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The Impact of Incentive and Non-Incentive Tax Policies on Earnings Management

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Abstract: *This study examines the influence of tax incentives and non-incentive factors on earnings management practices. Independent variables include tax incentives (tax planning, deferred taxes, current taxes, and total percentage of shares distributed) and non-tax incentives (leverage, capital intensity ratio, managerial ownership, and profitability), while earnings management serves as the dependent variable. The research focuses on Tehran Stock Exchange-listed companies from 2011 to 2020, with a purposive sample of 48 companies. Utilizing descriptive statistics and the Generalized Method of Moments (GMM) for analysis, the findings reveal no significant effect of tax planning, leverage, capital intensity ratio, deferred taxes, or managerial ownership on earnings management. Conversely, current taxes, the percentage of shares distributed, and profitability exhibit a positive and significant impact on earnings management.*

Keywords: *Tax Incentives, Non-Tax Incentives, Earnings Management, Tehran Stock Exchange, Corporate Governance.*

I. Introduction

Financial statements are indispensable tools for evaluating a company’s overall performance, serving as the backbone of financial analysis for various stakeholders. These documents are critical in assessing both operational efficiency and managerial effectiveness, providing a wealth of information for decision-making. They are relied upon by diverse groups, including investors seeking to evaluate potential returns, regulators ensuring compliance with legal and ethical standards, creditors assessing the risk of extending loans, and employees interested in the company’s stability and growth prospects. Financial statements encompass a comprehensive record of an organization's financial status, including its assets, liabilities, revenues, expenses, profits, and cash flows. Each component contributes uniquely to

understanding the company's economic position. For instance, the balance sheet provides a snapshot of assets and liabilities at a specific point in time, the income statement details revenues and expenses over a reporting period, and the cash flow statement outlines cash inflows and outflows, ensuring a complete and balanced view of financial health.

Among the elements of financial statements, earnings hold a particularly critical role, often regarded as the cornerstone of corporate financial analysis. Earnings data encapsulate the results of a company's core operations, reflecting its ability to generate profits from its activities while managing costs and meeting obligations such as taxes. This information not only serves as a direct measure of profitability but also acts as a key performance indicator for stakeholders. Investors use earnings figures to gauge potential returns, regulators assess compliance with tax laws and accounting standards, and internal management teams rely on these metrics to evaluate operational success and set future goals. Furthermore, earnings are instrumental in shaping perceptions of corporate efficiency and reliability, influencing decisions ranging from investment to employee retention.

Despite their significance, financial statements are not immune to limitations or misuse. Although they are designed to provide transparent and accurate information, their integrity can be compromised through intentional or unintentional manipulation. One prevalent form of such manipulation is earnings management, a strategic alteration of financial reports by company managers to align outcomes with specific objectives. This practice involves either inflating or deflating earnings figures to serve managerial or organizational interests. For instance, inflating earnings might be used to present an illusion of strong financial performance, attract new investors, or secure favorable terms from creditors. Conversely, understating earnings might be employed to reduce taxable income, thus minimizing tax liabilities. While these manipulative practices may provide short-term advantages to the company, they come at a significant cost, distorting the reliability of financial reports and misleading stakeholders. The long-term consequences of earnings management include resource misallocation, erosion of stakeholder trust, and challenges in regulatory compliance, making this an area of profound concern for policymakers, auditors, and academic researchers.

Taxation policies play a pivotal role in shaping corporate financial behavior, including the likelihood and extent of earnings management. These policies create an operational framework that influences managerial decisions through incentives and deterrents. For example, incentive-based taxation mechanisms, such as tax credits, deductions, and exemptions, are designed to encourage specific behaviors, like investment in research and

development or adherence to environmental standards. However, these incentives can also inadvertently motivate companies to manipulate financial figures to maximize their tax benefits. On the other hand, non-incentive measures, such as strict disclosure requirements, frequent audits, and severe penalties for non-compliance, aim to curb such practices by fostering greater accountability and transparency. The relationship between taxation policies and earnings management is multifaceted and dynamic, shaped by numerous variables, including industry characteristics, regulatory environments, and organizational ethics. Understanding this relationship is crucial for designing effective tax frameworks that balance the need for revenue generation with the promotion of ethical financial practices.

This study focuses on unraveling the intricate relationship between taxation policies and earnings management, with a particular emphasis on firms listed on the Tehran Stock Exchange. Over the years, research in this area has yielded varied and sometimes contradictory findings, reflecting the complexity of the issue and the influence of contextual factors such as economic conditions and regulatory landscapes. By investigating the effects of both incentive and non-incentive taxation measures on earnings management, this research seeks to address existing gaps in the literature. It aims to provide a nuanced analysis that captures the interplay between corporate financial strategies and taxation mechanisms, offering insights that are both theoretically enriching and practically relevant. The findings of this study are expected to contribute significantly to the understanding of how taxation influences corporate behavior, informing policymakers, regulatory bodies, and practitioners in their efforts to enhance transparency, foster compliance, and improve the overall integrity of financial reporting systems.

II. Literature review

Earnings management has been a focal point of extensive research, particularly through the lenses of agency theory and corporate governance frameworks. Agency theory, introduced by Jensen and Meckling (1976), posits that the separation of ownership and control in corporations creates potential conflicts of interest between managers (agents) and shareholders (principals). These conflicts arise because managers, tasked with running the organization, may prioritize personal benefits or short-term performance over the long-term interests of shareholders. This misalignment of objectives often gives rise to opportunistic behaviors, with earnings manipulation being a prominent example.

Earnings management thrives in environments of information asymmetry, a condition wherein managers hold more detailed and privileged knowledge about a firm's operations, financial position, and future prospects compared to external stakeholders such as investors, creditors,

and regulators. This disparity in access to information enables managers to selectively present financial outcomes in ways that serve their interests, such as meeting earnings targets, securing performance-based bonuses, or influencing stock prices. Information asymmetry not only obscures the true financial health of the organization but also diminishes the ability of stakeholders to make informed decisions, thereby amplifying the challenges of agency problems.

The role of corporate governance mechanisms in mitigating earnings management is crucial. Strong governance frameworks, characterized by independent board oversight, transparent reporting standards, and effective audit committees, are instrumental in aligning managerial actions with shareholder interests. Such mechanisms reduce the likelihood of opportunistic earnings manipulation by enhancing accountability and ensuring rigorous scrutiny of financial reporting practices. However, the effectiveness of these measures often varies depending on the institutional and regulatory context, making it an area of ongoing academic and practical exploration.

Tax Incentives and Earnings Management

Tax incentives, implemented to encourage specific economic activities and investments, play a pivotal role in shaping corporate financial behavior. By reducing the tax burden on businesses, these incentives aim to stimulate areas such as research and development, capital investment, and environmental sustainability. However, alongside their economic benefits, tax incentives can also inadvertently influence earnings management practices. The strategic opportunities created by tax planning, particularly when paired with complex financial structures, may lead firms to manipulate reported earnings to achieve optimal tax outcomes.

Research highlights the intersection of tax incentives and earnings management, suggesting that effective tax planning can create pathways for earnings manipulation. Nguyen et al. (2019) found that firms actively engaging in tax optimization often use accounting discretion to align their financial reporting with tax-saving objectives. Such practices may involve shifting revenues and expenses across reporting periods to exploit timing differences or structuring transactions to maximize deductions and credits. These strategies, while legally permissible in many cases, can obscure the true financial performance of a company.

Deferred taxes, arising from timing differences in the recognition of taxable income and accounting income, further illustrate the connection between tax incentives and earnings

management. Jones et al. (2017) argue that deferred tax accounts can serve as a tool for earnings manipulation, allowing firms to smooth earnings or adjust reported profits in line with desired outcomes. For instance, firms might delay the recognition of revenues or accelerate the recognition of expenses to minimize taxable income in a given period while presenting a favorable financial image to stakeholders.

The dual implications of tax incentives—as catalysts for economic growth and potential enablers of earnings manipulation—underscore the need for robust regulatory oversight and effective governance mechanisms. Policymakers and regulators must balance the design of tax incentives to ensure they fulfill their intended objectives while minimizing opportunities for opportunistic financial reporting. This delicate equilibrium remains a critical area of focus for researchers and practitioners seeking to enhance the integrity of corporate financial practices.

Non-Tax Incentives and Earnings Management

Non-tax incentives, which include factors such as leverage, managerial ownership, and profitability, significantly influence the financial decision-making processes within firms and can impact the likelihood of earnings management. These incentives can drive managers to engage in earnings manipulation to meet specific financial targets, reduce risk, or align performance with expectations set by stakeholders.

Leverage and Earnings Management

Leverage refers to a firm's reliance on debt financing, which can heighten the pressure on managers to meet certain financial metrics, such as debt covenants or maintain favorable credit ratings. DeFond and Jiambalvo (1994) suggest that firms with higher leverage may be more prone to earnings management as managers attempt to ensure that the company meets the financial requirements imposed by creditors. For instance, if a company is nearing a debt covenant violation or struggling to meet interest payment requirements, managers may manipulate earnings to avoid breaching these covenants. Earnings manipulation in this context might involve increasing reported profits or postponing expenses to create an appearance of financial stability, thus helping the firm to retain its borrowing capacity or maintain a favorable credit rating.

Managerial Ownership and Earnings Management

Managerial ownership refers to the extent to which managers hold equity stakes in the firm they run. Morck et al. (1988) argue that higher managerial ownership can align the interests of managers with those of shareholders, reducing the incentive for managers to engage in opportunistic behavior like earnings manipulation. When managers have a significant stake in the firm, they are more likely to focus on the long-term health and profitability of the company rather than short-term gains. However, if managerial ownership is too low, the alignment between managers and shareholders may weaken, increasing the potential for earnings manipulation as managers seek to achieve personal compensation or market performance targets that are not aligned with the best interests of shareholders.

Profitability and Earnings Management

Profitability, particularly high levels of profitability, can also drive earnings management. Roychowdhury (2006) posits that managers of highly profitable firms might manipulate earnings to sustain an appearance of consistent or growing profitability, especially when external stakeholders—such as investors or analysts—have high expectations. In such cases, the pressure to meet performance benchmarks can lead managers to engage in practices like revenue acceleration or expense deferral to smooth earnings over time. This behavior aims to maintain a steady trajectory of growth, which may enhance stock prices, ensure continued investor confidence, or meet internal performance targets.

In summary, while non-tax incentives like leverage, managerial ownership, and profitability can provide important benefits for corporate growth and stability, they also create pressures that may lead to earnings manipulation. These incentives, while sometimes fostering positive business outcomes, can also incentivize managers to engage in opportunistic financial reporting practices that undermine the transparency and reliability of financial statements. Understanding the complex relationship between non-tax incentives and earnings management is critical for both academics and regulators who seek to ensure that financial statements reflect the true financial health of companies.

III. Methodology

This study adopts a quantitative research approach to explore the relationship between various factors and earnings management in firms listed on the Tehran Stock Exchange (TSE) over the period from 2011 to 2020. The sample consists of 48 firms, which were selected through purposive sampling, ensuring that only those firms with relevant data and sufficient

information for the analysis were included. This method allows the research to focus on companies that are representative of the population under study while ensuring the availability and consistency of data.

Earnings management serves as the dependent variable in this study. To measure earnings management, the research utilizes the **modified Jones model** (Dechow et al., 1995), a widely recognized approach for detecting discretionary accruals. Discretionary accruals are accounting adjustments made by management that do not directly result from the company's operating performance but are instead driven by managerial discretion. By applying this model, the study identifies the extent to which firms engage in earnings management practices, reflecting their efforts to manipulate financial outcomes for various purposes such as meeting earnings targets or influencing stock prices. The independent variables included in the study are:

1. **Tax Planning**: Refers to strategies used by firms to minimize their tax liabilities within the framework of legal regulations. Effective tax planning can create opportunities for earnings management, particularly in firms that seek to optimize their tax position.
2. **Deferred Taxes**: These arise from timing differences in recognizing income and expenses for tax purposes. Deferred taxes may offer opportunities for earnings manipulation as firms adjust the timing of income or expenses to manage taxable income.
3. **Current Taxes**: The actual taxes that firms owe based on their current financial performance. Current taxes can influence earnings management, as firms may manipulate earnings to either reduce or increase their tax obligations.
4. **Leverage**: The extent to which a firm relies on debt financing. High leverage can lead to pressures on managers to meet debt covenants or maintain favorable credit ratings, which may encourage earnings manipulation.
5. **Capital Intensity Ratio**: A measure of a firm's reliance on fixed assets in relation to its overall operations. Firms with high capital intensity may be more likely to engage in earnings management to smooth fluctuations in their operational performance.
6. **Managerial Ownership**: Refers to the proportion of the company's equity owned by its managers. Higher managerial ownership can align the interests of managers with shareholders and reduce the incentive for earnings manipulation.

7. **Profitability**: The financial performance of the firm, often measured by metrics such as return on assets (ROA) or net income. High profitability may incentivize managers to manage earnings in order to sustain perceived growth or meet investor expectations.

The data collected for the study are analyzed using both descriptive statistics and the Generalized Method of Moments (GMM). Descriptive statistics are used to summarize and present the characteristics of the variables in the sample, providing an overview of the distribution of key metrics such as earnings management, tax planning, and profitability.

The Generalized Method of Moments (GMM) is employed to address potential endogeneity concerns, which arise when explanatory variables are correlated with the error term in the model. Endogeneity can bias the results and lead to inaccurate conclusions. The GMM method is particularly suitable for panel data analysis, as it allows for the inclusion of lagged variables and takes into account potential simultaneity issues, providing more robust and reliable estimates of the relationships between the variables.

This methodological approach ensures that the study can effectively analyze the complex interplay between tax-related factors, corporate governance mechanisms, and earnings management practices while accounting for potential biases and data limitations. The findings are expected to offer valuable insights into how tax planning, managerial incentives, and corporate governance influence the likelihood and extent of earnings management in firms operating in the Tehran Stock Exchange.

IV. Extended Results and Discussion

Tax planning was analyzed as a mechanism potentially facilitating earnings management. The study found that despite theoretical support for tax planning's relevance, its impact on earnings management was statistically insignificant in this context. The results suggest firms may not exploit tax planning strategies directly for earnings manipulation due to regulatory scrutiny or internal policies. Deferred taxes, often cited in earnings management literature, were expected to influence managerial decisions. However, findings revealed that deferred taxes do not significantly contribute to discretionary accruals. This suggests that timing differences, while significant in accounting, may not inherently encourage manipulation under Tehran's market conditions. Contrary to some prior studies, leverage showed no significant effect on earnings management. This may indicate a shift in the role of debt covenants, particularly in markets where stringent financial oversight limits managerial discretion.

Profitability emerged as a robust determinant of earnings management. High profitability offers managers greater room to manipulate earnings under the guise of normal operations. This finding highlights the need for stakeholders to critically evaluate profitable firms' financial reports. Managerial ownership aligns decision-making with shareholder interests, often reducing the likelihood of opportunistic behavior. However, this alignment appears insufficient in contexts where personal incentives outweigh collective benefits. The findings offer practical insights for policymakers and corporate governance bodies. By understanding the nuanced interplay between taxation and managerial behavior, regulators can design more effective compliance frameworks to discourage earnings manipulation. Additionally, firms should adopt robust internal controls to mitigate the risks associated with tax-related incentives.

This table 1 shows the descriptive statistics for nine financial variables across 480 observations. The results reveal the following:

Table 1: Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Skewness	Probability
PROFITMANAGEMENT	0.03	0.02	0.17	1.33	0.00
TAXPLANNING	1.39	0.60	13.66	12.90	0.00
DEFERREDTAXEXPENSE	0.03	0.03	0.03	1.01	0.00
CURRENTTAXCOST	0.02	0.02	0.02	0.92	0.00
PERCENTAGEOFTOTALTAXESPAID	0.47	0.00	0.49	0.09	0.00
FINANCIALLEVERAGE	0.56	0.57	0.23	0.25	0.00
CAPITALINTENSITYRATIO	0.22	0.17	0.17	1.12	0.00
PROPERTYMANAGEMENT	0.45	0.36	0.34	0.99	0.00
ROA	12.53	10.46	16.78	0.23	0.00

Table 2 presents the results of the Dickey-Fuller (DF), Phillips-Perron (PP), and Levin-Lin-Chu (LLC) unit root tests for nine variables over 804 observations. The aim of these tests is to determine whether each variable has a unit root, indicating a lack of a stable mean and trend in the time series.

Variable	Levin, Lin & Chu t*	Im, Pesaran & Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square
PROFITMANAGEMENT	-2.04 (0.02)	-0.93 (0.17)	114.61 (0.09)	242.12 (0.00)
TAXPLANNING	-97.52 (0.00)	-9.92 (0.00)	136.82 (0.002)	201.58 (0.00)
DEFERREDTAXEXPENSE	-115.77 (0.00)	-14.43 (0.00)	193.10 (0.00)	166.48 (0.00)
CURRENTTAXCOST	-6.41 (0.00)	-1.96 (0.02)	-1.96 (0.02)	-1.96 (0.02)
PERCENTAGEOFTOTALTAXESPAID	-3.84 (0.00)	-2.63 (0.004)	-2.63 (0.004)	-2.63 (0.004)
FINANCIALLEVERAGE	-1.70 (0.04)	0.65 (0.74)	0.65 (0.74)	0.65 (0.74)
CAPITALINTENSITYRATIO	-20.22 (0.00)	-1.77 (0.03)	-1.77 (0.03)	-1.77 (0.03)
PROPERTYMANAGEMENT	-7.01 (0.00)	-3.43 (0.0003)	-3.43 (0.0003)	-3.43 (0.0003)
ROA	-3.38 (0.0004)	-3.14 (0.0008)	-3.14 (0.0008)	-3.14 (0.0008)

V. Conclusion

This study sheds light on the complex relationship between taxation policies and earnings management, emphasizing the significant role that taxation mechanisms play in influencing corporate behavior. By examining the interaction between taxes planning, deferred taxes, current taxes, and other financial and governance factors, the study contributes to a deeper understanding of how these elements can either encourage or discourage earnings management practices. The findings emphasize the critical importance of designing balanced

and effective taxation policies that not only minimize incentives for earnings manipulation but also encourage transparency and ethical financial practices among corporations.

The research highlights that tax policies—especially those that provide incentives such as tax credits or deductions—can motivate companies to engage in earnings management to optimize their tax positions. At the same time, the study identifies that non-tax factors like leverage, profitability, and managerial ownership also significantly influence corporate decisions regarding earnings management. By providing a clearer picture of how these various factors interact, the study helps to underscore the necessity of fostering an environment where both tax policies and corporate governance mechanisms work in tandem to promote responsible financial reporting.

For policymakers, the findings suggest that it is crucial to develop tax incentives and regulations that strike a delicate balance. On one hand, tax incentives are essential for encouraging corporate growth and investment. On the other hand, excessive tax-based incentives might lead to the manipulation of earnings, distorting financial reports and undermining the overall integrity of the financial system. Therefore, it is important for tax policies to be designed in a way that limits opportunities for earnings manipulation while still providing the necessary support for business expansion.

Moreover, transparency in financial reporting should be promoted not only through tax policies but also via corporate governance practices that ensure managers' interests are aligned with those of shareholders, and the interests of stakeholders are safeguarded. This dual approach of refining both tax and governance frameworks can help mitigate the negative effects of earnings management.

The findings of this study pave the way for several avenues for future research. One possible direction could be to explore sector-specific dynamics and how different industries respond to taxation policies and earnings management. For instance, industries with higher capital intensity or significant debt reliance may face different earnings management pressures than those in more service-oriented sectors. Additionally, the role of industry-specific regulations and the effects of international tax policies on earnings management could be further investigated.

Another promising area for future study is to extend the analysis to comparative international contexts. Since tax regulations and corporate governance structures vary widely across countries, comparing how these dynamics play out in different regions could provide

more robust conclusions. This would allow for a broader understanding of global best practices in minimizing earnings management and promoting corporate transparency.

In summary, while this study provides valuable insights into the impact of taxation policies on earnings management, further research is necessary to explore additional variables, conduct sector-specific analyses, and extend the findings to global contexts. These future studies could offer even deeper insights into the broader implications for corporate behavior, financial reporting, and regulatory practices.

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