

ADJUSTING SHARE VALUATION MODELS FOR ILLIQUIDITY AND COUNTRY RISK IN FRONTIER MARKETS: EVIDENCE FROM UZBEKISTAN

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Abstract

This thesis explores ways to improve the methodological foundation and digital monitoring infrastructure for adjusting share valuation models for illiquidity and country risk in frontier markets, drawing on evidence from Uzbekistan. Based on an analysis of regulatory documents, Republican Stock Exchange "Toshkent" trading statistics, and sovereign risk data, it is shown that while valuation standards exist, cost-of-equity parameters are not substantively linked to sovereign spread dynamics and free-float concentration risks. A conditional sequence, the "single security code – single risk-liquidity parameter – single data source" principle, and five readiness indicators are substantiated.

Keywords

share valuation, Capital Asset Pricing Model, country risk premium, illiquidity discount, frontier markets, free-float turnover.

FRONTIER BOZORLARDA AKSIYALARNI BAHOLASH MODELLARINI NOLIKVIDLILIK VA MAMLAKAT XATARI BO'YICHA TUZATISH: O'ZBEKISTON MISOLIDA

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Toshkent davlat iqtisodiyot universiteti mustaqil tadqiqotchisi

Annotatsiya. Mazkur tezisdan O'zbekiston misolida frontier bozorlarda aksiyalarni baholash modellarini nolikvidlilik va mamlakat xatari bo'yicha tuzatishning uslubiy

poydevori hamda raqamli monitoring infratuzilmasini takomillashtirish yo'llari tadqiq etilgan. Me'yoriy hujjatlar, «Toshkent» RFB savdo statistikasi va suveren xatar ko'rsatkichlari tahlili asosida baholash standartlari shakllangani, biroq xususiy kapital qiymati parametrlari suveren spread hamda erkin muomaladagi aksiyalar konsentratsiyasi xatarlariga mazmunan bog'lanmagani ko'rsatilgan. Shartli ketma-ketlik, «yagona qimmatli qog'oz kodi – yagona xatar-likvidlilik parametri – yagona ma'lumot manbai» tamoyili hamda beshta ko'rsatkich asoslab berilgan.

Kalit so'zlar: aksiyalarni baholash, kapital aktivlarni baholash modeli, mamlakat xatari mukofoti, nolikvidlilik diskonti, frontier bozorlar, aksiyalar aylanmasi.

КОРРЕКТИРОВКА МОДЕЛЕЙ ОЦЕНКИ АКЦИЙ С УЧЕТОМ НЕЛИКВИДНОСТИ И СТРАНОВОГО РИСКА НА ФРОНТИРНЫХ РЫНКАХ: НА ПРИМЕРЕ УЗБЕКИСТАНА

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Аннотация. В данных тезисах исследованы пути совершенствования методологической основы и инфраструктуры цифрового мониторинга при корректировке моделей оценки акций с учетом неликвидности и странового риска на фронтирных рынках на примере Узбекистана. На основе анализа нормативных актов, статистики РФБ «Тошкент» и данных суверенного риска показано, что стандарты оценки сформированы, однако параметры стоимости капитала содержательно не увязаны с суверенным спредом и концентрацией биржевого оборота. Обоснованы условная последовательность, принцип «единый код бумаги – единый параметр риска и ликвидности – единый источник данных» и пять показателей готовности.

Ключевые слова: оценка акций, модель оценки капитальных активов, страновой риск, скидка за неликвидность, фронтирные рынки, биржевой оборот.

INTRODUCTION

The Capital Asset Pricing Model (CAPM) and Discounted Cash Flow (DCF) frameworks are core valuation standards requiring appraisers to discount expected cash flows at rates reflecting market pricing efficiency [Damodaran 2012: 194], whose reliability in frontier economies depends on adjusting equity models for country risk and trading illiquidity. Asset pricing theory and valuation standards require that cost-of-equity parameters incorporate sovereign default spreads alongside empirical illiquidity discounts capturing price-impact frictions and non-trading intervals [Amihud 2002: 33; Pratt, Grabowski 2014: 382].

In Uzbekistan—a representative frontier market modernizing its capital market architecture—Presidential Resolution No. PP-291 of September 2, 2023 approved additional measures for capital market development, mandating the expansion of free-float share offerings, foreign investor access, and a regulatory sandbox under the National Agency of Perspective Projects (NAPP) [President 2023]. State Assets Management Agency (SAMA) Regulation No. 3487 approved the Unified National Valuation Standard (UNVS), establishing income, market, and cost approaches aligned with International Valuation Standards [SAMA 2023].

However, a statutory valuation mandate alone does not guarantee fair-value discovery in an illiquid frontier market. Analytical reports from the Republican Stock Exchange (RSE) "Toshkent" for 2025–2026 noted that while listed equity capitalization reached UZS 284.63 trillion (USD 23.67 billion, or 17.2 percent of GDP), sharp structural imbalances persist between total market capitalization and freely traded shares (UZS 4.04 trillion, or 1.42 percent free float) [UZSE 2026]. Under thin market conditions—where the top 10 issuers account for 89.0 percent of Main Board turnover (UZS 155.4 billion) and over-the-counter trades reach UZS 7.85 trillion [UZSE 2026]—local regression betas approach zero; Uzbekistan's Ba3 rating implies a 3.06 percent

default spread, a 4.66 percent Country Risk Premium (CRP), and an 8.89 percent USD Equity Risk Premium (15.00 percent in UZS) [Damodaran 2026], requiring explicit illiquidity and country-risk adjustments. Thus, the barrier lies in the operational foundation—governance accountability, free-float depth, and integrated market data infrastructure.

The objective of this study is to substantiate directions for improving the methodological foundation and digital monitoring infrastructure for adjusting share valuation models for illiquidity and country risk in frontier markets, and to develop readiness assessment indicators. To achieve this objective, regulatory documents, RSE "Toshkent" trading statistics, and Damodaran sovereign risk datasets were analyzed. The main findings are as follows.

First, the methodological foundation is substantiated across four elements: a valuation accountability chain (Supervisory Board Valuation Committee, Independent Appraiser, Underwriter, and NAPP Supervision); a unified cost-of-equity specification linking global sector betas, sovereign CRP lambda weights, and IFRS fair-value disclosures; alignment of Amihud illiquidity discounts with free-float thresholds; and certified appraiser capacity [President 2023; SAMA 2023; Damodaran 2026]. A "conditional sequence" is proposed: an issuer conducts a public equity offering only after these four elements are formed.

Second, for digital valuation monitoring, the principle of "single security code – single risk-liquidity parameter – single data source" is proposed: Central Securities Depository registries, RSE "Toshkent" order-book quotes, and sovereign Eurobond spreads are consolidated under a single ISIN code in a unified valuation database. Regulation requires specifying the illiquidity haircut rate, statistical source, reporting periodicity, and responsible appraisal unit for each listed security [SAMA 2023; Damodaran 2026]; daily turnover values should be extracted automatically from

exchange trading logs, while manually entered peer multiples are flagged as "unverified." This principle extends capital market digitalization reforms [President 2023] to intraday price-impact indicators.

Third, five indicators are proposed to measure share valuation adjustment readiness: currency-consistent Cost of Equity incorporating the 4.66 percent Country Risk Premium [Damodaran 2026]; the free-float share ratio adjusted for block-trade concentration (addressing the 1.42 percent gap on RSE "Toshkent" [UZSE 2026]); the top-10 issuer turnover concentration ratio (addressing the 89.0 percent trading share [UZSE 2026]); the share of active non-zero trading days over a 250-day horizon [Amihud 2002: 35]; and the Amihud price-impact Discount for Lack of Marketability (DLOM) [Pratt, Grabowski 2014: 405]. Applying a mandatory 20 percent illiquidity discount to DCF equity values for issuers with under 100 active trading days is an authorial proposal requiring practical testing. Since issuer-level bid-ask depth values are not publicly disclosed, a baseline diagnostic measurement is required.

Fourth, a mechanism for linking valuation monitoring results to privatization and underwriting decisions is proposed: a "Valuation Risk & Liquidity Dashboard" is maintained by sector in the NAPP supervisory portal, and prior-period CRP and DLOM stress-test execution is mandatorily attached to state privatization pricing and IPO/SPO approvals. Validated valuation disclosures are published within statutory timelines [SAMA 2023]; the dashboard addresses the frontier market gap regarding free-float concentration and country risk [UZSE 2026; Damodaran 2026].

CONCLUSION

In conclusion, in our view, adjusting share valuation models in frontier markets requires shifting focus from unadjusted textbook CAPM formulas to building an institutional valuation governance foundation and a unified digital market-data monitoring chain. Although national valuation norms and reform mandates exist, RSE

"Toshkent" statistics and sovereign risk reports note that a 1.42 percent free-float ratio, an 89.0 percent top-10 turnover concentration, and a 4.66 percent Country Risk Premium are not yet fully integrated into domestic equity discount parameters [UZSE 2026; Damodaran 2026]. The study achieved its objective: a conditional sequence, a digital monitoring principle, and five readiness indicators were substantiated.

The results rely on secondary regulatory, exchange-level, and sovereign risk analysis, while the proposed 20 percent illiquidity discount threshold is an authorial proposal whose testing across listed joint-stock companies on RSE "Toshkent" is a task for future research. Implementing these indicators will turn frontier share valuation into a controllable and observable governance process.

REFERENCES

Damodaran A. Investment Valuation: Tools and Techniques for Determining the Value of Any Asset. – Hoboken: John Wiley & Sons, 2012. – 992 p.

Cost of Capital: Applications and Examples: textbook / S.P. Pratt, R.J. Grabowski. – Hoboken: John Wiley & Sons, 2014. – 1280 p.

Amihud Y. Illiquidity and Stock Returns: Cross-Section and Time-Series Effects // Journal of Financial Markets. – 2002. – Vol. 5(1). – P. 31–56.

On Additional Measures for the Development of the Capital Market: Resolution of the President of the Republic of Uzbekistan No. PP-291 of September 2, 2023.

On Approving the Unified National Valuation Standard of the Republic of Uzbekistan: Order of the Director of the State Assets Management Agency Reg. No. 3487 of December 28, 2023.

Damodaran A. Country Default Spreads and Risk Premiums; Republican Stock Exchange «Toshkent» Market Data. URL: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html (accessed: 24.10.2026).