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Liquidity Management Practices of Indian Banks through Money Market Instruments

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***Abstract* – Liquidity is one of the most important needs of any bank because it ensures that banks always have enough cash to meet customer withdrawals, payments, and regulatory requirements. If liquidity is not managed well, even a strong bank can face serious problems. In India, banks use different money market instruments to manage short-term liquidity. These include call money, Treasury Bills, Certificates of Deposit, Commercial Papers, and repo and reverse repo transactions. These tools help banks quickly borrow or invest funds for very short periods, depending on whether they have a shortage or surplus of liquidity. This research paper explains how Indian banks use these instruments to maintain stable liquidity and support daily operations. The study is fully based on secondary data collected from RBI reports, banking journals, published research papers, and financial websites. The analysis shows that public and private sector banks widely use call money and repo operations because they are flexible, safe, and regulated by the Reserve Bank of India. Treasury Bills and Certificates of Deposit are also used to meet statutory requirements and raise funds during tight liquidity periods. The study also identifies some challenges faced by banks. These include sudden liquidity shocks, fast changes in interest rates, seasonal cash demand, and dependence on RBI liquidity support. Smaller banks face more difficulty due to limited access to money market instruments. Overall, the paper concludes that Indian banks must strengthen their liquidity strategies by improving forecasting, using more digital tools, and diversifying their liquidity instruments to maintain long-term financial stability.**

***Keywords* – Liquidity Management, Indian Banks, Money Market Instruments, RBI, Call Money, Repo, Certificates of Deposit.**

I. INTRODUCTION

Liquidity is like the lifeblood of the banking system. Banks need the right amount of liquidity at the right time to meet customer withdrawals, process payments, and maintain trust. In India, managing liquidity has become even more important in recent years because of rapid economic growth, digital payments, new RBI regulations, and stronger links with global financial markets. Since banks play a major role in moving money across the economy, their ability to manage liquidity directly affects profitability, risk, and long-term stability.

Indian banks face constantly changing liquidity conditions. RBI policy changes, shifts in credit demand, seasonal tax payments, or global uncertainties can all cause sudden liquidity pressure. Banks must balance liquidity and profitability; too much liquidity results in low returns, while too little liquidity increases the risk of financial trouble (Chakraborty & Das, 2019)

.To handle this balance, banks use money market instruments, which are short-term financial tools. Examples include Treasury Bills, Call Money, Certificates of Deposit, Commercial Paper, Repo and Reverse Repo transactions. These instruments help banks borrow, lend, or invest funds based on their daily or weekly needs.

India's money market has grown stronger over the years with better technology, transparent reporting, and strict RBI supervision. Different instruments support different needs. For example, the call money market helps banks manage overnight cash needs, while repo transactions help them maintain CRR and SLR requirements. Private banks often use CDs and

CPs to raise funds, whereas public sector banks rely more on T-Bills and repo operations.As digital payments and economic activities grow, liquidity management is becoming more complex (Chakraborty & Das, 2019). Understanding how banks use money market instruments helps explain how they maintain stability and support economic growth. This study, therefore, examines the liquidity practices of Indian banks using secondary data from the RBI and financial sources.

Liquidity management refers to the process by which banks ensure they have enough cash and liquid assets to meet their obligations at all times. Since banks accept deposits and provide loans, they must continuously balance inflows and outflows of funds. A failure in liquidity management can lead to serious problems, including loss of customer confidence, penalties from the RBI, and even bank failures.

In India, liquidity management has become increasingly important due to several factors like Increased competition in the banking sector, rising digital transactions and instant payments, strict RBI liquidity norms such as CRR, SLR, and LCR, market volatility caused by global economic uncertainty.

To manage liquidity efficiently, banks use a range of money market instruments, short-term financial tools that help them borrow and lend funds for periods ranging from one day to one year. Examples include the call money market, Treasury Bills, commercial paper (CP), certificates of deposit (CD), and repo/reverse repo operations.

The RBI plays a major role through its monetary policy framework and Liquidity Adjustment Facility (LAF), which includes repo, reverse repo, MSF, and open market operations. These tools help regulate liquidity in the banking system and maintain financial stability.

Types of Money Market Instruments

- **Treasury Bills (T-Bills):** Short-term government securities that are extremely safe. They are sold at a discount and redeemed at full value, making them a simple and risk- free way for banks to park surplus money.
- **Commercial Paper (CP):** Unsecured short-term notes issued by strong, creditworthy companies when they need quick funds. They offer slightly higher returns because they carry more risk than government securities.
- **Call Money:** Very short-term funds borrowed and lent between banks, usually for just one day. It helps banks quickly manage sudden cash shortages or meet daily reserve requirements.
- **Certificates of Deposit (CDs):** Fixed-return deposits issued by banks for short periods. They are safe, easy to trade, and commonly used when institutions want guaranteed short-term returns.
- **Repurchase Agreements (Repos):** Short-term arrangements where one party sells securities and agrees to buy them back later. It works like a secured loan and helps banks manage immediate liquidity needs smoothly.

Problem Statement

Indian banks operate in a dynamic environment where liquidity fluctuates due to customer withdrawals, payment obligations, government cash flows, and market volatility. To ensure stability, banks must efficiently use money market instruments. Various challenges are uneven liquidity distribution between large and small banks, dependence on RBI liquidity and limited active participation of small banks in some money market segments

Objectives of the Study

- To understand the role of liquidity management in Indian banking operations.
- To examine the different money market instruments used by Indian banks.
- To analyse how banks use call money, repo, T-bills, CPs, and CDs for liquidity management.
- To evaluate RBI's role in supporting liquidity through regulatory frameworks.
- To identify challenges faced by banks and suggest improvements.

Comparison Of Risk And Return Profiles

Instrument	Risk Level	Expected Annual Return (Approx.)	Investor Type	Key Benefit
Treasury Bills	Very Low	6–7%	Risk-averse investors	Government-backed safety
Certificates of Deposit	Low	6.5–7.5%	Moderate risk- takers	Fixed return and flexibility
Commercial Paper	Moderate	7–8%	Corporate or institutional investors	Higher yield than T-Bills
Call Money	Low to Moderate	5–6% (variable daily rates)	Banks and financial institutions	Liquidity and short-term balance
Repo Agreements	Very Low	6–7% (repo rate- based)	Banks, NBFCs, institutional investors	Collateral-backed liquidity source

II. LITERATURE REVIEW

Majid and Rais (2003) discuss how Islamic banks struggle to manage liquidity because many traditional tools, like interest-based repos or T-bills, cannot be used under Shariah rules. They explain that Islamic banks often lack standardised instruments and active secondary markets, which makes short-term liquidity planning difficult (Chakraborty & Das, 2022). The paper identifies new opportunities such as sukuk, commodity-based transactions, and Shariah- compliant central bank facilities. It highlights the need for proper regulations, uniform contracts, and stronger coordination between Islamic financial institutions. Overall, the authors argue that developing clear and widely accepted Islamic liquidity tools can improve stability, reduce funding stress, and support growth in Islamic banking systems.

Patra et al. (2016) describe how India's monetary policy framework shifted from a broad "corridor" approach to a more precise, targeted system. They explain how tools like repo, reverse repo, and open market operations help RBI control liquidity more accurately (Chakraborty & Das, 2022). The study shows that improved policy design has helped stabilise short-term interest rates and made liquidity conditions more predictable for banks. The chapter also notes that banks must upgrade their internal liquidity systems to match the RBI's more advanced policy tools. Overall, the authors show how better coordination and modern techniques have strengthened India's liquidity management and monetary transmission over time.

Kannan, Gupta & Sanyal (2003) explained how liquidity measures such as CRR, SLR, and RBI's market operations act as key tools for monetary policy. The authors highlight that some instruments work quickly but are costly for banks (like CRR), while others, such as open market operations, are more flexible and market-friendly. They analyse how these tools affect interest rates, lending ability, and overall

liquidity in the banking system. The paper argues that India needs a balanced mix of instruments to manage liquidity effectively, especially during volatile periods. Overall, it provides a practical view of how liquidity tools shape monetary policy outcomes.

Satya Krishna Sharma et al. (2022) used real data from Indian commercial banks to identify liquidity management challenges. The authors find that banks often face liquidity stress due to seasonal cash flows, sudden deposit withdrawals, and uncertain market conditions (Chakraborty & Das, 2023). Smaller banks struggle more because they have limited access to money markets and depend heavily on RBI facilities. The paper highlights the need for better liquidity forecasting, stronger internal controls, and regular stress testing. The authors recommend improving interbank market access and strengthening RBI support mechanisms. Overall, the study shows how practical issues, not just policy rules, influence liquidity risk in Indian banks.

Bala-Keffi et al. (2022) examined how different monetary policy tools, such as interest rates, reserve requirements, and market operations, affect banks' liquidity. The authors find that the effectiveness of these tools depends on how developed and stable a country's financial markets are. In deeper markets, open market operations work quickly, while in less developed markets, reserve requirements may have stronger effects. The paper emphasises that central bank credibility and clear communication are essential for banks to adjust liquidity smoothly. Overall, the authors show that monetary policy tools can manage liquidity well, but their impact varies across banking systems.

Singh & Tandon (2012) explains how Indian banks use asset-liability management (ALM) to balance liquidity, interest-rate risk, and profitability. The authors describe practical ALM methods such as gap analysis, maturity ladders, and duration matching. They note that large banks generally have strong ALM committees and more advanced systems, while smaller banks rely on simpler approaches. The paper highlights the importance of planning for unexpected liquidity shortages and building contingency funding strategies (Chakraborty et al., 2025). It also suggests that banks should regularly monitor mismatches and strengthen governance practices. Overall, the study provides a practical understanding of how banks manage liquidity through ALM frameworks.

Nath (2015) focuses on the repo market and explains how it supports liquidity management for banks and financial institutions. The paper describes a repo as a transaction where a bank borrows money by selling government securities with an agreement to buy them back later. Since repos are backed by collateral, they offer lower risk and more stable pricing than unsecured borrowing. Nath highlights how repos help banks meet short-term liquidity needs and how the RBI uses repo operations to control system-wide liquidity. The paper also explains operational aspects like margins and settlements. Overall, it shows that a strong repo market is essential for financial stability.

Kumar & Yadav (2013) present a simple framework for understanding liquidity risk in banks. They explain the full cycle of managing liquidity, identifying risks, measuring possible shortages, monitoring cash flows, and taking corrective actions. The authors link common liquidity problems, such as unexpected withdrawals or funding gaps, to practical solutions like maintaining liquid assets, using money market borrowing, and creating contingency plans. They emphasise the need for strong governance, stress testing, and continuous monitoring. The paper provides a clear, beginner-friendly explanation of how banks can proactively manage liquidity risk using structured processes.

Charmal & Goyal (2022) studies how liquidity conditions affect monetary transmission in India. The authors analyse data to understand how changes in policy rates pass through to banks and the broader economy. They find that liquidity levels in the banking system play a major role when liquidity is abundant, rate transmission is slower, but when liquidity is tight, policy changes move faster through the system. The study stresses the importance of RBI's liquidity operations in ensuring smooth monetary transmission. It also suggests that stable liquidity conditions improve credit flow and reduce interest-rate volatility. Overall, the paper shows how liquidity and monetary policy are closely linked.

Brahmaiah (2022) studied how Indian banks manage market risk, which includes risks from interest rates, share prices, foreign exchange, and changing market conditions. The study explains that Indian banks face market risks every day because they deal with investments, loans, and trading activities. The research found that most banks follow RBI rules and use tools like Value at Risk (VaR), stress testing, and scenario analysis to control risk. However, some banks especially smaller ones still lack advanced technology and modern risk measurement systems. The study also shows that strong risk management leads to better financial performance, greater stability, and more trust among depositors. The author concludes that Indian banks need better training, upgraded software, and stronger internal controls to handle fast-changing financial markets.

Bervas (2006) explores the concept of market liquidity and how it should be included in risk management practices. The paper explains that during normal times, markets function smoothly, but during stress, liquidity can disappear quickly, causing sharp price movements and funding difficulties. Bervas argues that financial institutions must treat liquidity as a core risk factor rather than assuming markets will always remain stable. He recommends better measurement tools, stress scenarios, and contingency plans. The paper highlights the importance of understanding how market behaviour can change suddenly and why banks must prepare for such liquidity shocks.

Hassan et al. (2013) compared how Islamic banks and conventional banks manage liquidity, focusing on the financial instruments they use. The study explains that

Islamic banks cannot use interest-based tools like Treasury Bills, repos, or conventional loans due to Shariah rules. Instead, they rely on instruments such as sukuk, commodity murabaha, and profit-sharing contracts. The authors found that Islamic banks often struggle with liquidity because they have fewer investment options and limited secondary markets to buy or sell instruments quickly. Conventional banks, on the other hand, have better access to tools like call money, CDs, CPs, and government securities, making liquidity management easier and more flexible. The study suggests that Islamic banking needs more standardised products, stronger regulations, and deeper financial markets.

Das (2025) provides a complete and easy-to-understand overview of the Indian financial system, covering markets, instruments, institutions, services, and regulatory frameworks. The book explains how different parts of the financial system—such as banks, stock markets, money markets, insurance companies, and financial intermediaries—work together to support the economy. A major focus is on money market instruments like Treasury Bills, Commercial Papers, Certificates of Deposit, and repos, which help banks manage short-term liquidity. Das highlights how these instruments provide safe, quick, and efficient ways for financial institutions to borrow and lend funds. The book also explains the role of regulatory bodies like the RBI, SEBI, and IRDAI in maintaining stability, transparency, and investor protection. The author stresses that strong regulations and well-developed markets are essential for smooth liquidity management, reducing risk, and promoting financial growth.

III. RESEARCH METHODOLOGY

This study is based completely on secondary data, meaning the information used is already published by credible institutions, rather than collected directly from people through surveys or interviews. Since the topic deals with banking operations, RBI policies, and financial market movements, secondary data is the most practical and trusted source. Liquidity management in banks is a large-scale, system-level process, and the best information about it is found in official reports, market statistics, and academic research. These sources provide accurate, detailed insights that individual respondents may not be able to provide.

The aim of this study is to understand how Indian banks manage their liquidity using money market instruments such as call money, Treasury Bills, Certificates of Deposit, Commercial Papers, repos, and reverse repos. These instruments are regulated, recorded, and monitored by the Reserve Bank of India and financial institutions. Because of this, published data gives a clearer and more reliable picture of liquidity patterns than primary research can offer. Collecting primary data on this subject would not only be difficult but also restricted due to confidentiality rules followed by banks. Therefore, secondary data is the most efficient and suitable approach for this research.

Research Design

This study uses a descriptive research design. A descriptive design is used when the objective is to present facts, explain existing practices, and describe how things work in real life. In this case, the study aims to describe how banks manage liquidity, what money market instruments they use, and how frequently these tools are used. Descriptive research does not involve any manipulation of variables or experiments. Instead, it focuses on presenting and interpreting real-world behaviour based on already available information.

The descriptive design helps us understand patterns in liquidity management such as:

- how often banks borrow funds overnight,
- how banks use repos to meet their short-term needs,
- how much they invest in Treasury Bills,
- and how RBI policies influence liquidity conditions.

This design allows a detailed explanation of trends without altering any conditions. It gives a clear and simple picture of how liquidity management actually happens in Indian banks.

Data Collection

Since this research is completely based on secondary data, information has been collected from various authentic and widely recognised sources. These include:

1. Reserve Bank of India Publications

RBI is the central authority controlling liquidity in the country. Its publications provide accurate and official information. The study uses:

- RBI Annual Reports
- Financial Stability Reports
- Monetary Policy Statements
- Liquidity Adjustment Facility and money market data
- Daily market trends from RBI's Database on Indian Economy (DBIE)

These reports help us understand system-wide liquidity, interest rates, and the use of money market instruments.

2. Research Journals and Academic Databases

The study also refers to various academic papers, journals, and published research available in databases such as:

- Google Scholar
- ResearchGate
- SSRN
- University library resources

These materials provide theoretical models, previous findings, and comparisons with global liquidity management practices.

Secondary data provides a reliable, cost-effective, and time-efficient method for this study. Liquidity data is sensitive, and banks do not easily reveal operational details through surveys. RBI and market databases already publish accurate statistics, making secondary data ideal. It also allows analysis of longer periods, ensuring a more comprehensive

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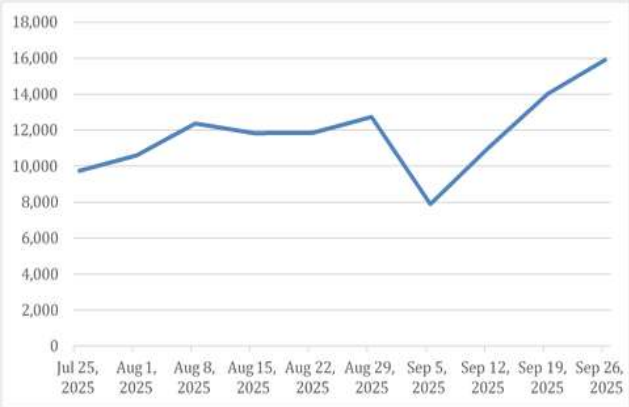
understanding. Overall, this methodology gives a realistic and well-supported picture of how Indian banks manage liquidity through money market instruments.

IV. ANALYSIS AND INTERPRETATION

Table no. 1. Repo in Corporate Bond

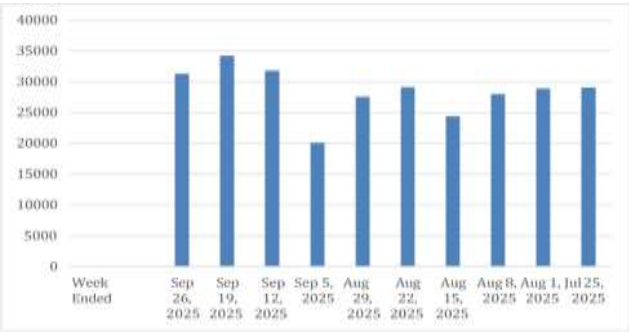


source: https ://data.rbi.org.in/DBIE/#/dbie

Interpretation
The movement of repo volumes in corporate bonds shows how banks actively manage their day-to-day liquidity needs. At first, banks were borrowing more through repos, with volumes rising from ₹9,800 crore on July 25 to around ₹12,500 crore by August 8. This suggests banks needed extra short-term funds and used repos to stay liquid.

The values stayed steady near ₹12,000 crore until August 29. A sudden drop to ₹8,000 crore on September 5 shows a brief tightness in liquidity. But the quick recovery to ₹14,000 crore and then ₹16,000 crore by September 26 shows banks confidently using repos again to maintain smooth liquidity.

Table no .2.Call money

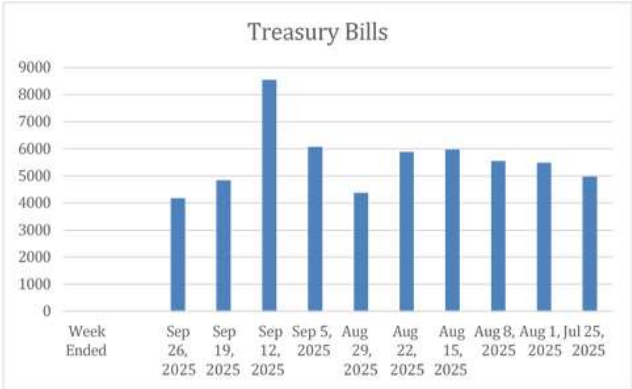


Source: https ://data.rbi.org.in/DBIE/#/dbie

Interpretation
Indian banks use the Call Money market like a quick, overnight source of cash whenever they need to balance their daily funds. Most weeks, they borrowed between ₹27,000–₹32,000 crore, showing regular short-term cash needs. The jump to ₹34,000 crore on September 19, 2025 suggests banks suddenly needed more money that week, possibly for things like tax payments or higher loan demand.

On the other hand, the drop to ₹20,000 crore on September 5 shows that banks were more comfortable and didn't need to borrow as much. Overall, this pattern shows banks constantly adjusting their cash levels to stay stable and meet daily requirements.

Table no.3.Treasury bills



Source: https ://data.rbi.org.in/DBIE/#/dbie

Interpretation
Banks use Treasury Bills as a safe place to park extra money when they have more funds than they need. Most weeks, they invested around ₹4,000–₹6,000 crore, which shows a steady and careful approach to managing surplus cash. The sharp rise to ₹8,600 crore on September 12, 2025 suggests banks had a lot of extra funds that week and chose to put them into these risk- free government securities.

The mostly steady numbers in August and early September show that banks were planning their liquidity smoothly. By using T-bills along with Call Money, banks balanced both extra and shortage of funds effectively.

V. FINDINGS

- Indian banks depend strongly on the call money market to manage their day-to-day liquidity needs. It allows them to borrow or lend funds instantly, especially when customer withdrawals or payment obligations change suddenly. This market helps banks maintain smooth operations without major disruptions to their cash flow.
- Banks prefer repo and reverse repo transactions because they are safe, backed by government securities, and operate under the RBI's supervision. These tools help banks quickly adjust liquidity at low risk. Repos offer short-term borrowing, while reverse repos allow banks to park surplus funds securely when liquidity is high.
- Big public and private sector banks maintain stronger liquidity buffers due to larger deposit bases, diversified

funding sources, and access to advanced money market instruments. Smaller banks often face limitations in borrowing and rely more on RBI facilities, making them more vulnerable to sudden liquidity pressures or market fluctuations.

- Banks invest heavily in Treasury Bills because they are safe, short-term government instruments that help meet SLR requirements. T-bills provide easy liquidity, low risk, and predictable returns. Their flexibility makes them a preferred choice when banks want to balance regulatory compliance with quick access to funds when needed.
- During periods of liquidity shortage, especially toward the financial year-end, banks issue Certificates of Deposit to quickly raise funds. CDs attract investors by offering competitive interest rates. They help banks manage temporary cash shortfalls without depending solely on RBI support or high-cost borrowing from other markets.
- The RBI plays a crucial role in controlling system-wide liquidity through tools like the Liquidity Adjustment Facility, Cash Reserve Ratio, and Statutory Liquidity Ratio. These policy measures influence how much money banks can lend or hold, ensuring stability, regulating market behaviour, and preventing liquidity shortages in the banking system.
- Despite strong tools, banks still face challenges such as sudden liquidity shocks, interest rate fluctuations, seasonal cash demand, and unequal access to money markets. Smaller banks often struggle more due to limited financial strength. These issues require continuous monitoring, better forecasting, and stronger regulation to ensure stability.

VI. STRATEGIC RECOMMENDATIONS

- Improve Daily Liquidity Forecasting-Banks should use better technology and data analysis to predict daily cash inflows and outflows. This helps avoid sudden shortages and prepares banks for unexpected withdrawals.
- Use a Wider Mix of Money Market Instruments-Banks should not depend only on call money or repos. They should also use Treasury Bills, Commercial Papers, and Certificates of Deposit to balance risk and reduce borrowing costs.
- Strengthen Access for Small and Medium Banks-Small banks must be given easier access to money market funds by improving digital platforms and interbank cooperation. This reduces their dependence on RBI support.
- Increase Investments in Safe Liquid Assets-Banks should hold more high-quality liquid assets such as T-Bills and government securities. These help banks meet SLR rules and also provide easy cash when needed.
- Build Stronger Contingency Liquidity Plans-Banks must prepare emergency plans for situations like sudden withdrawals, interest rate shocks, or market stress. This reduces panic and keeps operations stable.
- Enhance ALM (Asset-Liability Management) Committees-ALM teams should meet more frequently and use real-time data to make decisions. This helps the bank react faster to market changes and liquidity needs.
- Adopt More Automation and Digital Tools-Digital dashboards, AI-based liquidity prediction tools, and automated fund transfer systems help banks manage liquidity easily and reduce human errors.
- Reduce Overdependence on RBI Liquidity-Banks should try to manage most liquidity internally and through markets instead of depending too much on repo or MSF from RBI. This makes the banking system stronger.
- Encourage Active Participation in the Interbank Market-Banks should lend and borrow more with each other regularly. Active participation builds trust, deepens the money market, and reduces liquidity shortages.
- Conduct Regular Stress Testing-Banks should test how their liquidity will hold up during crises such as market crashes, slowdowns, or sudden withdrawals. This helps identify weaknesses early and take corrective action.

VII. CONCLUSION

Liquidity management is one of the most important responsibilities of banks, as it ensures smooth daily operations, financial stability, and the ability to meet customer and market obligations. This study shows that Indian banks actively use various money market instruments such as Call Money, Repo and Reverse Repo, Treasury Bills, Commercial Papers, and Certificates of Deposit to manage short-term liquidity needs efficiently. The analysis indicates a steady rise in the use of these instruments, reflecting a stronger, more market-oriented banking system.

The findings also highlight that large public and private banks maintain stronger liquidity buffers and have wider access to money market tools, while smaller banks still face challenges during sudden liquidity shocks. The increasing dependence on repos and T-bills shows a shift toward safer, collateral-backed instruments. Meanwhile, CDs and CPs help banks raise quick funds during tight liquidity conditions.

Throughout the period studied, the Reserve Bank of India played a central role in guiding liquidity through monetary policy tools like LAF, CRR, SLR, and open market operations. Despite improvements, challenges such as interest rate volatility, unexpected market events, and unequal access to liquidity tools still remain.

Overall, the study concludes that money market instruments are essential for maintaining liquidity stability in Indian banks. Continued technological improvements, strong regulation, and better risk management will further strengthen the liquidity framework and support a more resilient financial system.

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