

American Journal of Economics and Business Management

Vol. 9 Issue 3 | pp. 766-772 | **ISSN:** 2576-5973
Available online @ https://www.globalresearchnetwork.us/index.php/ajebm

Article

Prospects for the Development of Securities in the Investment Portfolios of Commercial Banks

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Abstract: The article examines the composition, dynamics and development prospects of securities held in the investment portfolios of commercial banks. The investment portfolio is treated as a functional complement to the credit portfolio, performing four distinct functions — liquidity management, income diversification, collateral provision and interest-rate risk hedging. Using data on the banking sector of Uzbekistan for 2021–2025, the study analyses the structure of securities holdings, the relative weight of government and corporate instruments, portfolio concentration measured by the Herfindahl–Hirschman index, and the contribution of securities income to total bank revenue. The results indicate that bank investment portfolios remain narrowly concentrated in sovereign and central bank instruments, while corporate securities account for a modest although steadily growing share. A three-stage model of portfolio development is proposed, covering instrument diversification, maturity restructuring and the introduction of portfolio management techniques.

Keywords: investment portfolio, securities, government bonds, corporate bonds, portfolio diversification, Herfindahl–Hirschman index, liquidity management, duration, secondary market, commercial banks.

Citation: Azamovich, M. S. Prospects for the Development of Securities in the Investment Portfolios of Commercial Banks. American Journal of Economics and Business Management 2026, 9(3), 766-772.

Received: 26th Jan 2026
Revised: 20th Feb 2026
Accepted: 4th Mar 2026
Published: 30th Mar 2026

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1. Introduction

The investment portfolio occupies a distinctive position in the asset structure of a commercial bank. Unlike the credit portfolio, which generates income through direct intermediation between depositors and borrowers, the securities portfolio simultaneously performs several functions that cannot be fulfilled by lending operations. It serves as a secondary reserve of liquidity, since marketable securities can be converted into cash more rapidly and at lower cost than loans. It provides a source of income that is not correlated with the credit cycle. It supplies eligible collateral for refinancing operations with the central bank and for interbank borrowing. Finally, it offers an instrument for managing the interest-rate sensitivity of the balance sheet through the adjustment of portfolio duration.[1]

The relevance of studying the development prospects of bank securities portfolios in Uzbekistan arises from two parallel processes. On the one hand, the ongoing transformation of the banking sector, including the reduction of the state share and the transition to international prudential standards, increases the demand of banks for liquid and low-risk assets. On the other hand, the gradual development of the domestic capital market expands the range of instruments available for investment. The interaction

between these two processes determines how bank portfolios will evolve over the coming years.[2]

At the same time, the investment activity of banks in Uzbekistan remains limited in scale. Securities constitute a comparatively small proportion of total assets, and the composition of portfolios is dominated by sovereign and central bank instruments. Such a structure ensures a high degree of safety but restricts the income-generating potential of the portfolio and provides little support to the development of the corporate securities market. The question of how this structure may be broadened without compromising prudential soundness therefore acquires both theoretical and practical significance.

The theoretical foundations of portfolio formation were established in the work of Markowitz, who demonstrated that the risk of a portfolio is determined not by the sum of the risks of its constituent assets but by the covariance between their returns. Sharpe subsequently extended this framework by separating systematic from unsystematic risk and showing that only the former is compensated by the market. Applied to banking, these propositions imply that the composition of a securities portfolio should be evaluated not through the characteristics of individual instruments but through the interaction between them and with the remaining assets of the balance sheet. Subsequent research on financial institutions, in particular the work of Fabozzi and of Saunders and Cornett, developed the practical dimension of this approach, introducing duration management and immunisation techniques as instruments for aligning the portfolio with the liability structure of the bank.[3]

The purpose of the study is to assess the current state of securities held in the investment portfolios of commercial banks and to substantiate the directions of their further development. The study addresses the following tasks: to systematise the functions performed by the investment portfolio; to analyse the structure and dynamics of securities holdings in the banking sector of Uzbekistan; to measure the degree of portfolio concentration; to compare the scale of bank investment activity with international practice; and to formulate a staged model for portfolio development.

2. Materials and Methods

The methodological framework of the study combines structural, dynamic and index-based approaches. Structural analysis is applied to determine the composition of the securities portfolio by instrument type and to trace shifts in the relative weight of its components over the period under review. Dynamic analysis, based on time series for 2021–2025, is used to identify the direction and stability of observed trends and to distinguish sustained movements from short-term fluctuations.[4]

The degree of portfolio concentration is measured using the Herfindahl–Hirschman index, calculated as the sum of the squared shares of individual instrument categories in the total portfolio:

$$HHI = \Sigma\, s_i^2, \quad \text{where } s_i \text{ is the share of instrument category } i \text{ (per cent)}$$

Values exceeding 2,500 are conventionally interpreted as indicating high concentration, values between 1,500 and 2,500 as moderate concentration, and values below 1,500 as a diversified structure. Applying this index to a securities portfolio makes it possible to express the degree of diversification as a single comparable figure rather than through a verbal description of shares.

In addition, the study employs coefficient analysis to evaluate the contribution of the investment portfolio to bank performance. Three indicators are used for this purpose: the share of securities in total assets, which characterises the scale of investment activity; the yield on the securities portfolio, calculated as interest and dividend income divided by average portfolio value; and the share of securities income in total operating income, which reflects the role of investment operations in income diversification.[5]

The interest-rate sensitivity of the portfolio is characterised through average duration, computed as the weighted average of the durations of individual instrument categories, with portfolio shares serving as weights. Duration expresses the approximate percentage change in portfolio value resulting from a one-percentage-point change in the yield curve and therefore provides a single measure linking the maturity structure of the portfolio to its exposure to market risk. A portfolio with a duration of three years, for instance, would lose approximately three per cent of its value in response to a one-point upward shift in yields.

Comparative analysis is applied to position the results against international practice. For this purpose the share of securities in the assets of the banking sector of Uzbekistan is compared with the corresponding indicators of several economies differing in the depth of their capital markets. The comparison serves to establish whether the observed level of investment activity reflects a universal pattern or a feature specific to the national market.[6]

The information base of the study comprises official statistical data of the Central Bank of the Republic of Uzbekistan, published financial statements of commercial banks, and data of the Agency for the Development of the Capital Market. International comparative data are drawn from the Financial Soundness Indicators database of the International Monetary Fund. Data for 2025 are based on the latest available reporting and are preliminary in nature. All calculations of index and coefficient values were performed by the author.

3. Results and Discussion

The scale of investment activity of commercial banks is characterised in Table 1. The indicators presented reflect both the absolute growth of the portfolio and its relative position within the asset structure of the banking sector.

Table 1. Scale and profitability of the securities portfolio of commercial banks, 2021–2025[7]

Indicators	2021	2022	2023	2024	2025
Securities portfolio, trillion UZS	28.6	35.4	44.2	54.8	63.5
Share in total assets, %	5.9	6.3	6.8	7.4	7.9
Portfolio yield, %	13.8	14.6	15.2	14.9	14.4
Securities income in total income, %	6.2	7.1	8.4	9.3	10.1
Average portfolio duration, years	1.8	2.1	2.4	2.7	2.9

Over the period under review the securities portfolio of the banking sector more than doubled in nominal terms, rising from 28.6 to 63.5 trillion soums. More significant than the absolute increase, however, is the change in the relative position of the portfolio: its share in total assets rose from 5.9 to 7.9 per cent, indicating that investment operations expanded more rapidly than the balance sheet as a whole. The contribution of securities income to total operating income increased correspondingly from 6.2 to 10.1 per cent, confirming that the portfolio is gradually acquiring the function of an income diversifier rather than serving solely as a liquidity reserve.

The dynamics of portfolio yield display a non-monotonic pattern. The increase from 13.8 per cent in 2021 to 15.2 per cent in 2023 reflected the high level of interest rates on government securities during that period, whereas the subsequent decline to 14.4 per cent in 2025 coincided with the gradual easing of monetary conditions. The simultaneous lengthening of average duration from 1.8 to 2.9 years indicates that banks responded to declining yields by extending maturities in order to preserve income. This behaviour,

while rational in the short term, increases the sensitivity of portfolio value to future interest-rate movements and therefore constitutes an emerging source of market risk.[8]

The composition of the portfolio by instrument type is presented in Table 2 and illustrated in Figure 1. The classification distinguishes sovereign instruments, central bank instruments, corporate debt, equity holdings and other securities.

Table 2. Structure of the securities portfolio by instrument type and portfolio concentration, %

Instrument type	2021	2022	2023	2024	2025
Government bonds	46.2	48.5	51.3	53.8	55.4
Central Bank bonds	31.4	29.2	26.8	24.1	22.3
Corporate bonds	5.8	6.9	8.2	9.6	10.8
Equity instruments	13.1	12.2	11.1	10.3	9.5
Other securities	3.5	3.2	2.6	2.2	2.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Concentration index (HHI)	**3344**	**3482**	**3661**	**3853**	**3952**

The structural data reveal a trend that deserves particular attention. Although the aggregate share of debt instruments issued by the state and the central bank remained broadly stable — declining marginally from 77.6 to 77.7 per cent in combined terms — a substantial redistribution occurred within this group. The weight of government bonds rose from 46.2 to 55.4 per cent, while central bank instruments contracted from 31.4 to 22.3 per cent. This shift reflects the extension of the sovereign yield curve and the increasing use of government securities as the benchmark instrument of the domestic market.[9]

Corporate bonds exhibited the most rapid relative growth, nearly doubling their share from 5.8 to 10.8 per cent. In absolute terms this corresponds to an increase from approximately 1.7 to 6.9 trillion soums. Nevertheless, the resulting level remains modest: corporate debt accounts for roughly one tenth of bank investment portfolios, compared with shares typically exceeding one quarter in economies with developed capital markets. The share of equity instruments declined consistently throughout the period, from 13.1 to 9.5 per cent, which is attributable both to the prudential treatment of equity holdings, requiring higher capital charges, and to the limited liquidity of the domestic equity market.[10]

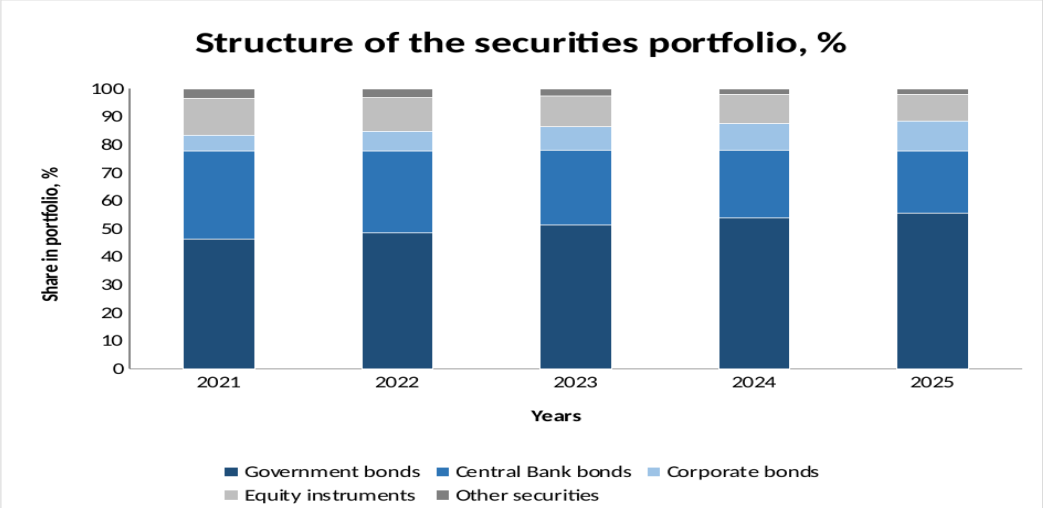


Figure 1. Structure of the securities portfolio of commercial banks of Uzbekistan, 2021–2025, %

The concentration index confirms that diversification has not improved. The Herfindahl–Hirschman index rose steadily from 3,344 in 2021 to 3,952 in 2025, remaining well above the threshold of 2,500 that conventionally denotes high concentration. This

apparent paradox — the growth of corporate instruments accompanied by rising concentration — is explained by the redistribution within the sovereign segment: the consolidation of holdings around a single dominant instrument category outweighed the diversifying effect of corporate bond growth. The finding demonstrates that an increase in the number of instruments does not by itself constitute diversification if the weight of the leading category continues to rise.[11]

Three groups of constraints on portfolio development were identified. The first group comprises market constraints: the limited number of corporate issuers possessing a recognised credit rating, the small volume of individual placements, and the low liquidity of the secondary market, which complicates the exit from positions and thereby discourages banks from accumulating corporate exposure. The second group consists of regulatory constraints: the prudential treatment of corporate securities requires higher capital charges than sovereign instruments, which reduces their risk-adjusted attractiveness. The third group encompasses institutional constraints: the absence in most banks of specialised investment analysis units and the predominance of a buy-and-hold approach rather than active portfolio management.

The significance of these constraints becomes clearer when the scale of investment activity is compared with international practice. Such a comparison makes it possible to determine whether the modest weight of securities in bank balance sheets reflects a stage of market development through which other economies have also passed, or whether it indicates a specific structural feature of the national market. Table 3 presents the share of securities in banking sector assets across economies with differing levels of capital market development, together with the weight of corporate instruments within those holdings.[12]

Table 3. Share of securities in banking sector assets: international comparison, 2024, %

Country	Securities in assets, %	Corporate securities, %	Capital market development
Uzbekistan	7.4	9.6	Emerging
Kazakhstan	14.2	17.8	Emerging
Türkiye	16.5	12.4	Transitional
Poland	21.3	19.6	Developed
Rep. of Korea	19.8	31.2	Developed
Germany	17.6	28.4	Developed

The comparison indicates that the scale of bank investment activity in Uzbekistan is approximately half the level observed in neighbouring emerging markets and between two and three times lower than in economies with developed capital markets. More revealing, however, is the second column: in the Republic of Korea and Germany corporate instruments account for roughly one third of bank portfolios, whereas in Uzbekistan the corresponding figure is below one tenth. The gap in overall scale is therefore smaller than the gap in composition, which suggests that the binding constraint lies not in the willingness of banks to hold securities but in the supply of investable corporate instruments.

This observation has a direct implication for policy. Measures aimed at encouraging banks to increase their securities holdings will produce limited results if the available supply consists predominantly of sovereign instruments, since such measures would merely reinforce the concentration already documented above. The expansion of the issuer base therefore constitutes a logically prior condition relative to any measure addressed to banks themselves.[13]

On the basis of the analysis, a three-stage model for the development of bank investment portfolios is proposed. The first stage involves instrument diversification, achieved through the expansion of corporate bond holdings, participation in the

placement of infrastructure and municipal bonds, and the introduction of instruments linked to environmental and social objectives. The second stage concerns maturity restructuring: the formation of a laddered portfolio in which maturities are distributed evenly across the horizon, thereby ensuring a regular inflow of repayments and reducing reinvestment risk, in contrast to the current concentration of maturities around comparable terms. The third stage entails the adoption of active portfolio management techniques, including duration management, scenario-based assessment of interest-rate sensitivity, and the establishment of internal limits by issuer, sector and credit rating.[14]

The sequencing of these stages is not arbitrary. Instrument diversification without a corresponding maturity structure produces a portfolio that is varied in composition yet remains vulnerable to concentrated repayment flows. Conversely, the introduction of active management techniques before the instrument base has been broadened leaves little scope for the techniques themselves to operate, since duration management requires a range of maturities among which to reallocate. Each stage therefore establishes the preconditions for the next.

Implementation of the proposed model requires parallel development of the market infrastructure. Of particular importance are the strengthening of the institution of market makers, which would improve secondary market liquidity, the expansion of coverage by national rating agencies, and the extension of the institutional investor base through the participation of pension and insurance funds. Without these preconditions, measures taken at the level of individual banks will encounter the structural limits of the market itself.[15]

4. Conclusion

The investment portfolio of commercial banks in Uzbekistan has expanded steadily in both absolute and relative terms, with its share in total assets rising from 5.9 to 7.9 per cent and its contribution to operating income from 6.2 to 10.1 per cent. The portfolio is therefore evolving from a purely defensive liquidity reserve into a genuine source of income diversification.

Notwithstanding the growth of corporate bond holdings from 5.8 to 10.8 per cent, portfolio concentration increased over the period, with the Herfindahl–Hirschman index rising from 3,344 to 3,952. The expansion of corporate instruments was outweighed by the consolidation of holdings within the sovereign segment, which demonstrates that a greater number of instruments does not automatically produce diversification.

The lengthening of average portfolio duration from 1.8 to 2.9 years, undertaken in response to declining yields, has increased the exposure of banks to interest-rate risk. This development warrants the systematic monitoring of duration and the scenario-based assessment of portfolio value sensitivity.

The development of bank investment portfolios should proceed through instrument diversification, maturity restructuring and the adoption of active management techniques, applied in that order, since each stage establishes the preconditions for the next.

International comparison indicates that the gap separating Uzbekistan from economies with developed capital markets is considerably wider in portfolio composition than in overall scale. The share of corporate instruments in bank portfolios is below one tenth, against approximately one third in the Republic of Korea and Germany. This suggests that the binding constraint lies in the supply of investable corporate instruments rather than in the investment appetite of banks, and that the expansion of the issuer base constitutes a logically prior condition relative to measures addressed to banks themselves.

REFERENCES

[1] President of the Republic of Uzbekistan, "On Measures for the Further Development of the Capital Market," Resolution No. PP-4666, Apr. 13, 2020, Tashkent, Uzbekistan: LexUZ, pp. 1–12.

[2] Republic of Uzbekistan, "On the Securities Market," Law No. ZRU-387, Jun. 3, 2015, Tashkent, Uzbekistan: LexUZ, pp. 1–24.

[3] Republic of Uzbekistan, "On Banks and Banking Activity," Law No. ZRU-580, Nov. 5, 2019, Tashkent, Uzbekistan: LexUZ, pp. 1–40.

[4] Central Bank of the Republic of Uzbekistan, *Statistical Bulletin of the Central Bank of the Republic of Uzbekistan, 2021–2025*, Tashkent, Uzbekistan: Central Bank of Uzbekistan, 2021–2025, pp. 1–180.

[5] H. Markowitz, "Portfolio selection," *The Journal of Finance*, vol. 7, no. 1, pp. 77–91, Mar. 1952, doi: 10.1111/j.1540-6261.1952.tb01525.x.

[6] W. F. Sharpe, "Capital asset prices: A theory of market equilibrium under conditions of risk," *The Journal of Finance*, vol. 19, no. 3, pp. 425–442, Sep. 1964, doi: 10.1111/j.1540-6261.1964.tb02865.x.

[7] F. J. Fabozzi and S. V. Mann, *The Handbook of Fixed Income Securities*, 8th ed. New York, NY, USA: McGraw-Hill Education, 2012, pp. 1–1840.

[8] A. Saunders and M. M. Cornett, *Financial Institutions Management: A Risk Management Approach*, 9th ed. New York, NY, USA: McGraw-Hill Education, 2018, pp. 1–832.

[9] P. S. Rose and S. C. Hudgins, *Bank Management and Financial Services*, 9th ed. New York, NY, USA: McGraw-Hill Education, 2013, pp. 1–736.

[10] J. Bessis, *Risk Management in Banking*, 4th ed. Chichester, U.K.: John Wiley & Sons, 2015, pp. 1–376.

[11] H. van Greuning and S. B. Bratanovic, *Analyzing Banking Risk: A Framework for Assessing Corporate Governance and Risk Management*, 4th ed. Washington, DC, USA: World Bank, 2020, pp. 1–442.

[12] I. A. Butikov, *Qimmatli qog'ozlar bozori*. Tashkent, Uzbekistan: Konsauditinform, 2018, pp. 1–336.

[13] F. S. Mishkin and S. G. Eakins, *Financial Markets and Institutions*, 9th ed. Boston, MA, USA: Pearson, 2018, pp. 1–720.

[14] R. A. Brealey, S. C. Myers, and F. Allen, *Principles of Corporate Finance*, 13th ed. New York, NY, USA: McGraw-Hill Education, 2020, pp. 1–896.

[15] Z. Bodie, A. Kane, and A. J. Marcus, *Investments*, 12th ed. New York, NY, USA: McGraw-Hill Education, 2021, pp. 1–1080.