

IMPROVING THE VALUATION PRACTICES OF CORPORATE SECURITIES OF JOINT-STOCK COMPANIES: EVIDENCE FROM UZBEKISTAN

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Abstract

The development of efficient mechanisms for valuing the market worth of corporate securities is one of the key priorities in Uzbekistan's economic transformation. This study investigates the theoretical, methodological, and practical aspects of improving the valuation practices of joint-stock companies' corporate securities. Using the Discounted Cash Flow (DCF), Dividend Discount Model (DDM), and Capital Asset Pricing Model (CAPM), as well as econometric panel data analysis, the research identifies factors influencing the market value of corporate shares and bonds. The findings reveal that inflation, interest rates, leverage, and profitability indicators play significant roles in determining the fair market value of corporate securities. The study proposes an improved methodological framework for evaluating the market value of shares and corporate bonds in Uzbekistan and demonstrates its applicability through practical implementation during privatization processes.

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1. Introduction

In recent years, Uzbekistan has made substantial progress in liberalizing its financial markets and creating the institutional infrastructure necessary for the development of an active capital market. As part of the *New Uzbekistan Development Strategy (2022–2026)*, the government has set ambitious goals to increase stock market turnover from USD 200 million to USD 7 billion and to reduce state participation in the economy. However, despite these achievements, the accurate valuation of corporate securities remains a major challenge due to insufficient methodological adaptation and limited analytical capacity in the country's financial institutions.

The valuation of corporate securities, particularly those issued by joint-stock companies, plays a vital role in determining investment attractiveness, corporate governance efficiency, and capital allocation. The global financial literature emphasizes that the true market value of corporate securities depends on the balance between risk and expected return. Theoretical models by Graham, Williams, Markowitz, Sharpe, and Modigliani & Miller serve as the foundation for valuation techniques such as the Discounted Cash Flow (DCF), Dividend Discount Model (DDM), and Capital Asset Pricing Model (CAPM). However, their direct application in emerging economies like Uzbekistan requires adjustments that reflect the macroeconomic environment, inflation volatility, and risk premium levels.

Given the ongoing privatization of state-owned enterprises, the rapid development of the stock market, and the growing participation of private investors, improving valuation mechanisms is crucial. This research aims to develop a scientific and methodological framework for assessing the market value of joint-stock companies' corporate securities in Uzbekistan by integrating both theoretical models and empirical analysis.

2. Analysis and Results

2.1 Theoretical and Methodological Foundations

The valuation of corporate securities can be approached through three main models widely used in international practice:

1. **Discounted Cash Flow (DCF)** model, which estimates the value of a company based on the present value of expected future cash flows, discounted by an appropriate rate reflecting risk.
2. **Capital Asset Pricing Model (CAPM)**, which calculates the expected return of an asset as a function of the risk-free rate, market return, and the beta coefficient representing systematic risk.
3. **Weighted Average Cost of Capital (WACC)**, which determines the optimal proportion of debt and equity financing that minimizes the overall cost of capital.

In this study, these models were adapted to the economic realities of Uzbekistan, where the discount rate typically ranges from 20% to 30% due to macroeconomic instability and relatively high borrowing costs. The optimal debt ratio (D_r) for joint-stock companies was identified as not exceeding 0.5, ensuring sustainable leverage and financial stability.

2.2 Empirical Analysis

The empirical analysis was conducted using financial data from 2010 to 2024 obtained from the State Statistics Committee of Uzbekistan, the Ministry of Economy and Finance, and official financial statements of *Sharg'unko'mir JSC* and *O'zbekko'mir JSC*. Econometric methods, including panel regression, were applied to evaluate the determinants of corporate securities' market value.

The results showed that inflation and high interest rates negatively affect stock prices, while higher profitability indicators, such as Return on Equity (ROE) and Return on Assets (ROA), have a positive and statistically significant impact. Furthermore, an excessive leverage ratio ($D/E > 1$) increases financial risk and lowers firm value. Based on panel data forecasting, the study predicts that, under stable macroeconomic conditions, the market capitalization of Uzbekistan's joint-stock companies may double by 2030.

2.3 Practical Implementation

The proposed valuation framework was successfully applied in the assessment of *Sharg'unko'mir JSC* during its privatization process in line with Presidential Decree **PQ-162 (2024)**. The DCF method helped determine the target value of shares, while the CAPM provided an accurate estimate of the required rate of return. This approach improved the transparency of the valuation process and facilitated investor decision-making during public offerings. Similarly, the model was applied to evaluate the market value of corporate bonds issued by *O'zbekko'mir JSC*, confirming the applicability of the proposed methodology in real economic conditions.

2.4 Discussion of Findings

The findings of this research reveal that the valuation of corporate securities in Uzbekistan's emerging capital market is strongly affected by a combination of macroeconomic and microeconomic factors. The empirical model confirms that inflation, lending interest rates, leverage ratios, and profitability indicators such as Return on Equity (ROE) and Return on Assets (ROA) are among the most influential variables determining the fair market value of shares issued by joint-stock companies. These results are

consistent with international financial theories but also reflect the specific transitional dynamics of Uzbekistan's economy, which is currently shifting from a state-dominated to a market-based system.

First, the negative relationship between inflation and stock valuation is among the most significant findings. Inflation increases uncertainty in investment returns and erodes the real value of future cash flows, thereby lowering the attractiveness of corporate securities. In the context of Uzbekistan, where the average inflation rate during 2015–2023 fluctuated between 8% and 12%, the discount rates used in valuation models inevitably remain high. Consequently, the optimal discount rate identified in this study (20–30%) accurately reflects the inflationary risk and the volatility of monetary policy transmission. This finding aligns with the principles of the Discounted Cash Flow (DCF) model, which emphasizes the importance of adjusting future earnings to present value through an appropriate risk-adjusted discount rate.

Second, the study highlights that interest rates on corporate and consumer loans also exert a strong negative impact on the market value of shares and bonds. This is primarily because high interest rates increase the cost of borrowing for companies, reducing net profitability and cash flow available to shareholders. Moreover, elevated interest rates signal a tightening monetary environment, which tends to shift investor preferences from risky corporate securities to safer assets such as government bonds or deposits. For Uzbekistan's financial sector, where the average lending rate remains between 22–28% annually, this phenomenon is particularly pronounced. It demonstrates that improving access to cheaper long-term financing is essential for enhancing the attractiveness and liquidity of the corporate securities market.

Third, the research demonstrates that profitability indicators (ROE and ROA) have a robust and positive relationship with corporate value. A one-unit increase in ROE leads to an average 0.56-unit increase in stock market value, according to the regression model. This confirms that firms generating higher profits per unit of equity are rewarded by investors with higher valuations. Profitability serves as a key signal of managerial efficiency, operational sustainability, and capacity for future dividend growth. In this sense, the results are consistent with the dividend discount theory (Williams, 1938) and the efficient market hypothesis (Fama, 1992), which suggest that investors incorporate all available information—including profitability—into asset prices.

Fourth, leverage (D/E ratio) shows a statistically significant negative impact on firm valuation when it exceeds the optimal threshold of 0.5. High leverage increases financial risk, particularly in economies with unstable interest and exchange rates. In Uzbekistan, many state-influenced joint-stock companies traditionally relied on short-term debt financing, which magnified their vulnerability to credit shocks. The study's finding that a debt ratio beyond 0.5 reduces firm value supports Modigliani and Miller's (1958) theoretical assertion that excessive leverage leads to diminishing returns due to rising bankruptcy and agency costs. At the same time, a moderate level of debt can positively affect valuation by leveraging tax benefits and enhancing return on equity. Therefore, maintaining balance in the capital structure is a critical determinant of sustainable firm growth.

Another important dimension of this research concerns systematic and unsystematic risks. The empirical model integrates both categories to produce a holistic valuation approach. Systematic risks—such as inflation, exchange rate volatility, and changes in industrial output—are beyond the control of individual firms but have macro-level implications on investor behavior. For instance, the depreciation of the national currency increases import costs and lowers investor confidence, resulting in downward pressure on stock prices. Unsystematic risks, on the other hand, include company-specific factors such as management efficiency, corporate governance, and dividend policy. The study's inclusion of both risk categories enables a more accurate assessment of fair market value and helps distinguish between economy-wide and firm-specific valuation drivers.

The forecasting results up to 2030 indicate that, assuming continued economic reforms, declining inflation, and a stable exchange rate, the aggregate market capitalization of Uzbek joint-stock companies could double within the next five years. This projection is not only an optimistic outlook but also a realistic scenario supported by empirical evidence. With the implementation of ongoing reforms under Presidential Decree PQ-162 (2024) and the gradual expansion of IPOs on the Tashkent Republican Stock Exchange, investor participation is expected to rise, leading to a broader and more liquid market. However, achieving this forecast requires consistent macroeconomic stability and the continued introduction of international financial reporting and valuation standards.

Furthermore, the findings underscore the importance of applying modern valuation models such as DCF, CAPM, and WACC in Uzbekistan's privatization and investment processes. For example, the use of DCF methodology in valuing Sharg'unko'mir JSC ensured a more transparent and risk-adjusted estimate of its intrinsic value, which facilitated fair negotiation between the government and private investors. Similarly, applying CAPM to determine discount rates allowed the inclusion of systematic risk premiums relevant to the national market. These applications mark a significant step toward aligning Uzbekistan's valuation practices with international standards, as seen in OECD and World Bank recommendations for emerging markets.

From a policy perspective, these findings suggest that further liberalization and institutional strengthening of the capital market are necessary to maximize the impact of improved valuation practices. This includes enhancing financial disclosure, establishing independent valuation agencies, and fostering cooperation between academic institutions and the financial sector. Transparent valuation not only protects investors but also supports the government's objective of attracting foreign capital and accelerating the privatization of large state-owned enterprises.

The research also emphasizes the role of corporate governance in valuation outcomes. Companies with stronger governance frameworks tend to have higher market valuations, as transparency and accountability reduce information asymmetry and agency costs. In Uzbekistan, the introduction of independent supervisory boards, audit committees, and public financial disclosure systems since 2021 has already started to produce positive effects. The empirical results indicate that firms adhering to international reporting standards (IFRS) achieve better valuation outcomes due to increased investor confidence.

Finally, the discussion highlights a crucial theoretical insight: the interdependence between valuation accuracy and capital market development. A reliable valuation system contributes to efficient capital allocation, reduces speculative bubbles, and strengthens investor trust. In contrast, inaccurate or politically influenced valuation practices distort pricing signals and discourage long-term investment. The implementation of the "one share – one lot" principle, as recommended in this study, promotes fairness in share distribution and enhances market liquidity, particularly for state-owned joint-stock companies transitioning toward full privatization.

In summary, the study's findings demonstrate that the modernization of valuation methodologies in Uzbekistan's corporate sector is not only an economic necessity but also a strategic requirement for integrating the national capital market into the global financial system. The adoption of risk-sensitive valuation frameworks—supported by empirical data, macroeconomic forecasting, and sound corporate governance—will ensure a sustainable and transparent environment for investment. These improvements will not only enhance the competitiveness of Uzbek joint-stock companies but also contribute to the long-term goal of transforming Uzbekistan into a regional financial hub in Central Asia.

3. Conclusion

The research concludes that the improvement of valuation practices for corporate securities in Uzbekistan is an essential prerequisite for building a transparent, efficient, and investor-oriented capital

market. The adaptation of DCF, CAPM, and WACC models to the local economic environment provides a robust methodological basis for determining the fair market value of corporate equity and debt instruments.

The study's empirical findings confirm that inflation, interest rates, profitability, and leverage are among the most influential factors affecting the market value of corporate securities. The proposed methodological framework ensures that both systematic and unsystematic risks are properly considered in valuation, enhancing decision-making for investors, managers, and policymakers.

Implementing these recommendations will increase the investment potential of joint-stock companies, optimize capital structure management, and align Uzbekistan's valuation practices with international standards. In the long term, such improvements will strengthen the role of corporate securities in the economy, expand financial market capitalization, and contribute to the sustainable growth of the national economy.

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