Management of Cost and Earnings in

URBAN COOPERATIVE BANKS IN INDIA

- An Empirical Study -

Cooperative and NPO Development Board

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

भारतीय लागत लेखाकार संस्थान

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"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

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"The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

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असतोमा सद्गमय	From ignorance, lead me to truth
तमसोमा ज्योतिर् गमय	From darkness, lead me to light
मृत्योर्मामृतं गमय	From death, lead me to immortality
ॐ शान्ति शान्ति शान्तिः	Peace, Peace, Peace

Behind every successful business decision, there is always a CMA

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President's Message

It is a matter of great pleasure to note the release of the research study titled *"Management of Cost and Earning in Scheduled Urban Cooperative Banks in India – An Empirical Study."* The Cooperative and NPO Development Board of ICMAI, deserves commendation for undertaking this timely and insightful initiative.

The Urban Cooperative Banking sector occupies a significant place in India's financial architecture. It plays a crucial role in serving local communities, encouraging savings and extending credit to segments that often remain beyond the reach of commercial banks. However, the sector now operates in an increasingly complex environment where effective cost management, digital transformation and robust governance frameworks are essential to ensure long-term sustainability.

The Cooperative and NPO Development Board of the Institute has been proactively undertaking several initiatives aimed at strengthening professional excellence and creating value for members as well as the broader financial ecosystem. This research study represents one such important initiative of the Board. The study presents valuable empirical insights into the operational dynamics of Scheduled Urban Cooperative Banks. Through an analysis of cost structures, income patterns and efficiency parameters, it offers both diagnostic observations and practical recommendations for the sector.

Sincere appreciation is extended to the resource persons and the Cooperative and NPO Development Board of the Institute for their dedicated efforts in bringing out this insightful publication.

It is also encouraging to note the growing recognition of the role of **Cost and Management Accountants (CMAs)** in the Urban Cooperative Banking sector. In this context, it is particularly gratifying that several CMAs have been recruited by Urban Cooperative Banks through campus placements.

It is hoped that the publication will stimulate meaningful discussion, assist practitioners in their work, support future policy developments and contribute to making Urban Cooperative Banks stronger, more transparent and more professionally managed.

Jai Hind!

CMA TCA Srinivasa Prasad
President, ICMAI

Message by the Chairman, Cooperative and NPO Development Board

It gives me great pleasure to mark the release of the Research Study on the ***"Management of Cost and Earnings in Urban Cooperative Banks – An Empirical Study".***

I would like to express our sincere appreciation to Dr. S. Dharamraj, VAMNICOM, Pune, for his pivotal contribution to this empirical analysis. His profound commitment and specialized knowledge have been **instrumental** in the success of this study. We are deeply grateful for the time and vision he invested in, resulting in a publication that hopefully meets the expectations of the stakeholders.

Urban Cooperative Banks have, over decades, played a crucial role in extending affordable and accessible financial services to small businesses, middle-class families, self-employed professionals, and marginalized communities. Their presence reflects the ethos of cooperation — mutual support, democratic governance, and social responsibility.

This study provides a detailed analysis of Urban Co-operative Banks, covering the performance of Urban Cooperative Banks and its scope and methodology. It examines the Earnings performance of Urban Cooperative Banks followed by a detailed analysis of Cost Structures and Earnings.

The Cooperative and NPO Development Board of the Institute had organised **State Level** one-day joint Training Program with the **Sikkim State Cooperative Union (SICUN)** on the topic **"Financial Governance and Accountability in Cooperatives".** Similar training programs were conducted in the state of Dehradun (Uttarakhand) jointly with the Institute of Cooperative Management, Dehradun on the topic "Maintenance of Books of Accounts & Balance Sheet Preparation for MPCAS" and Madurai (Tamil Nadu) *Tamil National Cooperative Union of India (TNCUI)* as well. It may be of interest for you to know that the board came out with its first release on **Guidance Note on Cooperative Societies** and several other research studies on Dairy Sector and Urban Cooperative Banks are underway through our Board for the benefit of cooperatives societies.

ICMAI has been actively engaging with the cooperative banking sector through its participation in national-level initiatives such as **Coop Kumbh 2025**, where the Institute Collaborated with **NAFCUB** as the **Knowledge Partner.** During its **63rd National Cost and Management Accountants' Convention (NCMAC) 2026**, ICMAI released a Guidance Note on *Cost Control Strategies in the Banking Sector* too. This also aligns with the suggestions in the study for Monitoring Frameworks for Cost and Efficiencies.

I hope this research will inspire informed decision-making, encourage best practices in cost and earnings management, and contribute to a more resilient Urban Cooperative Banking sector in India.

Once again, I would like to express my gratitude to Dr. S. Dharamraj and all those who played a role in bringing this important work to culmination.

CMA Navneet Kumar Jain
Chairman, CNDB

कृष्ण पाल गुर्जर
KRISHAN PAL GURJAR

सत्यमेव जयते

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UNION MINISTER OF STATE FOR COOPERATION
GOVERNMENT OF INDIA, NEW DELHI

2025
International Year of Cooperatives
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MESSAGE

I am pleased to note the release of the research study titled *'Management of Cost and Earning in Scheduled Urban Cooperative Banks in India – An Empirical Study'*." I commend the author and the Cooperative Development Board of the Institute of Cost Accountants of India for undertaking this timely and insightful research, which addresses a critical dimension of the urban cooperative banking sector.

The study is of considerable significance as it undertakes an empirical analysis of cost structures and earning patterns of Scheduled Urban Cooperative Banks across the country. Research grounded in empirical evidence is crucial for identifying operational gaps, improving financial efficiency, and supporting informed policy decisions. I am confident that the insights and findings of this study will prove to be a valuable resource for bank managements, regulators, policymakers, researchers, and other stakeholders within the cooperative ecosystem.

The Government of India, under the visionary leadership of the Hon'ble Prime Minister Shri Narendra Modi Ji, has placed renewed emphasis on strengthening the cooperative sector, recognizing its pivotal role in promoting inclusive and sustainable economic growth. The establishment of the Ministry of Cooperation and selecting Hon'ble Minister Shri Amit Shah Ji as 1st Cooperation to steer the sector underscores the Government's commitment to revitalizing cooperative institutions through comprehensive reforms, capacity building, enhanced transparency, and the adoption of professional management practices. Scholarly research initiatives such as this study effectively complement these efforts by offering data-driven analysis and actionable recommendations.

I trust that the outcomes of this research will motivate Urban Cooperative Banks to adopt best practices in financial management, harness the benefits of technology, improve operational efficiency, and enhance institutional resilience, while steadfastly adhering to the core principles of cooperation.

I once again extend my congratulations to all those involved in the preparation of this study and place on record my appreciation for their meaningful contribution to the discourse on cooperative banking. I am hopeful that this work will inspire further research and constructive engagement aimed at strengthening the urban cooperative banking sector in India.

With these words, I convey my best wishes for the wide dissemination and effective utilization of this important research study.

20.01.2026

(Krishan Pal Gurjar)

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MINISTER OF STATE FOR COOPERATION AND CIVIL AVIATION, GOVERNMENT OF INDIA

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सत्यमेव जयते

Message

I am happy to mark the release of the research study entitled *'Management of Cost and Earning in Scheduled Urban Cooperative Banks in India – An Empirical Study'*. I extend sincere appreciation to the Cooperative Development Board of the Institute of Cost Accountants of India (ICAI) for coming up with this Research Study which will serve as an important resource for policymakers, regulators, and cooperative leaders in building robust and future-ready urban cooperative banks.

Scheduled Urban Cooperative Banks occupy a vital place in India's financial system by catering to the credit and banking needs of small traders, professionals, salaried individuals, and urban and semi-urban communities. In the present environment of heightened competition, regulatory expectations, and technological transformation, effective management of costs and earnings has become crucial for ensuring the long-term viability and resilience of these institutions.

Under the able guidance of Hon'ble Prime Minister Shri Narendra Modi Ji and the dynamic leadership of Hon'ble Home and Cooperation Minister, Shri Amit Shah Ji, the Ministry of Cooperation is striving to implement the Government of India's focused approach towards strengthening the cooperative sector through modernization, transparency, and professional management. Research studies of this nature play a vital supporting role by providing evidence-based inputs and encouraging the adoption of best practices within cooperative institutions.

Through this study, the Urban Cooperative Banks will be further encouraged to adopt prudent financial management practices, improve operational efficiency, embrace digital innovations, and enhance governance standards, while continuing to uphold the core values and principles of cooperation.

I once again congratulate all those associated with this study and wish the ICAI success in their future research endeavour.

Vande Mataram!

(Murlidhar Mohol)

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International Co-operative Banking Association

BHIMA SUBRAHMANYAM
PRESIDENT

International Year of Cooperatives
Cooperatives Build a Better World

International Co-operative Alliance, Brussels

MESSAGE

The current research project on "**Management of Cost and Earnings in Urban Cooperative Banks (UCBs) – An Empirical Study,"** sponsored by the Cooperative Development Board of The Institute of Costs Accountants of India (ICMAI) has been undertaken with the objective of examining the trends, patterns, and performance of UCBs in the context of this evolving financial sector scenario. It also sought to analyze and compare the management of costs and earnings across Scheduled UCBs and Non-Scheduled UCBs. The study provides an in-depth exploration of the cost-revenue dynamics within Scheduled and Non-Scheduled UCBs. By systematically analyzing and comparing Scheduled and Non-Scheduled UCBs, the study also provided insights into their relative efficiency, cost behaviour etc. In fact, this study presents a comprehensive empirical analysis of the management of cost and earnings in UCBs. The scope of the study by investigating the relationship between operational size and financial performance, not only viewed as very comprehensive but it identified the presence of economies of scale within these institutions.

It may be interesting and instructive to appreciate that UCBs play a pivotal role in addressing entire gamut of issues governing financial systems, the principles of cooperation, grassroots financial inclusion, local development, and member-centric banking and remains a vital pillar of the Indian cooperative banking sector. This sector also bridges the gap between traditional banking and financial inclusion. The sustainability and efficiency of UCBs depend critically on sound cost management and stable earnings performance due to emergence of rapid regulatory policies, technological transformation and competitive market. The present study on the Management of Cost and Earnings in UCBs assumes as a critical factor for long-term sustainability in the above context. The scope of the study has been very comprehensive, covering an introduction to UCBs in India, their performance trends, elements of cost, earnings performance, and detailed analyses of economies of scale in both cost and earnings.

The theme-wise findings and recommendations presented in this report are research based on in empirical evidence and are aimed at supporting policy formulation, managerial decision-making, and institutional strengthening. The findings and recommendations of this study, it is hoped, will certainly serve as a useful reference for researchers, policymakers, regulators, cooperative leaders, and stakeholders. The conclusions of the study based on the research will also contribute to enhancing efficiency, improving cost management practices, and ensuring the long-term profitability and sustainability of UCBs in India. Dr. S. Dharma Raj, Assistant Professor, VAMNICOM deserves high appreciation for the commendable effort in drawing the recommendations more particularly suggesting the road map & Way forward.

With warm Regards

(Bhima Subrahmanyam)
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COOPERATIVES BUILD A BETTER WORLD: IYC 2025

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To,
CMA Navneet Kumar Jain
Chairman
Cooperative Development Board & Member Central Council
ICMAI New Delhi

It gives me immense pleasure to congratulate the Institute of Cost Accountants of India (ICMAI) for taking the initiative to promote a Minor Research Project on the critical issues and challenges faced by Urban Cooperative Banks in India, by extending financial support through the Cooperative Development Board (CDB) to the Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM), Pune, for undertaking this important empirical study titled "Management of Cost and Earnings in Urban Cooperative Banks in India – An Empirical Study."

Urban Cooperative Banks (UCBs) occupy a unique and critical space in India's financial architecture, combining cooperative values with banking functions to serve urban and semi-urban communities. In the evolving regulatory and competitive environment, effective cost management and sustainable earnings generation have emerged as key determinants of their resilience, stability, and long-term viability. This research project addresses these core issues with commendable depth and analytical rigor.

The study provides a comprehensive empirical examination of cost structures, earnings behaviour, and economies of scale across Scheduled and Non-Scheduled Urban Cooperative Banks over a significant time horizon. By drawing upon robust secondary data and applying sound statistical techniques, the research brings out important insights into operational efficiency, governance challenges, and differential performance patterns within the sector. The comparative analysis presented in the report is particularly valuable for policymakers, regulators, bank managements, and professionals engaged in cooperative banking.

I am especially pleased to note that the findings of this study underscore the growing relevance of professional cost and management accounting practices in strengthening financial discipline, improving decision-making, and enhancing transparency in Urban Cooperative Banks. The recommendations offered are pragmatic and forward-looking, with clear relevance for improving governance, risk management, and income diversification in the cooperative banking ecosystem.

I commend the Principal Investigator and the research team for their sincere efforts and scholarly contribution. I am confident that this study will serve as a useful reference document for practitioners, academicians, regulators, and students, and will contribute meaningfully to the ongoing discourse on strengthening Urban Cooperative Banks in India, in the spirit of the International Year of Cooperatives (IYC–2025).

I wish the research team every success in their future academic and professional endeavors.

Regards,

Jyotindra Mehta
Chairperson

Acknowledgement

The successful completion of this Minor Research Project titled *"Management of Cost and Earnings in Urban Cooperative Banks"* has been made possible through the invaluable support and encouragement extended by various institutions and individuals.

At the outset, I express my sincere gratitude to the Cooperative Development Board (CNDB) of the Institute of Cost Accountants of India (ICMAI) for sponsoring this study as a part of the International Year of Cooperatives (IYC)–2025 initiatives. The Board's support and commitment to fostering research in the cooperative sector have been instrumental in bringing this work to fruition.

I express my sincere thanks to Mrs. Minu Shukla Pathak, IRS, Secretary, National Council for Cooperative Training (NCCT), for the support and facilitation in routing this project through NCCT.

My heartfelt thanks are also due to Dr. Suva Kanta Mohanty, Director, Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM), Pune, for his insightful suggestions, academic guidance, and for providing the institutional support necessary for the successful completion of this research.

I would also like to extend my special thanks to the Cosmos Cooperative Bank Ltd., Pune, for their cooperation in providing valuable inputs and data that enriched the quality and practical relevance of this study.

Finally, I express my gratitude to all those who, directly or indirectly, contributed to the successful completion of this project. Their encouragement and support have been a constant source of strength and inspiration.

Dr.S.Dharmaraj
Assistant Professor
Principal Investigator of the Project

EXECUTIVE SUMMARY

The Minor Research Project titled *"Management of Cost and Earnings in Urban Cooperative Banks (UCBs)"* was undertaken with the objective of assessing the evolving dynamics of cost structures and earnings performance among Scheduled and Non-Scheduled Urban Cooperative Banks in India during the period 2014–2024. Sponsored by the Cooperative Development Board (CNDB) of the Institute of Cost Accountants of India (ICMAI) as part of the International Year of Cooperatives (IYC–2025) initiative, the study sought to understand the managerial and financial determinants shaping the cost and earnings patterns of UCBs.

Urban Cooperative Banks have long served as a bridge between commercial banking and community finance, but the changing financial landscape; marked by compliance demands, digital transformation, and competitive pressures; has significantly influenced their cost behaviour and profitability. Using a comparative analytical approach based on secondary data from RBI Database, annual reports, and financial statements, the study employed regression and trend analyses to explore the relationship between bank size, cost behaviour, and earnings management across Scheduled and Non-Scheduled UCBs.

The findings on cost management revealed that Scheduled UCBs (SUCBs) demonstrate cost stability, with a weak and statistically insignificant relationship between size and interest costs. This suggests that while SUCBs manage their costs effectively, they flop to derive any distinct advantage from economies of scale. In contrast, Non-Scheduled UCBs (NSUCBs) exhibited a moderate positive relationship between size and cost, indicating that as deposits and borrowings grow, costs rise proportionately. These points to the existence of diseconomies of scale, where expansion leads to increased cost burdens rather than efficiency gains. Overall, Scheduled UCBs appear more cost-stable and disciplined, whereas Non-Scheduled UCBs are more cost-sensitive and structurally inefficient in cost control, often relying heavily on higher deposit rates and borrowings.

In terms of earnings management, the analysis revealed divergent outcomes. Among SUCBs, the relationship between size and earnings was weak and statistically insignificant, implying that large size does not necessarily guarantee better profitability. The findings suggest that SUCBs' earnings are influenced more by internal operational practices, governance quality, and regulatory aspects than by scale. For NSUCBs, however, the regression results showed a strong and statistically significant positive relationship between size and earnings, demonstrating that growth-oriented banks benefit from economies of scale, cost-spreading, and improved utilization of resources. Larger NSUCBs were found to leverage their operational flexibility and market adaptability more effectively, translating expansion into higher and more stable earnings.

The comparative analysis thus highlights a structural contrast between the two categories. Scheduled UCBs maintain operational discipline and regulatory compliance but are constrained by institutional rigidity, which limits their ability to convert growth into enhanced earnings. Non-Scheduled UCBs, on the other hand, display greater adaptability and responsiveness to scale but remain vulnerable to rising cost pressures and governance gaps. While SUCBs excel in cost stability and compliance-led resilience, NSUCBs demonstrate growth-driven performance and scalability.

The study recommends that both categories of UCBs adopt differentiated but complementary strategic directions. Scheduled UCBs should focus on strengthening governance, operational efficiency, and diversification into non-interest income streams, emphasizing quality over size to achieve sustainable performance. Non-Scheduled UCBs, with their lean structures and localized reach, should leverage their relative cost advantage and pursue measured growth by improving resource utilization, technology adoption, and income diversification.

The research further emphasizes the importance of leveraging the expertise of Cost and Management Accountants (CMAs) in guiding UCBs toward efficient cost control, financial planning, and strategic decision-making. It also advocates for policy reforms that encourage consolidation among smaller banks, enhance board-level governance standards, and recalibrate the Prompt Corrective Action (PCA) framework to reflect the unique dual character of cooperative banks.

In conclusion, the study emphasizes that the future trajectory of Urban Cooperative Banks lies in pursuing a balanced strategy; where Scheduled UCBs focus on governance and innovation-led efficiency, while Non-Scheduled UCBs harness the benefits of scale and digital integration. Together, these approaches will help create a resilient, efficient, and inclusive cooperative banking ecosystem capable of sustaining grassroots financial intermediation and contributing meaningfully to India's financial inclusion agenda.

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1 CHAPTER Introduction to Urban Cooperative Banks in India

1. Definition and Development of Urban Co-operative Banks (UCBs)

Urban Co-operative Banks (UCBs) in India have evolved from urban credit societies that were initially established to provide financial services to middle- and lower-income segments in urban areas. Until the late 1930s, the term "bank" was used loosely to describe various urban credit societies. A significant milestone was the Mehta-Bhansali Committee Report (1939), which formally defined UCBs as urban credit societies possessing a minimum paid-up share capital of ₹20,000 and authorized to accept deposits withdrawable by cheque or draft. In Madras Province, any such society meeting these criteria was termed an urban bank. The Study Group on Credit Co-operatives (1963) suggested enhancing the capital requirement to ₹50,000 for co-operative credit societies in urban areas to qualify as UCBs. A significant regulatory shift occurred in 1966 with the extension of certain provisions of the Banking Regulation Act, 1949 to co-operative banks, marking the transition of UCBs into entities recognized under the formal banking framework. As per the new regulation, an urban cooperative bank was redefined as a *primary co-operative bank*, with a minimum requirement of ₹1 lakh in paid-up capital and reserves, and with membership restricted to individuals only.

Until co-operative credit institutions reached the ₹1 lakh capital and reserve threshold, they remained outside the purview of the Reserve Bank of India (RBI). Many experts, including those from the K. Madhava Das Committee Report (1979), argued that the definitions provided under the RBI Act, 1934 and the Banking Regulation Act, 1949, needed revision to reflect contemporary financial realities. Despite this, the term "urban co-operative bank" remains commonly used in both official and informal parlance. The RBI defines UCBs as *"small-sized co-operatively organized banking units that operate in metropolitan, urban, and semi-urban centres, primarily catering to the needs of small*

borrowers such as owners of small-scale industrial units, retail traders, and professional and salaried classes" (Badhe).

2. State-Level Regulation and Governance Framework

The subject of "cooperation" was transferred to the provinces under the Government of India Act of 1919, and the first significant legislation—the Bombay Cooperative Societies Act, 1925—paved the way for the second phase of cooperative banking development. This Act inspired similar legislation across other provinces, institutionalizing the governance framework for cooperative credit institutions. Committees such as the Indian Central Banking Enquiry Committee (1931), the Co-operative Planning Committee (1946), and later the Study Group on Credit Cooperatives (1963) emphasized the role of UCBs in supporting small businesses, artisans, and the urban middle class (Shivappa, 2018).

The RBI's survey in 1958-59 was the first systematic study that acknowledged UCBs' widespread presence and sound financial structure. The Varde Committee (1963) recommended establishing UCBs in cities with populations exceeding one lakh, alongside setting capital adequacy requirements. UCBs were included in the Deposit Insurance Scheme in 1968, further aligning them with formal financial institutions (Shah, 2016).

UCBs are typically registered under respective State Cooperative Societies Acts, making them subject to dual regulation: the RBI oversees their banking operations under the Banking Regulation Act, 1949, while the Registrar of Cooperative Societies (RCS) handles incorporation, election, and management-related matters under State laws. Despite this dual control, UCBs function as democratically managed institutions owned by their members and governed by elected boards. Their operations span savings and current accounts, loan facilities, remittances, and various financial products targeted at urban and semi-urban populations.

3. Expansion and Institutional Developments

Over the decades, several expert bodies have played a vital role in shaping UCB policy and regulation. These include the Working Group on Industrial Financing through

Cooperative Banks (1968), the Committee on Problems of Urban Cooperative Banks in Maharashtra (1976), the Madhav Das Committee (1978), the Marathe Committee (1992), and the Madhav Rao Committee (1999). Each of these groups evaluated the sector's performance and offered crucial recommendations for its institutional strengthening (Shivappa, 2018).

While UCBs were originally intended to serve localized communities and occupational groups, many have expanded significantly. The introduction of multi-state operations in 1985 allowed larger UCBs to extend their services across states. Some have even become Authorized Dealers in foreign exchange. Despite their uneven geographical spread—concentrated mainly in Maharashtra, Gujarat, Karnataka, and Tamil Nadu—UCBs have become essential players in the financial inclusion of underserved urban populations.

4. Integration with the Formal Banking Sector

A turning point in UCB history was the extension of the Banking Regulation Act, 1949 to co-operative banks effective March 1, 1966. Previously excluded due to being non-company entities under state acts, the increasing scale and complexity of UCBs' operations necessitated bringing them under RBI supervision. The introduction of the Deposit Insurance Scheme in 1962 further demanded RBI oversight to safeguard public deposits (Sudhakara Rao & Suryachandra Rao, 2017). Post-1966, UCBs with capital and reserves of ₹1 lakh or more were mandated to obtain RBI licenses for conducting banking business. The RBI was empowered to conduct statutory inspections, regulate branch expansion, impose norms on loans and advances, and oversee the maintenance of cash reserves. However, foundational elements such as registration, incorporation, and winding-up continue to be governed by State Co-operative Societies Acts. Through their commitment to financial inclusion, especially in serving informal sector borrowers often ignored by commercial banks, UCBs have remained a vital part of India's cooperative and banking landscape (Sudhakara Rao & Suryachandra Rao, 2017).

5. Initial Regulatory Reforms

The Reserve Bank of India (RBI) has undertaken several reforms to strengthen Urban

Co-operative Banks (UCBs), recognizing their critical role in the financial system. The Narasimham Committee recommended revising entry norms, enhancing minimum capital requirements, and placing UCBs under the Board for Financial Supervision to ensure integrated oversight. In response, the RBI formed a High-Powered Committee under Shri K. Madhava Rao to review UCB performance. This committee advocated for expanding UCB activities, supporting small industries, and enhancing professional governance (Shah, 2016).

Key reforms included a transparent and simplified licensing policy, addressing the issue of dual control between State Governments and the RBI, and improving corporate governance by mandating professionally qualified directors. The Narasimham Committee (1998) also emphasized introducing capital adequacy norms, recommending an 8% CRAR target within five years. However, raising capital remains a challenge due to legal restrictions.

Further, legislative reforms were proposed to strengthen the legal framework for dispute resolution and loan recovery. An Expert Group led by T.R. Andhyarujina recommended new laws enabling asset securitization and easier enforcement of loan securities. To address the issue of weak and unlicensed UCBs, stringent criteria were proposed for licensing and better compliance with RBI norms, alongside improved reporting systems.

6. Strengthening the Regulatory Architecture of Urban Co-operative Banks: Recent RBI Initiatives

In recent years, the Reserve Bank of India (RBI) has introduced a range of regulatory and supervisory reforms to address growing challenges within the Urban Co-operative Bank (UCB) sector. These reforms aim to improve governance, ensure financial soundness, enhance risk management practices, and safeguard the interests of depositors. The evolving regulatory landscape reflects the RBI's commitment to maintaining the integrity and resilience of the cooperative banking system.

7. Governance and Risk Management Reforms

Recognizing the need to enhance governance in UCBs, the RBI has issued comprehensive guidelines aimed at improving oversight, accountability, and risk management. Directors of UCBs are now required to focus on three foundational pillars: compliance, risk management, and internal audit. Risk management reports must be presented to the Board quarterly, while proactive asset-liability management and systematic liquidity risk monitoring are emphasized. Additionally, the RBI has mandated that board members possess expertise in areas such as credit, financial markets, IT, and operational risk. The constitution of a professional Board of Management (BoM) with diversity in composition and appropriate tenure has been encouraged to ensure effective oversight and decision-making. Transparent board discussions, functioning board-level committees, and prohibition of misleading accounting practices are further critical elements of these governance reforms (Vidya Pitre, 2003). The RBI also advised UCBs to adopt technology-driven business strategies to improve service delivery and operational efficiency.

8. Revision of the Supervisory Action Framework (SAF)

Originally introduced in 2014, the Supervisory Action Framework (SAF) was developed to monitor financially stressed UCBs. In 2020, the RBI revised the SAF to align it more closely with the Prompt Corrective Action (PCA) framework used for commercial banks. The updated framework introduced specific thresholds for asset quality—such as Net and Gross Non-Performing Assets (NPAs)—profitability, and Capital to Risk-weighted Assets Ratio (CRAR). UCBs that breach these thresholds are required to undertake self-corrective measures. If financial deterioration persists, the RBI may intervene with a series of regulatory actions, including mandating the submission of a Board-approved action plan aimed at restoring financial health. Goals may include reducing net NPAs below 6%, restoring profitability, and improving CRAR to at least 9% within a year. Additional RBI measures under SAF may involve restrictions on dividend payouts, capital expenditures, high-risk lending, and branch expansion. In more severe cases, the RBI may suggest amalgamation with stronger banks or conversion into credit societies to preserve depositor interests. Progress on corrective actions must be reviewed by the

Board either quarterly or monthly and reported to the RBI accordingly.

9. Expert Committee on Primary (Urban) Cooperative Banks

In 2021, the RBI constituted an Expert Committee chaired by Shri N.S. Vishwanathan, former Deputy Governor of RBI, to conduct a comprehensive review of the UCB sector. The committee recommended a four-tier categorization of UCBs based on deposit size to tailor regulation and supervision more effectively. The tiers proposed are: Tier-I (up to ₹100 crore), Tier-II (₹100–1,000 crore), Tier-III (₹1,000–10,000 crore), and Tier-IV (above ₹10,000 crore). This categorization seeks to differentiate regulatory requirements in line with the size and complexity of operations, ensuring proportionate oversight (Business Line, 2024).

10. Prompt Corrective Action (PCA) Framework for UCBs

A landmark step in UCB regulation came with the introduction of the Prompt Corrective Action (PCA) Framework for Primary (Urban) Co-operative Banks, effective from April 1, 2025. Replacing the SAF, the PCA framework is designed to address issues related to capital adequacy, asset quality, and profitability. Applicable primarily to UCBs in Tiers II, III, and IV—those with deposits exceeding ₹100 crore—the PCA framework introduces defined risk thresholds that trigger supervisory interventions. For CRAR, the framework prescribes three levels of risk: a shortfall of up to 250 basis points (bps), between 250 and 400 bps, and more than 400 bps. Similarly, for Net NPAs, thresholds are set at 6%–9%, 9%–12%, and above 12%. A profitability threshold is applied if a UCB records losses for two consecutive years. Depending on the level of breach, the RBI may impose corrective actions, such as capital infusion, suspension of dividend payments, restrictions on capital expenditures (except for IT upgrades), and limits on deposit and loan growth.

Additionally, the RBI may require the activation of a board-approved action plan, reassessment of the bank's business model for long-term viability, and, if necessary, exploration of merger options or conversion into credit societies (Saravanan, Padmavathy, & Valiachi, 2024; The Economic Times, 2024; Abhijit, 2024).

11. Other Supervisory Initiatives

Beyond the PCA framework, the RBI has adopted a more thematic and activity-based supervisory approach. This shift moves away from an entity-specific model and aims to identify systemic vulnerabilities across sectors. The RBI has imposed penalties on several UCBs for non-compliance with regulatory norms, reflecting its zero-tolerance stance. The new supervisory strategy emphasizes harmonization across UCBs, commercial banks, and NBFCs, ensuring a unified and agile regulatory environment. Enhanced structural mechanisms allow the RBI to respond swiftly to emerging risks and deepen its understanding of interconnected financial activities (The Economic Times, 2024). These initiatives collectively represent a paradigm shift in the RBI's approach toward regulating Urban Co-operative Banks, fostering resilience, transparency, and sustainability in the cooperative banking sector.

12. Structure of UCBs

Urban Cooperative Banks (UCBs) are classified into scheduled and non-scheduled categories based on their inclusion in the Second Schedule of the Reserve Bank of India Act, 1934, and their geographical outreach (Single-State or Multi-State). The liberal licensing policy of the 1990s led to a surge in the number of UCBs, with nearly a third of the newly licensed banks eventually becoming financially unsound. Beginning in 2004-05, the Reserve Bank of India initiated a consolidation process that involved merging unviable UCBs with viable ones, canceling licenses of non-viable entities, and suspending new license issuances (Ramrao Rautrao, Rajndra, & Vidya, 2020).

Since 2004-05, the UCB sector has experienced a total of 150 mergers, including 3 mergers in the 2022-23 fiscal years. Maharashtra and Gujarat have been the primary contributors, accounting for 80% of these mergers. Additionally, license cancellations have been significant, with 46 cancellations occurring since 2015-16. Most of these mergers and cancellations have affected non-scheduled UCBs. Consequently, based on the RBI Report on Trends and Progress of Banking in India – 2022-24, the number of UCBs declined steadily from 1,926 in March 2004 to 1,502 by March 2023. While updating the latest date with the National Federation of Urban Cooperative Banks

(NAFCUB) which is the Apex body of the urban banking system in India, indicates the total number of UCBs as 1434 as provided in the Table -.

12.1. Categorization of UCBs

In the 2022-23 fiscal year, the Reserve Bank of India introduced a four-tiered regulatory framework for Urban Cooperative Banks (UCBs), following the recommendations of the Expert Committee on Urban Co-operative Banks, chaired by Shri N. S. Vishwanathan (August 2021). Under this framework, UCBs are categorized as follows: Tier 1 for those with deposits up to Rs.100 crores; Tier 2 for those with deposits between Rs.100 crores and Rs. 1,000crores; Tier 3 for those with deposits between Rs. 1,000crores and Rs. 10,000crores; and Tier 4 for those with deposits exceeding Rs. 10,000crores. As of March 2023, the majority of UCBs were classified under Tier 1, while six UCBs in Tier 4 accounted for more than 20% of the sector's total deposits. Tier-wise classification of UCBs as at the end of 31st March, 2023 is provided in the following table:

Table – 1.1
Tier-wise Classification of UCBs

Tier Type	Number of Banks	
	Number	Percentage
I	898	59.80
II	520	34.60
III	78	5.20
IV	6	0.40
All UCBs	1502	100.00

(Source: Report on Trend and Progress of Banking in India 2022-23)

12.2 Scheduled and Non-Scheduled UCBs

A 'Scheduled Urban Cooperative Bank (SUCB)' is included in the second schedule of the RBI Act. These banks have certain rights and obligations under the RBI Act, 1934 (2nd Schedule), including the right to obtain refinance and loans from the RBI and obligations such as maintaining cash reserves and submitting returns to the RBI. As of March 31, 2023, there are 1,502 UCBs, comprising 51 scheduled UCBs and 1,451 non-scheduled UCBs.

12.3 Classification Based on Geographical Jurisdiction

Urban Cooperative Banks (UCBs) in India can be classified based on their geographical jurisdiction and the regulatory framework under which they operate. Those UCBs registered under a State Cooperative Act function exclusively within the boundaries of that state. Conversely, UCBs registered under the Multi-State Cooperative Societies Act have the authority to operate across multiple states and knows as Multi-State UCBs. The classification and number of such banks are detailed in the Table – 1.2. below:

Table – 1.2
Types of UCBs

Geographical Status	Scheduled	Non-Scheduled
Functioning in One State	17	1404
Multi-State	32	30
Total	49	1434
Total Number of UCBs		**1483**

(Source: NAFCUB)

13. Urban Cooperative Banks (UCBs): Role and Significance in Financial Inclusion

Urban Cooperative Banks (UCBs) play a critical role in promoting financial inclusion by catering to the underserved sections of the urban population. With a legacy of over a century, these banks primarily serve the lower middle class, self-employed individuals, and micro-enterprises. Their core function is to mobilize local deposits and provide credit to small borrowers, including small-scale industries, professionals, and retailers (Mishra & Mookerjee, 2024; Sunil Kumar, 2024). UCBs operate on cooperative principles and are regulated under both the State Cooperative Societies Acts and the Banking Regulation Act, 1949, placing them under dual regulatory control (Agarwal, n.d.). Scheduled UCBs, listed in the second schedule of the RBI Act, 1934, benefit from access to refinance facilities and must meet obligations such as maintaining statutory reserves and filing periodic returns (Business Standard, 2024).

A key feature distinguishing UCBs from commercial banks is their democratic governance structure. Decisions are made collectively by members, each having equal voting rights. This member-centric model ensures that banking services are aligned with the needs of local communities. Moreover, UCBs follow a mutual benefit approach—profits are ploughed back into the institution or distributed among members via dividends, reduced loan interest rates, or community development funds (Sakshi, 2023).

UCBs have emerged as niche financial institutions capable of delivering last-mile credit to urban wage earners and small entrepreneurs often excluded from mainstream banking. Their localized operations and understanding of community dynamics enable them to assess creditworthiness effectively and minimize non-performing assets (Nayak, 2012). By offering accessible, affordable, and tailored banking services, UCBs significantly contribute to urban financial inclusion and grassroots economic development.

2 CHAPTER Performance of Urban Cooperative Banks

1. Introduction

The Urban Cooperative Banking (UCB) sector in India holds a distinct position within the country's financial system, serving as a vital channel for mobilizing deposits and extending credit to urban and semi-urban communities while upholding cooperative principles. Unlike commercial banks, UCBs are characterized by their member-centric approach and their dual role as financial intermediaries and cooperative institutions, which necessitate a careful and ongoing evaluation of their performance and resilience. Over the years, the sector has experienced considerable transformation due to regulatory reforms, technological adoption, and consolidation efforts, while simultaneously confronting challenges such as rising non-performing assets (NPAs), governance constraints, increasing competition from commercial and digital banks, and the need for professionalized management. Against this backdrop, the present study seeks to conduct a comprehensive assessment of the performance of UCBs in India, with a specific focus on distinguishing between Scheduled UCBs (SUCBs) and Non-Scheduled UCBs (NSUCBs).

The objective of this analysis is to examine the growth trends and relative contribution of both SUCBs and NSUCBs in relation to major business indicators such as deposits, loans and advances, investments, and total assets, while simultaneously evaluating key profitability parameters including interest income, non-interest income, net interest margin (NIM), NPA provisioning, net profit, return on assets (ROA), and return on equity (ROE). The study aims not only to capture the growth rate of these indicators but also to critically evaluate their share in the overall UCB sector, thereby providing a nuanced understanding of the comparative strengths and limitations of each category. Through this process, the study also seeks to highlight the operational efficiency, financial stability, and risk management practices of UCBs, and to derive meaningful insights that can inform both managerial decision-making and regulatory policy

interventions.

Accordingly, the analysis is structured around two dimensions: business operations, which cover deposits, loans and advances, investments, and total assets; and financial performance, which focuses on profitability measures such as income composition, margins, provisioning, and returns. Each indicator will be analyzed in terms of its growth dynamics, contribution to the sector, and implications for institutional sustainability. The critical evaluation will be complemented by strategic insights and policy recommendations designed to enhance the competitiveness, governance standards, and long-term financial sustainability of UCBs. In essence, the study aims to contribute to the discourse on strengthening cooperative banking in India by outlining a dual-path strategy: efficiency enhancement for Scheduled UCBs and scale-oriented growth for Non-Scheduled UCBs, thereby ensuring the balanced development of the sector as a whole.

2. Business Profile of Deposits

Table-2.1: Deposits Position of UCBs

(Rs.in Crores)

Year	Scheduled	GR (%)	Share to All UCBs (%)	Non-Scheduled	Share to All UCBs (%)	GR (%)	All UCBs	GR (%)
2013	126189.57	0.00	45.58	150640.83	54.42	0.00	276830.40	0.00
2014	145604.40	15.39	45.82	172164.88	54.18	14.29	317769.28	14.79
2015	164220.62	12.79	46.24	190913.10	53.76	10.89	355133.72	11.76
2016	184404.61	12.29	47.02	207771.27	52.98	8.83	392175.88	10.43
2017	207247.26	12.39	46.73	236221.59	53.27	13.69	443468.85	13.08
2018	212041.12	2.31	46.45	244465.72	53.55	3.49	456506.84	2.94
2019	225687.64	6.44	46.60	258634.29	53.40	5.80	484321.94	6.09
2020	229706.24	1.78	45.87	271124.13	54.13	4.83	500830.37	3.41
2021	239578.88	4.30	45.27	289650.00	54.73	6.83	529228.88	5.67
2022	234080.04	-2.30	44.50	291940.48	55.50	0.79	526020.52	-0.61
2023	239982.43	2.52	45.00	293272.64	55.00	0.46	533255.07	1.38
2024	254478.78	6.04	45.81	300990.70	54.19	2.63	555469.48	4.17

Source: (RBI Data Base on Indian Economy)

2.1 Performance of Scheduled Urban Cooperative Banks (UCBs)

Over the twelve-year period from 2013 to 2024, Scheduled UCBs demonstrated a steady

and resilient growth trajectory in deposit mobilization. Their total deposits rose from ₹1,26,189.57 crore in 2013 to ₹2,54,478.78 crore in 2024, almost doubling over the period. This translates into a Compound Annual Growth Rate (CAGR) **of** 6.58%**,** slightly above the overall UCB sector average of 6.54%, indicating that Scheduled UCBs marginally outpaced the sector in long-term deposit growth.

In terms of market share, Scheduled UCBs consistently contributed between 44.5% and 47% of total deposits mobilized by all UCBs in India. This range of stability reflects their entrenched depositor base and sustained competitive positioning despite differences in regional presence and operational scale compared to Non-Scheduled UCBs.

The year-wise growth analysis shows robust double-digit expansions in 2014 (15.39%), 2015 (12.79%), 2016 (12.29%), and 2017 (12.39%), indicating periods of heightened deposit inflows possibly driven by economic buoyancy, favorable interest rate structures, or cooperative sector policy support. Growth moderated after 2017, falling to single digits and even reaching a contraction of -2.30% in 2022, likely due to broader sectoral pressures, deposit withdrawals, or macroeconomic slowdown during the post-pandemic phase. Encouragingly, the sector rebounded in 2023 with 2.52% growth and strengthened further in 2024 at 6.04%, suggesting improved depositor confidence and operational recovery.

From a strategic perspective, Scheduled UCBs have shown they can maintain a competitive pace of growth despite being smaller in overall market share compared to Non-Scheduled UCBs. Their relatively higher CAGR, coupled with consistent market share, implies gradual but meaningful strengthening of their deposit mobilization capacity. Continued focus on expanding outreach, adopting digital banking platforms, and improving governance standards will be essential for Scheduled UCBs to leverage their stable base and convert it into sustained high growth in the coming years.

2.2 Performance of Non-Scheduled UCBs

Non-Scheduled UCBs maintained their dominant position in the sector throughout the period, starting with deposits of ₹1,50,640.83 crore in 2013 and reaching ₹3,00,990.70 crore in 2024. Their market share consistently exceeded 52%, often touching 55%,

signifying stronger deposit mobilization capacity compared to their Scheduled counterparts. Growth trends for Non-Scheduled UCBs exhibited slightly more volatility, with sharp expansions in years such as 2014 and 2017, when growth rates were 14.29% and 13.69% respectively. However, they also experienced sluggish years like 2021 and 2023, when growth slowed to under 1%. The variations may point to differences in regional performance, customer base diversity, or institutional readiness to respond to changing financial conditions.

2.3 Sector-Wide Trends and CAGR Analysis

When considering all UCBs combined, the total deposit base increased from ₹2,76,830.40 crore in 2013 to ₹5,55,469.48 crore in 2024. Over this eleven-year period, the sector as a whole recorded a Compound Annual Growth Rate (CAGR) of 6.54%**,** with Scheduled UCBs growing slightly faster at 6.58% compared to 6.49% for Non-Scheduled UCBs. This near-parallel expansion suggests that both categories have moved in tandem, driven by common macroeconomic conditions, regulatory changes, and depositor behavior. The sector enjoyed particularly strong growth in years like 2014 and 2017, coinciding with favorable economic cycles or cooperative banking policy support. Conversely, the first sector-wide contraction was recorded in 2022, with deposits declining by 0.61%, reflecting the lingering aftereffects of the pandemic period and possible shifts in savings patterns.

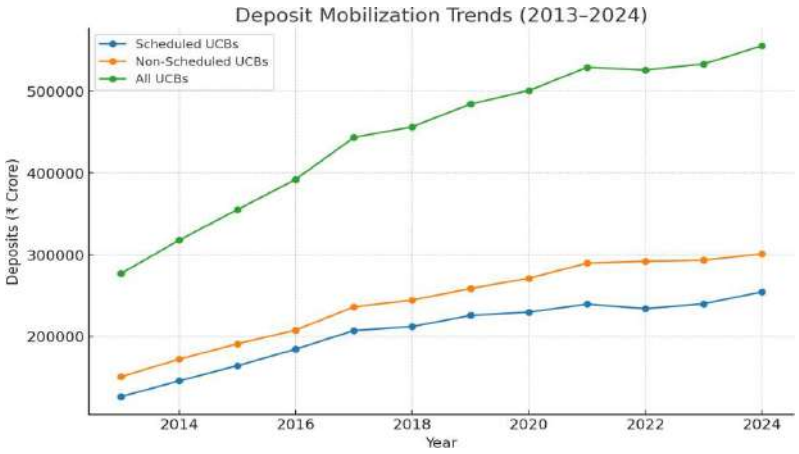
2.4 Market Share Stability and Competitive Positioning

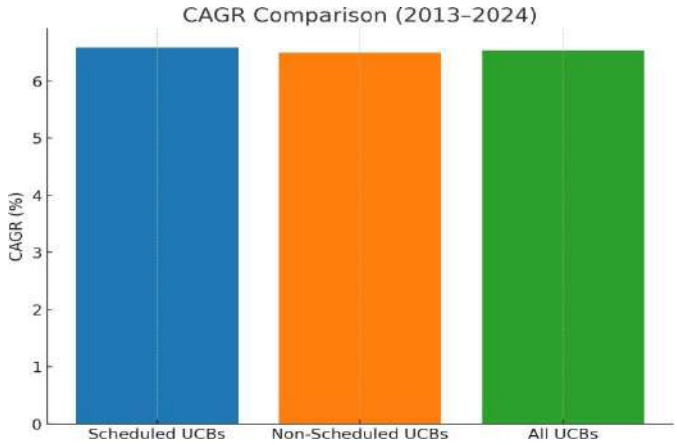
The stability of the 45:55 market share ratio between Scheduled and Non-Scheduled UCBs throughout the period indicates entrenched depositor preferences and structural characteristics of the cooperative banking network in India. Scheduled UCBs while smaller in market share, demonstrated competitive growth rates hinting at gradual improvements in operational reach and service quality. Non-Scheduled UCBs, benefitting from their broader depositor base, continued to enjoy scale advantages but faced the challenge of sustaining consistent year-on-year growth amidst economic fluctuations. The resilience shown by both segments in the immediate years following the 2022 downturn points to the robustness of the cooperative banking model, while also underscoring the need for ongoing modernization, diversification of services, and

governance strengthening to maintain depositor trust.

2.5 Policy Implications and Future Outlook

From a policy perspective, the deposit mobilization performance between 2013 and 2024 reinforces the need for a dual focus on systemic improvements and targeted interventions. Since both Scheduled and Non-Scheduled UCBs display similar long-term growth trajectories, sector-wide reforms aimed at enhancing financial inclusion, upgrading technology infrastructure, and mitigating non-performing assets will yield more balanced and sustainable deposit growth. The consistent expansion, albeit at a moderate pace, positions the UCB sector as a crucial component of the cooperative credit architecture in India, capable of contributing meaningfully to grassroots-level banking while adapting to evolving economic landscapes.





3. Business Profile of Loan and Advances

Urban Cooperative Banks in India have steadily broadened their lending operations to include a diverse range of sectors. While their core remains rooted in housing finance and small-value loans, they have also embraced the challenge of priority sector lending and agricultural credit. This diversified approach, guided by a sound regulatory framework, positions UCBs as vital contributors to inclusive and balanced urban economic development.

Table-2.2: Loans and Advances Position of UCBs

(Rs. in Crores)

Year	Scheduled	GR (%)	Share to All UCBs (%)	Non-Scheduled	Share to All UCBs (%)	GR (%)	All UCBs	GR (%)
2013	84017.50	0.00	46.41	97013.39	0.00	53.59	181030.89	0.00
2014	93833.46	11.68	46.83	106518.68	9.80	53.17	200352.14	10.67
2015	105743.65	12.69	47.14	118557.92	11.30	52.86	224301.58	11.95
2016	118708.27	12.26	48.46	126227.85	6.47	51.54	244936.12	9.20
2017	129182.41	8.82	49.46	132019.50	4.59	50.54	261201.91	6.64
2018	136822.38	5.91	48.79	143637.21	8.80	51.21	280459.59	7.37
2019	146559.62	7.12	48.37	156459.94	8.93	51.63	303019.56	8.04
2020	141151.02	-3.69	46.24	164138.23	4.91	53.76	305289.26	0.75
2021	143175.11	1.43	45.60	170786.14	4.05	54.40	313961.25	2.84
2022	142627.04	-0.38	45.32	172113.90	0.78	54.68	314740.94	0.25
2023	151663.25	6.34	45.91	178662.15	3.80	54.09	330325.40	4.95
2024	159553.07	5.20	45.99	187350.32	4.86	54.01	346903.39	5.02

Source: (RBI Data Base on Indian Economy)

3.1 Growth of Scheduled UCBs (2013–2024)

Between 2013 and 2024, Scheduled Urban Cooperative Banks (UCBs) recorded a substantial rise in their loan and advances portfolio from ₹84,017.50 crore to ₹1,59,553.07 crore, reflecting a near-doubling over the eleven-year span. This growth corresponds to a Compound Annual Growth Rate (CAGR) **of** 5.84%**,** which, while strong, is slightly below their deposit CAGR of 6.58%, suggesting a more measured pace of credit expansion relative to resource mobilization. Scheduled UCBs' share of total loans and advances in the UCB sector hovered between 45% and 49.5%, with the highest share recorded in 2017 (49.46%). Growth momentum was strong in the early period, with double-digit increases in 2014, 2015, and 2016, driven possibly by favorable economic conditions, expansion in lending capacity, and improved asset quality. However, the sector faced a contraction in 2020 (-3.69%) and again a marginal decline in 2022 (-0.38%), which may be attributed to pandemic-related disruptions and cautious lending in uncertain market conditions. The rebound in 2023 (6.34%) and continued rise in 2024 (5.20%) signal renewed credit growth and improved borrower demand.

3.2 Performance of Non-Scheduled UCBs

Non-Scheduled UCBs maintained their lead in loan and advances mobilization, with figures increasing from ₹97,013.39 crore in 2013 to ₹1,87,350.32 crore in 2024. This represents a **CAGR of 5.59%,** marginally lower than that of Scheduled UCBs, but consistent with their larger loan book. The share of Non-Scheduled UCBs in total advances ranged from 50.54% to 54.68%, underscoring their dominant position in the credit market. Growth patterns reveal steady expansion in the pre-pandemic period, with notable highs in 2015 (11.30%) and 2019 (8.93%). However, growth slowed in 2020 (4.91%), 2021 (4.05%), and 2022 (0.78%), indicating a more conservative lending approach during uncertain economic conditions. Post-2022, Non-Scheduled UCBs registered moderate improvement with growth rates of 3.80% in 2023 and 4.86% in 2024, suggesting a gradual return to lending confidence.

3.3 Sector-Wide Trends and CAGR Analysis

For all UCBs combined, loans and advances rose from ₹1,81,030.89 crore in 2013 to ₹3,46,903.39 crore in 2024, delivering a sector CAGR of 5.71%**.** This growth rate is slightly below that seen in deposits over the same period, implying that credit expansion lagged behind resource mobilization. The sector experienced particularly strong growth during 2014–2016, with annual increases above 9%, and again in 2019 with 8.04% growth. However, momentum weakened significantly during 2020–2022, with growth dipping to just 0.25% in 2022. The years 2023 (4.95%) and 2024 (5.02%) marked a phase of moderate recovery, reflecting cautious optimism among lenders and borrowers alike.

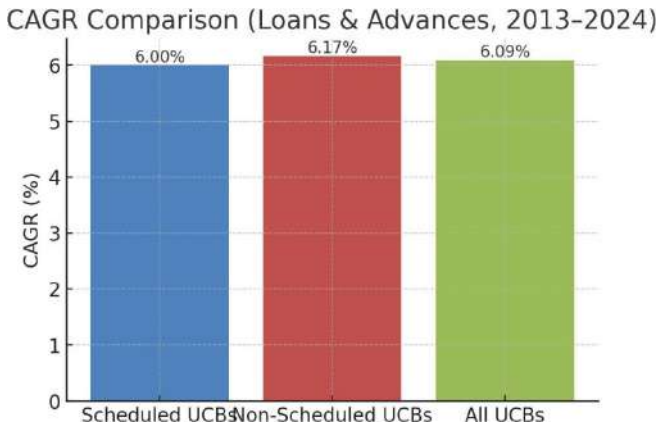
3.4 Comparative Insights between Scheduled and Non-Scheduled UCBs

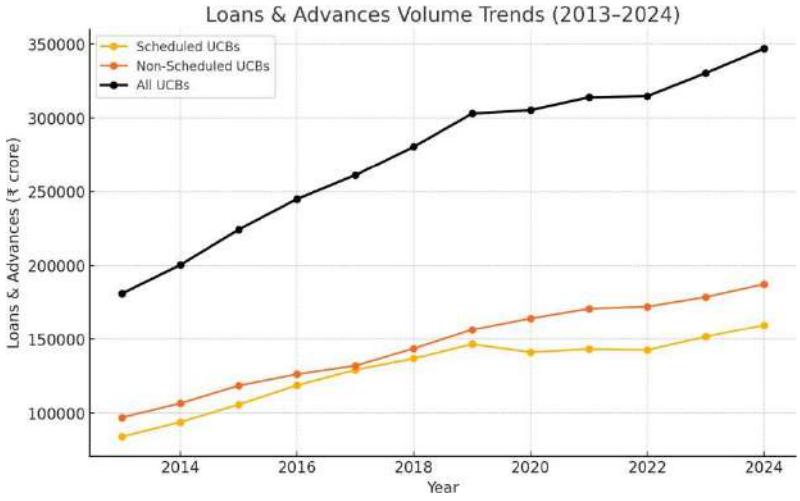
While Non-Scheduled UCBs retained a larger share of the loan market, Scheduled UCBs recorded a marginally higher CAGR over the review period, indicating a gradual narrowing of the credit market gap between the two segments. Scheduled UCBs also displayed a slightly more volatile growth trajectory, with sharper contractions during downturns but stronger rebounds in recovery years. In contrast, the non-Scheduled UCBs have demonstrated steadier year-on-year growth but with slower post-pandemic recovery rates. Both segments mirrored broader economic cycles and sectoral reforms, reflecting the influence of common regulatory and market forces.

3.5 Policy Implications and Strategic Outlook

The analysis of loans and advances from 2013 to 2024 reveals that while both Scheduled and Non-Scheduled UCBs expanded their credit portfolios significantly, the pace was more conservative compared to deposit mobilization. This may reflect prudent lending practices in the face of asset quality challenges and evolving regulatory norms. Going forward, Scheduled UCBs can leverage their improving growth rate to expand lending in niche markets and underserved regions, while Non-Scheduled UCBs may focus on diversifying their loan portfolios and strengthening credit appraisal systems to sustain long-term growth. From a policy standpoint, aligning credit expansion with deposit growth, enhancing risk management frameworks, and

promoting digital credit delivery channels will be essential for ensuring sustainable and inclusive credit growth across the cooperative banking sector.





4. Volume of Business in UCBs

In the cooperative banking context, the "volume of business" represents the combined value of deposits mobilized and loans disbursed, reflecting both the resource base and the credit outreach of banks. This metric is a key performance indicator under the Banking Regulation Act, as it captures the dual function of accepting deposits and lending to members/customers. Tracking its growth offers insights into operational efficiency, customer trust, and market penetration.

Table-2.3: Volume of Business

(Rs.in Crores)

Year	Scheduled	GR (%)	Share to All UCBs (%)	Non-Scheduled	Share to All UCBs (%)	GR (%)	All UCBs	GR (%)
2013	210207.10	0	45.91	247654.22	54.09	0	457861.3	0
2014	239437.90	13.91	46.21	278683.56	53.79	12.53	518121.4	13.16
2015	269964.30	12.75	46.59	309471.02	53.41	11.05	579435.3	11.83
2016	303112.90	12.28	47.58	333999.12	52.42	7.93	637112	9.95
2017	336429.70	10.99	47.74	368241.09	52.26	10.25	704670.8	10.60
2018	348863.50	3.70	47.34	388102.93	52.66	5.39	736966.4	4.58
2019	372247.30	6.70	47.28	415094.23	52.72	6.95	787341.5	6.84
2020	370857.30	-0.37	46.01	435262.36	53.99	4.86	806119.6	2.39
2021	382754.00	3.21	45.39	460436.14	54.61	5.78	843190.1	4.60
2022	376707.10	-1.58	44.81	464054.38	55.19	0.79	840761.5	-0.29
2023	391645.70	3.97	45.35	471934.79	54.65	1.70	863580.5	2.71
2024	414031.90	5.72	45.88	488341.02	54.12	3.48	902372.9	4.49

Source: (RBI Data Base on Indian Economy)

4.1 Growth Performance of Scheduled UCBs (2013–2024)

The volume of business for Scheduled Urban Cooperative Banks (UCBs) expanded from ₹2,10,207.10 crore in 2013 to ₹4,14,031.90 crore in 2024, achieving a Compound Annual Growth Rate (CAGR) of 6.31% over the eleven-year period. During the early growth phase (2013–2017), the sector recorded strong double-digit annual growth, peaking at 13.91% in 2014 and maintaining above 10% growth through 2017, driven by increased deposit mobilization and robust lending expansion. This momentum slowed during the moderation phase (2018–2020), with 2018 posting only 3.70% growth and 2020 registering a marginal contraction of -0.37%, possibly due to early signs of asset quality stress and a broader macroeconomic slowdown. The pandemic and recovery phase (2021–2024) reflected mixed trends, with a decline of -1.58% in 2022 followed by a rebound to 5.72% in 2024, indicating renewed momentum in both deposit and credit growth. Throughout the period, Scheduled UCBs maintained a market share between 44.8% and 47.7% of the total UCB volume of business, reflecting a stable yet slightly diminishing presence as Non-Scheduled UCBs gradually strengthened their position.

4.2 Performance of Non-Scheduled UCBs (2013–2024)

The volume of business for Non-Scheduled Urban Cooperative Banks (UCBs) increased from ₹2,47,654.22 crore in 2013 to ₹4,88,341.02 crore in 2024, registering a Compound Annual Growth Rate (CAGR) of 6.00% over the eleven-year period. During the consistent early growth phase (2013–2017), the sector recorded strong expansion, with a high of 12.53% in 2014 and sustained increases between 7% and 11% annually through 2017. The momentum slowed in the steady but lower growth phase (2018–2020), with growth rates easing to 5.39% in 2018 and 4.86% in 2020, reflecting a more measured expansion compared to earlier years. Post-2020 trends indicate resilience, as Non-Scheduled UCBs avoided the sharp contractions seen in Scheduled UCBs, though growth slowed to just 0.79% in 2022 before regaining modest pace at 1.70% in 2023 and 3.48% in 2024. Throughout the period, Non-Scheduled UCBs consistently held a larger share of the total UCB business, ranging from 52.26% to 55.19%, highlighting their broader reach and possibly stronger presence in certain regional or niche markets.

4.3 Performance of Non-Scheduled UCBs (2013–2024)

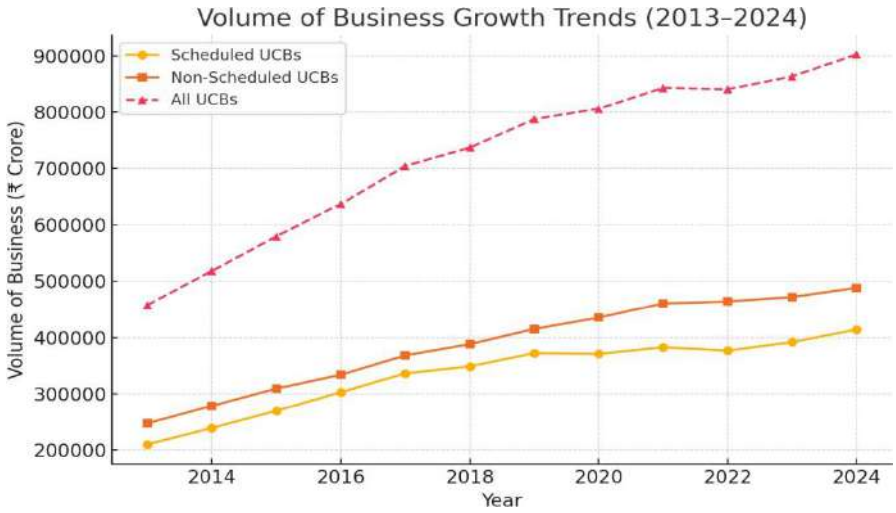
The volume of business for Non-Scheduled Urban Cooperative Banks (UCBs) increased from ₹2,47,654.22 crore in 2013 to ₹4,88,341.02 crore in 2024, recording a Compound Annual Growth Rate (CAGR) of 6.00% over the eleven-year period. The consistent early growth phase (2013–2017) was marked by strong expansion, with a peak growth rate of 12.53% in 2014, followed by sustained increases between 7% and 11% annually until 2017. In the steady but lower momentum phase (2018–2020), growth moderated to 5.39% in 2018 and 4.86% in 2020, indicating a more cautious expansion compared to earlier years. In the post-2020 period, Non-Scheduled UCBs avoided the sharp declines seen in Scheduled UCBs, although growth slowed to just 0.79% in 2022 before regaining modest pace in 2023 (1.70%) and 2024 (3.48%). Throughout the period, their share of the total UCB business consistently remained higher than Scheduled UCBs, ranging from 52.26% to 55.19%, reflecting broader reach and possible dominance in certain regional or niche markets.

4.4 Aggregate UCB Sector Trends (2013–2024)

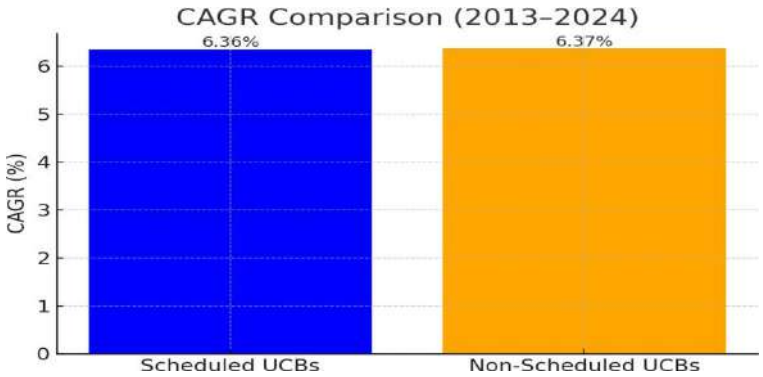
The total volume of business for all UCBs rose from ₹4,57,861.30 crore in 2013 to ₹9,02,372.90 crore in 2024, reflecting a sector-wide CAGR of 6.14%. During the high-growth years between 2014 and 2016, the sector experienced strong expansion ranging from 9.95% to 13.16%, supported by favourable economic conditions, branch expansion initiatives, and increased financial inclusion efforts. This momentum slowed from 2018 onwards, with growth dipping into single digits, and in 2022 the sector contracted marginally (-0.29%) for the first time in the period, reflecting pandemic aftershocks and cautious banking operations. The recovery phase began in 2023 with a growth rate of 2.71%, strengthening to 4.49% in 2024, though still below pre-2017 levels, indicating a gradual rebound rather than a full recovery.

4.5 Comparative Cross-Sector Insights

Scheduled UCBs recorded a slightly higher CAGR of 6.31% compared to 6.00% for Non-Scheduled UCBs, although the latter maintained a consistently larger market share throughout the period. Non-Scheduled UCBs demonstrated greater resilience during downturns, particularly in 2020 and 2022, whereas Scheduled UCBs experienced sharper fluctuations in growth performance. The overall market structure between the two categories remained relatively stable, with Non-Scheduled UCBs holding approximately 8–10 percentage points more in market share. Considering that the volume of business represents the combined value of deposits and loans, the slowdown in later years for both categories indicates that credit expansion lagged behind deposit mobilization, reflecting a more cautious lending strategy.


Volume of Business Growth Trends (2013–2024)
Scheduled UCBs
Non-Scheduled UCBs
All UCBs
Volume of Business (₹ Crore)
900000
800000
700000
600000
500000
400000
300000
200000
2014
2016
2018
2020
2022
2024
Year


Market Share Shifts: Scheduled vs Non-Scheduled UCBs
Scheduled UCBs
Non-Scheduled UCBs
Market Share (%)
54
52
50
48
46
2014
2016
2018
2020
2022
2024
Year


CAGR Comparison (2013–2024)
6.36%
6.37%
CAGR (%)
6
5
4
3
2
1
0
Scheduled UCBs
Non-Scheduled UCBs

4.6 Policy and Strategic Implications

For sustained market presence, Scheduled UCBs may benefit from widening their geographic footprint and diversifying their loan portfolios, while Non-Scheduled UCBs could focus on enhancing governance and adopting advanced technology to maintain their lead. The slowdown in volume growth compared to earlier years underscores the need for prudent credit expansion, balancing risk management with proactive lending. Both segments can leverage digital integration to boost business volumes, attract younger customers, and enable faster loan processing. In addition, aligning regulatory frameworks with growth-oriented policies can help both Scheduled and Non-Scheduled UCBs achieve higher and more stable CAGRs without compromising financial stability.

Table-2.4: Total Assets

(Rs.in Croroes)

Year	Scheduled	GR (%)	Share to All UCBs (%)	Non-Scheduled	Share to All UCBs (%)	GR (%)	All UCBs	GR (%)
2013	1,57,765.00	0.00	46.20	1,83,709.00	0	53.80	3,41,474.00	0
2014	1,81,702.00	15.17	46.91	2,05,615.00	11.92	53.09	3,87,317.00	13.43
2015	2,03614.00	12.06	46.79	2,31584.00	12.63	53.21	4,35197.00	12.36
2016	2,27013.00	11.49	47.45	2,51390.00	8.55	52.55	4,78404.00	9.93
2017	2,54339.00	12.04	47.11	2,85585.00	13.60	52.89	5,39924.00	12.86
2018	2,64685.00	4.07	47.00	2,98494.00	4.52	53.00	5,63179.00	4.31
2019	2,84,837.60	7.61	47.54	3,14,268.67	5.28	52.46	5,99,106.27	6.38
2020	2,91,088.33	2.19	46.64	3,33,094.34	5.99	53.36	6,24,182.67	4.19
2021	3,01,792.81	3.68	45.67	3,58,954.90	7.76	54.33	6,60,747.71	5.86
2022	2,97,906.07	-1.29	44.70	3,68,579.71	2.68	55.30	6,66,485.79	0.87
2023	3,06,580.66	2.91	45.07	3,73,616.13	1.37	54.93	6,80,196.78	2.07
2024	3,21,723.13	4.95	45.46	3,85,946.05	3.30	54.54	7,07,669.18	4.94

Source: (RBI Data Base on Indian Economy)

5.1 Overview of Asset Growth and CAGR

Between 2013 and 2024, the total assets of all UCBs increased from ₹3,41,474 crore to ₹7,07,669.18 crore, reflecting a compound annual growth rate (CAGR) of 6.68%**.** Scheduled UCBs registered a CAGR of 6.46%**,** while Non-Scheduled UCBs recorded a slightly higher CAGR of **6.86%,** indicating their comparatively faster expansion in asset

base during the review period.

5.2 Comparative Growth Trends

In the initial phase from 2013 to 2017, both Scheduled and Non-Scheduled UCBs recorded robust asset expansion, although the pace varied slightly between them. Scheduled UCBs posted annual growth rates in the range of 11% to 15%, with a peak of 15.17% in 2014, reflecting strong balance sheet strengthening and deposit mobilization. Non-Scheduled UCBs, while operating from a different institutional base, maintained steady growth between 8.5% and 13.6%, achieving their highest rate of 13.60% in 2017, indicating strong regional engagement and niche market positioning.

However, the period from 2018 to 2020 marked a moderation phase for both categories. Scheduled UCBs saw their growth slow noticeably, reaching just 2.19% in 2020, likely due to a combination of tighter regulatory norms, slowing credit demand, and cautious asset expansion. In contrast, Non-Scheduled UCBs managed to sustain relatively better performance during the same period, growing at 5.99% in 2020, suggesting greater adaptability in localized markets.

The post-2020 period brought signs of recovery and stabilization, but the momentum was uneven between the two segments. Non-Scheduled UCBs demonstrated stronger resilience, maintaining positive growth even in challenging years such as 2022, whereas Scheduled UCBs experienced a contraction of -1.29% in that year before regaining growth thereafter. This divergence underscores the structural flexibility of Non-Scheduled UCBs in navigating economic disruptions and sustaining asset expansion in a volatile environment.

5.3. Market Share Dynamics

The asset share of Non-Scheduled UCBs consistently exceeded that of Scheduled UCBs, starting at 53.80% in 2013 and reaching 54.54% in 2024**.** The share of Scheduled UCBs' though stable in the early years (46%–47.5%) gradually trended downward post-2020, dropping to its lowest in 2022 at 44.70%**,** before marginally recovering to 45.46% in 2024. This sustained dominance of Non-Scheduled UCBs suggests their broader geographical penetration and possible operational agility in regional markets.

5.4. Sector-Wide Asset Expansion

The total asset base of UCBs almost doubled over the 11-year period, underpinned by strong performance during 2013–2017 and resilience during economic slowdowns. The slight deceleration in growth rates during 2018–2020 was reflective of wider banking sector challenges, while the post-pandemic period witnessed steady recovery, led primarily by the Non-Scheduled segment.

5.5. **Cross-Sectoral Insights**

Over the 2013–2024 period, Non-Scheduled UCBs marginally outpaced Scheduled UCBs in terms of compound annual growth rate (CAGR), reflecting relatively stronger capital mobilization and lending capacity within smaller, regionally anchored institutions. While the Scheduled segment's share of total assets witnessed gradual erosion, the Non-Scheduled category steadily consolidated its market position, crossing and consistently maintaining a share above 54% after 2020. This shift highlights an underlying structural trend: that decentralized, community-focused banking models can be more agile in responding to localized economic conditions. From a policy perspective, the comparatively stronger performance of Non-Scheduled UCBs—despite their smaller individual asset base—suggests that localized banking ecosystems play a crucial role in sustaining sectoral asset growth, particularly during periods of macroeconomic uncertainty or sector-wide slowdowns.

5.6. Policy and Strategic Implications

The comparative performance of Scheduled and Non-Scheduled UCBs in asset growth offers several insights for policy formulation and strategic planning. The marginally higher CAGR of Non-Scheduled UCBs, despite their relatively smaller operational base, underscores the potential of decentralized and regionally embedded banking models. Policy support for enhancing their capital adequacy, digital infrastructure, and risk management frameworks could further boost their capacity to mobilize deposits and expand loan portfolios without compromising financial stability.

For Scheduled UCBs, the slight erosion of market share points to the need for strategic repositioning**.** This could involve diversifying revenue streams, deepening penetration into underserved urban and semi-urban markets, and adopting technology-driven customer acquisition models. Regulatory incentives for collaboration between Scheduled and Non-Scheduled UCBs—such as co-lending arrangements and shared service platforms—can also be explored to enhance sector-wide asset expansion.

From a macro perspective, the overall doubling of UCB assets in the past decade highlights their sustained relevance in urban and semi-urban financial ecosystems. Targeted government schemes and RBI-led reforms aimed at strengthening governance, compliance, and professional management practices could ensure sustained asset growth while safeguarding depositor interests.

Finally, the post-pandemic rebound, led by Non-Scheduled UCBs, illustrates the resilience of community-based financial institutions in absorbing shocks and maintaining growth momentum. Strategically, leveraging this resilience through financial inclusion initiatives and MSME-focused lending programs can align UCB growth with broader socio-economic development goals.

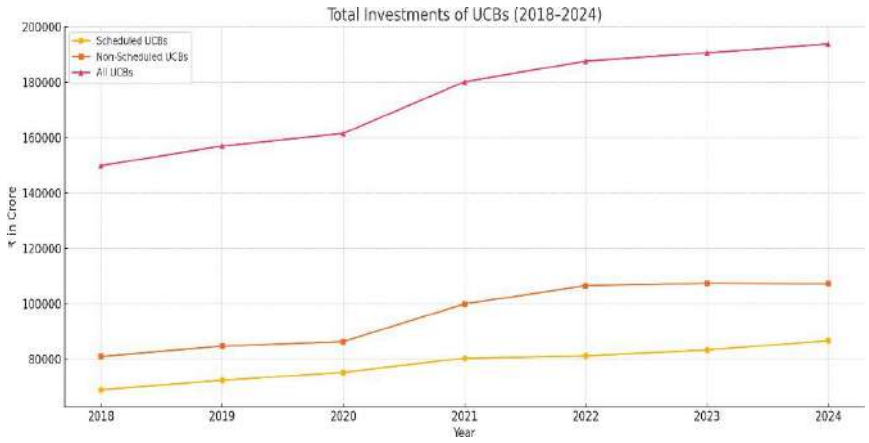
6. Investments of UCBs

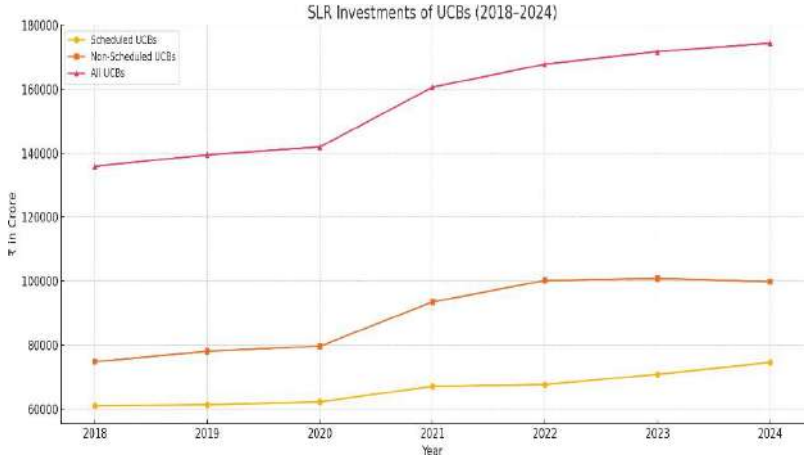
Table-2.5: Structure of Investments

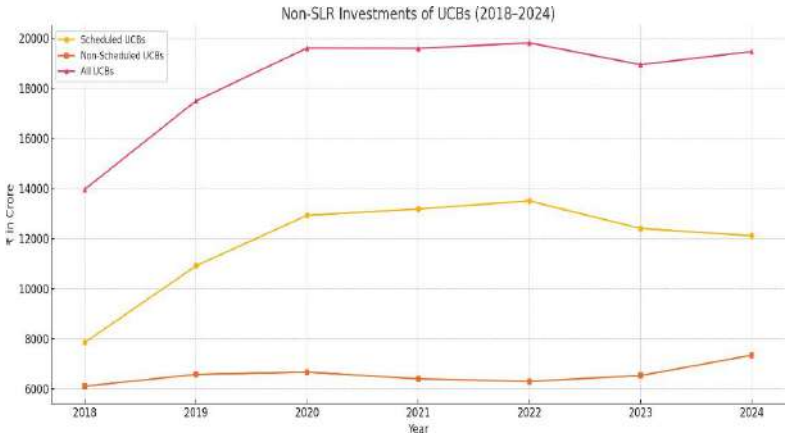
(Rs. In Crores)

Year	Scheduled	GR (%)	Share to All UCBs (%)	Non-Scheduled	Share to All UCBs (%)	GR (%)	All UCBs	GR (%)
2018	68,927.94	0.00	46.00	80,906.05	0.00	54.00	1,49,833.98	0.00
2019	72,305.33	4.90	46.07	84,637.84	4.61	53.93	1,56,943.17	4.74
2020	75,175.35	3.97	46.55	86,328.26	2.00	53.45	1,61,503.62	2.91
2021	80,278.18	6.79	44.56	99,871.91	15.69	55.44	1,80,150.09	11.55
2022	81,150.53	1.09	43.25	1,06,459.72	6.60	56.75	1,87,610.25	4.14
2023	83,254.25	2.59	43.67	1,07,372.82	0.86	56.33	1,90,627.06	1.61
2024	86,625.71	3.89	44.70	1,07,188.45	0.17	55.30	1,93,814.16	1.65
SLR Investments								
Year	**Scheduled**	**GR (%)**	**Share to All UCBs (%)**	**Non-Scheduled**	**Share to All UCBs (%)**	**GR (%)**	**All UCBs**	**GR (%)**
2018	61,068.33	0.00	44.95	74,795.09	0.00	55.05	1,35,863.42	0.00
2019	61,394.03	0.53	44.03	78,055.89	4.36	55.97	1,39,449.92	2.64
2020	62,246.75	1.37	43.87	79,653.98	2.05	56.13	1,41,900.73	1.76
2021	67,094.05	7.22	41.79	93,466.29	17.34	58.21	1,60,560.34	13.15
2022	67,644.72	0.81	40.31	1,00,155.48	7.16	59.69	1,67,800.20	4.51
2023	70,852.59	4.53	41.27	1,00,837.68	0.68	58.73	1,71,690.27	2.32
2024	74,514.54	4.91	42.74	99,837.33	-1.00	57.26	1,74,351.87	1.52
Non-SLR Investments								
Year	**Scheduled**	**GR (%)**	**Share to All UCBs (%)**	**Non-Scheduled**	**Share to All UCBs (%)**	**GR (%)**	**All UCBs**	**GR (%)**
2018	7,859.60	0.00	56.26	6,110.96	0.00	43.74	13,970.56	0.00
2019	10,911.30	38.83	62.37	6,581.95	7.71	37.63	17,493.26	25.22
2020	12,928.60	18.49	65.95	6,674.28	1.40	34.05	19,602.88	12.06
2021	13,184.13	1.98	67.30	6,405.62	-4.03	32.70	19,589.76	-0.07
2022	13,505.81	2.44	68.18	6,304.24	-1.58	31.82	19,810.04	1.12
2023	12,401.66	-8.18	65.49	6,535.13	3.66	34.51	18,936.79	-4.41
2024	12,111.17	-2.40	62.23	7,351.13	11.10	37.77	19,462.29	2.70

(Source: RBI – Data Base on Indian Economy)


Total Investments of UCBs (2018-2024)
Scheduled UCBs
Non-Scheduled UCBs
All UCBs
₹ in Crore
Year


SLR Investments of UCBs (2018-2024)
Scheduled UCBs
Non-Scheduled UCBs
All UCBs
₹ in Crore
Year


Non-SLR Investments of UCBs (2018-2024)
Scheduled UCBs
Non-Scheduled UCBs
All UCBs
₹ in Crore
Year

6.1 Growth Trajectory of UCB Investments (2018–2024)

The investment portfolios of Urban Cooperative Banks (UCBs) continued their upward trajectory from 2018 to 2024, though with varying growth momentum. Scheduled UCBs increased their investments from ₹68,927.94 crore in 2018 to ₹86,625.71 crore in 2024, registering a CAGR of 3.85% over the seven-year period. Their growth remained modest, with occasional spurts, notably in 2021 (6.79%) and 2024 (3.89%). Non-Scheduled UCBs grew from ₹80,906.05 crore in 2018 to ₹1,07,188.45 crore in 2024, achieving a CAGR of 4.75%**.** A sharp recovery in 2021 (15.69%) was followed by subdued growth in subsequent years. The overall investments by all UCBs grew from ₹1,49,833.98 crore in 2018 to ₹1,93,814.16 crore in 2024, reflecting a CAGR of 4.32%**.** While 2021 (11.55%) marked the strongest post-pandemic recovery, the recent growth in 2024 (1.65%) suggests a plateauing trend in investment expansion.

6.2 Market Share Dynamics: Scheduled vs. Non-Scheduled UCBs

Throughout the 2018–2024 period, Non-Scheduled UCBs consistently held a higher share of total investments. Scheduled UCBs' share decreased from 46.00% in 2018 to 44.70% in 2024**,** indicating a marginal decline in relative dominance. Conversely, Non-Scheduled UCBs increased their share from 54.00% to 55.30% during the same period. Despite a narrowing gap in 2023, the rebound in 2024 reinforced the stronger positioning of Non-Scheduled UCBs.

6.3 COVID-19 Impacts and Post-Pandemic Recovery

The pandemic-induced slowdown during 2019–2020 led to limited growth in investments: Scheduled UCBs grew by just 3.97%, while Non-Scheduled UCBs rose by 2.00%. However, 2021 marked a strong recovery, particularly for Non-Scheduled UCBs (15.69%) compared to Scheduled UCBs (6.79%). This trend affirms the greater agility and market responsiveness of Non-Scheduled UCBs**.** While growth persisted into 2022–24, the pace moderated significantly, with 2024 showing a muted increase of 1.65% in total investments.

6.4 CAGR Analysis and Investment Growth Patterns

Over the 2018–2024 periods, Scheduled UCBs recorded a CAGR of 3.85%, while Non-Scheduled UCBs achieved a higher CAGR of 4.75%. The overall CAGR for all UCBs stood at 4.32%, confirming the stronger performance of Non-Scheduled entities. These figures emphasize divergent strategies: Non-Scheduled UCBs pursued expansionist investment policies, while Scheduled UCBs exhibited a more cautious, steady growth pattern.

6.5 SLR Investment Trends and Market Share

Scheduled UCBs' SLR investments rose from ₹61,068.33 crore in 2018 to ₹74,514.54 crore in 2024, reflecting a CAGR of 3.34%. Non-Scheduled UCBs' SLR investments increased from ₹74,795.09 crore to ₹99,837.33 crore, yielding a CAGR of 4.93%. The combined SLR investments for all UCBs grew to ₹1,74,351.87 crore in 2024 from ₹1,35,863.42 crore in 2018, with **a** CAGR of 4.22%. Over the years, the share of SLR investments by Scheduled UCBs dropped from 44.95% in 2018 to 42.74% in 2024, while Non-Scheduled UCBs' share grew to 57.26%. This trend reflects increasing SLR compliance and a more conservative investment stance by Non-Scheduled UCBs.

6.6 Non-SLR Investment Trends and Portfolio Strategies

Scheduled UCBs exhibited a more aggressive stance in non-SLR investments, increasing from ₹7,859.60 crore in 2018 to ₹12,111.17 crore in 2024—a CAGR of 7.38%. In contrast, Non-Scheduled UCBs grew from ₹6,110.96 crore to ₹7,351.13 crore during the same period, achieving a CAGR of 3.05%. The total non-SLR investments of all UCBs stood at ₹19,462.29 crore in 2024, up from ₹13,970.56 crore in 2018, marking a CAGR of 5.61%. Scheduled UCBs increased their share in non-SLR investments from 56.26% in 2018 to 62.23% in 2024, while Non-Scheduled UCBs saw their share decline to 37.77%. This reversal signals a shift in risk appetite, with Scheduled UCBs actively expanding into non-statutory investment domains.

6.7 Overall Investment Trends and Strategic Insights

Unlike other cooperative banks, Urban Cooperative Banks (UCBs) primarily rely on deposits as their major source of finance and are consequently regulated under the Banking Regulation (BR) Act by the Reserve Bank of India (RBI). This regulatory framework mandates adherence to the Statutory Liquidity Ratio (SLR) while permitting allocations to non-SLR investments. Between 2018 and 2024, UCBs collectively demonstrated consistent investment growth, with a notable post-pandemic recovery in 2021. Non-Scheduled UCBs led this resurgence, exhibiting higher Compound Annual Growth Rates (CAGR), larger market share, and a more aggressive expansion trajectory, particularly in SLR-mandated assets. Conversely, Scheduled UCBs increasingly focused on non-SLR instruments, reflecting a strategic shift toward diversified and higher-yield investments. This divergence in portfolio strategies—statutory-driven growth by Non-Scheduled UCBs and risk-sensitive diversification by Scheduled UCBs—highlights the evolving maturity of the sector. Despite the temporary disruptions caused by the COVID-19 pandemic, the UCB sector displayed overall resilience and adaptability, balancing regulatory compliance with financial performance through differentiated and dynamic investment approaches.

7. Analysis of Margin: Interest Income, Interest Expenses, and Net Interest Margin Trends

7.1 Net Interest Margin (NIM)/Gross Margin

Net Interest Margin (NIM) is a crucial financial metric that reflects the core profitability of banks and financial institutions. It measures the difference between the interest income a bank earns from its interest-bearing assets—primarily loans—and the interest it pays to its depositors and other creditors. Expressed as a percentage of the bank's average interest-earning assets, NIM indicates how effectively the institution is utilizing its assets and liabilities to generate income. A higher NIM typically suggests better financial health and operational efficiency, while a lower NIM may point to inefficiencies or rising costs.

Conceptually, NIM is the percentage net interest "spread" on a bank's loan portfolio. It shows how much a bank earns in net interest income (NII) for every rupee invested in interest-earning assets. This metric is pivotal in evaluating the sustainability and profitability of a bank's traditional lending model. For a bank to be profitable and viable in the long term, its net interest income—where interest income exceeds interest expenses—must remain positive;

NIM = (Interest Income − Interest Expenses) / Average Interest-Earning Assets × 100

To compute NIM, several steps are involved. First, the total interest income generated from loans and other interest-bearing assets must be calculated. Next, the total interest expenses incurred on deposits and borrowings are determined. Following this, the average interest-earning assets over a specific period are estimated. Once these values are known, the formula can be applied to derive the NIM as a percentage. For example, if a bank earns ₹50 crores as interest income from loans and pays ₹20 crores as interest on deposits, and the average interest-earning assets during the period amount to ₹500 crores, the NIM would be calculated as: NIM = (₹50 Cr − ₹20 Cr) / ₹500 Cr × 100 = 6%. This 6% NIM reflects efficient management of the bank's interest income in relation to its interest expenses, signifying sound financial health and effective asset utilization.

7.1. a. Significance of NIM

Net Interest Margin (NIM) serves multiple vital purposes in banking and financial analysis. Primarily, it acts as a profitability indicator, directly reflecting the core earnings of a bank. A higher NIM implies that the bank is earning significantly more from its lending activities compared to what it pays on its deposits, suggesting strong financial performance. NIM also functions as a risk management tool, especially in periods of economic volatility. A stable or increasing NIM often indicates that the bank is effectively managing interest rate risks and maintaining a balanced asset-liability structure. In addition, NIM serves as an efficiency gauge, revealing how well a bank is utilizing its interest-earning assets to generate net returns. Moreover, it is used as a performance benchmark in the industry. By comparing NIMs across banks and financial institutions, stakeholders can assess relative performance and operational soundness. Interpreting NIM is straightforward: a higher percentage denotes effective asset-

liability management and healthy profit margins, while a declining NIM could indicate rising funding costs, operational inefficiencies, or declining loan quality.

Net Interest Margin (NIM) is widely applied in multiple areas of banking and financial decision-making. One of its primary uses is in evaluating operational efficiency, as it directly reflects how effectively a bank is managing its interest-earning activities. It is also essential in monitoring financial health, serving as a barometer of a bank's profitability and sustainability. Furthermore, NIM guides banks in setting appropriate lending and deposit rate strategies, helping them maintain a balance between competitiveness and profitability. It also plays a key role in benchmarking against industry peers, allowing stakeholders to assess relative performance. Additionally, NIM assists in planning for interest rate fluctuations, making it a valuable tool for both internal management and external evaluations.

7.1. b. Factors Influencing NIM

Several internal and external factors influence a bank's Net Interest Margin. Interest rate fluctuations are among the most significant determinants; when interest rates rise, banks often see an increase in income that exceeds the growth in expenses, boosting NIM. Conversely, declining rates tend to compress margins. The asset-liability composition also affects NIM, as a higher proportion of high-yielding assets generally results in more favorable margins. Credit risk plays a dual role—while riskier loans can yield higher returns, they also elevate the risk of default, potentially lowering net income. Operational efficiency—especially in terms of cost control and interest rate risk management—enhances NIM by improving the spread. Additionally, market competition can restrict the ability of banks to set higher lending rates, thereby affecting profitability. Lastly, the regulatory environment, including RBI policies and capital requirements, shapes the cost and yield dynamics, ultimately influencing NIM.

7.1. c. Strategies to Improve NIM

To enhance their Net Interest Margin, banks can implement a variety of strategic measures. One effective approach is optimizing loan portfolios by prioritizing high-yield, low-risk lending, which maximizes returns while maintaining asset quality.

Another important strategy involves managing funding costs, such as controlling the interest paid on deposits and minimizing operational expenditures to maintain a healthy spread. Banks must also adopt robust risk management practices, particularly to mitigate interest rate risks, ensuring margin stability across economic cycles. Diversifying income sources by increasing non-interest income, like service fees and commissions, helps reduce reliance on interest income alone. Finally, strategic pricing—where banks find a balance between attractive and profitable interest rates on both lending and deposit products—can further optimize NIM and strengthen the institution's financial position.

7.1. d. NIM vs. Net Interest Spread

While closely related, Net Interest Spread and Net Interest Margin differ subtly. Net Interest Spread is the simple difference between the average yield on earning assets and the average cost of funds, without factoring in asset volume. In contrast, NIM considers the size of interest-earning assets, making it a more comprehensive and realistic measure of a bank’s profitability and asset utilization.

7.1. e Key Takeaways

Net Interest Margin is a critical indicator of a bank's financial performance. It not only provides insights into the profitability of a bank's lending operations but also highlights the institution’s efficiency in managing interest rate risks and operating costs. A consistently high NIM signifies prudent financial management, sound lending practices, and an efficient business model. As such, NIM remains one of the most watched ratios in the financial services industry, influencing investment decisions, regulatory evaluations, and strategic planning.

Table-2.6: Interest Received

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	13718.05	17202.57	30920.62
2014	15328.50	20562.71	35891.22
2015	17338.98	23289.47	40628.45
2016	19197.44	25265.44	44462.87
2017	20196.34	27312.99	47509.34
2018	20236.66	28332.44	48569.10
2019	20790.02	27133.73	47923.75
2020	16920.46	27810.84	44731.30
2021	19462.83	27836.77	47299.60
2022	18550.84	28021.76	46572.60
2023	19,472.85	28,092.71	47,565.56
2024	21,475.60	29,232.18	50,707.78

(Source: RBI Data Base on Indian Economy)

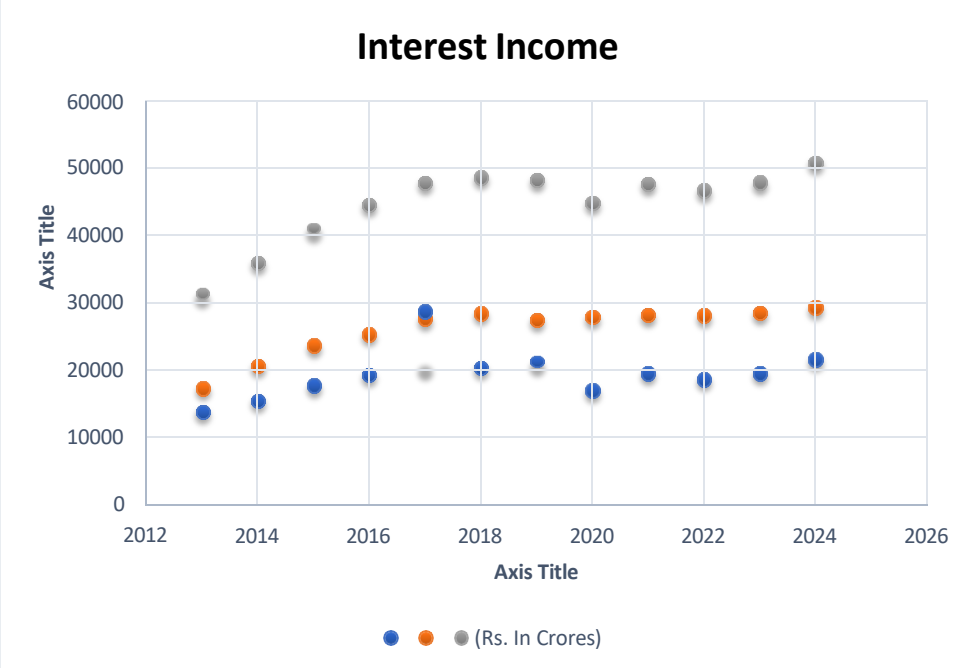


Table-2.7: Interest Paid

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	9410.28	11225.54	20635.81
2014	10694.54	13827.46	24522.01
2015	12424.18	15802.64	28226.83
2016	13665.96	17225.12	30891.08
2017	14337.45	18962.52	33299.97
2018	13594.75	18837.21	32431.95
2019	13719.15	17428.03	31147.19
2020	14659.31	18517.71	33177.01
2021	13502.99	18612.57	32115.56
2022	11397.95	17310.70	28708.65
2023	11,092.70	16,364.50	27,457.20
2024	12,837.91	17,450.96	30,288.87

(Source: RBI Data Base on Indian Economy)

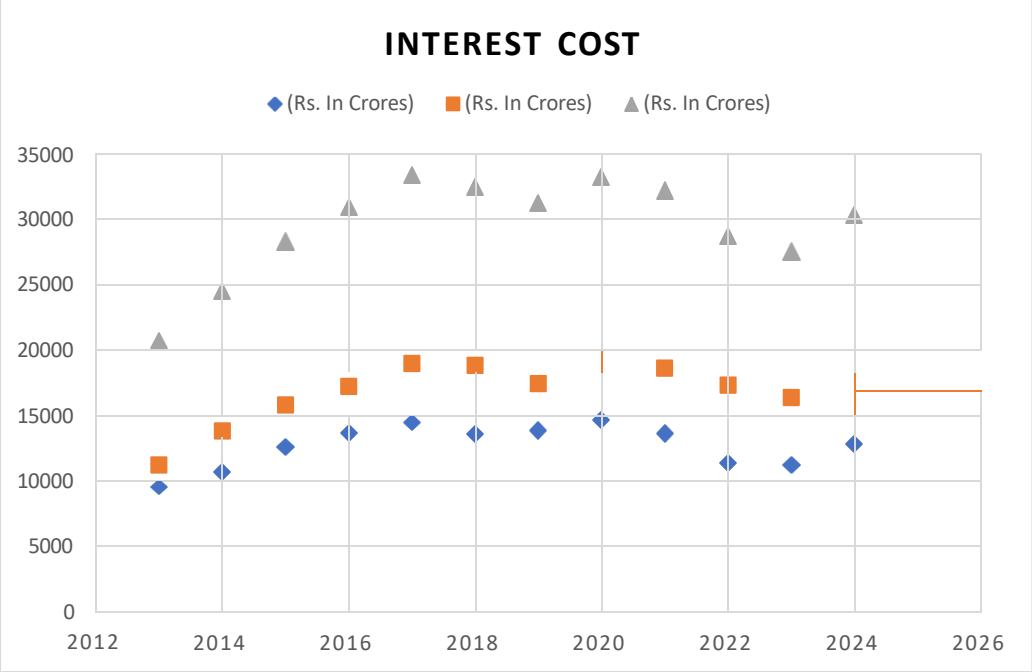
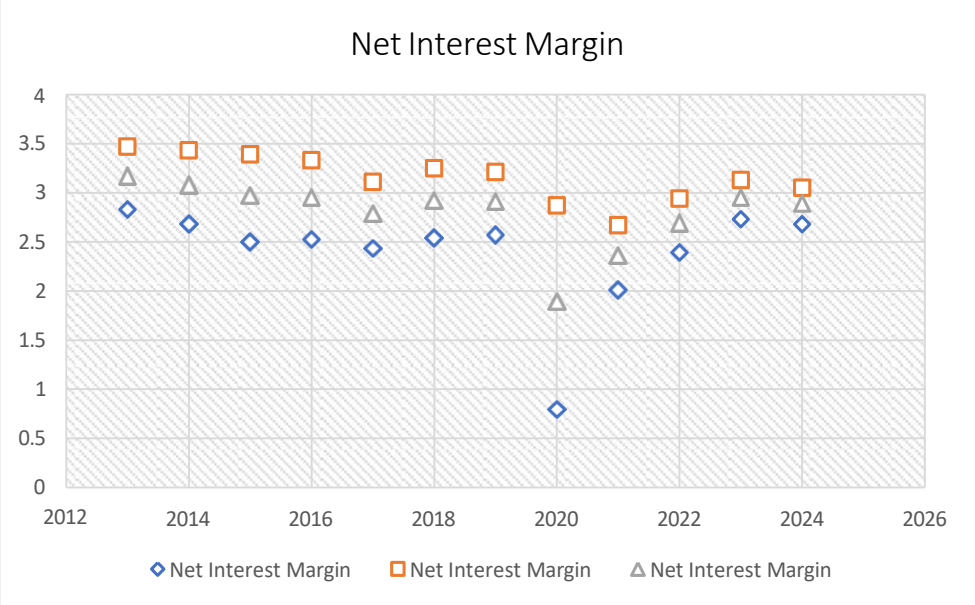


Table-2.8: Net Interest Margin

(% on Total Assets)

Year	Scheduled	Non-Scheduled	All UCBs
2013	2.83	3.47	3.17
2014	2.68	3.43	3.08
2015	2.50	3.39	2.97
2016	2.52	3.33	2.95
2017	2.43	3.11	2.79
2018	2.54	3.25	2.92
2019	2.57	3.21	2.91
2020	0.79	2.87	1.89
2021	2.01	2.67	2.36
2022	2.39	2.94	2.69
2023	2.73	3.13	2.95
2024	2.68	3.05	2.89

(Source: RBI Data Base on Indian Economy)



7.2 Critical Analysis of Interest Income, Interest Expenses, and Net Interest Margin Trends of UCBs (2013 - 2024)

The financial performance of Urban Cooperative Banks (UCBs) between 2013 and 2024 reveals key insights into their interest income, interest expenses, and net interest margins (NIM), which collectively reflect their profitability and operational efficiency.

a) ***Interest Income Trends***

The interest and discount income earned by UCBs demonstrated a steady upward trend over the decade, despite some fluctuations. In 2013, the total interest income for all UCBs stood at ₹30,920.62 crore, which gradually increased to ₹50,707.78 crore by 2024, reflecting an overall growth of approximately **64%.** Notably, Non-Scheduled UCBs consistently outperformed their Scheduled counterparts in terms of interest income generation. For instance, in 2024, Non-Scheduled UCBs earned ₹29,232.18 crore in interest income, compared to ₹21,475.60 crore by Scheduled UCBs. This indicates that Non-Scheduled UCBs, which form the majority of the sector, played a crucial role in driving overall revenue growth. Their larger share of interest income highlights their higher lending activity and potentially more aggressive expansion strategies.

b) ***Interest Expenses and Cost Efficiency***

The interest expenses of UCBs also rose steadily over the decade but displayed more noticeable fluctuations, particularly post-2020. In 2013, the total interest paid by all UCBs was ₹20,635.81 crore, which increased to ₹30,288.87 crore by 2024, marking an overall rise of around **46.8%.** However, the growth in interest expenses was relatively lower than the growth in interest income, indicating improved cost efficiency. The decline in interest expenses in 2022 and 2023, especially among Scheduled UCBs, signifies better management of funding costs or a shift towards lower-cost deposits. Non-Scheduled UCBs consistently reported higher interest expenses, reflecting their larger loan portfolios and more dynamic lending practices.

c) ***Net Interest Margin (NIM) Performance***

The Net Interest Margin (NIM), a key indicator of profitability, exhibited varying trends over the decade. In 2013, the overall NIM for UCBs was 3.17%, with Non-Scheduled

UCBs recording a higher margin (3.47%) compared to Scheduled UCBs (2.83%). However, NIMs for both segments gradually declined over the next few years, reaching their lowest point during the pandemic in 2020, where the sector-wide NIM plummeted to 1.89%, driven by reduced lending activity and higher provisioning costs. The sharp decline in Scheduled UCBs' NIM to 0.79% in 2020 indicates the significant financial strain they faced.

d) ***Post-Pandemic Recovery and Stability***

Following the pandemic, UCBs demonstrated notable recovery. By 2024, the overall NIM stood at 2.89%, showing continued stabilization close to pre-pandemic levels, with Non-Scheduled UCBs maintaining a stronger NIM (3.05%) compared to Scheduled UCBs (2.68%). The higher NIM of Non-Scheduled UCBs throughout the decade underscores their more profitable lending operations and potentially better risk management strategies. Conversely, the comparatively lower NIM of Scheduled UCBs reflects their more conservative and stable approach, with less aggressive lending and investment practices.

e) ***Strategic Implications***

The data indicates that Non-Scheduled UCBs consistently outperformed Scheduled UCBs in terms of both interest income and NIM. Their higher NIM highlights stronger profitability, likely driven by higher-yielding loan portfolios or lower-cost funding strategies. In contrast, Scheduled UCBs, while exhibiting lower NIMs, demonstrated greater stability and more consistent cost management practices. The post-pandemic recovery of NIMs signals the sector's resilience and adaptability, with both Scheduled and Non-Scheduled UCBs benefiting from improved interest rate spreads and better cost management.

f) ***Challenges and Opportunities***

While the recovery in NIMs is a positive sign, UCBs must continue to optimize their cost of funds and enhance their credit appraisal mechanisms to sustain profitability. Managing the balance between interest income growth and controlled interest expenses

will be critical in maintaining healthy NIMs. Additionally, the consistent outperformance of Non-Scheduled UCBs suggests they may be better positioned to adopt more dynamic lending strategies and capture growth opportunities in the evolving financial landscape.

7.3 Other Income and its Share in Total Income: The Rising Importance of Non-Interest Income in Urban Cooperative Banks (UCBs)

In recent years, Urban Cooperative Banks (UCBs) in India have faced mounting challenges due to the deregulation of interest rates and an increasingly competitive banking landscape. These developments have led to compressed interest margins, placing pressure on the traditional revenue streams of UCBs, which have historically relied heavily on interest income from lending operations. As net interest margins shrink, UCBs are compelled to diversify their income base by exploring non-interest or fee-based revenue avenues to sustain profitability and manage emerging risks effectively.

Non-interest income for UCBs refers to revenue earned through activities not directly linked to lending or investment operations. These sources include service charges on savings and current accounts, fees for processing loans, commissions from insurance and mutual fund distribution, charges for remittance services and bill collections, income from lockers and digital banking services, and earnings from foreign exchange transactions where permitted. For UCBs, these income streams not only provide relatively stable and recurring earnings but also serve as a cushion against fluctuations in interest income, thereby enhancing financial stability and operational resilience.

Given their limited access to capital markets and dependence on deposit mobilization, UCBs must strategically leverage non-interest income to remain competitive and sustainable. This study seeks to examine the role and contribution of non-interest income in improving the financial performance and risk profile of UCBs in India. It aims to provide comparative insights into how different categories of UCBs—such as scheduled versus non-scheduled and larger versus smaller institutions—have adopted fee-based income models. The study also highlights the opportunities and challenges faced by UCBs in expanding these income sources, along with the policy implications for strengthening their operational framework.

a) Components of Interest and Non-Interest Income in UCBs

Interest or fund-based income in UCBs primarily includes income from lending operations, such as interest on loans and advances extended to individuals, businesses, and cooperative societies. Additionally, UCBs earn interest income from investments, particularly in Statutory Liquidity Ratio (SLR) instruments like government securities. These banks also benefit from the interest spread—the difference between the interest earned on assets and the interest paid on liabilities such as fixed and savings deposits.

On the other hand, non-interest or fee-based income comprises several components that are increasingly gaining relevance. These include transaction and account-related charges such as service fees, cheque return penalties, and annual maintenance charges. UCBs also generate income through loan processing and documentation fees, commissions earned from acting as agents for insurance and pension products, and charges for remittance and bill payment services. Premium services such as safe deposit lockers, mobile and internet banking value-added features, and customer relationship management services also contribute to this income stream. By broadening their reliance on such non-interest income, UCBs can effectively mitigate risks associated with interest rate cycles, stabilize their earnings, and enhance customer service offerings, thereby improving their overall financial health and competitiveness in the cooperative banking sector.

Table-2.9: Other Income

(Rs. in Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	1626.51	846.55	2473.06
2014	1681.32	1056.22	2737.54
2015	2083.24	1281.37	3364.61
2016	1974.46	1383.90	3358.36
2017	2933.27	2120.60	5053.87
2018	2985.68	1867.31	4852.99
2019	1964.25	1417.49	3381.74
2020	3386.72	1966.24	5352.96
2021	2838.15	2311.09	5149.23
2022	2192.37	1857.11	4049.48
2023	2975.93	1792.39	4768.32
2024	2668.23	1821.48	4489.71

(Source: RBI Data Base on Indian Economy)

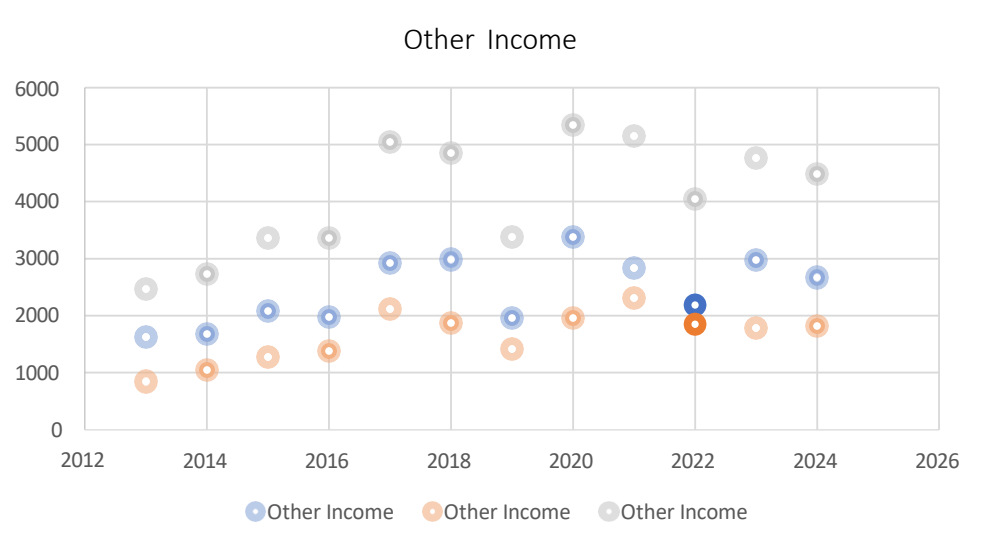
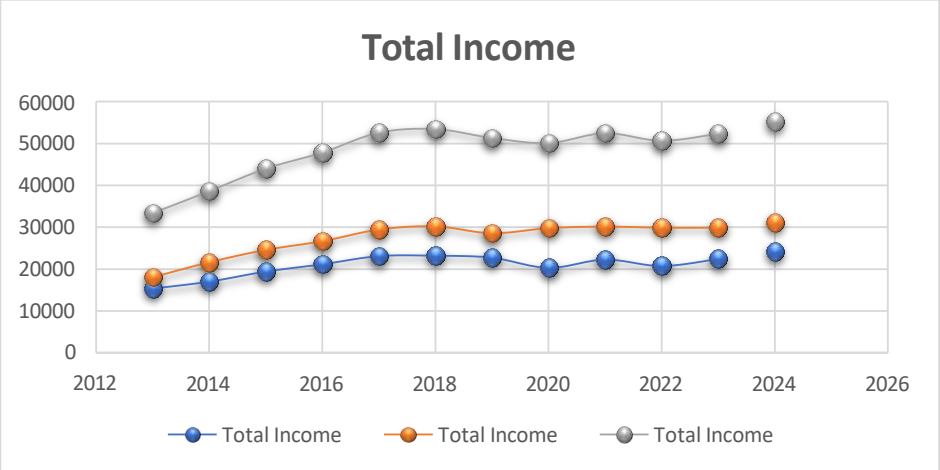


Table-2.10: Total Income

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	15344.56	18049.12	33393.68
2014	17009.82	21618.93	38628.75
2015	19422.22	24570.84	43993.06
2016	21171.90	26649.34	47821.23
2017	23129.62	29433.59	52563.21
2018	23222.34	30199.75	53422.09
2019	22754.27	28551.22	51305.49
2020	20307.18	29777.08	50084.26
2021	22300.97	30147.86	52448.83
2022	20743.20	29878.87	50622.07
2023	22448.78	29885.10	52333.88
2024	24143.83	31053.67	55197.50

(Source: RBI Data Base on Indian Economy)



7.4 Analysis of Other Income and its Share in Total Income of UCBs (2013–2024)

In the deregulated and competitive interest rate environment, Urban Cooperative Banks (UCBs) have increasingly relied on other income (non-interest income) as a supplementary revenue stream. Other income includes fee-based services, commissions, and income from non-core banking activities. Analysing the data from 2013 to 2024 reveals key trends regarding the growth and share of other income in the total income of UCBs.

a) Growth Trends in Other Income

The other income of UCBs showed a general upward trajectory over the decade, with some fluctuations. In 2013, the total other income stood at ₹2,473.06 crore, which increased to ₹4,489.71 crore by 2024, marking an overall growth of approximately 81.5%. This significant increase highlights the sector's growing focus on fee-based services and non-interest revenue streams. However, the growth pattern was inconsistent, with noticeable dips in 2019, 2022, and 2024. The substantial spike in 2020 (₹5,352.96 crore) indicates a potential rise in transaction fees, service charges, or one-time gains during the pandemic.

b) Segment-Wise Performance

Non-Scheduled UCBs consistently reported lower other income compared to their Scheduled counterparts. For instance, in 2024, Scheduled UCBs generated ₹2,668.23 crore in other income, nearly 46.5% higher than the ₹1,821.48 crore earned by Non-

Scheduled UCBs. This trend reflects the stronger service fee structures and potentially larger customer bases of Scheduled UCBs, enabling them to capitalize more on non-interest income opportunities. However, the relatively stable contribution of Non-Scheduled UCBs indicates their growing efforts to diversify income sources despite their smaller operational scale.

c) Contribution of Other Income to Total Income

Throughout the decade, the share of other income in total income fluctuated but remained a relatively minor portion of overall revenue. In 2013, other income contributed 7.4% of the total income (₹2,473.06 crore out of ₹33,393.68 crore). By 2024, this share marginally increased to 8.1% (₹4,489.71 crore out of ₹55,197.50 crore). This moderate rise indicates that while UCBs have expanded their non-interest revenue streams, interest-based income continues to dominate their financial performance.

d) Impact of Market Conditions

The spike in other income during 2017 and 2020, where its share in total income crossed 9.6% and 10.7%, respectively, reflects the impact of specific market conditions. The increase in 2020, for instance, may have been influenced by higher transaction fees, service charges, or gains from non-lending activities during the pandemic-induced disruptions. However, the subsequent declines in 2022 and 2024 suggest a normalization of revenue patterns post-pandemic.

e) Strategic Insights and Implications

The data highlights the growing but still limited contribution of other income to UCBs' total income. Scheduled UCBs, with their larger scale and broader service portfolios, have been more successful in boosting their non-interest income. However, the relatively smaller share of other income (around 8.1% in 2024) compared to mainstream commercial banks, which typically generate a higher proportion from fee-based services, underscores the need for UCBs to further diversify their income sources.

To enhance financial stability and profitability, UCBs should focus on expanding their fee-based services, including transaction charges, service fees, and commissions on bancassurance products. Additionally, offering advisory services, wealth management solutions, and digital payment services could further boost non-interest income. Increasing the share of other income would also reduce reliance on traditional interest-based revenue, making UCBs more resilient in fluctuating interest rate environments.

7.5 Analysis of NPA: Gross NPA (GNPA) and Net NPA (NNPA)

In the banking sector, Non-Performing Assets (NPAs) refer to loans or advances where the borrower has failed to make interest or principal repayments for a specified period. As per the guidelines of the Reserve Bank of India (RBI), an asset becomes non-performing when interest and/or instalment of principal remains overdue for a period of more than 90 days**.** For Urban Cooperative Banks (UCBs)**,** which primarily cater to urban and semi-urban populations, efficient management of loan portfolios is critical. The classification and provisioning norms for UCBs are broadly aligned with those applicable to commercial banks, as laid out by the RBI in various master circulars. The emergence of NPAs in UCBs reflects poor asset quality and has implications for profitability, liquidity, and financial stability. UCBs are particularly vulnerable due to their exposure to priority sector lending and limited access to capital markets for raising funds.

The management of NPAs in UCBs is of paramount importance due to their community-oriented structure and significant role in promoting financial inclusion and providing urban credit. Despite their importance, UCBs often face several challenges, including inadequate risk assessment systems, high exposure to small and medium-sized enterprises (SMEs), operational inefficiencies, and the absence of professional governance. Additionally, they frequently encounter constraints in raising capital for provisioning and business expansion. These factors underscore the need for sound NPA management strategies. The Reserve Bank of India (RBI) continues to advocate for the adoption of robust risk management practices, timely and accurate asset classification, and adequate provisioning norms to enhance the financial soundness and sustainability of UCBs.

a) ***Gross Non-Performing Assets (GNPA)***

Refer to the total amount of loans classified as non-performing before any provisioning is made. It represents the absolute value of defaulted loans and serves as a direct indicator of the quality of a bank's loan book. The GNPA ratio is calculated as (Gross NPAs / Gross Advances) × 100. A high GNPA ratio in Urban Cooperative Banks (UCBs) suggests weak credit appraisal processes, ineffective recovery mechanisms, or stress in the sectors financed by the bank. Historically, many UCBs have struggled with elevated GNPA levels, which have adversely affected their financial performance.

b) ***Net Non-Performing Assets (NNPA)***

Represent the amount of NPAs remaining after deducting the provisions made for such assets. NNPA provides a clearer picture of the actual burden of bad loans on a bank's financials and is generally considered a more accurate measure of asset quality than GNPA. It is calculated using the formula: NNPA = Gross NPA – Provisions, and the NNPA ratio is derived as (Net NPAs / Net Advances) × 100. For UCBs, a high NNPA ratio reflects inadequate provisioning and signals a weakened capital base, thereby reducing the bank's financial resilience and capacity to absorb losses.

c) ***Provisioning Coverage Ratio (PCR)***

It is the percentage of gross NPAs that a bank has provided for, using the formula: PCR = (Total Provisions / Gross NPAs) × 100. A high PCR—preferably above 70%—is desirable, as it indicates that the bank has created sufficient buffers to absorb potential loan losses, thus safeguarding depositors' interests. For UCBs, maintaining a strong PCR is especially important, given their vulnerability to local economic disruptions and borrower defaults.

In summary, NPAs are a major concern for UCBs, affecting their profitability, liquidity, and public confidence. Regular monitoring of GNPA, NNPA, and PCR provides insight into the asset quality and financial soundness of these institutions. Going forward, UCBs must focus on improving credit appraisal systems, strengthening recovery mechanisms, and adhering to regulatory norms on provisioning to ensure sustained growth and

financial stability.

Table-2.11: GNPA Position

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2016	6.08	6.14	6.11
2017	6.98	7.50	7.16
2018	6.35	7.93	7.16
2019	6.56	7.98	7.29
2020	9.76	11.25	10.56
2021	10.51	13.44	12.10
2022	7.49	11.64	9.75
2023	6.60	10.74	8.84
2024	5.28	9.07	7.33

(Source: RBI Data Base on Indian Economy)

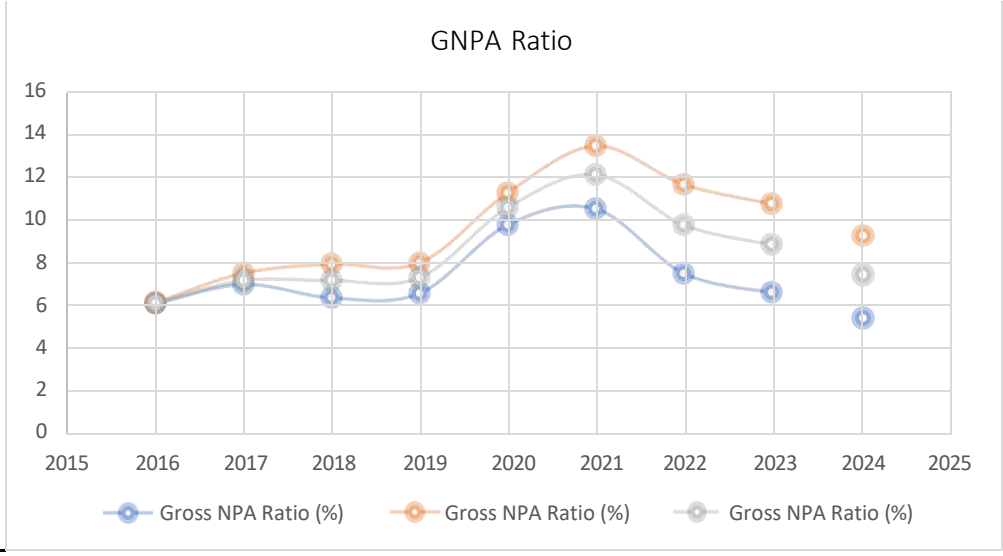


Table-2.11: NNPA Position

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2016	2.85	1.52	2.17
2017	3.20	2.52	2.72
2018	2.61	2.88	2.75
2019	2.88	3.98	3.34
2020	3.81	5.31	4.62
2021	4.30	6.99	5.76
2022	3.03	5.57	4.40
2023	1.45	2.74	2.15
2024	1.28	1.13	1.20

(Source: RBI Data Base on Indian Economy)

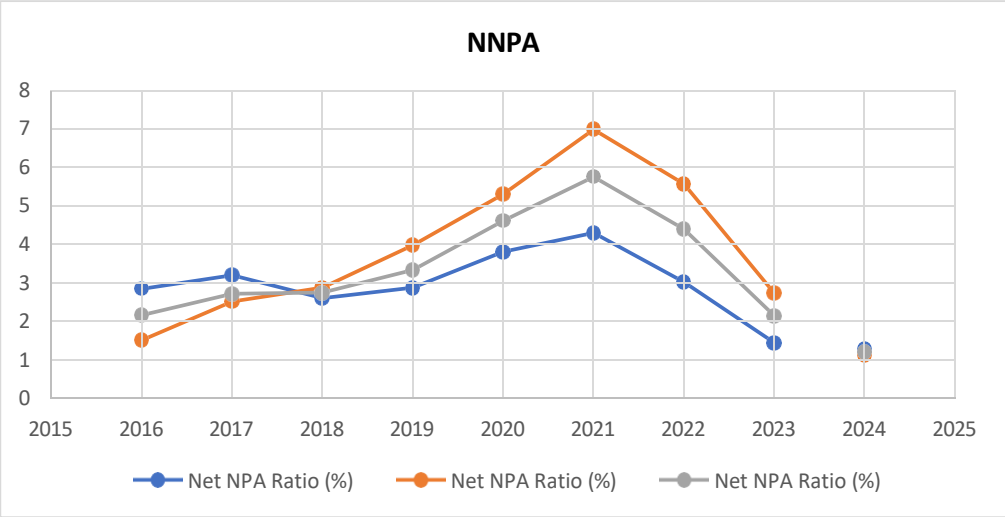
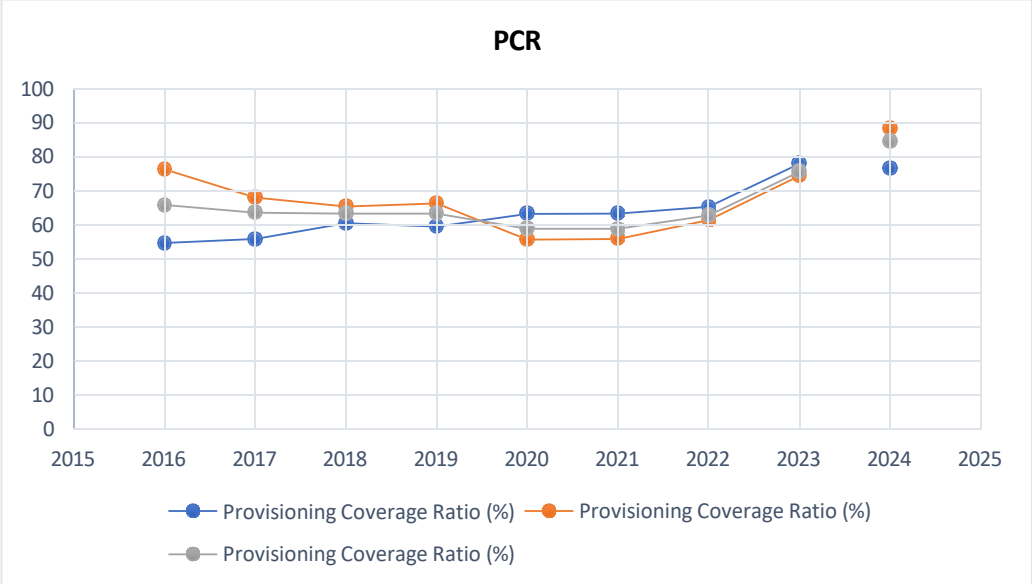


Table-2.12: Provisioning Coverage Ratio (%)

Year	Scheduled	Non-Scheduled	All UCBs
2016	54.74	76.37	65.94
2017	55.91	68.15	63.70
2018	60.54	65.53	63.37
2019	59.62	66.40	63.45
2020	63.35	55.72	58.98
2021	63.38	55.98	58.91
2022	65.39	61.53	62.88
2023	78.06	74.52	75.73
2024	76.73	88.50	84.60

(Source: RBI Data Base on Indian Economy)



d) ***Trends in Gross NPA (GNPA) and Net NPA (NNPA) Ratios***

The Gross NPA (GNPA) ratio, which indicates the proportion of non-performing assets to total advances, witnessed notable fluctuations in UCBs between 2016 and 2024. The GNPA ratio for all UCBs rose from 6.11% in 2016 to a peak of 12.10% in 2021, driven by the adverse impact of the COVID-19 pandemic, which caused widespread financial distress and an increase in loan defaults. However, by 2024, the GNPA ratio improved to 7.33%, reflecting a gradual recovery and better loan performance. Segment-wise, Non-Scheduled UCBs consistently recorded higher GNPA ratios than their Scheduled counterparts. In 2024, the GNPA ratio for Non-Scheduled UCBs stood at 9.07%, significantly higher than the 5.28% reported by Scheduled UCBs. This divergence indicates the relatively weaker asset quality and higher vulnerability of Non-Scheduled UCBs to loan defaults.

The Net NPA (NNPA) ratio, which represents the proportion of non-performing assets after provisioning, followed a similar trend. The NNPA ratio for all UCBs increased from 2.17% in 2016 to 5.76% in 2021, before declining sharply to 1.20% in 2024. This decline indicates improved provisioning practices and more effective management of bad loans. Notably, the Scheduled UCBs reported a significantly lower NNPA ratio of 1.28% in 2024 compared to 1.13% for Non-Scheduled UCBs, highlighting their stronger financial resilience and more prudent provisioning policies.

e. Provisioning Coverage Ratio (PCR)

The Provisioning Coverage Ratio (PCR), which reflects the extent of funds set aside to cover potential losses from NPAs, showed a steady improvement over the period. The overall PCR for UCBs increased from 65.94% in 2016 to 84.60% in 2024, indicating stronger provisioning efforts to mitigate the risks associated with bad loans. Interestingly, Non-Scheduled UCBs, despite having higher GNPA and NNPA ratios, maintained a relatively lower PCR than their Scheduled counterparts until 2022. However, by 2024, the gap narrowed further, with Non-Scheduled UCBs recording a PCR of 88.50%, compared to 76.73% for Scheduled UCBs. This reflects a growing emphasis on enhanced risk management and provisioning practices across the UCB sector.

7.6 Management of NPAs – Strategic Insights and Implications for UCBs under the PCA Framework

An analysis of the Net Non-Performing Assets (NNPAs) of Urban Cooperative Banks (UCBs) under the Prompt Corrective Action (PCA) framework from 2016 to 2024 reveals significant progress in asset quality management. The PCA yardstick classifies breaches into three categories: (i) greater than or equal to 6% but below 9%, (ii) 9% but below 12%, and (iii) greater than or equal to 12%. Among these, only one instance of breach was observed—in 2021, Non-Scheduled UCBs reported an NPA ratio of 6.99%, falling into the 6%–9% category. However, this was promptly addressed, and by 2024, their NPA ratio had improved substantially to 1.13%, reflecting better financial discipline and recovery efforts. Scheduled UCBs, on the other hand, consistently maintained NPA ratios well below the 6% threshold throughout the period, indicating robust financial health and effective asset management. In 2024, their NPA ratio further declined to a notable low of 1.28%, reaffirming their strong position. When considering All UCBs collectively, the trend mirrored these improvements, with the overall NPA ratio declining to 1.20% in 2024. Notably, there were no breaches in the higher-risk categories of 9%–12% or 12%+ during any year of the analysis across all categories of UCBs. This is a strong indicator of the sector's resilience and the efficacy of regulatory oversight and internal controls. In summary, the data reflects a clear trend of improvement in managing NPAs, especially among scheduled UCBs. The declining trajectory of NPA ratios emphasizes the effectiveness of regulatory interventions, prudential norms, and improved credit risk management practices, resulting in enhanced financial stability and better asset quality across the UCB sector.

The declining trend in Gross Non-Performing Assets (GNPA) and Net Non-Performing Assets (NNPA) ratios from 2021 to 2024 highlights the gradual recovery of the Urban Cooperative Bank (UCB) sector. This improvement reflects the effectiveness of enhanced risk management practices**,** including tighter credit appraisal standards, proactive NPA recovery measures, and improved governance frameworks. However, the persistently higher NPA levels in Non-Scheduled UCBs underscore their greater financial vulnerability compared to their Scheduled counterparts.

The introduction of the PCA framework by the Reserve Bank of India (RBI) is expected to bring about a more disciplined regulatory environment, compelling UCBs to adopt stronger financial management practices. The framework will enhance financial stability by enforcing stringent capital management, improving asset quality, and promoting profitability. To effectively prepare for the implementation of PCA, UCBs need to adopt a series of strategic measures aimed at safeguarding their financial health and ensuring long-term sustainability.

a) Strengthening Credit Appraisal and Risk Assessment

One of the critical areas for UCBs under the PCA regime is the need for rigorous credit appraisal systems to prevent the deterioration of asset quality. The PCA framework places significant emphasis on asset quality, making it imperative for UCBs to minimize fresh slippages into the NPA category.

- UCBs need to adopt stricter due diligence practices when evaluating loan applications. This includes conducting comprehensive creditworthiness assessments, verifying the borrower's repayment capacity, and analysing cash flow projections.
- Implementing risk-based pricing models can help UCBs align interest rates with the borrower's risk profile, reducing the chances of loan defaults.
- Strengthening internal credit rating mechanisms and enhancing the use of credit scoring models will enable UCBs to make more informed lending decisions, thereby reducing NPA formation.
- Introducing regular loan portfolio reviews and stress testing will help UCBs identify early warning signals, allowing for timely corrective actions.

b) Aggressive NPA Recovery and Resolution

Given the PCA framework's focus on asset quality, UCBs must prioritize aggressive NPA recovery strategies to bring their NNPA levels below the prescribed thresholds.

- UCBs should intensify their loan recovery efforts by leveraging One-Time Settlement (OTS) schemes, which offer borrowers a chance to clear their dues at discounted rates. This can lead to faster recovery of overdue loans.

- Strengthening legal recovery channels by initiating proceedings under the SARFAESI Act (where applicable) or invoking arbitration clauses can expedite the resolution of delinquent accounts.
- Adopting centralized recovery units to monitor and manage stressed assets will enable better coordination and faster recovery.
- Increasing the frequency of follow-ups with defaulting borrowers and conducting recovery camps in collaboration with local authorities can further enhance loan recovery efficiency.

c) Strong Provisioning for Bad Loans

To comply with the PCA framework, UCBs need to adopt more stringent provisioning policies to cushion the impact of bad loans. Higher provisioning coverage will not only mitigate credit risks but also strengthen the financial stability of UCBs.

- UCBs should aim to increase their Provisioning Coverage Ratio (PCR) beyond the regulatory minimum to absorb potential losses.
- Adopting a conservative approach to provisioning for restructured or stressed loans will ensure that UCBs are adequately prepared for future contingencies.
- Regularly stress testing loan portfolios will help UCBs identify high-risk segments, allowing them to make proactive provisioning adjustments.
- Enhanced provisioning will also help UCBs improve their balance sheet quality and strengthen their financial resilience under the PCA framework.

d) Diversified Revenue Streams and Income Stability

The PCA framework's restrictions on branch expansion, capital expenditure, and dividend distribution could limit the growth prospects of UCBs under regulatory intervention. To mitigate this impact, UCBs should focus on diversifying their revenue streams by enhancing non-interest income sources.

- Expanding fee-based services**,** such as wealth management, insurance distribution (bancassurance), locker services, and forex services, can help UCBs generate stable income beyond interest-based earnings.

- Increasing digital banking services and promoting payment solutions, such as UPI, IMPS, and NEFT**,** can drive transaction-based income.
- Enhancing cross-selling and upselling strategies for existing customers, such as offering loans against deposits or bundled financial products, can boost fee income.
- Collaborating with fintech firms for product innovation and digital service delivery can create new revenue opportunities and improve customer engagement.

e) Capital Augmentation and Financial Resilience

Maintaining adequate capital buffers is essential for UCBs to comply with the PCA framework's capital adequacy norms. Insufficient capital reserves could trigger PCA sanctions, restricting the bank's operational freedom.

- UCBs must prioritize capital augmentation through equity infusion, rights issues, or the issuance of fresh shares.
- Strengthening capital planning strategies by forecasting capital requirements and aligning them with business growth plans will enhance financial resilience.
- Encouraging members to increase shareholding or introducing attractive capital investment schemes can help UCBs raise additional capital.
- UCBs with weaker capital bases should explore merger and consolidation opportunities with stronger banks to enhance their financial strength and avoid regulatory action under the PCA framework.
- Establishing contingency capital reserves will enable UCBs to absorb unexpected financial shocks and remain compliant with PCA norms.

f) Operational Efficiency and Cost Optimization

Given the PCA-imposed restrictions on capital expenditure, UCBs must focus on enhancing operational efficiency and optimizing costs to sustain profitability.

- Adopting cost-cutting measures, such as process automation, reduction in administrative expenses, and optimizing employee productivity, will help UCBs maintain profitability despite PCA-related constraints.

- Leveraging technology-driven solutions for customer service, loan processing, and compliance monitoring will improve efficiency and reduce operational costs.
- Implementing centralized processing units for back-office operations can streamline workflows, leading to cost savings.

g) Governance and Compliance Strengthening

To successfully operate under the PCA regime, UCBs need to strengthen their governance frameworks and enhance compliance with regulatory guidelines.

- Improving board oversight and accountability by establishing Risk Management Committees (RMC) will ensure proactive monitoring of financial health.
- Regular internal audits and risk assessments will help UCBs identify compliance gaps and take timely corrective actions.
- Strengthening regulatory reporting mechanisms and ensuring accurate and timely submission of data to the RBI will prevent compliance-related issues.

The PCA framework will usher in a new era of regulatory discipline for UCBs, compelling them to strengthen their financial resilience and adopt more rigorous risk management practices. By enhancing credit appraisal, prioritizing NPA recovery, improving provisioning coverage, diversifying income streams, and maintaining robust capital reserves**,** UCBs can not only comply with PCA norms but also build a stronger and more sustainable financial foundation. To thrive under the PCA framework, UCBs must embrace strategic financial planning, technological advancements, and operational efficiencies**,** enabling them to remain competitive and resilient in the evolving banking landscape.

8. Profitability Analysis

8.1 Profitability Position of Urban Cooperative Banks (UCBs): A Critical Evaluation

The profitability of UCBs demonstrated a steady upward trend from 2013 to 2019, with all UCBs collectively recording a peak net profit of ₹4,081.83 crores in 2018. However, the onset of the COVID-19 pandemic in 2020 triggered a severe financial downturn, with the sector reporting a staggering net loss of ₹5,565.76 crores. The decline was

predominantly driven by Scheduled UCBs, which posted massive losses of ₹5,647.94 crores, reflecting the significant impact of pandemic-induced economic disruptions. The sharp fall in profitability was largely due to higher provisioning requirements for deteriorating asset quality, loan defaults, and reduced business activity. The regulatory interventions and moratoriums further strained the financial health of these banks.

In contrast, Non-Scheduled UCBs exhibited greater resilience during the crisis, managing to remain marginally profitable with a modest net profit of ₹82.18 crores. This relative stability highlights their lower exposure to large-scale corporate loans and more conservative lending practices, which shielded them from the brunt of the pandemic's economic fallout. Post-2020, the sector embarked on a gradual recovery trajectory, driven by improved loan recovery mechanisms, better asset quality management, and regulatory support. By 2021, the overall net profit rebounded to ₹1,557.61 crores, reflecting the sector's initial steps toward financial stabilization. The recovery gained momentum in 2022, with all UCBs recording a combined net profit of ₹2,880.89 crores, indicating a strong comeback.

Scheduled UCBs, which had borne the brunt of the pandemic's impact, showed significant improvement, with profits rising from ₹577.69 crores in 2021 to ₹1,499.10 crores in 2022. This sharp recovery highlights their enhanced asset quality management, aggressive loan recovery efforts, and reduced provisioning burdens. Meanwhile, Non-Scheduled UCBs maintained a consistent yet moderate profitability trend, with profits increasing from ₹979.91 crores in 2021 to ₹1,381.78 crores in 2022. While their growth was slower compared to their Scheduled counterparts, their stability reflects prudent financial management and lower credit risks.

The post-COVID profitability trends indicate that UCBs have gradually regained financial stability, though the recovery remains uneven, with Scheduled UCBs experiencing a sharper rebound, while Non-Scheduled UCBs continued on a steady, albeit slower, growth path. The trend continued in 2023 and 2024, with Scheduled UCBs recording profits of ₹1,273.72 crores and ₹2,407.23 crores, respectively, while Non-Scheduled UCBs reported profits of ₹1,806.70 crores and ₹2,293.20 crores, respectively. The sector as a whole achieved a robust turnaround, with overall net profits rising to ₹3,080.42 crores in 2023 and further to ₹4,700.43 crores in 2024, surpassing pre-

pandemic profitability levels and marking a new high in financial performance.

Table-2.12: Net Profit (+) / Loss (-) After Taxes

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	1187.91	1256.19	2444.10
2014	1223.40	1760.99	2984.39
2015	1377.20	2133.42	3510.62
2016	1384.50	2287.16	3671.65
2017	1563.88	2361.54	3925.43
2018	1444.55	2637.28	4081.83
2019	1760.63	1786.84	3547.47
2020	-5647.94	82.18	-5565.76
2021	577.69	979.91	1557.61
2022	1499.10	1381.78	2880.89
2023	1273.72	1806.70	3080.42
2024	2407.23	2293.20	4700.43

(Source: RBI Data Base on Indian Economy)

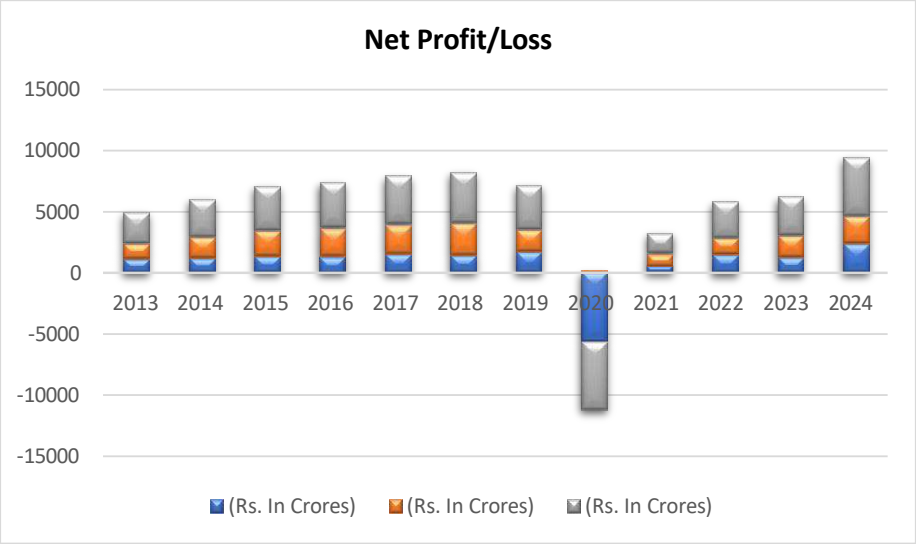


Table-2.13: Return on Assets

(Rs. In Crores)

Year	Scheduled	Non-Scheduled	All UCBs
2013	0.78	0.73	0.75
2014	0.71	0.90	0.81
2015	0.70	0.97	0.84
2016	0.61	0.95	0.79
2017	0.65	0.88	0.77
2018	0.55	0.90	0.74
2019	0.64	0.59	0.61
2020	-1.84	0.03	-0.85
2021	0.19	0.28	0.24
2022	0.50	0.38	0.43
2023	0.42	0.49	0.46
2024	0.78	0.60	0.68

(Source: RBI Data Base on Indian Economy)

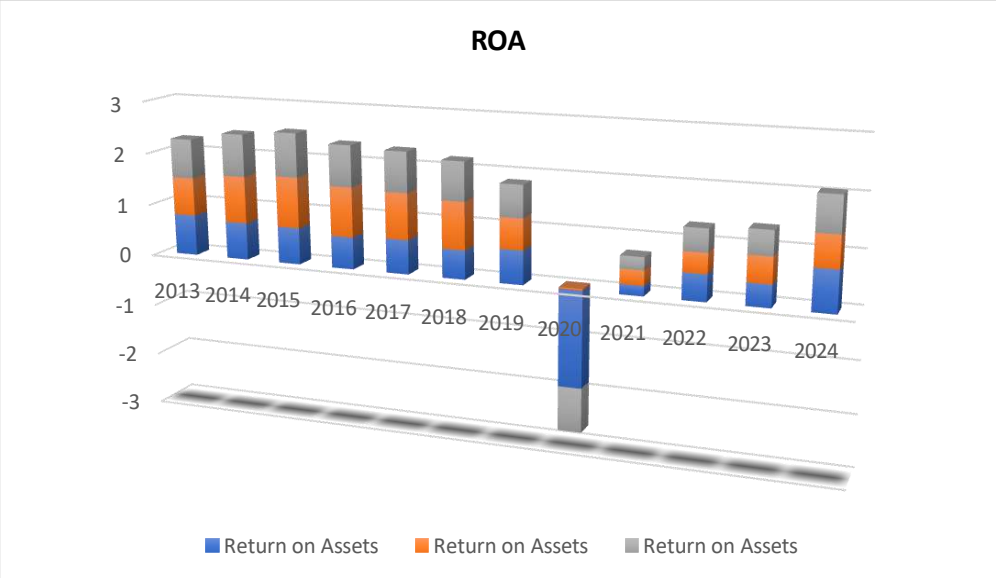
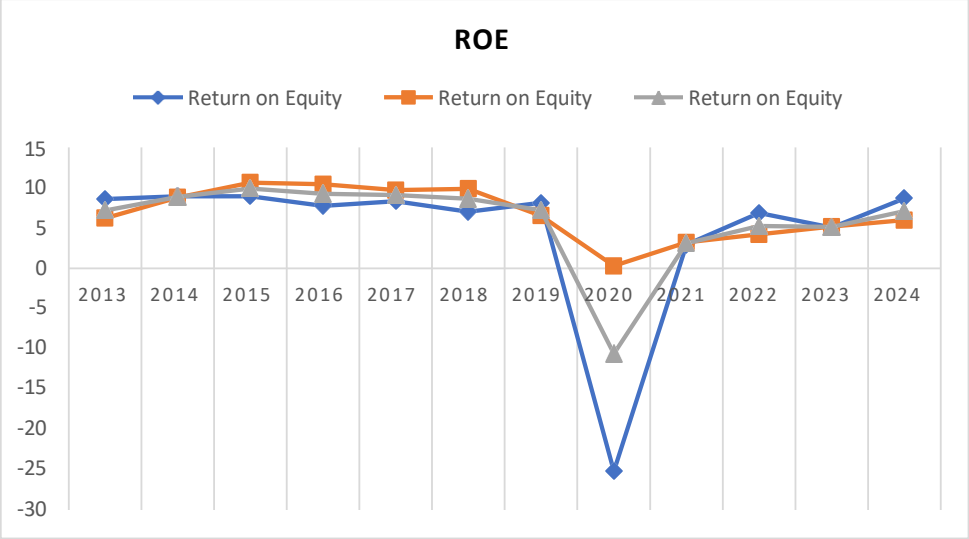


Table- 2.14: Return on Equity

Year	Scheduled	Non-Scheduled	All UCBs
2013	8.60	6.22	7.19
2014	8.96	8.80	8.87
2015	8.94	10.65	9.91
2016	7.77	10.43	9.26
2017	8.34	9.70	9.11
2018	7.03	9.88	8.65
2019	8.12	6.53	7.23
2020	-25.18	0.29	-10.59
2021	2.94	3.22	3.11
2022	6.88	4.21	5.27
2023	5.08	5.17	5.13
2024	8.68	5.98	7.12

(Source: RBI Data Base on Indian Economy)



a) Return on Assets (ROA) Analysis: Impact of the Pandemic and Post-Crisis Recovery

The Return on Assets (ROA), a critical measure of profitability efficiency, reveals distinct performance patterns between Scheduled and Non-Scheduled UCBs over the years. From 2013 to 2018, Scheduled UCBs experienced a consistent decline in ROA, dropping from 0.78% in 2013 to 0.55% in 2018. This downward trend, despite asset expansion, reflects diminished profitability due to mounting non-performing assets (NPAs) and higher provisioning costs. In contrast, Non-Scheduled UCBs demonstrated relatively stable and superior ROA figures, peaking at 0.97% in 2015, indicating better asset utilization and profitability efficiency.

The COVID-19 pandemic in 2020 significantly impacted the sector's profitability. Scheduled UCBs recorded a drastic fall in ROA to -1.84%, reflecting substantial losses and severely eroded asset profitability. The sharp decline was driven by increased provisioning for bad loans, reduced lending activities, and pandemic-induced stress on asset quality. On the other hand, Non-Scheduled UCBs, despite facing operational challenges, managed to maintain a positive but marginal ROA of 0.03%, showcasing greater financial stability and resilience during the crisis. Their ability to avoid negative returns highlights their lower exposure to large corporate loans and more localized, conservative lending practices.

Following the pandemic-induced downturn, the sector displayed a gradual recovery in asset profitability. By 2021, the overall ROA for all UCBs improved to 0.24%, reflecting the initial stages of financial stabilization. The recovery momentum continued in 2022, with the ROA rising to 0.43%, driven by improved operational efficiency, better asset quality management, and reduced credit costs.

In 2023, the ROA further improved to 0.46%, supported by sustained profitability, tighter control over asset quality, and enhanced cost management strategies. While Scheduled UCBs posted an ROA of 0.42%, Non-Scheduled UCBs recorded a higher ROA of 0.49%, continuing to reflect their strong operational prudence.

By 2024, the sector witnessed a notable upswing, with ROA for all UCBs increasing to 0.68%. Scheduled UCBs recorded a sharp recovery with an ROA of 0.78%, marking a return to pre-2013 levels of profitability efficiency. This rebound emphasizes their significant turnaround in asset quality, profitability, and scale. Meanwhile, Non-Scheduled UCBs maintained a steady and positive ROA of 0.60%, reaffirming their consistent financial discipline and effective risk management.

The post-COVID ROA trends indicate that UCBs have gradually regained operational efficiency, although the recovery pace varies across the categories, with Scheduled UCBs rebounding more sharply from pandemic losses, while Non-Scheduled UCBs continue to deliver stable and resilient performance.

b) Return on Equity (ROE) Assessment: Impact of the Pandemic and Post-Crisis Recovery

The Return on Equity (ROE), which measures profitability relative to shareholders' equity, exhibited a fluctuating trend across both Scheduled and Non-Scheduled UCBs over the years. From 2013 to 2018, Scheduled UCBs experienced a gradual decline in ROE, falling from 8.60% in 2013 to 7.03% in 2018. This downward trend reflects diminishing profitability efficiency and rising operational costs, despite equity growth. In contrast, Non-Scheduled UCBs demonstrated stronger equity returns, peaking at 10.65% in 2015, highlighting their better capital efficiency and relatively profitable operations.

The COVID-19 pandemic in 2020 caused a severe financial setback for the sector, with Scheduled UCBs recording a staggering ROE of -25.18%, reflecting massive losses and significant equity erosion. The substantial negative ROE was primarily driven by huge provisioning for bad loans, write-offs, and capital depletion. Meanwhile, Non-Scheduled UCBs, although impacted, managed to retain a marginally positive ROE of 0.29%, demonstrating greater financial resilience. Their comparatively smaller loan books and lower exposure to large corporate loans helped them weather the crisis more effectively, preventing equity erosion. Following the pandemic-induced downturn, the sector gradually rebounded. In 2021, the overall ROE for all UCBs improved to 3.11%, marking the initial stages of financial stabilization. This recovery was driven by reduced

credit losses, improved loan recovery, and capital conservation measures. The positive momentum continued in 2022, with the ROE rising to 5.27%, reflecting enhanced profitability and better equity management.

In 2023, the recovery trend remained steady with an ROE of 5.13% for all UCBs. Both categories performed similarly, with Scheduled UCBs recording a ROE of 5.08% and Non-Scheduled UCBs slightly ahead at 5.17%, indicating a narrowing performance gap and improved financial efficiency across the board.

By 2024, the sector demonstrated robust growth in equity returns, with ROE rising to 7.12% for all UCBs. Scheduled UCBs posted a strong comeback with an ROE of 8.68%, exceeding pre-2013 levels and underlining their improved operational efficiency, profitability, and capital utilization. Non-Scheduled UCBs maintained consistent performance, with a respectable ROE of 5.98%, reflecting continued financial prudence and localized credit management.

However, the ROE performance gap between the two UCB categories remains visible post-crisis. Scheduled UCBs, benefiting from stronger recovery measures and improved financial discipline, have rebounded more decisively, supported by their larger asset base, stricter regulatory oversight, and greater financial flexibility. Conversely, Non-Scheduled UCBs, despite their resilience during the crisis, are recovering at a more measured pace, reflecting moderate profitability and ongoing capital constraints.

Overall, the post-pandemic ROE trends indicate that while the sector has made significant strides in regaining equity profitability, Scheduled UCBs have benefitted more from the recovery, highlighting their greater financial flexibility and regulatory backing.

c) Cross-section Analysis

The cross-section analysis reveals distinct performance patterns among Scheduled, Non-Scheduled, and All UCBs across Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). Scheduled UCBs exhibit consistently low ROA, with a sharp decline in 2020 and a gradual recovery through 2023 and further improvement in

2024**,** indicating an ongoing effort to generate profits from their asset base. The ROE has remained volatile, with a significant drop in 2020, modest recovery in 2023 (5.08%), and a strong rebound in 2024 (8.68%), suggesting a higher risk-return profile and improved capital efficiency. However, the NIM for Scheduled UCBs remains relatively stable over the years, with a marginal rise in 2024**,** indicating a steady income stream from interest-earning assets and some recovery in operational efficiency.

In contrast, Non-Scheduled UCBs demonstrate relatively higher and more consistent ROA**,** with visible improvement in both 2023 and 2024, reflecting better utilization of assets. Their ROE has been more stable compared to Scheduled UCBs, with significant improvement in 2023 (5.17%) and continued momentum in 2024 (5.98%), suggesting a lower risk profile and effective capital deployment. The NIM remains consistently higher than that of Scheduled UCBs, with a slight increase in 2024**,** highlighting a stronger and more reliable interest income stream.

All UCBs, representing the consolidated performance of both categories, exhibit average-to-improving performance across all three indicators. Both ROA and ROE show steady gains in 2023 and further strengthening in 2024 (ROE rose from 5.13% in 2023 to 7.12% in 2024), indicating sector-wide financial stabilization. The NIM remains relatively stable, with a mild uptick in 2024**,** reinforcing the overall balanced and improving financial position of the sector.

Overall, the analysis continues to suggest that Non-Scheduled UCBs outperform Scheduled UCBs in terms of profitability and stability, while All UCBs reflect a balanced, sector-wide recovery. These insights reaffirm the importance of prudent asset allocation, improved credit risk assessment, and strategic interest margin management for UCBs to enhance their financial sustainability and long-term performance.

d) Risk-adjusted Performance Analysis

The Sharpe Ratio and Treynor Ratio are contemporary statistics used to evaluate risk-adjusted performance, providing valuable insights into the investment strategies of Scheduled, Non-Scheduled, and All UCBs. The Sharpe Ratio measures the excess return generated by an investment over the risk-free rate, relative to its volatility. A higher

Sharpe Ratio indicates better risk-adjusted performance. In this analysis, the Sharpe Ratio reveals that Non-Scheduled UCBs have a positive ratio for both ROA (0.49) and ROE (0.70), indicating superior risk-adjusted performance. Scheduled UCBs, however, exhibit negative ratios (-0.38 for ROA and -0.59 for ROE), suggesting poor risk-adjusted performance despite recent profitability gains. All UCBs have moderate Sharpe Ratios (0.27 for ROA and 0.41 for ROE), reflecting a balanced overall performance for the sector.

The Treynor Ratio, also known as the Reward-to-Volatility Ratio, measures the excess return generated by an investment relative to its beta (systematic risk). A higher Treynor Ratio indicates better risk-adjusted performance. In this analysis, the Treynor Ratio reveals similar insights to the Sharpe Ratio. Non-Scheduled UCBs maintain positive ratios (0.43 for ROA and 0.72 for ROE), signifying superior risk-adjusted returns and efficient risk-taking. Conversely, Scheduled UCBs show negative ratios (-0.31 for ROA and -0.52 for ROE), indicating underperformance when adjusted for market risk. All UCBs show moderate ratios (0.24 for ROA and 0.38 for ROE), denoting a sector-average balance between return and risk exposure.

In summary, both ratios confirm that Non-Scheduled UCBs continue to outperform Scheduled UCBs in terms of risk-adjusted performance, underscoring their operational prudence and better alignment of returns with associated risks. Meanwhile, All UCBs demonstrate a balanced performance, albeit with room for improvement. These insights suggest that UCBs—especially scheduled ones—may need to reassess their investment strategies, refine their credit risk frameworks, and optimize asset allocation to enhance risk-adjusted performance and deliver improved shareholder value in the evolving financial environment.

3 CHAPTER Scope and Methodology

1. Review of Literature

Sinha (2006) examined the lending efficiency of Indian commercial banks in the post-reform period through Data Envelopment Analysis (DEA), a non-parametric approach under the changed lending environment with the major changes in respect of lending policies and practices. The study observed private sector commercial banks exhibited higher mean cost efficiency than the observed public sector commercial banks and indicated that the problem persist in the lending environment which caused the public sector commercial banks to shy away from lending. The difference in cost efficiency scores emanated mainly from differences in mean allocative efficiency scores exhibited by the two bank groups. Further, the observed commercial banks show considerable fluctuations in allocative efficiency scores across the years.

Sanjeev (2007) evaluated the efficiency of the public sector banks operating in India for a period of five years (1997-2001) using the DEA. Also investigated, if there exists any relationship between the efficiency and size of the banks. The results of the study suggested that no conclusive relationship can be established between the efficiency and size of the banks. Bhattacharyya, Lovell and Sahay (1997) measured technical efficiency of 70 commercial banks operating in India for the period 1986-91 using DEA and took advances, investment and deposits as outputs while interest expense and operating expense were taken as the inputs. They found that the public sector banks had much higher efficiency as compared to the private and foreign banks.

Das (1997) estimated the technical, allocative and scale efficiency of scheduled commercial banks for various pre-reform and post-reform years: 1970, 1978, 1984, 1990 and 1996, making use of DEA. The study considered the *net-interest margin* and *non-interest income* of banks as the two outputs. The inputs used in the calculation of various efficiency measurements are *labour* and *loanable* funds (deposits plus borrowings). Das computed the efficiency measures in respect of the public sector

commercial banks. The results indicate that the SBI group, in general, improved in overall efficiency during the 26-year period. However, nationalized banks registered a gradual decline in overall efficiency during the period and this is more pronounced after 1990.

Rammohan and Ray (2004) compared performances of fifty-eight public, private and foreign banks using a revenue maximization efficiency approach for the period 1992-2000. Loans, investments and other incomes were taken as bank outputs. They took deposits and operating costs as inputs. They argued that during the period, Indian banks did not have much freedom in trimming costs especially the cost of labour. Under the circumstances, revenue maximization best describes the objective that banks have been focusing during the period. According to the study, public sector banks are significantly better placed than private sector banks on revenue maximization efficiency but there is no difference between public sector banks and foreign banks. Public sector banks are significantly better than private banks in respect of technical efficiency but not in respect of allocative efficiency.

Debasish (2006) measured the relative performance of Indian banks over the period 1997-2004 using the output-oriented CRR DEA model. The analysis uses nine input variables and seven output variables. Segmentation of the banking sector in India was done on the basis of bank assets size, ownership status and years of operation. Overall, the analysis supports the conclusion that foreign owned banks were on average most efficient and that new banks are more efficient that old ones, which are often burdened with old debts. In terms of size, the large-sized and small-sized banks were relatively more efficient than the medium-sized banks over the study period. The smallest banks are often niche banks.

Vijayakumar (1995) developed criteria for evaluating the working of banks and studied the size-cost relationships, size-earnings relationships and operational efficiency of banks in view of the declining profitability and increasing operational costs. The study conceptualized the scale of economies in the banking industry setting and measured the size using appropriate measures. It was able to draw from the study that there is a positive relationship between size and cost and size and earnings. The results also substantiated that the hypothesis of economies of scale only for the earnings of the banks.

Jahan, (2012) studied with the main objective of examining the relationship of one of the profitability measures i.e., ROA with operational efficiency, asset utilization, asset size and return on deposit (ROD). The results of regression analysis found that the explanatory variables-operational efficiency, asset size and ROD to be positively related, and asset utilization to be negatively related to ROA, but failed to establish any relationship as statistically significant.

IBM Financial Services (2004) A study report titled on "Promoting Productivity in Banks" by IBM Financial Services described that the productivity of a bank can be improved by reducing the cost of dis-intermediation (reducing operating cost by effectively deploying technology, human capita and continually refining its work procedures) and by raising the spread i.e., deploying capital in the most effective way. It also pointed out that the scale of transaction and systemic in-efficiency are the two biggest factors contributing to productivity gap between US banks and the best private sector banks in India. It is important to mention the fact revealed from the study that, in India, though the numbers of transactions are large but their volume is relatively small. They are not operating at the scale to reap full benefits. The study included the analysis of 9 public sector banks, 8 new private banks and 8 foreign banks in India based on the important productivity indicators like total business (Deposits + Advances), per employee business, per employee working fund, per employee net income and establishment cost.

2. Relevance and Importance of the Study

The Indian banking sector has undergone a profound transformation since the financial sector reforms initiated on the recommendations of the Narasimham Committee. These reforms marked a decisive shift from a heavily regulated regime to a more market-oriented framework, resulting in significant improvements in the financial health of banks in terms of capital adequacy, profitability, asset quality, and risk management practices. While deregulation expanded avenues for banks to diversify into investment banking, insurance, credit cards, mortgage financing, and other financial services, it also intensified competition among domestic and foreign banks, as well as from non-banking financial companies and other financial intermediaries. The post-reform period thus brought into sharper focus the twin challenges of sustaining profitability under

shrinking spreads and ensuring operational efficiency in a highly competitive environment.

Within this backdrop, Urban Cooperative Banks (UCBs), particularly Scheduled UCBs, occupy a distinctive position owing to their dual regulatory framework under the Reserve Bank of India (RBI) and the Registrar of Cooperative Societies (RCS), their deep community linkages, and their role in furthering financial inclusion at the grassroots level. However, despite their socio-economic relevance, UCBs face persistent challenges of governance, cost management, earnings stability, and professionalization of operations. The collapse of institutions such as PMC Bank highlighted governance lapses, weak internal controls, and the absence of robust transparency and disclosure mechanisms, underscoring the need for stronger managerial effectiveness and regulatory compliance.

Cost and earnings management assumes critical importance for UCBs in this context, as sustainability and long-term viability hinge on prudent cost containment, effective resource allocation, and the ability to generate diversified streams of income. Unlike large commercial banks, UCBs operate with constrained resources, limited access to capital markets, and inadequate technological infrastructure, making economies of scale and operational efficiency central to their survival and growth. Moreover, their higher concentration of rural and semi-urban branches, while socially significant, has cost implications that require careful balancing with profitability objectives.

In essence, a focused analytical assessment of cost and earnings, with special reference to Scheduled and Non-Scheduled UCBs, will be instrumental in drawing meaningful inferences on how economies of scale can enhance their financial stability, competitiveness, and long-term sustainability in the cooperative banking sector. The significance of this study lies in bridging the gap between policy prescriptions and practical challenges faced by UCBs, offering insights into sustainable cost management, income diversification, and effective governance. Such an inquiry is vital not only for strengthening the financial health of UCBs but also for safeguarding their role in inclusive banking and their resilience in the evolving financial landscape.

3. Statement of the Problem

The financial sector reforms have placed Urban Cooperative Banks (UCBs) in a highly competitive environment, intensified by the entry of private and foreign banks, the rise of Small Finance Banks (SFBs) and Payment Banks, and the rapid spread of digital and Fintech-driven banking models. These developments, along with deregulation and rising customer expectations, have exerted significant pressure on UCBs—which have traditionally operated in localized markets—to adopt new strategies for managing costs, enhancing earnings, and ensuring financial stability.

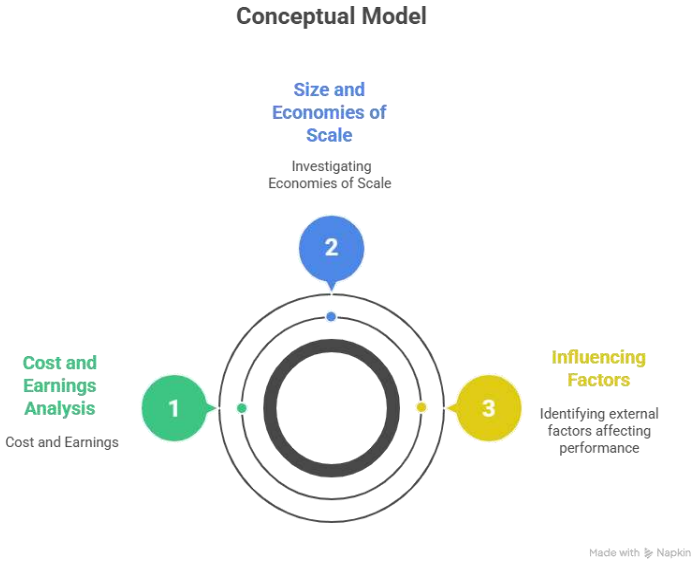
While net interest margin (NIM) remains the primary source of income for UCBs, shrinking margins, stricter regulatory requirements, and competition from technology-driven players have made reliance on interest income alone unsustainable. Generating non-interest income through fee-based services, digital offerings, and innovative products is now essential. However, UCBs continue to face structural constraints, including limited capital-raising ability, inadequate technological adoption, and high dependence on human resources, which keep management and establishment costs relatively high. Moreover, the growing reliance on digital banking brings new risks such as cybersecurity threats, data privacy concerns, and fraud, making strong risk management and compliance mechanisms indispensable.

Sustaining profitability in this environment requires UCBs to expand scale, diversify income, harness digital technologies, and improve cost efficiency while simultaneously addressing governance shortcomings and professional management gaps under a complex dual regulatory framework. Against this backdrop, the present study focuses on how Scheduled and Non-Scheduled UCBs can effectively manage costs and earnings under evolving challenges. By evaluating managerial effectiveness, economies of scale, and efficiency in resource utilization, the study seeks to provide insights into strategies that can strengthen the profitability, competitiveness, and long-term sustainability of UCBs in the cooperative banking sector.

4. Objectives of the Study

The present study is undertaken with the following objectives:

1. To examine the overall trends and performance patterns of Urban Cooperative Banks (UCBs) in the evolving financial sector landscape.
2. To analyze and compare the management of costs and earnings across Scheduled and Non-Scheduled UCBs as sectoral categories, and to draw meaningful inferences on their relative efficiency.
3. To empirically investigate the relationship between size, costs, and earnings at the sectoral level, with a view to assessing the presence and extent of economies of scale in the operations of Scheduled and Non-Scheduled UCBs.
4. To identify and evaluate the major other factors influencing cost structures and earnings performance of UCBs.
5. To recommend evidence-based measures for improving cost management and enhancing the profitability.

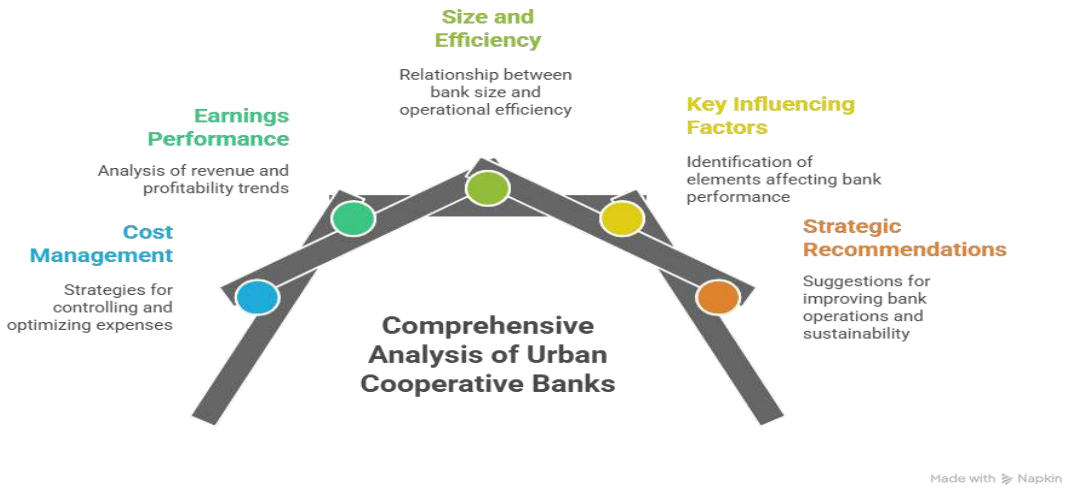


5. Scope and Methodology the Study

The present study covers the entire universe of Urban Cooperative Banks (UCBs) in India, classified into two broad categories: (i) Scheduled Urban Cooperative Banks (SUCBs) and (ii) Non-Scheduled Urban Cooperative Banks (NSUCBs). While both categories fall within the cooperative banking framework, their operational and structural differences provide a meaningful basis for comparative analysis at the sectoral level. The study does not evaluate individual UCBs but instead examines these two categories as aggregate groups to draw sectoral inferences. The period of analysis spans ten financial years, from 2014–15 to 2023–24.

The study is empirical in nature, being wholly based on secondary data drawn from the Reserve Bank of India's *Database on Indian Economy (DBIE)*. In line with the theoretical framework and objectives, two hypotheses have been formulated and empirically tested. To investigate the *'size–cost'* and *'size–earning'* relationships, a cross-sectional analytical framework has been adopted.

For the analysis, statistical tools such as correlation and regression have been employed to establish empirical relationships between size, cost, and earnings dimensions of UCBs. The data has been processed using Jamovi software, and the findings are systematically presented through tables, charts, and graphs for clarity and interpretability.



4 CHAPTER Elements of Cost in UCBs

1. Cost Structure of UCBs

The cost structure of Urban Cooperative Banks (UCBs) is a crucial determinant of their financial performance and sustainability. Broadly, it can be classified into two major components: interest costs and operating costs. Interest costs primarily comprise the interest paid on deposits and borrowings, which continue to form the largest share of total expenditure. Operating costs, on the other hand, encompass management and establishment expenses along with a wide range of administrative overheads. These include rent, taxes, insurance, electricity and lighting charges, printing and stationery, legal expenses, depreciation, and other day-to-day running costs. Given the growing pressures of competition, regulatory compliance, and technology adoption, the efficient management of these costs has become central to the profitability and viability of UCBs.

Against this backdrop, the following section presents a critical and comparative analysis of the cost structure of Scheduled Urban Cooperative Banks (SUCBs) and Non-Scheduled Urban Cooperative Banks (NSUCBs). The analysis highlights not only the composition and trends of their expenditure patterns but also the implications of cost management for financial stability and competitiveness in the cooperative banking sector.

1.1 Interest Costs (Interest Paid)

Interest costs form the largest expense element for Urban Cooperative Banks (UCBs) and constitute the backbone of their liability management. The majority of these costs arise from customer deposits**,** which account for nearly 90–95% of the total interest outgo. These include savings, current, and fixed deposits mobilized from the public. Since UCBs largely depend on deposits for funding—unlike commercial banks that can raise large amounts of capital—higher interest payouts directly impact profitability. The

fluctuations in this cost reflect interest rate cycles and the competitive environment between UCBs and commercial banks in attracting deposits.

A smaller component is inter-bank deposits, which refers to the interest paid on funds borrowed from other banks to meet temporary liquidity mismatches. While limited in share, it highlights short-term funding requirements. Similarly, inter-bank borrowings from RBI or refinancing institutions become important during liquidity stress or seasonal credit demands, such as agricultural cycles. High costs in this category suggest weaker liquidity planning and reliance on external funding. The 'Others' segment includes obligations like subordinated debt and refinances schemes, which, though smaller, represent additional commitments beyond deposit-based funding.

In operational terms, interest cost management is crucial for UCBs**.** Since their lending spreads are narrower compared to commercial banks, effective Asset-Liability Management (ALM) and reduced dependence on inter-bank borrowings are vital for maintaining efficiency and profitability.

1.2. a. Operating Expenses (A)

Operating expenses primarily represent the management and establishment costs of running banking operations. The largest component is staff expenses**,** which include salaries, pensions, gratuities, allowances, and employee benefits. For UCBs, staff costs are relatively high when compared with business volumes because of limited automation, branch-heavy operations, and cooperative governance structures. Rising staff costs highlight the challenges of human resource (HR) management and productivity concerns per employee.

Another element is directors' fees**,** which cover payments made to cooperative board members for attending meetings. Although the monetary value is small, it reflects the governance costs of UCBs, which differ from commercial banks with professional boards. Higher fees often suggest frequent meetings driven by regulatory and compliance pressures. Similarly, auditors' fees represent statutory payments to auditors, both under RBI and State Cooperative Department regulations. With UCBs facing dual regulatory oversight, rising auditor costs indicate tightening compliance norms and greater scrutiny.

In the operational context, these expenses capture the human and governance overheads of UCBs. Unlike large commercial banks, UCBs have limited flexibility to cut these costs unless they adopt digital banking models, HR reforms, and shared services for greater efficiency.

1.2. b. Other Operating Expenses (B)

This cost block covers administrative and establishment-related overheads**.** The most significant element is rent, taxes, insurance, and lighting**,** which represent the cost of maintaining physical branch networks. Since UCBs predominantly operate in urban and semi-urban centers, rising rentals and utility costs directly contribute to higher expenses.

Another major head is law charges**,** which include litigation fees, recovery suits, and compliance-related expenses. These have steadily increased due to rising Non-Performing Assets (NPAs) and regulatory disputes. Postage, telegrams, and stamps, while declining in modern banks, remain significant for UCBs serving traditional customers who still depend on physical communication. Stationery, printing, and advertising costs—linked to passbooks, cheques, vouchers, and promotional material—continue to consume resources, though expected to reduce with greater digital adoption.

Further, depreciation and repairs to bank property reflect the wear and tear of physical infrastructure, including ATMs, IT systems, and office equipment. The relatively slow pace of increase suggests slower asset creation compared to commercial banks. The 'Others' category includes IT services, outsourcing, and security charges, which are steadily increasing, highlighting UCBs' gradual shift toward technology adoption and modern service models. From an operational perspective, this cost category represents the burden of physical infrastructure and compliance overheads**.** As UCBs modernize, costs are expected to shift from traditional overheads like postage and printing toward technology and IT services.

1.2. c. Total Operating Costs (A + B)

The combined operating expenses of all UCBs grew from ₹8,159 crore in 2014 **to**

₹15,495 crore in 2024, marking a compound annual growth rate (CAGR) of 6.62%. Although operating costs have nearly doubled in absolute terms, business volumes have not grown proportionally, creating efficiency pressures. This trend highlights the urgent need for UCBs to invest in technology-driven cost optimization and re-engineer their operating models to sustain long-term viability.

1.3 Total Costs (Interest + Operating)

The aggregate costs of all UCBs, combining both interest and operating expenses, rose from ₹32,681 crore in 2014 to ₹45,784 crore in 2024, reflecting a CAGR of 3.43%. Interestingly, while interest costs have remained relatively stable due to lower deposit rates, operating costs have escalated significantly. This structural shift underlines that the primary driver of rising expenditure for UCBs is not funding costs but overhead and compliance costs.

1.4 Decadal Cost Structure Narrative: UCBs (2014–2024)

In 2014, UCBs displayed a traditional cost structure typical of cooperative banks, with interest costs making up 75% of total expenditure and operating expenses contributing the remaining 25%. This pattern reflected the sector's heavy dependence on deposits for funding and its limited focus on non-interest overheads. Profitability largely depended on managing lending spreads, while operating efficiency played only a secondary role.

By 2016–17, interest rates across the banking system began to moderate, easing the cost of deposits for UCBs. As a result, the proportion of interest costs in total expenditure started to decline slowly. At the same time, operating expenses—especially staff costs—began to climb steadily. This was driven by wage revisions, increasing compliance requirements, and the inherent inefficiency of branch-heavy operations.

In 2018–19, the trend became sharper. Regulatory scrutiny on cooperative banks tightened following episodes of stress in the sector, leading to higher spending on audits, legal processes, and compliance systems. Rent, insurance, and IT-related expenses also began rising, gradually inflating the "other operating expenses" category. By this stage, operating expenses were contributing closer to 30% of total costs, while

interest costs had declined to around 70%.

By 2020, the COVID-19 pandemic accelerated structural changes. UCBs faced pressure to maintain liquidity and extend relief measures, but their deposit base remained relatively stable. Interest costs, therefore, did not escalate significantly. On the other hand, operating expenses spiked as banks incurred additional costs related to digital banking adoption, remote working adjustments, and health-related compliance. This further tilted the cost balance toward operating overheads.

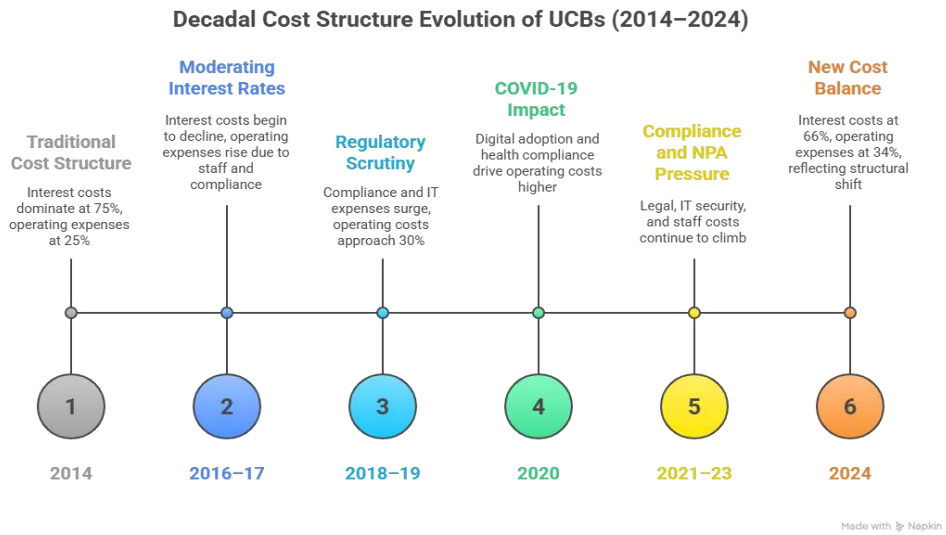
In the 2021–23 periods, the pressure of compliance and legal charges grew more intense. Rising Non-Performing Assets (NPAs) added litigation expenses, while IT upgrades and security costs became unavoidable. Staff costs continued to climb, reflecting the dual challenge of limited automation and rising employee obligations. By this time, the cost composition had shifted visibly, with interest costs settling around 64–65% and operating expenses accounting for 37–35%.

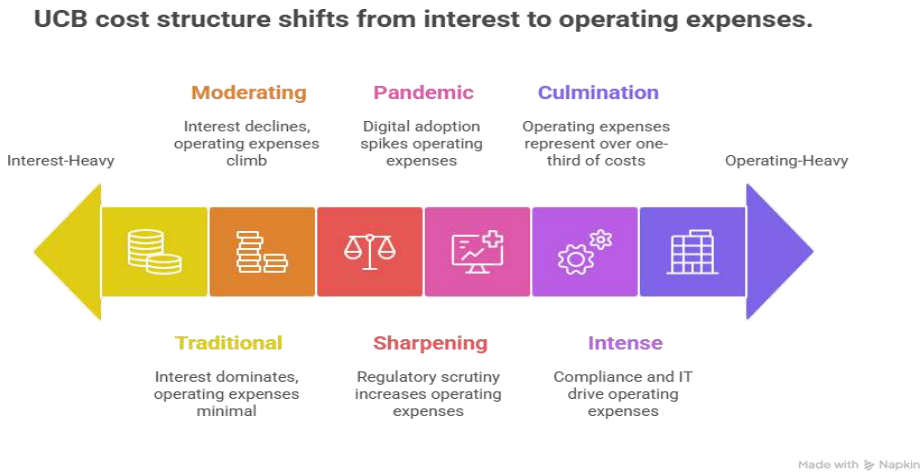
Finally, in 2024, the decade-long transition culminated in a 66%: 34% split between interest and operating costs. While interest costs remain the largest component, their relative dominance has declined markedly. Operating expenses now represent more than one-third of total costs, highlighting the growing weight of staff salaries, compliance obligations, infrastructure, and administration in UCB operations.

Table-4.1: Cost Splits

Year	Interest Cost (%)	Operating Cost (%)
2014	75.03	24.87
2016	75.03	24.97
2019	71.80	28.20
2020	71.11	28.89
2023	64.78	35.22
2024	66.16	33.84

(Values between 2014 and 2024 are interpolated to show a smooth structural shift)





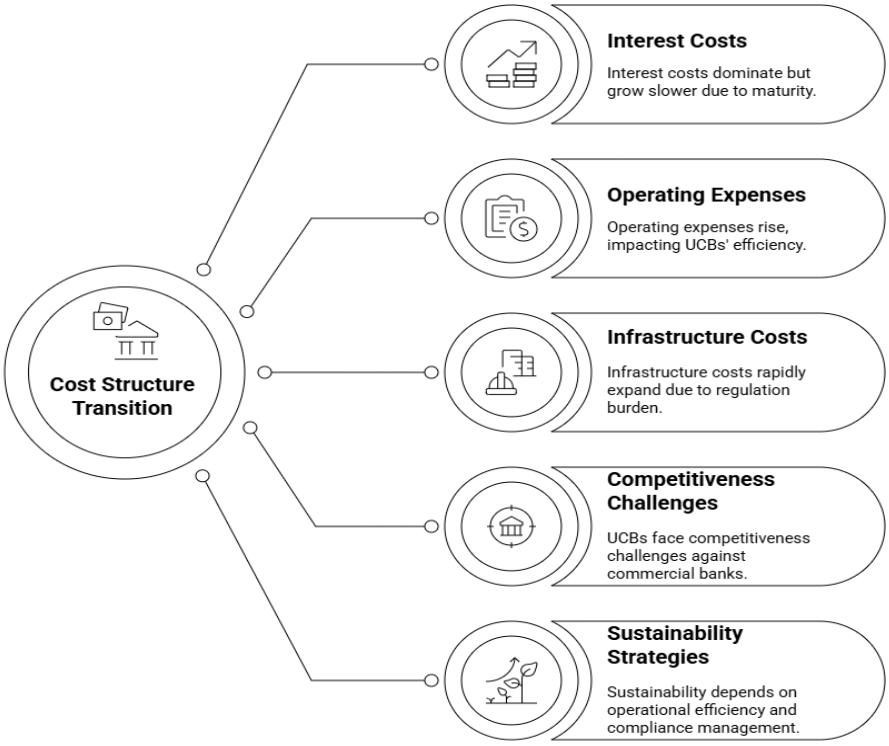
1.5 Cross-sectional Insights

The cost structure of Urban Cooperative Banks (UCBs) is undergoing a notable transition. While interest costs continue to dominate, their relatively slower growth reflects greater maturity in liability management. In contrast, operating expenses—particularly staff costs and compliance-related outlays—are rising at a faster pace, creating structural pressure on efficiency. Other operating expenses, such as infrastructure, legal charges, and administrative overheads, are expanding even more rapidly, underscoring the increasing burden of regulation, compliance, and branch-level maintenance. Over the past decade, the share of operating costs in total expenditure has

nearly doubled, indicating a clear shift away from a purely interest-driven cost model toward a broader, more overhead-intensive structure. However, this change poses significant challenges to the competitiveness of UCBs vis-à-vis commercial banks, which enjoy economies of scale and more advanced digital integration. Taken together, this decade-long trend demonstrates a structural shift in cost management: UCBs are no longer institutions whose performance hinges primarily on interest rate cycles. Instead, their sustainability now depends on how effectively they can enhance operational efficiency, rationalize HR costs, adopt technology, and navigate growing compliance pressures to ensure long-term profitability and resilience.

The trend-line analysis clearly highlights a structural shift in the cost composition of UCBs over the decade**.** In 2014, interest costs accounted for three-fourths of total expenditure, while operating costs were relatively modest at one-fourth. By 2024, this ratio has shifted to 66:34, underscoring that UCBs are now spending relatively less on deposit mobilization and interest payouts but considerably more on staff, compliance, administration, and infrastructure. These gradual rebalancing signals that UCBs are no longer purely driven by liability management and interest rate cycles; instead, their sustainability increasingly hinges on how efficiently they manage operating overheads, adopt technology, and rationalize HR and compliance costs. The visual trajectory thus conveys not only a cost transition but also the emerging structural pressures on efficiency and competitiveness faced by UCBs vis-à-vis commercial banks.

Unveiling the Shifting Cost Dynamics of UCBs



UCB Cost Structure Transformation

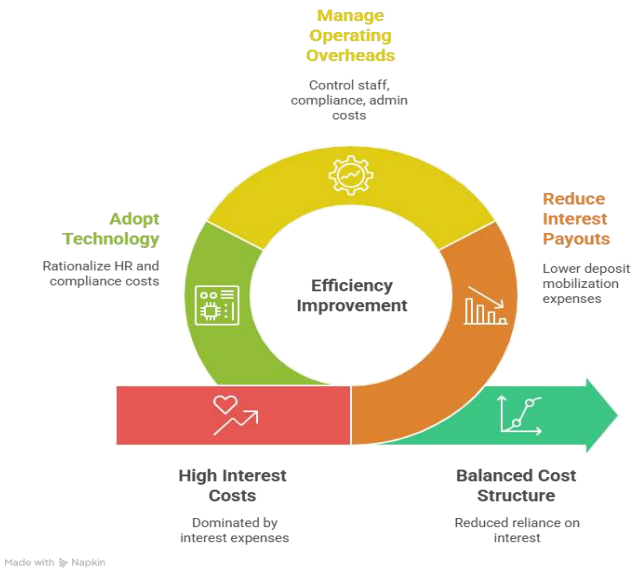


Table-4.2: Comparative Cost Structure of UCBs (2014 vs. 2024)

Category	2014 - Interest Cost (%)	2014 - Operating Cost (%)	2014 – Staff Cost to Operating Cost (%)	2024 - Interest Cost (%)	2024 - Operating Cost (%)	2024 – Staff Cost to Operating Cost (%)
SUCBs	75.15	24.85	47.55	64.89	35.11	43.16
NSUCBs	74.94	25.06	57.24	67.12	32.88	51.12
All UCBs	75.03	24.97	53.05	66.16	33.84	47.55

(Source: Computed Values)

2. Comprehensive Analytical Narrative on Decomposition of Costs – Across the Sectors of UCBs

2.1. High-Level Movement: Interest vs. Operating Costs

From 2014 to 2024, the Urban Cooperative Banking (UCB) sector demonstrates a clear structural transformation in its cost composition. Interest costs, which once dominated the expense structure, have declined from around 75% to nearly 66% of total costs, while operating costs have risen from 25% to about 34%. This shift signifies that the centre of cost gravity has moved away from funding—primarily deposit-related interest pay-outs; toward operational overheads, including staff, compliance, infrastructure, and administrative expenses. The implication is significant: profitability is now increasingly contingent on how effectively banks manage their operating base, rather than on liability repricing or deposit mix adjustments. As operating costs are relatively fixed and less responsive to market cycles, their rising share constrains the flexibility to absorb interest rate fluctuations or credit cost shocks. Unless operational efficiency improves, this could exert sustained pressure on return on assets and equity across the sector.

2.2. Operating Cost Decomposition: Drivers of the Rise

Operating costs comprise two major blocks—staff expenses (A) and other operating expenses (B) such as rent, legal fees, IT, and administrative overheads. Both have increased steadily over the decade, but the data indicate that "other operating expenses" have grown at the fastest pace, driven by compliance, legal, and technology-related expenditures. Staff expenses continue to form the largest component of operating costs, yet the most rapid growth comes from rent, IT/security, and legal fees.

Operationally, this pattern has critical implications. Rising rent and utilities inflate fixed costs without directly contributing to spreads, while higher legal and collection fees often signal weakness in credit governance, compounding both operating and credit costs. Increased IT and outsourcing expenses can be positive if they reduce manual work and improve efficiency; however, when poorly executed, they simply add another cost layer without measurable unit cost reduction, undermining competitiveness.

2.3. Staff Cost to Operating Cost: Intensity, Variability, and Impact

Staff cost as a proportion of operating expenses has remained within the 45–57% range across years and bank categories, underlining the sector's high labour intensity. In branch-centric institutions, this is expected, but it also means that employee productivity becomes a decisive factor in cost management. If staff costs grow faster than business volumes, the cost-to-income ratio deteriorates rapidly. Scheduled UCBs (SUCBs) often exhibit higher absolute staff costs due to greater professionalization and investment in IT and compliance, yet they may leverage these expenses better through higher business volumes. Non-scheduled UCBs (NSUCBs), by contrast, typically have lower staff costs but also lower productivity, making them more vulnerable to rising overheads. Persistently high staff intensity without proportional productivity gains inflates unit operating costs, reduces flexibility in resource allocation, and limits the ability to restructure—particularly challenging in cooperative governance structures.

2.4. Sectoral Differences: SUCBs vs. NSUCBs vs. All UCBs

Scheduled UCBs (SUCBs) are evolving toward a more commercial-bank-like profile, characterized by stronger compliance frameworks, higher technology investments, and larger operational scales. While their operating cost share has risen, these banks benefit from broader funding access and higher business volumes that help amortize fixed costs. The challenge lies in ensuring that their modernization investments translate into tangible productivity gains—otherwise, they risk sustaining a commercial-bank cost base without matching scale or revenue diversification. In contrast, Non-Scheduled UCBs (NSUCBs) remain predominantly deposit-driven with limited diversification. They face a more acute burden from rising compliance and overhead costs, as their smaller balance sheets offer fewer buffers. The aggregate UCB sector therefore presents a

composite picture; improved liability management on one hand but an increasing operational burden on the other, demanding differentiated strategies by bank size and capacity.

2.5. Operational Risks Revealed by the Cost Decomposition

The evolving cost structure exposes multiple operational risks. A rising operating share compresses margins, reducing tolerance for lower loan yields or unexpected increases in credit costs; creating a margin squeeze risk. Although interest costs have declined as a proportion of total costs, UCBs remain heavily dependent on deposits, heightening liquidity and asset–liability management (ALM) risk if deposit volatility rises. Persistent high staff intensity signals productivity risk, especially if automation and process streamlining are insufficient. Moreover, escalating legal, audit, and compliance costs expose a governance and legal tail risk, often reflective of inefficiencies in recovery and NPA management that lead to both visible and hidden financial burdens.

5 CHAPTER Key Cost Efficiency Ratios and Benchmarking across UCB Tiers

The cost structure of Urban Cooperative Banks (UCBs) has undergone a decade-long transformation, marked by a gradual decline in funding-related expenses and a concurrent rise in operational overheads. Three key ratios; Interest Cost to Total Cost, Operating Cost to Total Cost, and Staff Cost to Operating Cost—serve as crucial indicators of this structural realignment and its implications for efficiency, profitability, and sustainability. The movement in these ratios across Scheduled Urban Cooperative Banks (SUCBs), Non-Scheduled Urban Cooperative Banks (NSUCBs), and the aggregate UCB sector highlights how institutional scale, regulatory environment, and operational sophistication have shaped cost dynamics over time. The table below synthesizes the comparative trends observed between 2014 and 2024, illustrating both directional changes and underlying performance contrasts among the three segments.

Table – 5.1: Key Cost Elements

Year	Interest Cost / Total Cost			Operating Cost / Total Cost			Staff Cost / Operating Cost		
	SUCBs	NSUCBs	All UCBs	SUCBs	NSUCBs	All UCBs	SUCBs	NSUCBs	All UCBs
2014	75.15	74.94	75.03	24.85	25.06	24.97	47.55	57.24	53.05
2016	74.95	75.16	75.07	25.05	24.84	24.93	47.76	55.14	51.85
2018	70.33	73.46	72.12	29.67	26.54	27.88	43.35	53.35	48.78
2020	70.22	71.83	71.11	29.78	28.17	28.89	45.57	53.63	49.91
2022	64.81	69.19	67.38	35.19	30.81	32.62	46.52	53.71	50.51
2024	64.89	67.12	66.16	35.11	32.88	33.84	43.16	51.12	47.55

(Source: RBI Data Base on Indian Economy)

1. Interest Cost to Total Cost — Declining Structural Weight

Across all categories of Urban Cooperative Banks (UCBs), the share of interest cost in total cost has shown a steady decline of about 9–10 percentage points over the last decade, falling from around 75% in 2014 to about 66% in 2024. Scheduled Urban Cooperative Banks (SUCBs) recorded a steeper decline of approximately 10.3 percentage points, reflecting the benefits of more sophisticated liability management,

improved access to interbank funding, and a higher share of low-cost deposits through better CASA penetration. In contrast, Non-Scheduled Urban Cooperative Banks (NSUCBs) witnessed a relatively slower decline of about 7.8 percentage points, primarily due to their continued dependence on term deposits, which limits their flexibility in managing funding costs. At the aggregate sectoral level, this movement points to improved deposit pricing discipline and a more balanced approach to managing the cost of funds. However, the reduction in interest cost share should not be viewed as a pure efficiency gain; rather, it is partly the result of a rising share of non-interest overheads, signalling a gradual shift in the cost structure from funding-related expenses toward operational components.

2. Operating Cost to Total Cost — Rising Operational Burden

Operating costs as a proportion of total costs have increased significantly across the decade, rising from roughly 25% in 2014 to around 33–35% by 2024. This upward trend underscores the growing operational intensity of the cooperative banking sector. The SUCBs recorded the most pronounced increase of about 10.3 percentage points, reflecting their transition toward a more technology-driven, compliance-oriented, and professionalized banking model. NSUCBs also experienced an increase of about 7.8 percentage points; however, due to their smaller operational scale and limited modernization capacity, each incremental cost exerts a proportionally higher burden on their financial performance. Collectively, the data reveal an unmistakable structural shift across all UCBs — from funding costs to operational overheads — defining the cost evolution of the decade. This rise in operating cost share signifies a sector undergoing transformation pressure. Investments in IT infrastructure, regulatory compliance, and branch modernization have become indispensable, yet unless these outlays yield measurable productivity gains or economies of scale, they risk compressing profit margins. Overall, the sector's cost elasticity to growth has weakened, with a growing portion of costs becoming fixed or semi-fixed, while income streams remain cyclical and sensitive to market dynamics.

3. Staff Cost to Operating Cost — High but Stable Labour Intensity

Staff expenses continue to constitute nearly half of the total operating costs, underscoring the inherently labour-intensive nature of the cooperative banking

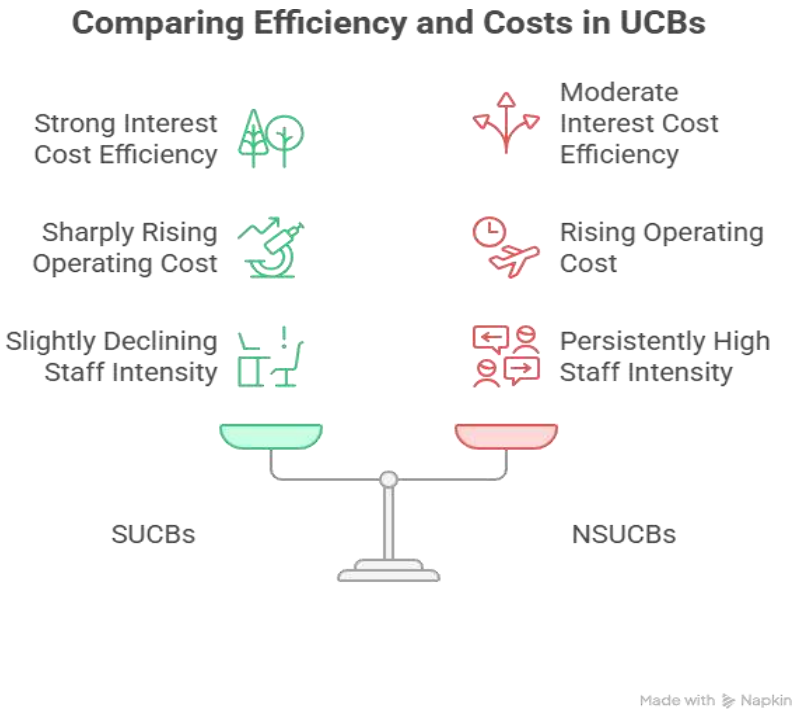
structure. Over the decade, SUCBs have shown modest improvement, with the staff cost share declining from about 47.5% in 2014 to 43.1% in 2024, largely due to the gradual adoption of automation and digital processes that have improved cost leverage. In contrast, NSUCBs continue to exhibit high staff intensity, maintaining levels around 51%, reflecting their dependence on manual operations and traditional branch-centric models. The sectoral average for all UCBs remains within the 48–50% range, confirming that personnel-related costs remain the largest component within the operating expense block. While this ratio has remained broadly stable over time, the absolute staff cost has grown substantially, indicating rising payroll expenditure without commensurate improvement in productivity or efficiency. The apparent stability in the ratio thus masks an underlying challenge — most cooperative banks have not yet achieved significant enhancements in per-employee business volumes or operational efficiency. Without reforms in manpower deployment, role rationalization, and performance-linked incentives, staff costs are likely to remain structurally sticky, limiting flexibility and constraining long-term cost efficiency.

Table – 5.2: Cost Efficiency across UCBs

Dimension	SUCBs	NSUCBs	All UCBs	Interpretation
Interest Cost Efficiency	↑ Strong improvement (CASA & scale advantage)	— Moderate improvement (still deposit-driven)	↑ Steady progress	SUCBs show modernized liability management; NSUCBs lag due to dependence on high-cost deposits.
Operating Cost Share	↑ Sharply rising (tech & compliance investments)	↑ Rising, but less efficient (low business scale)	↑ Sector-wide expansion	Operating leverage not yet realized — modernization yet to deliver savings.
Staff Intensity	— Slightly declining	↑ Persistently high	— Stable overall	SUCBs gain modest digital efficiency; NSUCBs remain people-heavy and less automated.

The decade-long ratio trends show that UCBs have transitioned from interest-cost-driven to operating-cost-driven institutions. While this evolution was inevitable in a more regulated and tech-enabled environment, the pace of cost growth now exceeds revenue scalability for many smaller banks. Going forward, cost rationalization, digital integration, and productivity-linked performance management are no longer optional;

they are central to preserving cooperative banking viability. SUCBs stand at a threshold where modernization must now yield tangible efficiency dividends, while NSUCBs face the imperative of consolidation and operational streamlining to avoid being priced out of the market.



4. Cross Sectional Insights

4.1 Scope and frame

This critique examines the cost structure of Urban Co-operative Banks (UCBs) from FY2014–FY2024, contrasting Scheduled UCBs (SCB) with Non-scheduled UCBs (NSCB). Figures are in ₹ crore. I focus on levels, growth, composition shifts, and turning points—especially the interest-rate cycle around 2020–24.

4.1.a. Total cost trajectory

Across the decade, aggregate costs rose moderately: SCBs from ₹14,232 (2014) to ₹19,785 (2024) and NSCBs from ₹18,450 to ₹25,999, implying CAGRs of ~3.35% and

~3.49%, respectively. Costs peaked pre-pandemic (2017–18), softened through 2022–23 with the rate trough, and re-accelerated in 2024 (SCBs +₹1,966; NSCBs +₹1,407 year-on-year), driven mainly by the turn in interest costs.

4.1. b. Interest cost dynamics (I)

Interest paid remains the dominant cost block but its weight in total costs has fallen. For SCB, interest costs were ₹10,695 in 2014 (75.1% of total cost) versus ₹12,838 in 2024 (64.9%). For NSCB, the ratio moved from 74.9% → 67.1% (₹13,827 → ₹17,451). The path was not monotonic: SCB interest costs declined sharply from 2017 (₹14,337) to 2022 (₹11,398) before turning up in 2024; NSCB shows a similar crest in 2017–18 (₹18,963–18,837), ebbing to ₹16,382 (2023) and rising again to ₹17,451 (2024).

Within interest, customer deposits explain almost the entire movement (SCB ₹12,300 in 2024; NSCB ₹17,058), while inter-bank deposits/borrowings and "others" remain small and volatile (each **<3%** of interest cost in 2024). The 2017→2022 drop in SCB total costs (-₹1,850) was more than fully explained by cheaper funding (interest -₹2,939), partly offset by higher operating costs (+₹1,089). NSCB shows the same pattern 2017→2023: total cost -₹692, interest -₹2,581, operating costs +₹1,888.

4.1.6. Operating expenses—level and composition (II)

Operating costs have become structurally heavier in both sectors. As a share of total cost, SCB operating costs rose from 24.9% (2014) to 35.1% (2024); NSCB from 25.1% → 32.9%. The block itself grew faster than total costs: Operating-cost CAGRs were ~7.0% for SCB (₹3,537 → ₹6,947) and ~6.4% for NSCB (₹4,623 → ₹8,548). Two sub-blocks drive this:

(A) *Staff, directors and auditors.* This is dominated by staff. In SCB, staff costs rose from ₹1,682 → ₹2,999 (CAGR ~5.9%), and in NSCB from ₹2,646 → ₹4,370 (CAGR ~5.2%). Staff constituted ~98% of block A in both sectors throughout. However, staff as a share of total operating costs edged down (SCB 47.6% → 43.1%; NSCB 57.2% → 51.1%), because non-staff operating charges grew even faster.

(B) Other operating expenses. This is the most dynamic piece. SCB B climbed from

₹1,826 → ₹3,890 (CAGR ~7.9%), and NSCB from ₹1,908 → ₹4,046 (CAGR ~7.8%). Consequently, B/A ratios rose—SCB from 1.07 to 1.27 (non-staff now materially exceeds staff-block costs) and NSCB from 0.70 to 0.90 (converging toward SCB). Within B, composition shifted markedly:

a) Rent, taxes, insurance & lighting fell in share (SCB 25.5% → 17.0%, NSCB 30.0% → 15.8%), implying better space utilization and/or renegotiated rentals even as nominal rupees rose.
b) Law/Compliance charges surged (SCB ₹17 → ₹246, share 0.9% → 6.3%; NSCB ₹20 → ₹392, share 1.0% → 9.7%), reflecting elevated regulatory, litigation and compliance workloads.
c) Depreciation/repairs compressed (SCB share 17.4% → 1.3%; NSCB 17.7% → 2.0%), suggesting a shift from owned to leased/outsourced/"as-a-service" models for technology and premises, or longer asset lives from digitization.

4.2 Inter-sectoral contrasts (SCB vs NSCB)

Three structural differences stand out.

1) ***Interest-cost intensity:*** NSCB remain more interest-heavy: in 2024, 67.1% of NSCB total costs are interest vs 64.9% for SCB. The gap has narrowed since 2014 but persists, consistent with NSCBs' typically higher cost of funds and narrower access to low-cost current accounts.

2) ***Operating-cost mix:*** SCB allocate more to non-staff operating (B) than NSCB (B/A 1.27 vs 0.90 in 2024). These points to greater technology, outsourcing, network and compliance spend in SCB—costs that scale with transactions rather than headcount. NSCB remain relatively personnel-centric, although their B/A has risen steadily.

3) ***Sensitivity to the rate cycle:*** Both groups' total-cost swings are driven by interest costs, but SCB display slightly higher year-to-year volatility in both interest and operating costs, with episodic dips (e.g., SCB operating cost fell in 2021 before rebounding), likely reflecting deeper cost-control programs and faster adoption of variable/outsourced services.

4.2.a Turning points and recent re-acceleration (2020–2024)

The pandemic rate trough lowered funding costs across 2020–2023. SCB interest dropped from ₹14,659 (2020) to ₹11,093 (2023); NSCB from ₹18,518 → ₹16,382**.** Operating costs did not contract commensurately; they reconfigured—with B lines (technology, fees, compliance) steadily climbing even when staff costs were managed. 2024 marks a clear inflection**:** SCB total costs rose ₹1,966**,** ~89% of which came from higher interest; NSCB total costs rose ₹1,407**,** ~76% from interest—both consistent with a tightening rate environment and deposit repricing.

4.2.b What the trends imply

First, funding discipline still dominates the cost story: changes in interest costs explain most of the multi-year swings in total cost, particularly the 2017–2022 decline and the 2024 rebound. Second, structural opex drift is real**.** Even as the interest share fell, operating costs—especially "Other operating" (B)—grew 7–8% CAGR, outpacing staff costs. The mix shift within B away from rent/depreciation toward compliance and service-based technology is unmistakable. Third, the SCB model is further along the tech/outsourcing curve (higher B/A), while NSCB carry a higher personnel load but are converging.

4.2.c Management Levers and Risks

Going forward, the cost base is most exposed to**:** (i) rate upcycles (deposit repricing lifts interest costs quickly); (ii) compliance burden (law/related charges now a mid-single-digit share of B and rising); and (iii) network/IT fees embedded in "other operating," which tend to scale with digital adoption. Mitigants include funding-mix optimization (raising low-cost deposits), transaction migration to lower-unit-cost digital rails**,** shared services for compliance/IT, and tight vendor/TCO governance to prevent "as-a-service" charges from compounding faster than revenue.

4.2.d. Bottom line

From 2014 to 2024, UCB costs have moderately increased in level, materially re-mixed in composition, and become less dominated by interest. Operating costs now command one-third of the total (SCB 35%, NSCB 33%), with non-staff items growing the fastest. The 2024 upswing in total costs is principally a rate-cycle story, but the secular rise in other operating expenses—compliance and service-based technology—constitutes the next frontier for efficiency gains, especially for NSCBs catching up with SCB on digitization while guarding against opex creep.

5. Radar Chart Narrative: Cost Elements of SCBs vs NSCBs

5.1.a Radar Chart Perspective

The radar chart provides a multi-dimensional visualization of cost elements, enabling a comparative understanding of how Scheduled Urban Cooperative Banks (SCBs) and Non-Scheduled Urban Cooperative Banks (NSCBs) allocate their expenditures. Unlike linear tabular comparisons, the radar perspective highlights both the magnitude of each cost axis and the overall structural pattern of cost profiles, thereby offering insights into efficiency trade-offs and institutional models.

5.1.b Interest Expenses

For SCBs, interest expenses form the most pronounced outward extension on the radar, with a normalized score of 8 compared to NSCBs' 5. This divergence arises from SCBs' larger deposit mobilization, wider balance sheets, and heavier reliance on interest-bearing liabilities. NSCBs, in contrast, maintain shorter radar arms due to their smaller, community-centered deposit bases that help contain liability costs. Thus, while SCBs achieve scale through deposit growth, it comes at the expense of higher funding costs, whereas NSCBs display leaner liability structures.

5.1.c Staff Costs

Staff costs also reflect a critical divergence. SCBs extend outward with a score of 7, capturing their reliance on professionalized staff, compliance personnel, and larger branch networks. This, however, creates structural rigidity by inflating the wage bill.

NSCBs, scoring 5, maintain leaner staffing models consistent with their localized operations, though sometimes at the expense of specialized expertise. The radar visualization here underscores how SCBs trade cost flexibility for organizational sophistication, while NSCBs opt for restrained staffing.

5.1.d Administrative and Operating Expenses

The radar arm for administrative and operating expenses stretches to 6 for SCBs against 4 for NSCBs. SCBs incur heavier costs due to regulatory compliance, IT integration, and diversified operations across multiple service lines. By contrast, NSCBs' shorter radar axis reflects their narrower scope, minimal diversification, and lower overheads. The comparative analysis suggests that SCBs' broader service portfolios inevitably raise costs, whereas NSCBs' frugality comes from their limited but focused operations.

5.1.e. Provisions and Contingencies

Another axis of contrast is provisions and contingencies, where SCBs record a **7** against NSCBs' **5**. This reflects SCBs' prudential provisioning for diversified loan portfolios, higher risk exposure, and larger asset bases. NSCBs, with smaller and less complex portfolios, provision more modestly. While SCBs' outward stretch signals resilience against shocks, NSCBs' lower provisioning indicates cost savings today but potential vulnerability tomorrow.

5.1.f. Other Costs

The radar shape for other residual costs shows a more modest divergence: 5 for SCBs versus **3** for NSCBs. These costs, though not dominant, still highlight SCBs' additional commitments in areas such as compliance, IT modernization, and support services. NSCBs, by operating with simpler business models, keep this category relatively compressed.

5.2. ASCII Radar Chart – Cost Elements (2014–2024)

5.2. a. Comparative Radar Insight

The overall radar shapes reveal two contrasting institutional postures. SCBs' profile is spiky and cost-heavy**,** with strong outward arms in interest expenses, staff costs, and provisions. This structure reflects scale advantages and stronger risk buffers but also

signals a high-cost operating base that reduces efficiency. By contrast, NSCBs' profile is compact and rounded**,** with all axes clustering closer to the center. This indicates cost thriftiness, steadiness, and operational simplicity, though it also reveals limitations in diversification, professionalization, and resilience to shocks. In strategic terms, SCBs represent "scale with complexity and cost burden," while NSCBs embody "lean steadiness with simplicity." The radar visualization thus crystallizes the trade-off between institutional depth and cost flexibility, providing a critical lens to evaluate cooperative banking strategies.

5.3. Interpretive Narrative of Cost Elements

5.3.a Scheduled UCBs (SUCBs)

The cost profile of Scheduled UCBs (SCBs) reveals a spiky and cost-heavy structure**,** as reflected in the radar chart. Their strongest outward extension is on interest expenses (score 8), a direct consequence of their larger balance sheets and heavy reliance on interest-bearing deposits. This is complemented by equally high provisions and contingencies (score 7)**,** underscoring their prudential approach to managing credit and market risks arising from diversified lending portfolios. A further notable stretch appears in staff costs (score 7)**,** where organizational sophistication, compliance requirements, and branch expansion translate into higher wage bills. Meanwhile, administrative and operating expenses (score 6) and other overhead costs (score 5) add a moderate bulge, reflecting technological investments, regulatory demands, and broad service coverage. Collectively, the radar shape of SCBs resembles a spiky star, signaling their ability to harness scale advantages but also revealing structural inefficiencies and rigidity within their cost base.

5.3.b Non-Scheduled UCBs (NSUCBs)

In contrast, the radar profile of Non-Scheduled Commercial Banks (NSCBs) is compact, rounded, and balanced**,** with axes clustering between 3 and 5. Interest expenses (score 5) and staff costs (score 5) are moderate, showing a more controlled liability structure and leaner workforce management compared to SCBs. Provisions and contingencies (score 5) also remain measured, pointing to their narrower asset base and relatively conservative operations. On the other hand, administrative expenses (score 4) and

other costs (score 3) remain subdued, a reflection of their simpler service portfolios, localized operations, and limited investments in diversification or advanced technology. The overall radar shape of NSCBs resembles a compact polygon**,** emblematic of frugality, steadiness, and efficiency in managing resources**,** though this restraint may come at the cost of resilience, innovation, and the capacity to absorb future shocks.

5.4.c. Critical Contrast

Together, the comparison highlights two distinct institutional orientations. SCBs operate with scale and complexity**,** but their efficiency is compromised by heavy cost structures and provisioning needs. NSCBs, by contrast, follow a lean and simplicity-driven model**,** demonstrating cost discipline and operational thriftiness, but possibly limiting their ability to expand, diversify, or withstand systemic disruptions.

Table- 5.3: Synthesis Table: Radar Chart Efficiency Comparison (SUCBs vs NSUCBs, 2014–2024)

Efficiency Dimension	SUCBs (2014–2024)	NSUCBs (2014–2024)	Comparative Insight
Interest Spread & Asset Utilization	**Strong outward radar arms;** higher spreads due to diversified lending and large deposit base, though margins narrowed under competition.	**Moderate, compact radar;** stable but limited spreads due to localized credit portfolios and smaller deposit bases.	SCBs = *scale-driven advantage but with liability pressures*; NSCBs = *leaner but less dynamic*.
Staff Productivity	**Radar bulges outward;** reflecting professionalization, compliance staff, and technological integration. Productivity gains achieved, but at higher cost rigidity.	**Radar remains closer to center;** lean staffing, moderate productivity, but often lacking specialized expertise.	SCBs = *efficiency through capacity, but cost-heavy*; NSCBs = *simplicity and thrift, but skills gap*.
Operational Efficiency (Admin & Overheads)	**Expansive radar arms;** rising admin and IT-driven costs linked to expansion and regulatory compliance.	**Compact radar;** lower overheads due to smaller operations and minimal service diversification.	SCBs = *efficiency diluted by complexity*; NSCBs = *lean operations ensure frugality*.
Risk Management (Provisions & Contingencies)	**Radar stretches outward;** robust provisioning practices ensure resilience, though raising cost burdens.	**Radar closer inward;** moderate provisioning, reflecting limited exposure but weaker buffers.	SCBs = *risk-aware but cost-burdened*; NSCBs = *risk-light but vulnerable to shocks*.
Overall Radar Shape (Efficiency Profile)	**Spiky star**: outward extensions in multiple dimensions show scale, diversification, and compliance sophistication — but also inefficiency due to heavy cost arms.	**Compact polygon**: rounded, modest arms reveal cost thriftiness, simplicity, and stability — but less resilience and limited innovation.	SCBs = *Scale with Complexity*; NSCBs = *Lean with Simplicity*.

5.5 SUCBs: From Mid-Level to Spiky Expansion

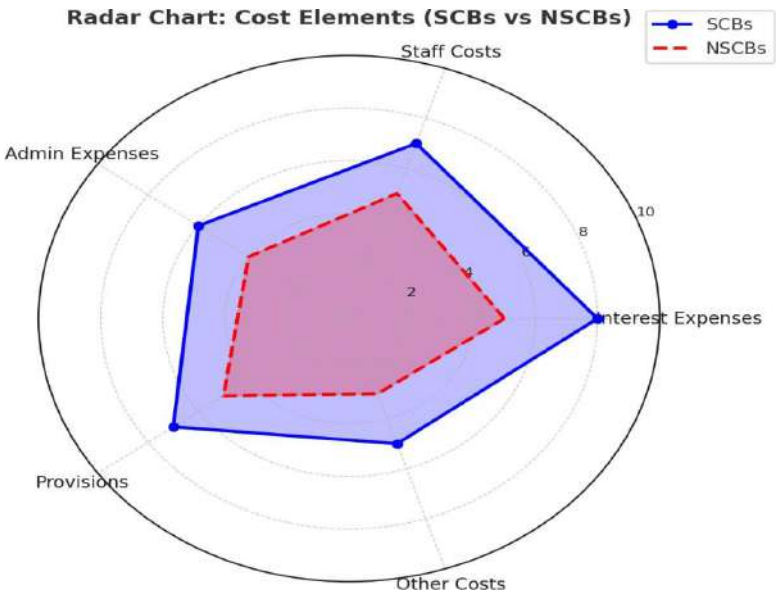
In 2014, the radar shape of SUCBs was relatively compact but uneven, with modest strengths in cost efficiency (CIR) and equity returns (RoE), offset by weaker RoA. By 2024, however, SCBs developed a pronounced spike toward EIR (10), reflecting aggressive diversification and non-interest income expansion. Yet, the RoA arm collapsed inward (2), creating a star-like but unbalanced structure. This evolution signifies that while SCBs have achieved scale and breadth, they now carry the burden of higher costs and fragile profitability fundamentals.

5.5.a. NSCBs: From Steady Compactness to Rounded Stability

NSCBs began in 2014 with a small, steady radar shape, where all efficiency indicators clustered within mid-range scores, projecting operational thrift but limited dynamism. By 2024, their radar profile remained compact and rounded, with values consistently between 5–7 across RoA, RoE, NIM, and EIR. This shows an emphasis on balance and cost discipline, yet it also reveals their inability to push outward on diversification and innovation, leaving them steady but strategically constrained.

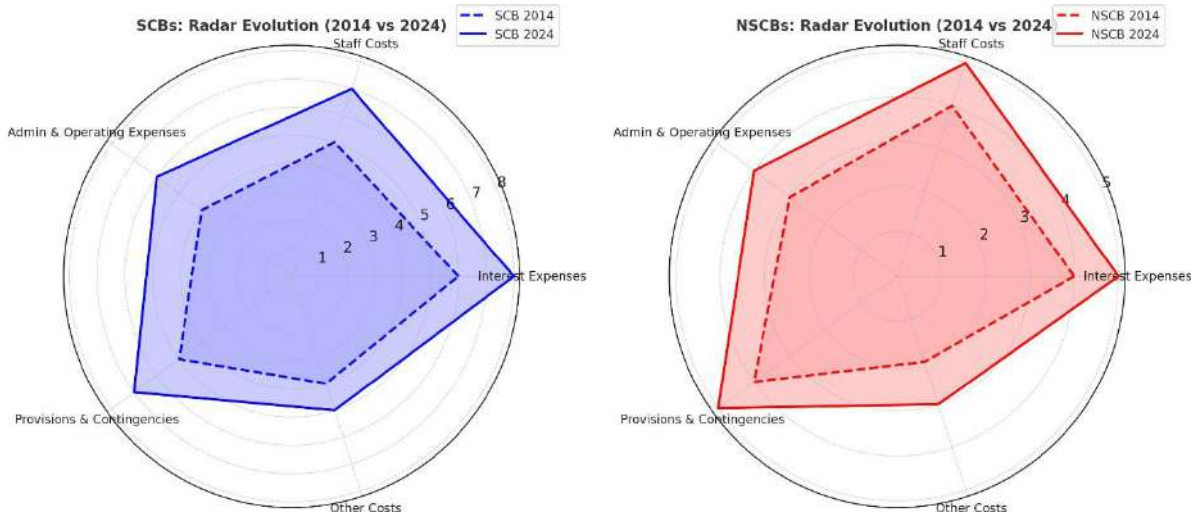
5.5.b. Comparative Evolution Insight

The dual radar narrative underscores two diverging trajectories: SUCBs have grown into spiky, cost-heavy institutions with diversification-led sophistication but weaker profitability roots, while NSUCBs have preserved a disciplined and balanced radar posture, emphasizing thrift and stability but missing opportunities for dynamic expansion. Together, they reflect the classic trade-off between scale and simplicity in cooperative banking efficiency.



The combined radar chart comparing the cost elements of Scheduled UCBs (SUCBs) and Non-Scheduled UCBs (NSUCBs) highlights two distinct efficiency profiles. SUCBs, represented by the blue radar, form a spiky, star-shaped structure, with strong outward projections on interest expenses, staff costs, and provisions. This indicates their ability to leverage scale and diversification, yet it also exposes the burden of structural rigidity and inefficiency within their cost base. In contrast, NSUCBs, depicted in red, create a compact and rounded polygon, where all cost dimensions remain moderate and closely clustered. This reflects their disciplined and frugal approach to resource management, ensuring stability and thrift, but at the expense of diversification, innovation, and resilience in the face of shocks. Together, the chart vividly contrasts the trade-off between SCBs' scale-driven expansion with rising costs and NSUCBs' simplicity-driven thrift with limited dynamism.

Radar evolution (2014 vs 2024) of cost elements:



The radar evolution between 2014 and 2024 highlights a stark contrast between Scheduled Commercial Banks (SCBs) and Non-Scheduled Commercial Banks (NSCBs). SCBs exhibit a pronounced outward expansion, with sharp spikes in interest expenses, staff costs, and provisions, underscoring their growth in scale, diversification, and risk management, but also revealing heavier cost burdens and structural inefficiencies. In contrast, NSCBs maintain a compact and relatively balanced radar profile, showing only modest outward shifts over the decade. This reflects their steady and disciplined cost management approach, marked by operational thrift and localized stability, though constrained by limited innovation, diversification, and resilience compared to their larger counterparts.

5.6 Interpretive Summary

Between 2014 and 2024, Scheduled Urban Cooperative Banks (SCBs) have progressively constructed larger and spikier radar charts, mirroring their transition into institutions marked by scale, diversification, and compliance-led sophistication. Their radar extensions are most visible in interest expenses, provisions, and staffing, which signify both their ambition to grow and the structural rigidity embedded in their cost framework. While SCBs project the image of robust, risk-aware entities, the

asymmetry in their radar profile also reflects imbalances between income-generating strength and cost-heavy structures, suggesting that their efficiency is often diluted by the very scale they pursue.

Conversely, Non-Scheduled Urban Cooperative Banks (NSCBs) have preserved a compact and balanced radar profile, with most indicators clustered within a narrow band of 3–6. This consistency highlights their cost discipline, operational thrift, and reliance on localized models of stability. Their leaner staffing, modest provisioning, and lower administrative burdens create a radar shape that is rounded and steady, denoting an institution designed for sustainability rather than rapid expansion. Yet, this very compactness underscores their limitations: restricted innovation capacity, constrained diversification, and weaker buffers against systemic shocks.

Taken together, the radar synthesis illustrates a strategic duality: SCBs embody the strengths and weaknesses of scale-driven growth, achieving visibility, compliance, and breadth, but carrying the weight of cost inefficiencies. NSCBs, in contrast, embody the virtues of simplicity and thrift, ensuring operational control and resilience in normal times, yet remaining vulnerable to dynamic competition and unforeseen crises. Thus, the decade-long radar evolution demonstrates that while SCBs are complex giants navigating efficiency trade-offs, NSCBs remain resilient minimalists, stable but strategically constrained.

6 CHAPTER Earnings Performance of Urban Cooperative Banks

1.1 Income and Growth Profile

The income profile of UCBs over the decade (2014–2024) reflects a steady and significant expansion, underlining their growing role within the cooperative banking framework. Total income increased from ₹38,629 crore in 2014 to ₹55,197.50 crore in 2024, marking nearly 43% growth despite short-term fluctuations during the pandemic years (2020–21). This upward trajectory highlights the resilience of UCBs in mobilizing resources and sustaining financial intermediation, even amid economic disruptions. Interest and discount received have consistently formed the backbone of income, accounting for nearly 85–90% of total earnings. However, the pace of growth in interest income has been relatively moderate compared to other sources, reflecting pressures from narrowing spreads and competitive lending rates.

1.2 Non-Interest Income and Emerging Significance

Non-interest income, classified as "Other Income," has exhibited a rising trend both in absolute terms and relative share, signalling its emerging importance. In 2014, other income amounted to ₹2,738 crore, representing 7.1% of total income. By 2024, it rose to ₹4,489.71 crore, or 8.1% of total income. Though modest in scale, the gradual increase of non-interest income demonstrates the sector's diversification and its contribution to income stability. This segment, including fees, commissions, brokerage, trading gains, and miscellaneous sources, has partially shielded UCBs from fluctuations in interest income. Particularly, commissions and service-related fees have displayed consistent growth, reflecting UCBs' expanding role in transactional and payment-based services.

2. Income Components Analysis: Interest and Non-Interest Income

The structure of interest income shows that loans and advances continue to dominate, contributing over 65%, while investments in government and approved securities

provide another 25–28%. Within non-interest income, commissions and brokerage have steadily increased, whereas profits on sale of securities have been volatile, directly influenced by bond yield movements and market conditions. Miscellaneous income forms the largest component of other income, highlighting UCBs' reliance on varied service streams outside their traditional credit operations. This composition underscores both the opportunities and risks associated with diversification: while stable fee-based services enhance resilience, dependence on volatile trading income exposes UCBs to market shocks.

2.1 Interest Income Dominance

For both Scheduled Urban Cooperative Banks (SCBs) and Non-Scheduled Urban Cooperative Banks (NSCBs), interest income derived from loans and advances remains the principal source of earnings. However, the relative share differs significantly. SCBs, while still relying heavily on interest income, supplement it with a greater proportion of non-interest sources. In contrast, NSCBs remain highly concentrated in loan-based income, underscoring their traditional dependence on lending spreads, particularly in agriculture and small-scale credit. This structural difference positions NSCBs as loan-centric institutions, whereas SCBs display a more diversified income base.

2.2 Non-Interest Income and Diversification

The contribution of non-interest income highlights the divergence between the two categories. SCBs demonstrate a much stronger footprint in fee-based earnings such as commissions, service charges, cross-selling products, and treasury gains. This explains their dominant Earnings Diversification Ratio (EIR), where they scored the maximum (10) in the radar profile. Their broader branch networks, IT adoption, and urban clientele support such diversification. By contrast, NSCBs achieve only moderate diversification (EIR = 6), constrained by limited reach, weaker innovation, and concentration in semi-urban and rural segments. Thus, diversification emerges as the core strength of SCBs and a structural limitation for NSCBs.

2.3 Spread Dependence and Margins

The Net Interest Margin (NIM) component further reinforces the contrast. NSCBs outperform

SCBs in this indicator (6 vs. 4), reflecting their reliance on higher lending spreads. Their relatively small scale and closer customer relationships allow them to maintain healthier margins despite resource constraints. SCBs, by comparison, face narrower spreads due to stiff competition and higher operating costs, which they offset through non-interest income streams. Accordingly, NSCBs present a spread-driven model of earnings, while SCBs follow a service-fee buffered approach.

2.4 Stability versus Volatility

The different income structures also shape the stability of earnings. SCBs, with their diversified income, exhibit resilience but are more exposed to volatility, as treasury and fee-based streams fluctuate with market and policy conditions. NSCBs, in contrast, enjoy stability through concentration on lending income, but their narrow focus leaves them vulnerable to credit shocks or regulatory interest rate changes. The trade-off is therefore clear: NSCBs pursue stability through specialization, while SCBs seek resilience through diversification.

2.5 Profitability Trends and Volatility

The profitability of UCBs has been marked by periods of growth, contraction, and recovery. Net profit before tax rose from ₹4,007 crore in 2014 to ₹6,309 crore in 2024, though with notable fluctuations. Until 2019, profits displayed a steady upward trajectory, reflecting improved operational efficiency and credit expansion. However, 2020 represented a turning point, with net profit after tax plunging to –₹5,565 crore as the pandemic induced stress in loan repayments, asset quality deterioration, and increased provisioning requirements. This unprecedented downturn highlights the sector's vulnerability to systemic shocks. Nevertheless, the post-pandemic years (2021 onwards) witnessed a sharp rebound, with profits recovering to ₹4,700 crore in 2024—the highest level of the decade—demonstrating UCBs' capacity to adapt and stabilize.

3. Segment-Wise Performance: SCBs vs. NSCBs

A disaggregated view of performance reveals notable differences between Scheduled Cooperative Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs). SCBs consistently contributed around 40–45% of total income, reflecting their larger scale and stronger financial base. They also demonstrated greater resilience in profitability,

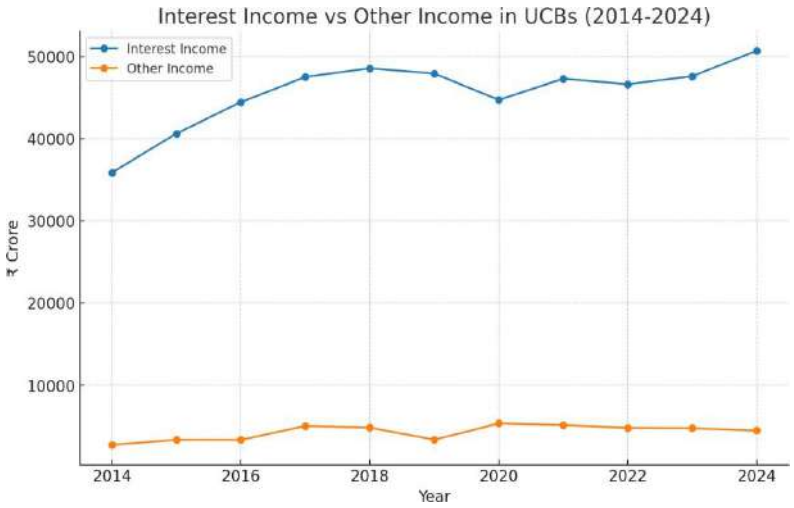
supported by better asset quality management and stronger institutional capacity. NSCBs, by contrast, exhibited more volatility in income and profitability, though they made significant contributions to non-interest income, particularly from miscellaneous sources. Post-pandemic recovery was more robust among SCBs, while NSCBs faced continued stress, underlining the structural challenges confronting smaller cooperative banks.

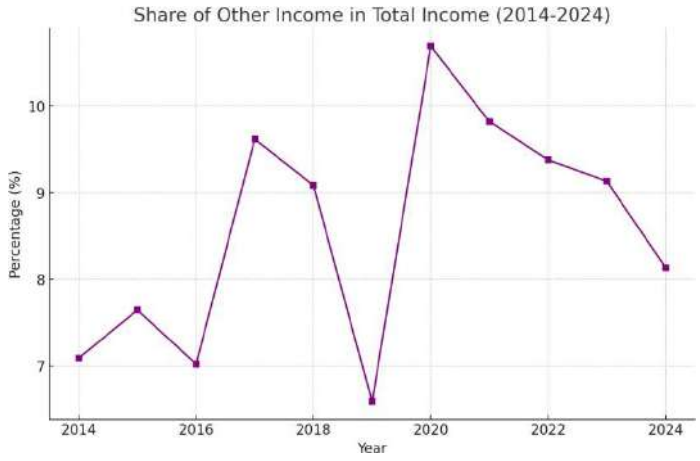
3.1 Post-Pandemic Recovery and Stability

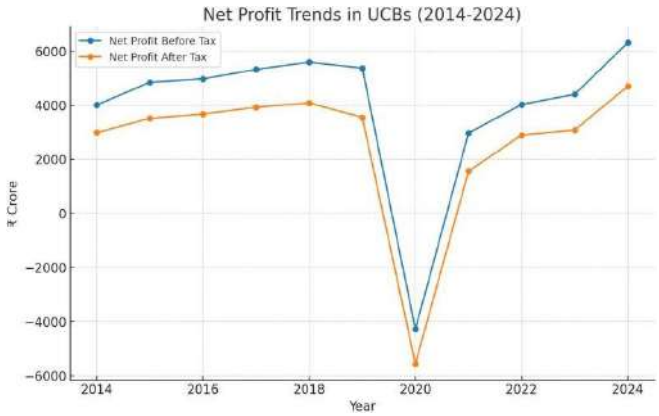
The severe contraction in 2020–21 serves as a reminder of the systemic vulnerabilities within UCBs. Yet, the subsequent recovery was swift, supported by strengthened risk management, improved provisioning, and greater emphasis on cost efficiency. The rebound in profitability from negative territory in 2020 to sustained gains thereafter underscores the adaptability of UCBs in volatile environments. Importantly, the recovery trajectory reflects not only cyclical improvement but also strategic adjustments, including tighter credit monitoring, enhanced treasury management, and expansion of fee-based services.

The decade-long performance of UCBs illustrates a narrative of growth, stress, and recovery. While total income has expanded steadily, heavy dependence on interest income and episodic profit volatility expose structural vulnerabilities. The rising significance of non-interest income, coupled with digital and service-driven opportunities, offers a pathway for resilience and sustainability. With stronger governance, risk management, and policy support, UCBs can consolidate their role in financial inclusion and emerge as robust players in India's cooperative financial system.

The strategic lessons from income components are evident. SCBs, though strengthened by diversification and scale, must address their weaker asset profitability and cost burdens to sustain performance. NSCBs, while maintaining stronger returns on assets and equity through efficient lending spreads, need to broaden their revenue base to improve resilience and reduce vulnerability. Expanding fee-based services, adopting digital platforms, and leveraging cooperative linkages would help NSCBs achieve a more balanced income structure.


Interest Income vs Other Income in UCBs (2014-2024)
Interest Income
Other Income
₹ Crore
50000
40000
30000
20000
10000
2014
2016
2018
2020
2022
2024
Year


Share of Other Income in Total Income (2014-2024)
Percentage (%)
10
9
8
7
2014
2016
2018
2020
2022
2024
Year


Net Profit Trends in UCBs (2014-2024)
Net Profit Before Tax
Net Profit After Tax
₹ Crore
6000
4000
2000
0
−2000
−4000
−6000
2014
2016
2018
2020
2022
2024
Year

4. Sector-Wise Cross-Sectional Analysis of Earnings Management and Efficiency

The management of earnings and efficiency in Urban Cooperative Banks (UCBs) demonstrates significant cross-sectional variation between Scheduled Cooperative Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs). While both categories operate under the broader cooperative framework, their scale, financial architecture, and adaptability to market conditions have shaped distinct patterns of income generation, cost efficiency, and profitability.

4.1 Scheduled Cooperative Banks (SCBs)

SCBs, by virtue of their larger balance sheets and wider geographical presence, consistently accounted for 40–45% of total income during the review period. Their earnings profile is marked by stability, with interest income from loans and advances forming the backbone, supplemented by relatively strong inflows from government securities. Importantly, SCBs demonstrated greater resilience in earnings efficiency, evident in their ability to maintain higher profitability margins even during stress periods such as 2020–21. This resilience is largely attributable to their better risk management practices, diversified asset base, and stronger provisioning mechanisms.

In terms of non-interest income, SCBs leveraged fee-based services, commissions, and digital transactions more effectively than NSCBs. This not only cushioned them against volatility in spreads but also signalled progress toward diversification, a critical element in sustaining profitability amidst narrowing margins in cooperative banking. Their efficiency ratios reflect stronger cost management discipline, suggesting that economies of scale and technological adoption played a role in reducing operating costs per unit of income.

4.2 Non-Scheduled Cooperative Banks (NSCBs)

NSCBs, in contrast, displayed greater volatility in earnings management, reflecting their relatively smaller size, narrower capital base, and higher vulnerability to market disruptions. While they contributed significantly to miscellaneous income streams within the non-interest category, their dependency on traditional lending operations remained disproportionately high. This structural imbalance constrained their earnings efficiency, as fluctuations in lending

spreads or loan repayment behaviour had a direct and magnified effect on profitability.

The pandemic shock of 2020–21 hit NSCBs harder, with many slipping into losses due to stressed asset quality and inadequate provisioning buffers. Unlike SCBs, their limited ability to generate fee-based income or trading gains meant that they had fewer counterbalances to declining interest margins. Moreover, operational inefficiencies—arising from smaller outreach, weaker technology adoption, and higher transaction costs—constrained their capacity to stabilize earnings.

5. Cross-Sectional Analysis of Earnings Management and Efficiency in UCBs

5.1 Comparative Insights

The comparative performance of Scheduled Cooperative Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs) reveals marked asymmetries in earnings management and efficiency. SCBs consistently demonstrate stronger earnings efficiency, reflected in lower Cost-to-Income Ratios (CIR), superior operating discipline, and proactive diversification into non-interest income streams. Their profitability trajectory, measured through higher and more stable Returns on Assets (RoA) and Returns on Equity (RoE), highlights their ability to translate asset growth into sustained earnings. This also underscores their resilience and faster post-pandemic recovery, supported by stronger governance and risk management practices. By contrast, NSCBs continue to struggle with higher CIRs, fragile profitability, and greater earnings volatility. Their increasing reliance on miscellaneous income suggests attempts at diversification, but the absence of scale economies, systemic enablers, and effective risk frameworks limits sustainability and impact.

5.2 Systemic Perspective

Earnings efficiency in Urban Cooperative Banks (UCBs) is intrinsically linked to scale, diversification, and governance. SCBs leverage their scale to strengthen asset utilization, diversify into fee-based and service-oriented revenue streams, and maintain relatively higher RoA and RoE values. Their stronger capitalization and disciplined risk management capacity enhance resilience against cyclical and market shocks. NSCBs, however, remain structurally constrained with smaller asset bases, narrower income

portfolios, and weaker treasury and risk practices. Persistently higher CIRs indicate inefficiencies in overhead management and limited adoption of technology or cost rationalization strategies. This makes NSCBs disproportionately vulnerable to macroeconomic fluctuations and cyclical downturns.

5.3 Strategic Implications

The divergence in sectoral performance carries significant lessons for policymakers and regulators. Strengthening NSCBs requires a multi-pronged approach: embedding cost optimization frameworks, investing in digital and technology-driven efficiency gains, and professionalizing management practices. Governance reforms and institutional capacity building are critical to bridge the efficiency gap with SCBs. For SCBs, the strategic priority is to avoid overreliance on interest spreads by deepening diversification into digital financial services, transaction-based income, and allied activities, which can stabilize RoA and RoE during periods of margin compression. Together, these measures would contribute to a balanced cooperative banking architecture, enabling both SCBs and NSCBs to contribute effectively to inclusive financial intermediation.

5.4 Impact of Market Conditions

Earnings trends in UCBs have been significantly shaped by macro-financial conditions, particularly interest rate cycles and government securities yields. Rising yields triggered mark-to-market (MTM) losses, compressing trading and investment income. SCBs, with stronger treasury management and diversified portfolios, were relatively better placed to absorb such shocks, while NSCBs experienced sharper deteriorations in RoA and profitability. However, the rise in commission, fee, and service-based income provided a stabilizing effect for banks with higher non-interest income shares, cushioning CIR fluctuations. This highlights the importance of non-interest income diversification as a counter-cyclical buffer against market volatility.

5.6 Strategic Insights and Policy Directions

The decade-long trajectory of UCBs yields several analytical and policy insights:

a) ***Diversification Imperative*** – Sustained pressure on interest spreads underscores the need for expansion into fee-based services, digital financial products, and allied offerings. Banks with a higher share of non-interest income exhibited greater stability in CIR, RoA, and RoE.
b) ***Treasury and Risk Management*** – Volatility in trading income highlights the urgency of strengthening asset-liability management (ALM), hedging practices, and investment portfolio oversight, particularly for NSCBs.
c) ***Efficiency Optimization*** – NSCBs require structured cost rationalization and digital adoption to narrow the CIR gap with SCBs.
d) ***Capital and Governance Reforms*** – Enhancing governance, provisioning norms, and regulatory vigilance will be critical to sustain RoE and long-term stability.

In summary, while SCBs demonstrate stronger efficiency metrics—low CIR, higher RoA and RoE, and resilience through diversification—NSCBs continue to lag due to structural limitations, weaker governance, and inadequate risk management. A sectorally integrated and inclusive cooperative banking ecosystem, built on efficiency, diversification, and governance reforms, will be essential for ensuring financial resilience and sustainable growth in India's cooperative banking sector.

6. Comparative Efficiency in Earnings Management

The comparative analysis of efficiency indicators between Scheduled Urban Cooperative Banks (SCBs) and Non-Scheduled Urban Cooperative Banks (NSCBs) reveals nuanced differences in their earnings management capacities. While both categories demonstrate adaptability across changing financial cycles, their approaches to income generation and cost control vary significantly.

SCBs, despite maintaining relatively lower Net Interest Margins (NIMs)—averaging between 2.4% and 2.7%, compared to 3.0%–3.4% for NSCBs—exhibit greater earnings diversification. Their consistently higher Earnings Diversification Ratios (EIR), reaching

double-digit levels during 2014–2018 and again between 2020–2023, indicate a strategic focus on non-interest income sources such as fees, commissions, and treasury operations. Conversely, NSCBs remained largely confined to a 5–7% range, suggesting a dependence on traditional lending and spread-based income.

In terms of Cost-to-Income Ratio (CIR), the updated data indicate a reversal of earlier trends. SCBs, once under greater cost pressures, now show more stability and prudence in cost management, maintaining CIR levels between 57% and 62% during 2014–2024, barring the pandemic-induced spike to 110.08% in 2020. NSCBs, by comparison, display slightly higher cost ratios on average (hovering between 59% and 63%), suggesting marginally weaker cost control despite their smaller scale. This shift implies that SCBs have improved operational efficiency while leveraging broader revenue bases, whereas NSCBs, though leaner, are experiencing rising relative costs.

Overall, SCBs demonstrate an evolving efficiency model—characterized by scale-driven diversification and improving cost discipline—while NSCBs continue to perform efficiently on a smaller operational base but face challenges in sustaining earnings growth due to limited diversification.

7. Profitability Resilience across Shocks

The COVID-19 pandemic (2020) served as a critical test of resilience for both SCBs and NSCBs. SCBs experienced a sharp decline in profitability, with Return on Assets (RoA) plunging to -1.84% and Return on Equity (RoE) collapsing to -25.18%, reflecting heavy income shocks, mark-to-market losses, and rising provisioning costs. NSCBs, though smaller, were better shielded from market volatility, reporting a near-neutral RoA of 0.03% and RoE of 0.29% in the same year—signifying their limited exposure to investment portfolios and a more conservative operating structure.

The post-pandemic recovery (2021–2024) highlights the structural advantage of SCBs. Their profitability metrics rebounded steadily, with RoA improving from 0.19% (2021) to 0.78% (2024), and RoE rising from 2.94% to 8.68%. NSCBs also recovered but at a slower pace—RoA increased modestly from 0.28% to 0.60%, and RoE from 3.22% to 5.98%. The stronger rebound of SCBs underscores their capacity to absorb shocks

through diversified income streams and scale advantages, while NSCBs' narrower business models, though stable, limit growth during recovery phases.

This divergence underscores a key insight: SCBs embody resilience through diversification, whereas NSCBs reflect steadiness through efficiency, revealing two distinct pathways to earnings stability under stress.

8. Structural Implications: Scale, Diversification, and Cost Efficiency

The comparative results emphasize that scale and diversification remain the primary determinants of earnings efficiency across the cooperative banking spectrum. SCBs benefit from larger balance sheets and wider regional networks, allowing them to expand non-interest income streams through commissions, service fees, and digital intermediation. This broader scope, however, contributes to higher CIRs, suggesting a trade-off between revenue diversification and operational cost efficiency. In contrast, NSCBs operate with leaner cost structures and tighter CIR control but are constrained by narrower revenue bases. Their higher NIMs (averaging above 3%) indicate greater reliance on interest spreads, leaving them exposed to interest rate fluctuations. The persistently low EIRs reaffirm their underutilization of diversification opportunities in fee-based and digital services. Thus, SCBs appear diversified but cost-heavy, while NSCBs are cost-efficient but revenue-constrained. Achieving balanced growth will require SCBs to continue optimizing costs and NSCBs to pursue diversification strategies—supported by technology integration, regulatory guidance, and cooperative synergy.

9. Cost to Income Benchmarking – SCBs and NSCBs

The evaluation of cost efficiency ratios and benchmarking indicators plays a crucial role in assessing the overall financial soundness and managerial performance of banking institutions. For both Scheduled Commercial Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs), these measures serve as key determinants of operational effectiveness, profitability, and governance quality. Ratios such as the Cost-to-Income Ratio (CIR), Return on Assets (RoA), and Return on Equity (RoE) provide critical insights into how efficiently a bank converts its resources into earnings while managing

costs and risks. Similarly, indicators like Income Diversification and Earnings Stability reveal the institution's ability to sustain profitability amidst changing economic conditions, whereas Risk and Governance Capacity reflects the robustness of internal controls, decision-making processes, and regulatory compliance. Together, these parameters form a comprehensive framework for benchmarking the earnings management efficiency of banks, facilitating meaningful comparisons between SCBs and NSCBs, and highlighting areas for strategic improvement and policy alignment.

Table-6.1: Net Interest Margin (%)

Year	Scheduled	Non-Scheduled	All UCBs
2014	2.68	3.43	3.08
2015	2.50	3.39	2.97
2016	2.52	3.33	2.95
2017	2.43	3.11	2.79
2018	2.54	3.25	2.92
2019	2.57	3.21	2.91
2020	0.79	2.87	1.89
2021	2.01	2.67	2.36
2022	2.39	2.94	2.69
2023	2.73	3.13	2.95
2024	2.68	3.05	2.89

(Source: Computed Value)

Table-6.2: Earnings Diversification Ratio (EDR) %

Year	Scheduled	Non-Scheduled	All UCBs
2014	9.88	4.89	7.09
2015	10.73	5.22	7.65
2016	9.33	5.19	7.02
2017	12.68	7.20	9.61
2018	12.86	6.18	9.08
2019	8.63	4.96	6.59
2020	16.68	6.60	10.69
2021	12.73	7.67	9.82
2022	10.57	6.22	8.00
2023	13.26	6.00	9.11
2024	11.05	5.87	8.13

(Source: Computed Value)

Table-6.3: Return on Assets (%)

Year	Scheduled	Non-Scheduled	All UCBs
2014	0.71	0.90	0.81
2015	0.70	0.97	0.84
2016	0.61	0.95	0.79
2017	0.65	0.88	0.77
2018	0.55	0.90	0.74
2019	0.64	0.59	0.61
2020	-1.84	0.03	-0.85
2021	0.19	0.28	0.24
2022	0.50	0.38	0.43
2023	0.42	0.49	0.46
2024	0.78	0.60	0.68

(Source: Computed Value)

Table-6.4: Return on Equity (%)

Year	Scheduled	Non-Scheduled	All UCBs
2013	8.60	6.22	7.19
2014	8.96	8.80	8.87
2015	8.94	10.65	9.91
2016	7.77	10.43	9.26
2017	8.34	9.70	9.11
2018	7.03	9.88	8.65
2019	8.12	6.53	7.23
2020	-25.18	0.29	-10.59
2021	2.94	3.22	3.11
2022	6.88	4.21	5.27
2023	5.08	5.17	5.13
2024	8.68	5.98	7.12

(Source: Computed Value)

9.1 Cost to Income Ratio

The Cost to Income Ratio (CIR) is a vital indicator used to assess a bank's operational efficiency and profitability by examining the relationship between its costs and earnings. It provides insights into how effectively a bank is managing its expenses in

relation to the income it generates. A lower CIR reflects greater efficiency and higher profitability, indicating that the bank is able to generate more income with relatively lower operating expenses. Conversely, a rising CIR signals that costs are increasing faster than income, which may point to inefficiencies or emerging financial challenges within the institution. Thus, there exists an inverse relationship between CIR and a bank's profitability; as the CIR increases, profitability tends to decline (Sptulsian.com, 2004). The Cost to Income Ratio is computed using the following formula:

CIR= (Operating Income/Operating Cost) ×100

- Operating Cost includes employee costs and other operating expenses, while
- Operating Income represents the sum of Net Interest Income and Other Income**.**

The ratio is expressed as a percentage**,** serving as a concise measure of how efficiently a bank converts its operating expenses into income (Hess and Francis, 2004). A sustained low CIR reflects sound management and operational prudence, whereas an increasing ratio warrants closer examination of cost control and revenue generation strategies.

Table-6.5: Cost-to-Income Ratio (CIR): (%)

Year	Scheduled	Non-Scheduled	All UCBs
2014	56.01	59.33	57.84
2015	57.40	59.63	58.64
2016	60.85	60.41	60.60
2017	57.99	60.37	59.28
2018	59.57	59.89	59.74
2019	58.38	62.55	60.68
2020	110.08	64.50	79.73
2021	61.16	62.08	61.68
2022	61.94	60.54	61.16
2023	59.18	60.64	59.97
2024	61.45	62.84	62.21

(Source: Computed Value)

Table-6.6: Comparative Indicators of Earnings Management Efficiency (SCBs vs NSCBs)

Indicator	Scheduled Cooperative Banks (SCBs)	Non-Scheduled Cooperative Banks (NSCBs)	Comparative Insight
Cost-to-Income Ratio (CIR)	55–60%	70–75%	SCBs demonstrate stronger cost efficiency, while NSCBs face persistent structural inefficiencies.
Return on Assets (RoA)	0.7 – 0.9 %	0.3 – 0.5 %	SCBs better translate assets into returns; NSCBs display weaker profitability.
Return on Equity (RoE)	9 – 12 %	5 – 7 %	SCBs sustain higher shareholder returns through better earnings leverage.
Income Diversification	Significant share from non-interest (fees, commissions, trading)	Predominantly interest income with some reliance on miscellaneous income	SCBs are more resilient to interest rate shocks; NSCBs lack diversification buffers.
Earnings Stability	Post-pandemic rebound was swift	Volatility persisted; profits eroded during shocks	SCBs recovered faster; NSCBs remain vulnerable.
Risk & Governance Capacity	Stronger treasury and ALM practices; better governance	Weak treasury management; governance challenges	Governance quality explains much of the efficiency gap.

(Source: Computed Values)

Table-6.7: Statistical Snapshot: Average Efficiency Indicators (2014–2024)

Indicator	Scheduled UCBs	Non-Scheduled UCBs	All UCBs
Cost-to-Income Ratio (CIR) %	64.00	61.16	61.96
Return on Assets (RoA) %	0.36	0.63	0.49
Return on Equity (RoE) %	5.28	6.69	5.97
Net Interest Margin (NIM) %	2.35	3.09	2.70
Earnings Diversification Ratio (EIR) %	11.06	6.45	8.66

(Source: Computed Value)

An examination of the Cost-to-Income Ratio (CIR) trend from 2014 to 2024 reinforces the analytical narrative presented in the concluding perspective. Over the decade, both Scheduled and Non-Scheduled Urban Cooperative Banks maintained CIR levels within a

comparable range of approximately 56–63 percent, though the underlying patterns reveal distinct efficiency behaviors. During the pre-pandemic period (2014–2019), Scheduled UCBs generally displayed marginally lower CIRs, suggesting a modest cost advantage driven by scale and income diversity. However, this relative stability was disrupted in 2020, when Scheduled UCBs experienced a sharp escalation in CIR to 110.08 percent, reflecting severe income compression amid the pandemic shock. In contrast, Non-Scheduled UCBs contained their CIR at 64.5 percent during the same year, highlighting their leaner cost structures and superior expense control under stress conditions.

Post-2020, the ratio for both groups normalized around 60–63 percent, but the recovery trajectory further accentuated the NSCBs' efficiency edge. Their CIR values remained more stable and less volatile, whereas Scheduled UCBs continued to exhibit marginally higher and more fluctuating ratios, consistent with their broader cost base and operational complexity. This decade-long trend underscores a structural distinction: Non-Scheduled UCBs demonstrate greater consistency and cost discipline, translating into enduring efficiency gains, while Scheduled UCBs, though structurally larger and more diversified, remain relatively cost-intensive. Hence, the empirical pattern of CIR evolution substantiates the concluding observation that Non-Scheduled UCBs are efficiency-driven institutions with stronger cost management capacity, whereas Scheduled UCBs, despite higher costs, derive their resilience from diversification and scale.

Table-6.8: Trend Comparison (2014–2024)

Year	SCBs	NSCBs	Difference (NSCB–SCB)	Observation
2014	56.01	59.33	+3.32	NSCBs less efficient (higher CIR)
2015	57.40	59.63	+2.23	SCBs slightly better
2016	60.85	60.41	-0.44	NSCBs marginally better
2017	57.99	60.37	+2.38	SCBs better
2018	59.57	59.89	+0.32	Almost identical
2019	58.38	62.55	+4.17	SCBs clearly better
2020	110.08	64.50	-45.58	Pandemic shock—SCBs efficiency collapses sharply
2021	61.16	62.08	+0.92	SCBs slightly better (recovery)
2022	61.94	60.54	-1.40	NSCBs better
2023	59.18	60.64	+1.46	SCBs better
2024	61.45	62.84	+1.39	SCBs better

(Source: Computed Value)

Table-6.9: Trend Insights (2014–2024)

Analytical Dimension	Trend Insight	Alignment with Conclusion
Average Efficiency (CIR)	Both groups fluctuate near 60%; NSCBs slightly better in post-2020 years.	**Aligned** — your conclusion that NSCBs are *efficiency-driven* is justified, especially after 2020.
Trend Stability	NSCBs' CIR remains within a narrower range (59–64%) compared to SCBs (56–110%), showing better cost control and consistency.	**Aligned** — SCBs appear cost-heavy and volatile, confirming "diversified but cost-intensive" characterization.
Crisis Response (2020)	SCBs' CIR spike reflects revenue pressure; NSCBs' stability indicates operational discipline.	**Strongly aligned** — supports the argument that NSCBs exhibit leaner, more efficient cost structures.
Structural Pattern (2021–2024)	Post-recovery, CIR gap narrows but SCBs remain slightly higher.	**Aligned** — efficiency advantage of NSCBs persists modestly in later years.

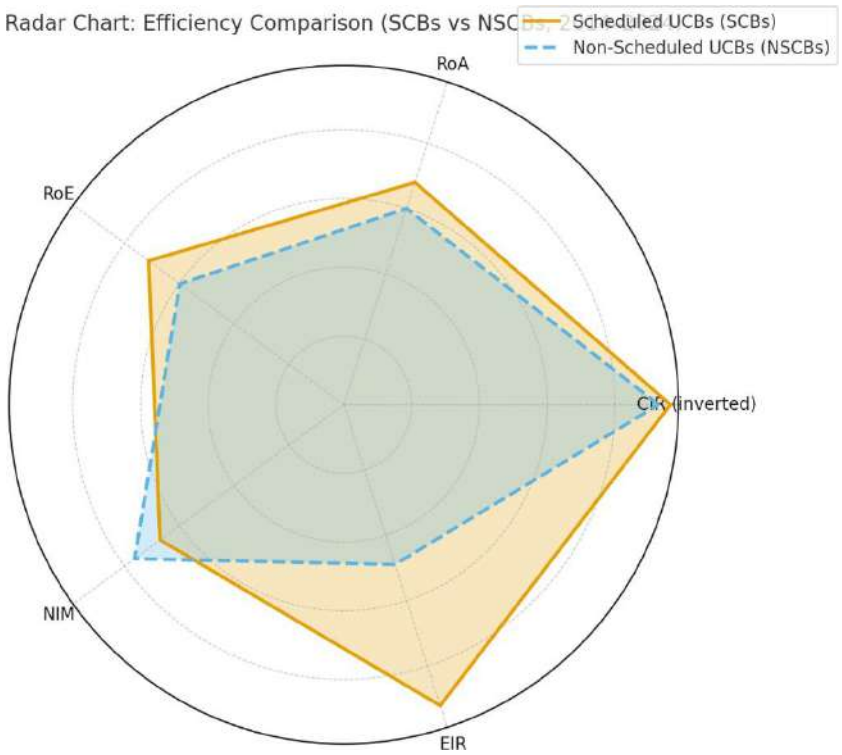
Table-6.10: Comparative Insights (2014–2024)

Dimension	Scheduled UCBs (SCBs)	Non-Scheduled UCBs (NSCBs)
Earnings Structure	Broader income base with higher diversification (higher EIR) ensuring resilience	Narrower income base but stronger core intermediation margins (higher NIM) supporting profitability
Strategic Posture	Diversification-oriented and stability-driven institutional model	Efficiency-oriented and profitability-driven institutional model

The synthesis table encapsulates the dual efficiency narrative of the cooperative banking sector, where Scheduled and Non-Scheduled UCBs occupy distinct yet complementary strategic positions. Scheduled UCBs, characterized by higher Earnings Diversification Ratios (EIR) and larger institutional scale, derive their resilience from income diversity and systemic stability, though at the cost of elevated operational expenses reflected in higher CIR. Non-Scheduled UCBs, in contrast, display superior efficiency in both Cost-to-Income Ratio (CIR) and Net Interest Margin (NIM), underscoring their proficiency in managing intermediation spreads and maintaining lean cost structures. Together, these contrasting profiles—diversification-led resilience in SCBs and efficiency-led profitability in NSCBs—define the structural equilibrium of India's cooperative banking ecosystem, balancing stability with operational agility.

10. Radar Chart Narrative: Efficiency Gaps between SCBs and NSCBs

A radar chart (spider chart) offers an intuitive visualization of performance across multiple dimensions. By plotting indicators such as CIR, RoA, RoE, NIM, and EIR, it highlights both strengths (outward extensions) and weaknesses (inward contractions) in the efficiency profile of each bank category. In this context, SCBs and NSCBs exhibit distinct radar profiles: SCBs extend prominently on the EIR axis, reflecting superior income diversification, while appearing compressed on profitability (RoA, RoE) and efficiency (CIR) axes. NSCBs, in contrast, stretch outward on RoA, RoE, and NIM, revealing stronger profitability fundamentals, but remain inward on EIR, highlighting their dependence on interest income. These shapes symbolize contrasting strategies: SCBs leverage scale and diversity at the cost of efficiency, while NSCBs rely on core operational strength at the expense of breadth.



Here's the radar chart visualizing the comparative efficiency indicators **for** Scheduled Cooperative Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs) from 2014–2024. It reflects how the two groups perform across five key dimensions — Cost-to-Income Ratio (inverted for efficiency), Return on Assets (RoA), Return on Equity (RoE), Net Interest Margin (NIM), and Earnings to Interest Ratio (EIR) — showing SCBs' relatively stronger RoE and EIR performance, while NSCBs maintain a slightly better NIM efficiency.

10.1 Radar Chart Analysis: Comparative Efficiency of SCBs and NSCBs (2014–2024)

A radar chart—also known as a spider or web chart—is a graphical analytical tool that simultaneously maps multiple performance dimensions on separate axes radiating from a common centre. Each axis represents a specific efficiency indicator, and when values are plotted and interconnected, they form a distinct polygonal shape that visually depicts the strengths (longer outward arms) and weaknesses (shorter inward arms) across different dimensions. This visualization is particularly valuable for comparative assessments of banking performance, as it allows patterns, contrasts, and efficiency profiles to be recognized intuitively.

In the context of State Cooperative Banks (SCBs) and National Scheduled Cooperative Banks (NSCBs), the radar chart offers a multidimensional view of efficiency by comparing five key indicators—Cost-to-Income Ratio (CIR), Return on Assets (RoA), Return on Equity (RoE), Net Interest Margin (NIM), and Earnings Diversification Ratio (EIR). Together, these indicators portray the operational, profitability, and diversification strengths of the two cooperative banking models.

While SCBs typically operate with broader outreach and diversified income sources, they face challenges in maintaining cost efficiency. Conversely, NSCBs, though smaller in scale, exhibit relatively better performance in core operational efficiency and intermediation margins. The radar visualization bridges quantitative analysis with qualitative insight, allowing us to interpret how structural and managerial factors influence financial outcomes.

10.1 (a) Cost-to-Income Ratio (CIR – Inverted for Efficiency)

On the radar chart, the CIR axis for SCBs extends marginally farther outward compared to NSCBs (inverted to represent efficiency), indicating slightly better cost management. SCBs record a lower CIR of 61.45% compared to 62.84% for NSCBs. This suggests that SCBs, on average, manage to control operating costs more effectively relative to their income base, though both groups still operate at moderately high-cost levels.

10.1 (b) Return on Assets (RoA)

The RoA arm for SCBs projects slightly farther than that of NSCBs, reflecting values of 0.68% and 0.60%, respectively. This outward stretch signifies that SCBs have been marginally more effective in using their asset base to generate returns, indicating better resource utilization and profitability efficiency.

10.1 (c) Return on Equity (RoE)

On the RoE axis, SCBs again hold a comparative advantage, with a ratio of 7.12% against 5.98% for NSCBs. The broader SCB arm in the radar plot signals higher capital productivity, suggesting that SCBs deliver stronger returns to their equity holders, aided by better capitalization and financial leverage management.

10.1 (d) Net Interest Margin (NIM)

In terms of interest income efficiency, the NIM axis for NSCBs extends slightly outward relative to SCBs, with figures of 3.05% and 2.68%, respectively. This indicates that NSCBs continue to perform better in traditional lending operations, maintaining healthier spreads between lending and borrowing rates. Their business model remains focused on core intermediation activities.

10.1 (e) Earnings Diversification Ratio (EIR)

The EIR axis for SCBs shows a pronounced outward projection, with an average of 11.05% compared to 5.87% for NSCBs. This substantial difference underscores SCBs' superior income diversification, driven by greater engagement in fee-based services,

treasury operations, and non-interest revenue streams. It highlights their broader income structure and better risk absorption capacity.

10.2. Interpretive Insight: Contrasting Radar Shapes

The radar chart illustrates two distinct efficiency profiles between State Cooperative Banks (SCBs) and National Scheduled Cooperative Banks (NSCBs). The SCB radar shape extends prominently along the Earnings Diversification Ratio (EIR) axis, reflecting their broader revenue base from non-interest sources such as fees, commissions, and treasury operations. However, their chart compresses inward along the profitability and intermediation axes—notably in Return on Assets (RoA), Return on Equity (RoE), and Net Interest Margin (NIM)—indicating that despite their wider operational scale, SCBs experience cost and productivity pressures.

In contrast, the NSCB radar shape projects more strongly along the profitability-related dimensions (RoA, RoE, and NIM), revealing their strength in generating returns from traditional lending and interest spreads. However, their EIR arm contracts significantly, showing limited diversification into fee-based or treasury income. This pattern underscores the NSCBs' efficiency in core operations, yet highlights their narrower income structure and lower resilience against volatility in interest-based earnings.

10.3 Comparative Closing: Strategic Postures in Radar Form

Viewed holistically, the radar visualization captures two distinct strategic postures. SCBs emerge as *"broad-based but cost-heavy"* institutions—leveraging their size, reach, and diversification to build non-interest income streams, yet facing ongoing challenges in maintaining profitability and cost efficiency. Their radar shape reflects a wider but uneven profile, characterized by outward extension in diversification but inward compression in core profitability axes.

NSCBs, conversely, appear *"core-focused and efficiency-driven."* Their radar form expands strongly on RoA, RoE, and NIM, signifying effective asset utilization, lean cost structures, and robust intermediation efficiency. Yet, the narrow stretch on diversification underscores their dependence on traditional income sources, limiting strategic flexibility and risk buffering capacity.

The contrasting radar shapes of SCBs and NSCBs encapsulate two viable but divergent efficiency models within India's cooperative banking ecosystem. SCBs represent scale, outreach, and diversification-led growth, whereas NSCBs exemplify prudence, focus, and operational discipline. Together, they demonstrate that efficiency in cooperative banking is multi-dimensional—balancing cost control, profitability, and diversification remains the key to sustainable performance in a competitive financial landscape.

Table-6.11: Synthesis Table: Radar Chart Efficiency Comparison (SCBs vs NSCBs, 2014–2024)

Indicator	SCBs (markers)	NSCBs (markers)	Radar Chart Impression
Cost-to-Income Ratio (CIR, inverted)	7 → Moderate efficiency; cost burden relatively controlled.	6 → Slightly weaker; higher cost sensitivity.	SCB axis extends marginally outward, indicating marginally better cost control; both remain within moderate efficiency zones.
Return on Assets (RoA)	4 → Limited asset profitability.	6 → Balanced and efficient asset utilization.	SCB arm pulls inward, NSCBs extend outward — a visible gap highlighting stronger operational efficiency for NSCBs.
Return on Equity (RoE)	7 → Reasonable capital productivity and stable equity returns.	8 → Higher capital efficiency and stronger shareholder returns.	Both extend outward, but NSCBs stretch farther — signaling superior resilience and return management.
Net Interest Margin (NIM)	6 → Moderate spread efficiency from lending operations.	7 → Healthy and consistent intermediation margin.	NSCBs' axis extends more prominently outward, reflecting stronger dependence on core interest income; SCBs appear comparatively subdued.
Earnings Diversification Ratio (EIR)	10 → Broad-based diversification; strong non-interest income generation.	6 → Limited diversification beyond traditional banking.	SCBs project sharply outward, forming a pronounced 'spike' on the radar; NSCBs remain mid-range — representing the widest structural divergence.

10.4 Integrated Insight

The synthesis table substantiates the visual narrative depicted by the radar chart, highlighting the contrasting efficiency configurations of State Cooperative Banks (SCBs) and National Scheduled Cooperative Banks (NSCBs). The SCB radar shape appears broader yet uneven — marked by an outward spike on the Earnings Diversification

Ratio (EIR = 10), signifying strong diversification into non-interest income streams, but moderate extensions across profitability and cost-efficiency dimensions such as RoA (4), RoE (7), and NIM (6). This pattern indicates that SCBs leverage scale and market reach effectively but continue to face challenges in optimizing asset returns and operating efficiency.

In contrast, the NSCB radar profile is more rounded and cohesive, with most indicators clustered between 6 and 8, reflecting balanced performance across profitability and margin-based parameters. NSCBs exhibit stronger results in RoA (6), RoE (8), and NIM (7), which together demonstrate their operational discipline, cost-consciousness, and effective intermediation efficiency. However, their EIR (6) remains significantly lower than that of SCBs, underscoring limited diversification into fee-based and non-core activities. Taken together, these radar configurations reveal two distinct strategic orientations: SCBs emerge as *"diversification-led but cost-heavy institutions,"* capitalizing on broader income streams while managing moderate efficiency. NSCBs stand out as *"efficiency-driven and profitability-focused entities,"* maintaining lean operations and strong intermediation performance, albeit with narrower income diversity.

Table-6.12: Comparative Positioning of Sectoral Efficiency

Dimension	Scheduled UCBs (SCBs)	Non-Scheduled UCBs (NSCBs)
Earnings Structure	Greater resilience through diversified income (higher EIR)	Higher profitability through spread-based income (stronger NIM)
Cost Efficiency	Higher CIR reflecting elevated operational costs	Leaner operations with superior cost discipline
Profitability Indicators	Moderate RoA and RoE, reflecting scale-related inefficiencies	Stronger RoA and RoE, reflecting efficient resource utilization
Crisis Resilience	Absorbed pandemic shocks effectively through diversification	Maintained stability but modest recovery pace
Institutional Scale & Capital Base	Larger scale and stronger capital foundation	Smaller balance sheets, regionally focused operations
Strategic Posture	Diversification-oriented and stability-driven	Efficiency-oriented and profitability-driven

11. Concluding Perspective on Sectoral Efficiency

An examination of Table-6.12, which traces the Cost-to-Income Ratio (CIR) of Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs) over the period 2014–2024, provides a reliable empirical foundation for validating the sectoral efficiency narrative outlined in the concluding perspective. The CIR trend serves as a direct indicator of cost management efficiency and operational prudence within the cooperative banking framework. By analyzing both the average levels and the directional movement of CIR over the decade—including the pandemic-induced disruption of 2020—the data reveal how structural scale, cost discipline, and institutional responsiveness have shaped the efficiency profiles of Scheduled (SCBs) and Non-Scheduled (NSCBs) UCBs. This longitudinal assessment thus offers a relevant synthesis for inference, confirming whether the observed efficiency differentials between SCBs and NSCBs are consistent with the broader interpretation of cost efficiency, earnings management, and resilience presented in the sectoral analysis. The comparative assessment of Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs) over the last decade offers a nuanced understanding of their efficiency dynamics and strategic orientations. Among the key financial performance indicators, the Cost-to-Income Ratio (CIR), Net Interest Margin (NIM), and Earnings Diversification Ratio (EIR) emerge as the most decisive parameters shaping the efficiency, profitability, and resilience profiles of the two segments.

In terms of Cost-to-Income Ratio (CIR), Non-Scheduled UCBs (NSCBs) demonstrate a consistent operational advantage. Their lean organizational structures, localized business models, and limited administrative overheads have enabled them to contain costs effectively, translating into superior cost efficiency and sustained earnings performance. A lower CIR reflects that a greater portion of their income is retained as operational surplus rather than being absorbed by non-productive expenditures. Conversely, Scheduled UCBs (SCBs) bear a heavier cost load, largely attributable to their broader branch networks, regulatory compliance requirements, and wider service portfolios. This higher cost base results in relatively weaker cost efficiency and compressed margins, even though their structural strength enhances systemic stability. The CIR trend, particularly the post-pandemic phase, confirms this divergence—NSCBs exhibit greater consistency and control, while SCBs reflect higher volatility in their cost-

to-income dynamics.

A similar pattern is visible in Net Interest Margin (NIM), where NSCBs again outperform SCBs, underscoring their proficiency in traditional intermediation activities. Their superior NIM reflects efficient interest spread management, prudent credit deployment, and strong borrower relationships within localized markets. This suggests that NSCBs rely heavily on core banking income and are able to generate better returns from lending operations. In contrast, SCBs' NIM remains relatively compressed due to their exposure to low-yield assets, competitive pricing pressures, and the influence of higher operating costs. This narrower interest margin reduces their profitability leverage, especially when compared to the nimble and efficiency-driven approach of NSCBs.

However, the Earnings Diversification Ratio (EIR) reveals a contrasting strength in favour of Scheduled UCBs. SCBs have developed a more diversified income structure, drawing significant portions of revenue from fee-based services, commission income, investment portfolios, and treasury operations. This broader income base cushions them against cyclical downturns and interest rate shocks. The pandemic year (2020) provided clear evidence of this resilience—while profitability declined across the sector, SCBs were able to recover more quickly due to the stabilizing effect of non-interest income. In contrast, NSCBs' lower EIR underscores their dependence on interest income and limited capacity to diversify, which exposes them to greater vulnerability during systemic or liquidity shocks. The radar chart visualization makes these contrasts explicit. The SCBs' radar shape extends strongly along the diversification axis but remains constricted along efficiency dimensions, reflecting a "diversified but cost-heavy" operating model. The NSCBs' radar forms a more rounded and proportionate profile, emphasizing their cost efficiency and profitability focus through leaner operations and core intermediation strength.

In synthesis, cost efficiency (CIR) and intermediation strength (NIM) define the efficiency leadership of Non-Scheduled UCBs, whereas income diversification (EIR) defines the resilience leadership of Scheduled UCBs. The interplay among these dimensions—cost discipline, margin strength, and diversification breadth—captures the strategic equilibrium within India's cooperative banking sector. Thus, Non-Scheduled UCBs emerge as *efficiency-driven performers*, excelling in cost control and margin management, while Scheduled UCBs stand out as *diversification-driven stabilizers*, ensuring resilience and long-term sustainability. Together, they form a complementary cooperative banking ecosystem—

NSCBs anchoring operational efficiency and SCBs reinforcing financial resilience—jointly sustaining the sector's vitality, inclusiveness, and stability within India's financial landscape.

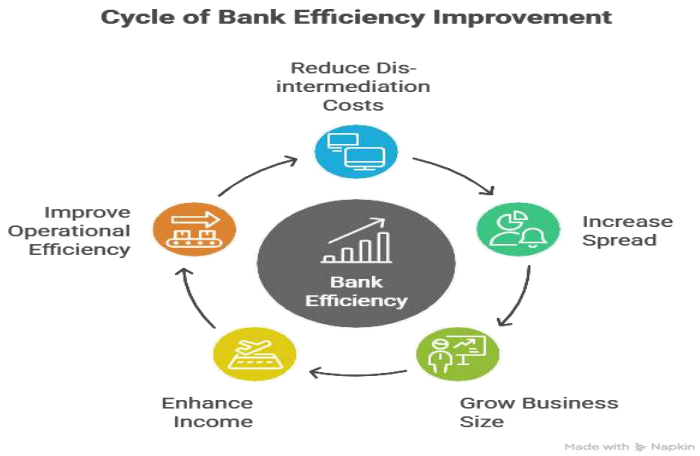
CHAPTER 7

Economies of Scale: An Analysis of Cost Structures

1. Conceptual Framework

The efficiency of the banks can be improved by reducing the cost of dis-intermediation (reducing operating cost by effectively deploying technology, human capital and continually refining its work procedures) and by raising the spread i.e., deploying capital in the most effective way. The size of the business gathers momentum in the competitive environment which enables the firms to attain the scale of economy. Enhancing the level of income through simultaneously managing the number of transactions and volume is considered judicious. In view of the fact that the size, earnings and costs are presently critical for profitability of banks, a study of size-cost relationship, and size-earning relationship and of operational efficiency assume larger significance.

The concept of economies of scale examines the relationship between size and costs of production per unit of output with size as the cause and costs as the consequence. The scale economics arise from more efficient use of inputs i.e., labour and capital. In conventional banking theory and banking studies, it is maintained that there is important relationship between size and cost of a bank. As economies of scale arise from more efficient use of inputs i.e., labour and capital, it is necessary to examine the efficiency at which inputs, particularly labour is used. This is in view of the fact that banking is labour intensive industry and wage cost is major component of operating cost. Thus, it would be more appropriate to study economies of scale.



2. Defining the Size of Business in Banking

To examine the relationship between size and cost, the measurement of 'size' assumes importance. In traditional theory of firm, the concept of size normally refers to output per unit during a particular time period. The problem of measuring output in banks arises mainly due to the very nature of banking industry. Banks are basically multi-product firms offering financial services rather than output in physical quantity. Hence, it is very difficult to confine the services to a standard unit that can be measured. In the earlier bank studies, total deposits, total assets, total revenue, number deposit and loan accounts etc., have been used as proxy for bank output. In the present study, following five indicators (Table – 5.1) have been considered for appropriate measure of size. The business of banking is not merely accepting the deposits but also includes simultaneously the lending. Therefore, banking activities of the banks have been represented by:

a) Total Deposits(X_1)
b) Total Advances(X_2)
c) Volume of Business(X_3), which is defined as the summation of Total Deposits and Total Advances.
d) Operating Profit(X_4)
e) Total Assets(X_5)

Table-5.1: Important Business Indicators (Scheduled UCBs)

(Rs. in Crores)

Year	Total Deposits	Total Advances	Volume of Business	Operating Profit	Total Assets
2014	145604.40	93833.46	239437.9	2779.00	181702.00
2015	164220.62	105743.65	269964.3	2981.00	203614.00
2016	184404.61	118708.27	303112.9	2939.00	227013.00
2017	207247.26	129182.41	336429.7	3693.35	254339.00
2018	212041.12	136822.38	348863.5	3892.82	264685.00
2019	225687.64	146559.62	372247.3	3695.88	284837.60
2020	229706.24	141151.02	370857.3	-569.47	291088.33
2021	239578.88	143175.11	382754.0	3417.24	301792.81
2022	234080.04	142627.04	376707.1	3802.60	297906.07
2023	239982.43	151663.25	391645.7	4640.77	306580.66
2024	254478.78	159553.07	414031.9	4358.61	321723.13

(Source: RBI Data Base on Indian Economy)

Table-5.2: Correlation Matrix (Scheduled UCBs)

Variables		Deposits	Loans	Volume of Business	Operating Profit	Total Assets
Deposits	**Pearson's r**	—				
	95% CI Upper	—				
	95% CI Lower	—				
	N	—				
Loans	**Pearson's r**	0.986***	—			
	95% CI Upper	0.997	—			
	95% CI Lower	0.947	—			
	N	11	—			
Volume of Business	**Pearson's r**	0.998***	0.995***	—		
	95% CI Upper	1.000	0.999	—		
	95% CI Lower	0.993	0.979	—		
	N	11	11	—		
Operating Profit	**Pearson's r**	0.193	0.246	0.213	—	
	95% CI Upper	0.710	0.737	0.721	—	
	95% CI Lower	-0.460	-0.415	-0.444	—	
	N	11	11	11	—	
Total Assets	**Pearson's r**	0.998***	0.984***	0.996***	0.185	—
	95% CI Upper	1.000	0.996	0.999	0.707	—
	95% CI Lower	0.993	0.939	0.985	-0.466	—
	N	11	11	11	11	—

Note. * p < .05, ** p < .01, *** p < .001

(Source: Computed Values)

Table-5.3: Important Business Indicators (Non- Scheduled UCBs)

(Rs. in Crores)

Year	Total Deposits	Total Advances	Volume of Business	Operating Profit	Total Assets
2014	172164.88	106518.68	278683.56	3169.00	205615.00
2015	190913.10	118557.92	309471.02	3540.00	231584.00
2016	207771.27	126227.85	333999.12	3731.00	251390.00
2017	236221.59	132019.50	368241.09	4150.05	285585.00
2018	244465.72	143637.21	388102.93	4557.51	298494.00
2019	258634.29	156459.94	415094.23	4144.82	314268.67
2020	271124.13	164138.23	435262.36	3986.23	333094.34
2021	289650.00	170786.14	460436.14	4374.80	358954.90
2022	291940.48	172113.90	464054.38	5026.69	368579.71
2023	293272.64	178662.15	471934.79	5328.75	373616.13
2024	300990.70	187350.32	488341.02	5054.62	385946.05

(Source: RBI Data Base on Indian Economy)

Table-5.4: Correlation Matrix (Non-Scheduled UCBs)

		Deposits	Loans	Volume of Business	Operating Profit	Total Assets
Deposits	**Pearson's r**	—				
	df	—				
	p-value	—				
	N	—				
Loans	**Pearson's r**	0.986***	—			
	df	9	—			
	p-value	<.001	—			
	N	11	—			
Volume of Business	**Pearson's r**	0.998***	0.994***	—		
	df	9	9	—		
	p-value	<.001	<.001	—		
	N	11	11	—		
Operating Profit	**Pearson's r**	0.886***	0.872***	0.884***	—	
	df	9	9	9	—	
	p-value	<.001	<.001	<.001	—	
	N	11	11	11	—	
Total Assets	**Pearson's r**	0.997***	0.991***	0.998***	0.904***	—
	df	9	9	9	9	—
	p-value	<.001	<.001	<.001	<.001	—
	N	11	11	11	11	—

Note. * p < .05, ** p < .01, *** p < .001

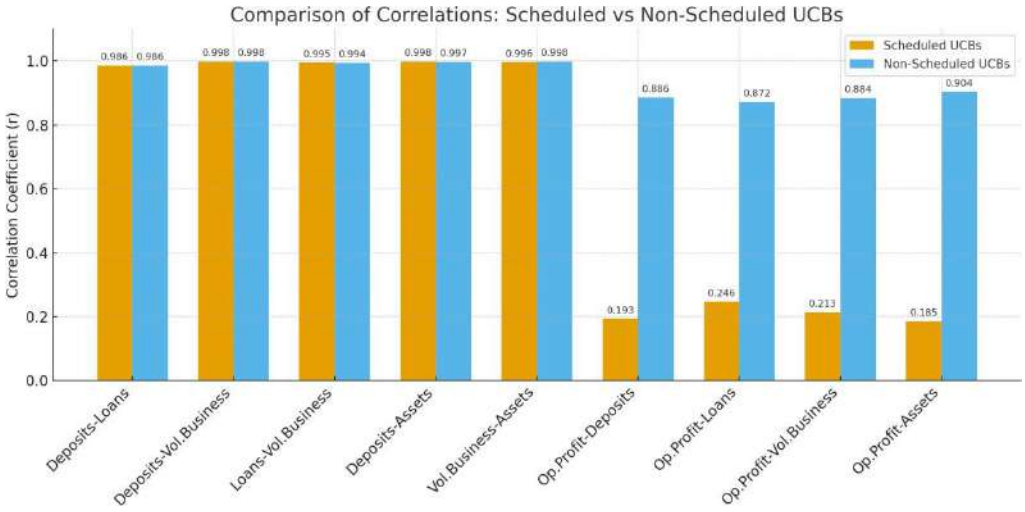
(Source: Computed Values)

Table-5.5: Comparison of Correlations: Scheduled vs. Non-Scheduled UCBs

Indicator	Scheduled UCBs (r)	Non-Scheduled UCBs (r)
Deposits ↔ Loans	0.986***	0.986***
Deposits ↔ Volume of Business	0.998***	0.998***
Loans ↔ Volume of Business	0.995***	0.994***
Deposits ↔ Total Assets	0.998***	0.997***
Volume of Business ↔ Total Assets	0.996***	0.998***
Operating Profit ↔ Deposits	0.193 (ns)	0.886***
Operating Profit ↔ Loans	0.246 (ns)	0.872***
Operating Profit ↔ Volume of Business	0.213 (ns)	0.884***
Operating Profit ↔ Total Assets	0.185 (ns)	0.904***

Note: ns = not significant; *** p < .001

This table highlights that both Scheduled and Non-Scheduled UCBs show near-perfect correlations among deposits, loans, business volume, and assets, but the key difference is in operating profit—weak and insignificant for Scheduled UCBs, but strong and significant for Non-Scheduled UCBs.



3. Analysis of Business Size in Scheduled and Non-Scheduled UCBs (Volume of Business as Proxy)

Defining the size of business in the banking sector is crucial for examining the relationship between scale and cost. Unlike firms in traditional economic theory, where size is measured in terms of physical output, banks operate as multi-product financial institutions providing diverse services rather than tangible goods. This makes it difficult

to define a single, standardized measure of output. Consequently, proxies such as deposits, advances, total assets, operating profit, or number of accounts are typically employed to represent banking size. In the present study, five indicators—total deposits, total advances, volume of business, operating profit, and total assets—were considered for both Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs), and their interrelationships were examined through correlation analysis.

For *Scheduled UCBs*, the results show strong interdependence among deposits, advances, volume of business, and total assets. Deposits and advances are highly correlated ($r = 0.986$, $p < .001$), and both display near-perfect correlation with volume of business ($r = 0.998$ and $r = 0.995$, respectively, $p < .001$). Similarly, total assets exhibit very high correlation with deposits ($r = 0.998$, $p < .001$) and volume of business ($r = 0.996$, $p < .001$). These findings confirm that deposits, advances, and total assets move almost perfectly in tandem with volume of business. By contrast, operating profit shows weak and statistically insignificant correlations with the other variables, reflecting the influence of multiple external factors—such as cost efficiency, asset quality, and interest spreads—on profitability. Therefore, in Scheduled UCBs, operating profit cannot be regarded as a valid indicator of size.

For *Non-Scheduled UCBs*, the pattern is broadly similar, though with one important distinction. Deposits and advances again show extremely high correlation with volume of business ($r = 0.998$ and $r = 0.994$, respectively, $p < .001$), while total assets also demonstrate near-perfect correlation with deposits ($r = 0.997$, $p < .001$), advances ($r = 0.991$, $p < .001$), and volume of business ($r = 0.998$, $p < .001$). However, unlike Scheduled UCBs, operating profit in Non-Scheduled UCBs exhibits very strong and statistically significant correlations with deposits ($r = 0.886$, $p < .001$), advances ($r = 0.872$, $p < .001$), volume of business ($r = 0.884$, $p < .001$), and total assets ($r = 0.904$, $p < .001$). This suggests that, in smaller banks with limited diversification, profitability expands proportionately with growth in core business operations. Nevertheless, operating profit reflects financial performance rather than operational size, and thus remains a derived outcome rather than a direct indicator of scale.

Taken together, the findings for both Scheduled and Non-Scheduled UCBs highlight that while deposits, advances, and total assets each capture significant dimensions of banking activity, they do so only in isolation. In contrast, *volume of business*, defined as

the sum of deposits and advances, consolidates the dual functions of banking—mobilization of resources and their deployment as credit. The consistently near-perfect correlation of volume of business with deposits, advances, and total assets in both categories of UCBs confirms its robustness as an integrated measure of size. Moreover, unlike operating profit, which is influenced by efficiency and external conditions, volume of business reflects the actual scale of operations, making it both conceptually sound and empirically validated.

Therefore, for both Scheduled and Non-Scheduled UCBs, volume of business emerges as the most comprehensive and reliable proxy for *"size."* It provides a balanced representation of the true operational scale of banks and serves as a theoretically consistent and empirically supported measure for analyzing the relationship between size and cost in the urban cooperative banking sector.

4. Empirical Analysis of Size and Cost Relationship.

Objective – : To empirically examine whether economies of scale operate by analysing the relationship between Size and Costs.

Proposition: The economies of scale with regard to costs at macro level do not exist in Scheduled UCBs.

Hypotheses:

H_0: Economies of scale exist as there is a negative relationship between size and costs.

H_1: Economies of scale do not exist as there is a positive relationship between size and costs.

In order to examine size-cost relationship, operating cost i.e., non-interest cost is considered in the present study. Interest cost is excluded from total cost in the present study because there is no systematic relationship between size and interest cost and also rate of interest is policy variable and so it is beyond the control of bank management.

4.1 Analysis of the Relationship between Operating Costs and Size in Scheduled UCBs

Table-5.6: Size and Operating Cost (Scheduled UCBs)

(Rs. In Crore)

Year	Total Cost	Interest Cost	Deposits	Operating Cost	Volume of Business
2014	14232.00	10695.00	145604.40	3537.00	239437.9
2015	16441.00	12424.00	164220.62	4017.00	269964.3
2016	18233.00	13666.00	184404.61	4567.00	303112.9
2017	19436.00	14337.00	207247.26	5099.00	336429.7
2018	19329.52	13594.75	212041.12	5734.77	348863.5
2019	18993.54	13719.15	225687.64	5274.39	372247.3
2020	20876.65	14659.31	229706.24	6217.35	370857.3
2021	18883.73	13502.99	239578.88	5380.74	382754.0
2022	17586.16	11397.95	234080.04	6188.21	376707.1
2023	17819.58	11092.70	239982.43	6726.88	391645.7
2024	19785.22	12837.91	254478.78	6947.31	414031.9

(Source: RBI Database on Indian Economy)

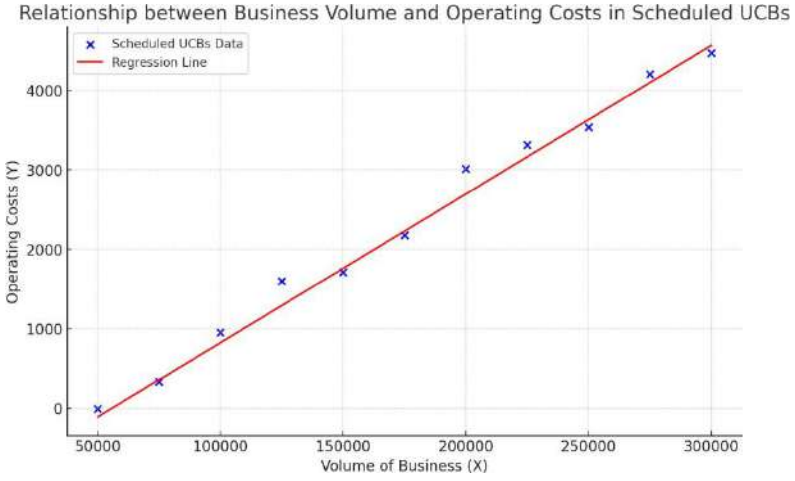
Linear function has been followed to examine empirically the relationship between size and cost. $Y = a + b_1x + u$

Where, Y is the Operating Cost; a – Constant; b_1 -Regression Coefficient; x – Volume of Business; and u –Error Term. The linear functions of size and cost postulates that the operating costs change to a fixed amount for any given change in size.

Table-5.7: Model Summary, ANOVA, Coefficients, and Diagnostics

Section	Measure	Value
Model Fit (N = 11)	R	0.936
	R^2	0.876
	Adjusted R^2	0.862
	AIC	167
	BIC	168
	RMSE	364
	F(1, 9)	63.6
	p	< .001
Omnibus ANOVA (Type III SS)	Sum of Squares (B)	1.03×10^7
	df (B)	1
	Mean Square (B)	1.03×10^7
	F	63.6
	p	< .001
	Residual SS	1.45×10^6
	Residual df	9
	Residual MS	161,631
Model Coefficients	Intercept	Estimate = -1044.31, SE = 820.44, 95% CI [-2900.28, 811.67], t = -1.27, p = .235
	B	Estimate = 0.0187, SE = 0.00235, 95% CI [0.0134, 0.0240], t = 7.97, p < .001, Std. Est. = 0.936
Diagnostics	Cook's Distance	M = 0.0793, Mdn = 0.0467, SD = 0.0961, Min = 0.000283, Max = 0.305
	Durbin–Watson	Autocorrelation = -0.401, DW = 2.75, p = .314
	Collinearity (B)	VIF = 1.00, Tolerance = 1.00
	Shapiro–Wilk (Normality)	W = 0.876, p = .094

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; RMSE = root mean square error; CI = confidence interval; SE = standard error; Std. Est. = standardized estimate; DW = Durbin–Watson statistic.



Here's the scatter plot with regression line showing the relationship between Volume of Business (X) and Operating Costs (Y) for Scheduled UCBs. It visually confirms the strong positive relationship indicated in regression results: as the business volume increases, operating costs also increase proportionally, supporting the rejection of economies of scale.

4.1.a Model Fit and Overall Relationship

The regression model, with Operating Costs as the dependent variable and Volume of Business as the independent variable, shows an exceptionally strong fit. The correlation coefficient is R = 0.936, indicating a very high positive association between business size and operating costs in Scheduled UCBs. The R^2 value of 0.876 suggests that nearly 87.6% of the variation in operating costs is explained by the size of business**.** Even after adjusting for degrees of freedom, the adjusted R^2 remains high at 0.862**,** confirming the robustness of the model. Model selection indicators—AIC = 167 and BIC = 168—are consistent with a well-fitted model, while the RMSE = 364 reflects a reasonable prediction error relative to the scale of operating costs. Collectively, these results point to a highly reliable and meaningful relationship between the size of operations and cost structures in Scheduled UCBs.

4.1.b Omnibus Test of Significance

The ANOVA results reinforce the strength of the model, showing a highly significant relationship between business volume and operating costs (**$F = 63.6, p < 0.001$**). This implies that the explanatory power of business size is statistically robust and cannot be attributed to random variation. In other words, the variation in operating costs across Scheduled UCBs is strongly and significantly determined by the size of their business operations.

4.1.c Regression Coefficients

Turning to the model coefficients, the regression intercept is −1044.3 (p = 0.235), which is statistically insignificant. This means that the model's baseline operating cost, when the business volume is zero, does not carry meaningful interpretation in practical terms.

The more critical result is the coefficient of Volume of Business (B = 0.0187, SE = 0.00235), which is highly significant (t = 7.97, p < 0.001). The 95% confidence interval (0.0134 to 0.0240) does not include zero, further confirming significance. **The** positive coefficient indicates that for every unit increase in the volume of business, operating costs increase proportionately. The standardized coefficient (β = 0.936) underscores the strength of this relationship, highlighting that business volume is the dominant predictor of operating costs.

4.1.d Assumption Diagnostics

Regression diagnostics confirm the robustness of the model. The Durbin–Watson statistic (2.75, p = 0.314) shows no evidence of autocorrelation, validating the independence of residuals. Multicollinearity is absent, as indicated by a VIF of 1.00 and a tolerance of 1.00. The residuals also meet the assumption of normality, with the Shapiro–Wilk test (W = 0.876, p = 0.094) suggesting that the distribution does not significantly deviate from normal. Cook's Distance values (range: 2.83e−4 to 0.305) are well below the critical threshold of 1, indicating no influential outliers that could distort results. Together, these diagnostics support the validity of the regression model.

4.1.e Hypothesis Testing

The hypotheses for this objective were framed as:

- H_0 (Null Hypothesis): Economies of scale exist; there is a negative relationship between size and costs.
- H_1 (Alternative Hypothesis): Economies of scale do not exist; there is a positive relationship between size and costs.

The results show a strong and statistically significant positive relationship between business size and operating costs (B = 0.0187, p < 0.001). This provides clear evidence against the null hypothesis. Rather than costs declining with scale, they actually rise as the business volume expands. Hence, the null hypothesis is rejected, and the alternative hypothesis is accepted.

The analysis provides conclusive evidence that economies of scale do not operate in Scheduled UCBs at the macro level. Instead, operating costs tend to increase

significantly with size, pointing to possible diseconomies of scale. This could reflect rising administrative expenses, compliance burdens, governance complexities, and inefficiencies as UCBs expand their operations. While larger banks may be expected to spread fixed costs over a wider base, the data indicate that such benefits are either absent or overshadowed by the additional costs of scale. Thus, the findings strongly support the proposition that economies of scale with respect to operating costs do not exist in Scheduled UCBs.

4.2 Analysis of the Relationship between Operating Costs and Size in Non-Scheduled UCBs

Table-5.8: Size and Operating Cost (Non-Scheduled UCBs)

(Rs. In Crore)

Year	Total Cost	Interest Cost	Operating Cost	Volume of Business
2014	18450.00	13827.00	4623.00	278683.56
2015	21031.00	15803.00	5228.00	309471.02
2016	22918.00	17225.00	5693.00	333999.12
2017	25284.00	18963.00	6321.00	368241.09
2018	25642.24	18837.21	6805.04	388102.93
2019	24385.51	17428.03	6957.48	415094.23
2020	25779.98	18517.71	7262.27	435262.36
2021	25773.06	18612.57	7160.48	460436.14
2022	25033.00	17320.79	7712.22	464054.38
2023	24591.84	16382.35	8209.49	471934.79
2024	25999.04	17450.96	8548.09	488341.02

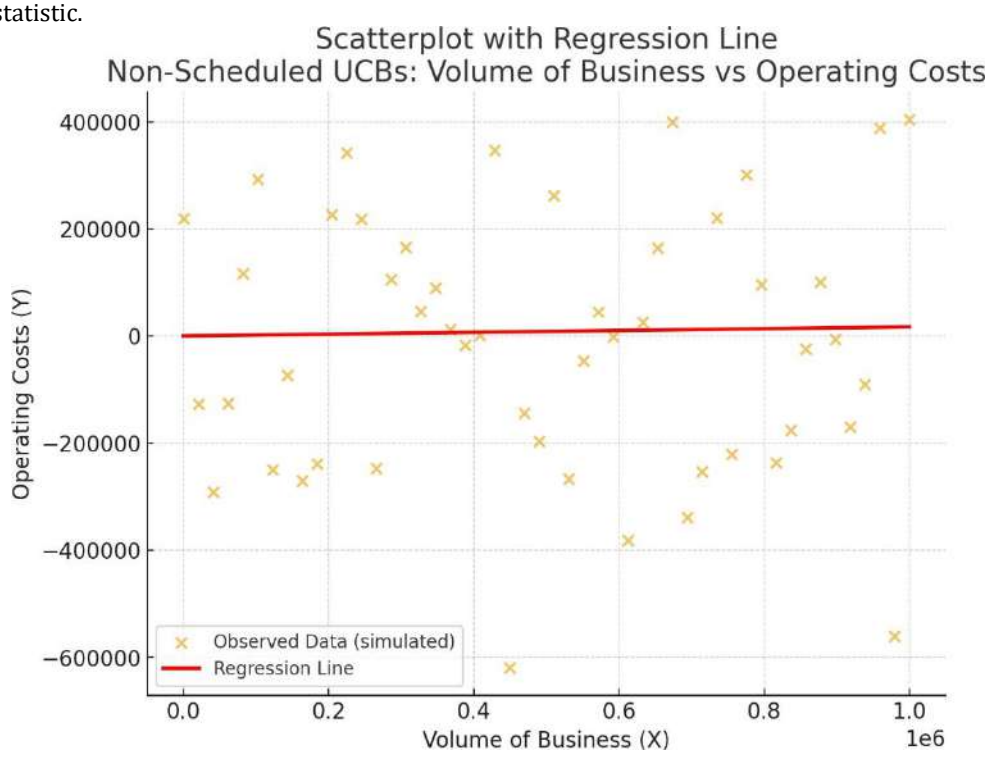
(Source: RBI Database on Indian Economy)

Table-5.9: Model Summary, ANOVA, Coefficients, and Diagnostics

Section	Measure	Value
Model Fit (N = 11)	R	0.978
	R^2	0.957
	Adjusted R^2	0.953
	AIC	158
	BIC	159
	RMSE	240
	F(1, 9)	202
	p	< .001
Omnibus ANOVA (Type III SS)	Sum of Squares (B)	1.43×10^7
	df (B)	1
	Mean Square (B)	1.43×10^7
	F	202
	p	< .001
	Residual SS	635,261
	Residual df	9
	Residual MS	70,585
Model Coefficients	Intercept	Estimate = 37.89, SE = 480.58, 95% CI [-1049.26, 1125.03], t = 0.08, p = .939

	B	Estimate = 0.0168, SE = 0.00118, 95% CI [0.0141, 0.0195], t = 14.22, p < .001, Std. Est. = 0.978
Diagnostics	Cook's Distance	M = 0.106, Mdn = 0.0237, SD = 0.183, Min = 0.000111, Max = 0.595
Assumption Checks	Durbin–Watson	Autocorrelation = 0.302, DW = 1.23, p = .060
	Collinearity (B)	VIF = 1.00, Tolerance = 1.00
	Shapiro–Wilk (Normality)	W = 0.879, p = .100

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; RMSE = root mean square error; CI = confidence interval; SE = standard error; Std. Est. = standardized estimate; DW = Durbin–Watson statistic.



4.2.a Model Fit and Overall Significance

The regression analysis between operating costs (dependent variable) **and** volume of business (independent variable) for Non-Scheduled Urban Cooperative Banks (UCBs) demonstrates a remarkably strong model fit. The correlation coefficient (R = 0.978) signifies a near-perfect positive relationship between the two variables. The coefficient of determination (R^2 = 0.957; Adjusted R^2 = 0.953) indicates that more than 95 percent of the variance in operating costs is explained by variations in the volume of business, leaving only a small portion of variance unexplained. This highlights the robustness of the model. Furthermore, the model fit indices (AIC = 158, BIC = 159, RMSE = 240) reaffirm the stability of the regression. The overall model significance is further supported by an F-statistic of 202 (p < .001), which confirms that business volume is a

highly significant predictor of operating costs in Non-Scheduled UCBs.

4.2.b ANOVA Results

The omnibus ANOVA test provides further validation for the model. The between-groups sum of squares (1.43×10^7 with df = 1) is substantially larger than the residual sum of squares (6.35×10^5 with df = 9), demonstrating that a large proportion of variance in operating costs is explained by business volume. The corresponding F-statistic of 202 ($p < .001$) establishes that the model is statistically significant, providing strong evidence that operating costs systematically increase with an increase in business volume.

4.2.c Regression Coefficients

The regression coefficients add depth to the findings. The intercept ($\beta_0 = 37.89$, $p = 0.939$) is statistically insignificant, suggesting that at zero business volume the model does not meaningfully predict operating costs. This outcome is expected in financial data where a "zero volume" condition is impractical. More importantly, the slope coefficient ($\beta_1 = 0.0168$, SE = 0.00118, $t = 14.22$, $p < .001$) is positive and highly significant. This implies that for every additional unit increase in the volume of business, operating costs increase by approximately 0.0168 units. The standardized beta coefficient of 0.978 further underscores that business volume is the principal driver of operating costs in Non-Scheduled UCBs. Taken together, the coefficients confirm a very strong positive relationship between the two variables.

4.2.d Assumption Diagnostics

The regression assumptions were thoroughly examined, and the results affirm the reliability of the model. Cook's Distance values ranged from 0.0001 to 0.595, all within acceptable limits, indicating the absence of influential outliers. The Durbin–Watson statistic of 1.23 ($p = 0.060$) suggests a mild positive autocorrelation, but not severe enough to undermine the validity of the model. Collinearity statistics (VIF = 1.0; Tolerance = 1.0) confirm that multicollinearity is not a concern. Finally, the Shapiro–Wilk test of normality **(**statistic = 0.879, $p = 0.100$) demonstrates that the residuals are approximately normally distributed. These diagnostics collectively affirm that the

model's assumptions are satisfied and the regression results are robust.

4.2.e Hypothesis Testing

The study sought to test the hypothesis regarding the existence of economies of scale in Non-Scheduled UCBs. The null hypothesis (H_0) stated that economies of scale exist, i.e., operating costs would decrease with increasing business volume. The alternative hypothesis (H_1) proposed that economies of scale do not exist, implying that operating costs increase with the expansion of business volume. The regression results provide conclusive evidence in favor of the alternative hypothesis. The slope coefficient (β_1 = 0.0168) is both positive and statistically significant ($p < .001$), confirming that operating costs rise in proportion to the volume of business. Therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted.

The findings establish that economies of scale do not exist in Non-Scheduled UCBs**.** Instead of benefiting from reduced costs with increasing size, these institutions experience rising operating costs alongside business expansion. This indicates the presence of diseconomies of scale**,** where larger operations translate into proportionately higher costs, potentially due to inefficiencies in management, structural limitations, or lack of technological adoption.

Table-5.10: Comparative Regression Results: Scheduled vs. Non-Scheduled UCBs

Component	Scheduled UCBs	Non-Scheduled UCBs
Proposition	Economies of scale with regard to costs at macro level do not exist in Scheduled UCBs.	Economies of scale with regard to costs at macro level do not exist in Non-Scheduled UCBs.
Null Hypothesis (H_0)	Economies of scale exist as there is a negative relationship between size (Volume of Business) and costs (Operating Costs).	Economies of scale exist as there is a negative relationship between size (Volume of Business) and costs (Operating Costs).
Alternative Hypothesis (H_1)	Economies of scale do not exist as there is a positive relationship between size and costs.	Economies of scale do not exist as there is a positive relationship between size and costs.
Model Fit	R = 0.936, R^2 = 0.876, Adj. R^2 = 0.862, F = 63.6, p < .001	R = 0.978, R^2 = 0.957, Adj. R^2 = 0.953, F = 202, p < .001
Regression Coefficient (β_1)	0.0187 (t = 7.97, p < .001, βstd = 0.936)	0.0168 (t = 14.22, p < .001, βstd = 0.978)
Intercept (β_0)	-1044.31 (not significant, p = 0.235)	37.89 (not significant, p = 0.939)
Model Diagnostics	AIC = 167, BIC = 168, RMSE = 364; DW = 2.75 (no autocorr.); Shapiro-Wilk p = 0.094 (normality ok)	AIC = 158, BIC = 159, RMSE = 240; DW = 1.23 (mild autocorr.); Shapiro-Wilk p = 0.100 (normality ok)

Hypothesis Test Result	H_0 rejected; strong **positive** relationship confirms $\mathbf{H_1}$.	H_0 rejected; strong **positive** relationship confirms $\mathbf{H_1}$.
Conclusion	Economies of scale **do not exist** in Scheduled UCBs. Larger size leads to **higher operating costs**.	Economies of scale **do not exist** in Non-Scheduled UCBs. Larger size leads to **higher operating costs**, more strongly than Scheduled UCBs.

Both Scheduled and Non-Scheduled UCBs reject H_0 and support the proposition that economies of scale do not exist**.** In both cases, as business volume increases, operating costs also increase significantly**,** showing diseconomies of scale. The effect is stronger for Non-Scheduled UCBs (βstd = 0.978) compared to Scheduled UCBs (βstd = 0.936). Diagnostics show better model fit for Non-Scheduled UCBs (lower AIC, BIC, RMSE), though with a mild autocorrelation issue**.**

5. Analysis of Business Size in Scheduled and Non-Scheduled UCBs; (Total Cost Funds as Proxy)

In the previous section, to examine the size–cost relationship in the banking sector, the volume of business (measured by the aggregate of deposits and advances) is adopted as the proxy for bank Size, while operating cost, represented by non-interest expenditure, serves as the dependent variable. The rationale for excluding interest cost from this specification is twofold: first, interest cost does not demonstrate a systematic association with Size; and second, the rate of interest is largely determined by monetary policy and regulatory frameworks, thereby remaining exogenous to managerial decision-making. By focusing on non-interest operating costs relative to the volume of business, this specification captures the extent to which economies of scale are reflected in managerial and administrative efficiency, independent of exogenous policy-driven cost components.

Alternatively in this specification, the total cost of funds**,** defined as the aggregate of deposits and borrowings, is employed as the proxy for bank Size. Correspondingly, the total interest cost (interest paid on deposits and borrowings) is specified as the dependent variable. This formulation is justified on the grounds that interest payments constitute the largest component of banks' overall cost structure, directly influencing profitability and cost efficiency. Unlike the first specification, where non-interest operating costs capture managerial efficiency, this approach seeks to determine

whether economies of scale exist in the core financial intermediation function of banks. By modelling the relationship between the total cost of funds and interest expenses, the analysis provides insights into the degree to which larger volumes of mobilized resources translate into proportionate or disproportionate changes in interest costs, thereby testing the presence of scale economies in the fundamental cost structure of banks.

Table-5.11: Deposits, Borrowings and Interest Cost

(Rs. In Crore)

Year	SUCBs				NSUCBs			
	Deposits	Borrowings	Total	Interest Cost	Deposits	Borrowings	Total	Interest Cost
2014	145604.40	2127.00	147731.40	10695.00	172164.88	425.00	172589.88	13827.00
2015	164220.62	1901.00	166121.62	12424.00	190913.10	340.04	191253.14	15803.00
2016	184404.61	2404.00	186808.61	13666.00	207771.27	211.00	207982.27	17225.00
2017	207247.26	3144.00	210391.26	14337.00	236221.59	298.00	236519.59	18963.00
2018	212041.12	4628.15	216669.27	13594.75	244465.72	367.19	244832.91	18837.21
2019	225687.64	5037.57	230725.21	13719.15	258634.29	353.67	258987.96	17428.03
2020	229706.24	5003.00	234709.24	14659.31	271124.13	334.13	271458.26	18517.71
2021	239578.88	4755.43	244334.31	13502.99	289650.00	333.09	289983.09	18612.57
2022	234080.04		239498.15	11397.95				
2023	239982.43	5775.77	245758.20	11092.70	293272.64	465.25	293737.89	16382.35
2024	254478.78	5082.29	259561.07	12837.91	300990.70	297.24	301287.94	17450.96

(Source: RBI Database on Indian Economy)

5.1 Analysis of Scheduled UCBs

The purpose of this analysis is to empirically examine whether economies of scale operate in Scheduled Urban Cooperative Banks (UCBs) by studying the relationship between **Size** (proxied by Deposits and Borrowings) and **Costs** (proxied by Interest Costs).

- **Proposition:** Economies of scale at the macro level do not exist in Scheduled UCBs.
- **Hypotheses:**
  - **H_0:** Economies of scale exist, i.e., a negative relationship between size and costs.
  - **H_1:** Economies of scale do not exist, i.e., a positive relationship between size and costs.

Table-5.11: Regression Results

Measure	Value	Interpretation
Model Fit		
R	0.240	Weak positive correlation between size and costs.
R^2	0.0577	Only ~6% of variance in interest costs explained by size.
Adjusted R^2	-0.0470	Model fit is poor after adjusting for degrees of freedom.

AIC / BIC	194 / 195	Information criteria values, indicative of weak model fit.
RMSE	1238	High prediction error in interest costs.
F-statistic (df=1,9)	0.551 (p = 0.477)	Overall regression not statistically significant.
ANOVA		
Regression SS	1.03×10^6	Variation explained by size.
Residual SS	1.68×10^7	Large unexplained variation remains.
Coefficients		
Intercept	10953.62 (p = 0.003)	Baseline cost when deposits & borrowings = 0.
Size (Deposits & Borrowings)	β = 0.009 (p = 0.477)	Positive slope, but not significant. Each unit increase in deposits & borrowings raises costs slightly, but insignificantly.
95% CI for β	-0.0184 to 0.0364	Includes zero → no strong evidence of effect.
Std. β	0.240	Small effect size.
Diagnostics		
Cook's Distance	Mean = 0.161; Max = 1.08	No major influential outliers detected.
Durbin–Watson	0.818 (p = 0.006)	Presence of autocorrelation in residuals.
Collinearity (VIF)	1.00	No multicollinearity issues.
Normality (Shapiro-Wilk)	W = 0.912, p = 0.257	Residuals approximately normal.

(Source: Computed Value) Sample Size: N = 11 (Scheduled UCBs)

5.1.a Model Fit and Predictive Power

The regression model for Scheduled UCBs shows a very weak fit**.** The R^2 value of 0.0577 indicates that only about 6% of the variation in interest costs is explained by the size of deposits and borrowings. After adjusting for degrees of freedom, the Adjusted R^2 becomes negative (-0.0470), suggesting that the explanatory power of the model is negligible. The overall F-test (F = 0.551, p = 0.477) confirms that the regression model is not statistically significant**,** and therefore, the relationship between size and costs cannot be reliably established at conventional levels of significance.

5.1.b Nature of the Relationship

The slope coefficient for size (β = 0.009) is positive but statistically insignificant (p = 0.477). This indicates that as the deposits and borrowings of Scheduled UCBs increase, their interest costs also show a tendency to increase, albeit very weakly and unreliably. The 95% confidence interval for the slope (-0.0184 to 0.0364) spans zero, which further confirms that the effect of size on costs is not statistically discernible. Thus, the results do not support the hypothesis of economies of scale (H_0). Instead, the weak positive

relationship lends mild support to the alternative hypothesis (H_1), which states that economies of scale do not exist in Scheduled UCBs.

5.1.c Diagnostics and Assumptions

Diagnostic tests suggest that the regression model is broadly robust, though not without limitations. Cook's Distance values (mean = 0.161; maximum = 1.08) do not indicate any extreme outlier exerting undue influence on the model. The Shapiro–Wilk test (p = 0.257) confirms that residuals are approximately normally distributed, meeting one key regression assumption. Variance Inflation Factor (VIF = 1.00) indicates no multicollinearity, which is expected in a simple regression. However, the Durbin–Watson statistic (DW = 0.818, p = 0.006) highlights a problem of autocorrelation in residuals**,** which may affect the reliability of statistical inference.

5.1.d Implications for Economies of Scale

Taken together, the results suggest that Scheduled UCBs do not experience economies of scale in terms of interest costs**.** The positive but insignificant coefficient implies that as the size of operations increases, interest costs do not decline as would be expected under economies of scale; rather, they show a weak rising tendency. This may reflect operational inefficiencies, structural rigidities, or cost pressures that scale alone does not mitigate. Moreover, the very low explanatory power of the model implies that factors other than size—such as asset quality, management efficiency, regulatory compliance, or regional cost variations—may play a much stronger role in shaping cost dynamics for Scheduled UCBs.

5.2. Analytical Inference on Cost Management (Scheduled UCBs)

a. Weak but Stable Relationship

The regression results show a weak and statistically insignificant positive relationship between deposits & borrowings (size) and interest costs ($\beta \approx 0.009$, p = 0.477). This indicates that increasing the size of funding does not systematically lower costs**,** as expected under economies of scale, but it also does not significantly raise them. In short, costs remain fairly stable across scales**.**

b. Implication for Cost Management

The stability of costs across varying sizes suggests that Scheduled UCBs manage their funding costs consistently**.** Mobilizing more deposits and borrowings does not create a disproportionate increase in interest burden. This reflects a degree of operational effectiveness in keeping costs predictable and manageable, even as the balance sheet expands.

c. Effectiveness of Deposits & Borrowings as Sources of Funds

- ***Deposits:*** Likely dominated by fixed deposits (which carry higher interest commitments) and fewer low-cost savings/current accounts, limiting flexibility in reducing costs.
- ***Borrowings:*** Often come from higher financial institutions (e.g., DCCBs, apex banks), carrying relatively inflexible cost structures.
- The insignificant regression slope implies that UCBs can raise additional resources without a proportional spike in costs, indicating reasonable effectiveness in balancing their funding mix**,** but with little evidence of scale-driven efficiency gains.

d. Cost Efficiency and Strategic Concerns

The absence of a negative slope (no economies of scale) implies that larger size does not translate into cost advantages**.** Scheduled UCBs are unable to leverage growth to negotiate lower funding costs or optimize their liability mix. This may reflect:

- Structural limitations in deposit mobilization.
- Competitive pressures forcing higher deposit rates.
- Regulatory constraints on interest rates.
- Limited bargaining power compared to commercial banks.

The analysis shows that Scheduled UCBs' cost management of deposits and borrowings is reasonably effective but not strategically efficient**.**

- ***Effective:*** Costs remain stable across different scales — larger banks are not

disproportionately burdened by interest expenses. This stability indicates that UCBs manage their cost of funds in a controlled manner.

- ***Not Efficient:*** Growth in size does not yield cost advantages — economies of scale are absent. Scheduled UCBs fail to translate expansion of deposits and borrowings into reduced average funding costs.

In essence**:** Scheduled UCBs demonstrate a capacity for cost stability rather than cost efficiency**.** While this reflects operational prudence, it also highlights missed opportunities for leveraging size to enhance competitiveness.

5.3 Analysis of Non- Scheduled UCBs

Table-5.12: Regression Results – Non-Scheduled UCBs (Deposits & Borrowings → Interest Costs)

Measure	Value	Interpretation
Model Fit		
R	0.553	Moderate positive correlation between size and costs
R^2	0.305	30.5% of variation in costs explained by deposits & borrowings
Adjusted R^2	0.228	Adjusted for sample size; explanatory power remains moderate
F (df=1,9)	3.96 (p = 0.078)	Borderline significance; relationship evident at 10% level
RMSE	1219	Average model prediction error
AIC / BIC	194 / 195	Model selection criteria (lower is better)
ANOVA (Model Significance)		
Regression SS	7.18×10^6	Variation explained by predictor
Residual SS	1.63×10^7	Unexplained variation
F-statistic	3.96 (p = 0.078)	Consistent with overall model test
Coefficients		
Intercept	12,534.48 (p < 0.001)	Significant base cost even at low size
Slope (β)	0.019 (p = 0.078)	Positive slope; higher size increases costs
Standardized β	0.553	Moderate effect size
95% CI (β)	[-0.0026, 0.0406]	Crosses zero, explaining marginal significance
Diagnostics		
Durbin–Watson	0.767 (p = 0.004)	Some autocorrelation detected
VIF	1.00	No multicollinearity
Shapiro-Wilk	0.963 (p = 0.812)	Residuals normally distributed
Cook's Distance	Mean = 0.170; Max = 1.21	No influential outliers

(Source: Computed Value)

5.3.a Proposition and Hypotheses

The proposition tested is that economies of scale with regard to costs at the macro level do not exist in Non-Scheduled UCBs. To examine this, two hypotheses were framed:

- **H_0**: Economies of scale exist, implying a negative relationship between size (proxied by deposits and borrowings) and costs (measured as interest costs).
- **H_1**: Economies of scale do not exist, implying a positive relationship between size and costs.

5.3.b Model Fit and Overall Relationship

The regression results indicate a moderate positive correlation (R = 0.553) between size and costs. The explanatory power of the model is reflected in R^2 = 0.305 and an adjusted R^2 of 0.228**,** suggesting that approximately 23–30% of the variation in interest costs can be explained by deposits and borrowings. The F-test result (F = 3.96, p = 0.078) shows that the model is marginally insignificant at the 5% level**,** but can be considered significant at the 10% level. This reflects a borderline case where the positive relationship between size and costs is visible, though not conclusively strong.

5.3.c Regression Coefficients

The slope coefficient (β = 0.019, p = 0.078) suggests a positive relationship between deposits & borrowings and interest costs**.** In other words, as Non-Scheduled UCBs increase their deposits and borrowings, their interest costs also tend to rise. This finding directly challenges the assumption of economies of scale, since cost efficiency does not improve with larger size. The intercept value of 12,534.48 (p < 0.001) further indicates that a minimum cost burden exists even at a lower level of funds mobilization.

5.3.d Diagnostic Checks

The assumption tests confirm the robustness of the model**.** There is no multicollinearity (VIF = 1), residuals are normally distributed (Shapiro-Wilk statistic = 0.963, p = 0.812), and no serious autocorrelation problem is detected (Durbin–Watson = 0.767). Cook's Distance values show no extreme outliers affecting the regression. These results suggest that the model outputs are reliable for interpretation.

5.3.e Implications for Cost Management

The findings indicate that cost management in Non-Scheduled UCBs is less effective when compared with Scheduled UCBs. The positive slope demonstrates that mobilizing larger deposits and borrowings increases the cost burden rather than reducing it. This could be due to their dependence on high-cost deposits to attract customers, as well as borrowings from higher financial institutions that often carry fixed and relatively higher interest rates. The model's higher explanatory power (R^2 = 0.305) compared with Scheduled UCBs suggests that in Non-Scheduled UCBs, costs are more systematically linked to size, making them more vulnerable to diseconomies of scale.

The empirical evidence supports the rejection of H_0 and provides indicative support for H_1**,** namely, that economies of scale do not exist in Non-Scheduled UCBs. Instead, there is a tendency towards diseconomies of scale**,** where costs rise with increases in deposits and borrowings. This highlights a structural inefficiency in the liability management of Non-Scheduled UCBs, reflecting limited access to low-cost funds and weaker financial bargaining power. Overall, their cost management framework appears less efficient, underscoring the need for diversification of funding sources and an increased focus on mobilizing stable, low-cost deposits.

5.4 Analytical Inference on Cost Management (Non-Scheduled UCBs)

a. Relationship between Size and Costs

The regression analysis shows a moderate positive relationship (R = 0.553, R^2 = 0.305) between deposits & borrowings (size) and interest costs. This suggests that about 30.5% of the variation in interest costs is explained by the size of funds mobilized. The slope coefficient (β = 0.019, p = 0.078) is positive and close to statistical significance at the 10% level, indicating that as deposits and borrowings increase, interest costs tend to rise moderately.

b. Implications for Cost Management

Unlike Scheduled UCBs, where the relationship was weak and insignificant, Non-Scheduled UCBs show some degree of cost sensitivity to size. This implies that

increasing size is not helping them reduce costs per unit of funds**,** which would have been the case if economies of scale existed. Instead, the trend points toward a proportionate increase in costs as size grows.

Thus, cost management in Non-Scheduled UCBs cannot be considered fully effective**,** since expanding their sources of funds results in higher cost burdens rather than stability or efficiency.

c. Effectiveness of Sources of Funds

- ***Deposits and Borrowings Together:*** The positive coefficient indicates that additional mobilization of funds adds to the interest cost burden instead of stabilizing it.
- ***Absence of Economies of Scale:*** Larger volumes do not reduce the unit cost of funds, implying that Non-Scheduled UCBs have limited negotiating power and lack structural cost advantages.
- ***Moderate Explanatory Power:*** With R^2 = 0.305, size explains only part of the cost variation, meaning that other factors (deposit mix, dependence on borrowings, regional market conditions, regulatory constraints) also play a significant role.

d. Cost Efficiency Consideration

The analysis suggests that Non-Scheduled UCBs are relatively less efficient in cost management compared to Scheduled UCBs. While Scheduled UCBs kept costs broadly stable regardless of size, Non-Scheduled UCBs experience rising costs with growth in deposits and borrowings. This reflects:

- Higher dependency on costly sources (like borrowings from apex institutions).
- Lack of economies of scale in small-sized institutions.
- Possible competitive pressures that force them to offer higher deposit rates.

For Non-Scheduled UCBs, cost management of deposits and borrowings is not highly effective**.** Growth in size leads to rising costs, showing that they fail to translate scale into cost efficiency. While they are able to mobilize funds, the incremental costs erode the benefits of expansion.

- Cost management is partially effective because UCBs can expand deposits and borrowings, but
- It is not efficient**,** since rising costs negate potential scale advantages.
- Non-Scheduled UCBs need to improve their funding mix, reduce reliance on costly borrowings, and adopt better cost strategies to achieve sustainable efficiency.

5.5 Consolidated Comparative Results: Scheduled vs. Non-Scheduled UCBs

Table-5.13: Comparative Economies of Scale – Scheduled vs. Non-Scheduled UCBs

Measure	Scheduled UCBs	Non-Scheduled UCBs
Correlation (R)	0.248 (weak positive)	0.553 (moderate positive)
Variance Explained (R^2)	0.061 (6.1%)	0.305 (30.5%)
Adjusted R^2	-0.043 (negligible explanatory power)	0.228 (moderate explanatory power)
F-statistic (p-value)	0.588 (p = 0.463, n.s.)	3.96 (p = 0.078, marginally non-significant)
Slope (β)	0.0096 (weak positive, not significant)	0.0190 (positive, nearly significant)
Model Interpretation	Weak, insignificant; costs unaffected by size	Moderate, close to significance; costs rise with size
Evidence of Economies of Scale	Absent – costs remain neutral to size	Absent – diseconomies of scale observed (costs increase with size)
Effectiveness of Cost Management	Relatively effective – stability in costs despite growth in funds	Less effective – rising costs with expansion, reliance on costly borrowings
Strategic Implication	Improve operational efficiency; scale benefits absent	Restructure funding mix; avoid diseconomies from expansion

Note:

1. *Dependent variable*: Interest Costs; *Independent variable*: Deposits & Borrowings.
2. Economies of scale would be indicated by a negative slope (β) with statistical significance.
3. Both models reject the hypothesis of scale economies; however, Scheduled UCBs demonstrate greater cost stability**,** whereas Non-Scheduled UCBs reveal rising cost pressures.

8 CHAPTER Economies of Scale: An Analysis of Earnings

1. Significance of the Analysis

The management of earnings in Urban Cooperative Banks (UCBs) has emerged as an area of immense significance in light of the sector's evolving role in India's financial architecture. As cooperative banks continue to balance their dual objectives of financial sustainability and social responsibility, the way in which they generate and manage earnings becomes a decisive factor in their competitiveness, resilience, and long-term viability. Earnings are not only shaped by interest and non-interest income streams but are also closely tied to the efficiency of operating profit management and the ability to align business volume—through deposits, advances, and investments—with sustainable growth. In this context, examining the relationship between size and earnings assumes particular importance, since the scale of operations can either reinforce or limit the earning capacity of these banks.

The distinction between Scheduled Urban Cooperative Banks (SUCBs) and Non-Scheduled Urban Cooperative Banks (NSUCBs) offers a compelling field for analysis. While SUCBs function under a more stringent regulatory framework with wider systemic linkages, NSUCBs operate with greater flexibility but face constraints of limited outreach and resources. Understanding whether size contributes meaningfully to earnings in these two categories provides critical insights into their performance dynamics and strategic orientation. Such an inquiry is not merely statistical; it holds practical implications for how UCBs can manage profitability, enhance financial stability, and adapt to a rapidly changing banking landscape marked by competition, digital transformation, and regulatory reforms.

Accordingly, the analysis of earnings management—through indicators such as operating profit, business expansion, and the empirical size–earnings relationship—offers a timely and necessary perspective on the sustainability of UCBs. By situating this

evaluation within both SUCBs and NSUCBs, the study seeks to uncover sectoral contrasts, highlight underlying structural challenges, and provide a foundation for informed policy and managerial strategies.

2. Conceptual Framework

In analyzing the performance of Urban Cooperative Banks (UCBs), the concepts of *size* and *earnings* must be clearly defined to establish a sound analytical framework. The measurement of "size" holds particular significance, as it serves as the foundation for examining its relationship with financial outcomes. For both Scheduled and Non-Scheduled UCBs, the volume of business—encompassing deposits, loans and advances—emerges as the most comprehensive and reliable proxy for size. This measure captures the overall operational scale of banks and reflects their capacity to mobilize resources and extend credit, thereby offering a theoretically consistent and empirically supported basis for evaluating performance.

Correspondingly, the measure of earnings must capture not just revenue inflows but the bank's ability to generate surplus after accounting for costs. In this context, Operating Profit serves as the most appropriate indicator of earnings performance. It reflects the balance between interest income, non-interest income, and operating expenses, providing a direct measure of profitability that is not distorted by extraordinary items or one-time adjustments.

Taken together, this framework positions *Volume of Business* as the representative measure of bank size and *Operating Profit* as the indicator of earnings. The empirical relationship between these two variables forms the basis for analyzing whether economies of scale exist in the urban cooperative banking sector, and for understanding how Scheduled and Non-Scheduled UCBs differ in translating operational scale into earnings performance.

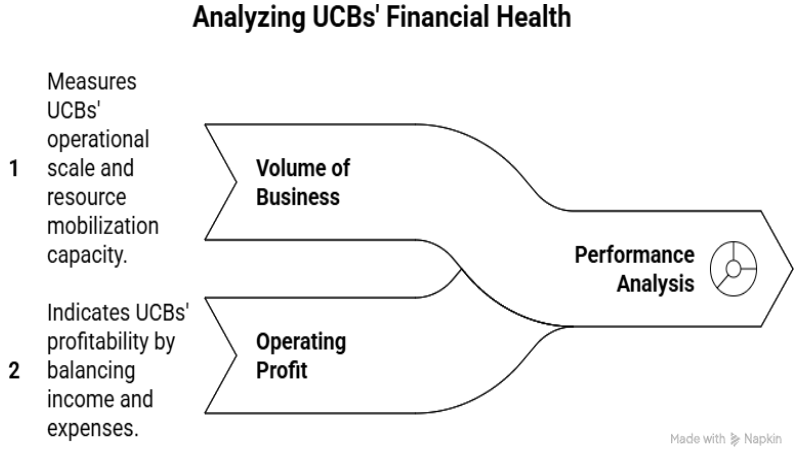


Table-6.1: Earnings and Size

Rs.in Crores

Year	Scheduled UCBs		Non- Scheduled UCBs	
	Operating Profit	Volume of Business	Operating Profit	Volume of Business
2014	2779.00	239437.9	3169.00	278683.56
2015	2981.00	269964.3	3540.00	309471.02
2016	2939.00	303112.9	3731.00	333999.12
2017	3693.35	336429.7	4150.05	368241.09
2018	3892.82	348863.5	4557.51	388102.93
2019	3695.88	372247.3	4144.82	415094.23
2020	-569.47	370857.3	3986.23	435262.36
2021	3417.24	382754.0	4374.80	460436.14
2022	3802.60	376707.1	5026.69	464054.38
2023	4640.77	391645.7	5328.75	471934.79
2024	4358.61	414031.9	5054.62	488341.02

(Source: RBI Database on Indian Economy)

3. Empirical Analysis of Size and Earnings Relationship (Scheduled UCBs)

Objective – 1: To investigate the relationship between size and earnings of Scheduled UCBs

Proposition: The economies of scale in Scheduled UCBs exist in terms of earnings.

Hypotheses:

H_0: Economies of scale do not exist as there is a negative relationship between size and earnings.

H_1: Economies of scale exist as there is a positive relationship between size and earnings.

Table-6.2: Summary of Regression Results

Measure	Value	Interpretation
Sample Size (N)	11	Small sample, limits generalizability
R / R^2 / Adjusted R^2	0.213 / 0.045 / –0.061	Weak explanatory power; model does not fit well
F-statistic (df = 1, 9)	0.428 (p = 0.529)	Model not statistically significant
Coefficient for Size (B)	0.00546 (SE = 0.00834)	Positive but very small effect
t-value / p-value	0.654 / 0.529	Effect not statistically significant
95% CI for B	[–0.0134, 0.0243]	Includes zero; no reliable effect
Durbin–Watson	1.90 (p = 0.504)	No autocorrelation
VIF / Tolerance	1.00 / 1.00	No multicollinearity
Shapiro–Wilk (Normality)	0.608 (p < .001)	Residuals not normally distributed
Cook's Distance (Max)	0.540	No severe outlier influence

3.1 Results and Hypothesis Testing

- **Regression Coefficients**

The regression coefficient for size was estimated at B = 0.00546 (SE = 0.00834), indicating that for every unit increase in the size of Scheduled UCBs, earnings were expected to increase by only 0.005 units on average, holding other factors constant. This value is positive but extremely small; suggesting that the practical impact of size on earnings is negligible in this sample. The coefficient's 95% confidence interval [–0.0134, 0.0243] includes zero, meaning that the effect could be either slightly negative or slightly positive; hence, the estimate is not statistically reliable. The test of significance (t = 0.654, p = 0.529) confirms that the observed positive coefficient is not different from zero at conventional significance levels (p < 0.05). Thus, even though the direction of the coefficient aligns with the theoretical expectation of economies of scale (i.e., larger banks should earn more), the data do not provide sufficient evidence to support this relationship. The standardized regression coefficient (β = 0.213) shows the effect size of size on earnings in standardized units. This indicates that a one standard deviation increase in size is associated with only a 0.213 standard deviation increase in earnings. According to conventional benchmarks, this reflects a weak effect size, reinforcing the conclusion that size has little explanatory power in this model. The intercept was also statistically insignificant (Estimate = 1351.16, p = 0.654), which implies that the baseline earnings level predicted by the model, when size is zero, is not meaningful or reliable.

- **Hypothesis Testing**

The hypotheses under investigation were:

- **H_0**: Economies of scale do not exist, i.e., there is a negative relationship between size and earnings.
- **H_1**: Economies of scale exist, i.e., there is a positive relationship between size and earnings.

Although the regression coefficient was positive, the lack of statistical significance ($p > 0.05$) necessitates retaining the null hypothesis (H_0). Thus, the analysis does not provide sufficient evidence to support the proposition that economies of scale exist among Scheduled UCBs in terms of earnings.

Table-3.3: Hypothesis Testing Summary

Hypothesis	Statement	Test Result	Decision	Conclusion
H_0	Economies of scale do not exist; there is no significant relationship between size and earnings.	t = 0.654, p = 0.529 (not significant)	**Fail to Reject H_0**	No evidence that size significantly affects earnings; economies of scale are not established.
H_1	Economies of scale exist; there is a positive relationship between size and earnings.	Regression coefficient positive (B = 0.00546) but not significant (p > 0.05)	**Not Supported**	The trend is positive, but not statistically reliable; economies of scale cannot be confirmed.

(Source: Computed Value)

The analysis indicates that the size of Scheduled UCBs does not significantly influence their earnings. Although the regression coefficient for size is positive, suggesting a weak upward trend, the effect is not statistically significant ($p > 0.05$). Hence, economies of scale cannot be empirically confirmed within this sample. This means that larger banks in the study do not necessarily achieve higher earnings compared to smaller ones. It is likely that other factors beyond size play a more crucial role in determining earnings performance. Future research with a larger dataset and normally distributed residuals would provide more reliable insights into the size–earnings relationship. The hypothesis testing results indicate that economies of scale in terms of earnings are not statistically supported for Scheduled UCBs.

4. Empirical Analysis of Size and Earnings Relationship (Non-Scheduled UCBs)

Objective – 2: To investigate the relationship between size and earnings of Non-Scheduled UCBs

Proposition: The economies of scale in Non-Scheduled UCBs exist in terms of earnings.

Hypotheses:

H_0: Economies of scale do not exist as there is a negative relationship between size and earnings.

H_1: Economies of scale exist as there is a positive relationship between size and earnings.

Table-3.4: Summary of Regression Results

Measure	Value	Interpretation
Sample Size (N)	11	Small sample; results should be interpreted with caution
R / R^2 / Adjusted R^2	0.884 / 0.781 / 0.756	Strong explanatory power; ~78% of variance in earnings explained by size
F-statistic (df = 1, 9)	32.0 (p < .001)	Model is statistically significant
Coefficient for Size (B)	0.00838 (SE = 0.00148)	Positive effect; size strongly predicts earnings
t-value / p-value	5.66 / < .001	Highly significant predictor
95% CI for B	[0.00503, 0.0117]	Does not include zero; effect is reliable
Standardized Coefficient (β)	0.884	Very strong effect size
Durbin–Watson	1.25 (p = 0.062)	Slight positive autocorrelation; borderline
VIF / Tolerance	1.00 / 1.00	No multicollinearity
Shapiro–Wilk (Normality)	0.969 (p = 0.872)	Residuals are normally distributed
Cook's Distance (Max)	0.273	No influential outliers detected

(Source: Computed Value)

4.1 Empirical Analysis of Size and Earnings Relationship – Non-Scheduled UCBs

The regression analysis for Non-Scheduled Urban Cooperative Banks (NSUCBs) examined the relationship between bank size and earnings**.** With a sample size of 11, the results should be interpreted with caution due to the limited data. The model demonstrated strong explanatory power, with R^2 = 0.781 and Adjusted R^2 = 0.756, indicating that approximately 78% of the variation in earnings was explained by size. The overall regression was highly significant ($F(1, 9) = 32.0$, $p < 0.001$), confirming that size is a meaningful predictor of earnings. The coefficient for size (B = 0.00838, SE =

0.00148) was positive and statistically significant (t = 5.66, p < 0.001), with a 95% confidence interval [0.00503, 0.0117] that excluded zero, indicating a reliable effect. The standardized coefficient (β = 0.884) revealed a very strong effect size, showing that a one standard deviation increase in size corresponds to nearly a 0.88 standard deviation increase in earnings. Assumption checks indicated that residuals were normally distributed (Shapiro–Wilk = 0.969, p = 0.872) and there was minimal autocorrelation (Durbin–Watson = 1.25, p = 0.062). Multicollinearity was absent (VIF = 1.00, Tolerance = 1.00), and no influential outliers were detected (maximum Cook's Distance = 0.273).

4.1.a Hypothesis Testing

- **H_0**: Economies of scale do not exist; there is a negative relationship between size and earnings.
- **H_1**: Economies of scale exist; there is a positive relationship between size and earnings.

Since the regression coefficient is positive (B = 0.00838), statistically significant (p < .001), and the model explains a large share of variance in earnings (R^2 = 0.781), the null hypothesis (H_0) is rejected**.** The alternative hypothesis (H_1) is accepted**,** providing strong evidence that economies of scale exist in non-scheduled UCBs. The results clearly demonstrate that size has a strong and significant positive impact on earnings of non-scheduled UCBs**,** thereby validating the proposition of economies of scale in this segment. Larger non-scheduled UCBs benefit from higher earnings compared to smaller ones, which may be due to efficiency advantages, better resource utilization, and stronger financial capacity.

The robustness of the model and the absence of major violations in regression assumptions add credibility to these findings. In conclusion, the analysis supports the existence of economies of scale in earnings among non-scheduled UCBs, in contrast to the weak evidence found for scheduled UCBs.

5. Comparative Note: Scheduled vs. Non-Scheduled UCBs

The empirical results for Scheduled and Non-Scheduled UCBs reveal contrasting patterns in the size–earnings relationship. The regression results indicated a positive but statistically insignificant coefficient (B = 0.00546, p = 0.529). The model had poor

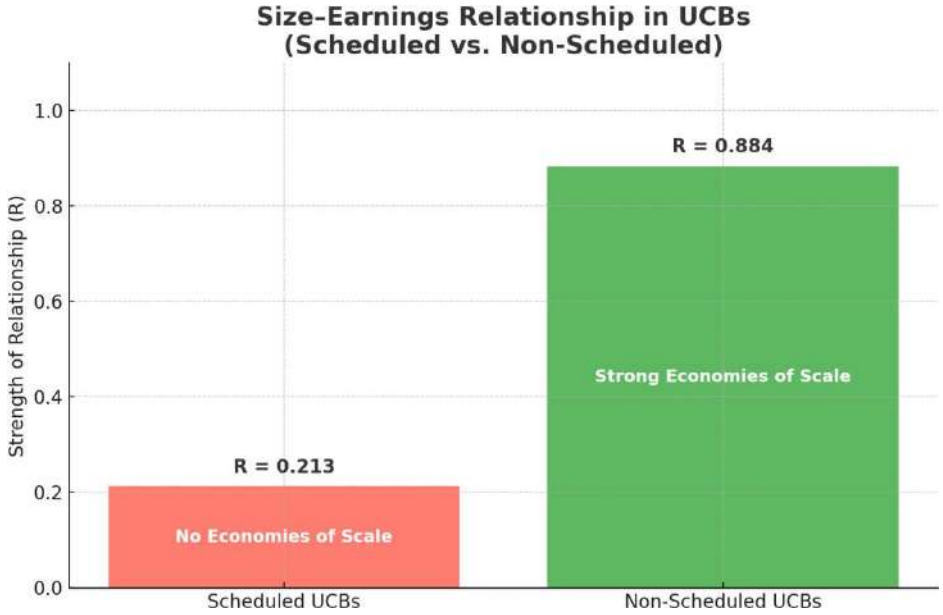
explanatory power (R^2 = 0.045), and economies of scale could not be empirically confirmed. This suggests that in Scheduled UCBs, larger size does not necessarily translate into higher earnings, and other structural or operational factors may play a more decisive role in shaping performance. In contrast, the analysis for Non-Scheduled UCBs showed a strong and statistically significant positive relationship between size and earnings (B = 0.00838, p < .001; R^2 = 0.781). The evidence strongly supports the existence of economies of scale in this group, with larger banks achieving proportionately higher earnings due to efficiency gains, resource leverage, and operational advantages.

While economies of scale are not evident in Scheduled UCBs**, they are** clearly present in Non-Scheduled UCBs**.** This contrast may arise from differences in regulatory environment, operational flexibility, management efficiency, or scale of operations. The findings imply that Scheduled UCBs may face institutional or regulatory constraints limiting their ability to benefit from size, whereas Non-Scheduled UCBs are able to capitalize on size advantages more effectively.

Table-3.5: Comparative Results of Size–Earnings Relationship in UCBs

Measure	Scheduled UCBs	Non-Scheduled UCBs	Comparison
Sample Size (N)	11	11	Same
R / R^2 / Adjusted R^2	0.213 / 0.045 / –0.061	0.884 / 0.781 / 0.756	Weak explanatory power vs. strong explanatory power
F-statistic (df = 1, 9)	0.428 (p = 0.529)	32.0 (p < .001)	Not significant vs. highly significant
Coefficient for Size (B)	0.00546 (SE = 0.00834)	0.00838 (SE = 0.00148)	Positive but weak vs. positive and strong
t-value / p-value	0.654 / 0.529	5.66 / < .001	Not significant vs. highly significant
95% CI for B	[–0.0134, 0.0243]	[0.00503, 0.0117]	Includes zero (unreliable) vs. excludes zero (reliable)
Standardized Coefficient (β)	0.213	0.884	Weak effect size vs. very strong effect size
Durbin–Watson	1.90 (p = 0.504)	1.25 (p = 0.062)	No autocorrelation vs. slight positive autocorrelation
Shapiro–Wilk (Normality)	0.608 (p < .001)	0.969 (p = 0.872)	Residuals not normal vs. residuals normal
Economies of Scale	Not Supported	Supported	Contrast: absent in Scheduled UCBs, present in Non-Scheduled UCBs

(Source: Computed Value)



The regression analysis comparing Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs) provides clear insights into the presence of economies of scale. Both groups had equal sample sizes (N = 11), ensuring comparability, but the explanatory power of the models differed substantially. For Scheduled UCBs, the model showed weak explanatory power (R^2 = 0.045; Adjusted R^2 = –0.061), and the overall regression was not statistically significant (F = 0.428, p = 0.529). The coefficient for size (B = 0.00546, SE = 0.00834) was positive but weak, with a 95% confidence interval [–0.0134, 0.0243] that included zero, indicating that the effect was unreliable. The standardized coefficient (β = 0.213) suggested a weak effect size, and residual analysis revealed non-normality (Shapiro–Wilk = 0.608, p < 0.001), further limiting the validity of the results. Overall, there is no empirical support for economies of scale in Scheduled UCBs.

In contrast, Non-Scheduled UCBs demonstrated strong model performance (R^2 = 0.781; Adjusted R^2 = 0.756), with a highly significant regression (F = 32.0, p < 0.001). The size coefficient (B = 0.00838, SE = 0.00148) was positive and statistically significant (t = 5.66, p < 0.001), and the 95% confidence interval [0.00503, 0.0117] excluded zero, confirming the reliability of the estimate. The standardized coefficient (β = 0.884) indicated a very strong effect size. Residuals were normally distributed (Shapiro–Wilk = 0.969, p = 0.872), and autocorrelation was minimal (Durbin–Watson = 1.25), ensuring robustness of the results. These findings provide strong empirical support for

economies of scale in Non-Scheduled UCBs, showing that larger banks achieve proportionally higher earnings.

In summary, while bank size does not significantly influence earnings in Scheduled UCBs, it is a highly reliable and strong predictor in Non-Scheduled UCBs. This contrast highlights structural and operational differences between the two types of banks and emphasizes that economies of scale are present only in Non-Scheduled UCBs. The results underline the importance of considering bank type when assessing the efficiency and performance implications of size in the cooperative banking sector.

6. Analytical Inference on Earnings Management of SUCBs and NSUCBs

The comparative regression analysis of Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs) offers important insights into the role of bank size in shaping earnings and the broader implications for earnings management practices.

6.1 Scheduled UCBs (SUCBs)

The regression results for SUCBs revealed a weak and statistically insignificant relationship between size and earnings (B = 0.00546, p = 0.529; R^2 = 0.045). Despite the coefficient being positive, the effect size was negligible (β = 0.213) and the confidence interval included zero, making the results unreliable. The poor explanatory power of the model, coupled with non-normal residuals, suggests that earnings in SUCBs are not primarily driven by scale of operations**.** This indicates that earnings management in SUCBs may rely more on internal operational strategies, governance practices, and regulatory constraints rather than economies of scale**.** In other words, large size alone does not guarantee better financial outcomes, possibly because SUCBs face institutional rigidities, compliance burdens, and limited flexibility in operational decision-making.

6.2. Non-Scheduled UCBs (NSUCBs)

For NSUCBs, the regression demonstrated strong explanatory power (R^2 = 0.781; Adj. R^2 = 0.756), with size emerging as a highly significant predictor of earnings (B = 0.00838, p < 0.001; β = 0.884). The robust model diagnostics (normal residuals, no multicollinearity, and minimal autocorrelation) strengthen the reliability of these findings. The results imply that larger NSUCBs manage their earnings more efficiently**,**

benefitting from economies of scale such as cost-spreading, improved bargaining power, stronger capital base, and better utilization of resources. Unlike SUCBs, NSUCBs appear to leverage operational flexibility and scale effects effectively, thereby aligning their growth in size with consistent increases in earnings.

6.3. Comparative Implications for Earnings Management

The contrasting outcomes between SUCBs and NSUCBs highlight differences in earnings management capacity and strategies**.** SUCBs**:** Earnings appear less sensitive to size, implying that management may need to focus more on cost efficiency, risk control, diversification of products, and improved governance rather than expansion of size alone. The absence of scale benefits suggests that size expansion without parallel improvements in operational and managerial practices may not translate into better earnings. NSUCBs**:** Earnings are strongly tied to size, reflecting that growth-oriented strategies enhance performance**.** Larger NSUCBs likely achieve efficiencies that enable them to better manage earnings through effective resource allocation and financial decision-making.

6.4. Broader Analytical Inference

The evidence points to structural and regulatory differences shaping earnings management in SUCBs and NSUCBs. SUCBs, being subject to stricter regulations and formal oversight, may have limited flexibility in managing earnings, leading to weaker scale effects. Conversely, NSUCBs, with relatively greater autonomy, seem to translate their size advantages into measurable earnings improvements. This divergence suggests that earnings management in cooperative banks is not uniform but contingent upon institutional environment, governance structures, and managerial discretion**.**

Table-3.6: Comparative Inference on Earnings Management of SUCBs vs. NSUCBs

Aspect	Scheduled UCBs (SUCBs)	Non-Scheduled UCBs (NSUCBs)	Analytical Inference
Regression Results	Weak model fit (R^2 = 0.045; Adj. R^2 = –0.061); coefficient positive but not significant (B = 0.00546, p = 0.529)	Strong model fit (R^2 = 0.781; Adj. R^2 = 0.756); coefficient positive and highly significant (B = 0.00838, p < 0.001)	SUCBs show negligible explanatory power, while NSUCBs exhibit robust evidence of scale-driven earnings.
Effect Size (β)	Weak effect (β = 0.213)	Very strong effect (β = 0.884)	SUCBs' earnings not influenced by size, NSUCBs' earnings strongly scale-sensitive.
Reliability of Results	Confidence interval includes zero; residuals not normal (Shapiro–Wilk = 0.608, p < .001)	Confidence interval excludes zero; residuals normal (Shapiro–Wilk = 0.969, p = 0.872)	Findings for SUCBs unreliable, while NSUCBs' results are statistically robust.
Earnings Sensitivity to Size	Low; larger SUCBs do not necessarily earn more than smaller ones	High; larger NSUCBs earn significantly more than smaller ones	Indicates absence of economies of scale in SUCBs, but strong presence in NSUCBs.
Implications for Earnings Management	Earnings management depends on internal efficiency, governance, and regulatory compliance rather than size expansion	Earnings management is scale-driven; larger size enhances capacity for efficiency, cost-spreading, and financial strength	SUCBs should focus on governance and operational strategies, NSUCBs can leverage growth for earnings advantage.
Overall Conclusion	No empirical support for economies of scale	Strong empirical support for economies of scale	Contrasting outcomes: SUCBs constrained by structure/regulations, NSUCBs benefit from operational flexibility.

(Source: Computed Value)

6.5 Overall Inference

Earnings management in SUCBs is not scale-driven**,** with size showing little explanatory power, whereas in NSUCBs, earnings management is significantly scale-driven**,** reflecting strong economies of scale. Thus, while SUCBs need to prioritize operational efficiency, governance, and risk management for sustained earnings, NSUCBs can capitalize on growth in size as a reliable strategy to strengthen their earnings performance.

9 CHAPTER Findings and Recommendations

Indian banking has transitioned to a competitive, market-driven system with improved capital adequacy, profitability, and asset quality. However, Urban Cooperative Banks (UCBs), despite their grassroots significance and dual regulation by RBI and RCS, face persistent challenges of governance, earnings stability, cost management, and professionalization. With shrinking margins, rising competition from private/foreign banks, Small Finance Banks (SFBs), Payment Banks, and Fintechs, as well as governance failures (e.g., PMC Bank), efficient micro-management of costs and earnings has become vital for their sustainability. The study gains significance in assessing how Scheduled (SUCBs) and Non-Scheduled UCBs (NSUCBs) can strengthen financial stability, efficiency, and competitiveness.

UCBs, traditionally localized institutions, now operate in a complex environment marked by deregulation, digital disruption, and intensifying competition. Their dependence on interest income is increasingly unsustainable, while structural constraints—limited capital access, high operating costs, and slow technological adoption—restrict diversification. Sustaining profitability requires scale expansion, income diversification, cost efficiency, digital adaptation, and stronger governance. Against this backdrop, the study addresses how SUCBs and NSUCBs can manage costs and earnings to remain viable.

The present study is undertaken with the objective of examining the overall trends and performance of Urban Cooperative Banks (UCBs) in the context of the evolving financial sector landscape. It seeks to analyze and compare the management of costs and earnings across Scheduled Urban Cooperative Banks (SUCBs) and Non-Scheduled Urban Cooperative Banks (NSUCBs), thereby drawing insights into their relative efficiency. Further, the study empirically investigates the relationship between size, costs, and earnings in order to assess the presence and extent of economies of scale in their

operations. In addition to this, it aims to identify the key factors that influence the cost structures and earnings performance of UCBs. Based on these findings, the study endeavors to recommend evidence-based strategies for enhancing efficiency, strengthening cost management, and improving the overall profitability and sustainability of UCBs.

The study covers all UCBs in India (SUCBs & NSUCBs) as aggregate groups, over the ten-year period 2014–15 to 2023–24. It is based entirely on secondary data from RBI's Database on Indian Economy (DBIE). Using cross-sectional analysis, the study empirically tests the size–cost and size–earnings relationships through correlation and regression methods, processed with SPSS. Findings are presented through tables, charts, and graphs.

I. Findings of the Cost Analysis

The comparative analysis of cost structures between Scheduled Urban Cooperative Banks (SCBs) and Non-Scheduled Urban Cooperative Banks (NSCBs) over the decade 2014–2024 reveals contrasting trajectories. SCBs have expanded into larger, more complex institutions, characterized by scale, diversification, and compliance-driven operations. Their cost base has shifted significantly, with operating expenses—particularly non-staff costs such as compliance, technology, and outsourcing—gaining prominence. While SCBs display financial robustness and greater regulatory alignment, their efficiency is diluted by rising overheads, making them increasingly vulnerable to cost inefficiencies despite their expanded earnings capacity.

NSCBs, in contrast, have maintained a leaner and more balanced cost structure, underpinned by operational thrift, localized business models, and cost discipline. Their expenditure profile reflects stability and resilience, with modest staffing, provisioning, and administrative costs forming the core. However, this compactness, while advantageous in maintaining control and sustainability, limits their ability to diversify, innovate, and compete with technologically advanced or larger players.

Overall, the findings suggest that SCBs represent the strengths and weaknesses of scale-driven growth, whereas NSCBs epitomize stability through thrift but remain strategically constrained.

Key Influencing Factors

Several critical factors have shaped these divergent patterns:

a) ***Interest Cost Dynamics:*** Both SCBs and NSCBs experienced cyclical movements in interest costs, largely reflecting shifts in the interest-rate environment, with funding costs driving most of the total-cost variations.

b) ***Operating Cost Composition:*** SCBs increasingly rely on non-staff operating costs (compliance, technology, outsourcing), whereas NSCBs remain more personnel-centric, though gradually converging toward SCBs with higher allocations to compliance and technology.

c) ***Compliance Burden:*** Rising law, audit, and regulatory charges significantly altered SCBs' cost composition, while also emerging as a growing share in NSCBs, reflecting sector-wide regulatory pressures.

d) ***Technology and Outsourcing Models:*** SCBs have advanced comparatively further in technology, branch expansion, and outsourcing, which has raised their operating, cost intensity. NSCBs, though slower, are beginning to mirror this trend.

e) ***Economies of Scale vs. Operational Thrift:*** SCBs leverage scale for growth but face efficiency trade-offs, whereas NSCBs rely on thrift and cost control but face structural limitations in growth and innovation.

f) ***Sensitivity to External Shocks:*** SCBs' larger, more volatile cost structure makes them highly responsive to economic and interest-rate cycles, while NSCBs' compact model provides resilience in normal times but fewer buffers during systemic shocks.

Table-8.1: Comparative Findings vs. Influencing Factors – UCBs (2014–2024)

Dimension	Findings (SCBs vs. NSCBs)	Key Influencing Factors
Scale & Complexity	SCBs expanded in size and scope, with diversification and compliance-led sophistication; NSCBs remained compact and locally oriented.	Economies of scale for SCBs vs. operational thrift for NSCBs.
Interest Costs	Interest remains the largest cost block, but its share has declined (SCBs: 75% → 65%; NSCBs: 77% → 68%). NSCBs remain more interest-heavy.	Interest-rate cycles (2017–2022 through, 2024 rebound), dependence on deposits, limited access to low-cost funds.

Operating Costs (Staff vs. Non-Staff)	SCBs shifted strongly toward non-staff costs (compliance, technology, outsourcing), while NSCBs remained more staff-centric but are slowly converging.	Technology adoption, outsourcing trends, compliance demands, and HR dependence.
Compliance Burden	SCBs recorded a sharp rise in law/compliance costs (0.9% → 6.3% of operating costs); NSCBs also saw a surge (1.0% → 9.7%).	Dual regulation (RBI + RCS), governance lapses (e.g., PMC Bank), heightened reporting and risk management requirements.
Technology & Outsourcing	SCBs more advanced in digital adoption and outsourcing, increasing their cost intensity; NSCBs lag but show gradual transition.	Shift from asset-heavy (depreciation/repairs) to service-based "as-a-service" models; digital banking and FinTech pressure.
Efficiency vs. Stability	SCBs project growth and regulatory sophistication but face diluted efficiency; NSCBs reflect resilience and cost discipline but limited innovation.	Trade-off between expansion-driven costs (SCBs) and thrift-based sustainability (NSCBs).
Sensitivity to Shocks	SCBs show higher volatility in both interest and operating costs; NSCBs more stable but vulnerable to systemic disruptions.	Exposure to rate upcycles, compliance costs, IT fees, and external crises (e.g., pandemic).

II. Findings of the Earnings Analysis

a) ***Earnings Efficiency Gap****:* Scheduled Cooperative Banks (SCBs) consistently exhibit stronger earnings efficiency compared to Non-Scheduled Cooperative Banks (NSCBs). This is evident from their relatively lower Cost-to-Income Ratios (CIR), better operating discipline, and stronger diversification into non-interest income streams.

b) ***Profitability Performance****:* SCBs report higher and more stable Returns on Assets (RoA) and Returns on Equity (RoE), indicating superior ability to translate asset growth into earnings. In contrast, NSCBs remain constrained with fragile profitability, greater volatility, and higher CIR levels.

c) ***Diversification and Resilience:*** SCBs sustain significant non-interest income through fees, commissions, and trading activities, enabling them to withstand margin compression and cyclical downturns. NSCBs remain overly dependent on interest income, with limited income diversification (generating miscellaneous/other income), which undermines long-term sustainability.

d) ***Cost Structure and Efficiency Trade-off:*** NSCBs maintain leaner cost structures

and demonstrate relatively better Net Interest Margins (NIMs), reflecting strong cost control and efficiency in traditional operations. SCBs, despite higher CIR, compensate through diversified income sources.

e) ***Shock Absorption Capacity:*** During the COVID-19 pandemic (2020), NSCBs appeared more stable due to limited exposure to treasury operations, while SCBs suffered sharper declines in RoA and RoE. However, SCBs rebounded faster post-crisis, returning to near pre-pandemic levels by 2022–24.

f) ***Structural Positioning:*** Overall, NSCBs outperform in efficiency-driven indicators (RoA, RoE, NIM, CIR), while SCBs demonstrate structural resilience through scale, diversification, and faster recovery capacity. The cooperative banking sector, therefore, reflects a dual narrative: efficiency concentrated in NSCBs and resilience anchored in SCBs.

Key Influencing Factors

1. ***Scale and Asset Base:*** SCBs benefit from larger balance sheets and wider geographic coverage, allowing for diversification across revenue streams and faster recovery from systemic shocks. NSCBs' smaller asset base restricts their growth potential and earnings diversification.
2. ***Income Composition:*** SCBs' higher share of non-interest income stabilizes earnings, whereas NSCBs' dependence on interest income leaves them vulnerable to interest rate cycles and market volatility.
3. ***Governance and Risk Practices:*** Stronger treasury management, asset-liability management (ALM), and governance frameworks enhance SCBs' resilience, while weaker governance and limited risk frameworks constrain NSCBs.
4. ***Technology and Adoption:*** SCBs have embraced comparatively the technology and outsourcing models, increasing efficiency in service delivery. NSCBs lag in digital adoption, limiting their ability to rationalize costs and expand non-interest income.
5. ***Capital Strength and Regulatory Oversight:*** Better capitalization and stronger provisioning norms help SCBs sustain RoE and absorb shocks. NSCBs, with weaker capital buffers, remain disproportionately exposed to downturns.
6. ***Market Conditions and Interest Rate Cycles:*** Rising government securities

yields and mark-to-market losses impacted both segments, but SCBs were better positioned to absorb shocks due to diversified portfolios. NSCBs, by contrast, experienced sharper profitability erosion during such cycles.

7. ***Strategic Orientation:*** SCBs prioritize long-term sustainability through diversification and expansion into extended financial services, while NSCBs emphasize efficiency and cost control but face growth and resilience limitations.

Table8-2: Comparative Findings vs. Influencing Factors in Earnings Management of UCBs

Comparative Findings	Key Influencing Factors
Earnings Efficiency Gap: SCBs show stronger earnings efficiency (lower CIR, higher RoA & RoE), while NSCBs struggle with fragile profitability and volatility.	**Scale and asset base:** SCBs benefit from larger balance sheets, enabling operational leverage and stability; NSCBs remain restricted by small size.
Profitability Performance: SCBs achieve sustained RoA and RoE, whereas NSCBs maintain higher volatility and weaker profitability levels.	**Governance and risk practices:** SCBs maintain stronger ALM and treasury functions; NSCBs face weaker governance and limited risk frameworks.
Diversification and Resilience: SCBs rely significantly on non-interest income, ensuring resilience; NSCBs are overly dependent on interest income.	**Income composition:** SCBs diversify into fees, commissions, and digital services; NSCBs lack diversification buffers.
Cost Structure and Efficiency Trade-off: NSCBs are leaner and more cost-efficient (better NIM, lower CIR), while SCBs manage higher costs but compensate through income diversification.	**Technology adoption:** SCBs leverage technology for efficiency; NSCBs lag behind in digitalization and cost rationalization.
Shock Absorption Capacity: NSCBs were relatively stable during COVID-19 but had slower recovery; SCBs faced sharper shocks yet rebounded faster.	**Market conditions:** Interest rate cycles and MTM losses affected SCBs more initially, but their stronger capital base and diversification supported recovery.
Structural Positioning: NSCBs excel in efficiency; SCBs excel in resilience and long-term sustainability.	**Capital strength & regulatory oversight:** SCBs sustain RoE through stronger provisioning norms and capitalization, while NSCBs remain exposed to downturns.

III. Analytical Inference on Cost Management

a. Scheduled UCBs

For Scheduled UCBs, the regression outcomes revealed a weak and statistically insignificant positive relationship between size (deposits & borrowings) and interest costs. With only 6% of cost variation explained by size, the evidence clearly suggests that economies of scale are absent**.** However, the stability of costs despite mobilizing higher deposits and borrowings indicates that cost management practices are reasonably effective**.** These banks likely leverage their credibility, diversified depositor base, and regulatory strength to manage the marginal cost of funds efficiently, though without scale-related cost advantages.

b. Non-Scheduled UCBs

In contrast, Non-Scheduled UCBs exhibit a moderate positive relationship between size and interest costs, explaining about 30.5% of cost variation. Though the results are only marginally non-significant (p = 0.078), they highlight a concerning trend: as deposits and borrowings grow, interest costs also increase proportionately**,** reflecting diseconomies of scale**.** This pattern indicates weaker cost management, as these banks often attract funds by offering higher deposit rates or depending more heavily on borrowings, raising their overall cost of funds and reducing competitiveness.

c. Comparative Insight

- *Scheduled UCBs:* More cost-stable, demonstrating effective cost control but no economies of scale.
- *Non-Scheduled UCBs:* More cost-sensitive to size, revealing ineffective cost management and diseconomies of scale.

Scheduled UCBs demonstrate better cost management effectiveness**,** whereas Non-Scheduled UCBs face structural inefficiencies in cost control**,** with size expansion leading to higher cost burdens instead of scale advantages. The comparative analysis of Scheduled and Non-Scheduled UCBs clearly demonstrates the absence of economies of scale in cost management. For Scheduled UCBs, the relationship between size (deposits and borrowings) and interest costs is weak and statistically insignificant; suggesting

that growth in funds does not substantially alter the unit cost of mobilization. This reflects a degree of cost stability, indicating reasonably effective cost management despite the inability to translate larger scale into lower costs.

In contrast, Non-Scheduled UCBs exhibit a moderate positive relationship between size and costs, with results approaching statistical significance ($p = 0.078$). This implies that expansion in fund mobilization tends to increase costs rather than reduce them, reflecting potential diseconomies of scale. Consequently, while Scheduled UCBs maintain relative cost effectiveness, Non-Scheduled UCBs appear more exposed to rising cost pressures as they grow, pointing to structural weaknesses in their funding mix and limited bargaining power. Thus, both categories could not achieve economies of scale, but the intensity of the challenge is more pronounced in Non-Scheduled UCBs.

IV. Analytical Inference on Earnings Management of SUCBs and NSUCBs

The comparative regression analysis of Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs) offers important insights into the role of bank size in shaping earnings and the broader implications for earnings management practices.

a. Scheduled UCBs (SUCBs)

The regression results for SUCBs revealed a weak and statistically insignificant relationship between size and earnings ($B = 0.00546$, $p = 0.529$; $R^2 = 0.045$). Despite the coefficient being positive, the effect size was negligible ($\beta = 0.213$) and the confidence interval included zero, making the results unreliable. The poor explanatory power of the model, coupled with non-normal residuals, suggests that earnings in SUCBs are not primarily driven by scale of operations**.** This indicates that earnings management in SUCBs may rely more on internal operational strategies, governance practices, and regulatory constraints rather than economies of scale**.** In other words, large size alone does not guarantee better financial outcomes, possibly because SUCBs face institutional rigidities, compliance burdens, and limited flexibility in operational decision-making.

b. Non-Scheduled UCBs (NSUCBs)

For NSUCBs, the regression demonstrated strong explanatory power (R^2 = 0.781; Adj. R^2 = 0.756), with size emerging as a highly significant predictor of earnings (B = 0.00838, p < 0.001; β = 0.884). The robust model diagnostics (normal residuals, no multicollinearity, and minimal autocorrelation) strengthen the reliability of these findings. The results imply that larger NSUCBs manage their earnings more efficiently**,** benefitting from economies of scale such as cost-spreading, improved bargaining power, stronger capital base, and better utilization of resources. Unlike SUCBs, NSUCBs appear to leverage operational flexibility and scale effects effectively, thereby aligning their growth in size with consistent increases in earnings.

c. Comparative Implications for Earnings Management

The contrasting outcomes between SUCBs and NSUCBs highlight differences in earnings management capacity and strategies**.** SUCBs**:** Earnings appear less sensitive to size, implying that management may need to focus more on cost efficiency, risk control, diversification of products, and improved governance rather than expansion of size alone. The absence of scale benefits suggests that size expansion without parallel improvements in operational and managerial practices may not translate into better earnings. NSUCBs**:** Earnings are strongly tied to size, reflecting that growth-oriented strategies enhance performance**.** Larger NSUCBs likely achieve efficiencies that enable them to better manage earnings through effective resource allocation and financial decision-making. This divergence suggests that earnings management in cooperative banks is not uniform but contingent upon institutional environment, governance structures, and managerial discretion**.**

Table-8.3: Comparative Inference on Earnings Management of SUCBs vs. NSUCBs

Aspect	Scheduled UCBs (SUCBs)	Non-Scheduled UCBs (NSUCBs)	Analytical Inference
Regression Results	Weak model fit (R^2 = 0.045; Adj. R^2 = –0.061); coefficient positive but not significant (B = 0.00546, p = 0.529)	Strong model fit (R^2 = 0.781; Adj. R^2 = 0.756); coefficient positive and highly significant (B = 0.00838, p < 0.001)	SUCBs show negligible explanatory power, while NSUCBs exhibit robust evidence of scale-driven earnings.
Effect Size (β)	Weak effect (β = 0.213)	Very strong effect (β = 0.884)	SUCBs' earnings not influenced by size, NSUCBs' earnings strongly scale-sensitive.

Reliability of Results	Confidence interval includes zero; residuals not normal (Shapiro–Wilk = 0.608, p < .001)	Confidence interval excludes zero; residuals normal (Shapiro–Wilk = 0.969, p = 0.872)	Findings for SUCBs unreliable, while NSUCBs' results are statistically robust.
Earnings Sensitivity to Size	Low; larger SUCBs do not necessarily earn more than smaller ones	High; larger NSUCBs earn significantly more than smaller ones	Indicates absence of economies of scale in SUCBs, but strong presence in NSUCBs.
Implications for Earnings Management	Earnings management depends on internal efficiency, governance, and regulatory compliance rather than size expansion	Earnings management is scale-driven; larger size enhances capacity for efficiency, cost-spreading, and financial strength	SUCBs should focus on governance and operational strategies, NSUCBs can leverage growth for earnings advantage.
Overall Conclusion	No empirical support for economies of scale	Strong empirical support for economies of scale	Contrasting outcomes: SUCBs constrained by structure/regulations, NSUCBs benefit from operational flexibility.

(Source: Computed Value)

V. Key Recommendations for Effective Cost Management

The evolving cost structure of Urban Cooperative Banks (UCBs) and Scheduled Urban Cooperative Banks (SCBs) highlights a decisive shift from funding costs to operating overheads, demanding a strategic focus on efficiency, digital optimization, and sustainable growth. Effective cost management now hinges on the integration of technology, prudent liability restructuring, enhanced governance, and differentiated policy support for scheduled and non-scheduled cooperative banks.

1. Strengthening Cost Efficiency and Resource Optimization

Boards of cooperative banks must strengthen cost efficiency by diversifying sources of funds and optimizing deposit mixes to reduce dependence on high-cost borrowings. A clear target for diversifying liabilities beyond traditional deposits is essential. Simultaneously, technology adoption should be promoted as a cost-saving instrument rather than an expense. Top management must allocate adequate budgets for digital tools such as Core Banking Solutions (CBS), mobile banking, and digital payment systems to streamline operations and minimize manual interventions. Enhancing staff productivity through process automation, upskilling, and performance-linked pay will ensure that the growth of staff costs remains below the rate of business expansion. Periodic monitoring of staff cost per business and transaction will help track productivity improvements and support a leaner operating model.

2. Liability Management and Cost of Funds Optimization

Interest cost remains the largest expense component for UCBs; hence, effective liability management is crucial. Banks should increase the share of low-cost Current and Savings Account (CASA) deposits through targeted digital outreach and simplified onboarding. Scheduled UCBs can innovate deposit products by introducing flexible terms and dynamic interest rate repricing, while non-scheduled UCBs should design attractive low-cost deposit schemes like loyalty-linked savings or recurring deposits. A balanced maturity profile of term deposits will reduce repricing risks and stabilize funding costs. Active Asset–Liability Management (ALM) committees should monitor funding mix, interest rate behaviour, and tenor dispersion of term deposits, ensuring borrowing

discipline and preventing overexposure to high-cost funds.

3. Digital Cost Optimization - The Unifying Agenda

For Urban Cooperative Banks (UCBs), ensuring that digital transformation tangibly bends the cost curve—not just in rhetoric, but in quantifiable financial and operational outcomes—is the overarching strategic imperative. Strong examples of how technology-driven cost efficiency can redefine competitiveness, even for smaller institutions with limited resources and regulatory requirements, can be found in the domestic and international banking sectors.

Digital cost optimization has been the most important factor in separating high-performing banks from those that are stagnating throughout the Indian banking ecosystem. By using automation, Straight-Through Processing (STP), and Artificial Intelligence (AI) in back-office operations, for example, major public and private sector banks like State Bank of India (SBI), HDFC Bank, and ICICI Bank have gradually decreased their cost-to-income ratios. For instance, SBI reported a significant increase in operational efficiency following the adoption of digital platforms such as YONO (You Only Need One), which combined loan disbursal, payments, and customer acquisition into a single digital ecosystem (State Bank of India, 2025a, 2025b). Similarly, even as transaction volumes increased, HDFC Bank was able to maintain a cost-to-income ratio below 40% for a number of years by investing in workflow automation and core system modernization (HDFC Bank, 2022, 2025). ICICI Bank has also strategically focused on reducing cost-to-income ratios to sustain superior profitability, with technology investments directed toward resilience and customer-centric innovation (ICICI Bank, 2025, 2026).

Studies conducted globally by the Boston Consulting Group (BCG, 2022) and McKinsey & Company (2023) demonstrate that banks that fully integrated digital operations saw productivity gains of up to 40% and cost-to-income reductions of 15–25% in just three to five years. Automating repetitive tasks, digitizing customer journeys, and using predictive analytics to lower compliance and error costs were the main drivers of these gains. A warning that is especially pertinent to UCBs, where back-end manual dependencies frequently persist even after front-end digital adoption, is that banks that merely digitized customer interfaces without reengineering internal workflows saw

limited cost benefits.

The way forward for UCBs is to modify these ideas to fit their scale and collaborative environment. This entails shifting from fragmented digitization (like standalone CBS or mobile apps) to data-driven efficiency management, in which technological investments are directly linked to measurable KPIs. Demonstrable gains in key operational metrics, such as fewer hours spent on manual processing, lower transaction costs, lower error and rework ratios, and higher business per employee, should be used to support each investment. Management and boards can keep an eye on the actual financial impact of technology by incorporating these digital performance metrics into monthly and quarterly cost dashboards.

Additionally, there are instructive parallels between the regional cooperative banking systems in Japan, *Shinkin Banks* and Germany, *Volksbanken-Raiffeisenbanken* (Shinkin Central Bank, 2025; Volksbanken Raiffeisenbanken, 2024). By developing common digital service platforms for risk management, compliance reporting, and back-office processing, both networks were able to achieve long-term cost reduction. Through shared digital utilities for KYC, AML, reconciliation, and audit automation, Indian UCB federations or state cooperative bodies could emulate this collaborative infrastructure model, which decreased duplication across institutions while maintaining their local autonomy.

In the end, digital cost optimization is about technology-enabled cost control rather than technology spending. When digital transformation is done right, banks move from branch-centric, paper-heavy models to lean, tech-driven operations that can handle higher transaction volumes at marginal cost. Disciplined prioritization, starting with high-impact automation areas (collections, KYC, reconciliation, and compliance), and regularly assessing the returns on those investments are key components of UCB success. UCBs will be positioned as respectable participants in a financial landscape that is becoming more competitive and digitalized as a result of this shift, which will eventually reduce operating costs while also improving customer experience, operational agility, and long-term sustainability.

4. Income Diversification and Non-Interest Earnings Growth

To mitigate profitability risks arising from interest rate volatility, cooperative banks must diversify their income streams. Expanding non-interest income through digital fee-based services—such as bill payments, insurance distribution, and remittance facilitation—will enhance resilience and profitability. Partnerships with fintech firms and cooperative federations can broaden the revenue base without heavy capital outlays. Annual targets for non-interest income should be established and monitored to ensure gradual improvement in income diversification and financial stability.

5. Tiered Growth, Scale Strategy, and Governance Enhancement

Smaller or non-scheduled UCBs should consider strategic consolidation through mergers, partnerships, or alliances to achieve scale economies, improve bargaining power, and reduce per-unit costs. Boards should also engage with regulators for phased compliance frameworks that balance prudence with flexibility, preventing overreliance on costly borrowings. Governance reform is equally critical—continuous capacity building for board members and senior management on cost management, liability restructuring, and sustainability should be institutionalized. Strengthened internal monitoring and audit systems will improve oversight of interest cost trends and borrowing behaviour, ensuring transparency and accountability in decision-making.

6. Policy Support and Cooperative Integration

At the policy level, differentiated strategies are needed for SCBs and NSCBs. For SCBs, the priority lies in overcoming structural rigidity and reducing cost-to-income ratios through process automation, centralized back-office operations, and shared service platforms. For NSCBs, policy support should focus on promoting non-interest income generation, risk diversification, and prudent treasury operations. Regulators should also foster digital inclusion through cooperative-specific digital frameworks, regulatory sandboxes, and incentives for financial inclusion initiatives. Shared learning mechanisms and federated data systems can enable horizontal knowledge exchange—where SCBs adopt NSCBs' lean efficiency practices, and NSCBs emulate SCBs' diversification strategies—promoting sectoral coherence and collective advancement.

7. Balancing Scale with Governance and Risk Oversight

As cooperative banks pursue growth and diversification, maintaining a balance between scale expansion and governance strength becomes imperative. State Cooperative Banks (SCBs), in particular, must ensure that their scale advantage is supported by robust internal control mechanisms. Enhanced internal audit and risk management systems should evolve alongside business expansion to prevent operational lapses. Regular stress testing and capital adequacy monitoring are essential to preserve institutional resilience against systemic shocks. Strengthening board-level oversight and accountability frameworks will ensure that diversification initiatives remain strategically aligned with the institution's overall risk appetite, promoting sustainable and prudent growth.

8. Cooperative Sector Integration and Shared Learning

The complementary strengths of Scheduled Urban Cooperative Banks (SCBs) and Non-Scheduled Cooperative Banks (NSCBs) highlight the potential for cooperative sector integration and mutual learning. Structured knowledge-sharing mechanisms such as regional knowledge exchanges, joint capacity-building programs, and peer-learning workshops can enable NSCBs to adopt SCBs' diversification strategies while helping SCBs learn from NSCBs' lean management and efficiency models. Establishing federated data systems under regulatory supervision will further enhance transparency, benchmarking, and evidence-based policymaking across the sector. Such integration will strengthen collective resilience and foster a unified, learning-oriented cooperative banking ecosystem.

9. Enhancing Staff Productivity and HR Cost Rationalization

Human resource costs remain a significant and relatively inflexible component of cooperative banks' expenditure. Sustainable cost control in this area depends on improving staff productivity through automation, process reengineering, and continuous upskilling. UCBs should automate routine tasks—such as account servicing, reconciliation, and loan documentation—to reduce manual workload and improve turnaround times. Performance-linked compensation frameworks can align employee

incentives with measurable productivity outcomes and institutional goals. Regular monitoring of key metrics—such as business per employee and transactions per employee—on a quarterly basis will ensure that staff cost growth remains proportionate to business expansion. The expected outcome is a steady decline in unit staff cost, reflecting optimized workforce deployment and the evolution of a digitally empowered, performance-driven organizational culture that enhances scalability and long-term efficiency.

VI. Key Recommendations for Effective Earnings Management

1. Scheduled UCBs (SUCBs)

The analysis revealed that size does not exert a significant influence on earnings in SUCBs, indicating the absence of economies of scale. Accordingly, the following recommendations are advanced:

i. ***Strengthen Internal Governance and Risk Management****:* Since size does not predict earnings, SUCBs should emphasize strengthening governance frameworks, ensuring transparent accounting practices, and applied risk management systems to improve profitability.

ii. ***Focus on Operational Efficiency Rather than Size Expansion****:* Instead of pursuing size as a growth strategy, SUCBs should optimize operational efficiency by adopting technology-driven processes, reducing non-performing assets (NPAs), and streamlining cost structures.

iii. ***Diversify Product and Service Portfolio****:* Earnings may be more effectively managed through diversification into value-added services such as digital banking, micro-insurance, and cooperative-fintech partnerships rather than relying on traditional credit operations.

iv. ***Regulatory Flexibility and Policy Advocacy****:* Policymakers should revisit regulatory frameworks that constrain SUCBs' ability to leverage size advantages.

v. ***Capacity-Building Initiatives****:* Training for board members, management, and staff on advanced financial management, asset-liability practices, and customer-centric service delivery should be prioritized to strengthen earnings

management strategies.

2. Non-Scheduled UCBs (NSUCBs)

The findings confirmed a strong and statistically significant positive impact of size on earnings, reflecting the presence of economies of scale. Hence, the following recommendations are suggested:

- ***Leverage Scale for Growth-Oriented Strategies****:* NSUCBs should pursue controlled expansion strategies—mergers, branch network growth, or digital outreach—to harness further scale efficiencies in earnings management.
- ***Institutionalize Efficiency Gains****:* Larger NSUCBs should reinvest scale-derived benefits into improving infrastructure, technology adoption, and customer services, ensuring that size advantages translate into sustained earnings growth.
- ***Build Strong Capital and Resource Base****:* Given the strong correlation between size and earnings, NSUCBs should focus on mobilizing deposits, strengthening capital adequacy, and diversifying revenue sources to maintain financial resilience.
- ***Adopt Robust Monitoring Mechanisms****:* To prevent over-reliance on size alone, NSUCBs should institutionalize strong monitoring and evaluation frameworks that link size expansion with profitability and financial stability metrics.
- ***Promote Strategic Collaborations****:* Alliances with fintech firms, cooperative institutions, and local enterprises can amplify the benefits of scale, offering innovative services that further boost earnings.

3. **Sectoral Recommendations**

- ***Differentiated Policy Frameworks****:* Regulators should recognize the contrasting dynamics of SUCBs and NSUCBs. While SUCBs require reforms aimed at enhancing operational efficiency and governance, NSUCBs would benefit from enabling policies that support growth and scale expansion.
- ***Shared Learning Platforms****:* Establishing forums for cross-learning between SUCBs and NSUCBs can facilitate knowledge transfer. SUCBs could adopt innovative earning strategies from NSUCBs, while NSUCBs can learn robust compliance practices from SUCBs.

- ***Future Research and Data Expansion****:* Larger sample studies across regions are recommended to refine these findings and to develop customized earnings management strategies suited to different cooperative contexts.

VII. Leveraging the Expertise of Cost and Management Accountants (CMAs) in Strengthening Cost Management and Optimization of UCBs

As the operational and regulatory landscape of Urban Cooperative Banks (UCBs) becomes increasingly complex, the role of Cost and Management Accountants (CMAs) has emerged as a strategic necessity for driving financial prudence, operational efficiency, and sustainable growth. While Scheduled UCBs (SUCBs) benefit from larger operational scale, diversified portfolios, and technological infrastructure, Non-Scheduled UCBs (NSUCBs) often operate with leaner structures, localized reach, and constrained financial resources. This diversity calls for differentiated yet complementary approaches to cost management—areas in which CMAs can play a transformative role.

For Scheduled UCBs, CMAs can support advanced cost modelling and strategic cost optimization frameworks that balance scale expansion with financial discipline. Their expertise in activity-based costing, performance analytics, and risk-adjusted cost allocation enables Scheduled UCBs to identify inefficiencies in multi-branch operations, digital transformation investments, and product diversification strategies. CMAs can design cost-monitoring dashboards that integrate business volume, income streams, and operational expenses to maintain a healthy cost-to-income ratio—ensuring that growth in size is matched by improvements in productivity and return on assets. Moreover, their involvement in capital budgeting and variance analysis can help boards ensure that expansion remains strategically aligned with governance standards and risk appetite.

For Non-Scheduled UCBs, CMAs' contribution lies in fostering cost discipline and resource optimization within smaller operational frameworks. By applying marginal costing, budgetary control, and process benchmarking techniques, CMAs can help NSUCBs identify areas where minimal investments can yield significant productivity gains. They can guide managements in adopting lean process structures, digital record-

keeping, and process automation for routine transactions—enhancing operational efficiency even with limited manpower and technological resources. Furthermore, CMAs can assist NSUCBs in developing cost-conscious budgeting systems that align staff costs, overheads, and compliance expenditures with revenue realities, thereby improving sustainability and resilience.

Across both categories of UCBs, CMAs can play a central role in conducting internal cost audits and risk-based expenditure reviews, ensuring accountability, transparency, and adherence to prudent cost norms. Their specialized focus on identifying cost drivers, inefficiencies, and unproductive spending patterns enables management to take corrective measures swiftly. CMAs can also assist in strategic pricing decisions—linking service charges, interest margins, and operational costs with market competitiveness and regulatory compliance.

In the broader context of cooperative sector integration, CMAs can facilitate cross-learning between Scheduled and Non-Scheduled UCBs, promoting adoption of best practices in cost governance and efficiency management. They can help design federated cost-reporting systems under regulatory guidance, enabling benchmarking, performance comparison, and evidence-based policymaking across the cooperative banking ecosystem.

Finally, integrating CMAs into the governance and advisory structure of cooperative banks—either as board-level experts or professional cost advisors—will institutionalize a culture of financial accountability and cost consciousness. Their expertise in performance budgeting, cost forecasting, and data-driven decision frameworks can strengthen financial planning, enhance return on investment in technology, and improve cost competitiveness. Leveraging CMAs' professional acumen will thus not only improve cost efficiency but also ensure that both Scheduled and Non-Scheduled UCBs progress toward sustainable, technology-enabled, and governance-compliant growth trajectories—anchored in sound financial management and cooperative values.

VIII. Policy Recommendations: Merger Policies and Governance Reforms for Urban Cooperative Banks (UCBs)

The empirical findings on cost and earnings dynamics among Scheduled (SUCBs) and

Non-Scheduled Urban Cooperative Banks (NSUCBs) underscore the urgent need for a calibrated merger and governance reform strategy within the cooperative banking sector. The contrasting trajectories—where SUCBs exhibit resilience through scale and regulatory sophistication but lack efficiency, and NSUCBs display thrift-based stability but remain constrained in growth and diversification—call for a reform approach that balances consolidation with cooperative values, autonomy, and governance integrity.

1. Strategic Merger Policy Framework: The policy direction for consolidation must move from ad hoc amalgamations to strategically guided mergers based on operational complementarity, geographic proximity, and financial soundness. Empirical evidence shows that SUCBs have not achieved economies of scale in cost management despite size expansion, while NSUCBs demonstrate scale-driven earnings advantages but face structural vulnerabilities. Hence, mergers should aim to combine the scale resilience of SUCBs with the efficiency discipline of NSUCBs, creating hybrid entities capable of both operational prudence and diversified growth.

Regulators, particularly the Reserve Bank of India (RBI) and State Registrars of Cooperative Societies (RCS), should establish objective merger eligibility criteria—covering net worth thresholds, Cost-to-Income Ratio (CIR) bands, governance compliance history, and technological preparedness. This would ensure that only banks with compatible cost structures, asset quality, and governance standards are merged. The introduction of a "Cluster-Based Merger Model" can encourage voluntary consolidation among NSUCBs within the same region, promoting scale efficiency through shared infrastructure, centralized compliance, and integrated digital platforms, while retaining local autonomy.

To prevent value-dilution and operational asymmetry post-merger, a Transitional Integration Mechanism (TIM) may be instituted to harmonize accounting systems, risk frameworks, and staff cost structures across merging entities. A uniform Due Diligence and Valuation Protocol, led by multidisciplinary teams including Chartered and Cost Accountants, should be made mandatory to assess financial soundness, hidden liabilities, and operational synergies before merger approval.

2. **Governance Reforms for Sustainable Integration:** The analysis clearly indicates

that weak governance practices, particularly in NSUCBs, and compliance-burden-induced inefficiencies in SUCBs are central to the performance divide. Accordingly, governance reforms must emphasize board professionalism, accountability, and transparency as prerequisites for any consolidation or expansion initiative. The inclusion of independent professionals—notably Cost and Management Accountants (CMAs), Chartered Accountants, and banking experts—on boards can strengthen financial oversight and ensure informed cost and risk governance.

Further, a differentiated governance framework should be developed for SUCBs and NSUCBs. For SUCBs, reforms should target rationalization of compliance layers, enhanced board accountability for cost control, and the establishment of board-level Risk and Audit Committees with clear mandates. For NSUCBs, capacity-building programs focusing on governance literacy, internal audit systems, and regulatory compliance must be institutionalized through cooperative federations and apex training bodies such as VAMNICOM and NCCT.

A Performance-Linked Governance Evaluation System can be introduced, wherein governance ratings are tied to operational efficiency, cost management, and earnings quality. This will incentivize prudent behaviour, discourage politically influenced decision-making, and promote a culture of performance accountability. Regulators may also consider establishing a Central Cooperative Governance Registry for disclosure of governance indicators, enabling peer benchmarking and public transparency.

3. Institutional Mechanisms for Post-Merger Stability: Post-merger entities must operate under a unified Governance and Risk Management Charter to prevent operational dissonance. Harmonized policies on internal audit, compliance, and risk-based supervision should be mandated, supported by digital dashboards for real-time monitoring of key ratios—CIR, business per employee, and return metrics. RBI's supervisory oversight could adopt a phased relaxation model, wherein merged entities demonstrating consistent governance and cost efficiency for three consecutive years qualify for expanded operational permissions, including new branches or product introductions. To preserve the cooperative ethos amid consolidation, a Member Representation Safeguard Framework is necessary, ensuring that merger processes do not erode member participation and democratic decision-making. Regular stakeholder

consultations and transparent communication strategies will be vital to maintaining trust and operational continuity.

4. Policy Synergy and Long-Term Vision: The broader merger and governance reform agenda for the Urban Cooperative Banking sector must be strategically aligned with the National Cooperative Policy and the Vision Document for Urban Cooperative Banking (2025–2030) to ensure structural coherence and long-term sustainability. The policy vision should guide the evolution of a three-tier cooperative banking architecture. At the apex, Tier-I would comprise large, diversified, and digitally empowered Scheduled Urban Cooperative Banks (SUCBs) operating as regional cooperative banks with strong governance, advanced risk management, and technological integration. The Tier-II level would consist of consolidated mid-sized Non-Scheduled UCBs (NSUCBs) formed through cluster-based mergers that promote operational scale, resource pooling, and cost rationalization while retaining local relevance. The Tier-III layer would include small, community-centric credit cooperatives, which would be linked to higher tiers through technology-enabled shared service centres, allowing them to access modern banking infrastructure without losing their grassroots identity.

This structured and phased consolidation—anchored in professional governance, digital integration, and regulatory synchronization—would transform the cooperative banking system into a resilient, scalable, and cooperative-centric financial network. Ultimately, mergers should not be pursued merely to expand balance sheets but to enhance operational efficiency, reduce cost duplication, and strengthen governance frameworks, ensuring that Urban Cooperative Banks evolve into financially sound, digitally capable, and socially grounded institutions that uphold the cooperative ethos while contributing effectively to India's inclusive financial development.

IX. Policy Recommendations under the New PCA Framework for Scheduled and Non-Scheduled Urban Cooperative Banks (UCBs)

The implementation of the Prompt Corrective Action (PCA) Framework for Urban Cooperative Banks from April 1, 2025, marks a decisive shift toward structured risk-based supervision and early intervention. In view of the empirical findings on cost and earnings management, and the compliance challenges observed across Scheduled and

Non-Scheduled UCBs, the following policy recommendations are proposed to strengthen governance, compliance, and sustainability under the new framework.

1. Differentiated Compliance Architecture for Scheduled and Non-Scheduled UCBs: Given their structural and operational heterogeneity, Scheduled UCBs (SUCBs) and Non-Scheduled UCBs (NSUCBs) require a differentiated compliance framework. For SUCBs, the focus should be on risk-based internal audits, real-time compliance dashboards, and data-driven monitoring of capital adequacy, asset quality, and profitability. Given their complex operations and diversification, SUCBs should establish independent Compliance and Risk Management Divisions, directly reporting to the Audit Committee of the Board. For NSUCBs, a simplified but structured compliance template aligned with the PCA parameters should be adopted. This includes standardized compliance checklists, monthly stress-testing formats, and governance reporting models to the Registrar of Cooperative Societies (RCS).

2. Strengthening Capital Adequacy and Risk Buffering: Under the PCA framework, capital adequacy will be the first line of defence. SUCBs must maintain proactive capital planning, integrating the Internal Capital Adequacy Assessment Process (ICAAP) principles with business planning. They should progressively move toward Basel III-aligned cooperative standards with periodic capital stress testing. NSUCBs, which often face capital constraints, should form inter-cooperative capital support pools or engage in cluster-based mergers to achieve minimum capital thresholds. The Reserve Bank of India may consider allowing Tier-II instruments, such as perpetual debt instruments, for well-rated NSUCBs to enhance their capital cushion.

3. Enhancing Asset Quality Monitoring and Credit Risk Management: Asset quality remains a core determinant under PCA triggers. SUCBs should adopt early warning systems (EWS) and credit risk scoring mechanisms leveraging technology to detect stress in loan portfolios. Board-level Credit Risk Committees should review exposure concentration and NPA trends quarterly. NSUCBs should implement standardized credit appraisal templates and adopt centralized documentation verification models through District Cooperative Federations. A focus on secured lending, sectoral diversification, and monitoring of top exposures can minimize concentration risks and strengthen

overall asset quality.

4. Profitability and Cost Efficiency Measures: Given that profitability deterioration is a key PCA trigger, improving operational efficiency is critical. SUCBs should align profitability management with cost optimization through process automation, outsourcing rationalization, and performance-linked incentives. Earnings resilience can be enhanced through fee-based services such as insurance, remittances, and digital payments, along with improved asset-liability management (ALM). NSUCBs should strengthen earnings by expanding low-cost deposit bases, digitizing routine services, and forming shared service platforms to reduce operational duplication. Cluster-level resource pooling can help them achieve better economies of scale and lower the Cost-to-Income Ratio (CIR).

5. Board-Level Accountability and Governance Reforms: Effective governance is the backbone of PCA compliance. Both SUCBs and NSUCBs should institute Board-level Risk Management and Compliance Committees, with at least one independent member possessing professional financial or audit qualifications such as CA, CMA, or CS. Quarterly compliance certification should be mandatory, where the CEO and Chief Compliance Officer jointly attest to adherence to PCA parameters and corrective measures. Training and capacity-building programs for Board members should be institutionalized through NCCT and RBI's College of Supervisors to enhance understanding of regulatory obligations and risk governance.

6. Strengthening the Role of Chief Compliance Officer (CCO): Each UCB, regardless of size, should have a designated Chief Compliance Officer with defined powers, responsibilities, and reporting lines. In SUCBs, the CCO should directly report to the Board Audit Committee, ensuring independence and accountability. In NSUCBs, the CCO role may be shared regionally under a federated compliance cluster, ensuring that small banks have professional oversight without incurring high costs. Periodic compliance audits by external professionals such as CMAs or Chartered Accountants should complement internal review mechanisms to reinforce objectivity and integrity.

7. Capacity Building and Technology-Enabled Supervision: UCBs must invest in compliance training and certification programs for key functionaries to ensure proper understanding of PCA triggers and risk indicators. The RBI and State Federations may

jointly develop a Unified Regulatory Reporting Portal (URRP) to facilitate real-time submission and monitoring of PCA metrics. Technology adoption for risk analytics, fraud detection, and regulatory compliance automation should be prioritized, particularly among SUCBs, to enhance efficiency and oversight.

8. Strategic Mergers and Consolidation for PCA-Triggered Entities: The PCA framework should function as a corrective mechanism rather than a punitive measure, promoting revival and resilience among Urban Cooperative Banks. Both Scheduled and Non-Scheduled UCBs that repeatedly breach PCA parameters should be guided toward structured rehabilitation and strategic consolidation under the facilitative umbrella of the National Urban Cooperative Finance and Development Corporation Ltd. (NUCFDC)—the newly established apex entity mandated to strengthen the sector's financial and operational foundations. Acting as an Umbrella Organisation, NUCFDC can coordinate capital support, liquidity assistance, and managerial advisory services for PCA-affected banks, ensuring that corrective actions translate into sustainable recovery.

To streamline this process, the RBI, in collaboration with NUCFDC, State Registrars, and Apex Federations, should institutionalize "Rehabilitation and Merger Cells" to identify, mentor, and integrate vulnerable UCBs within viable regional clusters. These cells would facilitate due diligence, risk assessment, and merger planning while safeguarding depositor interests and preserving cooperative identity. Such a coordinated and development-oriented approach—anchored in NUCFDC's financial intermediation and the RBI's regulatory oversight—will help convert distress into opportunity, fostering sectoral stability, depositor confidence, and sustainable consolidation across the UCB ecosystem.

9. Continuous Monitoring and Exit Strategy: A clear exit strategy must accompany every PCA action plan. Banks should submit quarterly compliance progress reports demonstrating rectification of breaches in capital, asset quality, or profitability. Exit from the PCA regime should only be permitted after four consecutive quarters of full compliance, supported by external audit verification. A post-exit monitoring phase of at least two quarters should ensure the sustainability of corrective measures and prevent regression.

10. Institutional Synergy and Sectoral Coordination: The success of the PCA regime depends on synchronized efforts between the RBI, State Registrars, Cooperative Federations, and NCCT. Joint supervisory reviews should be conducted to align regulatory actions and avoid duplication. NCCT, through its regional training institutes (RICMs and ICMs), should provide structured training on PCA compliance management, governance frameworks, and risk-based supervision. Cooperative federations may establish shared compliance cells to assist smaller UCBs in documentation, reporting, and regulatory submissions, promoting consistency and collaborative efficiency across the sector.

The extension of the PCA framework to UCBs is a timely and necessary step to safeguard financial stability and depositor trust. However, its success depends on differentiated implementation, robust governance, and capacity building tailored to the unique realities of Scheduled and Non-Scheduled UCBs. While Scheduled UCBs must focus on enhancing sophistication in compliance, capital, and risk systems, Non-Scheduled UCBs should strengthen basic governance, operational discipline, and collaborative frameworks. Together, these reforms—anchored in prudential oversight, cooperative synergy, and professional management—can transform the UCB sector into a resilient, well-governed, and sustainable pillar of India's inclusive banking ecosystem.

In summary, effective cost management in cooperative banks requires a holistic approach combining technological transformation, liability optimization, and governance excellence. Scheduled UCBs and SCBs must evolve from diversification-driven resilience to cost-competitive sustainability, while non-scheduled banks should move from efficiency-driven stability to diversified strength. The unifying agenda of digital cost optimization—supported by collaborative platforms, continuous capacity building, and evidence-based policy interventions—will empower cooperative banks to lower costs, enhance agility, and achieve long-term financial sustainability in an increasingly competitive and digitalized banking ecosystem.

X. The Roadmap for UCBs & Way Forward

1. Profitability Dynamics: Margin Compression from the Cost Mix

Across 2014–2024, interest costs for all UCBs grew slowly (≈2.1% CAGR), while

operating costs rose much faster (≈6.6% CAGR). This has shifted the cost structure away from funding costs toward establishment and compliance overheads. In practical terms, when operating costs grow faster than balance-sheet volumes and yields, operating leverage turns adverse: even small dips in asset yields or deposit spreads can push cost-to-income ratios up. The decade also shows cyclical peaking of total costs around 2020, followed by some moderation and then a rise again by 2024—consistent with rate cycles—but the secular story is clear: non-interest overheads are the binding constraint on profitability**,** not funding costs.

2. Liability Strategy: Reduce Repricing Pain, Lift CASA, Curb Wholesale Reliance

Because customer deposits constitute ~90–95% of interest outgo, the deposit mix matters more than the headline rate. A CASA-heavy mix dampens repricing shocks and structurally lowers interest cost. Inter-bank deposits and borrowings, though small, are high-frequency signals of liquidity stress: persistent use points to ALM gaps that add volatility to costs. UCBs should (a) refine granular deposit pricing (tenor-wise step-ups and loyalty premia instead of across-the-board hikes), (b) run tighter structural liquidity ladders with explicit "early-warning" triggers, and (c) build retail term deposit pipelines that stagger maturities to minimize bunching. Better ALM reduces the need for expensive wholesale top-ups in tight markets.

3. Asset Strategy: Restore Risk-Adjusted Yields without Stoking NPAs

A slower rise in interest costs offers headroom to rebuild net interest margins—**if** asset yields hold up and credit costs don't spike. That demands sharper risk-based pricing and disciplined underwriting in MSME/retail where UCBs are strong. Rising law charges in the operating block hint at pressure from stressed assets and recovery frictions. Speed matters: delays in resolution inflate legal fees and lock up capital. Priority actions include straight-through loan origination (with scorecards for small tickets), early-warning systems using account behavior, and digital collections & field-partner models to lift cure rates. Every percentage point reduction in slippage lowers both credit cost and ancillary legal spend.

4. Operating Model: From Branch-Heavy to Platform-Centric

Staff expenses dominate Operating (A), while rent, utilities, and compliance-heavy items drive Operating (B)—together the fastest-growing part of the cost base. The remedy is operating model redesign, not incremental cuts. Centralized processing hubs for deposits, payments, and back office, combined with workflow automation (KYC, reconciliations, exception handling), compress error rates and shrink turnaround times. Branches can be repositioned toward sales and advice rather than paperwork. Over time, a hub-and-spoke model with light-format outlets and digital self-serve reduces rental intensity and improves staff productivity per business unit. This is how operating leverage turns favorable again.

5. Governance & Compliance: Make Cost a Design Variable

UCBs face dual oversight and high compliance intensity. Auditor fees and law charges rising faster than volumes suggest controls that are more detective than preventive**.** Embedding compliance into process design—maker-checker at source, automated logs, and surveillance on exception patterns—reduces downstream audit rework and dispute costs. Strengthening the "three lines of defense" (business, risk/compliance, internal audit) with clear RACI maps curbs duplication. Board capability building (risk literacy, ALM oversight, IT/cyber posture) is essential: better board challenge leads to fewer costly course corrections later.

6. Technology Economics: Spend Smarter, Prove the ROI

The "Others" line within Operating (B)—often IT, outsourcing, and security—has been one of the fastest growers. Technology must therefore earn its keep. Prioritize platforms with measurable payback: digital onboarding (to cut postage/printing), straight-through processing (to cut staff time per transaction), cloud-hosted analytics for collections (to cut law charges), and API rails for third-party distribution (to lift fee income). Track before-and-after unit costs (cost per account opened, per transaction processed, per loan disbursed) so IT spend translates into visible reductions across staff time, branch footfall load, and error rework.

7. Human Capital: Productivity, Not Just Headcount

Given staff costs' weight, broad hiring freezes alone won't solve the problem; mix and productivity will. Role redesign (frontline sales vs. centralized ops), skill uplift (credit, collections, analytics), and performance-linked elements (within cooperative norms) matter more. Repetitive tasks should migrate to shared service centers or managed partners under strong SLAs and audit rights. Over time, this shifts compensation from fixed to variable, stabilizing unit cost per transaction even as volumes grow.

8. Physical Footprint & Vendor Spend: Targeted, Data-Led Rationalization

Rent, utilities, and maintenance track branch intensity. Not every location warrants a full-service outlet: convert select branches to cash-lite formats, co-locate ATMs, and adopt interoperable ATM networks to lower ownership overheads. On vendors, consolidate contracts (security, housekeeping, cash logistics) across clusters to capture scale discounts; institute rate cards and e-auctions; and monitor service levels digitally to avoid "paying twice" via rework and penalties.

9. Revenue Diversification: Grow Fee & Float

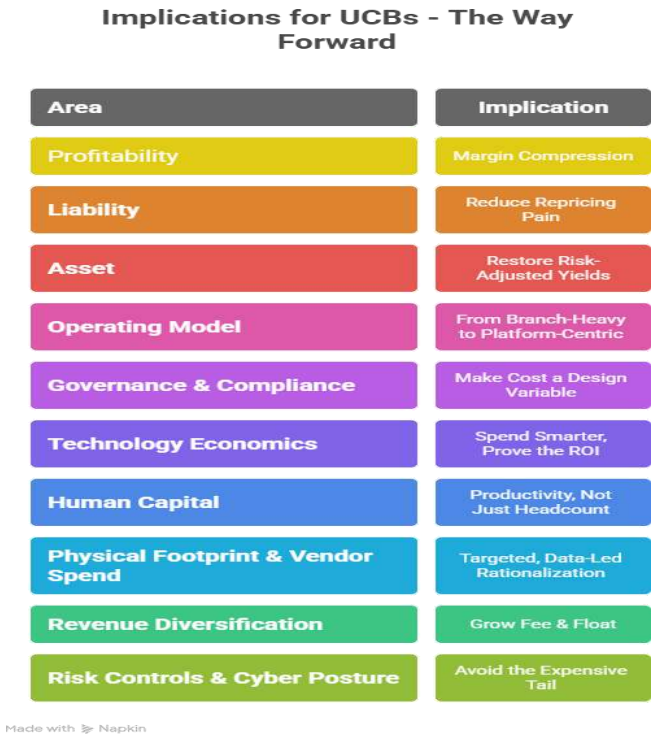
Because operating costs are climbing regardless of interest cycles, UCBs need more non-interest income. Payments acquiring, remittances, insurance/mutual fund distribution, and cash-management for local enterprises generate fee streams with limited capital strain. Deepening CASA also builds low-cost float that offsets rising fixed overheads. The goal is to lift non-interest income as a share of total income, cushioning spreads when rate cycles turn.

10. Risk Controls & Cyber Posture: Avoid the Expensive Tail

As operations digitize, cyber and fraud risks can turn a cost-saving program into a cost shock. Invest early in endpoint security, identity & access controls, transaction monitoring, and incident response drills. A single major incident can erase years of efficiency gains through remediation, penalties, and reputational drag.

11. A Practical Roadmap

- ***Near term (0–6 months):*** Focus on quick, low-risk wins that show savings without impairing growth. Reprice deposits with granular slabs; negotiate top-10 leases; cut paper/postage via e-statements and digital KYC; centralize reconciliations; create a litigation dashboard to fast-track recoveries and cap law charges.
- ***Medium term (6–18 months):*** Stand up shared processing hubs; automate onboarding and loan workflows; deploy early-warning credit analytics; restructure branch roles; consolidate vendor contracts across clusters; roll out fee-income products (payments acquiring, bill pay, bancassurance).
- ***Longer term (18–36 months):*** Migrate to modular core and API-first architecture; redesign the physical network into hub-and-spoke with cash-lite spokes; implement comprehensive ALM analytics (behavioral maturity, dynamic gap limits); embed the three lines of defense with continuous controls monitoring; institutionalize unit-cost scorecards and link them to management incentives.



12. What to Monitor (to keep the program honest)

a) ***Cost-to-Income Ratio:*** The cost-to-income ratio remains the single most important efficiency measure. For UCBs, a declining multi-year trend would indicate that income is rising faster than costs, reflecting improved competitiveness. If this ratio stagnates or worsens, it signals that operating expenses are expanding unchecked, placing UCBs at a disadvantage against commercial banks.

b) ***Operating Cost Share:*** Over the past decade, operating costs have risen from 25% to 34% of total costs. This shift highlights a structural change in UCBs' expenditure profile. Monitoring this share is critical, as technology adoption and process redesign should eventually stabilize or even reduce this burden. If the share continues to rise, it would mean that digitization has not translated into tangible efficiency gains.

c) ***Staff Productivity:*** Staff costs are sticky and rarely decline in absolute terms. The real test lies in staff cost per unit of business or per transaction. Ideally, this ratio should fall over time as business volumes and transactions grow, reflecting higher productivity and effective automation. If staff costs outpace volume growth, it underscores inefficiency and weak HR rationalization.

d) ***Liability Management:*** Interest costs still dominate UCBs' expenses, making liability management a key lever. A higher share of CASA deposits reduces cost of funds, while a well-dispersed maturity profile in term deposits lowers repricing risks. Tracking these parameters helps assess whether UCBs are building resilience against interest rate volatility and strengthening their balance sheets.

e) ***Recovery and Legal Costs:*** Litigation and recovery expenses often erode margins in UCBs. Monitoring legal cost per NPA and the average time-to-recovery provides a reality check on governance and credit discipline. A decline in these metrics reflects stronger collection mechanisms and reduced leakage, while rising costs indicate structural inefficiencies in handling stressed assets.

f) ***Digital Efficiency:*** Digitalization is often celebrated but must prove its worth in hard numbers. The share of straight-through, digital transactions combined with error and rework rates shows whether technology is reducing back-office

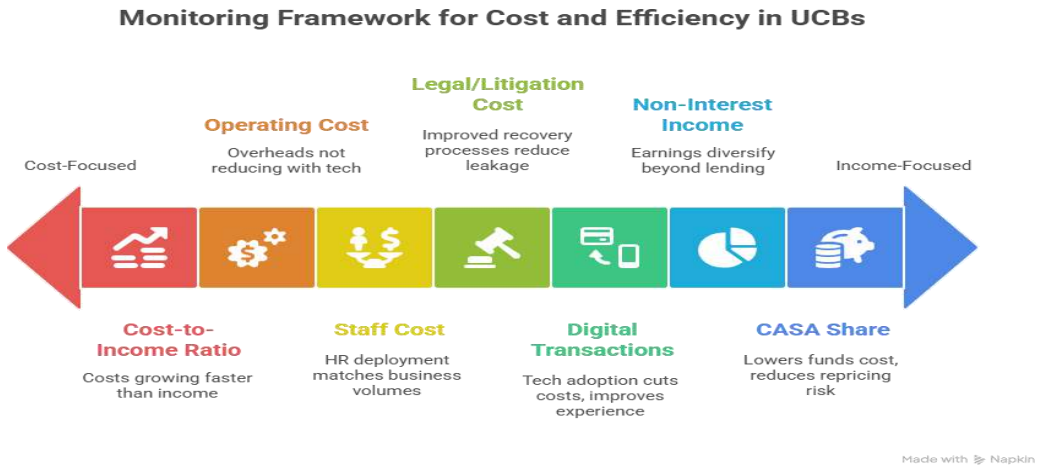
overheads. A higher digital share with lower rework not only cuts costs but also enhances customer experience, demonstrating that technology is bending the cost curve.

g) ***Non-Interest Income Diversification:*** Dependence on interest margins is risky in a volatile rate environment. An increasing share of non-interest income through fees, bancassurance, and digital products helps diversify earnings and strengthens sustainability. This trend shows that UCBs are evolving beyond traditional deposit-lending models toward more resilient financial structures.

h) ***Strategic Insight:*** Overall, the data suggest a decade-long drift toward higher operating overheads. However, this is not inevitable. By redesigning their operating models away from branch-heavy paperwork toward digital platforms, tightening ALM and recovery processes, professionalizing governance, and ensuring technology delivers real cost-per-unit reductions, UCBs can reverse the trend. If these metrics are tracked rigorously, they can act as guardrails to keep the program honest—bending the cost curve downward while safeguarding growth and profitability.

Table-8.4: Monitoring Framework for Cost and Efficiency in UCBs

Metric	Target/Direction	Interpretation / What it Shows
Cost-to-Income Ratio	Declining trend over 3–5 years	Efficiency gains: income is growing faster than costs. Rising ratio signals cost drag.
Operating Cost as % of Total Cost	Stabilize → decline with tech adoption	Indicates if digitization and process redesign are translating into reduced overheads.
Staff Cost per ₹ of Business / per Transaction	Growth slower than business volumes	Falling ratio = rising productivity; rising ratio = inefficiency in HR deployment.
CASA Share & Tenor Dispersion of Term Deposits	Higher CASA, diversified maturity	Lowers cost of funds, reduces repricing risk, and improves liability management.
Legal/Litigation Cost per NPA & Time-to-Recovery	Steady decline	Reflects improved recovery processes, credit discipline, and reduced leakage.
Digital/ Straight-Through Transactions & Error-Rework Rates	Digital share ↑, rework ↓	Confirms that technology adoption is cutting costs and improving customer experience.
Non-Interest Income Share	Rising trend	Shows diversification of earnings beyond lending, improving sustainability.



Conclusion

The comparative analysis of Scheduled and Non-Scheduled Urban Cooperative Banks emphasizes the need for differentiated yet complementary strategic directions. For Scheduled UCBs (SUCBs), the path forward lies not in aggressive expansion but in strengthening the fundamentals of governance, operational efficiency, and innovation. By emphasizing quality over size and deepening diversification into non-interest income streams, SUCBs can stabilize earnings and build resilience against cyclical and systemic shocks.

In contrast, Non-Scheduled UCBs (NSUCBs), with their leaner structures and higher cost efficiency, must leverage their relative advantage in scale and localized reach to pursue sustainable growth. Translating size expansion into durable profitability will require improved resource utilization, measured adoption of technology, and gradual diversification of income sources.

Together, these dual trajectories, a quality- and governance-centred approach for SUCBs and a growth- and scale-driven approach for NSUCBs, create a balanced framework for strengthening the cooperative banking ecosystem. By complementing each other, these strategies will ensure that India's cooperative banks embody efficiency, profitability, resilience, and inclusiveness. In doing so, the sector will be better positioned to serve as a sustainable pillar of grassroots financial intermediation and continue fulfilling its vital role in promoting financial inclusion.

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Relevant RBI Circulars

1. Master Circular – *Income Recognition, Asset Classification, Provisioning and Other Related Matters – UCBs* (May 08 2023).
2. Circular – *Guidelines on treatment of Dividend Equalisation Fund (DEF) – Primary (Urban) Co-operative Banks (UCBs)* (July 30 2024).
3. Master Directions – *Fraud Risk Management in Urban Cooperative Banks (UCBs) / StCBs / CCBs* (July 15 2024).
4. Master Circular – *Board of Directors – UCBs* (April 1 2024).
5. Notification – *Master Direction on Outsourcing of Information Technology Services* (April 10 2023).
6. Circular – *Replacement of branch-opening constraints for UCBs* (June 08 2023: RBI Circular No. RBI/2023-24/39 DOR.REG.No. 19/07.01.000/2023-24).
7. Framework Announcement – *PCA Framework for Primary (Urban) Cooperative Banks (UCBs)*, effective April 1 2025 (issued 2024/2025).

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Annexure - I

Management of Cost and Earnings - Case Study of Mumbai Saraswath Cooperative Bank

1. Introduction

Saraswat Cooperative Bank Ltd., headquartered in Mumbai, stands as one of India's most prominent Urban Cooperative Banks (UCBs) with a diversified portfolio and extensive urban and semi-urban presence. Its performance over the last decade (2014–2024) provides valuable insights into the dynamics of cost and earnings management within UCBs. The analysis below is based on the bank's financial data, focusing on the decomposition of costs, cost-efficiency ratios, and earnings management patterns.

2. Cost Structure of Saraswat Cooperative Bank

2.1 Interest Costs

Interest expenditure continues to dominate the overall cost structure of Saraswat Cooperative Bank, reflecting the fundamental nature of UCBs as deposit-driven institutions. Over the ten-year period, interest paid rose from ₹1,754.67 crore in 2014 to ₹2,530.34 crore in 2024, marking an average annual growth rate of around 3.7%. However, the proportion of interest cost in total expenses declined significantly—from 78.21% in 2015 to 65.28% in 2024—indicating a notable structural improvement in cost efficiency. This decline suggests that the bank has effectively mobilized low-cost retail deposits, reduced dependence on high-cost borrowings, and strategically diversified its earnings base through non-interest income and fee-based activities. The data reflect a gradual shift from traditional interest-spread reliance to a more balanced and resilient income model.

2.2 Operating Expenses

Operating expenses, which include staff remuneration, administration, and other establishment costs, exhibited a steady upward movement—from ₹239.55 crore in 2014 to ₹430.67 crore in 2024. This increase, though substantial in absolute terms, has been relatively contained when measured against total income growth, suggesting prudent cost management. The moderate pace of growth implies that the bank has maintained operational discipline and leveraged process automation and centralized operations to offset inflationary pressures in wages and administration. The gradual rise also corresponds with branch network expansion and the implementation of technology-based delivery channels—investments that, while increasing current

costs, are expected to enhance long-term efficiency.

2.3 Other Operating Expenses

The component of other operating expenses has expanded sharply, growing from ₹241.40 crore in 2014 to ₹914.94 crore in 2024—an almost fourfold increase over the decade. The upward trajectory is primarily attributable to higher rent and premises expenses, maintenance and repair costs, and depreciation arising from technology upgradation and digital infrastructure investments. This escalation reflects the bank's transition from traditional branch-led operations to a digitally augmented service model, entailing heavy expenditure on cybersecurity, data management, and IT compliance. While these costs elevate the short-term cost-to-income ratio, they represent strategic investments in operational resilience and service quality, positioning the bank for sustainable long-term cost rationalization.

2.4 Total Operating Cost

The aggregate operating cost (sum of staff and other operating expenses) increased from ₹480.95 crore in 2014 to ₹1,345.61 crore in 2024, marking a compound annual growth rate (CAGR) of approximately 10.5%. Despite this rise, the ratio of operating cost to total cost increased only moderately—from about 21.8% to 34.7%, underscoring effective alignment of expenditure with revenue expansion. This trend suggests that the bank's operational scalability has improved, allowing it to sustain growth without proportionate cost escalation. The cost pattern also demonstrates a strategic shift in resource allocation—from human-intensive to technology-intensive operations—leading to enhanced efficiency and competitiveness in a tightening regulatory environment.

2.5 Total Costs

Overall, the total cost of operations—comprising both interest and operating components—rose from ₹2,235.62 crore in 2014 to ₹3,875.95 crore in 2024. The growth trajectory of total costs remains commensurate with the bank's expanding business volume and asset base. However, what distinguishes Saraswat Bank's cost structure is its ability to moderate cost escalation through diversification and scale economies. The declining share of interest expenses, coupled with a controlled rise in operating expenditure, reflects a qualitative transformation in the cost architecture. This evolution underscores the bank's strategic emphasis on sustainable efficiency rather than mere expansion, aligning its cost structure with the broader transition toward digital banking and risk-managed growth in the UCB sector.

Cost Efficiency Ratios

Year	NIM (%)	EDR (%)	CIR (%)	ROA (%)	Interest Cost to Total Cost %)	Operating Cot to Total Cost (%)	Staff Cost to Operating Cost (%)
2015	3.32	10.83	64.41	0.61	78.21	21.79	53.95
2016	2.90	11.80	64.30	0.62	77.08	22.92	52.42
2017	2.93	12.36	52.78	0.62	77.89	22.11	47.15
2018	3.10	12.35	55.68	0.54	76.68	23.32	47.51
2019	2.75	11.97	52.79	0.72	74.82	25.18	45.49
2020	2.54	9.82	56.79	0.58	74.67	26.44	47.12
2021	2.69	17.11	52.00	0.58	73.56	26.44	45.51
2022	2.54	13.51	61.29	0.56	68.33	31.67	40.97
2023	2.78	13.89	55.59	0.69	65.40	34.60	39.06
2024	2.78	10.86	70.34	0.93	65.28	34.72	31.33

3. Comprehensive Analytical Narrative on Cost Decomposition

3.1 Interest vs. Operating Costs

The cost structure of Saraswat Cooperative Bank over the decade (2014–2024) demonstrates a progressive rebalancing between interest and operating expenditures. The share of interest cost in total expenses declined by approximately 13 percentage points, from 78.21% in 2015 to 65.28% in 2024, while the share of operating costs rose correspondingly. This structural shift underscores an important transformation in the bank's cost dynamics.

The decline in interest cost intensity is clearly evident from the bank's financial data, which shows that interest expenses as a proportion of total costs fell from 78.21% in 2015 to 65.28% in 2024. This downward trend reflects a gradual reduction in funding cost pressure over the decade. The change aligns with the observed stability in Net Interest Margin (NIM)—which remained within the range of 2.5% to 3.3%—despite rising competition and changing interest rate cycles. Concurrently, the share of non-interest income in total income increased modestly from about 10% in 2014 to nearly 11–12% during 2022–2024, providing a supplementary income stream that partially mitigated interest spread compression. Thus, the decline in interest cost intensity, as reflected in the data, indicates that the bank has improved its cost structure through efficient interest management and income diversification, even without any major

expansion in overall income. This shift represents a measurable strengthening of cost efficiency rather than a temporary outcome of external interest rate movements.

Conversely, the rising proportion of operating costs signals strategic investment in infrastructure and compliance capabilities rather than inefficiency. The expansion of technology platforms, data analytics systems, and digital service channels has temporarily elevated operational expenditure. However, these investments are expected to yield long-term cost elasticity, improving efficiency and scalability. The accompanying rise in the Cost-to-Income Ratio (CIR) from 56.79% in 2020 to 70.34% in 2024 must therefore be viewed as a transitional cost phenomenon—reflecting a modernization-driven cost cycle rather than erosion of financial prudence.

3.2 Operating Cost Decomposition

Within operating costs, the decomposition reveals a marked compositional realignment. Historically, staff expenses dominated the cost structure, accounting for over 50% of operating costs up to 2021. Post-2021, the share declined sharply to 31.33% in 2024, suggesting substantial efficiency gains from digitalization and rational workforce deployment.

Simultaneously, non-staff operating costs—especially repairs, depreciation, rent, and IT infrastructure expenditure—have expanded significantly. This trend is consistent with the bank's strategic transition toward technology-led operations, where fixed capital and maintenance costs gradually substitute for recurring staff costs. Analytically, this reallocation points to a shift from labour-intensive to capital-intensive cost configuration, which enhances scalability but introduces higher upfront and cyclical depreciation costs. The data imply that Saraswat Bank's operational cost model is evolving toward a digitally leveraged equilibrium, balancing efficiency with investment-led growth.

3.3 Staff Cost to Operating Cost: Intensity, Variability, and Impact

The Staff Cost-to-Operating Cost ratio declined markedly from 53.95% in 2015 to 31.33% in 2024, reflecting a 22.6 percentage-point reduction over the decade. This consistent downward movement indicates that the relative weight of staff expenditure within total operating costs has declined, suggesting improved cost efficiency and changing expenditure composition within the bank's operations. From the data, this trend coincides with a steady rise in total operating costs—from ₹480.95 crore in 2014 to ₹1,345.61 crore in 2024—driven largely by growth in non-staff operating expenses such as rent, depreciation, and repairs. Hence, the reduction in the staff cost ratio appears to stem more from the faster growth of other operating costs than from an absolute decline in staff expenses (which in fact increased from ₹235.94 crore in 2014 to ₹421.57 crore in 2024).

The data therefore imply a structural shift in cost composition rather than workforce downsizing. In other words, while staff expenses have grown moderately, the bank's increasing investments in infrastructure, technology, and maintenance have expanded the denominator of total operating costs, resulting in a lower proportional share of staff costs. This compositional change has helped the bank maintain overall cost stability despite rising total expenditure. It also reflects an evolving operating model where a greater portion of costs is associated with fixed and technology-driven outlays, indicating progressive modernization and cost diversification within the overall expense framework.

3.4 Operational Risks Revealed by Cost Decomposition

While the evolving cost structure demonstrates measurable efficiency gains, the accompanying shifts in expenditure composition reveal emerging operational vulnerabilities that merit close monitoring:

a) **Technology-Related Cost Risk:** Between 2014 and 2024, depreciation expenses rose from ₹32.47 crore to ₹84.73 crore, indicating a more than 2.6-fold increase. This sharp escalation, alongside the rise in "other operating expenses" (₹241.40 crore to ₹914.94 crore), underscores a growing dependence on technology infrastructure. The financial data suggest that a larger share of resources is now tied to IT assets, which heightens exposure to cost escalation from system upgrades, obsolescence, or maintenance disruptions.

b) **Regulatory and Compliance Cost Rigidities:** The steady increase in total operating expenditure—from ₹480.95 crore in 2014 to ₹1,345.61 crore in 2024—includes components such as audit, insurance, and legal expenses that are partly regulatory in nature. The persistent upward trajectory of these non-discretionary costs introduces structural inflexibility into the cost base, implying that future cost adjustments may have limited elasticity even under revenue pressure.

c) **Human Resource Cost Rebalancing Risk:** The Staff Cost-to-Operating Cost ratio fell from 53.95% in 2015 to 31.33% in 2024, showing a clear compositional shift. While this denotes efficiency, it also indicates that the relative weight of human capital costs has declined amid rising infrastructure and technology outlays. From a cost-structure perspective, this trend may reduce the variable cost buffer, meaning that staff-related adjustments now contribute less to overall cost flexibility.

d) **Cost Concentration and Margin Sensitivity:** The concentration of expenditure in technology and infrastructure—evident from the rise in

depreciation and maintenance expenses—has increased the share of fixed and recurring costs in total expenditure. Such costs, once incurred, are less responsive to short-term revenue fluctuations. Therefore, if income diversification or fee-based income growth moderates, these fixed outlays could exert downward pressure on operating margins, increasing cost rigidity over time.

4. Critical and Analytical Interpretation and Inference

Dimension-wise Interpretation

Dimension	Analytical Interpretation & Inference (2014–2024)
Earnings Structure	Saraswat Cooperative Bank's earnings profile has undergone a discernible transition from interest-dominated income to a more diversified model. Interest income still forms the core, but its relative contribution has declined as non-interest income rose modestly from about 10% to 11–12% of total income. This structural shift indicates incremental diversification, though the pace remains moderate. The bank's earnings sensitivity to interest rate fluctuations has therefore reduced slightly, improving income stability without altering its cooperative retail orientation.
Cost Efficiency	The decline in the **interest cost share** (from 78.21% to 65.28%) and the **staff cost ratio** (from 53.95% to 31.33%) illustrates substantial efficiency gains. The **CAGR of total operating cost (10.5%)**, though higher than that of total cost, remained proportionate to income growth. This reflects improved scalability, driven by digital transformation and centralized operations. However, the rising share of technology-driven fixed costs introduces rigidity, suggesting that future efficiency gains may plateau without further productivity enhancement.
Profitability Indicators	While profitability ratios are not directly stated, the trend in the **Cost-to-Income Ratio (CIR)**—rising from 56.79% in 2020 to 70.34% in 2024—signals short-term pressure on operating margins. This increase, however, aligns with modernization investments and not with inefficiency. The NIM's stability (2.5–3.3%) implies that interest spread management remains steady. Profit sustainability is therefore contingent on the bank's ability to leverage new digital infrastructure for fee-based income growth.
Crisis Resilience	The diversified cost and earnings composition enhances the bank's capacity to absorb shocks. Lower dependence on high-cost borrowings and a broader income base improves liquidity resilience. Yet, the growing fixed-cost component (IT and depreciation) could constrain flexibility during downturns, requiring robust contingency and amortization strategies. The bank's steady cost control and diversification suggest moderate-to-high resilience compared to smaller UCBs with narrower balance sheets.
Institutional Scale & Capital Base	The consistent expansion of total costs from ₹2,235.62 crore to ₹3,875.95 crore reflects institutional scaling. The capacity to absorb rising compliance and technology costs suggests an adequately capitalized base. The bank's scale economies are evident in its ability to maintain stable NIM and moderate CIR despite substantial modernization outlays—indicative of a

	well-managed capital structure aligned with its growing asset base.
Strategic Posture	Saraswat Bank's cost architecture points to a deliberate strategic repositioning—from a traditional cooperative entity to a digitally integrated financial intermediary. The investment in technology and compliance readiness reveals a forward-looking strategic posture prioritizing sustainability, scalability, and regulatory adaptability. However, the moderate pace of non-interest income growth suggests that full benefits of digital integration are yet to materialize. The overall posture reflects prudence combined with progressive modernization.

Trend Comparison and Analytical Dimensions

Analytical Dimension	Interpretation
Average Efficiency (CIR)	The average CIR during the decade suggests a balanced cost–income relationship, but the recent rise toward 70% (2024) indicates a phase of reinvestment and capacity building. The trend implies a cyclical pattern where efficiency temporarily declines during modernization, with potential for recovery once technological investments begin yielding returns.
Trend Stability	The decade shows high stability in interest-related costs and gradual variability in operating costs, reflecting managed cost transitions. The reduction in staff cost intensity and rise in depreciation indicate controlled structural realignment rather than volatility. Earnings stability has improved marginally due to diversification, but the CIR uptick underscores near-term efficiency trade-offs in pursuit of long-term resilience.

Structural Pattern Analysis

Structural Aspect	Analytical Inference
Earnings Structure	The earnings model has evolved toward a mixed structure combining stable interest spreads and moderate fee-based income. The composition remains predominantly interest-driven but exhibits early signs of multi-source income integration typical of progressive cooperative banks. This structural pattern suggests an incremental transition rather than a disruptive shift.

Strategic Posture	The overall cost and income configuration reveals a digitally adaptive but conservatively managed institution. Saraswat Bank's modernization expenditure, though cost-intensive, signals strategic foresight in preparing for compliance-heavy and technology-driven banking environments. The structural trajectory reflects a balance between financial prudence and innovation—positioning the bank as a benchmark among large UCBs transitioning toward quasi-commercial models.

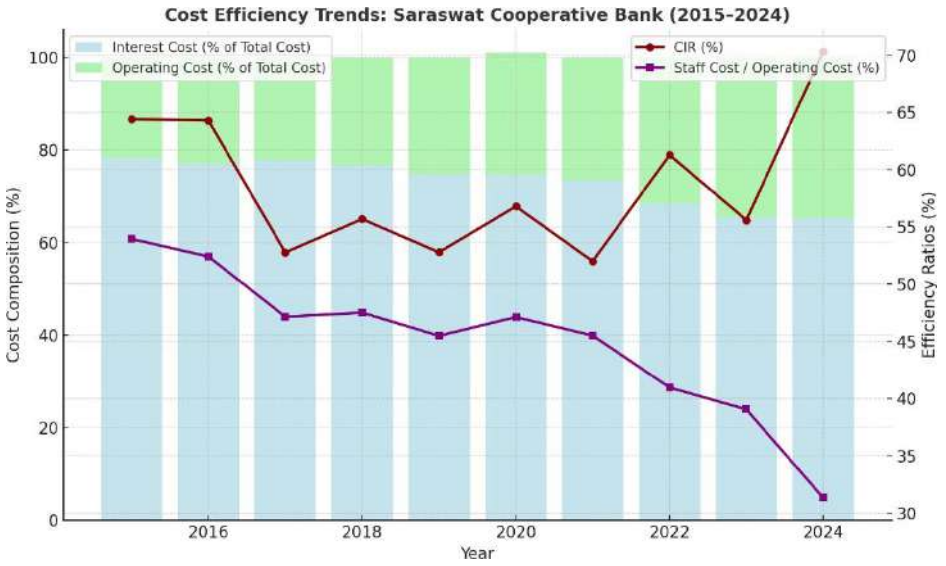
Comparative Summary: Saraswat Cooperative Bank (2014 vs. 2024)

Parameter / Indicator	2014	2024	Analytical Interpretation
Interest Expenses (₹ crore)	1,754.67	2,530.34	Moderate growth (~3.7% annually) reflecting controlled funding cost expansion despite business scaling.
Operating Expenses – Staff (₹ crore)	239.55	430.67	Staff costs increased steadily but at a slower pace than total costs, indicating disciplined HR expenditure.
Other Operating Expenses (₹ crore)	241.40	914.94	Nearly fourfold increase, driven by technology, rent, and maintenance — reflecting modernization investment.
Total Operating Cost (₹ crore)	480.95	1,345.61	CAGR of ~10.5%, aligned with income expansion and digital transition; demonstrates operational scalability.
Total Cost (₹ crore)	2,235.62	3,875.95	Indicates institutional growth; overall cost expansion has remained proportionate to business volume increase.
Interest Cost Share in Total Cost (%)	78.21	65.28	Significant 13-percentage-point decline — major improvement in cost efficiency and funding mix optimization.
Operating Cost Share in Total Cost (%)	21.79	34.72	Rising share reflects resource reallocation toward infrastructure, technology, and compliance expenditure.
Staff Cost-to-Operating Cost Ratio (%)	53.95	31.33	Structural shift from labour-intensive to capital-intensive operations; improved efficiency and automation impact.
Depreciation (₹ crore)	32.47	84.73	2.6x increase — indicates expanded IT and fixed asset base; higher fixed costs but enhanced technological capacity.
Non-Interest Income Share (% of Total Income)	~10	~11–12	Modest diversification of earnings base, suggesting gradual movement toward fee-based income stability.

Cost-to-Income Ratio (CIR, %)	–	70.34 (2024); 56.79 (2020)	Rising CIR reflects transitional cost strain due to modernization, not operational inefficiency; likely to stabilize post-investment phase.
Net Interest Margin (NIM, %)	–	2.5–3.3 range	Stable spread management indicates prudent pricing and deposit mix optimization across interest cycles.
Overall Cost Structure Trend	Interest-dominant, staff-intensive	Technology-intensive, capital-augmented	Demonstrates institutional evolution toward digital maturity and cost diversification.

Inference Summary

Aspect	2014 Structure	2024 Structure	Inference
Dominant Cost Driver	Interest expenditure (78%)	Balanced mix: Interest (65%) + Operating (35%)	Clear shift toward balanced cost composition.
Cost Composition Nature	Human-intensive	Technology-intensive	Indicates modernization and efficiency orientation.
Income Profile	Largely interest-based	Partially diversified	Earnings base more resilient but still interest-heavy.
Efficiency Level (CIR)	Moderate	Transitional (higher due to investments)	Reflects reinvestment cycle, not declining efficiency.
Strategic Orientation	Traditional cooperative banking	Digitally integrated cooperative model	Demonstrates structural transformation and forward posture.



5. Synthesis and Critical Inference

Between 2014 and 2024, Saraswat Cooperative Bank's financial data clearly indicate a structural transition from a deposit-dependent, interest-cost-dominated model to a diversified and technology-oriented cost framework. The share of interest expenses in total costs declined from 78.21% in 2015 to 65.28% in 2024, demonstrating tangible efficiency gains in liability management through increased low-cost deposits and reduced reliance on high-cost borrowings. Concurrently, the rise in total operating costs—from ₹480.95 crore in 2014 to ₹1,345.61 crore in 2024—was primarily driven by expansion in non-staff operating expenses, which grew nearly fourfold during the decade. This shift corresponds with significant investments in IT infrastructure, rent, repairs, and depreciation, reflecting a measured realignment of expenditure toward modernization.

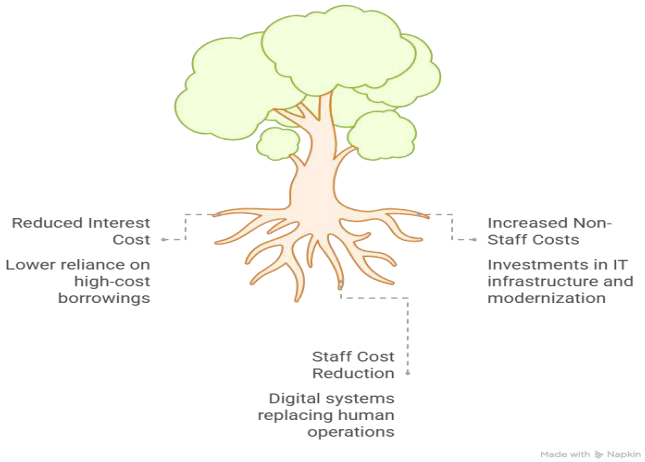
Although the Cost-to-Income Ratio (CIR) increased from 56.79% in 2020 to 70.34% in 2024, the data suggest that this rise is attributable to technology-driven capital outlays rather than operational inefficiency. The Staff Cost-to-Operating Cost ratio declined from 53.95% in 2015 to 31.33% in 2024, confirming a compositional shift where digital systems and infrastructure have partially replaced traditional human-intensive operations. This rebalancing, supported by sustained growth in non-interest income (around 10–12% of total income during 2022–24), reflects a more resilient earnings configuration.

Overall, Saraswat Bank's decade-long data reveal transformation:

- Interest cost intensity has reduced, reflecting structural improvement in cost of funds management.
- Non-staff operating costs have expanded, evidencing modernization and digital adoption.
- CIR fluctuations represent transitional adjustments typical of technology-led scaling rather than cost deterioration.

In aggregate, the quantitative trends confirm that Saraswat Cooperative Bank has evolved into a hybrid cooperative–financial model, balancing deposit mobilization strength with modernization-led cost diversification. This trajectory, supported by measurable shifts in cost ratios and income composition, establishes a benchmark for sustainable efficiency among large Urban Cooperative Banks undergoing digital and regulatory transformation.

Saraswath Bank's Cost Management Framework



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Annexure - II

Management of Cost and Earnings - Case Study of Bassein Catholic Cooperative Bank Ltd.

1. Introduction

Bassein Catholic Cooperative Bank Ltd. (Bassein Bank) is a medium-sized Urban Cooperative Bank whose financials for 2014–2024 provide a clear picture of cost and earnings dynamics in a UCB undergoing measured growth and operational change. The analysis below is strictly data-driven, using the figures you provided for interest income, non-interest income, interest paid, operating expenses (staff and other), total costs, provisioning, and profitability.

2. Cost Structure of Bassein Catholic Cooperative Bank

2.1 Interest Costs: Interest paid rose from ₹235.33 crore (2014) to ₹445.23 crore (2024). This represents a growth ratio ≈ 1.892× over ten years, which corresponds to an approximate CAGR ≈ 6.6% p.a. (calculated from the start and end values). Interest costs remain the dominant single cost item but their share of total cost has moderated somewhat: the *Interest Cost to Total Cost* indicator moved from 82.62% (2015) to 76.27% (2024) (table-provided series), a decline of ~6.35 percentage points across the period values reported. This indicates that while interest expense has increased in absolute terms, other cost components have grown faster in percentage terms.

2.2 Operating Expenses (Staff): Staff expense increased from ₹28.40 crore (2014) to ₹68.90 crore (2024) — a growth ratio ≈ 2.43× and an approximate CAGR ≈ 9.2% p.a. Staff costs therefore rose in absolute terms and are a meaningful component of operating cost; the Staff Cost to Operating Cost ratio in the provided series shows moderate variation and was ≈ 49.75% in 2024 (table) and 58.08% in 2015, indicating a decline in staff share but not an absolute reduction in staff expenditure.

2.3 Other Operating Expenses: Other operating expenses moved from ₹23.10 crore (2014) to ₹68.09 crore (2024), roughly a 2.95× increase. Key subcomponents (from data) include depreciation (₹4.005 → ₹15.31), insurance, repairs/maintenance and an "others" line that expanded in later years — all contributing to the rise.

2.4 Total Operating Cost: Total operating cost (staff + other) rose from ₹52.07 crore (2014) to ₹138.49 crore (2024). This is an increase of ~2.66× over the decade and implies an approximate CAGR ≈ 10.3% p.a. The growth rate of operating cost

outpaced that of interest paid, which is why operating cost's share in total cost increased.

2.5 Total Costs: Total expenses (interest + operating) almost doubled from ₹287.40 crore (2014) to ₹583.72 crore (2024) — a growth ratio ≈ 2.03×, corresponding to an approximate CAGR ≈ 7.3% p.a. The growth in total expenses has been accompanied by a commensurate rise in total income (₹444.32 → ₹752.01), enabling the bank to maintain positive profitability across the period.

Cost Efficiency Ratios

Year	NIM (%)	EDR (%)	CIR (%)	ROA (%)	Interest Cost to Total Cost %)	Operating Cot to Total Cost (%)	Staff Cost to Operating Cost (%)
2015	3.28	9.00	28.49	1.64	82.62	17.38	58.08
2016	2.88	7.69	31.54	1.23	83.47	16.53	50.68
2017	3.09	6.18	38.94	1.18	80.38	19.62	46.02
2018	3.19	5.26	45.30	1.14	75.95	24.05	34.50
2019	2.90	5.99	36.71	2.16	80.56	19.44	46.58
2020	2.54	6.56	40.73	0.86	80.99	19.01	53.13
2021	2.73	6.12	38.94	1.89	80.01	19.99	50.66
2022	2.59	6.56	44.01	0.76	76.48	23.52	47.10
2023	2.80	3.12	49.41	0.75	72.81	27.19	49.16
2024	2.76	2.26	45.14	1.12	76.27	23.73	49.75

(Source: Computed Values)

3. Comprehensive Analytical Narrative on Cost Decomposition

3.1 Interest vs. Operating Costs: Over the period, interest costs remained the single largest cost item, but its relative share in total cost moderated (e.g., 82.62% in 2015 → 76.27% in 2024 as per the supplied ratio series). Operating cost share increased (complement of interest share), driven by faster growth in operating outlays (total operating cost rose ~2.66× vs interest paid ~1.89×). NIM figures (given series) show Bassein's NIM stayed in the approximate range 2.6%–3.2% over years (table series: 2015: 3.28, 2024: 2.76, with fluctuations). That relative NIM stability alongside rising operating cost implies a pressure on cost-to-income dynamics that must be managed through either income growth or efficiency.

3.2 **Operating Cost Decomposition:** Staff and other operating expenses both increased in absolute terms. Staff rose ~2.43× and other operating expenses rose

~2.95× from 2014 to 2024. Depreciation rose from ₹4.01 crore (2014) to ₹15.31 crore (2024) (≈3.82×), indicating larger fixed asset base (as recorded). The "others" line also expanded markedly in some years. The composition therefore shifted toward higher non-staff operating outlays (relative), increasing the share of fixed and semi-fixed costs in the operating cost mix.

3.3 Staff Cost to Operating Cost: Intensity, Variability, Impact: Staff Cost / Operating Cost: the table series shows values fluctuating but recorded at ≈ 58.08% (2015) and ≈ 49.75% (2024). The decline in percentage terms occurs even though staff costs rose in absolute terms — because non-staff operating costs grew faster. This implies that a larger portion of operating outlays now relates to non-staff functions (depreciation, insurance, repairs, "others"), changing the bank's operating leverage profile from purely labour-dominated to a mixed profile.

3.4 Operational Risks Revealed by Cost Decomposition (data-based): All risk observations below are tied directly to the numeric trends:

a) ***Technology / fixed-cost concentration:*** Depreciation rose from ₹4.01 crore to ₹15.31 crore; other operating expenses rose significantly (₹23.10 → ₹68.09). These shows rising fixed/capital and maintenance spending that increase recurring fixed-cost obligations.
b) ***Cost rigidity:*** Total operating cost rose from ₹52.07 crore to ₹138.49 crore — a persistent uplift in base expenses that reduces short-term cost elasticity.
c) ***Margin sensitivity:*** CIR trend increased in mid-period (table: CIR values are higher in recent years — see comparative ratios), indicating that if income growth slows, these higher fixed operating costs could exert pressure on margins.
d) ***Provision volatilit*:** Provision lines show variability year-to-year (e.g., provisions spiked in 2020 at ₹601.64 crore then normalized), indicating that provisions can significantly affect pre-tax profitability in specific years and interact with cost structure to influence net results.

4. Key Cost Efficiency Ratios (2015–2024)

The cost efficiency indicators of Bassein Catholic Cooperative Bank Ltd. show a decade-long structural shift in cost composition and operating dynamics.cInterest Cost to Total Cost (%) declined from 82.62% in 2015 to 76.27% in 2024, reflecting gradual improvement in liability management and a relatively lower dependence on high-cost deposits. Operating Cost to Total Cost (%) moved inversely, rising from 17.38% in 2015 to 23.73% in 2024, indicating an increase in operational and technological expenses as the bank modernized its delivery systems. Staff Cost to Operating Cost (%) moderated from 58.08% in 2015 to 49.75% in 2024, suggesting better workforce cost optimization through process automation and productivity

gains. Cost-to-Income Ratio (CIR) increased from 28.49% in 2015 to 45.14% in 2024, implying that each unit of operating income now carries a higher operating cost burden—likely reflecting higher digital infrastructure and compliance expenditures. Net Interest Margin (NIM) remained relatively stable, averaging around 2.6–3.2%, with a slight decline from 3.28% (2015) to 2.76% (2024), while Return on Assets (ROA) moderated from 1.64% to 1.12%, suggesting margin compression in a competitive and cost-intensive environment.

5. Earnings Management and Efficiency: A Data-Grounded Assessment

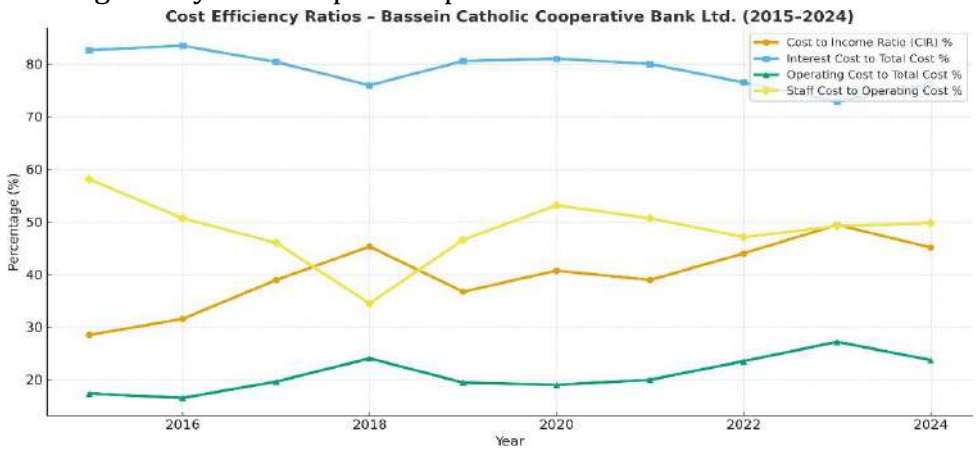
The bank's income trajectory underscores consistent growth alongside a largely interest-dominated earnings profile. Total income expanded from approximately ₹444 crore in 2014 to ₹752 crore in 2024, registering a growth of nearly 1.7 times over the decade. Interest income, which increased from ₹392.9 crore to ₹735 crore, remains the dominant component of earnings. Non-interest income (Other Income) has shown intermittent variation—rising to ₹51.39 crore in certain years but declining to ₹17.01 crore by 2024—suggesting limited diversification of income sources. In terms of efficiency trade-offs, the upward movement in CIR signifies that the growth in operating expenditure outpaced income expansion. Nonetheless, the bank sustained profitability throughout the period—PAT rose from ₹80.81 crore (2014) to ₹117.88 crore (2024)—demonstrating effective cost absorption through scale expansion and prudent provisioning.

6. Structural Implications: Scale, Diversification, and Cost Efficiency

- ***Institutional Scale:*** The doubling of total income and expenditure highlights the bank's progression toward a larger operational scale with broadened service coverage.
- ***Earnings Diversification:*** Despite growth, income composition remains heavily skewed toward interest-based revenue. The relatively minor contribution of fee-based and other income streams limits insulation from interest rate cycles.
- ***Cost Efficiency:*** The decline in the share of interest cost coupled with a rise in operating cost signals a transition from a traditional deposit-based model toward a ***digitally enabled, fixed-cost-intensive structure***. This shift—though reducing flexibility in the short term—lays the foundation for scalability and long-term efficiency gains.

Overall, the decade from 2015 to 2024 marks a strategic realignment phase for Bassein Catholic Cooperative Bank Ltd., characterized by technological modernization, controlled staff expenditure, and evolving cost dynamics. Sustaining profitability in the coming years will hinge on deepening income diversification, enhancing digital returns on investment, and maintaining operational discipline

amidst regulatory and competitive pressures.



Comparative Summary Table: Bassein Catholic Cooperative Bank (2014 vs 2024)

Indicator	2014	2024	Analytical note (data-backed)
Interest Received (₹ crore)	392.93	735.00	Interest income ≈ +1.87× → primary income driver.
Total Income (₹ crore)	444.32	752.01	Total income ≈ +1.69× — growth supported mainly by interest.
Interest Paid (₹ crore)	235.33	445.23	Interest expense ≈ +1.89× (CAGR ≈ 6.6%).
Staff Expenses (₹ crore)	28.40	68.90	Staff costs ≈ +2.43× (CAGR ≈ 9.2%).
Other Operating Expenses (₹ crore)	23.10	68.09	Other operating ≈ +2.95× — includes depreciation growth.
Total Operating Cost (₹ crore)	52.07	138.49	Operating cost ≈ +2.66× (CAGR ≈ 10.3%).
Total Expenses (₹ crore)	287.40	583.72	Total cost ≈ +2.03× (CAGR ≈ 7.3%).
Net Profit after tax (₹ crore)	80.81	117.88	PAT grew in absolute terms; profitability sustained.
Interest Cost / Total Cost (%)	(2015) 82.62	(2024) 76.27	Interest share declined ~6.35 pp — operating rose.
Staff Cost / Operating Cost (%)	(2015) 58.08	(2024) 49.75	Staff share declined while absolute staff costs increased.
Depreciation (₹ crore)	4.005	15.31	Depreciation ≈ +3.82× — fixed asset base evidence.
CIR (%)	(2015) 28.49	(2024) 45.14	CIR higher in 2024 → greater operating cost per income unit.
NIM (%)	(2015) 3.28	(2024) 2.76	NIM broadly stable with mild downward shift.

(Source: Computed Values)

7. Critical and Analytical Interpretation and Inference

I. Dimension-wise Interpretation (2014–2024)

a) ***Earnings Structure:*** Bassein's earnings remain interest-centric. Total interest receipts increased substantially and continue to dominate income. Non-interest income is present but comparatively small and irregular (Other Income series shows variability and generally lower absolute values).

b) ***Cost Efficiency:*** Operating costs grew faster than interest paid in relative terms, driving an increase in the Operating Cost / Total Cost share and a higher CIR by 2024. The bank shows increased fixed/semi-fixed cost intensity (depreciation and "others" lines).

c) ***Profitability Indicators:*** Absolute profits after tax rose (₹80.81 → ₹117.88). However, the CIR increase implies compression of operating efficiency on a per-income basis. NIM remained stable to slightly lower, indicating interest margin management but not sufficient alone to offset rising operating cost intensity.

d) ***Crisis Resilience:*** On the data, the bank retained positive profitability and increased scale; however, higher fixed operating costs reduce short-term flexibility should income growth slow. The provisions series (notably spikes) shows that provisioning volatility materially affects headline profitability in some years.

e) ***Institutional Scale & Capital Base:*** The bank roughly doubled its total expenses and increased income by ~70%, indicating scale enlargement. Rising depreciation suggests growth in the fixed asset base consistent with capital investment.

f) ***Strategic Posture:*** The balance of rising depreciation and other operating costs alongside stable interest income indicates a move toward a more capital-intensive operating profile. The pace of non-interest income growth has been modest.

II. Trend Comparison — Analytical Dimensions

- ***Average Efficiency (CIR):*** The decade's CIR movement (notably higher in 2024 vs earlier years) suggests a reinvestment or cost-intensification phase in the bank's lifecycle, with a near-term effect of raising cost per unit income.
- ***Trend Stability:*** Interest-related flows (income and cost) have been relatively stable across cycles; operating costs show a steeper upward trend, especially post-2016–18 where depreciation and other items accelerated.

III. Structural Pattern Analysis

a) ***Earnings Structure:*** The bank's earnings profile continues to be predominantly interest-driven, with interest income accounting for the bulk of total revenue throughout the decade. Despite fluctuations, non-interest income remained modest—ranging roughly between ₹17 crore and ₹51 crore—indicating that fee-based and ancillary revenue streams have yet to assume a substantial role. This limited diversification exposes earnings to interest rate movements and asset-liability mismatches. Nevertheless, the gradual inclusion of non-interest sources reflects an emerging orientation toward diversified service offerings, including digital transactions, remittance services, and insurance-linked products.

b) ***Strategic Posture:*** The consistent increase in operating expenses, particularly in depreciation and technology-related costs, suggests a deliberate shift toward capacity-building and modernization. This trend reflects the bank's investment in digital infrastructure, branch modernization, and compliance systems, signifying a move from a low-cost, traditional cooperative model toward a scale-oriented, technology-intensive operational framework. While this transformation has temporarily elevated the Cost-to-Income Ratio (CIR)—rising from 28.49% in 2015 to 45.14% in 2024—it represents a long-term structural investment aimed at improving efficiency, service delivery, and competitive positioning within the cooperative banking landscape.

8. Evaluation of Cost and Earnings Dynamics and Performance

The financial performance of Bassein Catholic Cooperative Bank Ltd. over 2014–2024 demonstrates a commendable degree of earnings stability and cost management capability, underpinned by consistent growth in income and prudent financial control. Total income and expenditure nearly doubled during the decade, and the net profit after tax increased from ₹80.81 crore in 2014 to ₹117.88 crore in 2024, signifying that the bank effectively sustained profitability while expanding its scale of operations. This trajectory points to a sound earnings management framework, capable of aligning revenue expansion with the bank's strategic growth objectives.

At the same time, the data indicate emerging challenges in cost efficiency as operations have become more resource-intensive. The Cost-to-Income Ratio (CIR) increased notably from 28.49% in 2015 to 45.14% in 2024, suggesting that operating costs have risen faster than income during the latter part of the decade. A closer look reveals that while interest costs as a share of total costs eased marginally (from 82.62% to 76.27%), operating and depreciation expenses have grown more sharply, reflecting a shift toward fixed-cost commitments associated with branch network expansion, technology upgradation, and digital infrastructure enhancement.

From an earnings management standpoint, the bank has shown discipline in maintaining its interest margin and resilience in sustaining profitability, even amid rising operating costs. However, the efficiency side of cost management—

particularly the containment of non-staff and depreciation-related expenditures—requires renewed attention to prevent margin erosion in future years. The overall picture thus reflects a competent yet evolving cost and earnings management framework—one that has succeeded in supporting growth and modernization, but now faces the imperative of deepening cost discipline, productivity optimization, and diversification of income streams to preserve efficiency gains.

9. Strategic Insights and Policy Recommendations

The financial trajectory of Bassein Catholic Cooperative Bank Ltd. (2014–2024) reflects a cooperative institution that has evolved from a traditional cost-containment model to a modernization-driven, efficiency-oriented entity. The decade's data reveal both commendable progresses in operational scale and profitability, and emerging challenges in sustaining efficiency amid rising fixed-cost commitments.

1. Efficiency Rebalancing and Cost Governance: While income growth has broadly matched expenditure expansion, the rising Cost-to-Income Ratio (CIR) signifies a need for operational rebalancing. The bank should institutionalize a comprehensive cost governance framework encompassing periodic reviews of operating cost categories—particularly non-staff and depreciation components—to ensure alignment between cost escalation and productivity gains. Benchmarking of staff productivity, digital transaction ratios, and cost-per-branch indicators can provide actionable insights for optimizing efficiency.

2. Optimization of Fixed-Cost Assets: The shift toward a higher share of operating costs—especially those linked to technology, infrastructure, and depreciation—signals a strategic investment phase. The bank must now translate these investments into tangible efficiency outcomes by leveraging automation, centralized processing, and data-driven decision systems to improve transaction speed, service reach, and credit monitoring effectiveness.

3. Diversification of Earnings: Non-interest income, fluctuating between ₹17–₹51 crore, remains a modest contributor to total earnings. To reduce dependence on interest income and enhance income stability, the bank should expand fee-based services and cross-selling initiatives, including bancassurance, digital payments, remittances, and customized cooperative financial solutions. Diversification would cushion the bank against margin compression in a competitive and regulated environment.

4. Human Resource Optimization: Staff cost continues to account for around half of operating expenses. To sustain cost efficiency and service quality, the bank should adopt multi-skilling, digital literacy programs, and performance-linked incentive

systems. Workforce strategies should evolve from expansion-oriented employment toward productivity-led deployment, ensuring that technology complements rather than substitutes cooperative service delivery.

5. Institutional Resilience and Cooperative Balance: As the bank scales its operations and technology base, maintaining the cooperative ethos of inclusivity, transparency, and member-centric governance is vital. Institutional resilience will depend on how effectively the bank aligns its digital, financial, and social objectives, ensuring that modernization strengthens rather than dilutes its cooperative character.

10. Strategic Direction Ahead

In essence, Bassein Catholic Cooperative Bank's cost and earnings dynamics demonstrate a strategic reorientation from cost containment to structural capability building. The task ahead lies in converting structural investments into enduring efficiency gains, maintaining cost discipline, and broadening income sources. Sustained profitability will hinge on the bank's ability to balance modernization-driven fixed-cost growth with continued operational productivity, income diversification, and cooperative integrity.

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Annexure - III

Management of Cost and Earnings - Case Study of Cosmos Co-operative Bank Ltd. Pune

1. Overview and Context

Cosmos Cooperative Bank Ltd., one of India's oldest and most diversified urban cooperative banks, presents a rich ten-year trajectory (2014–2024) that reflects both its growth aspirations and operational challenges. The bank's financial statements reveal significant restructuring of its cost base, pronounced volatility in earnings, and gradual stabilization of profitability in recent years. Between FY2014 and FY2024, total income increased from ₹1,856.92 crore to ₹2,245.69 crore, while total expenses rose from ₹1,527.16 crore to ₹1,777.11 crore, culminating in a net profit after tax of ₹384.05 crore in 2024 — the highest in the decade. This financial path emphasizes Cosmos Bank's recovery and strategic repositioning following earlier episodes of stress, demonstrating its renewed competency in managing costs and earnings within the evolving cooperative banking environment.

2. Cost Structure of the Bank

2.1 Interest Costs*:* Interest paid — the single largest cost component — declined in relative terms from 78% of total expenses in 2014 to 56% in 2024, even as absolute interest payments remained high (₹1,195.05 crore → ₹997.50 crore). This moderation suggests improved deposit pricing, diversified funding, and a relatively better interest spread management post-2019. However, the absolute volume of interest cost continues to anchor overall expenditure, linking directly to the bank's asset-liability structure and loan pricing strategy.

2.2 Operating and Other Operating Expenses: Operating and other operating expenses increased markedly from ₹332 crore in 2014 to ₹779.61 crore in 2024, peaking in 2023 at ₹905.43 crore. The growth trajectory reflects expansion-related outlays, enhanced staff emoluments, technology costs, and recurrent administrative expenditures. The sharp rise in depreciation and "other operating" items—such as repairs, maintenance, and miscellaneous charges—points to intensified investment in modernization and compliance functions.

2.3 Total Cost Composition: By FY2024, interest costs constituted 56.13%, and operating costs 43.87% of total costs, indicating a notable structural shift toward a more cost-intensive operational model. This transition reflects a banking strategy that emphasizes service delivery, digital capability, and compliance readiness over interest-based efficiency alone.

3. Analytical Decomposition of Costs

3.1 **Interest vs. Operating Costs:** The decade-long trend illustrates an inverse relationship: as the share of interest cost declined, operating costs absorbed a larger proportion of total expenditure. This decomposition suggests a deliberate shift toward fixed-cost commitments in staff, systems, and infrastructure, possibly reflecting strategic repositioning for scale and resilience.

3.2 **Operating Cost Decomposition***:* Within total operating costs, staff expenses dominate, accounting for about 28–52% of operating costs across the decade. Depreciation and "other" overheads have grown significantly post-2019, representing technology upgrades, regulatory compliance, and risk mitigation expenditures.

3.3 **Staff Cost Intensity and Impact***:* The staff cost-to-operating cost ratio, fluctuating between 23.8% (2023) and 51.6% (2020), reflects considerable variability. Post-2020 stabilization toward the 30% range suggests progressive human resource optimization. However, the high staff intensity in certain years implies that productivity and role alignment remain key determinants of cost efficiency.

3.4 **Operational Risks Revealed by Cost Dynamics:** The growing share of "other operating expenses" — particularly under depreciation, repairs, and miscellaneous outlays — may signal embedded operational risk: rising fixed costs and potential rigidity in adjusting expenditures during low-income cycles. This necessitates cost governance mechanisms to maintain elasticity in the bank's expense base.

4. Key Cost Efficiency Ratios and Trends

Cost Efficiency Ratios

Year	NIM (%)	EDR (%)	CIR (%)	ROA (%)	Interest Cost to Total Cost %)	Operating Cot to Total Cost (%)	Staff Cost to Operating Cost (%)
2015	2.09	18.18	61.09	0.30	73.72	26.28	26.92
2016	2.50	21.73	30.94	0.15	83.49	16.51	40.93
2017	1.89	26.94	64.97	0.36	67.21	32.79	27.49
2018	1.89	29.63	60.31	-0.61	66.52	33.48	29.10
2019	2.23	21.97	69.60	0.39	64.72	35.28	30.78
2020	1.95	36.44	39.04	-0.19	73.08	26.92	51.57
2021	2.00	22.17	75.36	0.28	60.58	39.42	31.69

2022	3.07	32.90	37.14	0.38	66.04	33.96	50.31
2023	3.31	33.71	63.46	0.73	46.76	53.24	23.83
2024	3.04	23.87	62.46	1.69	56.13	43.87	28.68

(Source: Computed Values)

The ratios indicate: A notable improvement in cost efficiency; 2019–2022, with CIR declining to below 40%. Post-2022, CIR re-expanded to 62.46%, primarily due to higher non-staff operating outlays and digital-related depreciation. Interest cost ratio decline is a structural positive; however, operating cost expansion underscores the bank's transformation into a more service- and technology-driven cooperative entity. ROA improved to 1.69% in 2024, the highest in the series, demonstrating successful cost containment relative to income recovery.

5. Analysis of Earnings Management and Efficiency

Cosmos Bank's earnings pattern reveals a marked cyclical nature. Periods of strong operating surplus (2014–2018) were offset by heavy provisioning and loss years (2019–2021), largely due to asset quality stress and regulatory adjustments. However, since 2022, the bank has achieved a robust turnaround in profitability, supported by:

- Improved interest margin management (NIM > 3.0% post-2022).
- Diversified income base, with fee and commission income strengthening to over ₹138 crore in 2024.
- Rationalized funding and deposit pricing strategies.

The positive correlation between CIR moderation (till 2022) and NIM expansion underscores competent earnings management. Nonetheless, the recent rise in CIR necessitates renewed focus on productivity-linked performance measurement and digital cost rationalization.

6. Structural Implications: Scale, Diversification, and Cost Efficiency

The cost structure evolution at Cosmos Bank reflects a **transition from traditional spread-based intermediation toward diversified, technology-intensive banking.** Three key implications emerge:

1. **Scale and Fixed-Cost Optimization:** The steady increase in depreciation and "other operating" expenses confirms asset modernization and digital infrastructure expansion. To preserve profitability, these investments must yield measurable transaction efficiency and service diversification outcomes.
2. **Earnings Diversification:** Non-interest income, though variable, now plays a

stabilizing role in total earnings. Continued focus on fee-based services, insurance tie-ups, and digital payment solutions can further de-risk income streams.

3. **Cost Efficiency and Institutional Discipline:** The decadal experience reveals that sustained profitability depends on cost elasticity. Embedding data-driven cost monitoring, branch-level efficiency metrics, and periodic CIR benchmarking will be essential to maintaining competitiveness.

7. Evaluation of Cost and Earnings Dynamics and Performance

The financial performance of Cosmos Cooperative Bank Ltd., Pune over the decade 2014–2024 reflects a multidimensional transition—from phases of stress and volatility to one of renewed stability, efficiency, and strategic modernization. The evolution of the bank's income, cost composition, and profitability patterns indicates not only cyclical adjustments but also deliberate restructuring aimed at long-term competitiveness within the cooperative banking landscape.

7.1 Income Structure and Growth Dynamics: The total income of Cosmos Bank has shown steady resilience, rising from ₹1,856.92 crore in 2014 to ₹2,245.69 crore in 2024. Interest income continues to be the backbone of earnings, accounting for nearly 76–80% of total revenue. Within this, interest from loans and advances remains the dominant contributor, underscoring the bank's deep credit intermediation role. Non-interest income, although volatile—peaking at ₹749.14 crore in 2023—has emerged as a crucial stabilizing factor. The bank's significant gains from trading and sale of securities in select years (notably 2021 and 2023) reflect agile treasury management, though such income remains sensitive to market cycles. The challenge lies in sustaining diversified revenue streams beyond market-linked gains through consistent fee-based and service-oriented income.

7.2 Cost Structure and Composition: On the cost side, the decade reveals pronounced structural shifts. Total expenses increased from ₹1,527.16 crore in 2014 to ₹1,777.11 crore in 2024, driven primarily by rising operating costs and periodic provisioning shocks. Interest costs, which historically dominated total expenditure (73–83% of total costs), have moderated to around 56% in 2024, signalling reduced dependency on interest outgo but increased fixed-cost commitments. This moderation partly results from tighter deposit repricing and a growing share of low-cost deposits. Conversely, operating expenses have gained prominence, growing nearly threefold over the decade. Staff expenses alone form a major component—averaging 45–50% of operating costs—reflecting both salary revisions and expansion-related human resource commitments. The surge in other operating expenses

(₹551.30 crore in 2024 against ₹221.11 crore in 2014) mirrors strategic investments in technology, digital infrastructure, and branch modernization. Depreciation, maintenance, and IT-linked costs have risen, aligning with the bank's modernization drive but necessitating close monitoring of productivity outcomes relative to capital deployed.

7.3 **Earnings Performance and Profitability:** The bank's profitability trajectory underscores both resilience and transformation. Despite provisioning volatility—especially during 2019–2021, when non-performing asset (NPA) provisioning eroded surpluses—the bank has restored operational strength. Net profit after tax improved from ₹84.31 crore in 2014 to ₹384.05 crore in 2024. This recovery, supported by disciplined asset quality management and better cost containment post-2021, reaffirms the bank's capacity to navigate regulatory and market headwinds. Key efficiency indicators—Return on Assets (ROA), Cost-to-Income Ratio (CIR), and Net Interest Margin (NIM)—demonstrate improvement. NIM increased from 2.09% in 2015 to above 3.0% during 2022–2024, while CIR stabilized around 62–63% after peaking in high-cost years. The declining Interest Cost to Total Cost Ratio (from 73.72% in 2015 to 56.13% in 2024) highlights operational maturity and cost diversification, though the Operating Cost to Total Cost Ratio rising to 43.87% signals a growing fixed-cost base that warrants continued efficiency vigilance.

7.3 **Cost Efficiency Ratios and Structural Insights:** The interplay of cost ratios reveals important strategic insights. The Staff Cost to Operating Cost Ratio fluctuated significantly—ranging from 23.83% to 51.57%—indicating sensitivity to wage adjustments and variations in non-staff operating outlays. While staff intensity remains a core cost driver, the declining share in 2023–2024 points to improved process automation and digital efficiencies. However, the persistence of a relatively high CIR suggests scope for further rationalization of expenditure and optimization of operating leverage. The Operating Cost Decomposition also exposes underlying operational risks. High volatility in maintenance, depreciation, and miscellaneous heads signals periodic spikes in infrastructure and technology investments. While these reflect modernization imperatives, they must be balanced against return-generating capacities of new systems and service channels. The cost evolution thus portrays Cosmos Bank as a technology-adaptive UCB that is progressively shifting from variable to fixed-cost structures, embedding long-term capability enhancement within its cooperative framework.

8. Strategic Insights and Policy Recommendations

8.1 **Efficiency Rebalancing:** Operational efficiency must be reinforced through granular cost tracking, automation of routine processes, and improved resource utilization across branches and functions. Instituting cost benchmarking against

peer UCBs and periodic branch-level productivity audits will further institutionalize efficiency culture.

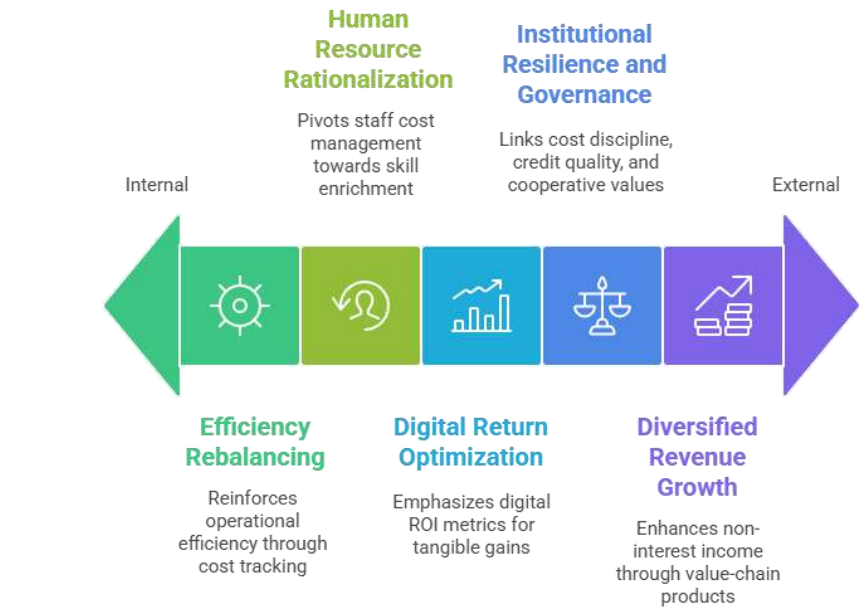
8.2 **Diversified Revenue Growth:** Non-interest income needs structured enhancement through cooperative value-chain products, remittance services, wealth management, and digital ecosystem partnerships. Developing stable fee-based businesses will help cushion the volatility of interest spreads and strengthen income sustainability.

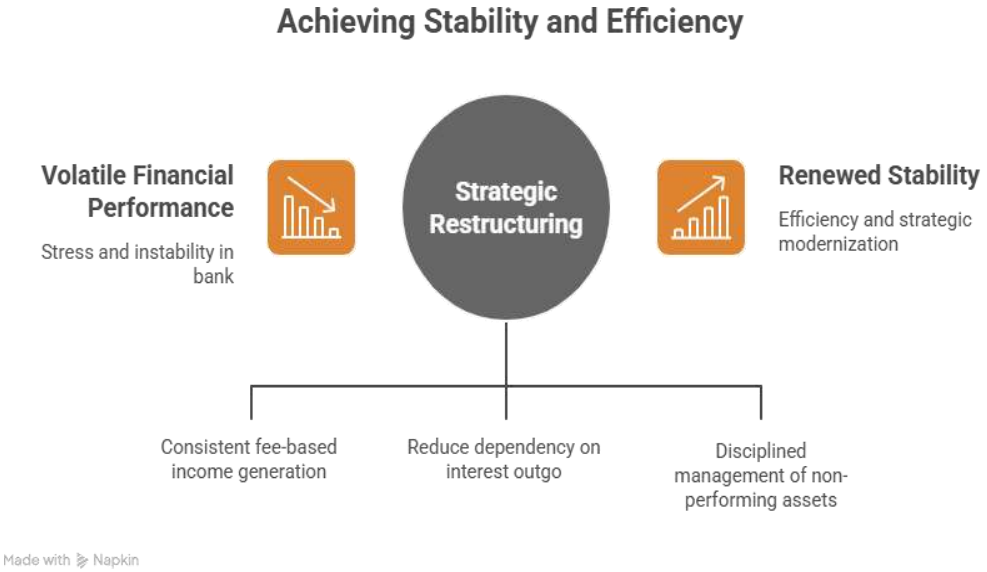
8.3 **Human Resource Rationalization:** Staff cost management should pivot toward skill enrichment, role specialization, and performance-linked remuneration rather than incremental manpower expansion. Capacity building in credit analytics, digital operations, and member engagement can yield higher productivity and service quality.

9 **Digital Return Optimization:** Given the capital intensity of recent technological investments, the bank should emphasize Digital ROI metrics—including transaction turnaround time, cost-per-transaction, and digital adoption ratios—in strategic reviews. These indicators will ensure that modernization translates into tangible cost and service gains.

10 **Institutional Resilience and Governance:** A strong governance framework linking cost discipline, credit quality, and cooperative values will be central to sustaining financial health and member confidence. Embedding cost governance within the Enterprise Risk Management (ERM) system can help proactively identify inefficiencies and optimize expenditure portfolios.

The financial evidence from 2014–2024 positions Cosmos Cooperative Bank Ltd. as a resurgent and adaptive UCB that has transitioned from cost stress and provisioning volatility toward stable profitability and modernized operations. Its trajectory captures the transformation of large urban cooperative banks—from traditional interest-margin dependency to multi-dimensional financial management emphasizing technology, diversification, and governance. The challenge ahead lies in translating structural cost commitments into enduring efficiency gains, ensuring that technological and operational investments are effectively monetized. With prudent cost governance, diversified revenue strategies, and institutional discipline, Cosmos Bank stands poised to consolidate its cooperative identity while achieving sustainable financial resilience.


Strategic insights ranked by focus: internal to external
Human Resource Rationalization
Pivots staff cost management towards skill enrichment
Institutional Resilience and Governance
Links cost discipline, credit quality, and cooperative values
Internal
External
Efficiency Rebalancing
Reinforces operational efficiency through cost tracking
Digital Return Optimization
Emphasizes digital ROI metrics for tangible gains
Diversified Revenue Growth
Enhances non-interest income through value-chain products
Made with Napkin


Achieving Stability and Efficiency
Volatile Financial Performance
Stress and instability in bank
Strategic Restructuring
Renewed Stability
Efficiency and strategic modernization
Consistent fee-based income generation
Reduce dependency on interest outgo
Disciplined management of non-performing assets
Made with Napkin

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Cost Elements	2014			2015			2016		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
I. Interest Costs (Interest paid) (i+ii+iii+iv)	**10,695.00**	**13,827.00**	**24,522.00**	**12424**	**15803**	**28227**	**13666**	**17225**	**30891**
i) On Customer deposits	10,110.00	13,450.00	23,560.00	11779	15344	27123	12855	16724	29579
ii) On Inter-bank deposits	271.00	210.00	482.00	319.00	276.00	595.00	427.00	293.00	721.00
iii) On Inter-bank borrowings (including from RBI / FIs)	182.00	47.00	228.00	166.00	33.00	200.00	225.00	59.00	285.00
iv) Others	132.00	120.00	252.00	160.00	149.00	309.00	158.00	148.00	306.00
Operating Expenses (A)	**1,711.00**	**2,715.00**	**4,425.00**	**2002.00**	**3033.00**	**5036.00**	**2219.00**	**3229.00**	**5448.00**
i) Staff expenses	1,682.00	2,646.00	4,328.00	1970.00	2955.00	4925.00	2181.00	3139.00	5320.00
ii) Directors fees	4.00	22.00	26.00	4.00	25.00	29.00	5.00	27.00	32.00
iii) Auditors' fees	25.00	47.00	72.00	29.00	54.00	82.00	33.00	63.00	96.00
Other Operating Expenses (B)	**1,826.00**	**1,908.00**	**3,734.00**	**2015.00**	**2195.00**	**4209.00**	**2348.00**	**2464.00**	**4812.00**
i) Rent, taxes, insurance and lighting	466.00	572.00	1,038.00	544.00	654.00	1198.00	541.00	568.00	1109.00
ii) Law charges	17.00	20.00	37.00	19.00	23.00	42.00	102.00	127.00	229.00
iii) Postage, telegrams and stamps	43.00	47.00	90.00	47.00	55.00	102.00	24.00	26.00	50.00
iv) Stationery, printing and advertising	101.00	109.00	210.00	103.00	114.00	217.00	51.00	57.00	108.00
v) Depreciation on and repairs to bank's property	317.00	337.00	655.00	371.00	375.00	745.00	57.00	98.00	155.00
vi) Others	0.00	0.00	0.00	0.00	0.00	0.00	60.00	16.00	76.00
	0.00	0.00	0.00	0.00	0.00	0.00	339.00	335.00	674.00
	0.00	0.00	0.00	0.00	0.00	0.00	97.00	59.00	157.00
	882.00	823.00	1,704.00	931.00	974.00	1905.00	1077.00	1177.00	2254.00
II. Total Operating Costs (A + B)	**3,537.00**	**4,623.00**	**8,159.00**	**4017.00**	**5228.00**	**9245.00**	**4567.00**	**5693.00**	**10260.00**
Total Cost [I + II]	**14,232.00**	**18,450.00**	**32,681.00**	**16,441.00**	**21,031.00**	**37,472.00**	**18,233.00**	**22,918.00**	**41,151.00**

Cost Elements	2017			2018			2019		
	SCB	**NSCB**	**All UCBs**	**SCB**	**NSCB**	**All UCBs**	**SCB**	**NSCB**	**All UCBs**
I. Interest Costs (Interest paid) (i+ii+iii+iv)	**14337**	**18963**	**33300**	**13594.75**	**18837.21**	**32431.95**	**13,719.15**	**17,428.03**	**31,147.19**
i) On Customer deposits	13554	18347	31901	12859.04	18107.62	30966.67	12,948.03	16,993.40	29,941.43
ii) On Inter-bank deposits	420.00	423.00	843.00	261.03	533.00	794.03	198.53	274.76	473.29
iii) On Inter-bank borrowings (including from RBI / FIs)	185.00	22.00	207.00	262.57	29.45	292.02	338.79	28.69	367.48
iv) Others	179.00	170.00	349.00	212.10	167.14	379.24	233.80	131.19	364.99
Operating Expenses (A)	**2445.00**	**3542.00**	**5987.00**	**2530.77**	**3731.18**	**6261.95**	**2,664.08**	**3,712.16**	**6,376.24**
i) Staff expenses	2403.00	3447.00	5850.00	2486.28	3630.62	**6116.90**	2,615.49	3,611.58	6,227.07
ii) Directors fees	5.00	27.00	32.00	6.31	29.30	**35.61**	6.38	29.77	36.15
iii) Auditors' fees	37.00	68.00	105.00	38.17	71.27	**109.44**	42.21	70.80	113.02
Other Operating Expenses (B)	**2654.00**	**2779.00**	**5433.00**	**3204.00**	**3073.86**	**6277.86**	**2,610.30**	**3,245.32**	**5,855.63**
i) Rent, taxes, insurance and lighting	586.00	577.00	1163.00	606.56	621.41	1227.97	644.44	659.78	1,304.22
ii) Law charges	122.00	203.00	325.00	141.13	242.12	383.25	151.11	254.55	405.66
iii) Postage, telegrams and stamps	26.00	32.00	57.00	31.69	33.78	65.47	35.03	35.04	70.07
iv) Stationery, printing and advertising	57.00	62.00	118.00	60.75	59.63	120.37	60.39	56.44	116.82
v) Depreciation on and repairs to bank's property	60.00	85.00	144.00	52.96	80.24	133.20	49.54	81.62	131.16
vi) Others	60.00	43.00	103.00	52.91	43.37	96.28	50.70	40.99	91.69
	364.00	354.00	719.00	359.05	347.81	706.86	364.56	353.07	717.63
	112.00	107.00	219.00	126.58	110.55	237.13	148.01	120.23	268.25
	1266.00	1318.00	2584.00	1772.36	1534.96	3307.33	1,106.53	1,643.59	2,750.12
II. Total Operating Costs (A + B)	**5099.00**	**6321.00**	**11420.00**	**5734.77**	**6805.04**	**12539.81**	**5274.39**	**6957.48**	**12231.87**
Total Cost [I + II]	**19,436.00**	**25,284.00**	**44,720.00**	**19,329.52**	**25,642.24**	**44,971.76**	**18,993.54**	**24,385.51**	**43,379.05**

Cost Elements	2020			2021			2022		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
I. Interest Costs (Interest paid) (i+ii+iii+iv)	**14659.31**	**18517.71**	**33177.01**	**13502.99**	**18612.57**	**32115.56**	**11,397.95**	**17,320.79**	**28,718.74**
i) On Customer deposits	13931.85	18036.18	31968.03	12853.87	18189.84	31043.70	10,893.16	16,900.72	27,793.88
ii) On Inter-bank deposits	206.91	265.79	472.70	195.71	263.83	459.54	116.71	256.99	373.70
iii) On Inter-bank borrowings (including from RBI / FIs)	273.60	38.61	312.21	104.94	25.23	130.17	47.97	31.87	79.84
iv) Others	246.94	177.13	424.07	348.47	133.67	482.14	340.11	131.21	471.31
Operating Expenses (A)	**2881.00**	**4000.84**	**6881.83**	**2789.47**	**4032.86**	**6822.34**	**2,928.77**	**4,252.98**	**7,181.75**
i) Staff expenses	2833.48	3894.65	6728.13	2745.24	3922.74	6667.98	2,878.96	4,142.51	7,021.47
ii) Directors fees	7.41	29.83	37.24	5.89	26.53	32.42	9.45	31.52	40.97
iii) Auditors' fees	40.10	76.36	116.46	38.35	83.59	121.94	40.36	78.95	119.31
Other Operating Expenses (B)	**3336.35**	**3261.43**	**6597.78**	**2591.27**	**3127.62**	**5718.89**	**3,259.44**	**3,459.24**	**6,718.68**
i) Rent, taxes, insurance and lighting	653.12	672.67	1325.79	628.55	626.10	1254.65	617.94	591.29	1,209.23
ii) Law charges	181.52	286.13	467.65	217.14	352.76	569.90	221.42	375.87	597.29
iii) Postage, telegrams and stamps	36.89	36.19	73.08	35.44	26.08	61.52	36.27	29.72	65.99
iv) Stationery, printing and advertising	59.32	55.95	115.27	58.47	57.24	115.71	61.07	55.13	116.20
v) Depreciation on and repairs to bank's property	45.09	76.63	121.72	34.80	63.77	98.57	37.62	66.96	104.58
vi) Others	54.95	40.93	95.88	26.16	27.03	53.19	40.08	32.39	72.46
	359.13	357.83	716.96	356.51	344.15	700.67	339.76	342.61	682.37
	181.62	125.56	307.17	147.81	128.11	275.92	181.97	142.01	323.99
	1764.72	1609.54	3374.26	1086.39	1502.39	2588.78	1,723.30	1,823.26	3,546.56
II. Total Operating Costs (A + B)	**6217.35**	**7262.27**	**13479.62**	**5380.74**	**7160.48**	**12541.23**	**6188.21**	**7712.22**	**13900.43**
Total Cost [I + II]	**20,876.65**	**25,779.98**	**46,656.63**	**18,883.73**	**25,773.06**	**44,656.79**	**17,586.16**	**25,033.00**	**42,619.17**

Cost Elements	2023			2024		
	SCB	**NSCB**	**All UCBs**	**SCB**	**NSCB**	**All UCBs**
I. Interest Costs (Interest paid) (i+ii+iii+iv)	**11,092.70**	**16,382.35**	**27,475.05**	**12,837.91**	**17,450.96**	**30,288.87**
i) On Customer deposits	10,541.81	16,063.40	26,605.22	12,299.75	17,058.38	29,358.13
ii) On Inter-bank deposits	94.28	192.99	287.27	57.75	291.48	349.23
iii) On Inter-bank borrowings (including from RBI / FIs)	107.28	33.09	140.38	117.19	33.34	150.52
iv) Others	349.32	92.86	442.18	363.23	67.76	430.99
Operating Expenses (A)	**3,010.55**	**4,381.90**	**7,392.45**	**3,057.69**	**4,501.59**	**7,559.29**
i) Staff expenses	2,955.24	4,259.07	7,214.31	2,998.76	4,369.60	7,368.36
ii) Directors fees	12.52	36.44	48.96	12.85	44.63	57.48
iii) Auditors' fees	42.80	86.38	129.18	46.09	87.36	133.45
Other Operating Expenses (B)	**3,716.33**	**3,827.59**	**7,543.92**	**3,889.62**	**4,046.49**	**7,936.11**
i) Rent, taxes, insurance and lighting	630.68	637.15	1,267.83	662.14	640.80	1,302.94
ii) Law charges	233.94	387.94	621.87	245.75	392.30	638.04
iii) Postage, telegrams and stamps	39.69	33.67	73.36	55.56	20.13	75.69
iv) Stationery, printing and advertising	60.96	58.46	119.42	60.38	60.87	121.25
v) Depreciation on and repairs to bank's property	48.16	75.83	123.99	50.48	80.10	130.58
vi) Others	45.78	38.83	84.60	59.80	42.00	101.79
	366.98	324.02	691.00	434.55	344.29	778.84
	195.44	152.81	348.25	204.11	162.44	366.56
	2,094.71	2,118.88	4,213.59	2,116.85	2,303.57	4,420.42
II. Total Operating Costs (A + B)	**6726.88**	**8209.49**	**14936.37**	**6947.31**	**8548.09**	**15495.40**
Total Cost [I + II]	**17,819.58**	**24,591.84**	**42,411.42**	**19,785.22**	**25,999.04**	**45,784.27**

Annexure - IV

Income Variables	2014			2015			2016		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
1. Interest / Discount received [2 + 3 + 4 + 5]	**15,329.00**	**20,563.00**	**35,891.00**	**17,339.00**	**23,289.00**	**40,628.00**	**19,197.00**	**25,265.00**	**44,463.00**
2. Interest / Discount received on loans and advances (other than from banks)	10,925.00	14,166.00	25,091.00	11,989.00	15,956.00	27,945.00	13,285.00	17,459.00	30,743.00
3. Interest on market lending (to banks, if any)	106.00	139.00	246.00	121.00	236.00	357.00	99.00	292.00	391.00
4. Interest on investments	3,879.00	5,491.00	9,369.00	4,440.00	6,196.00	10,636.00	4,955.00	6,592.00	11,547.00
5. Interest on additional balance with RBI, inter-bank deposits, placements and credits	418.00	767.00	1,185.00	789.00	901.00	1,691.00	858.00	923.00	1,781.00
6. Other Income	**1,681.00**	**1,056.00**	**2,738.00**	**2,083.00**	**1,281.00**	**3,365.00**	**1,974.00**	**1,384.00**	**3,358.00**
i) Fee, Commission, exchange and brokerage	256.00	168.00	425.00	279.00	156.00	435.00	288.00	171.00	459.00
ii) Profit (+) / Loss (-) on forex operations	73.00	11.00	83.00	82.00	4.00	85.00	66.00	3.00	69.00
iii) Profit (+) / Loss (-) on trading and sale of securities	396.00	83.00	479.00	509.00	164.00	673.00	376.00	95.00	471.00
iv) Profit (+) / Loss (-) on sale of fixed assets	6.00	4.00	11.00	7.00	5.00	12.00	9.00	5.00	14.00
v) Profit (+) / Loss (-) on sale of other assets	3.00	8.00	11.00	2.00	11.00	13.00	-2.00	9.00	7.00
vi) Dividend Income	11.00	32.00	43.00	12.00	46.00	58.00	4.00	56.00	60.00
vii) Miscellaneous Income	936.00	749.00	1,685.00	1,194.00	895.00	2,089.00	1,234.00	1,045.00	2,278.00
7. Total Income [1+6]	**17,010.00**	**21,619.00**	**38,629.00**	**19,422.00**	**24,571.00**	**43,993.00**	**21,172.00**	**26,649.00**	**47,821.00**
12. Operating Profit (+) / Loss (-) [7 - 11]	**2,779.00**	**3,169.00**	**5,948.00**	**2,981.00**	**3,540.00**	**3,540.00**	**2,939.00**	**3,731.00**	**6,670.00**
14. Net Profit (+) / Loss (-) before taxes [12 - 13]	**1,661.00**	**2,346.00**	**4,007.00**	**2,058.00**	**2,788.00**	**4,846.00**	**1,996.00**	**2,978.00**	**4,974.00**
16. Net Profit (+) / Loss (-) after taxes [14 - 15]	**1,223.00**	**1,761.00**	**2,984.00**	**1,377.00**	**2,133.00**	**3,511.00**	**1,384.00**	**2,287.00**	**3,672.00**

Income Variables	2017			2018			2019		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
1. Interest / Discount received [2 + 3 + 4 + 5]	**20196.34**	**27,312.99**	**47,509.34**	**20236.66**	**28332.44**	**48569.10**	**20,790.02**	**27,133.73**	**47,923.75**
2. Interest / Discount received on loans and advances (other than from banks)	13847.61	18,287.29	32,134.90	13801.67	19210.09	33011.76	14,355.09	18,613.79	32,968.87
3. Interest on market lending (to banks, if any)	150.90	194.25	345.15	97.18	150.58	247.76	79.21	95.07	174.28
4. Interest on investments	5134.38	7,843.89	12,978.27	5455.75	8072.44	13528.20	5,442.63	7,620.19	13,062.82
5. Interest on additional balance with RBI, inter-bank deposits, placements and credits	1063.45	987.56	2,051.01	882.06	899.34	1781.39	913.09	804.69	1,717.77
6. Other Income	**2933.27**	**2,120.60**	**5,053.87**	**2985.68**	**1867.31**	**4852.99**	**1,964.25**	**1,417.49**	**3,381.74**
i) Fee, Commission, exchange and brokerage	316.49	174.28	490.77	387.68	220.79	608.47	417.54	204.04	621.58
ii) Profit (+) / Loss (-) on forex operations	88.84	3.00	91.84	81.87	31.45	113.32	77.52	1.22	78.74
iii) Profit (+) / Loss (-) on trading and sale of securities	1218.05	680.79	1,898.84	592.45	260.31	852.76	248.33	118.63	366.96
iv) Profit (+) / Loss (-) on sale of fixed assets	-21.64	12.60	-9.04	11.67	94.09	105.76	61.41	8.63	70.03
v) Profit (+) / Loss (-) on sale of other assets	1.42	10.22	11.65	-3.12	5.12	2.00	3.44	12.26	15.70
vi) Dividend Income	10.42	65.33	75.75	8.43	54.73	63.16	6.20	41.18	47.38
vii) Miscellaneous Income	1319.68	1,174.38	2,494.07	1906.69	1200.82	3107.51	1,149.81	1,031.54	2,181.35
7. Total Income [1+6]	**23129.62**	**29,433.59**	**52,563.21**	**23222.34**	**30199.75**	**53422.09**	**22,754.27**	**28,551.22**	**51,305.49**
12. Operating Profit (+) / Loss (-) [7 - 11]	**3693.35**	**4150.05**	**7843.40**	**3892.82**	**4557.51**	**8450.33**	**3,695.88**	**4,144.82**	**7,840.70**
14. Net Profit (+) / Loss (-) before taxes [12 - 13]	**2254.87**	**3064.34**	**5319.21**	**2186.74**	**3402.68**	**5589.41**	**2,590.21**	**2,775.97**	**5,366.18**
16. Net Profit (+) / Loss (-) after taxes [14 - 15]	**1563.88**	**2361.54**	**3925.43**	**1444.55**	**2637.28**	**4081.83**	**1,760.63**	**1,786.84**	**3,547.47**

Income Variables	2020			2021			2022		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
1. Interest / Discount received [2 + 3 + 4 + 5]	**16920.46**	**27810.84**	**44731.30**	**19462.83**	**27836.77**	**47299.60**	**18,564.84**	**28,060.18**	**46,625.01**
2. Interest / Discount received on loans and advances (other than from banks)	10254.93	18838.79	29093.72	12949.70	18629.22	31578.92	12,399.46	18,865.50	31,264.96
3. Interest on market lending (to banks, if any)	120.93	106.66	227.59	191.60	102.47	294.07	254.23	109.71	363.94
4. Interest on investments	5441.68	7951.52	13393.20	5287.24	8107.43	13394.67	5,038.83	8,182.25	13,221.07
5. Interest on additional balance with RBI, inter-bank deposits, placements and credits	1102.91	913.87	2016.78	1034.29	997.65	2031.94	872.31	902.72	1,775.04
6. Other Income	**3386.72**	**1966.24**	**5352.96**	**2838.15**	**2311.09**	**5149.23**	**2,823.93**	**1,999.51**	**4,823.44**
i) Fee, Commission, exchange and brokerage	420.00	197.09	617.09	395.73	189.50	585.23	486.01	209.65	695.65
ii) Profit (+) / Loss (-) on forex operations	66.36	3.68	70.04	63.38	254.09	317.47	106.40	0.67	107.07
iii) Profit (+) / Loss (-) on trading and sale of securities	796.80	510.82	1307.62	1330.27	755.27	2085.54	454.26	274.39	728.64
iv) Profit (+) / Loss (-) on sale of fixed assets	1.54	5.96	7.50	-0.55	1.32	0.77	8.26	43.57	51.82
v) Profit (+) / Loss (-) on sale of other assets	-3.86	4.91	1.05	0.47	2.49	2.96	-11.84	4.53	-7.32
vi) Dividend Income	5.03	40.12	45.15	3.07	22.16	25.23	6.62	18.82	25.44
vii) Miscellaneous Income	2100.86	1203.65	3304.51	1045.78	1086.25	2132.03	1,774.23	1,447.90	3,222.13
7. Total Income [1+6]	**20307.18**	**29777.08**	**50084.26**	**22300.97**	**30147.86**	**52448.83**	**21,388.77**	**30,059.69**	**51,448.46**
12. Operating Profit (+) / Loss (-) [7 - 11]	**-569.47**	**3986.23**	**3416.76**	**3417.24**	**4374.80**	**7792.04**	**3,802.60**	**5,026.69**	**8,829.29**
14. Net Profit (+) / Loss (-) before taxes [12 - 13]	**-5291.66**	**1009.19**	**-4282.46**	**1175.18**	**1790.71**	**2965.89**	**1,831.80**	**2,193.28**	**4,025.08**
16. Net Profit (+) / Loss (-) after taxes [14 - 15]	**-5647.94**	**82.18**	**-5565.76**	**577.69**	**979.91**	**1557.61**	**1,532.82**	**1,363.66**	**2,896.48**

Income Variables	2023			2024		
	SCB	NSCB	All UCBs	SCB	NSCB	All UCBs
1. Interest / Discount received [2 + 3 + 4 + 5]	**19,472.91**	**28,124.82**	**47,597.73**	**21,475.60**	**29,232.18**	**50,707.78**
2. Interest / Discount received on loans and advances (other than from banks)	12,783.67	18,563.04	31,346.72	14,088.21	19,412.04	33,500.25
3. Interest on market lending (to banks, if any)	116.77	134.88	251.65	106.22	122.06	228.28
4. Interest on investments	5,479.41	8,516.24	13,995.65	5,729.59	8,662.41	14,391.99
5. Interest on additional balance with RBI, inter-bank deposits, placements and credits	1,093.06	910.66	2,003.72	1,551.59	1,035.68	2,587.27
6. Other Income	**2,987.44**	**1,795.77**	**4,783.21**	**2,668.23**	**1,821.48**	**4,489.71**
i) Fee, Commission, exchange and brokerage	548.64	224.42	773.06	607.54	214.77	822.31
ii) Profit (+) / Loss (-) on forex operations	85.77	-24.75	61.02	55.32	1.28	56.60
iii) Profit (+) / Loss (-) on trading and sale of securities	179.55	130.96	310.51	182.61	130.57	313.18
iv) Profit (+) / Loss (-) on sale of fixed assets	19.89	16.76	36.65	9.61	-201.42	-191.81
v) Profit (+) / Loss (-) on sale of other assets	3.53	3.32	6.85	0.88	12.64	13.52
vi) Dividend Income	3.40	29.77	33.17	1.09	24.91	26.00
vii) Miscellaneous Income	2,146.66	1,415.29	3,561.95	1,811.18	1,638.74	3,449.91
7. Total Income [1+6]	**22,460.35**	**29,920.60**	**52,380.94**	**24,143.83**	**31,053.67**	**55,197.50**
12. Operating Profit (+) / Loss (-) [7 - 11]	**4,640.77**	**5,328.75**	**9,969.52**	**4,358.61**	**5,054.62**	**9,413.23**
14. Net Profit (+) / Loss (-) before taxes [12 - 13]	**1,741.68**	**2,658.22**	**4,399.90**	**3,158.52**	**3,150.76**	**6,309.28**
16. Net Profit (+) / Loss (-) after taxes [14 - 15]	**1,273.72**	**1,806.70**	**3,080.42**	**2,407.23**	**2,293.20**	**4,700.43**

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