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A Proposed Accounting Framework for Developing Tax Accounting Information Using the Economic Value Added (EVA) Index: A Field Study

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Abstract: This academic research explores the feasibility of employing an accounting measurement framework based on the Economic Value Added (EVA) Index to develop and improve the tax system in Egyptian and Arab enterprises. This index is closely linked to improving the quality of accounting information for economic units that provide the tax authority with the tax base. The research's significance lies in the fact that traditional financial reporting models based on historical cost fail to reflect the enterprise's true economic reality, leading to distortions in determining the tax base and the loss of public treasury revenues.

This research aims to propose an integrated accounting framework based on the Economic Value Added (EVA) indicator as a performance measurement and evaluation tool for developing the tax system. It highlights the implications of this framework for improving tax revenues and forecasting accounting information in light of the latest International Financial Reporting Standards (IFRS) issued for the period 2023–2025. The research employs a dual methodology, combining deductive reasoning for theoretical development with inductive reasoning for analyzing the results of a field study conducted on a sample of certified public accountants and tax officials.

The research concludes that implementing EVA enhances the disclosure of accounting and economic information and improves the tax system's ability to accurately determine the true tax base, compared with traditional profit-based accounting models. The research also underscores the value of integrating EVA and fair value within a progressive tax system that leverages the updated conceptual framework issued by the International Accounting Standards Board (IASB, 2023).

Keywords: Economic Value Added (EVA) – Tax Accounting – Accounting Information – Tax Base – International Financial Reporting Standards (IFRS) – Fair Value – Financial Performance Evaluation.

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1. Introduction

The traditional financial accounting model based on historical cost suffers from several shortcomings that negatively impact the quality of financial reports and the accounting information they contain. A comprehensive literature review of international accounting literature during the period 2023–2025 revealed that the gap between accounting profit and actual economic profit has

become one of the most prominent challenges facing tax systems in emerging economies [1], [2].

In light of the developments introduced by International Financial Reporting Standards (IFRS), particularly IFRS 9 on financial instruments and IFRS 15 on revenue from contracts with customers, as well as the substantial revisions to IFRS 16 on leases, it has become clear that there is an urgent need to reconsider the mechanisms for calculating the tax base to accommodate these accounting shifts [3].

Therefore, this research seeks to bridge the existing research gap between the literature on economic value added and its applications in the field of tax accounting by proposing an integrated accounting framework based on the EVA index and addressing the structural shortcomings in measuring the tax base.

1.1. Research Problem

The research problem revolves around the following main question: Does employing the Economic Value Added (EVA) index as a basis for accounting measurement contribute to developing the tax system and improving the accuracy of the tax base? This question branches into several sub-questions:

• How efficient is the traditional accounting model in determining the tax base in light of current economic transformations?

• How can the EVA index be integrated into the Egyptian tax system without violating the requirements of adopted international standards?

• What is the proposed accounting framework that ensures a gradual transition from the historical cost model to the economic value model in a tax context?

1.2. Research Hypotheses

The research is based on the following two main hypotheses:

H1: There is a statistically significant positive effect of using the EVA index on the quality of tax accounting information and the efficiency of determining the tax base.

H2: Combining the EVA index with fair value contributes to strengthening the principle of capital preservation and achieving tax fairness among different economic units.

1.3. Research Objectives

• To identify the shortcomings of the traditional accounting model and their implications for the tax base.

• To analyze the components of the EVA index and its application in the tax accounting environment.

• To compare the ability of both accounting profit and economic profit to accurately reflect the economic reality of the entity.

• To propose an integrated tax accounting framework that combines EVA and fair value in accordance with the latest IFRS standards.

• To test the proposed framework empirically through a questionnaire administered to certified public accountants and tax officials.

1.4. Theoretical Framework: Shortcomings of the Traditional Accounting Model

The traditional accounting model relies primarily on the historical cost principle for measuring and recognizing items in financial statements. This approach has generated several fundamental criticisms, which are becoming increasingly acute in light of current economic transformations and rising inflation rates in emerging markets [3], [1].

1.4.1. The Problem of Historical Cost in the Tax Context

The most prominent problems of historical cost when applied in the tax system are evident in the following points:

Errors in the timing of recognition: Items are valued according to their actual cost at the date

of the event, resulting in inconsistent values that are not amenable to sound mathematical aggregation.

Errors in accounting measurement: Items included in the financial statements do not reflect their true economic value, leading to capital erosion.

Neglecting the impact of inflation: The Arab Economic Outlook (2025) report issued by the Arab Monetary Fund [4] indicates that average inflation rates in the Arab region exceeded 8.4% during 2023–2024, a figure not taken into account by the traditional model.

Failure to recognize intellectual capital: Recent studies [2], [5] indicate that more than 60% of the market value of companies in the technology and services sectors is attributable to intangible assets that do not appear in the financial statements.

Weakness in comparability between tax systems: The lack of comparability of information poses a significant obstacle to evaluating the tax performance of multinational economic entities.

1.4.2. The Fundamental Difference Between Accounting Profit, Economic Profit, and the EVA Index

The fundamental differences between the three measures can be illustrated in Table 1.

Table 1: Comparison between accounting profit and economic value added

Criteria	Accounting Profit	Economic Value Added (EVA)
Measurement Basis	Historical Cost	Net Operating Profit After Tax
Cost of Capital	Debt Cost Only	Equivalent Cost of Equity and Debt Together
Concept of Wealth	Net Profit	Shareholders' Value Added
Impact on the Tax Base	Potential for Inflating the Base	More Accurate and Realistic Determination
Continuity Prediction	Limited	High – Early Warning Signal

Source: Prepared by the researcher based on [6], [1], [2].

1.5. The Nature of Economic Value Added (EVA) and its Recent Developments

1.5.1. Historical Background and Calculation Mechanisms

The concept of Economic Value Added (EVA) was officially introduced in 1981 by Stern & Stewart as an analytical tool that represents the true economic profit of an entity after excluding the cost of invested capital, both equity and borrowed [6], [7], [8]. The mathematical equation for EVA is as follows:

$$EVA = NOPAT - (WACC \times Invested\ Capital)$$

where NOPAT represents net operating profit after tax and WACC represents the weighted average cost of capital [9], [10]. Recent studies [1] have confirmed that simplifying the accounting adjustments associated with calculating EVA increases its practical applicability without compromising its diagnostic accuracy [11].

In this context, a Mathangi study [2] conducted on 49 Indian companies listed in the NIFTY Midcap 100 index revealed that the EVA index has a much higher explanatory power than ROA, ROE and EPS indices in explaining changes in market value added (MVA), which strengthens the validity of relying on it for accounting and tax purposes. This is consistent with earlier evidence [12] on the superior ability of EVA, relative to traditional performance standards, to explain changes in stock market values.

1.5.2. EVA Levels and Stern & Stewart Amendments in Light of Modern IFRS Standards

Stern & Stewart proposed over 164 accounting adjustments to arrive at true EVA [6]. However, developments introduced by IFRS standards during the period 2023–2025 added new dimensions to

these adjustments [13], most notably:

IFRS 17 (Insurance Contracts): Reclassifies certain insurance liabilities at their present value, which affects the invested capital used in the WACC calculation.

IASB Conceptual Framework Revision (2023): Emphasizes the inclusion of sustainability requirements and Environmental, Social, and Governance (ESG) reporting within financial reporting information, which in turn affects the components of invested capital in the EVA equation.

IFRS S1 and S2 issued by the International Sustainability Standards Board (ISSB), 2023: Require the disclosure of climate risks within financial reporting, adding a new economic dimension to the EVA equation: the cost of environmental risks [14].

2. Methods

2.1. Research Methodology

The research employed a descriptive-analytical approach to review the literature and previous studies, a deductive approach to developing the theoretical framework, and an empirical approach based on a questionnaire to test the two hypotheses. The study sample consisted of 120 individuals, including certified public accountants, corporate accountants, and officials from the Egyptian Tax Authority, selected using stratified random sampling during the period March–June 2025.

2.2. The Proposed Tax Accounting Framework

Based on a review of the shortcomings and an analysis of the EVA indicator, the researcher proposes an integrated tax accounting framework based on three main complementary pillars.

2.2.1. First Pillar: Developing the Tax Measurement Basis

It is proposed to adopt a two-tiered tax measurement system that combines:

First Tier (Basic): Maintaining the principle of historical cost adjusted for inflation using consumer price indices published by official authorities (Central Bank of Egypt, Annual Report 2024) [15], in line with Egyptian accounting standards and their latest amendments [16].

Second Tier (Analytical): Obligating establishments with capital exceeding EGP 50 million to disclose EVA calculated according to the published level (10–12 amendments) as a mandatory tax supplement.

2.2.2. Second Pillar: Integrating Fair Value as an Integrative Tool

Fair value is the optimal approach to overcome the problems of multiple measurement bases and inflation, which limit the accuracy of EVA calculation. It is proposed to use a fair value measurement methodology based on the three-tiered pyramid, as follows:

Level 1: Active market prices — considered the most reliable.

Level 2: Indirect observational inputs — for assets not traded in active markets.

Level 3: Internal estimates — in the absence of an active market, subject to independent review.

This proposal aligns with the provisions of IFRS 13 in its latest revision and the frameworks established by US TOPIC 820 for measuring fair value.

2.2.3. Third Pillar: The Expanded Tax Disclosure System

It is proposed that the tax returns of large companies include disclosure of the indicators presented in Table 2.

Table 2: Company's Extended Tax Disclosure System

Indicator	Content Standard	Reference
NOPAT	Adjusted Net Operating Profit After Tax	IAS 12 / EVA Formula
WACC	Weighted Average Cost of Capital	IFRS 9 / IAS 32
Appropriate EVA	Value Added Calculated with Establishment-Appropriate Adjustments	Stern & Stewart Model
Intellectual Capital	Intellectual Capital and Value of Intangible Assets	IAS 38 / IFRS 3
ESG Adjustments	Environmental and Social Risk Adjustments	IFRS S1 & S2 (ISSB 2023)

Source: Prepared by the researcher based on the aforementioned international references.

2.3. Field Study Methodology and Sample Characteristics

The field study relied on an electronic questionnaire consisting of 42 statements distributed across five axes. It was administered during the period March–June 2025 to a stratified random sample of 120 respondents, comprising the following groups: Certified Public Accountants registered with the Egyptian Society of Accountants and Auditors (45 respondents); Financial Managers and Accountants of Joint-Stock Companies (40 respondents); and Officers and Officials of the Egyptian Tax Authority in the Cairo, Giza, and October Directorates (35 respondents). The respondents' years of experience ranged from 5 to 25 years, with a mean of 13.4 years and a standard deviation of 4.8, thus lending high credibility to the collected data. The actual response rate was 87.5% (105 valid forms out of a total of 120 distributed).

2.4. Validity and Reliability Test

The internal consistency of the questionnaire was verified using Cronbach's Alpha, which reached 0.891 for the overall scale. This exceeds the acceptable threshold of 0.70 and confirms the instrument's reliability. Confirmatory factor analysis (CFA) revealed factor saturations ranging from 0.63 to 0.89 for all items, indicating construct validity.

3. Results

3.1. Field Study Results

The descriptive statistical analysis of the questionnaire axes is presented in Table 3.

Table 3: Descriptive statistical analysis of the questionnaire axes

Axis	*Arithmetic Mean*	*Standard Deviation*	*Percentage of Agreement*	*Statistical Significance*
Deficiencies of the traditional accounting model in determining the tax base	*4.21*	*0.62*	*84.2%*	*0.001***
Applicability of EVA in the Egyptian tax environment	*3.97*	*0.71*	*79.4%*	*0.003***
Impact of EVA on improving the quality of tax accounting information	*4.33*	*0.58*	*86.6%*	*0.000***
Effectiveness of combining EVA and fair value	*4.18*	*0.66*	*83.6%*	*0.001***
Acceptance of the proposed tax accounting framework	*4.11*	*0.69*	*82.2%*	*0.002***

*** Statistically significant at the 0.05 level; five-point Likert scale (1–5).*

The results of the field study reveal a broad consensus among respondents — with agreement rates ranging from 79% to 87% — regarding the necessity of adopting an accounting framework based on the Economic Value Added (EVA) indicator within the Egyptian tax system. 82.2% of

respondents confirmed their acceptance of the framework proposed in the research, which reinforces its applicability and field credibility.

3.2. Summary of Main Findings

The theoretical and field study demonstrated that the traditional accounting model leads to significant distortions in determining the tax base, primarily due to the omission of the cost of equity capital, the impact of inflation, and the value of intangible assets. The first hypothesis was confirmed: there is a statistically significant positive effect of using EVA on the quality of tax accounting information at a significance level of 0.01. The second hypothesis was likewise confirmed: combining EVA with fair value contributes to strengthening the principle of capital preservation and achieving tax fairness.

The 2023 IFRS S1 and S2 versions related to sustainability introduce a new dimension to calculating EVA for tax purposes by including climate change risks within the real economic cost components. Official Egyptian data [17] revealed that the loss of tax exemptions amounted to approximately EGP 440 billion in 2023, and that implementing an EVA tax framework could contribute to reducing this gap by an estimated 15–25%.

4. Discussion

The confirmation of both hypotheses supports the central argument that an accounting measurement framework grounded in Economic Value Added provides a more faithful representation of an entity's economic reality than the historical-cost model, and therefore a more accurate basis for determining the tax base. Because EVA charges the full cost of invested capital — equity as well as debt — it internalizes the capital-preservation dimension that the traditional profit measure omits, which in turn addresses one of the principal sources of distortion in the current tax base.

Benchmarking with the Indian [2] and Australian [1] experiences shows that simplifying the adjustments associated with calculating EVA increases its applicability without compromising its accuracy, which mitigates the practical concern that the original 164 Stern & Stewart adjustments are too onerous for routine tax use. International evidence on value-added tax revenue modelling [18] similarly indicates that structural reforms to the measurement base can yield material revenue effects, consistent with the estimated 15–25% reduction in the Egyptian tax-exemption gap.

The integration of IFRS S1 and S2 adds an environmental-risk dimension to the EVA equation, aligning the proposed framework with the direction of contemporary financial reporting and allowing the cost of climate risk to be reflected in the taxable base. Taken together, these results indicate that a moderately adjusted, fair-value-supported EVA measure can strengthen both the quality of tax accounting information and the fairness of the tax burden across economic units. The findings are nonetheless bounded by the study's focus on the Egyptian environment and by reliance on a perception-based questionnaire; broader applied testing across diverse jurisdictions would further validate the framework.

5. Conclusion

This research proposed an integrated tax accounting framework built on the Economic Value Added index, supported by fair value measurement and the latest International Financial Reporting Standards issued for the period 2023–2025. The theoretical analysis established that the historical-cost model distorts the tax base by omitting the cost of equity capital, the effects of inflation, and the value of intangible assets, while the field study confirmed — with agreement rates between 79% and 87% — that practitioners regard an EVA-based framework as both applicable and beneficial for the Egyptian tax environment.

Both hypotheses were confirmed: the EVA index exerts a statistically significant positive effect on the quality of tax accounting information, and its combination with fair value strengthens capital

preservation and tax fairness. By embedding NOPAT, WACC, intellectual capital, and ESG-related adjustments within an expanded tax disclosure system, the proposed framework offers a gradual and standards-consistent path from the historical-cost model toward an economic-value model capable of determining the tax base more accurately and of narrowing the revenue gap of the public treasury.

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