth hypotheses and both are less than 0.05 so probability of normal data is 0.95 but according to acquired information fifth and sixth hypotheses are refuted because statistical test of fifth and sixth hypotheses are 0.109 and 0.144 in order and both are more than 0.05 and this refutes the relationship between two variables of current year conservatism and 2 or 3 years later operating cash flows. A brief report of the results of hypothesis tests is indicated in table (3).

Results: The acquired results of first research hypothesis indicate that there is a direct and meaningful relationship between current year conservatism and next period operating income. This finding may be under the influence of return phenomenon. This phenomenon neutralizes part of increasing income of year t_0 and consequently increasing accruals of year t_{-1} the reason is that accruals in income of year t_{-1} influence on registered accruals in income of year t_0 . So the first hypothesis of this research

Table 1:

Variable	K-S	(sig)
Operating income t1	1.083	0.191
Operating income t2	1.217	0.103
Operating income t3	1.007	0.262
operating cash flows t1	0.849	0.466
operating cash flows t2	1.160	0.136
operating cash flows t3	1.129	0.156

Table 2:

Model	R	R - Square	Adjusted R - Square	Std. Error Of the Estimate
1	0.149	0.022	0.019	0.1131322
1	0.126	0.016	0.013	0.1221316
1	0.036	0.001	0.002	0.1211887
1	0.062	0.004	0.001	0.1421228
1	0.089	0.008	0.005	0.1485871
1	0.081	0.007	0.004	0.1237370

Table 3:

Hypothesis	Sig	Significant	Level	Result
1	There is a meaningful relationship between current year conservatism and next year operating income.	0.007	0.05	true
2	There is a meaningful relationship between current year conservatism and two years later operating income.	0.123	0.05	false
3	There is a meaningful relationship between current year conservatism and three years later operating income.	0.524	0.05	false
4	There is a meaningful relationship between current year conservatism and next year operating cash flows.	0.263	0.05	false
5	There is a meaningful relationship between current year conservatism and two years later operating cash flows.	0.109	0.05	false
6	There is a meaningful relationship between current year conservatism and three years later operating cash flows.	0.144	0.05	false

is approved. Clear example of this phenomenon is goods and material inventory, which is one of effective accruals on income. In the manner that increasing goods and material at the end of a period causes increasing accruals at the same period and decreasing conservatism and increasing income at that period and consequently increasing goods inventory at the beginning of next period in next year and this naturally reduces next period income. The results of research indicate that there is no meaningful relationship between current year conservatism and operating income in two years later, operating income in 3 years later, next year operating cash flows, operating cash flows in two years later and operating cash flow in three years later. Research findings indicative that there is a meaningful and direct relationship between current year conservatism and next year operating income. This can suggest that management personal information of next year income affect on the amount of applied conservatism in providing financial accounts.

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