The effect of cash flow information asymmetry criteria on conservatism in Iran

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Abstract: The current study aims to investigate the effect of cash flow information asymmetry on conditional and unconditional accounting conservatism of the listed companies on Tehran Stock Exchange. Furthermore, we attempt to explore the determinant factors on these associations. The financial information of 143 firms listed on the Tehran Stock Exchange for the period of 2012 to 2016 was gathered. In order to assess conditional conservatism Basu's (1997) model has been used, and to evaluate the relationship between conditional asymmetry and cash flow information asymmetry control variables of lifecycle have been added to Basu model. The results indicate that there is no relationship between conditional conservatism and cash flow information asymmetry as well as firm lifecycle variables, which is used to assess unconditional conservatism, and cash flow information asymmetry. Furthermore, we find no allocative factor on the relationship between accounting conservatism and cash flow information asymmetry. This is the first investigation that is dealt with cash flow asymmetry and both types of accounting conservatism separately in emerging economies.

Keywords: conditional conservatism; unconditional conservatism; firm lifecycle; information asymmetry; Iran.

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1 Introduction

The impact of conservatism in accounting major has played an important role since long time ago. Accounting has been influenced by conservatism for at least 500 years (Basu, 1997). Conservatism is considered as the most important principle of valuation in accounting (Sterling, 1970). The recent studies suggest that conservatism can be divided into two types:

1 ex-ante conservatism which is also called news-independent conservatism and unconditional conservatism, such a conservatism results from the use of those accounting standards that decrease earnings independent of the current economic news

2 ex-post conservatism which is also called news-dependent conservatism, conditional conservatism and asymmetric timeliness of earnings.

Ex-post conservatism means more timely recognition of bad news rather than good news on earnings (Pae et al., 2005). This study aims to investigate the effects of cash flow information asymmetry criteria on conservatism in companies listed on Tehran Stock Exchange. The final product of financial accounting is presenting financial information to different users in the form of accounting reports to meet their information needs. Incomplete disclosure of information leads to information asymmetry. This means that all the facts are not available to information users in an equal way, leading to some parties having more information than others. The prior literature provides that information asymmetry consists of two components: accrual asymmetry and operating cash flow asymmetry (Basu, 1997; Ball et al., 2000; Wen-Hsin et al., 2011). It is also believed that accrual asymmetric timeliness is more likely to capture the effects of differential verification thresholds for recognising economic gains versus losses, which is the object of interest in most empirical studies on conservatism (e.g., Ahmed and Duellman, 2007; Basu, 1997; Chandra et al., 2004; LaFond and Watts, 2008; Lara et al., 2011; Lui and Wang, 2006). However, others argue that cash flow asymmetry does not reflect differential verification thresholds for recognising good news versus bad news about expected future cash flow, and such a component has been widely documented in prior studies (Basu, 1997; Ball et al., 2000; Wen-Hsin et al., 2011; Dietrich et al., 2007).

Several motivations inspire us to conduct the current research. First of all, this is the only investigation that is deals with cash flow asymmetry and both types of accounting conservatism separately in emerging economies, whereas the few applied studies, in this line of literature, mostly explore developed countries settings, for instance, Daniel et al. (2014) and Schrand (2014) in the USA. Therefore there is a need to run such

investigation in an emerging economy which possesses different market's constructions and implications. Furthermore, previous studies mostly pave the way in the association between cash flow asymmetry and conditional conservatism (Daniel et al., 2014), while in this article, the potential effect of other variables such as firm life, firm size, capital expenditures, sales growth, dividend per share, and financial leverage are examined on the association between cash flow asymmetry and conditional and unconditional conservatism individually. As a ramification, conducting such a study substantially contributes to extend the current literature, which has not been taken into full consideration.

The remainder of the study is organised as follows. Section 2 explains why free cash flow asymmetry is supposed to be related to accounting conservatism. Section 3 describes our statistical population and employed methodology. Section 4 provides our empirical findings on the developed hypotheses. Section 5 provides an overview of the findings.

2 Theoretical issues and related literature

According to Basu's (1997) definition, conditional accounting conservatism seeks to capture whether firms use a higher verification to recognise good news as gains than to recognise bad news as losses. Since, in efficient markets, stock return systematically and quickly reflects all publicly available news, Basu used firms' stock returns to measure the news. He showed that earning is two to six times more sensitive to negative returns than positive returns. Sugianist (1996) showed that the explanatory power of research and development expenditures in the various stages of the lifecycle are significantly different. Growing companies have the highest explanatory potential and declining companies have the lowest explanatory potential. Ball and Shivakumar (2005) investigated the difference in conservatism among public and private corporations and found that in private companies conservatism is less employed compared with public companies. They attributed the difference in conservatism to the difference in leadership and controlling structure between public and private companies. Roychowdhury and Watts (2007) studied the relationship between unconditional conservatism and information asymmetry. The results of their research showed that unconditional conservatism would affect information asymmetry. Lafond and Watts (2008) studied the effect of firms' life on information asymmetry. Their findings showed a significant relationship between firms' life and information asymmetry. Even, they found that information asymmetry between insiders and investors outside firms would lead to conservatism in financial statements. Latridis (2011) shows that there is a negative relationship between conditional and unconditional conservatism, so that conditional conservatism tends to increase the contract efficiency while the unconditional conservatism might facilitate management opportunistic behaviours. Tariq and Rash (2011) showed that conditional conservatism would affect the earnings quality and stock prices in Egyptian companies negatively, but unconditional conservatism would not affect the earnings quality; however, they evidenced a negative relationship between unconditional conservatism and stock prices in Egyptian companies. Ha (2011) found that as the agency costs of free cash flows increase, the companies identify the losses rather than the profits in a timely manner. Hsieh et al. (2012) examined the relationship between managerial caution, operating

performance, and accounting conservatism. The results indicated that managerial caution would reduce accounting conservatism, but would increase operating performance. Hamdan (2012) found no relationship between accounting conservatism and earnings quality in Bahraini firms. Moreover, he demonstrates that firms that have more debts are more conservative than the other firms. Ball et al. (2013) examine the validity of Basu's assumptions to measure the asymmetric timeliness of earnings. Their results showed that the factor of asymmetric timeliness of earnings is affected by information and investment environments and life cycle of company. Finally, the researchers concluded that much criticism is directed at regression model of Basu. Wolk et al. (2013) defined conservatism as slower identification of earnings and lower valuations of assets. They also state that from the perspective of financial statements providers, conservatism is an attempt to select among the generally accepted accounting methods that leads to slower recognition of revenue, early recognition of costs, underestimate of assets, and overestimate of liabilities. Jeong and Liandong (2013) concluded that conditional conservatism in the future is less likely to be associated with stock price crash risk. They also concluded that the relationship between conservatism and stock price crash risk is more for companies with information asymmetry. Daniel et al. (2014) showed that the description of cash volatility asymmetry is an application in conservatism. Therefore, the most important factor is the rate of conservatism in revenue. However, the asymmetry in cash volatilities mainly arises from the revenues. George and Gary (2014) examined the effect of reported numbers in financial statements on conservatism. In order to investigate the effect of conservatism on financial statement users, they considered three kinds of users as:

1 stock market users

2 debt market users

3 corporate governance users.

In each of the categories the desired questions of the researcher were not addressed according to the findings of previous researchers. Having analysed the effects of conservatism on a diverse range of research topics, they discussed the costs and benefits of conservatism. Henock et al. (2014) concluded that less experienced analysts and users are able to explain the effect of conservatism on earnings forecast. Reining (2015) showed that companies with higher degree of information asymmetry report greater amount of debt in their financial statements in compare to firms possessing lower information asymmetry. Biddle et al. (2015) investigated the relationship between conservatism and bankruptcy risk. Their results show that accounting conservatism increases the risk of bankruptcy and debt contract. Karthik et al. (2015) concluded that companies with less conservative accounting have less investment activity than companies with more conservatism. Yuxiang and Wanli (2016) investigated conservatism at accounting as an important element of financial reporting, they used income and loss statements and stock return for measuring conservatism. They find that conservatism is important at accounting to the extent that it cannot be eliminated from accounting standards. Banker et al. (2016) represent that asymmetry of selling variation is compatible to cost stickiness and does not concern conditional conservatism. But future investigation may specify the impact of conservatism on cost stickiness.

Juan et al. (2016) argue that conservatism improves investment efficiency. In particular, they predict that it resolves debt-equity conflicts, facilitates firms' access to

debt financing and limits underinvestment. The empirical results of their study also show that more conservative firms invest more and have more debt, moreover these effects are more pronounced in firms characterised by greater information asymmetries. They also find that conservatism is associated with reduced overinvestment, even for ambiguous investments such as research and development. Judson and Volker (2016) showed that conservatism caused high investment efficiency and least cost payment. Banker et al. (2017) predict that earnings exhibits asymmetric timeliness with respect to multiple indicators, including stock return, sales change, and operating cash flow change, which differentially explain write-downs of current assets, long-lived tangible assets, and indefinite-lived goodwill. They predict an interaction effect between indicators, in a way that the total impact of several consistent indicators is greater than the sum of their individual impacts. Siddiqua et al. (2018) investigate the asymmetric adjustment of cash holdings in Pakistani firms for above and below target firms. They find that the firms which hold cash above the optimal level of cash holdings have higher speed of adjustment than the firms which hold cash below the optimal level. Financially constrained (FC) firms also adjust their cash holdings faster than financially unconstrained (FUC) firms but high speed of downward adjustment does not remain persistent after financial constraints are controlled. Dogru and Sirakaya-Turk (2018) examine the extent to which the quality of corporate governance mechanisms and growth opportunities affect agency problems in hotel firms. Their findings showed that the effects of cash flows on investments and cash holdings were greater in well-governed hotel firms than in poorly governed hotel firms. These effects were also greater in low-growth hotel firms than in high-growth hotel firms. However, the results from a concurrent examination of the quality of corporate governance and growth opportunities showed that poorly governed hotel firms with low-growth opportunities are exposed to agency problems. Karrahemi et al. (2016) shed light on the relationship between corporate governance characteristics and cash holding. The outcome of this study suggests that corporate governance can significantly affect cash holdings and eventually corporate value. Therefore, companies with stronger corporate governance tend to keep higher cash holdings ratio. Hamza and Bannouri (2015) examine the real earnings management activities of public offering firms before and after the implementation of the financial security law in Tunis. Their results show that after the implementation of the Financial System Reform Act in 2005, Tunisian managers started using sales manipulation as tools of real earnings management. The sale of assets or investment has no effect on their behaviour. They show that Tunisian firms tend to use real activities manipulation in a tightened regulatory environment. According to the objectives of the study, the following hypotheses are developed:

H_1 There is a relationship between conditional conservatism and cash flow information asymmetry.

H_2 Firm life affects the relationship between conditional conservatism and cash flow information asymmetry.

H_3 Firm size affects the relationship between conditional conservatism and cash flow information asymmetry.

H_4 Capital expenditures affect the relationship between conditional conservatism and cash flow information asymmetry.

H_5 Sales growth affects the relationship between conditional conservatism and cash flow information asymmetry.

H_6 Dividend per share affects the relationship between conditional conservatism and cash flow information asymmetry.

H_7 Financial leverage affects the relationship between conditional conservatism and cash flow information asymmetry.

H_8 There is a relationship between unconditional conservatism and cash flow information asymmetry.

H_9 Firm life affects the relationship between unconditional conservatism and cash flow information asymmetry.

H_{10} Firm size affects the relationship between unconditional conservatism and cash flow information asymmetry.

H_{11} Capital expenditures affect the relationship between unconditional conservatism and cash flow information asymmetry.

H_{12} Sales growth affects the relationship between unconditional conservatism and cash flow information asymmetry.

H_{13} Dividend per share affects the relationship between unconditional conservatism and cash flow information asymmetry.

H_{14} Financial leverage affects the relationship between unconditional conservatism and cash flow information asymmetry.

3 Research method

3.1 Conditional accounting conservatism measurement

We employed Basu's (1997) model to measure conditional conservatism. For examining the hypotheses, we firstly evaluate the conditional conservatism criterion, then the effect of cash flow information asymmetry criteria on conditional conservatism is investigated. The Basu's model is presented as the following:

$$X_{i,t}/P_{t-1} = \beta_0 + \beta_1 \times DUM_{i,t} + \beta_2 \times Return_{i,t} + \beta_3 \times (DUM_{i,t} \times Return_{i,t}) + \varepsilon_{i,t}$$

In this model i and t represent the company i variation at the specific time t, respectively, and X represents the income and R represents the annual stock returns. RET is the result of capital return and earnings return, resulting from purchasing and keeping shares, DUM is the dummy variable which will be zero if the return is positive and 1 for negative returns. Extracting a model to investigate the effect of cash flow information asymmetry on conditional conservatism.

To investigate the impact of cash flow information asymmetry on conditional conservatism the lifecycle element is added to Basu's model. Therefore, our final regression model is presented as follow:

$$\begin{aligned}\text{CFO\_CF}_{it} = {} & \beta_0 + \beta_1 D_{it} + \beta_2 R_{it} \text{Life\_cycle}_{it} + \beta_4 D_{it} \times R_{it} + \beta_5 \text{Life\_cycle}_{it} + D_{it} \\ & + \beta_6 \text{Life\_cycle}_{it} \times R_{it} \times \beta_7 \text{Life\_cycle}_{it} \times R_{it} \times D_{it} + \varepsilon_{it}\end{aligned}$$

Using Akaike factor after considering all three methods to calculate Basu's model, the lowest error was related to CFO-CF method and conditional conservatism would be measured according to this criterion.

- EARN: operating profit/market value of firm
- CFO-CF: operating cash flow/market value of firm
- CFO-BS: calculation is done in two steps as follows:

  $$\text{CFO\_BS} = \text{EARN} - \text{ACCR\_BS}$$

  Step 1 Calculating ACCR_BS

  $$\text{ACCR\_BS} = (\Delta\text{CA} - \Delta\text{CL} - \Delta\text{CASH} + \Delta\text{CPLT} - \text{DEP} + \Delta\text{DTX})$$

  ΔCA – change in current assets, ΔCL – change in current liabilities, ΔCASH – change in short-term cash and investment, ΔCPLT – change in long-term debt, DEP – depreciation expense during the period, ΔCPLT – changes in financial reserves of company.

3.2 Unconditional accounting conservatism measurement

In this study, Beaver and Ryan model (2000) used in order to measure unconditional conservatism. In this index, the market value of owners' equity is emphasised and it has mainly a balance sheet approach and is calculated as the following:

$$\text{Unconditional conservatism index} = \text{book value of firm} / \text{market value of firm} \times -1$$

In this part, in order to measure the unconditional conservatism Ahmed and Duellman (2007) model, inspired by the Beaver and Ryan (2000) model, employed. Similar to the previous model by adding the variables of firms lifecycles as the control variable to Beaver and Ryan model the firms will be classified according to the following equation:

$$\begin{aligned}\text{CONS-UC}_{it} = {} & \beta_0 + \beta_1 \text{LEV}_{it} + \beta_2 \text{size}_{it} + \beta_3 \text{Age}_{it} + \beta_4 \text{CAPEX}_{it} + \beta_5 \text{SG}_{it} + \beta_6 \text{DPR}_{it} \\ & + \beta_7 \text{Life\_cycle} + \beta_8 \text{Lev} \times \text{Life\_cycle} + \beta_9 \text{Size} \times \text{Life\_cycle} \\ & + \beta_{10} \text{Age} \times \text{Life\_cycle} + \beta_{11} \text{Capex} \times \text{Life\_cycle} \\ & + \beta_{12} \text{Sg} \times \text{Life\_cycle} + \beta_{13} \text{DPR} \times \text{Life\_cycle} \\ & + \beta_{14} \text{Lev} \times \text{Size} \times \text{Age} \times \text{Capex} \times \text{Sg} \times \text{DPR} \times \text{Life\_cycle}\end{aligned}$$

CONS-UC_{it}: unconditional conservatism which is calculated by the following formula:

$$\text{Unconditional conservatism index} = \text{book value of firm} / \text{market value of firm} \times -1$$

3.3 Other variables

- R (return): annual cumulative stock returns is measured by the difference between the stock price in the beginning of period (beginning of August) and end of period (end of July), plus dividends per share and benefits resulting from the capital

increase as priority to purchase shares and share profit or bonus shares divided by the stock price at the beginning of the period.

- DR: this variable will be one when stock return is negative, and zero when the return is positive or zero.
- Lifecycle: firm life cycle includes firm size, age, capital expenditure, sales growth, financial leverage, and the ratio of dividends per share. The assessment method is so that all variables are sorted as a quintile and then are scaled in the range of zero to one.

  This variable is measured in three stages. In the first stage, the features related to the life cycle of the company are measured as follows:

  1 Firm size (Size): the natural logarithm of the firm total assets.
  2 Firm age (Age): difference in the specific year and the time by company was established.
  3 Capital expenditure (Capex): total assets / additions (reduced) fixed assets during the period.
  4 Sales growth: (SALE_GR): on the basis of the ratio of sales difference in two years, this is obtained by the following equation:

  $$\left(\mathrm{SALE}_{it}/\mathrm{SALE}_{it-1}\right)$$

  5 Dividend per share ratio (DPR): is the result of dividing the firm dividend per share (DPS) on earnings per share (EPS).
  6 Financial leverage (LEV): the ratio of the firm debt to total assets.

  In the second phase the variables measured in the first phase are standardised by the following equation, where the lifecycle each time for each variable is obtained by the following method:

  $$Z = \frac{x - \mu}{\sigma}$$

  Then in the third and final phase, standard data for each variable are combined with each other using the following equation (Z combined score) and are obtained for each year-firm.

  $$\begin{aligned} Z-\mathrm{Score}_{\text{Life-cycle}} = {} & Z-\mathrm{Score}_{\text{SALE-GR}} - Z-\mathrm{Score}_{\text{AGE}} + Z-\mathrm{Score}_{\text{CAPEX}} \\ & - Z-\mathrm{Score}_{\text{SIZE}} - Z-\mathrm{Score}_{\text{DPR}} - Z-\mathrm{Score}_{\text{LEV}} \end{aligned}$$

3.4 Statistical population and sample selection

The research population includes all companies listed on the Tehran Stock Exchange. In order to harmonise the sample following criteria are considered:

1 being listed in stock market during 2012 to 2016
2 the required information for calculating the operating variables of the research should be available.

3 their fiscal year should end in 19 March

4 they should not be a member of industries such financial intermediation, investment, banking, insurance, and leasing

5 the book value of the firms should not be negative in any of the investigated years.

By applying all above-mentioned requirements, 143 companies are selected from the listed companies on the Tehran Stock Exchange. All data are collected from the official website of Tehran Stock Exchange Market (http://en.tsetmc.com), and to estimate the research model, R statistical software has been used.

4 Findings

4.1 Descriptive statistic

The total number of years and companies under study is 858 cases. Through the formula of the firm lifecycle which was explained in previous section, the firms were divided into growing firms and mature firms and then quintiles of $Q_{0.2}$, $Q_{0.4}$, $Q_{0.6}$, $Q_{0.8}$ are obtained. Companies with Q less than $Q_{0.2}$, between Q_{02}–Q_{04}, and Q_{04}–Q_{06} are growing firms and those with Q between Q_{06}–Q_{08} or more than Q_{08} are mature companies. According to presented results in Table 1 the mean of net variables of cash flows (CFO-CF), unconditional conservatism (CONS-US), life-cycle stage (Z-SCORE) are respectively 0.1319, –0.447 and –0.387, which indicates that most of the data related to these variables are focused around this point.

Table 1 Descriptive results

Variables	*Number*	*Median*	*Mean*	*Minimum*	*Maximum*	*Standard deviation*
Z-SIZE	858	0.000	–.186	–2.183	2.233	1.005
Z-AGE	858	0.001	–.005	–1.463	1.463	.997
Z-CAPEX	858	0.004	–.145	–2.210	2.236	1.005
Z-SALE_GR	858	0.000	–.198	–2.189	2.236	1.005
Z-DPR	858	0.000	–.402	–2.236	2.236	.997
Z-LEV	858	–0.123	–.267	–40.273	2.235	2.053
Z-SCORE	858	0.126	–.0387	–7.765	37.613	3.022
CONS.US	858	–1.320	–.447	–145.632	0.0878	8.457
CFO-CF	858	0.269	.132	–1.844	53.604	1.937

4.2 Choosing the best method to calculate operating cash

4.2.1 First model estimate

$$\text{CFO-CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle)} \times \text{factor(d)} \times \text{r}$$

Using the combined data, primarily OLS method was chosen through the results of the F-Limer test.

Table 2 Testing the first model

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.461	0.124	3.693	0.002
Economic environment's being good news or bad news (D)	–0.337	0.303	–1.114	0.265
Annual cumulative stock return (R)	–0.009	0.007	–1.271	0.204
Quality variable of lifecycle in mature firms	–0.236	0.200	–1.178	0.239
Quality variable of D × R	–0.003	0.012	–0.283	0.777
Quality variable of D × life cycle in mature firms	0.366	0.424	0.862	0.388
Quality variable of R × life cycle in mature firms	0.004	0.001	0.347	0.728
Quality variable of D × R × lifecycle in mature firms	0.008	0.016	0.495	0.620

4.2.2 Second model estimate

$$\text{CFO-BS} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle)} \times \text{factor(d)} \times \text{r}$$

With regard to the results of F-Limer test and Hausman test, the model estimated using fixed effects method.

Table 3 Second model testing

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Economic environment's being good news or bad news (D)	–6,892.972	31,090.547	–0.221	0.824
Annual cumulative stock return (R)	–144.800	86.069	–1.682	0.092
Quality variable of lifecycle in mature firms	–13,682.176	20,900.185	–0.654	0.512
Quality variable in 2012	–35,423.365	22,526.059	–1.572	0.116
Quality variable in 2013	–30,358.323	22,909.403	–1.325	0.185
Quality variable in 2014	–31,834.285	22,350.701	–1.424	0.154
Quality variable in 2015	–22,398.798	23,320.070	–0.960	0.337
Quality variable in 2016	48,064.370	26,730.015	1.798	0.072
Quality variable of D × R	–113.164	1,248.602	–0.090	0.927
Quality variable of D × life cycle in mature firms	40,173.406	43,717.380	0.918	0.358
Quality variable of R × life cycle in mature firms	223.792	143.623	1.558	0.119
Quality variable of D × R × lifecycle in mature firms	1,306.427	1,686.682	0.774	0.438

4.2.3 Third model estimate

$$\text{EARN} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle)} \times \text{factor(d)} \times \text{r}$$

After testing the data, all the hypotheses were processed using OLS method.

Table 4 Third model testing

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Variable	0.450	.436	1.032	0.302
Intercept	–0.239	1.0582	–0.226	0.821
Economic environment's being good news or bad news (D)	–0.0007	0.002	–0.263	0.792
Annual cumulative stock return (R)	–0.157	0.7006	–0.224	0.822
Quality variable of D × R	0.003	0.042	0.087	0.930
Quality variable of D × life cycle in mature firms	–0.652	1.483	–0.440	0.660
Quality variable of R × life cycle in mature firms	0.0005	0.004	0.115	0.908
Quality variable of D × R × life cycle in mature firms	–0.158	0.0571	–2.782	<0.001

Models	*CFO_CF*	*EARN*	*CFO_BS*
Akaike factor	3,583.364	23,315.43	5,729.443

Among the above three models, CFO_CF model is accepted because of its fewer factors, and it is used to test the hypotheses.

This part is calculated by the formula of life_cycle = z_score.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle)} \times \text{factor(d)} \times \text{r}$$

After testing the data, all the hypotheses were processed using OLS method.

Table 5 Results of the first hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.461	0.124	3.693	<0.0001
Economic environment's being good news or bad news (D)	–0.337	0.303	–1.114	0.265
Annual cumulative stock return (R)	–0.0009	0.0007	–1.271	0.204
Quality variable of lifecycle in mature firms	–0.236	0.2006	–1.178	0.239
Quality variable of D × R	–0.003	0.012	–0.283	0.777
Quality variable of D × life cycle in mature firms	0.366	0.424	0.862	0.388
Quality variable of R × life cycle in mature firms	0.0004	0.001	0.347	0.728
Quality variable of D × R × lifecycle in mature firms	0.008	0.016	0.495	0.620

According to the results in Table 5, the sig. and coefficient are respectively 0.239 and –0.236 suggesting no association conditional conservatism and cash flow information asymmetry at 0.05 level. In this regard, Daniel et al. (2014) find a predictive association, hence our results are in contrast with their findings.

This part is calculated by the formula of Life_cycle2 = z_age.

Table 6 Results of the second hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.465	0.116	3.980	7.48
Economic environment's being good news or bad news (D)	–0.240	0.238	–1.008	0.314
Annual cumulative stock return (R)	–0.001	0.001	–1.216	0.224
Quality variable of lifecycle in mature firms	–0.329	0.215	–1.524	0.128
Quality variable of D×R	0.002	0.008	0.292	0.770
Quality variable of D× life cycle in mature firms	0.186	0.519	0.359	0.719
Quality variable of R× life cycle in mature firms	0.001	0.001	0.946	0.345
Quality variable of D× R× lifecycle in mature firms	–0.008	0.021	–0.373	0.709

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle)} \times \text{factor(d)} \times \text{r}$$

In accordance with the findings of Daniel et al. (2014), presented results in Table 6, according to the sig. (0.128) and the coefficient (–0.329), also show that firm's life-cycle does not play a moderating role in the association between conditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life_cycle1 = z_size.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{factor(life.cycle1)} \times \text{factor(d)} \times \text{r}$$

Table 7 Results of the third hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.438	0.122	3.585	<0.0001
Economic environment's being good news or bad news (D)	–0.22	0.250	–0.895	0.371
Annual cumulative stock return (R)	–0.0008	0.0009	–0.878	0.380
Quality variable of lifecycle in mature firms	–0.201	0.204	–0.984	0.325
Quality variable of D × R	0.0001	0.009	0.011	0.991
Quality variable of D × life cycle in mature firms	0.187	0.476	0.395	0.693
Quality variable of R × life cycle in mature firms	0.0004	0.001	0.347	0.728
Quality variable of D × R × life cycle in mature firms	0.0042	0.019	0.215	0.829

According to the results in Table 7, the sig. and coefficient are respectively 0.325 and –0.201 suggesting that firm size also has no effect on determining the association between conditional conservatism and cash flow information asymmetry at 0.05 level. In this regard Daniel et al. (2014) shows that firm size has a predictive role in this association.

This part is calculated by the formula of life_cycle3= z_capex.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle3)} \times \text{factor(d)} \times \text{r}$$

Table 8 Results of the fourth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.277	0.120	2.292	0.022
Economic environment's being good news or bad news (D)	–0.120	0.264	–0.455	0.649
Annual cumulative stock return (R)	–0.0004	0.0007	–0.602	0.547
Quality variable of lifecycle in mature firms	0.263	0.205	1.279	0.201
Quality variable of D×R	–0.001	0.009	–0.182	0.855
Quality variable of D× life cycle in mature firms	–0.131	0.439	–0.300	0.764
Quality variable of R× life cycle in mature firms	–0.0009	0.001	–0.709	0.478
Quality variable of D× R× lifecycle in mature firms	0.0098	0.018	0.542	0.58702

According to the results in Table 8, since the sig. (0.201) and coefficient (0.263) are less than 0.05, therefore it is suggested that capital expenditures has no mitigating role in the association between conditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life_cycle4 = z_sale-gr.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle4)} \times \text{factor(d)} \times \text{r}$$

Table 9 Results of the fifth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.473	0.121	3.911	9.91
Economic environment's being good news or bad news (D)	–0.309	0.254	–1.216	0.225
Annual cumulative stock return (R)	–0.001	0.0009	–1.212	0.226
Quality variable of lifecycle in mature firms	–0.309	0.206	–1.500	0.134
Quality variable of D×R	–0.001	0.009	–0.131	0.896
Quality variable of D× life cycle in mature firms	0.421	0.453	0.930	0.353
Quality variable of R× life cycle in mature firms	0.0009	0.001	0.746	0.456
Quality variable of D× R× lifecycle in mature firms	0.008	0.017	0.455	0.649

The obtained results of sig. (0.134) and coefficient (-0.309), presented in Table 9, suggest that the variable 'sales growth' also has no impact on the association between conditional conservatism and cash flow information asymmetry at 0.05 level. The results are consistent with the findings of Daniel et al. (2014).

This part is calculated by the formula of life_cycle5= z_dpr.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle5)} \times \text{factor(d)} \times \text{r}$$

Table 10 Results of the sixth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.474	0.123	3.847	<0.0001
Economic environment's being good news or bad news (D)	–0.297	0.264	–1.127	0.260
Annual cumulative stock return (R)	–0.001	0.0007	–1.311	0.190
Quality variable of lifecycle in mature firms	–0.284	0.202	–1.409	0.159
Quality variable of D×R	0.00086	0.009	0.086	.931
Quality variable of D× life cycle in mature firms	0.346	0.436	0.793	0.428
Quality variable of R× life cycle in mature firms	0.0006	0.001	0.471	0.638
Quality variable of D× R× lifecycle in mature firms	0.0005	0.017	0.029	0.976

In line with Daniel et al. (2014), the sig. (0.159) and coefficient (–0.284), reported in Table 10, demonstrate that the values of dividend per share do not impact the relationship between conditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life_cycle6 = z_lev.

$$\text{CFO\_CF} = \text{factor(d)} \times \text{r} + \text{factor(life.cycle6)} \times \text{factor(d)} \times \text{r}$$

Table 11 Results of the seventh hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	0.296	0.127	2.317	0.020
Economic environment's being good news or bad news (D)	–0.097	0.261	–0.374	0.708
Annual cumulative stock return (R)	–0.0006	0.0009	–0.726	0.467
Quality variable of lifecycle in mature firms	0.183	0.199	0.922	0.356
Quality variable of D×R	0.001	0.009	0.112	0.911
Quality variable of D× life cycle in mature firms	–0.183	0.444	–0.413	0.679
Quality variable of R× life cycle in mature firms	–0.0002	0.001	–0.232	0.816
Quality variable of D× R× lifecycle in mature firms	–0.0004	0.018	–0.024	0.981

The findings also recommend that having sig. (0.365) and coefficient (0.183) implies to lack of moderating effect of financial leverage variable in the relationship between conditional conservatism and cash flow information asymmetry.

This part is calculated by the formula of life_cycle = z_score.

$$\text{CONS\_US} = \text{lev} \times \text{factor(life.cycle)} + \text{size} \times \text{factor(life.cycle)} + \text{age}$$

After testing the data, it is not appropriate to fit the model through OLS method (because the underlying hypotheses are not established). Therefore, generalised least square (GLS) method is used.

Table 12 Results of the eighth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Sig.*
Intercept	–6.099	3.165	–1.927	0.05432
Financial leverage	–2.590	9.263	–0.280	0.779
Quality variable of lifecycle in mature firms	–8.677	4.861	–1.785	0.0746
Firm size	2.319	2.319	1.000	0.317
Firm life	–6.453	3.319	–1.944	0.0522
Capital expenditures	–2.553	1.524	–16.744	<0.0001
Sales growth	–9.847	–9.847	–0.459	0.646
Dividend per share	1.151	3.455	0.333	0.739
Quality variable in 2011	3.099	8.345	3.714	<0.0001
Quality variable in 2012	3.509	8.517	4.120	4.17
Quality variable in 2013	3.630	8.586	4.228	2.62
Quality variable in 2014	3.772	8.996	4.193	3.04
Quality variable in 2015	3.926	9.197	4.268	2.19
Financial leverage × quality variable of life cycle in mature firms	4.247	3.050	1.393	0.164
Size × quality variable of life cycle in mature firms	4.893	3.560	1.374	0.169
Age × quality variable of life cycle in mature firms	8.652	5.429	1.594	0.111
Capital expenditure× quality variable of life cycle in mature firms	2.546	2.045	12.451	<0.0001
Sales growth × quality variable of life cycle in mature firms	2.565	8.000	0.321	0.748
Dividend per share × quality variable of life cycle in mature firms	4.778	9.491	0.503	0.614
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	4.557	1.039	0.439	0.661
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	1.777	3.375	0.053	0.958

According to the results in Table 12, the sig. and coefficient for the relationship between unconditional conservatism and cash flow information asymmetry are respectively 0.0746 and –8.677, allocating no significant relationship between these variables at 0.05 level. The findings are inconsistent with the findings of Roychowdhury and Watts (2007) in this context.

This part is calculated by the formula of life-cycle2 = z-age.

$$\text{CONS\_US} = \text{lev} \times \text{factor}(\text{life.cycle2}) + \text{size} \times \text{factor}(\text{life.cycle2}) + \text{age}$$

After testing the data, it is not appropriate to fit the model through OLS method (because the underlying hypotheses are not established). Therefore, GLS method is used (Generalised Least Square).

Table 13 Results of the ninth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Significance level*
Intercept	–9.437	3.488	–2.706	0.00696
Financial leverage	1.997	1.613	0.124	0.901
Quality variable of lifecycle in mature firms	9.657	6.174	1.564	0.118
Firm size	4.793	2.594	1.848	0.0649
Firm life	–2.949	3.788	–0.778	0.436
Capital expenditures	2.455	7.595	–3.232	0.00128
Sales growth	7.974	8.604	0.927	0.354
Dividend per share	1.407	3.323	0.042	0.966
Quality variable in 2011	2.671	9.793	2.727	0.00652
Quality variable in 2012	2.524	9.743	2.591	0.00974
Quality variable in 2013	1.843	9.815	1.878	0.0607
Quality variable in 2014	1.254	9.902	0.127	0.899
Quality variable in 2015	–7.1634	1.962	–1.859	0.0632
Financial leverage × quality variable of life cycle in mature firms	–1.816	2.120	–0.086	0.931
Size × quality variable of life cycle in mature firms	–5.231	4.393	–1.191	0.234
Age × quality variable of life cycle in mature firms	2.090	6.587	0.317	0.751
Capital expenditure× quality variable of life cycle in mature firms	4.931	1.258	0.039	0.968
Sales growth × quality variable of life cycle in mature firms	–2.652	3.718	–0.071	0.943
Dividend per share × quality variable of life cycle in mature firms	1.495	2.330	0.064	0.948
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.289	9.891	–4.336	<0.0001
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–2.853	1.912	–0.149	0.881

The presented results in Table 13, according to the sig. (0.118) and the coefficient (9.657), also show that firm's life-cycle does not play a moderating role in the association between unconditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life-cycle1= z-size.

$$\text{CONS\_US} = \text{lev} \times \text{factor(life.cycle1)} + \text{size} \times \text{factor(life.cycle1)} + \text{age}$$

After testing the data, the hypothesis was processed using OLS method with time factor.

Table 14 Results of the tenth hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Significance level*
Intercept	–9.984	3.711	–2.690	0.00728
Financial leverage	3.133	1.632	0.192	0.847
Quality variable of lifecycle in mature firms	7.771	5.911	1.315	0.189
Firm size	4.862	2.777	1.751	0.08034
Firm life	–3.051	3.917	–0.779	0.436
Capital expenditures	–2.414	7.654	–3.154	0.00167
Sales growth	2.874	2.006	1.433	0.152
Dividend per share	–4.192	3.363	–0.012	0.990
Quality variable in 2011	2.845	9.896	2.875	0.00414
Quality variable in 2012	2.669	9.811e-1	2.720	0.00666
Quality variable in 2013	1.962	1.026	1.911	0.0562
Quality variable in 2014	2.843	1.178	2.414	0.01601
Quality variable in 2015	2.694	1.201	2.243	0.02514
Financial leverage × quality variable of life cycle in mature firms	–3.388	2.116	–0.160	0.872
Size × quality variable of life cycle in mature firms	–5.355	4.286	–1.249	0.21187
Age × quality variable of life cycle in mature firms	1.880	6.387	0.294	0.768
Capital expenditure× quality variable of life cycle in mature firms	5.145	7.067e-1	0.073	0.941
Sales growth × quality variable of life cycle in mature firms	–2.800	2.247	–1.246	0.213
Dividend per share × quality variable of life cycle in mature firms	1.489	1.806	0.082	0.934
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.418	1.003	–4.405	<0.0001
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.313	5.297	–0.081	0.935

According to the results in Table 14, the sig. and coefficient are respectively 0.189 and 7.771 suggesting that firm size also has no effect on determining the association between unconditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life-cycle3= z-capex.

$$\text{CONS\_US} = \text{lev} \times \text{factor(life.cycle3)} + \text{size} \times \text{factor(life.cycle3)} + \text{age}$$

Table 15 Results of the 11th hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Significance level*
Intercept	–1.007	3.219	–3.129	0.001818
Financial leverage	8.567	1.454	0.589	0.555
Quality variable of lifecycle in mature firms	3.696	5.299	0.697	0.485
Firm size	5.065	2.368	2.139	0.032722
Firm life	–4.405	3.489	–1.263	0.207
Capital expenditures	1.746	9.672	1.805	0.071
Sales growth	5.599	2.340	0.239	0.810
Dividend per share	1.488	3.730	0.399	0.689
Quality variable in 2011	3.053	8.974	3.402	0.000701
Quality variable in 2012	2.391	8.909	2.684	0.007419
Quality variable in 2013	2.568	8.986	2.858	0.004375
Quality variable in 2014	3.321	9.100	3.650	0.000279
Quality variable in 2015	2.891	9.138	3.164	0.001613
Financial leverage × quality variable of life cycle in mature firms	–3.983	1.916	–0.208	0.835
Size × quality variable of life cycle in mature firms	–5.301	3.908	–1.357	0.175
Age × quality variable of life cycle in mature firms	1.415	5.913	2.394	0.016892
Capital expenditure× quality variable of life cycle in mature firms	–6.987	9.744	–0.717	0.473
Sales growth × quality variable of life cycle in mature firms	6.082	1.917	3.173	0.001563
Dividend per share × quality variable of life cycle in mature firms	7.909	8.715	9.074	<0.0001
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.182	1.147	–0.365	0.715
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–3.297	2.393	–13.777	<0.0001

Having tested the data, the hypothesis is processed using OLS method with time factor. According to the results in Table 15, since the sig. (0.485) and coefficient (3.696) are less than 0.05, therefore it is suggested that capital expenditures has no mitigating role in the association between conditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life-cycle4= z-sale-gr.

$$\text{CONS\_US} = \text{lev} \times \text{factor}(\text{life.cycle4}) + \text{size} \times \text{factor}(\text{life.cycle4}) + \text{age}$$

After testing the data, the hypothesis was processed using OLS method with time factor.

Table 16 Results of the 12th hypothesis

Variable	*Coefficient*	*Standard Deviation*	*T-test*	*Sig.*
Intercept	–1.282	2.959	–4.332	<0.0001
Financial leverage	3.506	1.390	0.252	0.800
Quality variable of lifecycle in mature firms	8.856	5.168	1.714	0.0869
Firm size	6.509	2.195	2.965	0.003110
Firm life	–4.451	3.331	–1.336	0.181
Capital expenditures	–2.078	3.730	–5.573	<0.0001
Sales growth	6.574	5.327	1.234	0.217
Dividend per share	3.585	4.495	0.798	0.425
Quality variable in 2011	3.261	8.424	3.872	0.000116
Quality variable in 2012	3.347	8.426	3.972	<0.0001
Quality variable in 2013	3.317	8.449	3.926	<0.0001
Quality variable in 2014	3.152	8.499	3.709	0.000222
Quality variable in 2015	2.973	8.657	3.435	0.000622
Financial leverage × quality variable of life cycle in mature firms	–4.396	1.802	–0.244	0.807
Size × quality variable of life cycle in mature firms	–5.979	3.792	–1.577	0.115
Age × quality variable of life cycle in mature firms	4.581	5.398	0.849	0.396
Capital expenditure× quality variable of life cycle in mature firms	2.069	3.787	5.462	<0.0001
Sales growth × quality variable of life cycle in mature firms	–6.679	5.328	–1.254	0.210
Dividend per share × quality variable of life cycle in mature firms	–1.023	5.758	–0.178	0.859
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.898	4.188	–1.169	0.242
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	5.106	9.090	0.562	0.574

The obtained results of sig. (0.086) and coefficient (8.856), presented in Table 16, suggest that the variable 'sales growth' also has no impact on the association between conditional conservatism and cash flow information asymmetry at 0.05 level. The results are consistent with the findings of Daniel et al. (2014).

This part is calculated by the formula of life-cycle5 = z-dpr.

$$\text{CONS\_US} = \text{lev} \times \text{factor}(\text{life.cycle5}) + \text{size} \times \text{factor}(\text{life.cycle5}) + \text{age}$$

After testing the data, the hypothesis was processed using OLS method with time factor.

Table 17 Results of the 13th hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Significance level*
Intercept	–9.468	2.924	–3.238	0.001251
Financial leverage	1.205	9.677	1.245	0.213
Quality variable of lifecycle in mature firms	1.212	5.154	0.235	0.814
Firm size	3.016	2.139	1.410	0.158
Firm life	1.907	3.280	0.581	0.561
Capital expenditures	1.780	1.318	13.510	<0.0001
Sales growth	3.218	7.472	4.307	<0.0001
Dividend per share	2.323	2.665	0.872	0.383
Quality variable in 2011	3.558	8.478	4.197	<0.0001
Quality variable in 2012	3.050	8.300	3.675	0.000253
Quality variable in 2013	2.951	8.431	3.499	0.000491
Quality variable in 2014	3.816	8.575	4.450	<0.0001
Quality variable in 2015	3.500	8.628	4.056	<0.0001
Financial leverage × quality variable of life cycle in mature firms	–1.888	2.454	–0.769	0.441
Size × quality variable of life cycle in mature firms	1.490	3.841	0.388	0.698
Age × quality variable of life cycle in mature firms	–1.147	5.442	–2.107	0.035380
Capital expenditure× quality variable of life cycle in mature firms	–1.677	9.797	–1.712	0.0873
Sales growth × quality variable of life cycle in mature firms	–3.308	7.734	–4.277	<0.0001
Dividend per share × quality variable of life cycle in mature firms	–2.125	2.688	–0.791	0.429
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	–4.980	2.728	–18.258	<0.0001
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	3.852	9.275	0.415	0.678

The sig. (0.814) and coefficient (1.212), reported in Table 17, demonstrate that the values of dividend per share do not impact the relationship between conditional conservatism and cash flow information asymmetry at 0.05 level.

This part is calculated by the formula of life-cycle6= z-lev.

$$\text{CONS\_US} = \text{lev} \times \text{factor}(\text{life.cycle6}) + \text{size} \times \text{facor}(\text{life.cycle6}) + \text{age}$$

Table 18 Results of the 14th hypothesis

Variable	*Coefficient*	*Standard deviation*	*T-test*	*Significance level*
Intercept	–8.792	3.021	–2.910	<0.0001
Financial leverage	1.976	2.747	0.719	0.472
Quality variable of lifecycle in mature firms	–1.668	4.986	–0.335	0.738
Firm size	3.228	2.172	1.487	0.137
Firm life	6.314	3.384	0.187	0.852
Capital expenditures	–8.166	1.082	–0.075	0.939
Sales growth	5.610	8.092	0.069	0.944
Dividend per share	2.863	4.458	0.642	0.520
Quality variable in 2011	3.176	8.284	3.834	<0.0001
Quality variable in 2012	3.176	8.300	3.826	<0.0001
Quality variable in 2013	3.351	8.371	4.003	<0.0001
Quality variable in 2014	3.511	8.384	4.188	<0.0001
Quality variable in 2015	3.352	8.501	3.943	<0.0001
Financial leverage × quality variable of life cycle in mature firms	–2.199	2.908	–0.756	0.449
Size × quality variable of life cycle in mature firms	3.035	3.666	0.828	0.408
Age × quality variable of life cycle in mature firms	–1.017	5.292	–1.922	0.0549
Capital expenditure× quality variable of life cycle in mature firms	–2.623	1.921	–13.655	<0.0001
Sales growth × quality variable of life cycle in mature firms	–2.079	8.415	–0.247	0.804
Dividend per share × quality variable of life cycle in mature firms	–1.265	6.493	–0.195	0.845
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	5.610	2.525	0.222	0.824
Financial leverage × quality variable of life cycle in immature firms × firm size × firm life × capital expenditures × sales growth × dividend per share	7.055	1.131	0.624	0.532

After testing the data, the hypothesis is processed using OLS method with time factor. The findings also recommend that having sig. (0.738) and coefficient (–1.668) implies to lack of moderating effect of financial leverage variable in the relationship between conditional conservatism and cash flow information asymmetry.

5 Conclusions

Accounting conservatism is considered as the most important principle of valuation in accounting (Sterling, 1970). The existing literature provides two types of conservatism namely conditional and unconditional types with distinct measurement which respectively are Basu's (1997) and Beaver and Ryan's (2000) models. The current investigation aims to examine the effect of conditional and unconditional accounting conservatism on free cash flow asymmetry. It also tests the potential determining role of related variables, are proposed by prior studies (for instance Daniel et al., 2014), on these associations.

The study finds that conditional conservatism and free cash flow asymmetry are not significantly correlated. It means that employment of conservative procedures by companies do not result in less private information for different information users including internal and external ones. Furthermore, we document that variables such as firm's life-cycle, firm size, capital expenditures, sales growth, values of dividend per share and financial leverage have no moderating effect on the association between conditional conservatism and free cash flow asymmetry. Meaning, considering above-mentioned items do not provide different allocation in presenting information in a fair manner among all parties. The second set of the results also suggests that unconditional accounting conservatism and free cash flow asymmetry are not significantly incorporated. It denotes that higher assertive recognition in accounting does not necessarily provide a balanced information environment for all users. Further analyses in this regard reach a similar conclusion, since the variables such as firm's life-cycle, firm size, capital expenditures, sales growth, values of dividend per share and financial leverage do not play an influential role to determine the level of asymmetric information related to unconditional conservatism.

Our findings provide several contributions for managers, investors and generally for society. Our results provide greater insight for managers to employ accounting procedures to promote the corporation's financial condition that is related to their own interest. Investors also can have more accurate prediction and evaluation about the reported information amongst internal and external users. For instance, investors may expect greater assertion, related to conservatism, to make rational decision for investment. Finally, it is assumed that the whole society may use our findings to have deeper understanding about the potential factors affecting the level of fair information stored in financial reports.

Similar to other studies, the authors in applying this article faced some limitations. Firstly, lack of accurate information about OTG market and other private firms contributed to Iran economy resulted in their exclusion in this study, whereas adding the information of such resources may provide different results. Secondly, there may exist other influential variables on determining the level of conservatism effect on asymmetric information, which are out of this paper's domain.

Our suggestions for future investigation arise from our limitations. Researchers in accounting and auditing fields could examine the auditors characteristic on providing fair information related to employing accounting conservatism and consequently decreasing information asymmetry among data appliers.

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