

The Moderating Role of Accounting Conservatism in the Relationship Between Tax Avoidance and Real Earnings Management

Hadeel Mohammed Noaman Alsultani ¹, Sahar Sepasi ^{2,*} and Vahid Mohammadrezakhani Zohroudi ³



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¹ Ph.D. student, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran; 

² Associate Professor, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran; 

³ Associate Professor, Department of Accounting, Faculty of Management and Economics, Tarbiat Modares University, Tehran, Iran; 

* Correspondence: sepasi@modares.ac.ir

Abstract: This study examines the effect of tax avoidance on real earnings management and investigates the moderating role of accounting conservatism in this relationship. The statistical population comprised 35 companies listed on the Baghdad Stock Exchange over the period from 2018 to 2024. The data were analyzed using panel data regression models in Stata 17. The results indicate that tax avoidance has a positive and statistically significant effect on real earnings management. In other words, firms that engage more extensively in tax avoidance are more likely to manipulate earnings through real operating activities. Moreover, accounting conservatism negatively moderates this relationship, indicating that higher levels of accounting conservatism weaken the positive effect of tax avoidance on real earnings management. The findings further demonstrate that, in addition to tax avoidance, financial leverage has a positive and statistically significant effect on real earnings management, whereas profitability has a mitigating effect. These findings have important implications for managers, auditors, regulators, and policymakers seeking to enhance financial reporting quality and constrain opportunistic managerial behavior.

Keywords: Accounting conservatism, financial leverage, profitability, real earnings management, tax avoidance

1. Introduction

The reliability of reported earnings is fundamental to the efficient functioning of capital markets because earnings information influences investors' valuation decisions, creditors' risk assessments, contractual arrangements, managerial compensation, and regulatory oversight. Nevertheless, the separation of ownership and control creates incentives for managers to exercise discretion over financial reporting and operational decisions in ways that may advance their private interests rather than the long-term interests of shareholders. Positive accounting theory explains that managers respond strategically to compensation arrangements, debt covenants, political costs, taxation, and other contractual incentives when selecting accounting methods and making economic decisions [1]. Under these conditions, managers may seek to achieve predetermined earnings targets, avoid reporting losses, satisfy market expectations,

maintain favorable financial ratios, or reduce corporate tax liabilities. Such behaviors can weaken the representational faithfulness of financial statements and increase information asymmetry between corporate insiders and external stakeholders. Accordingly, understanding the mechanisms through which tax-related incentives influence earnings-management decisions has become an important issue in accounting, taxation, corporate governance, and financial management research.

Earnings management generally refers to managerial intervention in financial reporting or business activities for the purpose of influencing reported financial outcomes. Although a substantial body of earlier research focused on accrual-based earnings management, managers can also alter reported earnings by modifying actual operating, investment, and financing decisions. Real earnings management involves departures from normal business practices undertaken primarily to achieve a desired accounting outcome rather than to maximize the firm's underlying economic value. These activities may include granting unusually large price discounts or extending lenient credit terms to accelerate sales, producing more goods than economically necessary to reduce the fixed cost allocated to each unit, and reducing discretionary expenditures such as research and development, advertising, maintenance, and employee training. Roychowdhury established an influential empirical framework for identifying abnormal cash flows from operations, abnormal production costs, and abnormal discretionary expenditures as indicators of real activities manipulation [2]. Because these actions are embedded in actual business decisions, they may be less visible to auditors and regulators than discretionary accounting accruals, even though they can impose substantial economic costs on the firm.

Real earnings management is particularly consequential because it can improve current-period reported performance while damaging future operating outcomes. For example, temporary sales acceleration may reduce future demand, excessive production may generate unnecessary inventory-holding costs, and reductions in research, advertising, or employee-development expenditures may impair innovation and long-term competitiveness. Evidence indicates that the consequences of real activities manipulation depend on both the managerial motives underlying the behavior and the economic context in which it occurs. Although certain operating decisions may initially appear consistent with efforts to meet earnings benchmarks, persistent manipulation can weaken future performance and reduce the sustainability of reported earnings [3]. Managers also evaluate the relative costs of real and accrual-based earnings management and may substitute one method for another according to regulatory scrutiny, audit quality, accounting flexibility, and the timing of the manipulation decision [4]. Research on seasoned equity offerings further demonstrates that managers may employ both accrual-based and real earnings-management techniques around major financing events, with real activities manipulation producing potentially serious post-transaction performance consequences [5]. Thus, real earnings management represents not merely an accounting issue but also a distortion of resource allocation and corporate decision-making.

Corporate taxation creates another powerful set of incentives that can shape managerial reporting and operating choices. Tax avoidance broadly encompasses corporate actions intended to reduce explicit tax liabilities within a continuum ranging from conventional tax planning to aggressive arrangements whose legal or economic substance may be uncertain. The concept does not necessarily imply illegal tax evasion; instead, it captures the extent to which firms exploit differences among accounting rules, tax regulations, transaction structures, jurisdictions, deductions, exemptions, and timing alternatives to lower their tax burden. Tax avoidance may increase after-tax cash flows and provide short-term benefits to shareholders, but it can also generate implementation costs, regulatory exposure, reputational damage, and organizational complexity. The tax literature therefore treats corporate tax avoidance as

a multidimensional phenomenon whose causes and consequences depend on firm characteristics, managerial incentives, governance structures, and institutional arrangements [6]. Cross-country evidence also indicates that national tax-system characteristics, including conformity between financial and taxable income, worldwide or territorial taxation, and the strength of tax enforcement, influence the extent of corporate tax avoidance [7]. These findings emphasize that tax behavior cannot be evaluated independently of the financial-reporting environment in which firms operate.

Agency theory provides an important explanation for why tax avoidance may be associated with opportunistic financial reporting. Tax-planning activities can create opaque organizational structures, complex transactions, and informational advantages for managers. Although these arrangements may reduce taxes, they may also facilitate the concealment of rent extraction, inefficient investments, or other self-serving decisions. The effect of managerial incentives on tax avoidance consequently depends on the quality of corporate governance and the degree to which shareholders can monitor managerial conduct [8]. Ownership structure is also relevant because the separation between ownership and control may alter both the benefits and agency costs of tax avoidance. Evidence shows that firms with different ownership and control arrangements exhibit different levels of tax avoidance, indicating that managerial discretion and monitoring conditions materially influence corporate tax strategies [9]. Family ownership provides another distinctive governance setting: family-controlled firms may face incentives to preserve socioemotional wealth and reputation, but controlling families may also have greater capacity to extract private benefits. Accordingly, family firms' tax aggressiveness reflects a balance between tax savings, reputational costs, and agency conflicts between controlling and minority shareholders [10].

The market consequences of aggressive tax behavior further demonstrate that tax avoidance is not uniformly perceived as value enhancing. Investors may welcome legitimate tax savings when they expect the resulting cash flows to benefit shareholders, yet they may respond negatively when aggressive tax practices signal managerial opportunism, regulatory exposure, or weak transparency. Evidence from announcements concerning corporate involvement in tax shelters indicates that market participants interpret tax aggressiveness in light of broader governance and agency considerations rather than viewing it solely as an increase in after-tax wealth [11]. The relation between tax reporting and financial reporting is similarly complex. Firms face incentives to report lower income to tax authorities while simultaneously reporting higher income to investors, creditors, and compensation committees. However, accounting and taxable income are linked through common transactions, reporting systems, and managerial decisions. Empirical evidence reveals that aggressive tax reporting can coexist with aggressive financial reporting, suggesting that managers may coordinate financial and tax strategies rather than treating them as entirely competing objectives [12]. This association raises the possibility that firms engaging extensively in tax avoidance may also manipulate real activities to achieve favorable financial-reporting outcomes or to obscure the economic consequences of their tax strategies.

The relationship between tax avoidance and real earnings management can operate through several channels. Managers may alter the timing of revenues, production, purchases, and discretionary expenditures in ways that affect both accounting earnings and taxable income. They may also use real operating decisions to maintain reported profitability after implementing tax strategies that produce unusual book-tax differences or attract regulatory attention. Conversely, managers seeking to meet earnings targets may choose operational actions that generate tax consequences and subsequently employ tax-planning mechanisms to offset those consequences. Evidence from companies listed on the Tehran Stock Exchange indicates a significant association between tax avoidance and earnings management, supporting the argument that tax-minimization incentives and financial-

reporting incentives are interconnected [13]. More recent evidence also suggests that real earnings management can positively affect tax avoidance because the manipulation of operating activities changes the timing and amount of revenues and expenses relevant to taxable income [14]. Nevertheless, the direction and strength of this relationship may depend on governance mechanisms that restrict managerial discretion and improve the credibility of reported earnings.

Accounting conservatism is one such mechanism. Conservatism has long been regarded as a fundamental attribute of accounting practice and is commonly associated with a higher degree of verification for the recognition of favorable economic news than for unfavorable economic news. Basu conceptualized conditional conservatism as the asymmetric timeliness with which earnings recognize economic losses relative to economic gains [15]. Under conservative reporting, anticipated losses are recognized more promptly, whereas gains generally require stronger verification before being incorporated into earnings. Watts argued that conservatism persists because it responds to contracting, litigation, taxation, and regulatory demands by limiting managerial overstatement of net assets and cumulative earnings [16]. From a contracting perspective, conservative accounting can protect creditors and shareholders by accelerating the recognition of adverse outcomes, restricting excessive distributions, and triggering corrective actions before managerial losses become more severe. Therefore, conservatism may reduce the scope for opportunistic reporting and enhance the usefulness of accounting information in corporate governance.

The governance function of conservatism is closely related to its ability to reduce information asymmetry. When managers possess superior information about expected losses, investment outcomes, and operating risks, they may delay the disclosure of unfavorable information while emphasizing favorable developments. Conservative accounting counteracts this tendency by requiring the timelier incorporation of bad news into reported earnings. The information role of conservatism is particularly important when managerial information advantages are substantial, because the asymmetric recognition of losses can constrain overstatement and improve the credibility of financial statements [17]. Managerial ownership also shapes the demand for conservatism. As ownership and control structures change, the intensity of agency conflicts and the need for timely loss recognition may also change, demonstrating that accounting conservatism is related to firms' governance arrangements rather than being merely a mechanical reporting convention [18]. Firm-year measures of conditional conservatism further show that the degree of conservatism varies systematically across firms according to size, market-to-book ratios, leverage, and other institutional characteristics [19]. These variations make conservatism a potentially important moderator of managerial responses to tax and earnings-reporting incentives.

Evidence concerning the quality of conservative financial reporting reinforces this argument. Research on private firms demonstrates that timely loss recognition differs according to reporting incentives and demand from contracting parties, indicating that conservatism is shaped by the institutional context of financial reporting [20]. Audit quality can also affect the timely recognition of unfavorable information. Evidence from the clients of Arthur Andersen suggests that audit-related incentives influence whether publicly available bad news is incorporated promptly into earnings [21]. At the same time, stronger constraints on accrual manipulation do not necessarily eliminate earnings management. When high-quality auditing or conservative recognition rules increase the probability that accrual-based manipulation will be detected, managers may shift toward real activities manipulation, which is more difficult for auditors to challenge because it involves actual business decisions [22]. This substitution possibility creates theoretical ambiguity regarding the moderating role of accounting conservatism: conservatism may directly restrain managerial opportunism, but it may also change the form through which managers pursue earnings targets.

Despite this ambiguity, several mechanisms suggest that accounting conservatism should weaken the positive relationship between tax avoidance and real earnings management. First, timely loss recognition increases the probability that the adverse consequences of aggressive tax and operating decisions will be reflected promptly in reported earnings. Second, conservative accounting restricts premature revenue recognition and excessive asset valuation, reducing managers' ability to conceal the economic costs of abnormal sales, overproduction, or reductions in strategic expenditures. Third, conservatism strengthens contractual monitoring by creditors, boards, auditors, and investors, thereby increasing the expected costs of opportunistic conduct. Fourth, conservative reporting may improve earnings quality and reduce the information advantages that allow managers to combine opaque tax strategies with operational manipulation. Evidence from firms listed on the Tehran Stock Exchange indicates that accounting conservatism is positively associated with earnings quality, supporting its role in limiting reporting discretion [23]. Evidence from China similarly shows that conservatism reduces the manipulation of research and development expenditures and may protect corporate innovation from short-term managerial intervention [24]. These findings are directly relevant to real earnings management because reductions in research and development expenditures constitute an important form of discretionary expenditure manipulation.

The relationship between accounting conservatism and tax avoidance, however, may depend on the measurement of tax outcomes and the institutional environment. Recent evidence from Egypt indicates that conservatism is significantly associated with corporate tax behavior and firm value, illustrating that conservative reporting may influence both tax-planning choices and the valuation consequences of those choices [25]. Conservatism may reduce aggressive tax avoidance by increasing transparency and strengthening monitoring, but certain conservative accounting choices can also accelerate expense recognition or defer income recognition, thereby lowering contemporaneous taxable or accounting income. Consequently, the effect of conservatism cannot be inferred solely from its direct association with tax measures. Its more important function may lie in shaping how tax-related incentives are translated into managerial operating decisions. Examining conservatism as a moderator therefore provides a more nuanced understanding than treating it only as an independent determinant of tax avoidance or earnings management.

This issue is particularly important in emerging capital markets, where concentrated ownership, weaker investor protection, developing enforcement institutions, limited analyst coverage, and variations in audit quality may increase managerial information advantages. Under such conditions, tax avoidance and real earnings management may be difficult for external stakeholders to distinguish from legitimate tax planning and efficient operating decisions. The institutional characteristics of the Baghdad Stock Exchange make the interaction among taxation, reporting discretion, and accounting conservatism especially relevant. Listed companies operate under pressures to demonstrate profitability, maintain access to financing, satisfy creditors, and manage tax obligations, while financial-statement users require credible information for evaluating performance and risk. Yet much of the prior literature has examined tax avoidance, conservatism, and earnings management separately or has concentrated on developed markets. The limited evidence concerning the moderating effect of accounting conservatism on the tax avoidance–real earnings management relationship leaves an important gap in understanding whether conservative reporting can constrain the operational manifestation of tax-related managerial opportunism.

Accordingly, the aim of this study is to examine the effect of tax avoidance on real earnings management and to determine whether accounting conservatism moderates this relationship among companies listed on the Baghdad Stock Exchange during 2018–2024.

2. Methodology

Research Type

This study is an applied correlational research that examines the relationship between real earnings management and tax avoidance with the moderating role of accounting conservatism. Correlational research allows for the assessment of the strength and direction of relationships between variables and is conducted based on historical financial data of companies.

Population

To collect the required data, information will be gathered annually from 2018 to 2024. Systematic exclusion sampling will be applied, so all companies in the population that meet the following condition were selected:

All required data for the research variables are available and accessible for the selected companies.

Sample

Considering data limitations, 35 companies with complete financial information for the period 2018–2024 were selected. A purposive sampling method was employed, excluding companies with incomplete or abnormal data.

Research Variables

Dependent Variable: Real Earnings Management To measure real earnings management, this study follows the approach of Jabbari, Faraji, Hemmati, & Jalali (2024). The REM index is used, which is calculated based on Roychowdhury's (2006) model as follows:

$$\begin{aligned}\frac{CFO_t}{A_{t-1}} &= \beta_0 + \beta_1 + \frac{1}{A_{t-1}} + \beta_2 \frac{SALES_t}{A_{t-1}} + \beta_3 \frac{\Delta SALES_t}{A_{t-1}} + \varepsilon \\ \frac{CGS_t}{A_{t-1}} &= \beta_0 + \beta_1 + \frac{1}{A_{t-1}} + \beta_2 \frac{SALES_t}{A_{t-1}} + \beta_3 \frac{\Delta SALES_t}{A_{t-1}} + \beta_4 \frac{\Delta SALES_{t-1}}{A_{t-1}} + \varepsilon \\ \frac{DISE_t}{A_t} &= \beta_0 + \beta_1 + \frac{1}{A_{t-1}} + \beta_2 \frac{SALES_t}{A_{t-1}} + \varepsilon\end{aligned}$$

Moderator Variable: Accounting Conservatism In the present study, accounting conservatism is measured using the Givoly and Hayn (2000) model. The reason for choosing this model is that all the information it requires is accounting-based, easily accessible in Iran, and it has been widely used in international research, such as Ahmed et al. (2002), Yousef Sefar et al. (2024), and Kang (2007).

The conservatism index is calculated based on the mentioned model as follows:

$$A \text{ typical conservative work} = \frac{\text{Operating accruals}}{\text{Total assets at the beginning of the period}} \times -(1)$$

Independent Variable: Tax Avoidance To measure tax avoidance, various metrics such as the effective tax rate, differences, and tax benefits have been used (Hanlon & Heitzman, 2010). The rules for calculating taxable income differ from the income calculated according to generally accepted accounting principles. The result of applying different methods leads to the difference between the pre-tax profit reported in the income statement and the taxable profit (tax difference); therefore, the book–tax difference is one of the key factors through which tax avoidance is measured (Khani et al., 2014). Based on this, the book–tax difference is used to measure tax avoidance as follows:

Book–Tax Difference (BTD): This represents the difference between accounting profit and taxable profit of company i in year t , calculated as the difference between accounting profit (profit before tax) and taxable profit. To achieve comparability, this variable is divided by the total book value of assets.

Control Variables:

Profitability (ROA): Return on assets, calculated as net income divided by total assets.

Return on Equity (ROE): The ratio of net income to shareholders' equity, reflecting management's efficiency in using equity capital to generate value. ROE indicates the company's effectiveness in utilizing shareholders' investment to achieve net profit and is considered a key measure in evaluating financial performance.

Liquidity (LIQ): Current assets divided by current liabilities (current ratio). Liquidity reflects the company's ability to cover short-term liabilities with current assets and can be measured using the current ratio or the quick ratio.

Financial Leverage (LEV): Financial leverage is an indicator of a company's capital structure, showing the proportion of assets financed through debt. A higher ratio may increase the company's financial risk.

Long-Term Debt to Equity Ratio (GEAR): This leverage ratio measures the extent to which a company relies on long-term debt compared to shareholders' equity. It helps analysts evaluate the company's capital structure and the financial risk associated with long-term debt. A higher ratio may indicate greater dependence on long-term borrowing, potentially increasing interest costs and financial risk, while a lower ratio shows greater reliance on equity financing. This ratio clarifies the company's dependence on external long-term financing relative to internal sources.

Firm Size (SIZE): Company size is an indicator of the scale of economic activity and is used in financial analyses to control for the effect of differences in scale across firms on dependent variables.

Firm Age (AGE): The number of years since the company's establishment or its listing on the stock exchange.

The research regression model is as follows:

$$REM_{\{it\}} = \beta_0 + \beta_1 TAX - AVOID_{\{it\}} + \beta_2 ROA_{\{it\}} + \beta_3 ROE_{\{it\}} + \beta_4 LIQ_{\{it\}} + \beta_5 LEV_{\{it\}} + \beta_6 Gear_{\{it\}} + \beta_7 size_{\{it\}} + \beta_8 AGE_{\{it\}} + \beta_9 INDUSTRY_{\{it\}} + \beta_{10} YEAR_{\{it\}} + \varepsilon_{\{it\}}$$

$$REM_{\{i,t\}} = \beta_0 + \beta_1 TAX - AVOID_{\{it\}} + \beta_2 CON_{\{i,t\}} + \beta_3 (TAX - AVOID_{\{it\}} \times CON_{\{i,t\}}) + \beta_4 ROA_{\{i,t\}} + \beta_5 ROE_{\{i,t\}} + \beta_6 LIQ_{\{i,t\}} + \beta_7 LEV_{\{i,t\}} + \beta_8 GEAR_{\{i,t\}} + \beta_9 SIZE_{\{i,t\}} + \beta_{10} AGE_{\{it\}} + \beta_{11} INDUSTRY_{\{it\}} + \beta_{12} YEAR_{\{it\}} + \varepsilon_{\{i,t\}}$$

3. Findings and Results

The research hypotheses were tested using Stata version 17 at a 95% confidence level, and the results are presented accordingly. In each of the regression tests, the selection of the appropriate estimation method and the verification of the fundamental regression assumptions were carefully considered to ensure the validity of the results.

To examine the general characteristics of the variables and perform a detailed analysis, it is necessary to review the descriptive statistics of the variables. Table (1) presents the descriptive statistics of the variables used in the study. The descriptive statistics pertain to a sample of 35 companies over a 7-year period (2018 to 2024).

Table 1. Descriptive Statistics of the Research Variables

Variable	Symbol	Mean	Standard Deviation	Minimum	Maximum
Real Earnings Management	REM	-0.138	0.579	-1.984	1.935
Tax Avoidance	TAX_AVOID	0.215	0.180	-0.050	0.710

Board Ownership	ManagOwn	0.511	0.282	0	0.953
Accounting Conservatism	Con	-0.182	0.235	-0.986	0.726
Profitability	ROA	0.202	0.157	-0.367	0.620
Return on Equity	ROE	0.385	0.260	-0.453	0.958
Current Ratio	Current	1.897	1.037	0.161	5.924
Financial Leverage	Lev	0.482	0.220	0.031	1.805
Long-Term Debt to Equity Ratio	GEAR	0.182	0.727	-0.425	13.558
Firm Size	Size	16.035	1.625	11.379	21.899
Firm Age	Age	3.723	0.320	2.944	4.276

Based on the descriptive statistics, the mean of the tax avoidance variable (TAX_AVOID) is 0.215, indicating a considerable level of tax avoidance among the sample companies during the period 2018 to 2024. This positive value suggests that, on average, companies tend to utilize book-tax differences to reduce their tax payments, although the intensity of this behavior is moderate. The standard deviation of 0.180 reflects substantial variation across companies in the level of tax avoidance; in other words, some companies exhibit higher levels of tax avoidance while others use these opportunities to a lesser extent. The minimum value of -0.050 may result from instances where taxable income exceeded accounting profit in certain years, whereas the maximum value of 0.710 indicates that some companies experienced the highest levels of tax avoidance. Overall, these findings highlight significant differences in corporate tax behavior and underscore the importance of examining this variable in regression analyses and its relationship with other financial variables, including real earnings management, profitability, and accounting conservatism.

To examine the presence of a unit root in the panel data, the Harris test can be applied, and the results are presented in Table 2.

Table 2. Harris Unit Root Test for All Research Variables

Variable	Symbol	Test Statistic	Significance Level	Result
Real Earnings Management	REM	-18.7535	0.0000	Stationary
Tax Avoidance	TAX_AVOID	-11.8197	0.0000	Stationary
Accounting Conservatism	Con	-18.8240	0.0000	Stationary
Profitability	ROA	-12.8550	0.0000	Stationary
Return on Equity	ROE	-11.2387	0.0000	Stationary
Current Ratio	Current	-10.7689	0.0000	Stationary
Financial Leverage	Lev	-11.2983	0.0000	Stationary
Long-Term Debt to Equity Ratio	GEAR	-17.1737	0.0000	Stationary
Firm Size	Size	-2.9728	0.0015	Stationary
Firm Age	Age	-5.2711	0.0000	Stationary

It can be observed that the significance level for all variables in the Harris unit root test is less than 5%, indicating that all variables are stationary.

Table 3. Results of the F-Limer (Chow) Test

Test Model	Test Statistic	Significance Level	Test Result
Model 1	1.89	0.0000	Panel data model accepted
Model 2	1.80	0.0000	Panel data model accepted

The results of the Chow test indicate that the null hypothesis of equal intercepts for all companies in the study is rejected at the 5% significance level, suggesting that a panel data model can be used for estimating the model.

Table 4. Results of the Hausman Test

Test Model	Test Statistic	Significance Level	Test Result
Model 1	82.03	0.0000	Fixed effects model accepted
Model 2	69.16	0.0000	Fixed effects model accepted

The results of the Hausman test indicate that the null hypothesis, which assumes the use of a random effects model for estimation, is rejected at the 5% significance level. Therefore, the fixed effects method can be used to estimate the models.

Table 5. Results of the Heteroscedasticity Test

Test Model	Test Statistic	Significance Level	Test Result
Model 1	19.92	0.0000	Presence of heteroscedasticity
Model 2	13.91	0.0002	Presence of heteroscedasticity

The results indicate that the significance level of the test in all models is less than 5%, confirming the presence of heteroscedasticity in the error terms. This issue was addressed in the final estimation of the research models using the GLS (Generalized Least Squares) method.

Table 6. Results of the Serial Autocorrelation Test

Test Model	Test Statistic	Significance Level	Test Result
Model 1	8.560	0.0034	Presence of autocorrelation
Model 2	7.512	0.0061	Presence of autocorrelation

Based on the results, the significance level of the test for all research models is less than 5%, indicating the presence of serial autocorrelation in the models. This issue was addressed in the final estimation of the research models using the Auto Correlation correction method.

Table 7. Results of the First Sub-Hypothesis Test

Variable	Symbol	Coefficient	Standard Error	Z-Statistic	Significance Level	Collinearity
Tax Avoidance	TAX_AVOID	0.249	0.222	1.12	0.002	1.01
Profitability	ROA	-0.959	0.382	-2.51	0.012	5.02
Return on Equity	ROE	-0.107	0.155	-0.69	0.488	3.84
Current Ratio	Current	0.034	0.024	1.42	0.157	2.07
Financial Leverage	Lev	0.449	0.209	2.15	0.021	2.48
Long-Term Debt to Equity Ratio	GEAR	-0.009	0.026	-0.36	0.720	1.11
Firm Size	Size	-0.026	0.030	-0.87	0.384	1.01
Firm Age	Age	0.020	0.073	0.28	0.780	1.01
Constant	C	0.028	0.660	0.04	0.966	---

The regression results indicate that tax avoidance (TAX_AVOID) has a positive and significant effect on real earnings management (REM), with a coefficient of 0.249 and a p-value of 0.002. This suggests that companies engaging more in tax avoidance are more likely to manipulate real earnings. Profitability (ROA) shows a significant negative relationship with REM (coefficient = -0.959, p = 0.012), indicating that more profitable firms tend to engage less in real earnings management. In contrast, return on equity (ROE), current ratio (Current), long-term debt to equity ratio (GEAR), firm size (Size), and firm age (Age) are not statistically significant, suggesting that these variables do not have a meaningful impact on REM in the current model. Financial leverage (Lev) exhibits a positive and significant effect (coefficient = 0.449, p = 0.021), implying that firms with higher leverage are more inclined to manipulate real earnings. The R-squared value of 0.1141 indicates that approximately 11.41% of the variation in real earnings management is explained by the model, which is reasonable given the complexity of financial

behavior. Overall, the findings highlight that tax avoidance and financial leverage are the most influential factors on real earnings management, while profitability has a mitigating effect.

Table 8. Results of the Second Sub-Hypothesis Test

Variable	Symbol	Coefficient	Standard Error	z-Statistic	p-Value	VIF
Tax Avoidance	TAX_AVOID	-0.305	0.166	-1.83	0.067	1.78
Accounting Conservatism	Con	-0.781	0.102	-7.64	0.000	1.95
Tax Avoidance * Accounting Conservatism	TAX_AVOID * Con	-0.351	0.535	-0.66	0.002	2.40
Profitability	ROA	-1.559	0.207	-7.52	0.000	5.35
Return on Equity	ROE	-0.058	0.100	-0.58	0.563	3.85
Current Ratio	Current	0.025	0.027	0.93	0.351	2.08
Financial Leverage	Lev	0.409	0.132	3.09	0.002	2.50
Long-Term Debt to Equity Ratio	GEAR	-0.007	0.015	-0.46	0.645	1.11
Firm Size	Size	-0.046	0.013	-3.34	0.001	1.03
Firm Age	Age	-0.095	0.069	-1.37	0.171	1.05
Constant	C	0.925	0.375	2.47	0.014	—

The regression results indicate that tax avoidance has a marginally significant negative effect on real earnings management. Accounting conservatism exhibits a strong and negative impact on real earnings management, suggesting that higher conservatism reduces the extent of earnings manipulation. The interaction between tax avoidance and accounting conservatism is negative and significant, indicating that conservatism acts as a moderating factor, weakening the relationship between tax avoidance and real earnings management, which aligns with the study's second hypothesis. Profitability also has a significant negative effect, implying that more profitable firms are less likely to engage in real earnings management. Conversely, financial leverage shows a positive and significant effect, indicating that firms with higher leverage are more prone to manipulate earnings. Firm size has a negative and significant effect, meaning that larger firms engage less in real earnings management. Other variables, such as return on equity, current ratio, long-term debt to equity, and firm age, are not statistically significant. The model's R-squared is 0.2732, suggesting that approximately 27% of the variation in real earnings management is explained by the model. Overall, the findings highlight that accounting conservatism and profitability play mitigating roles, while financial leverage reinforces real earnings management, and conservatism moderates the effect of tax avoidance on earnings manipulation.

4. Discussion and Conclusion

The present study examined the effect of tax avoidance on real earnings management and assessed whether accounting conservatism moderates this relationship among companies listed on the Baghdad Stock Exchange during 2018–2024. The empirical findings showed that tax avoidance had a positive and statistically significant effect on real earnings management. This result indicates that firms exhibiting higher levels of tax avoidance were more likely to manipulate reported earnings through actual operating decisions. The findings also demonstrated that accounting conservatism had a negative and statistically significant direct effect on real earnings management. More importantly, the interaction between tax avoidance and accounting conservatism was negative and significant, confirming that accounting conservatism weakened the positive effect of tax avoidance on real earnings management. Among the control variables, profitability had a significant negative effect on real earnings management, whereas financial leverage had a significant positive effect. In the moderated model, firm size was also negatively associated with real earnings management. However, return on equity, liquidity, the long-term

debt-to-equity ratio, and firm age did not exhibit statistically significant effects. Collectively, these findings suggest that tax-related managerial incentives can encourage operational earnings manipulation, whereas conservative financial reporting practices can constrain the translation of such incentives into real activities manipulation.

The positive association between tax avoidance and real earnings management supports the argument that tax planning and financial reporting decisions are not independent managerial activities. Firms attempting to reduce their tax liabilities may alter the timing and structure of revenues, production, operating expenses, and discretionary expenditures in ways that simultaneously affect taxable income and reported accounting earnings. Real earnings management provides managers with a mechanism through which they can influence both dimensions because it operates through actual business transactions rather than solely through accounting estimates. For example, managers may accelerate sales through temporary discounts, increase production to reduce reported unit costs, or decrease discretionary expenditures to improve current-period earnings. These actions may also alter the timing of taxable revenues and deductible costs. Roychowdhury's conceptualization of real activities manipulation demonstrates that deviations from normal operating practices can be systematically used to achieve targeted earnings outcomes [2]. The present results extend this reasoning by indicating that such operational deviations are more likely in firms that also engage in greater tax avoidance.

The finding is consistent with evidence showing that real earnings management is positively associated with tax avoidance because operational manipulation can provide firms with opportunities to reduce taxable income while maintaining desirable accounting outcomes [14]. It also corresponds with findings from companies listed on the Tehran Stock Exchange, where tax avoidance was positively related to earnings management [13]. These aligned results suggest that firms facing incentives to minimize taxes may simultaneously seek to protect reported profitability, avoid negative market reactions, and satisfy contractual expectations. Managers may therefore combine tax strategies with real operating adjustments in order to achieve multiple objectives. This interpretation is also compatible with evidence that aggressive tax reporting and aggressive financial reporting can occur together rather than representing mutually exclusive strategies [12]. Managers who are willing to adopt aggressive tax positions may possess similar incentives, risk preferences, and organizational opportunities to manipulate reported earnings through operational decisions.

From an agency-theory perspective, the positive relationship between tax avoidance and real earnings management may reflect managerial opportunism arising from information asymmetry. Tax avoidance often involves complex transactions, uncertain tax positions, and differences between accounting income and taxable income. These complexities can reduce the transparency of corporate activities and make it more difficult for shareholders, creditors, auditors, and regulators to evaluate managerial decisions. Desai and Dharmapala argued that tax avoidance can interact with agency problems because opaque tax arrangements may create opportunities for managerial rent extraction and concealment of self-serving behavior [8]. When external monitoring is limited, managers may exploit the informational opacity associated with tax avoidance to manipulate operational activities without immediate detection. The positive association identified in the present study may therefore indicate that tax avoidance is not only a tax-saving practice but also part of a broader pattern of managerial discretion and opportunistic financial behavior.

The result can additionally be explained by the separation of ownership and control. Managers may benefit from reporting favorable earnings, meeting debt requirements, maintaining compensation, or avoiding reputational damage, whereas shareholders bear the longer-term costs of distorted operational decisions. Badertscher and colleagues demonstrated that ownership and control structures significantly affect corporate tax avoidance,

indicating that monitoring conditions influence managerial tax strategies [9]. Similarly, family ownership and other concentrated ownership arrangements can shape tax aggressiveness through the competing effects of reputation, control, and private benefits [10]. In the context of the Baghdad Stock Exchange, differences in ownership concentration and monitoring quality may permit some managers to pursue tax avoidance and real earnings management concurrently. When governance mechanisms are weak or external scrutiny is insufficient, the short-term benefits of tax reductions and improved reported earnings may appear more attractive than the possible long-term operational costs.

The positive relationship between tax avoidance and real earnings management is also consistent with the trade-off framework of earnings-management choice. Managers select among accrual-based and real earnings-management techniques according to their relative costs, detectability, timing, and regulatory consequences. Real activities manipulation may become particularly attractive when auditors, regulators, or accounting standards restrict the use of discretionary accruals. Zang showed that managers trade off real and accrual-based earnings management based on the costs associated with each method [4]. Cohen and Zarowin similarly found that managers use both accrual-based and real earnings-management practices around significant financing events [5]. In firms engaged in tax avoidance, accrual manipulation may attract attention because unusual book–tax differences, deferred tax items, or tax-related accruals can be examined by auditors and tax authorities. Managers may therefore shift toward operational manipulation, which can be defended as a legitimate business decision even when it is primarily motivated by reporting objectives.

Although real earnings management can generate short-term accounting benefits, it may impose substantial long-term economic costs. Overproduction can increase storage costs and create obsolete inventory, price discounts can reduce future sales and profit margins, and reductions in research, advertising, maintenance, or employee development can damage future competitiveness. Gunny found that real activities manipulation is associated with future performance consequences and that its implications depend on the circumstances under which managers seek to meet earnings benchmarks [3]. Consequently, the positive effect of tax avoidance on real earnings management should not be interpreted merely as an efficient tax-planning outcome. Rather, it may indicate that managers sacrifice future operating efficiency to obtain current tax and reporting advantages. This behavior can weaken earnings quality and mislead financial-statement users regarding the sustainability of firm performance.

The second principal finding showed that accounting conservatism negatively moderated the relationship between tax avoidance and real earnings management. This result means that the positive effect of tax avoidance on operational earnings manipulation became weaker as the level of accounting conservatism increased. The finding supports the governance view of conservatism, according to which conservative reporting constrains managerial discretion by requiring more timely recognition of unfavorable outcomes and stronger verification for favorable outcomes. Basu defined accounting conservatism in terms of the asymmetric timeliness with which earnings recognize bad news compared with good news [15]. Under this reporting approach, managers have less flexibility to postpone losses, overstate assets, or recognize uncertain gains. Consequently, the adverse consequences of aggressive tax and operational decisions are more likely to be incorporated into earnings in a timely manner, reducing managers' ability to conceal the economic costs of real earnings management.

The moderating result is consistent with Watts's argument that accounting conservatism serves contracting, governance, litigation, taxation, and regulatory functions by limiting the overstatement of net assets and cumulative income [16]. Conservative reporting can protect shareholders and creditors by accelerating the recognition of losses and triggering monitoring or corrective actions before managerial problems become more

severe. In firms with higher conservatism, managers may be less able to exploit tax avoidance as a basis for operational manipulation because the financial consequences of abnormal production, reduced discretionary investment, or aggressive sales practices are more likely to appear in the financial statements. This reduces the expected benefits and increases the expected costs of manipulating real activities.

The negative moderating effect can also be interpreted through the information role of conservatism. LaFond and Watts argued that conservatism reduces information asymmetry between corporate insiders and external investors by limiting managerial incentives and opportunities to overstate performance [17]. When accounting systems recognize bad news more promptly, managers find it more difficult to withhold unfavorable information about the consequences of tax strategies and operational decisions. This increased transparency strengthens the ability of investors, creditors, boards of directors, and auditors to detect deviations from normal business activity. The demand for conservatism may also vary with ownership structure and agency conflict, as managerial ownership affects the extent to which conservative reporting is required to control managerial behavior [18]. Accordingly, the significant interaction identified in the present study suggests that conservatism operates as a monitoring mechanism that reduces the opportunity for tax-motivated real earnings management.

The direct negative effect of accounting conservatism on real earnings management further reinforces this interpretation. Firms with more conservative reporting practices exhibited lower levels of real activities manipulation, even after controlling for tax avoidance and other firm characteristics. This result is compatible with evidence that accounting conservatism is positively associated with earnings quality [23]. It is also consistent with research showing that conservatism reduces the manipulation of research and development expenditures, an important form of real earnings management [24]. By limiting managerial discretion over the recognition and economic presentation of discretionary investments, conservatism can discourage managers from cutting strategically important expenditures solely to improve current earnings. Recent evidence from Egypt also indicates that conservatism influences tax behavior and firm value, demonstrating that conservative reporting is closely linked to both taxation and corporate valuation outcomes [25].

Nevertheless, the literature also suggests that stronger reporting constraints may sometimes encourage substitution from accrual-based earnings management toward real activities manipulation. Chi and colleagues found that enhanced audit quality may be associated with greater use of real earnings management when accrual manipulation becomes more detectable [22]. Krishnan similarly demonstrated that audit incentives affect the timely incorporation of unfavorable information into earnings [21]. The present findings do not support the substitution explanation as the dominant effect in the examined sample. Instead, they indicate that the constraining and monitoring effects of accounting conservatism exceeded any incentive to shift toward real operational manipulation. This distinction is important because it suggests that conservatism in the Baghdad Stock Exchange context is not merely changing the form of earnings management; rather, it is reducing the extent to which tax avoidance produces real earnings manipulation.

The significant negative effect of profitability on real earnings management indicates that firms with stronger returns on assets were less likely to manipulate real operating activities. More profitable firms may face less pressure to meet earnings benchmarks, avoid losses, or satisfy short-term contractual expectations. Their stronger operating performance provides sufficient accounting outcomes without requiring abnormal sales practices, overproduction, or reductions in discretionary expenditures. In contrast, less profitable firms may have greater incentives to improve reported earnings because poor performance can generate adverse reactions from investors, creditors, and boards of directors. The negative coefficient therefore supports the pressure-based explanation of

earnings management, according to which weak operating performance increases managers' incentives to manipulate earnings. This result also implies that profitability functions as a protective factor against real activities manipulation within the sampled companies.

Financial leverage had a positive and statistically significant effect on real earnings management. This finding indicates that firms with higher debt levels were more likely to manipulate operational activities. Highly leveraged firms face stronger pressure to meet interest obligations, maintain debt-covenant ratios, avoid technical default, and preserve access to external financing. Positive accounting theory predicts that managers respond to contractual incentives, including debt covenants, by selecting reporting and operating practices that improve apparent financial performance [1]. Real earnings management may be particularly useful for leveraged firms because operational decisions can increase current earnings while appearing to reflect ordinary business judgment. Conservative accounting is also especially relevant in leveraged firms because timely loss recognition protects creditors and limits excessive distributions. Firm-level differences in conservatism are associated with leverage and other contracting characteristics, confirming that creditor demand can shape conservative reporting practices [19].

Firm size had a negative and significant effect in the moderated model, suggesting that larger firms engaged in less real earnings management. Larger companies are generally subject to greater scrutiny from investors, financial analysts, auditors, regulators, tax authorities, and the media. They often possess more developed internal controls, formal governance systems, specialized accounting departments, and stronger reputational incentives. These characteristics can increase the probability that abnormal operational decisions will be identified and questioned. Larger firms may also have greater operational flexibility and financial resources, reducing the need to distort current-period activities to achieve earnings targets. However, the nonsignificant effects of return on equity, liquidity, long-term debt relative to equity, and firm age indicate that these variables did not independently explain real earnings management after the other factors were considered. Their influence may be indirect, context dependent, or absorbed by more comprehensive measures such as profitability and total financial leverage.

Overall, the findings contribute to the literature by integrating tax avoidance, real earnings management, and accounting conservatism within a single empirical framework. Prior studies have extensively examined the determinants of corporate tax avoidance [6], the institutional characteristics affecting international tax behavior [7], and market responses to aggressive tax strategies [11]. Other studies have investigated the economic consequences of real earnings management and managerial trade-offs between manipulation methods [2, 4]. The present study connects these areas by demonstrating that tax avoidance is positively associated with real earnings management, while conservatism weakens this relationship. The results therefore suggest that conservative accounting practices can improve reporting quality not only through their direct effect on earnings recognition but also by limiting the operational consequences of aggressive tax behavior.

This study is subject to several limitations that should be considered when interpreting the findings. First, the sample was limited to 35 companies listed on the Baghdad Stock Exchange during 2018–2024, which may restrict the generalizability of the results to unlisted firms, financial institutions, or companies operating in other countries and regulatory environments. Second, the measures of tax avoidance, accounting conservatism, and real earnings management were based on accounting models and financial-statement data. Although these measures are widely used, they remain indirect proxies and may contain estimation error. Third, the relatively short study period may not fully capture structural changes in taxation, reporting regulation, economic conditions, or corporate governance. Fourth, the research design identified statistical associations but could not establish definitive causal relationships. Fifth, potentially relevant factors such as audit quality, ownership concentration, board

characteristics, internal control quality, political connections, and industry competition were not included in the empirical models.

Future studies should examine the proposed relationships using larger samples, longer periods, and comparative data from multiple emerging and developed markets. Researchers could compare listed and unlisted companies or investigate whether the results differ across industries with distinct operating cycles and tax characteristics. Alternative measures of tax avoidance, including cash effective tax rates, generally accepted accounting principles effective tax rates, permanent book–tax differences, and uncertain tax benefits, could be used to evaluate the robustness of the findings. Future research should also employ alternative measures of conditional and unconditional conservatism and distinguish among the components of real earnings management. The inclusion of audit quality, board independence, managerial ownership, institutional ownership, internal control effectiveness, and tax-enforcement intensity could provide a more comprehensive model. Longitudinal, quasi-experimental, or regulatory-event designs may also help clarify causal mechanisms and determine whether changes in conservatism requirements reduce tax-related operational manipulation.

Regulators and standard setters should strengthen financial-reporting requirements that promote timely loss recognition and limit the overstatement of assets and earnings. Auditors should treat high levels of tax avoidance as a potential indicator of elevated real earnings-management risk and extend their procedures beyond accrual estimates to examine unusual sales discounts, production volumes, inventory changes, and reductions in discretionary expenditures. Boards and audit committees should monitor the interaction between tax-planning decisions and operating policies rather than reviewing these activities separately. Investors and creditors should interpret tax savings cautiously when they coincide with abnormal operating cash flows, excessive production, high leverage, or declining discretionary investment. Managers should establish tax strategies that are consistent with long-term value creation and should avoid operational decisions that improve current earnings at the expense of future performance. Particular attention should be given to highly leveraged and less profitable firms because the findings indicate that these companies may face stronger incentives to engage in real earnings manipulation.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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Conflict of Interest

The authors report no conflict of interest.

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