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**The Moderating Effect of Firm Characteristics on the
Relationship between Accounting Conservatism and Treasury
Stocks: Evidence from Firms Listed on the Saudi Stock
Exchange**

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ABSTRACT:

This research aims to investigate the relationship between accounting conservatism and treasury stocks. The current research examines the potential influence of firm-specific characteristics as moderating variables on this relationship. Ordinary least squares regression and multiple regressions are used to test the research hypotheses. The study sample consists of 13 non-financial firms listed on the Saudi Stock Exchange during 2018–2020, resulting in a final sample of 39 firm-year observations. The researcher concludes that accounting conservatism has a significant and negative effect on treasury stocks. In addition, the negative effect of accounting conservatism on treasury stocks is strengthened in the presence of firm size, leverage ratio and return on assets as moderating variables. These findings are robust, as the results of the sensitivity analysis support those of the fundamental analysis. To the best of the researcher's knowledge, there is relatively limited evidence, in previous studies relating to accounting conservatism and its association with treasury stocks in the presence of firm characteristics as moderating variables. Furthermore, the findings of this research have implications for researchers and regulatory bodies that seek to enhance the quality of financial statements in emerging economies.

Keywords: Accounting conservatism; Treasury stock; Firm characteristics.

1. INTRODUCTION

The interaction between accounting policies (accounting conservatism) and financial policies (treasury stocks) had received the attention of many researchers in the field of accounting and finance, in particular, the role of these policies in reducing agency problems. Many previous studies (e.g., Ahmed et al., 2002; Shoorvarzy et al., 2012; Louis & Urcan, 2013; Mousa, 2014; Zahroh, 2014) dealt with the relationship between accounting conservatism as a type of accounting policy and dividend policy as an example of financial policies, but there is a dearth of research that has considered the relationship between accounting conservatism and treasury stocks (Lobo et al., 2020).

Recently, companies have been using free cash flow to buy back their shares from the market (treasury stock), rather than paying dividends to shareholders. Treasury stocks are an important strategic tool in a company's financial policy, as a firm's motives for repurchasing its shares are that this approach reduces agency problems, limits the acquisition process that the company may be exposed to by other companies, and maximizes shareholder wealth by restricting the free cash flows that managers can use to invest in projects with negative net present value (NPV) (Gim & Jang, 2020).

Accounting conservatism is defined as the early recognition of bad news compared to the acknowledgement of good news (Lobo et al., 2020). Accounting conservatism is one of the most important

characteristics associated with accounting earnings. It is one of the corporate governance mechanisms included in accounting policy and is aimed at reducing various potential agency problems. Among these agency problems is the one that is related to this research, that of overinvestment related to free cash flows. Specifically, timely recognition of unrealized losses reduces the likelihood that managers will make investment decisions in projects with negative net present value (NPV). The role of accounting conservatism in this research is the reduction of the agency problem related to free cash flows, as it will reduce the likelihood of overinvestment. For example, by engaging in accounting conservatism, managers will be less likely to invest in projects with negative NPV because early recognition of bad news serves as a disciplinary mechanism for managers; thus, it is expected that accounting conservatism will limit managers in buying back their company's shares (Lobo et al., 2020).

Accounting conservatism and treasury stock both assist in solving various aspects of the agency problem that could exist between a company and its shareholders. For example, accounting conservatism may act as a mechanism that helps managers choose to invest in appropriate investment projects with a positive NPV, and treasury stocks are positive signals that the management of the company seeks to send to stakeholders and are intended to reduce information asymmetry and increase earnings per share. Thus, both mechanisms may be integrated as solutions to agency problems between the

company and its shareholders. Alternatively, accounting conservatism can support the signals that treasury stocks provide to the market (Li et al., 2019; Li & Chao, 2020). Accounting conservatism helps reduce the problem of overinvestment and information asymmetry (Alkhafaji et al., 2020).

There is a dearth of studies that have tested the effect of accounting conservatism on treasury stocks. Two studies (e.g., Li et al., 2019; Lobo et al., 2020) argue that there is a significant and negative relationship between accounting conservatism and treasury stocks, as the greater the accounting conservatism in a company's financial statements, the more these limits managers in buying back the company's shares.

Several studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018; Bayar et al., 2021) indicate that a company's decision to buy back its shares differs between companies according to their various operational characteristics, including firm size, leverage ratio, and return on assets. Some studies (e.g., Sun & Liu, 2011; El-habashy, 2019; Haider et al., 2021) show a difference in the level of accounting conservatism between companies according to their operational characteristics, which also include firm size, leverage ratio, and return on assets. Accordingly, it can be stated that accounting conservatism has a direct impact on treasury stocks, as indicated by the literature review, which raises the question of the extent to which there is practical evidence of this return in the environment of Saudi

accounting practice and business in firms listed on the Saudi Stock Exchange. This is the question that this research seeks to answer theoretically and practically.

In light of the above, the research problem can be expressed in terms of how to answer the following questions, both theoretically and practically: Does accounting conservatism negatively affect treasury stocks? Does this negative effect differ according to firm size, leverage ratio, and return on assets as moderating variables? Finally, previous studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018; Bayar et al., 2021), and the experiences of some countries, confirm that accounting conservatism has a negative impact on a company's decision to repurchase its shares, and that this effect varies with the different operational characteristics of the companies, which act as moderating variables. Is there practical evidence for this relationship in firms listed on the Saudi Stock Exchange and, if so, what are the professional implications for the various stakeholders?

Hence, the main objective of this research is to investigate the potential effect of accounting conservatism on treasury stocks. The research also aims to examine whether firm size, leverage, and return on assets, as firm-specific characteristics, affect the strength and/or direction of the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.

From an academic viewpoint, the importance of this research stems from its attempt to reveal the effect of accounting conservatism on treasury stocks, in addition to testing the impact of certain operational characteristics (i.e., firm size, leverage ratio, and return on assets) as moderating variables on this relationship for firms listed on the Saudi Stock Exchange. It is a field of research that is relatively scarce in Saudi Arabia. The importance of this research also lies in its contribution to accounting thought in general and the thinking in Saudi Arabia in particular, as it can provide an appropriate analysis of the Saudi environment, which cannot be generalized to the results of research in other countries. The practical importance of the research also rests in its benefit to investors, the capital market and other stakeholders in Saudi Arabia, as well as to other countries with a business environment similar to that in Saudi Arabia, by analysing the impact of accounting conservatism on treasury stocks. Thus, the importance of the research also stems from the perspective of the great influence of treasury stock, as it is one of the tools used in dealing with crises faced by stock markets in order to achieve stability and reduce the occurrence of the collapse of companies whose shares are traded in those markets. Treasury stocks are considered a tool for communicating the expectations of managers to investors and shareholders, especially if the management has information about the company's future that has not been announced in the market regarding a decline in the value of the company's shares.

Despite the many possible research motives, the most important involve the scarcity of applied research in the field of Saudi companies' decision to buy back their shares, as well as the need to find practical evidence of the validity, or otherwise, of the relationship under study in firms listed on the Saudi Stock Exchange by following an integrated methodology. Finally, in keeping pace with the trends found in the literature review, this study conducted fundamental and sensitivity analyses, in order to overcome a shortage that is almost recurring in many researches Saudi in this regard.

Using ordinary least squares (OLS) regression, this research finds that (a) the interactive effect between firm size and accounting conservatism on treasury stocks is significant and positive; (b) the interactive effect between leverage ratio and accounting conservatism on treasury stocks is significant and negative; and (c) the interactive effect between return on assets and accounting conservatism on treasury stocks is significant and positive. Finally, the study concludes that the results of the sensitivity analysis largely agree with those of the fundamental analysis. This indicates that the results of the sensitivity analysis largely support those of the fundamental analysis.

It is important to realize that these results must be interpreted while considering some **limitations**. **First**, the research is conducted in the Saudi setting using only data for non-financial listed firms. Therefore, the findings may not be generalizable to other institutional settings,

such as the financial sector, those whose financial reports are illustrated using a foreign currency, and non-listed firms. **Second**, only the moderating effects of firm size, leverage, and return on assets are tested. Thus, another limitation of this research is the exclusion of other firm characteristics that may affect treasury stocks, such as firm age, sales growth rate, and the market-to-book ratio. **Finally**, inferences regarding the findings of the current study should be made in the light of the research objectives, the period covered, and the sample used, as well as the specific conditions for its selection.

The importance of this research stems from its contribution to the literature and to practice in several ways. First, the researcher extends the previous literature by examining the effect of firms' operating characteristics on the relationship between accounting conservatism and treasury stocks. Second, to the best of the researcher's knowledge, this is the first paper to investigate the effect of firms' operating characteristics on the relationship between accounting conservatism and treasury stocks. Third, there are no Saudi studies to date examining the effect of firms' operating characteristics on the relationship between accounting conservatism and treasury stocks.

The remainder of this paper is structured as follows. Section 2 develops the research hypotheses after reviewing related prior research. Section 3 describes the research design. Section 4 presents and

discusses the findings. Section 5 demonstrates the results of the sensitivity analysis and section 6 concludes the paper.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This section analyses previous studies that have examined the association between accounting conservatism and treasury stocks, followed by studies that have addressed the role of firm characteristics as determinants of treasury stock, and hence a potential moderating effect on this association in the context of related theories. This, in turn, assists in building the theoretical foundation upon which the research hypotheses were developed.

ACCOUNTING CONSERVATISM AND TREASURY STOCKS

To some extent, there is a dearth of studies that have tested the direct effect of accounting conservatism on treasury stocks. In this context, Li et al. (2019) studied the impact of accounting conservatism on treasury shares (treasury stocks) in the United States of America. Their study relied on the use of multiple regressions to test their hypotheses, whereby the number of observations reached 1,449 for companies listed on US stock exchanges during the period 2003–2013. The study found a significant negative relationship between accounting conservatism and treasury stocks. The greater the accounting conservatism in a company's financial statements, the more this limited the managers' treasury stocks, in line with the viewpoint that the process of repurchasing shares helps reduce both cash surplus and information asymmetry.

Moreover, Lobo et al. (2020) examined the impact of accounting conservatism on treasury stocks, the main reason for explaining this

relationship being the problem of overinvestment; this was represented in this study in relation to free cash flows. The study used multiple regressions and logistic regression to test its hypotheses, the number of observations reaching 59,365 views of companies listed on US stock exchanges during the period 1997–2014. The study found a significant and negative relationship between accounting conservatism and treasury stocks. The greater the accounting conservatism in a company's financial statements, the more it limits the managers' treasury stocks, and this relationship is strengthened as the free cash flows in the company.

This study concludes from an analysis of these studies that there is agreement among them that accounting conservatism has a significant and negative effect on treasury stocks. By analysing these studies systematically, it became clear that they depend on the study method applied for their analysis of the actual data contained in the financial statements of the companies concerned, which justifies the researcher's intention to choose an applied approach to test the influence of the relationship under study, as this method is the most reliable and appropriate. It is also clear that the field of application of these studies does not differ, as this relationship has been tested in companies after excluding the banking sector from the studies. The banking sector is characterized by operating in the shadow of an advanced capital market, and the study of this relationship may be more important in emerging markets. This supports the researcher's intention to test this relationship

in the environment of Saudi business and accounting practice, as the kingdom is one of the countries with an emerging market, in addition to the scarcity of research on this topic. With regard to the time period in which these studies were conducted, it is clear that they were conducted in 2020, which confirms the novelty of this relationship and the importance of its study.

Accordingly, the researcher believes that accounting conservatism could affect treasury stocks based on findings in the literature regarding the possibility that the higher the level of accounting conservatism, the lower the treasury stocks. This justifies the researcher's intention to adopt a trend for this relationship in line with previous studies in this regard. This leads to the development of the first research hypothesis, in its alternative form:

H₁: Accounting conservatism negatively affects treasury stocks among firms listed on the Saudi Stock Exchange.

THE MODERATING EFFECT OF FIRM CHARACTERISTICS ON THE RELATIONSHIP BETWEEN ACCOUNTING CONSERVATISM AND TREASURY STOCKS

With regard to analysing the impact of firms' operating characteristics on the relationship between accounting conservatism and treasury stocks, several studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018; Bayar et al., 2021)

indicate that treasury stocks differed among companies with different firm operating characteristics, including firm size, leverage ratio, and return on assets.

As a result of the impact of firms' operating characteristics on both treasury stocks and accounting conservatism, the researcher expects the interaction of these characteristics with accounting conservatism to produce new interactive variables that will affect the relationship under study. Accordingly, the researcher adopted a moderating approach in order to treat the operational characteristics as moderating variables of the relationship, instead of control variables affecting the dependent variable in that relationship.

In this context, the results of several studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018) indicate that treasury stocks differ according to firm size. On the other hand, some studies (e.g., Sun & Liu, 2011; El-habashy, 2019; Haider et al., 2021) indicate the possibility of considering firm size as one of the determinants of accounting conservatism.

It is taken from both of these sets of studies that there is no interest in studying the impact of firm size on the relationship between accounting conservatism and treasury stocks. The researcher's viewpoint is that the interaction between firm size and accounting conservatism can produce an interactive (moderating) variable that is expected to affect the strength and/or direction of the relationship

between accounting conservatism and treasury stocks. This leads to the development of the second undirected research hypothesis, in its alternative form:

H₂: Firm size moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.

Regarding the impact of leverage ratio on the relationship between accounting conservatism and treasury stocks, several studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018) indicate that treasury stocks differ according to leverage ratio. Other studies (e.g., Sun & Liu, 2011; El-habashy, 2019; Haider et al., 2021) indicate the possibility of considering leverage ratio as one of the determinants of accounting conservatism.

It is taken from both these sets of studies that there is no interest in studying the impact of leverage ratio on the relationship between accounting conservatism and treasury stocks. The current researcher is of the view that the interaction between leverage ratio and accounting conservatism can produce an interactive (moderating) variable that is expected to affect the strength and/or direction of the relationship between accounting conservatism and treasury stocks. This leads to the development of the third undirected research hypothesis, in its alternative form:

H₃: Leverage ratio moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.

Finally, regarding the impact of return on assets on the relationship between accounting conservatism and treasury stocks, several studies (e.g., Andriosopoulos & Hoque, 2013; Abraham et al., 2018; Alghamdi, 2018) indicate that treasury stocks differ according to return on assets. Other studies (e.g., Sun & Liu, 2011; El-habashy, 2019; Haider et al., 2021) indicate the possibility of considering return on assets as one of the determinants of accounting conservatism.

It is taken from the above studies that there is no interest in studying the impact of return on assets on the relationship between accounting conservatism and treasury stocks. The researcher's viewpoint is that the interaction between return on assets and accounting conservatism can produce an interactive (moderating) variable that is expected to affect the strength and/or direction of the relationship between accounting conservatism and treasury stocks. This leads to the development of the fourth, undirected, research hypothesis, in its alternative form:

H₄: Return on assets moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.

3. RESEARCH DESIGN

This section aims to test the research hypotheses empirically to ascertain whether accounting conservatism affects treasury stocks and whether firm characteristics, namely, firm size, leverage, and return on assets, interact with accounting conservatism in their effect on treasury stocks. The following sub-sections explain the variable measurements and the research models estimated to test the research hypotheses.

SPECIFICATION OF THE RESEARCH MODELS

By testing the research hypotheses, it is revealed that there is a main independent variable, represented by accounting conservatism, which is expected to affect treasury stocks as the dependent variable. Moreover, this effect is expected to be moderated by firm characteristics, resulting in the research moderation model shown in Figure 1.

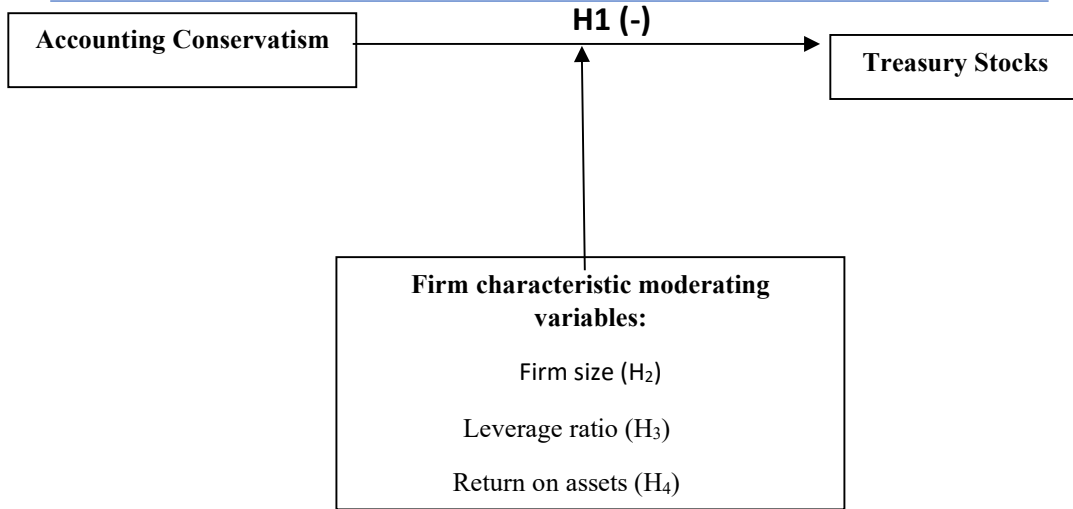


Figure 1: Research model

Source: Developed by the researcher.

ACCOUNTING CONSERVATISM AND TREASURY STOCK MODEL

To test H_1 empirically (the effect of accounting conservatism on treasury stocks), an OLS regression model is estimated as follows:

$$\text{Treasury Stock}_{(it)} = \beta_0 + \beta_1 \text{Conservatism}_{(it-1)} + \varepsilon_{(it)} \quad (\text{Model 1})$$

Where, *Treasury stock* (it) is the treasury stock of firm (i) in financial year (t) ; and *Conservatism* $(it-1)$ is the accounting conservatism of firm (i) in financial year $(t-1)$.

FIRM CHARACTERISTICS MODERATING MODELS

To test research hypotheses H_2 – H_4 , which aim to investigate the moderating effects of the characteristics of firm size, leverage, and return on assets on the relationship between accounting conservatism and treasury stocks, multiple regression models are estimated.

To test H₂, which assesses the moderating effect of firm size on the

$$Treasury\ Stock_{(it)} = \beta_0 + \beta_1 Conservatism_{(it-1)} + \beta_2 ROA_{(it-1)} + \beta_3 Conservatism_{(it-1)} * ROA_{(it-1)} + \epsilon_{(it)} \quad Model\ (4)$$

$$Treasury\ Stock_{(it)} = \beta_0 + \beta_1 Conservatism_{(it-1)} + \beta_2 FS_{(it-1)} + \beta_3 Conservatism_{(it-1)} * FS_{(it-1)} + \epsilon_{(it)} \quad Model\ (2)$$

relationship between accounting conservatism and treasury stocks, the following multiple regression model is estimated:

Where, $FS_{(it-1)}$ is the size of firm (i) in financial year (t-1). All other variables are as previously defined.

To test H₃, which examines the moderating effect of leverage on the relationship between accounting conservatism and treasury stocks, the following multiple regression model is estimated:

$$Treasury\ Stock_{(it)} = \beta_0 + \beta_1 Conservatism_{(it-1)} + \beta_2 LEV_{(it-1)} + \beta_3 Conservatism_{(it-1)} * LEV_{(it-1)} + \epsilon_{(it)} \quad Model\ (3)$$

Where, $LEV_{(it-1)}$ is the leverage ratio of firm (i) in financial year (t-1). All other variables are as previously defined.

To test H₄, which considers the moderating effect of return on assets (ROA) on the relationship between accounting conservatism and treasury stocks, the following multiple regression model is estimated:

Where, $ROA_{(it-1)}$ is the return on assets of firm (i) in financial year (t-1). All other variables are as previously defined.

SAMPLE SELECTION

The initial sample consisted of all non-financial firms listed on the Saudi Stock Exchange, after excluding financial institutions (banks and

insurance companies), during the period 2018–2020 with financial statements in the local currency. An arbitrary sample was selected from these firms. The conditions to be met in the study sample items were as follows: (1) firms listed on the Saudi Stock Exchange; (2) the availability of the firms' annual financial statements during the study period; and (3) the firms had disclosed treasury stocks in their balance sheet. The required financial data were obtained from the websites of (i) the Saudi Stock Exchange, (ii) the Mubasher Saudi website, and (iii) listed firms' official websites.

Table 1 presents the sample selected after excluding those in financial services-related sectors. Consequently, data were collected for 13 firms from eight industries, constrained by the availability of data, with a total of 39 firm-year observations over the period 2018–2020.

Table 1: Sample selection

<u>Industry</u>	Sample firms	%
Materials	4	30.7
Energy	1	7.7
Capital Goods	2	15.4
Staples Retailing	1	7.7
Health Care	1	7.7
Consumer Services	1	7.7
Food & Beverages	2	15.4
Telecommunication Services	1	7.7
T o t a l	13	100

Source: Developed by the researcher.

MEASUREMENT OF THE VARIABLES

Table 2 summarizes the main variables used in the research and the method used to measure each one.

**Table 2:
Measurement of variables**

Variable	Type (predicted sign)	Measurement
Treasury Stocks	Dependent	Treasury stocks can be measured by calculating the actual treasury stocks ratio or the share repurchase ratio. This was done by dividing the number of treasury stocks (as disclosed by the firm on the balance sheet) by the total number of firm shares.
Accounting Conservatism	Independent (-)	This is a measure of the ratio of the market value of equity to the book value of equity.
Firm Size	+/-	This is the absolute value of the firm size, measured by the natural logarithm of total assets.
Firm size * Accounting Conservatism	Moderating (+/-)	The interaction between the accounting conservatism dummy variable and the difference in size.
Leverage	+/-	The absolute value of the leverage as measured by the debt-to-assets ratio.
Leverage * Accounting Conservatism	Moderating (+/-)	The interaction between the accounting conservatism dummy variable and the difference in leverage.
Return on Assets (ROA)	+/-	The absolute value of the ROA, measured as the net income divided by total assets
ROA * Accounting Conservatism	Moderating (+/-)	The interaction between the accounting conservatism dummy variable and the difference in ROA.

4. RESULTS AND DISCUSSION

This section presents and discusses the results of the descriptive statistics for the research variables used in the regression models, followed by the outcomes of testing the hypotheses.

DESCRIPTIVE STATISTICS

Table 3 presents the descriptive statistics for all the variables used in the analysis of the research model. The table shows that the mean of the variables is close to the maximum and the minimum, which indicates that there is heterogeneity in the data and no abnormal values. Table 3 indicates that the standard deviation for conservatism is higher than the mean of this corresponding value.

Table 3: Descriptive statistics

Variable	Min.	Max.	Mean	Std. deviation
Treasury Stock	0.004	0.907	0.2971	0.2507
Accounting Conservatism	0.002	19.3	4.1844	5.2656
FS	6.104	9.92	8.1971	1.2920
Accounting Conservatism * FS	0.019	118.02	28.984	31.298
LEV	0.029	0.899	0.4699	0.1810
Accounting Conservatism * LEV	0.000	17.39	2.7521	2.3817
ROA	0.0009	0.221	0.0651	0.0543
Accounting Conservatism * ROA	0.0003	0.143	0.0924	0.0397

Table 4 shows the correlations among the variables. The researcher used the Pearson correlation coefficient to determine the degree of correlation among the independent variables. If the degree of correlation is less than 0.7, this indicates a weak correlation between the independent variables and, therefore, there is no multicollinearity problem. The correlation coefficients between the independent variables in the sample are all less than 0.5; thus, there is no evidence of multicollinearity between the variables.

Table 4: Pearson correlation coefficients

Correlation	Treasury Stock	Conservatism	FS	Conservatism*FS	LEV	Conservatism*LEV	ROA	Conservatism*ROA
Treasury Stock	1.000							
Conservatism	-0.1055	1.000						
FS	0.2432	-0.3019	1.000					
Conservatism*FS	-0.1382	0.4985	-0.3031	1.000				
S								
LEV	0.3622	0.3457	-0.3749	0.3651	1.000			
Conservatism*LEV								
EV	0.4471	0.4938	-0.2544	0.4905	0.3133	1.000		
ROA	0.4623	-0.2464	0.3734	-0.2709	-0.4282	-0.1894	1.000	
Conservatism*ROA							0.026	
	-0.1670	-0.4364	0.3814	-0.3988	-0.1201	-0.4638	8	1.000

EMPIRICAL RESULTS

The following sub-sections present the empirical results of the regression models estimated to test the research hypotheses.

Results of the Accounting Conservatism and Treasury Stocks Model

Table 5 presents the results of the OLS regression that examines the effect of accounting conservatism on treasury stocks. The model is statistically significant ($p < 0.05$), and 23.5% of the changes in treasury stock can be interpreted as the variation in accounting conservatism (adjusted R^2 is 0.235). Furthermore, **H₁ is supported** as evidenced by the significant negative coefficient (-0.506), since the p-value is less than 0.05. Accordingly, it can be concluded that accounting

conservatism has a significant and negative effect on treasury stock.

These results are in line with previous work showing that there is a significant and negative relationship between accounting conservatism and treasury stock (Lobo et al., 2020).

Table 5: OLS results of the accounting conservatism and treasury stock test

Results of testing H₁		
Variable	β	p-value
Conservatism	-0.506	0.001
R²	0.256	
Adjusted R²	0.235	
F-statistic	12.700	
Sig.	0.001	
N	39	

Results of the Firm Characteristics Moderating Models

Table 6 presents the results of testing the second research hypothesis, regarding the moderating effect of firm size on the relationship between accounting conservatism and treasury stocks. The model is significant ($p < 0.05$) and the adjusted R² is increased from 23.5% to 91.8% (rounded). The coefficient of the interactive variable, accounting conservatism * firm size, is -11.177 and statistically significant ($p < 0.05$). Therefore, **the results support H₂**, indicating that the effect of accounting conservatism on treasury stocks differs with the difference in firm sizes.

Table 6: Regression results of the firm size moderating model**Results of testing H₂**

Variable	β	p-value
Conservatism	-11.355	0.0000
FS	0.872	0.0000
Conservatism * FS	-11.177	0.0000
R₂		0.924
Adjusted R²		0.918
F-statistic		142.214
Sig.		0.000000

Table 7 presents the results of testing the third research hypothesis, regarding the moderating effect of leverage ratio on the relationship between accounting conservatism and treasury stock. The model is significant ($p < 0.05$), and the adjusted R² is increased from 23.5% to 93.3% (rounded). The coefficient of the interactive variable, accounting conservatism * leverage ratio, is 1.412 and statistically significant ($p < 0.05$). Therefore, **the results support H₃**, indicating that the effect of accounting conservatism on treasury stocks differs with the difference in leverage ratio.

Table 7: Regression results of the leverage ratio moderating model**Results of testing H₃**

Variable	β	p-value
Conservatism	-0.732	0.026
LEV	-1.392	0.0000
Conservatism * LEV	1.412	0.002
R ²		0.939
Adjusted R ²		0.933
F-statistic		178.289
Sig.		0.000000

Finally, Table 8 presents the results of testing the fourth research hypothesis, regarding the moderating effect of return on assets on the relationship between accounting conservatism and treasury stocks. The model is significant ($p < 0.05$) and the adjusted R² is increased from 23.5% to 96.4% (rounded). The coefficient of the interactive variable, accounting conservatism * return on assets, is -0.156 and statistically significant ($p < 0.05$). Therefore, **the results support H₄**, indicating that the effect of accounting conservatism on treasury stocks differs with differences in return on assets.

Table 8: Regression results of the return on assets moderating model

Results of testing H₄		
Variable	β	p-value
Conservatism	-0.088	0.049
ROA	1.023	0.0000
Conservatism * ROA	0.156-	0.000
R²		0.967
Adjusted R²		0.964
F-statistic		336.642
Sig.		0.000000

Summary of the Hypothesis Testing Results

Table 9 summarizes the results of testing the hypotheses. It can be concluded from the hypothesis testing that accounting conservatism has a negative effect on treasury stocks among firms listed on the Saudi Stock Exchange. This negative impact on treasury stocks is strengthened in the presence of firm size, leverage ratio, and return on assets as moderating variables.

Table 9:
Summary of hypothesis testing

	Research hypotheses	Result
H 1	Accounting conservatism negatively affects treasury stocks among firms listed on the Saudi Stock Exchange.	Supported
H 2	Firm size moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supported
H 3	Leverage ratio moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supporte d
H 4	Return on assets moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supporte d

Source: Developed by the researcher.

5. SENSITIVITY ANALYSIS

Sensitivity analysis aims to verify the robustness of findings obtained from running basic analysis. The researcher tested the sensitivity of the findings based on the use of alternative metrics for the two main variables: accounting conservatism and treasury stocks. More specifically, the researcher seeks to answer the following question: Do the results of testing the research hypotheses vary when using different ways of measuring the two main variables of the study? To answer this question, the models used to test the research hypotheses were re-tested using Givoly and Hayn (2000) as an alternative measure of accounting conservatism, and a dummy variable that takes the value of one if the

firm discloses treasury stocks in its own balance sheet, and zero otherwise.

Table 10 summarizes the findings of testing the research hypotheses under both the basic and sensitivity analyses. It can be concluded that the results of the hypothesis testing under sensitivity analysis agree with those of the basic analysis.

Table 10: Comparison between the results of the basic and sensitivity analyses

Research hypothesis	Results under basic analysis	Results under sensitivity analysis
H1: Accounting conservatism negatively affects treasury stocks among firms listed on the Saudi Stock Exchange.	Supported	Supported
H2: Firm size moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supported	Supported
H3: Leverage ratio moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supported	Supported
H4: Return on assets moderates the relationship between accounting conservatism and treasury stocks among firms listed on the Saudi Stock Exchange.	Supported	Supported

Source: Developed by the researcher.

6. CONCLUSION

This research investigated the relationship between accounting conservatism and treasury stocks and whether this relationship differs with differences in some firm-specific characteristics (i.e., firm size, leverage ratio, and return on assets). The statistical results of the hypothesis testing documented in this research can be interpreted as evidence supporting the following inferences. Concerning the Saudi context, there is a negative and significant relationship between accounting conservatism and treasury stocks among non-financial firms listed on the Saudi Stock Exchange. This finding is robust, as when re-testing this relationship using alternative measures, the results also supported the first research hypothesis.

Regarding the moderating effect of firm characteristics on the relationship between accounting conservatism and treasury stocks, the results indicate that firm size, leverage ratio, and return on assets strengthen the relationship between accounting conservatism and treasury stocks.

It is important to realize that these results must be interpreted by considering some **limitations**. **First**, the research was conducted in the Saudi setting using only data for non-financial firms listed on the Saudi Stock Exchange. Therefore, the findings may not be generalizable to other institutional settings, such as the financial sector, those whose financial reports are presented using a foreign currency, and non-listed

firms. **Second**, only the moderating effects of firm size, leverage, and return on assets were tested. Thus, another limitation of this research is the exclusion of other firm characteristics that may affect treasury stocks, such as firm age, sales growth rate, and the market-to-book ratio. **Finally**, inferences regarding the findings of the current research should be made in the light of the research objectives, the period covered, and the sample used, as well as the specific conditions for the selection of the firms.

Finally, it is recommended to conduct **future research** in this area to provide a more in-depth understanding of how to improve treasury stocks among firm listed on the Saudi Stock Exchange. **For example**, by examining the impact of ownership structure on treasury stocks and conducting an applied study on firms listed on the Saudi Stock Exchange. It is also recommended to investigate the potential impact of corporate governance on treasury stocks in an applied study of firms listed on the Saudi Stock Exchange. Furthermore, it would be beneficial to study the implications of XBRL in terms of its effect on accounting conservatism in an applied study of firms listed on the Saudi Stock Exchange.

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