

Book value versus the asset value after revaluation: Performance indicators of companies and the role of conservatism in them

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Abstract

The most important goal of revaluation is providing reliable fair price information close to economic realities for different decision-makers. Emphasising conservatism, this research comparatively studies the relationship between book values of assets concerning the performance indicators of companies. The statistical population of the research includes 146 companies listed on the Tehran Stock Exchange from 2009 to 2020. The research methodology is correlational and post-event causal, and the correlation and regression tests are used to test hypotheses. The results show a significant direct relationship between the book value of assets and the rates of return on assets and equity. In addition, conditional conservatism significantly negatively affects the relationship between the asset value after revaluation and the future cash flows. It also has a significant positive effect on the relationship between the book value of assets and the rate of return on assets.

Keywords: Book value of assets, Revaluation, Return on assets, Return on equity, Future cash flows, Conservatism
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1 Introduction

Correct decision-making requires information reflecting reality and being consistent with the current situation. Decreased purchasing power of countries' currencies over time and, subsequently, the relative increase in prices of goods and services causes substantial differences between the purchase price of fixed assets inserted in financial statements and their current economic values. Professional accounting associations in many countries like United States, Canada and England have proposed solutions to solve this problem. For example, the Revaluation Standard No. 11 is proposed for the assets' revaluation in Iran [11]. In addition, the Financial Accounting Standards Board (FASB) states that active markets for some assets are relatively rare. In other words, a third party must use estimation and evaluation methods to determine the current values [5]. Revaluation is used to measure fixed assets based on international financial reporting standards and it can improve the transparency, competition, and comparability of financial statements. The fair value in revaluation model indicates the real potential of fixed assets and, in turn, the company's conditions [14]. The financial structure of the manufacturing units is revaluated for two reasons. Initially, improper calculation of the

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finished price cause the company to be losing. Second, tow-digit inflation rate increases the price of goods and services constantly and affects the financial operations of the companies. According to the accounting principles, two-digit inflation rate for three consecutive years requires revaluation of liabilities and assets of the companies. Managers reevaluate the companies' assets to determine the fair market value of the company and to increase the company's lending capacity [1].

Conservatism is one of the effective factors on revaluation of assets and a distinctive feature of financial reporting, which has been intermixed with accounting theory and practice since a long time ago. Watts believes that conservatism has been the prominent and dominant feature in the field of accounting and financial reporting at least since the beginning of the 20th century [2]. Conservatism is defined also as a differential verifiability required for the recognition of profits compared to losses. This criterion is emphasized, because it leads to asymmetry in the recognition of profit and loss. This asymmetry or conservatism understates the net assets compared to its actual amount. Understatement of the net assets of the current period increases profits in the following periods [13].

Recent studies show that accounting earnings are conservative, explaining that earnings tend to reflect more timely the bad news (negative stock returns) than the good news (positive stock returns). Conservatism leads to information asymmetry between management and market participants and, as a result, affects the forecasting strategy of management [10]. Accounting conservatism cause the market value of the reported assets to become higher than their book value. This definition implies that identification of investments based on cost leads to a positive expected net present value (NPV) from investments, because analysts expect that this investment may be underestimated [6].

On the one hand, accounting performance indicators are preferable to non-financial measures, because they are quantifiable, objective and tangible. On the other hand, shareholders want their wealth to increase through the increase in stock price and yield. In addition, accounting conservatism affects the future returns and stock prices. Then, the research questions are as follows. What is the relationship between the assets' book value and its value after revaluation with the performance indicators of companies? And What the role the accounting conservatism play in this relationship?

2 Theoretical foundations, literature and hypotheses

Accounting conservatism as an influential factor on asset revaluation causes the market value of the reported assets to become higher than their book value. As a result, identification of investments based on cost leads to a positive expected NPV from investments, because analysts expect that this investment may be underestimated [6]. Information asymmetry is less between managers and foreign investors in more conservative companies, because conservatism reduces managers' motivation to manipulate accounting figures and overstate financial performance. Therefore, companies that are more conservative have less information asymmetry between managers and investors, which in turn increases the company's value and equity [3].

According to [10], accounting conservatism has a positive effect on the company's cash value and controlling shareholders mitigates the positive relationship between accounting conservatism and cash value. Researchers in [15] showed that revaluated companies, on average, have higher debt and capital costs. In addition, companies with higher stock cost and higher value are more likely to reevaluate their assets and they have a negative tendency towards profitability and cash flow. In [3] suggested that operating cash flow does not affect the abnormal return of non-revaluated companies, while there is a positive and significant effect in the case of revaluated companies. Also in [9] showed that revaluation is less likely in companies having higher financial leverage. The efficiency motive has an important role in choosing revaluation, as it implies that companies with less financial resources or those with high investment on properties and equipment are more likely to reevaluate.

It is showed that financial limitation has a positive and significant effect on conditional conservatism [15]. There is no evidence that sensitivity of asymmetric cash flows significantly affect the conditional conservatism. Moreover, the sensitivity of asymmetric cash flows does not have a significant effect on the relationship between financial limitation and conditional conservatism. In [7] suggested that accounting conservatism has a significant and negative effect on new investments by companies. In [12] showed that conditional (unconditional) conservatism decreases (increases) the investment tendencies of companies. In addition, they concluded that different types of conservatism could affect the behavior and amount of investment and efficiency of companies. In [2] found a significant relationship between operating profit and operating cash flows with capital increase both from asset revaluation and from other methods.

2.1 The research hypotheses

Hypothesis 1: There is a significant relationship between the asset value after revaluation and the future cash flows.

Hypothesis 2: There is a significant relationship between the asset value after revaluation and the asset yield rate.

Hypothesis 3: There is a significant relationship between the asset value after revaluation and the rate of return on equity.

Hypothesis 4: There is a significant relationship between the book value of assets and the future cash flows.

Hypothesis 5: There is a significant relationship between the book value of assets and the rate of return on assets.

Hypothesis 6: There is a significant relationship between the book value of assets and the rate of return on equity.

Hypothesis 7: Conservatism moderates the relationship between the asset value after revaluation and the future cash flows.

Hypothesis 8: Conservatism moderates the relationship between the asset value after revaluation and the rate of return on assets.

Hypothesis 9: Conservatism moderates the relationship between the asset value after revaluation and the rate of return on equity.

Hypothesis 10: Conservatism moderates the relationship between the book value of assets and the future cash flows.

Hypothesis 11: Conservatism moderates the relationship between the book value of assets and the rate of return on assets.

Hypothesis 12: Conservatism moderates the relationship between the book value of assets and the rate of return on equity.

2.2 Methodology

This research is applied in terms of purpose and it is correlational in terms of nature and methodology. The official databases of Tehran Stock Exchange and Rahavard Novin software are used to collect the research panel data. The statistical population of the research includes all the companies listed on Tehran Stock Exchange from 2009 to 2020, totally 1752 year-company. After applying the following limitations, the research sample included 146 companies:

1. The companies' financial year must be started and ended as with the Iranian calendar year.
2. The financial year of companies must be unchanged.
3. The investment and financial companies (e.g. banks) must be excluded.
4. The companies must not have experienced a trading stop for more than four months so that the stock price can be considered normal.
5. The companies' information must be available in the research period.

The research variables are as follows:

Asset value after revaluation (independent variable) (RevD): It is equal to the logarithmic value of revaluated assets in Rial.

Book value of assets (independent variable) (BVE): It is equal to the logarithmic book value of assets.

Future cash flows (dependent variable) (CF): Variable is estimated from the following model [8]

$$CF_{i,t} = \phi + \phi_{EARN} EARN_{i,t-1} + \varepsilon_{i,t}.$$

$CF_{i,t}$: future cash flows,

$EARN_{i,t-1}$: operating profit of year $t - 1$.

Return on assets (dependent variable) (ROA): It is equal to the ratio of net profit to total assets.

Return on equity (dependent variable) (ROE): It is equal to the ratio of net profit to average equity.

Conservatism (moderator variable) (Cons): In this research, conditional conservatism based on Basu model and unconditional conservatism based on Givoly and Hayn model are used as the moderator variable and are calculated as follows.

3 Conditional conservatism based on Basu model

It is a time asymmetry criterion presented in [4]. The Basu model works based on early recognition of losses (bad news) and later recognition of profits (good news). In this model, the yield variable represents the news. Accordingly, the return positive (negative) value is considered as good (bad) news. The stronger correlation between profit and bad news (which is negative) means the stronger conservatism:

$$E_{i,t} = \beta_0 + \beta_1 DR_{i,t} + \beta_2 RET_{i,t} + \beta_3 DR_{i,t} \times RET_{i,t} + P_{i,t-1},$$

where $E_{i,t}$ is the net profit of company i in the financial year t ; $P_{i,t-1}$ is the stock price of company i at the beginning of the fiscal year t ; $RET_{i,t}$ is the annual return on buying and holding the shares of company i in the fiscal year t ; and $DR_{i,t}$ is a equal to 1 if RET is negative and zero otherwise. Since negative return is an indicative of bad news, the significance of β_3 implies presence of conditional conservatism.

Unconditional conservatism based on [7] is calculated as follows:

$$\text{Conservatismindex} = (-1) \times [\text{totalaccruals}/\text{totalcompanyassets}].$$

Total sum of accruals is equal to the difference between net profit and operating cash flow plus depreciation. [7] argue that the growth of accruals can be an indicative of the extent to which accounting conservatism during a long-term period is changed. In other words, increase in accruals decreases conservatism and vice versa.

Financial leverage (control variable) (Lev): It is equal to total debts divided by total assets.

The company age (control variable) (AGE): it is equal to the logarithm of the number of the years passed since the company established.

Asset growth (AssetG): It is equal to the total assets of the current year minus that of the previous year divided by the previous year assets.

Credit (CR): It is equal to the current assets divided by current liabilities.

Fixed assets ratio (Capex): it is equal to fixed assets divided by total assets.

The research findings.

Descriptive statistics.

Table 1 presents the research descriptive statistics for all the companies.

Table 1: Descriptive statistics of the quantitative research variables

	Average	Median	SD	Min	Max
Assets value after revaluation (RevD)	16.771	16.696	1.955	11.124	23.372
Book value of assets (BVE)	14.257	14.111	1.544	10.031	20.307
Projected future cash flows (CF)	0.142	0.121	0.179	-0.628	0.784
Return on assets (ROA)	0.116	0.099	0.148	0.404	0.682
Return on Equity (ROE)	0.226	0.257	0.400	-1.674	1.164
Conditional Conservatism (CON)	-0.046	-0.021	0.178	0.888	0.461
Unconditional conservatism (UNCON)	-0.021	-0.042	0.982	-2.903	4.912
Financial leverage (LEV)	0.606	0.607	0.247	0.031	1.795
The company's age (AGE)	3.599	3.738	0.422	1.946	4.234
Asset Growth (AssetG)	0.251	0.152	0.468	-0.276	7.309
Credit (CR)	1.485	1.274	1.041	0.164	14.095
Fixed assets ratio (Capex)	0.252	0.208	0.180	0.016	0.932

3.1 Normality test of the research variables

The significance level of Jarque-Bera statistics for the natural logarithm of the asset value after revaluation, the book value natural logarithm of assets, the ratio of future cash flows, the rates of return on assets and equity, and the age of the company are greater than the accepted error level. As a result, these variables are normally distributed. According to the Jarque-Bera test, the distribution of other research variables is not normal.

3.2 The unit root (stationary) test

The results presented in Table 3 show that all the quantitative variables of the research are significantly stationer in both levels of the test.

Table 2: The results of Jarque-Bera test

Variables	Statistics	Prob
Assets value after revaluation (RevD)	9.978	0.087
Book value of assets (BVE)	12.119	0.054
Projected future cash flows (CF)	5.931	0.136
Return on assets (ROA)	8.737	0.100
Return on Equity (ROE)	6.315	0.119
Conditional Conservatism (CON)	121.371	0.000
Unconditional conservatism (UNCON)	182.265	0.000
Financial leverage (LEV)	216.319	0.000
The company's age (AGE)	9.121	0.089
Asset Growth (AssetG)	376.121	0.000
Credit (CR)	158.452	0.000
Fixed assets ratio (Capex)	334.075	0.000

Table 3: The stationary test results

Variables	Levin, Lin, Chui		Im, Pesaran, Shin	
	Statistics	Prob	Statistics	Prob
Assets value after revaluation (RevD)	-2.914	0.002	-2.459	0.007
Book value of assets (BVE)	-2.996	0.001	2.382	0.008
Projected future cash flows (CF)	-8.309	0.000	-6.320	0.000
Return on assets (ROA)	-3.477	0.000	-5.883	0.000
Return on Equity (ROE)	-2.155	0.016	-2.282	0.004
Conditional Conservatism (CON)	-5.143	0.000	-5.274	0.000
Unconditional conservatism (UNCON)	-33.322	0.000	-14.427	0.000
Financial leverage (LEV)	-5.933	0.000	-3.075	0.001
The company's age (AGE)	109.210	0.000	-697.798	0.000
Asset Growth (AssetG)	-4.038	0.000	-4.406	0.000
Credit (CR)	-3.883	0.000	-3.842	0.000
Fixed assets ratio (Capex)	-3.703	0.000	-3.721	0.000

4 Testing the research hypotheses

A) Testing hypotheses 1 to 3

The following multivariate linear regression models are used to test hypotheses 1, 2 and 3 and the findings are presented in Tables 4 and 5 in a comparative manner.

$$\begin{aligned}
 CF_{i,t} &= \beta_0 + \beta_1(RevD_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t} \\
 ROA_{i,t} &= \beta_0 + \beta_1(RevD_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t} \\
 ROE_{i,t} &= \beta_0 + \beta_1(RevD_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t}
 \end{aligned}$$

The t-test is more than the accepted error level for β_1 coefficients in all three regression models. As a result, there is no significant relationship between the asset value after revaluation, the future cash flows, the rates of return on assets and equity at the %5 error level. Therefore, hypotheses 1 to 3 cannot be accepted at the %95 confidence level. There is a negative and significant relationship between financial leverage, age of company, company credit and the ratio of fixed assets with the future cash flows. Financial leverage, age of company and the ratio of fixed assets is negatively correlated with the rate of return on asset. In addition, the asset growth rate and the company credit have positive and significant relationship with the rate of return on asset. Moreover, financial leverage, age of company and the ratio of fixed assets have a negative relationship with the rate of return on equity, whereas the asset growth has a positive and significant relationship with the rate of return on equity.

B) Testing hypotheses 4 to 6

The following multivariate linear regression models are used to test hypotheses 4 to 6 and the comparative findings are presented in Table 5.

Table 4: Result of testing hypotheses 1 to 3

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
RevD	-0.002	-0.798	0.425	-0.008	-1.304	0.189	-0.025	-1.515	0.105	1.038
LEV	-0.235	-9.521	0.000	-0.329	-21.596	0.000	-0.602	-10.495	0.000	1.673
Age of company	-0.116	-3.770	0.000	-0.036	-2.401	0.012	-0.147	-2.067	0.044	1.024
AssetG	-0.008	-1.053	0.292	0.037	8.039	0.000	0.104	6.006	0.000	1.054
CR	-0.011	2.174	0.022	0.016	5.346	0.000	0.002	0.212	0.832	1.733
Capex	-0.231	-7.995	0.000	-0.270	-15.131	0.000	-0.545	-8.135	0.000	1.183
C	0.791	7.703	0.000	0.535	8.444	0.000	1.615	6.778	0.000	-
F Limer		8.717			10.859			5.970		No
H Hausman		28.677			65.191			32.143		No
F		11.287			12.923			7.746		No
DW		1.654			1.647			1.696		No
R ²		0.516			0.535			0.351		No
Adjusted R ²		0.470			0.482			0.331		No

$$CF_{i,t} = \beta_0 + \beta_1(BVE_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t}$$

$$ROA_{i,t} = \beta_0 + \beta_1(BVE_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t}$$

$$ROE_{i,t} = \beta_0 + \beta_1(BVE_{i,t}) + \beta_2(LEV_{i,t}) + \beta_3(Age_{i,t}) + \beta_4(AssetG_{i,t}) + \beta_5(CR_{i,t}) + \beta_6(Capex_{i,t}) + \varepsilon_{i,t}$$

Since t-test is more than the accepted error level for coefficient β_1 in the regression model of the fourth hypothesis, the book value of assets has no statistically significant relationship with the company's future cash flows ratio. In addition, since t-test is less than the accepted error level for coefficient β_1 in the regression models of the fifth and sixth hypothesis, the book value of assets has a positive and statistically significant relationship with the rates of return on assets and equity. Consequently, the fifth and sixth hypotheses cannot be rejected at the %95 confidence level. Moreover, there is a negative and significant relationship between financial leverage, age of company, credit and the ratio of fixed assets with the ratio of future cash flows. Financial leverage, age of company, and ratio of fixed assets have a negative relationship with the rate of return on assets, but the growth of assets and credit have a positive and significant relationship with it. Similarly, financial leverage, age of company and the ratio of fixed assets have a negative relationship with the rate of return on equity, but the growth of assets has a positive and significant relationship with it.

Table 5: Result of testing hypotheses 1 to 3

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
BVE	-0.002	-0.276	0.783	0.023	4.725	0.000	0.048	2.588	0.009	1.097
LEV	-0.237	-9.547	0.000	0.324	-21.213	0.000	-0.597	-10.330	0.000	1.672
AGE	-0.116	-2.668	0.008	-0.145	-5.416	0.000	-0.445	-4.395	0.000	1.056
AssetG	-0.006	-0.703	0.482	0.033	6.683	0.000	0.101	5.485	0.000	1.094
CR	0.011	2.333	0.013	0.016	5.202	0.000	0.001	0.042	0.966	1.737
Capex	-0.232	-8.019	0.000	-0.286	-16.060	0.000	-0.590	-8.750	0.000	1.171
C	0.787	7.656	0.000	0.546	8.609	0.000	1.628	6.808	0.000	-
F Limer		8.728			10.709			5.873		No
H Hausman		24.014			50.013			28.850		No
F		11.280			29.027			9.650		No
DW		1.650			1.624			0.682		No
R ²		0.516			0.732			0.477		No
Adjusted R ²		0.470			0.707			0.427		No

C) Testing hypotheses 7 to 9

In order to test hypotheses 7 to 9, we need to enter the conservatism as a moderating variable into the models. We test conservatism from both conditional (based in Basu model) and unconditional (Givoli and Hein model) approaches. To do so, the above hypotheses are tested separately with both approaches. The mean value of the variable in each year is used to divide the sample into two groups of companies with high and low conservatism. The following regression models are used to test the above hypotheses in a comparative manner and the findings are presented in Tables 6 and 7.

$$\begin{aligned}
CF_{i,t} &= \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) \\
&\quad + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t} \\
ROA_{i,t} &= \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) \\
&\quad + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t} \\
ROE_{i,t} &= \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) \\
&\quad + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t}
\end{aligned}$$

Testing hypotheses 7 to 9 with the conditional approach

In the seventh hypothesis, t-test is less than the accepted error level for coefficient β_3 of the regression model. As a result, the conditional conservatism moderates the relationship between the asset value after revaluation and the future cash flows. Since the coefficient is negative, conditional conservatism intensifies the negative correlation between the asset value after revaluation and the future cash flows. Therefore, the seventh hypothesis is not rejected in conditional approach. In the eighth and ninth hypotheses, t-test is more than the accepted error level for coefficient β_3 . Thus, the conditional conservatism does not statistically moderate the relationship between the asset value after revaluation with the rates of return on assets and equity. Therefore, hypotheses 8 and 9 cannot be accepted in conditional approach at the %95 confidence level.

Table 6: The test results of hypotheses 7 to 9 in conditional approach

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
RevD	-0.001	-0.291	0.771	-0.008	-1.358	0.181	-0.023	-1.657	0.099	1.143
CON	0.242	4.434	0.000	-0.049	-1.384	-0.167	-0.003	-0.026	0.979	2.513
RevD × CON	-0.008	-2.279	0.010	0.001	0.560	0.575	-0.006	-0.801	0.423	2.711
LEV	-0.264	-11.365	0.000	-0.321	-21.269	0.000	-0.571	-10.059	0.000	1.700
Age of company	-0.127	-4.415	0.000	-0.040	-2.128	0.033	-0.121	-1.723	0.085	1.026
AssetG	0.009	1.209	0.227	0.033	7.054	0.000	0.089	5.108	0.000	1.087
CR	0.012	2.592	0.009	0.016	5.370	0.000	0.001	0.124	0.901	1.734
Capex	-0.283	-10.380	0.000	-0.256	-14.391	0.000	-0.498	-7.457	0.000	1.265
C	0.751	7.448	0.000	0.535	8.143	0.000	1.512	6.122	0.000	-
F Limer		10.590			11.058			5.825		No
H Hausman		47.275			70.307			42.144		No
F		25.262			26.588			10.158		No
DW		1.535			1.642			1.709		No
R ²		0.681			0.692			0.493		No
Adjusted R ²		0.639			0.651			0.445		No

Table 7: The test results of hypotheses 7 to 9 in unconditional approach

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
BVE	-0.004	-1.275	0.203	-0.008	-1.536	0.102	-0.026	-1.538	0.100	1.271
UNCON	-0.074	-1.210	0.226	-0.077	-2.032	0.042	-0.229	-2.243	0.021	2.522
RevD × UNCON	0.004	1.146	0.252	-0.004	-2.170	0.029	-0.021	-2.469	0.012	2.456
LEV	-0.235	-9.523	0.000	-0.330	-21.649	0.000	-0.604	-10.530	0.000	1.673
Age of company	-0.114	-3.720	0.000	-0.015	-0.774	0.439	-0.143	-2.005	0.042	1.024
AssetG	-0.008	-1.063	0.288	0.037	7.997	0.000	0.103	5.959	0.000	1.055
CR	0.011	2.356	0.012	0.016	5.310	0.000	0.002	0.183	0.855	1.734
Capex	-0.233	-8.054	0.000	-0.272	-15.243	0.000	-0.551	-8.201	0.000	1.188
C	00.823	7.752	0.000	0.567	8.675	0.000	1.694	6.880	0.000	-
F Limer		8.716			10.905			5.978		No
H Hausman		30.218			66.583			32.681		No
F		11.149			28.664			11.651		No
DW		1.660			1.657			1.700		No
R ²		0.516			0.733			0.520		No
Adjusted R ²		0.470			0.707			0.471		No

Testing hypotheses 7 to 9 with the unconditional approach

Since t-test is less than the accepted error level for coefficient β_3 in the regression model of hypotheses 8 and 9, the unconditional conservatism moderates the relationship between the asset value after revaluation and the rates of return on assets and equity. The negative sign of coefficient β_3 implies that unconditional conservatism intensifies the negative correlation between the asset value after revaluation and the rates of return on assets and equity. Therefore, hypotheses 8 and 9 are not rejected in unconditional approach at the %95 confidence level. In addition, since t-test is more than the accepted error level for coefficient β_3 in the regression model of the seventh hypothesis, the unconditional conservatism does not statistically moderate the relationship between the asset value after revaluation and the future cash flow ratio. Thus, the seventh hypothesis in unconditional approach is rejected at the %95 confidence level.

D) Testing hypotheses 10 to 12

We entered the conservatism variable into the models as a moderating variable to test hypotheses 10 to 12 in both conditional and unconditional approaches separately. The mean value of variables in each year are used to divide the sample companies into two groups of companies with high and low conservatism.

The following regression models are used to test hypotheses 10 to 12 and the corresponding findings are presented in Table 8 and 9 in a comparative manner.

$$CF_{i,t} = \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t}$$

$$ROA_{i,t} = \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t}$$

$$ROE_{i,t} = \beta_0 + \beta_1(RevDi,t) + \beta_2(CONSER_{i,t}) + \beta_3(RevD_CONSER_{i,t}) + \beta_4(LEV_{i,t}) + \beta_5(Age_{i,t}) + \beta_6(AssetGi,t) + \beta_7(CR_{i,t}) + \beta_8(Capex_{i,t}) + \varepsilon_{i,t}$$

Testing hypotheses 10 to 12 in conditional approach

The value of t-test is less than the accepted error level for coefficient β_3 in the regression models of the seventh hypothesis. As a result, the conditional conservatism moderates the relationship between the asset value after revaluation and the future cash flows. The negative sign of this coefficient implies that conditional conservatism intensifies the negative correlation between the asset value after revaluation and the future cash flows. Therefore, the seventh hypothesis under the conditional settings is not rejected.

Since the value of t-test is more the acceptable error level for coefficient β_3 in the regression model of hypotheses 8 and 9, the conditional conservatism does not statistically moderate the relationship between the asset value after revaluation and the rates of return on assets and equity. Therefore, hypotheses 8 and 9 cannot be accepted in conditional settings at the %95 confidence level.

Testing hypotheses 10 to 12 in unconditional approach

The value of t-test is less than the accepted error level for coefficient β_3 in the regression models of hypotheses 8 and 9. As a result, the unconditional conservatism moderates the relationship between the asset value after revaluation and the rates of return on assets and equity. In addition, the negative sign of coefficient β_3 implies that unconditional conservatism intensifies the negative correlation between the asset value after revaluation and the rates of return on assets and equity. Therefore, hypotheses 8 and 9 are not rejected in unconditional approach at the %95 confidence level.

Table 8: Testing hypotheses 10 to 12 in conditional approach

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
RevD	-0.001	-0.291	0.771	-0.008	-1.358	0.181	-0.023	-1.657	0.099	1.143
CON	0.242	4.434	0.000	-0.049	-1.384	0.167	-0.003	-0.026	0.979	2.513
RevD × CON	-0.008	-2.279	0.010	0.001	0.560	0.575	-0.006	-0.801	0.423	2.711
LEV	-0.264	-11.365	0.000	-0.321	-21.269	0.000	-0.571	-10.059	0.000	1.700
Age of company	-0.127	4.415	0.000	-0.040	-2.128	0.033	-0.121	-1.723	0.085	1.026
AssetG	0.009	1.209	0.227	0.033	7.054	0.000	0.089	5.108	0.000	1.087
CR	0.012	2.592	0.009	0.016	5.370	0.000	0.001	0.124	0.901	1.734
Capex	-0.283	-10.380	0.000	-0.256	-14.391	0.000	-0.498	-7.457	0.000	1.265
C	0.751	7.448	0.000	0.535	8.143	0.000	1.512	6.122	0.000	-
F Limer		10.590			11.058			5.825		No
H Hausman		48.275			70.307			42.144		No
F		25.262			26.588			10.158		No
DW		1.535			1.642			1.709		No
R ²		0.681			0.692			0.493		No
Adjusted R ²		0.639			0.651			0.445		No

Moreover, the value of t-test is more than the accepted error level for coefficient β_3 in the regression model of the seventh hypothesis, implying that unconditional conservatism does not statistically moderate the relationship between the asset value after revaluation and the future cash flows ratio. Therefore, the seventh hypothesis is rejected in unconditional approach at the %95 confidence level.

5 Conclusions

Interpretation of hypotheses 1 to 6

The results of hypotheses 1 to 3 shows that there is no significant relationship between the asset value after revaluation

Table 9: The test results of hypotheses 10 to 12 in unconditional approach

Dependent variables	CF			ROA			ROE			VIF
Variables	Coefficient	t-test	Prob	Coefficient	t-test	Prob	Coefficient	t-test	Prob	
RevD	-0.004	-1.275	0.203	-0.008	-1.536	0.102	-0.026	-1.538	0.100	1.271
CON	-0.074	-1.210	0.226	-0.077	-2.032	0.042	-0.229	-2.243	0.021	2.522
RevD × CON	0.004	1.146	0.252	-0.004	-2.170	0.029	-0.021	-2.469	0.012	2.456
LEV	-0.235	-9.523	0.000	-0.330	-21.649	0.000	-0.604	10.530	0.000	1.673
Age of company	0.114	-3.720	0.000	-0.015	-0.774	0.439	-0.143	-2.005	0.042	1.024
AssetG	-0.008	-1.063	0.288	0.037	7.997	0.000	0.103	5.959	0.000	1.055
CR	0.011	2.356	0.012	0.016	5.310	0.000	0.002	0.183	0.855	1.734
Capex	-0.233	-8.054	0.000	-0.272	-15.243	0.000	-0.551	-8.201	0.000	1.188
C	0.823	7.752	0.000	0.567	8.675	0.000	1.694	6.880	0.000	-
F Limer		8.716			10.905			5.978		No
H Hausman		30.218			66.583			32.681		No
F		11.149			28.664			11.651		No
DW		1.660			1.657			1.700		No
R ²		0.470			0.733			0.520		No
Adjusted R ²		0.470			0.707			0.471		No

with the future cash flows and the rates of return on assets and equity. The results of the fourth hypothesis reject a significant relationship between the book value of assets and the future cash flows ratio. In addition, the results of the fifth and sixth hypotheses show that there is a positive and significant relationship between the book value of assets and the rates of return on assets and equity.

Profit per share and sales and income are the most important factors from viewpoint of shareholders and managers of companies. The real and intrinsic values of shares are related to the nominal value of assets. Since the nominal value of these assets and their depreciation, taxes and other expenses are not updated annually, individuals may face problems calculating the real value of shares and assets. As an additional result, importance of the companies' assets as an important variable in the process of increasing capital and calculating the shares' value has decreased. On the other hand, despite having valuable assets, companies suffer from limited capital and have difficulties receiving credit or dealing with other companies, because they cannot exhibit their valuable assets correctly and in an up-to-date manner. Therefore, the capital increase from the surplus of the assets revaluation can help companies in several ways such as improving their capital, activities and transactions, and their bargaining power with banks, converting assets and unused assets into money, and replacing them with useful assets.

Revaluation of fixed assets is mainly aimed at determining the actual profit or loss resulting from the performance of economic enterprises in each year. In other words, depreciation cost in revaluation of fixed assets compared to what recorded in historical book prices can make the annual profits of companies far more realistic. On the other hand, when company converts its depreciation reserve funds into highly liquidable assets, then revaluated asset's depreciation reserve can be a good guide for decision makers and beneficiaries. Another important point is that the ratio of profit to the fixed assets, which is recorded and maintained at historical prices in countries with high inflation like Iran, can be misleading so that the main reason for revaluation in Iran is covering annual losses.

Interpretation of hypotheses 7 to 12

The results of the seventh hypothesis indicate that conditional conservatism moderates the relationship between the asset value after revaluation and the future cash flows. According to the results, conditional conservatism intensifies the negative correlation between the asset value after revaluation and the future cash flows. The results of the eighth and ninth hypotheses indicate that conditional conservatism does not moderate the relationship between the asset value after revaluation and the rates of return on assets and equity.

In addition, the results of hypotheses 8 and 9 indicate that unconditional conservatism moderates the relationship between the asset value after revaluation and the rates of return on assets and equity. Moreover, unconditional conservatism intensifies the negative correlation between the asset value after revaluation and the rates of return on assets and equity. According to the results of the seventh hypothesis, unconditional conservatism does not moderate the relationship between the asset value after revaluation and the future cash flows ratio.

Conservatism, as one of the influential factors on revaluation of assets, is a distinctive feature of financial reporting intertwined with accounting theory and practice since a long time ago. Watts suggests that conservatism has been a prominent and dominant subject in the field of accounting and financial reporting at least since the beginning of the 20th century [11]. Conservatism is defined also as a differential verifiability required for the recognition of profits compared to losses. This definition emphasizes on the verifiability degree of profit versus losses. A consequence of this verifiability is asymmetric recognition of profits and losses. This asymmetry or conservatism leads to understatement of net assets compared to the actual assets. Underreport of net assets in the current period increases earnings in the following periods [13]. Therefore, the results obtained from the above hypotheses are consistent with the theoretical foundations.

The results of hypothesis 11 indicate that conditional conservatism moderates the relationship between the book value of asset and the rate of return on assets. In addition, conditional conservatism intensifies the negative correlation between the book value of assets and the rate of return on assets. The results of hypotheses 11 and 12 indicate that conditional conservatism does not statistically moderate the relationship between the book value of assets, the future cash flows ratio, and the rate of return on equity. Moreover, the results of hypotheses 10 to 12 with unconditional approach indicate that unconditional conservatism does not statistically moderate the relationship between the book value of the asset, the future cash flows ratio, and the rates of return on assets and equity.

Recent studies suggest that accounting earnings are conservative. In other words, earnings tend to reflect more timely the bad news (negative stock returns) than the good news (positive stock returns). Conservatism changes the information asymmetry between management and the market participants and this way it affects management's forecasting strategy [10]. Accounting conservatism causes the market value of reported assets to become more than their book value. Accordingly, the use of cost in identification of investment results in a positive net present value of investments, because analysts expect that this investment is underestimated [6]. The results of the above hypotheses are consistent with the theoretical foundations.

The results of the present research are in line with those of [10], [14], [5] and [12], but is not in line with results of [3], [9], [8], and [5]. Tehran Stock Exchange has had an undeniable impact on Iran's economic development. The stock market is mainly responsible for effective use of funds and their optimal allocation that, in turn, requires an efficient market. A necessity for such a market is that all available information, including accounting information, should be available to all traders at no cost and equally, and traders should have relatively the same understanding of the information. Obviously, discovering the relationship between accounting variables reinforces the necessity of publishing financial statements. For this reason, the following suggestions are derived from the research:

- Revaluation means replacing the historical values of fixed assets with new fair values of them. The use of the assets' historical costs in reports results in significant differences between the current value and the book value of assets. Therefore, the results of this research suggest that managers of companies to help transparency and relevance of financial statements by revaluation of assets.
- The results of the research show that the book value of assets a positive effect on the performance of company. Therefore, the potential and actual investors as well as the beneficiaries are suggested to consider the book value of the assets in predicting the performance of the company so that they can make better decisions on investments.
- The company managers are also suggested that choosing a conservative approach in revaluation of assets helps them to provide a clearer picture of the company's situation and to attract better investments for the business unit.

Finally, the current research, like any other research, has some limitations such as the lack of access to all the information of the sample companies before 2009. However, a longer study period would decrease the sample size. Lastly, the financial statement items of the companies are not adjusted and might be affected by inflation, which in turn may affect the research results. To resolve this, some remove methods were used and the outlier data were adjusted.

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