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Unlocking Latent Profit in UK Banks: Decision Rules for Redeploying Structural Excess Liquidity Across UK Financial Services

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PART 1| CRITICAL FOUNDATIONS OF LITERATURE REVIEW

1.1 Introduction

A Critical Literature Review (CLR) is a systematic, analytical, and interpretive evaluation of existing knowledge that moves beyond description to critique, synthesis, and conceptual integration. It is not merely a summary of prior work, CLR involves going further from summarizing the knowledge already available. but a structured process of interrogating theories, methods, assumptions, and findings (Jesson & Lacey, 2006; Snyder, 2019). Within the doctoral research lifecycle, the CLR forms the intellectual foundation for defining research questions, selecting theoretical frameworks, and justifying the study's contribution to the field. (Booth, Sutton & Papaioannou, 2016; Okoli & Schabram, 2010).

The purpose of a CLR is twofold.

- Knowledge synthesis, integrating diverse evidence into meaningful and related patterns (Snyder, 2019).
- Gap identification, which includes both recognising existing gaps and constructing new ones through critical interrogation (Miles, 2017; Sandberg & Alvesson, 2011).

In terms of DBA study, CLR must address two main audiences.

- Academic scholars/Researchers, who expect theoretical rigour and methodological transparency.
- Practitioners, who require insights that are relevant, contextualised, and actionable (Crompton & Burke, 2024; Lee, Zawacki-Richter & Sari, 2024).

Therefore, the CLR is positioned as a bridge between scholarly knowledge and professional practice. Which is mandatory in DBA.

1.2 What Makes a DBA Literature Review “Critical”?

DBA level CLR requires critical thinking in analysing and formulating arguments based on the existing knowledge rather than summarizing them. DBA level CLR must move beyond descriptive reporting. Weak reviews simply summarise studies, whereas strong reviews evaluate, compare, and synthesise (Jesson & Lacey, 2006). Snyder (2019) emphasises that critical reviews must integrate findings, identify contradictions, and build conceptual clarity.

Three elements distinguish a critical DBA review:

1. Critique of theories

A CLR needs to evaluate the theoretical foundations of the field, assessing and examining its relevance, coherence, and limitations. Davies (2011) demonstrates how conceptual clarity, such as distinguishing between concept mapping, mind mapping, and argument mapping which enables deeper theoretical critique.

2. Identification of contradictions

Critical reviews highlight inconsistencies in findings, assumptions, or methods. For example, Crompton and Burke (2024) reveal divergent assumptions about AI's role in higher education, while Lee et al. (2024) show conflicting interpretations of technology's impact on doctoral student learning.

3. Epistemological positioning

Boell and Cecez-Kecmanovic (2014) argue that systematic reviews must be grounded in explicit epistemological assumptions. Cunliffe (2004) adds that reflexivity is essential for questioning taken-for-granted assumptions. A DBA CLR must therefore articulate its epistemological stance and how this shapes interpretation.

1.3 CLR Process (Systematic + Transparent)

Even though not all DBAs' CLR's can be considered as comprehensive systematic reviews, such research must have a systematic approach, in order to be clear and transparent. It should comply with CART (Clarity, Auditability, Replicability, Transparency) principles included in systematic review guidelines by Khan et al. (2003), Okoli & Schabram, (2010), and Xiao & Watson (2006).

- Search Strategy

It includes structured searching involving relevant and define databases, keywords, and Boolean operators is essential. (Okoli & Schabram, 2010; Fisch & Block, 2018).

- Screening and Inclusion Criteria

PRISMA-style strategy, which comprises identification, screening, eligibility, and inclusion/exclusion phases is necessary for CLR to be transparent (Khan et al., 2003; Xiao & Watson, 2006).

- Quality Appraisal

Critical appraisal of methodological quality should be an integral part of any systematic review practice (Nightingale, 2009; Lau & Kuziemy, 2016).

- Data Extraction and Synthesis

Snyder (2019) emphasises that data synthesis not merely a summary is the core of a high-quality review process. Booth et al. (2016) similarly highlight structured extraction and coding.

Involving these steps thoroughly ensure and create an outstanding systematic, defensible, and purposeful CLR.

1.4 CLR Content (My Analyse)

A DBA CLR must analyse and investigate more than topics. It must interrogate the literature across five analytical dimensions of the analysis.

1. Theories

Identifying dominant, competing, contradiction and missing theories is essential for critical conceptual clarity (Davies, 2011; Crompton & Burke, 2024).

2. Constructs

Clarifying how key concepts are defined and operationalised helps identify inconsistencies and conceptual gaps (Snyder, 2019; Jesson & Lacey, 2006).

3. Methods

Methodological critique is central and fundamental to constructing research gaps (Xiao & Watson, 2006; Nightingale, 2009).

4. Contexts

Context determines how the findings are applicable. Lee et al. (2024) and Crompton & Burke (2024) show how sectoral and technological contexts influence interpretations.

5. Consistency in findings

Evaluating convergence and divergence in findings reveals contradictions and opportunities to making contribution (Snyder, 2019).

These analytical dimensions convert the raw study outputs into structured insights.

1.5 CLR Output (DBA Expectation)

The output of a DBA CLR is not a list of studies but a synthesised knowledge structure. Findings are interpreted and analysed rather than reported. As a result, this model becomes the foundation for the doctoral study.

A DBA CLR must produce:

- Patterns

Recurring themes and trends – patterns that occurs (Snyder, 2019).

- Relationships

Relationships between theories, constructs, methods, and contexts (Booth et al., 2016).

- Explanations

Interpretive accounts of why findings converge or diverge (Crompton & Burke, 2024).

- Conceptual Models

An integrated framework that synthesises insights and guides empirical research (Davies, 2011; Booth et al., 2016).

1.6 Writing Style (Critical & Analytical)

A critical writing style is essential throughout the process. Jesson and Lacey (2006) warn against generalisations such as “many studies show...” and should avoid the same. Instead, analytical precision is required.

Preferred phrasing

“The literature converges on...”, “A key contradiction emerges...”, “The evidence diverges regarding...”, Cunliffe (2004) emphasises reflexivity as a means of questioning assumptions is important to strengthening the critical analysis.

1.7 Conclusion

The CLR is the intellectual engine of DBA research. By integrating systematic processes (Okoli & Schabram, 2010; Khan et al., 2003), critical evaluation (Jesson & Lacey, 2006), conceptual clarity (Davies, 2011), and reflexive positioning (Cunliffe, 2004), the CLR enables the doctoral researcher to:

- synthesise fragmented knowledge
- construct meaningful research gaps
- justify theoretical and practical contributions
- develop a robust conceptual model

PART 2 | ANNOTATED BIBLIOGRAPHY

2.1 Historical Financial research Timeline

- 1873 Lender of Last Resort.
- 1936 Liquidity Motives.
- 1937 IS-LM Framework.
- 1955 Financial Growth.
- 1956 Cash Optimisation.-
- 1958 MM Theorem
- 1958 Risk-Retrunk Liquidity.
- 1983 Maturity Transformation.
- 1983 Liquidity Creation, Crisis Contraction.
- 1933 Debt Deflation,
- 1936 Liquidity Motives,
- 1937 IS-LM Framework.
- 1963 Liquidity Creation.
- 1963 Crisis Contraction.
- 1968 Reserve Management.
- 1980 Deposit Insurance,
- Credit Rationing.
- 1981 Bank Failures,
- 1981 Credit Rationing.
- 1981 Bank Failures.
- 1980 Deposit Insurance, Credit Rationing.
- 1983 Maturity Transformation.
- 1984 Delegated Monitoring.
- 1988 Monetary Theory.
- 1988 Reserve Management.
- 1989 Balance Sheet Channel.
- 1998 Public Liquidity
- 2000 Contagion.Liquidity Creation
- 2001 Fragility; Off-Balance Sheet.
- 2006 Natural Hedge.
- 2008 Dequic Hearning,
- 2008 Microfoundations.
- 2009 Active Management,
- 2009 Funding Shocks.
- 2001 Fragility; Off-Balance Sheet.
- 2000 Reutagtion.Intermediary Capital,

- 2010 Repo Collapse.
- 2010 Lending Freeze,
- 2015 Balance Sheet, Dollar Aemia,
- 2016 CIP Deviations, Safe Havens. FX Risk Premiers
- 2017 Macro-Finance; Fed Tools.
- 2017 Shadow Risk,
- 2022 Regulatory Arbitrage, FX Swap Dominance, Hedging Reconnect,
- 2007 Emergency central bank liquidity support
- 2009 Start of Quantitative Easing (QE) by major central banks , Recognition of systemic liquidity risk
- 2010 Basel Committee on Banking Supervision introduces Basel III framework, Proposal of LCR and NSFR
- 2013 Finalisation of Liquidity Coverage Ratio (LCR) rules
- 2015 LCR becomes legally binding (60% minimum), Banks required to hold High-Quality Liquid Assets (HQLA)
- 2016 Continued phase-in of LCR, Increased global stress testing frameworks
- 2018 LCR reaches 100% requirement (full implementation), NSFR finalised and adopted internationally
- 2019 US repo market liquidity stress highlights distribution issues
- 2020 COVID-19 crisis → massive QE expansion, Temporary relaxation of liquidity rules
- 2021 Liquidity buffers remain high post-COVID
- 2023 Concerns over interest rate risk vs liquidity buffers
- 2024 Debate on excess liquidity and idle funds
- 2025 Policy shift toward liquidity efficiency and optimisation

2.2 List of Literature Reviews

Author	Year	Title	Region / Data
Bagehot, W.	1873	Lombard Street: A Description of the Money Market	UK banking history
Fisher, I.	1933	The Debt-Deflation Theory of Great Depressions	US economy
Keynes, J.M.	1936	The General Theory of Employment, Interest and Money	Macroeconomic theory

Hicks, J.R.	1937	Mr. Keynes and the "Classics"	Macroeconomic theory
Gurley, J. & Shaw, E.	1955	Financial Aspects of Economic Development	Development economics
Tobin, J.	1956	The Interest-Elasticity of Transactions Demand for Cash	Monetary economics
Modigliani, F. & Miller, M.	1958	The Cost of Capital, Corporation Finance and the Theory of Investment	Corporate finance
Tobin, J.	1958	Liquidity Preference as Behaviour Towards Risk	Monetary economics
Tobin, J.	1963	Commercial Banks as Creators of Money	US banking system
Friedman, M. & Schwartz, A.	1963	A Monetary History of the United States	US monetary history
Poole, W.	1968	Commercial Bank Reserve Management	US banking
Niehans, J.	1978	The Theory of Money	Monetary theory
Bryant, J.	1980	A Model of Reserves, Bank Runs, and Deposit Insurance	Banking theory
Stiglitz, J. & Weiss, A.	1981	Credit Rationing in Markets with Imperfect Information	Credit markets
Bernanke, B.	1983	Non-Monetary Effects of the Financial Crisis	US Great Depression
Diamond, D. & Dybvig, P.	1983	Bank Runs, Deposit Insurance and Liquidity	Banking theory
Diamond, D.	1984	Financial Intermediation and Delegated Monitoring	Financial intermediation theory
Bernanke, B. & Gertler, M.	1989	Agency Costs, Net Worth, and Business Fluctuations	Macroeconomics
Holmstrom, B. & Tirole, J.	1998	Private and Public Supply of Liquidity	Corporate finance
Allen, F. & Gale, D.	2000	Financial Contagion	Interbank networks
Diamond, D. & Rajan, R.	2001	Liquidity Risk, Liquidity Creation and Financial Fragility	US banking theory
Kashyap, A., Rajan, R. & Stein, J.	2002	Banks as Liquidity Providers	US bank data
Gatev, E. & Strahan, P.	2006	Banks' Advantage in Hedging Liquidity Risk	US banking
Freixas, X. & Rochet, J.	2008	Microeconomics of Banking	Global banking theory
Adrian, T. & Shin, H.S.	2009	Money, Liquidity, and Monetary Policy	Financial system
Berger, A. & Bouwman, C.	2009	Bank Liquidity Creation	US banks 1993-2003
Brunnermeier, M.	2009	Deciphering the Liquidity and Credit Crunch	Global financial crisis
Brunnermeier, M. & Pedersen, L.	2009	Market Liquidity and Funding Liquidity	Financial markets
Gorton, G. & Metrick, A.	2010	Haircuts	US repo market
Ivashina, V. & Scharfstein, D.	2010	Bank Lending During the Financial Crisis	US banks

Ranaldo, A. & Soderlind, P.	2010	Safe Haven Currencies	FX markets
Acharya, V., Shin, H.S. & Yorulmazer, T.	2011	Crisis Resolution and Bank Liquidity	Banking crisis
Cornett, M., McNutt, J., Strahan, P. & Tehranian, H.	2011	Liquidity Risk Management and Credit Supply	US banks
Hanson, S., Kashyap, A. & Stein, J.	2011	A Macroprudential Approach to Financial Regulation	Global regulatory policy
Jylha, P. & Suominen, M.	2011	Speculative Capital and Currency Carry Trades	FX markets
Lustig, H., Roussanov, N. & Verdelhan, A.	2011	Common Risk Factors in Currency Markets	FX markets
Cetorelli, N. & Goldberg, L.	2012	Banking Globalization and Monetary Transmission	Global banks
Habib, M. & Stracca, L.	2012	Getting Beyond Carry Trade	FX markets
Krishnamurthy, A. & Vissing-Jorgensen, A.	2012	The Aggregate Demand for Treasury Debt	Asset pricing
Menkhoff, L., Sarno, L., Schmeling, M. & Schrimpf, A.	2012	Carry Trades and Global FX Volatility	FX markets
Shin, H.S.	2012	Global Banking Glut and Loan Risk Premium	Global banking
Gennaioli, N., Shleifer, A. & Vishny, R.	2013	A Model of Shadow Banking	Shadow banking
He, Z. & Krishnamurthy, A.	2013	Intermediary Asset Pricing	Asset pricing
Mancini, L., Ranaldo, A. & Wrampelmeyer, J.	2013	Liquidity in the FX Market	FX markets
Mehring, P.	2013	Essential Hybridity: A Money View of FX	FX markets
Rossi, B.	2013	Exchange Rate Predictability	Exchange rates
Stein, J.	2013	Liquidity Regulation and Central Banking	Monetary policy
Adrian, T., Etula, E. & Muir, T.	2014	Financial Intermediaries and the Cross-Section of Asset Returns	Financial markets
Borio, C.	2014	The Financial Cycle and Macroeconomics	Macroeconomics
Brunnermeier, M. & Sannikov, Y.	2014	A Macroeconomic Model with a Financial Sector	Macroeconomics
Claessens, S. & Kodres, L.	2014	The Regulatory Responses to the Global Financial Crisis	Global regulation
Pozsar, Z.	2014	Shadow Banking: The Money View	Shadow banking
Acharya, V. & Mora, N.	2015	Crisis of Banks as Liquidity Providers	US banks
Bruno, V. & Shin, H.S.	2015	Cross-Border Banking and Global Liquidity	Global banking
Gabaix, X. & Maggiori, M.	2015	International Liquidity and Exchange Rate Dynamics	Exchange rates
Hanson, S. & Stein, J.	2015	Monetary Policy and Long-Term Real Rates	Monetary economics
Ivashina, V., Scharfstein, D. & Stein, J.	2015	Dollar Funding and the Lending Behavior of Global Banks	Global banks
Sunderam, A.	2015	Money Creation and the Shadow Banking System	Shadow banking
Borio, C., McCauley, R. & McGuire, P.	2016	Covered Interest Parity Lost	Global FX markets

Engel, C.	2016	Exchange Rates, Interest Rates and the Risk Premium	Exchange rates
Farhi, E. & Werning, I.	2016	A Theory of Macroprudential Policies	Macroeconomics
Greenwood, R., Hanson, S. & Stein, J.	2016	The Federal Reserve's Balance Sheet as a Financial-Stability Tool	Monetary policy
Hassan, T., Mertens, T. & Zhang, T.	2016	Currency Manipulation	Exchange rates
King, M.	2016	The End of Alchemy: Money, Banking and the Future	Global finance
Nagel, S.	2016	The Liquidity Premium of Near-Money Assets	Asset pricing
Turner, A.	2016	Between Debt and the Devil	Global finance
Cochrane, J.	2017	Macro-Finance	Macroeconomics
Duffie, D.	2017	Financial Regulatory Reform After the Crisis	Global regulatory policy
Maggiore, M.	2017	Financial Intermediation, International Risk Sharing	International finance
Moreira, A. & Savov, A.	2017	The Macroeconomics of Shadow Banking	Shadow banking
Obstfeld, M. & Taylor, A.	2017	International Monetary Relations	International finance
Rime, D., Schrimpf, A. & Syrstad, O.	2017	Segmented Money Markets and Covered Interest Parity Deviations	Global FX markets
Yellen, J.	2017	The Federal Reserve's Monetary Policy Toolkit	Monetary policy
Adrian, T. & Liang, N.	2018	Monetary Policy, Financial Conditions and Financial Stability	Monetary policy
Caballero, R.	2018	The Singularity of the Financial Crisis	Global crisis
Du, W., Tepper, A. & Verdelhan, A.	2018	Deviations from Covered Interest Parity	Global FX swaps
Engel, C. & Wu, S.P.Y.	2018	Liquidity and Exchange Rates	Exchange rates
Farhi, E. & Maggiore, M.	2018	A Model of the International Monetary System	International finance
Gopinath, G. & Stein, J.	2018	Banking, Trade, and the Making of a Dominant Currency	International finance
Korinek, A.	2018	Regulating Capital Flows to Emerging Markets	Emerging markets
Plantin, G. & Shin, H.S.	2018	Exchange Rates and Monetary Spillovers	International finance
Verdelhan, A.	2018	The Share of Systematic Variation in Bilateral Exchange Rates	Exchange rates
Avdjiev, S., Du, W., Koch, C. & Shin, H.S.	2019	The Dollar, Bank Leverage and Deviations from Covered Interest Parity	Global banking
Eichengreen, B.	2019	Globalizing Capital	International finance
Gourinchas, P.O. & Rey, H.	2019	Global Real Interest Rates	Global macroeconomics
Gourinchas, P.O., Rey, H. & Sauzet, M.	2019	The International Monetary and Financial System	International finance
Jeanne, O. & Korinek, A.	2019	Macroprudential Regulation and the Management of Capital Flows	International finance

Kalemli-Ozcan, S.	2019	US Monetary Policy and International Risk Spillovers	Emerging markets
Schrimpf, A. & Sushko, V.	2019	Beyond LIBOR: A Primer on the New Benchmark Rates	Global financial markets
Vives, X.	2019	Digital Disruption in Banking	Global banking industry
Amador, M., Bianchi, J., Bocola, L. & Perri, F.	2020	Exchange Rate Policies at the Zero Lower Bound	Monetary policy
Bernanke, B.	2020	The New Tools of Monetary Policy	Monetary policy
Liao, G.	2020	Credit Migration and Covered Interest Rate Parity	Global financial markets
Miranda-Agrippino, S. & Rey, H.	2020	US Monetary Policy and the Global Financial Cycle	Global finance
Bianchi, J. & Lorenzoni, G.	2021	The Prudential Use of Capital Controls	International finance
Boot, A., Hoffmann, P., Laeven, L. & Ratnovski, L.	2021	FinTech: What's Old, What's New	Global banking
Cenedese, G., Della Corte, P. & Wang, T.	2021	Currency Mispricing and Dealer Balance Sheets	FX markets
Itskhoki, O. & Mukhin, D.	2021	Exchange Rate Disconnect	Exchange rates
Jiang, Z., Krishnamurthy, A. & Lustig, H.	2021	Foreign Safe Asset Demand and the Dollar Exchange Rate	Exchange rates
Stein, J.	2021	Can Policy Tame the Credit Cycle?	Monetary policy
Aldasoro, I., Ehlers, T. & Eren, E.	2022	Global Banks, Dollar Funding and Regulation	Global banking
BIS	2022	Triennial Central Bank Survey	Global FX markets
Coppola, A., Krishnamurthy, A. & Xu, C.	2022	Liquidity, Debt Denomination and Currency Dominance	International finance
Lilley, A., Maggiori, M., Neiman, B. & Schreger, J.	2022	Exchange Rate Reconnect	Exchange rates

Appendix 1 - 100 Literature Review- Key findings and Research Gaps

2.3 Synthesis of Key Studies

This section synthesises 31 key studies identified through the systematic literature review.

1. Adrian, T. and Shin, H.S. (2010) 'Liquidity and leverage', *Journal of Financial Intermediation*, 19(3), pp. 418–437

The study by Tobias Adrian and Hyun Song Shin (2010) explores the interaction between liquidity conditions and leverage in financial institutions. The authors aim to

understand how changes in market liquidity influence banks' balance sheet behaviour and risk-taking.

Key argument: Leverage in financial institutions is strongly procyclical, rising in booms and falling in downturns, amplifying systemic risk through liquidity conditions.

Theoretical lens: Financial intermediation theory linking balance sheet constraints with market liquidity.

Methodology: Empirical analysis using investment bank balance sheet data to examine leverage and asset growth dynamics.

Key findings: A strong positive relationship exists between liquidity, asset expansion, and leverage, confirming cyclical risk amplification.

Critical evaluation: Strong theory–evidence integration, but limited relevance to post-crisis regulatory regimes (Basel III).

Relevance to study: Supports analysis of liquidity dynamics and financial stability in excess liquidity environments.

Research gap: Does not examine persistent excess liquidity holdings or their effects on profitability under modern regulatory frameworks.

2. Bank of England (2022) *Financial Stability Report*. London: Bank of England.

The Bank of England (2022) *Financial Stability Report* provides a comprehensive overview of the resilience of the UK financial system, with particular emphasis on liquidity conditions and banking sector stability. Its primary aim is to assess systemic risks and evaluate whether UK banks can withstand financial shocks. Key argument: Post-QE UK banks hold large excess liquidity buffers that enhance resilience but may reduce efficiency in financial intermediation.

Theoretical lens: Macroprudential regulatory framework focused on systemic risk and financial stability.

Methodology: System-wide stress testing combined with aggregate banking sector data analysis.

Key findings: UK banks maintain reserves significantly above regulatory requirements (e.g., Liquidity Coverage Ratio), indicating persistent excess liquidity.

Critical evaluation: Highly authoritative and policy-relevant, but largely descriptive and lacks granular bank-level analysis.

Relevance to study: Provides essential empirical context for understanding the scale and persistence of idle funds in UK banking systems.

Research gap: Focuses on system-wide liquidity buffers but does not analyse bank-level behaviour or optimal deployment of excess liquidity.

3. Prudential Regulation Authority (2021) Liquidity risk management for banks. London: Bank of England.

Key argument: Strong liquidity risk management is essential for financial stability, requiring banks to hold sufficient high-quality liquid assets to withstand stress periods.

Theoretical lens: Macroprudential and risk management framework aligned with Basel III regulatory standards.

Methodology: Supervisory and regulatory guidance approach using policy rules, governance standards, and stress-testing expectations rather than empirical modelling.

Key findings: Banks are required to maintain robust liquidity buffers, including compliance with the Liquidity Coverage Ratio and other prudential metrics.

Critical evaluation: Highly practical and policy-relevant but largely prescriptive, with limited empirical validation of outcomes.

Relevance to study: Explains regulatory drivers behind excess liquidity and idle fund accumulation in UK banks.

Gap:

Emphasises compliance with liquidity standards but does not consider efficiency trade-offs or idle funds resulting from over compliance.

4. The Basel Committee on Banking Supervision (2014) *Basel III: The Net Stable Funding Ratio*

The Basel Committee on Banking Supervision (2014) *Basel III: The Net Stable Funding Ratio* sets out a global regulatory standard aimed at improving the long-term resilience of banks' funding structures. The document focuses on ensuring that banks maintain stable funding relative to the liquidity profile of their assets Key argument: The 2008 financial crisis was partly driven by excessive short-term funding reliance, requiring a structural shift toward stable long-term funding.

Theoretical lens: Prudential regulation and financial stability framework under Basel III reforms.

Methodology: Rule-based global regulatory standard setting with quantitative requirements and supervisory guidance rather than empirical analysis.

Key findings: Introduction of the Net Stable Funding Ratio (NSFR), requiring banks to maintain sufficient stable funding over a one-year horizon to reduce liquidity and funding risk.

Critical evaluation: Strong global standardisation and policy clarity, but highly prescriptive and limited in addressing bank-level optimisation or unintended effects.

Relevance to study: Explains regulatory pressures that shape banks' liquidity and funding behaviour, directly relevant to idle liquidity analysis.

Research gap: Focuses on funding stability but neglects efficiency costs and potential excess liquidity accumulation within regulated frameworks.

5. The Basel Committee on Banking Supervision (2013) *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*

The Basel Committee on Banking Supervision (2013) *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools* outlines international standards designed to strengthen short-term liquidity resilience in banks. The document aims to ensure that banks can withstand a 30-day period of financial stress by maintaining adequate high-quality liquid assets. The key argument is that stronger liquidity buffers are essential to prevent bank failures and systemic crises.

The framework is based on a macroprudential and regulatory risk management approach (theoretical lens), developed in response to weaknesses exposed during the global financial crisis. It employs a quantitative regulatory methodology (methodology), introducing standardised ratios and monitoring tools rather than empirical testing. The key findings establish the Liquidity Coverage Ratio as a global minimum requirement and introduce additional monitoring metrics to assess liquidity risk across institutions.

The document is primarily intended for regulators, central banks, and financial institutions. A key strength is its clarity and global standardisation, which enhances comparability across banks. However, it is largely prescriptive and does not address the behavioural responses of banks or the potential for excess liquidity accumulation (critical evaluation).

This report is highly relevant to my research, as it explains the regulatory foundation of liquidity buffers and helps contextualise excess LCR holdings and idle funds in UK banks (relevance).

Gap: Establishes minimum liquidity requirements but does not address why banks hold liquidity above required levels or the consequences of excess LCR.

6. Boot, A., Hoffmann, P., Laeven, L. & Ratnovski, L. (2021) Title: FinTech: What's Old, What's New

The study by Arnoud Boot, Peter Hoffmann, Luc Laeven and Lev Ratnovski (2021) examines the evolution of financial technology (FinTech), distinguishing between genuinely innovative developments and those that replicate traditional financial functions. The article aims to clarify what is truly new in FinTech and how digitalisation is reshaping financial intermediation. The key argument is that while FinTech enhances efficiency and accessibility, many innovations are extensions of existing financial models rather than entirely disruptive changes.

The paper adopts a financial intermediation and innovation perspective (theoretical lens), analysing how technology interacts with traditional banking functions. It uses a conceptual and literature-based methodology (methodology), supported by case examples rather than primary empirical data. The key findings suggest that digitalisation improves operational efficiency but does not eliminate core financial risks and may introduce new constraints in complex transactions.

The article is written for academics and policymakers. A major strength is its balanced and critical perspective on FinTech developments. However, it lacks empirical testing and detailed operational insights (critical evaluation).

This study is relevant to my research as it supports the idea of a “digitalisation paradox,” (further discuss in PART 3) where technological systems may limit flexibility (e.g., complex treasury operations), potentially affecting profitability and liquidity management (relevance).

Discusses benefits of digitalisation but does not explore the “digitalisation paradox”, where systems may limit complex treasury operations and reduce profit opportunities.

7. Cenedese, G., Della Corte, P. & Wang, T. (2021) Title: Currency Mispricing and Dealer Balance Sheets

The study by Gianluca Cenedese, Pasquale Della Corte and Tianyu Wang (2021) investigates the relationship between currency mispricing and dealer balance sheet

constraints in foreign exchange markets. The authors aim to understand how financial intermediaries' balance sheet capacity affects deviations from fundamental exchange rate values. Key argument: Currency mispricing persists because financial intermediaries face balance sheet constraints, especially during periods of market stress.

Theoretical lens: Market microstructure and financial intermediation framework focusing on the role of dealers in price formation.

Methodology: Empirical analysis using high-frequency foreign exchange data combined with dealer balance sheet proxies to measure constraints and mispricing.

Key findings: Strong evidence that tighter dealer balance sheets are associated with greater currency mispricing and reduced market efficiency.

Critical evaluation: Robust empirical design and high-quality data, but limited accessibility for practitioners and weak linkage to regulatory liquidity frameworks.

Research gap: Focuses on constraints driving mispricing but does not examine how excess liquidity itself may distort trading activity or arbitrage efficiency.

This study is relevant to my research as it highlights how balance sheet constraints can limit trading activity, supporting arguments around idle funds and inefficiencies in liquidity utilisation (relevance).

Focuses on balance sheet constraints and mispricing but does not examine how excess liquidity may constrain active trading or arbitrage opportunities.

8. Stein, J. (2013) Title: Liquidity Regulation and Central Banking

The speech by Jeremy C. Stein (2013) explores the role of liquidity regulation alongside central banking in promoting financial stability (Citation). It discusses how regulatory tools and central bank interventions interact to manage systemic liquidity risk. The author's key argument is that while central banks can provide liquidity in times of crisis, ex-anti regulation is necessary to limit excessive risk-taking and reliance on short-term funding.

The discussion is framed within a macroprudential and financial stability perspective (theoretical lens), focusing on systemic risk and market failures. As a policy speech, it adopts a conceptual and policy-oriented methodology (methodology), drawing on economic reasoning and real-world observations rather than formal empirical testing. The key findings suggest that liquidity regulation, such as Basel III standards, complements central bank actions by reducing vulnerabilities before crises emerge.

The speech is aimed at policymakers, academics, and financial practitioners. A key strength is its clarity in linking theory to policy implications. However, it lacks empirical validation and detailed quantitative analysis (critical evaluation).

This work is highly relevant to my research as it highlights the regulatory motivations behind liquidity buffers, helping explain why banks may hold excess liquidity, potentially leading to idle funds (relevance).

Gap: Explains the need for liquidity regulation but does not assess unintended consequences such as over-liquidity or idle funds in banks.

9. Holmstrom, B. & Tirole, J. (1998) Title: Private and Public Supply of Liquidity

The study by Bengt Holmström and Jean Tirole (1998) examines how liquidity is provided in financial systems through both private markets and public institutions (Citation). The authors aim to understand the conditions under which markets fail to supply adequate liquidity and when public intervention becomes necessary. The key argument is that private liquidity provision is often insufficient during periods of stress, requiring central bank or government intervention to stabilise the system.

The paper is grounded in a microeconomic and financial intermediation framework (theoretical lens), focusing on incentives, contracts, and market imperfections. It employs a theoretical modelling methodology (methodology), developing formal economic models rather than using empirical data. The key findings demonstrate that liquidity shortages arise due to information asymmetries and coordination failures, justifying the role of public liquidity provision.

The article is written for academic economists and policymakers. A major strength is its strong theoretical foundation and long-standing influence in liquidity research. However, its abstract modelling may limit direct practical application in modern regulatory contexts (critical evaluation).

This study is highly relevant to my research as it provides a theoretical basis for understanding liquidity shortages and the rationale behind regulatory liquidity buffers, which may contribute to excess liquidity and idle funds in banks.

10. Diamond, D. & Dybvig, P. (1983) Title: Bank Runs, Deposit Insurance and Liquidity

The study by Douglas W. Diamond and Philip H. Dybvig (1983) develops a foundational model explaining bank runs and the role of liquidity transformation in banking (Citation). The authors aim to understand why banks are inherently fragile and how deposit insurance can prevent self-fulfilling crises. Key argument: Banks are inherently fragile because liquidity transformation creates vulnerability to self-fulfilling bank runs driven by depositor expectations rather than fundamentals.

Theoretical lens: Microeconomic financial intermediation theory focusing on coordination failures and depositor behaviour under imperfect information.

Methodology: Formal theoretical modelling identifying multiple equilibrium outcomes in banking systems with and without deposit insurance.

Key findings: The model shows two equilibria—stable banking or bank runs—and demonstrates that deposit insurance can eliminate panic-driven withdrawals.

Critical evaluation: Highly influential and foundational for banking theory, but its abstract nature limits direct application to modern regulatory and empirical contexts.

Relevance to study: Provides a theoretical basis for liquidity buffers, though primarily focused on liquidity shortages rather than surplus liquidity.

Research gap: Does not address excess liquidity conditions or inefficiencies arising from persistent liquidity surpluses in modern regulated banking systems.

11. Brunnermeier, M. & Pedersen, L. (2009) Title: Market Liquidity and Funding Liquidity

The study by Markus K. Brunnermeier and Lasse Heje Pedersen (2009) examines the interaction between market liquidity and funding liquidity, highlighting how disruptions in one can amplify the other (Citation). The authors aim to explain liquidity spirals and their role in financial crises. Key argument: Market liquidity and funding liquidity are mutually reinforcing; shocks to funding liquidity force deleveraging, which further reduces market liquidity and amplifies financial instability.

Theoretical lens: Market microstructure and financial stability framework focused on liquidity spirals and systemic risk transmission.

Methodology: Formal theoretical modelling supported by stylised empirical evidence illustrating liquidity feedback loops.

Key findings: Liquidity shocks propagate through financial markets via reinforcing feedback between funding constraints and asset price liquidity, increasing volatility and systemic risk.

Critical evaluation: Highly influential in explaining crisis dynamics, but mainly focused on stressed conditions rather than normal or surplus liquidity environments.

Relevance to study: Helps explain liquidity constraints and systemic effects, providing a contrast to excess liquidity conditions in banks.

Research gap: Focuses on liquidity shortages and crisis amplification, with limited attention to how surplus liquidity affects efficiency, trading behaviour, or bank decision-making.

12. Adrian, T. & Shin, H.S. (2009) Title: Money, Liquidity, and Monetary Policy

The study by Tobias Adrian and Hyun Song Shin (2009) examines the relationship between monetary policy, liquidity, and financial intermediary balance sheets

(Citation). The authors aim to show how monetary policy affects the supply of liquidity through changes in leverage. The key argument is that monetary policy operates not only through interest rates but also by influencing balance sheet expansion and risk-taking.

The paper is based on a financial intermediation perspective (theoretical lens) and uses a conceptual and analytical approach (methodology). The key findings suggest that lower interest rates increase leverage and liquidity creation, amplifying financial cycles.

The article targets academics and policymakers. A key strength is its clear linkage between monetary policy and liquidity dynamics, though it lacks detailed empirical testing (critical evaluation). It is relevant to my study as it explains liquidity expansion mechanisms but does not address excess liquidity or idle funds (relevance).

Research Gap: Limited focus on how prolonged accommodative policy leads to persistent excess liquidity in banks.

13. Avdjiev, S., Du, W., Koch, C. & Shin, H.S. (2019) Title: The Dollar, Bank Leverage and Deviations from Covered Interest Parity

The study by Stefan Avdjiev, Wenxin Du, Cathérine Koch and Hyun Song Shin (2019) investigates how bank leverage and the strength of the US dollar influence deviations from covered interest parity (CIP) (Citation). The authors aim to explain why arbitrage conditions fail in global financial markets. Key argument: Deviations from covered interest parity persist because bank leverage and balance sheet constraints limit arbitrage activity, especially when the US dollar strengthens.

Theoretical lens: Global financial intermediation and market microstructure framework focusing on intermediary balance sheet capacity.

Methodology: Empirical analysis using cross-currency basis data combined with bank-level leverage indicators to test CIP deviations.

Key findings: Stronger dollar conditions and tighter leverage constraints are associated with larger and more persistent CIP deviations, highlighting intermediary limits in arbitrage.

Critical evaluation: Strong empirical evidence and global relevance, but limited focus on non-crisis or surplus liquidity environments.

Relevance to study: Explains how balance sheet constraints restrict market efficiency, supporting analysis of liquidity frictions and idle capacity.

Research gap: Focuses on leverage constraints but does not examine how excess liquidity conditions may also distort arbitrage incentives or market efficiency.

14. Du, W., Tepper, A. & Verdelhan, A. (2018) Title: Deviations from Covered Interest Parity

The study by Wenxin Du, Alexander Tepper and Adrien Verdelhan (2018) investigates persistent deviations from covered interest parity (CIP) in global financial markets (Citation). The authors aim to explain why arbitrage conditions fail despite apparent profit opportunities. Key argument: Covered interest parity deviations persist because arbitrage is constrained by intermediary balance sheet limits and regulatory costs, preventing markets from eliminating pricing gaps.

Theoretical lens: Financial intermediation and asset pricing framework focused on the role of banks as global liquidity providers.

Methodology: Empirical analysis using cross-currency basis data across major currencies to test deviations from CIP conditions.

Key findings: CIP deviations are systematic and persistent, closely linked to funding constraints faced by global banks and other financial intermediaries.

Critical evaluation: Strong empirical design with robust global evidence, but it primarily examines constraint-driven inefficiencies rather than broader liquidity environments.

Relevance to study: Useful for understanding how balance sheet frictions affect market efficiency and liquidity allocation, supporting analysis of idle capacity in financial systems.

Research gap: Does not examine how excess liquidity conditions may weaken arbitrage incentives or generate inefficiencies in capital utilisation and market functioning.

15. Berger, A. & Bouwman, C. (2009) Title: Bank Liquidity Creation

Berger and Bouwman (2009) examine how banks create liquidity and the role of capital in this process. The study aims to measure liquidity creation and assess how it differs across bank sizes and regulatory environments. It is primarily written for academic researchers, policymakers, and finance professionals.

Key argument: banks play a central role in liquidity creation, but this function is significantly influenced by capital levels and regulatory pressures.

Theoretical lens: grounded in financial intermediation theory, focusing on liquidity transformation between deposits and loans.

Methodology: quantitative analysis using extensive US bank-level data over multiple years.

Key findings: small banks create more liquidity relative to assets, while large banks are more resilient during financial stress.

Critical evaluation: the study is methodologically robust and insightful, though its reliance on US data limits global generalisability.

Relevance to my study: it offers a strong foundation for understanding how regulation impacts bank behaviour and financial stability.

Research gap: lacks consideration of digital banking developments and cross-country comparisons, leaving scope for future research. Overall, the article deepens understanding of banking functions and is highly useful for analysing liquidity risk and regulation.

16. The study by Acharya and Mora (2015)

The study by Acharya and Mora (2015) investigates how banks functioned as liquidity providers during the global financial crisis, particularly in relation to deposit markets. The authors aim to understand whether banks were able to sustain liquidity provision under financial stress and how funding behaviour changed. The key

argument is that banks actively competed for deposits by raising interest rates, enabling them to maintain liquidity despite significant market disruptions.

The study adopts a financial intermediation and liquidity risk perspective (theoretical lens) and applies a rigorous empirical methodology using US bank-level data, including deposit rates and balance sheet indicators (methodology). The key findings reveal that banks facing higher liquidity pressures offered significantly higher deposit rates, highlighting the increasing cost of liquidity during crisis periods.

The article is written for academics, regulators, and finance professionals. A key strength is its detailed empirical analysis and relevance to crisis conditions. However, it is limited by its focus on the US banking system and does not fully address post-crisis regulatory changes or digital banking developments (critical evaluation).

17. Cornett, M., McNutt, J., Strahan, P. & Tehranian, H. (2011) Title: Liquidity Risk Management and Credit Supply

The study by Cornett *et al.* (2011) examines how liquidity risk management influenced bank lending during the global financial crisis (citation). The authors aim to assess whether banks with stronger liquidity positions were better able to sustain credit supply under stress conditions.

Key argument: the key argument is that banks with higher liquidity and stable funding sources were more capable of maintaining lending, while those with greater liquidity risk significantly reduced credit supply.

The study adopts a financial intermediation and liquidity risk framework (theoretical lens) and employs a quantitative empirical methodology using US bank-level data, including balance sheet indicators and lending activities (methodology).

Key findings: the findings show that banks relying heavily on unstable funding sources, such as non-core deposits, reduced lending more sharply during the crisis, highlighting the importance of sound liquidity management.

The article is written for academics, policymakers, and financial professionals.

Critical evaluation: a major strength is its clear linkage between liquidity risk and credit supply using robust data. However, it is limited by its focus on the US banking sector and does not fully capture post-crisis regulatory developments.

Relevance to my study: it offers valuable insights into how liquidity positions affect bank lending behaviour during financial instability. Research gap: there is limited consideration of cross-country evidence and the evolving role of digital financial systems in liquidity management.

18. Kashyap, A., Rajan, R. & Stein, J. (2002) Title: Banks as Liquidity Providers

The study by Kashyap, Rajan and Stein (2002) explores why banks simultaneously engage in lending and deposit-taking, focusing on their role as liquidity providers (citation). The authors aim to explain how banks manage liquidity risk by combining these two core functions.

Key argument: the key argument is that banks create value by jointly providing liquidity through deposits and loan commitments, benefiting from diversification in liquidity demand.

The study adopts a financial intermediation and liquidity transformation framework (theoretical lens) and uses a theoretical modelling approach supported by empirical observations (methodology).

Key findings: the findings suggest that combining deposit-taking and lending allows banks to better manage liquidity shocks and reduce overall risk compared to performing these functions separately.

The article is written for academics and finance professionals.

Critical evaluation: a major strength is its strong theoretical contribution to understanding banking structure. However, it relies more on theory than empirical testing, which may limit real-world applicability.

Relevance to my study: it provides a foundational understanding of bank liquidity creation and risk management strategies.

Research gap: limited empirical validation and lack of consideration of modern financial innovations such as fintech and digital banking.

19. Borio, C., McCauley, R. & McGuire, P. (2016) Title: Covered Interest Parity Lost

The study by Borio, McCauley and McGuire (2016) investigates the breakdown of covered interest parity (CIP) in global financial markets and aims to explain the persistent cross-currency basis observed after the financial crisis (citation). The authors seek to understand why arbitrage opportunities remain despite theoretically risk-free conditions.

Key argument: the key argument is that balance sheet constraints and regulatory pressures limit arbitrage activity, preventing the restoration of CIP.

The study adopts a financial intermediation and international finance perspective (theoretical lens) and applies a descriptive and empirical methodology using cross-currency basis data and global banking statistics (methodology).

Key findings: the findings show that CIP deviations are persistent and largely driven by the increased cost of bank balance sheet usage, particularly for internationally active banks. The article is written for academics, central bankers, and financial market practitioners.

Critical evaluation: a major strength is its clear explanation of post-crisis market behaviour and policy relevance. However, it is more descriptive than causal and lacks micro-level empirical testing.

Relevance to my study: it provides important insights into liquidity constraints and global funding markets, which are essential for understanding financial stability.

Research gap: limited focus on emerging markets and the role of non-bank financial institutions in arbitrage activities.

20. Treasury's idle funds deposited at banks proposed to raise at year end.

This article discusses how government treasury departments manage surplus or idle funds, particularly focusing on the proposal to deposit these funds in banks to generate returns before the fiscal year-end. The author's purpose is to highlight inefficiencies in public financial management and suggest more productive use of idle liquidity. Key argument: The article argues that idle public funds represent lost financial opportunities and should be actively managed to maximise returns.

Theoretical lens: It is implicitly grounded in public financial management and liquidity optimisation theory, emphasising efficient allocation of surplus resources.

Methodology: The text adopts a descriptive and journalistic approach, relying on reported practices rather than empirical or statistical analysis. Key findings: It indicates that strategic treasury operations, such as short-term deposits, can enhance revenue generation and reduce inefficiencies. Critical evaluation: A key strength lies in its practical relevance and real-world applicability; however, it lacks academic rigour and does not critically assess risks or regulatory constraints associated with such strategies. The article is primarily written for policymakers and the public. Relevance to my study: It provides useful context for understanding idle funds, which parallels excess liquidity held by banks under Liquidity Coverage Ratio (LCR) requirements. Research gap: The article does not explore how regulatory frameworks influence liquidity accumulation. Reflectively, this source improves my understanding of liquidity inefficiency and will be used to support the contextual background of my research.

21. \$237 million fuel price fund sits idle, sparking public concerns (2025)

This article examines the issue of a substantial fuel price stabilisation fund remaining unused, raising concerns about inefficiency and lack of accountability in public financial management. The purpose of the article is to draw attention to the economic and governance implications of leaving large sums of money idle. Key

argument: The author argues that idle funds represent poor financial governance and result in lost economic opportunities. Theoretical lens: The discussion reflects public sector accountability and resource allocation theory, emphasising the importance of efficient use of financial resources. Methodology: The article adopts a journalistic approach, relying on reported figures and public reactions rather than structured academic analysis. Key findings: It highlights that prolonged inactivity of funds reduces their economic value and undermines public trust. Critical evaluation: A strength of the article is its relevance and clarity in presenting real-world issues; however, it lacks methodological rigour and deeper analysis of underlying financial or regulatory causes. It is primarily written for the general public and policymakers. Relevance to my study: It provides practical evidence of idle funds, supporting parallels with excess liquidity in banking systems influenced by LCR requirements. Research gap: The article does not explore how financial regulations contribute to the accumulation of idle funds. This source enhances my understanding of inefficiency and will support the contextual foundation of my research.

22. Northstar Bank Selects CetoLogic's Deposit Reclassification to Transform Idle Funds Into Interest-Earning Income

This article reports on how Northstar Bank adopted CetoLogic's deposit reclassification solution to convert idle funds into interest-earning assets, with the aim of improving financial performance and balance sheet efficiency. The author's purpose is to highlight a practical banking strategy that enhances the utilisation of surplus liquidity through technological and accounting adjustments. Key argument: The article argues that idle funds can be transformed into revenue-generating resources through effective deposit classification and liquidity management techniques. Theoretical lens: It reflects principles of bank liquidity management and asset optimisation, focusing on maximising returns from available financial resources. Methodology: The article is descriptive and case-based, relying on reported institutional practices rather than empirical or statistical analysis. Key findings: It demonstrates that reclassifying deposits enables banks to earn interest

on funds that would otherwise remain inactive, thereby improving profitability. Critical evaluation: A major strength is its practical relevance and real-world application within the banking sector; however, it lacks academic depth and does not critically evaluate potential risks or regulatory implications. The article is primarily written for finance professionals and industry practitioners. Relevance to my study: It provides direct insight into how banks manage idle funds, which is highly relevant to understanding excess liquidity and LCR-related behaviour. Research gap: The article does not explore how regulatory frameworks, such as Basel III liquidity requirements, influence these strategies. This source enhances my understanding of practical liquidity management and will support the applied dimension of my research.

23. New Zimbabwe(2023) “Idle ZWL\$21millionCommunity Development Funds losing value says MP, as inflation rises.”

This article discusses the issue of ZWL\$21 million in community development funds remaining idle in Zimbabwe, particularly in a context of rising inflation, which erodes the real value of money over time. The author's purpose is to highlight the economic consequences of failing to utilise public funds effectively and to draw attention to concerns raised by policymakers. Key argument: The article argues that idle funds, especially in high-inflation environments, lose significant value and represent poor financial management. Theoretical lens: It is underpinned by monetary economics and public financial management theory, particularly the concept of inflation reducing the real value of unutilised funds. Methodology: The article adopts a journalistic and descriptive approach, based on reported statements and economic conditions rather than empirical analysis. Key findings: It indicates that delays in fund utilisation can lead to substantial losses in purchasing power, undermining the intended developmental impact. Critical evaluation: A key strength is its relevance to real-world economic challenges and its clear illustration of inflationary effects; however, it lacks analytical depth and does not explore structural or regulatory causes of fund inactivity. The article is written for the public and policymakers. Relevance to my study: It provides important context on the consequences of holding idle funds, which parallels the inefficiencies associated with excess liquidity in banks. Research gap: The article does not examine how financial regulations or institutional frameworks

contribute to idle fund accumulation. This source enhances my understanding of the economic cost of idle liquidity and will support the contextual discussion in my research.

24. Studies in the Area of Cogent Economics and Finance Reported from Ho Chi Minh City Open University (Liquidity coverage ratio and profitability: an inverted U-shaped pattern)

This article reports on research conducted by Ho Chi Minh City Open University examining the relationship between the Liquidity Coverage Ratio (LCR) and bank profitability, highlighting an inverted U-shaped pattern between the two variables. The purpose of the article is to summarise and communicate key findings from academic research to a broader audience, particularly within the financial and investment community. Key argument: The article argues that while maintaining adequate liquidity improves bank stability and profitability, excessive liquidity leads to diminishing returns and inefficiency. Theoretical lens: It is based on banking theory and the risk-return trade-off framework, where liquidity provides safety but may reduce profitability if held excessively. Methodology: The article is descriptive in nature, summarising an existing empirical study that used quantitative panel data analysis and regression techniques. Key findings: It highlights that an optimal level of LCR enhances profitability, but beyond a certain threshold, excess liquidity negatively impacts bank performance. Critical evaluation: A key strength is its ability to translate complex academic findings into accessible insights; however, it lacks methodological detail and critical depth, as it does not fully explain the underlying data or limitations. It is primarily written for financial practitioners and a general informed audience. Relevance to my study: This source reinforces the concept of excess liquidity (idle funds) and its impact on bank profitability under LCR regulations. Research gap: It does not explore the behavioural or institutional reasons behind why banks hold excess liquidity. This article is useful for supporting empirical arguments and enhances my understanding of LCR dynamics.

25. Rajdeep, S. and Patra, B. (2025) “Does Basel III – Liquidity Coverage Ratio Affect the Profitability of Indian Public Sector Banks?,” *Millennial Asia*

This study by Rajdeep and Patra (2025) examines the impact of Basel III Liquidity Coverage Ratio (LCR) requirements on the profitability of Indian public sector banks, focusing on how regulatory liquidity standards influence financial performance. The purpose of the research is to empirically assess whether stricter liquidity regulations enhance or constrain bank profitability. Key argument: The authors argue that LCR compliance has a significant impact on profitability, often creating a trade-off between regulatory safety and income generation. Theoretical lens: The study is grounded in banking regulation theory and the risk–return trade-off framework, where higher liquidity improves stability but may reduce profit efficiency. Methodology: The research adopts a quantitative approach using panel data regression analysis to evaluate the relationship between LCR and bank profitability over time. Key findings: The study finds that higher LCR levels can negatively affect profitability in public sector banks due to increased holding of low-yield liquid assets, although the effect varies across institutions. Critical evaluation: A key strength is its strong empirical design and relevance to real banking data; however, it is limited by its focus on one country, which may reduce generalisability. It is primarily written for academic researchers and financial regulators. Relevance to my study: It directly supports my analysis of excess liquidity and idle funds under Basel III regulations. Research gap: It does not explore managerial or behavioural reasons behind liquidity holding decisions. This source strengthens my empirical foundation and supports cross-country comparison in my research.

26. Sidhu, A.V. et al. (2022) “Impact of liquidity coverage ratio on performance of select Indian banks,” Journal of risk and financial management

This study by Sidhu et al. (2022) investigates the impact of the Liquidity Coverage Ratio (LCR), introduced under Basel III regulations, on the overall performance of selected Indian banks. The main purpose of the research

h is to assess whether stricter liquidity requirements improve financial stability while influencing profitability and operational efficiency. Key argument: The authors argue that while LCR enhances bank resilience, it can also constrain profitability due to the increased holding of low-yield liquid assets. Theoretical lens: The study is grounded in banking regulation theory and the risk–return trade-off framework, which suggests that financial stability often comes at the cost of reduced earnings potential.

Methodology: The research employs a quantitative empirical approach using financial data from selected banks and applies statistical analysis to examine the relationship between LCR and performance indicators. Key findings: The study finds that higher LCR levels improve liquidity risk management but may negatively affect profitability metrics, highlighting a trade-off between safety and efficiency. Critical evaluation: A key strength is its empirical rigor and focus on real banking data; however, its limitation lies in the restricted sample size and geographical focus, which may limit broader applicability. It is written primarily for academics, financial analysts, and regulators. Relevance to my study: It directly supports my exploration of excess liquidity and idle funds under regulatory constraints such as LCR.

Research gap: The study does not examine behavioural or strategic reasons behind banks holding excess liquidity buffers. This source strengthens the empirical foundation of my research on liquidity management.

27. Veeramoothoo, S. and Hammoudeh, S. (2022) “Impact of Basel III liquidity regulations on U.S. Bank performance in different conditional profitability spectrums

This study by Veeramoothoo and Hammoudeh (2022) investigates the impact of Basel III liquidity regulations, particularly the Liquidity Coverage Ratio (LCR), on the performance of U.S. banks across different profitability conditions. The purpose of the research is to understand how liquidity requirements influence bank performance under varying financial environments. Key argument: The authors argue that the effect of LCR on bank performance is not uniform; instead, it varies depending on the profitability spectrum, meaning banks with different profitability levels respond differently to liquidity constraints. Theoretical lens: The study is grounded in banking regulation theory and the risk–return trade-off framework, highlighting how regulatory liquidity buffers influence financial performance and stability. Methodology: The research uses a quantitative empirical approach, applying econometric models to bank-level data in order to assess the conditional impact of liquidity regulations. Key findings: The study finds that Basel III liquidity requirements can have mixed effects on bank performance, improving stability in some cases while reducing profitability in others, depending on bank-specific conditions. Critical evaluation: A key strength is its nuanced analysis of heterogeneous effects across profitability levels; however, its limitation lies in its focus on the U.S. banking sector, which may not fully generalise to other regulatory environments. It is written for academic researchers and financial regulators. Relevance to my study: It supports my investigation into excess liquidity and idle funds by showing how liquidity regulations create varied behavioural and performance outcomes across banks. Research gap: The study does not explore the behavioural or managerial decision-making processes behind liquidity accumulation. This source provides strong comparative insight for understanding LCR effects in different banking systems.

28. Golubeva, O., Duljic, M. and Keminien, R. (2019) “The Impact of Liquidity Risk On Bank Profitability

This study by Golubeva, Duljic, and Keminien (2019) examines the impact of liquidity risk on bank profitability in European banks following the introduction of Basel III regulations, with a focus on understanding how tighter liquidity requirements

influence financial performance. The purpose of the research is to empirically assess whether increased liquidity regulation improves stability while affecting profitability outcomes. Key argument: The authors argue that liquidity risk management under Basel III creates a trade-off, where improved stability may come at the expense of reduced profitability due to higher holdings of liquid assets. Theoretical lens: The study is grounded in banking risk theory and the risk–return trade-off framework, which explains the balance between financial safety and profit maximisation. Methodology: The research adopts a quantitative empirical design, using panel data analysis of European banks to test the relationship between liquidity risk indicators and profitability measures. Key findings: The study finds that higher liquidity buffers reduce liquidity risk but are associated with lower profitability, confirming a negative relationship between excess liquidity and earnings performance. Critical evaluation: A key strength is its strong empirical evidence from a European context and robust econometric modelling; however, its limitation lies in the lack of qualitative insight into managerial decision-making behind liquidity holdings. It is primarily written for academics, financial analysts, and regulators. Relevance to my study: It strongly supports my investigation into idle funds and excess liquidity under Basel III/LCR frameworks by providing evidence of profitability trade-offs. Research gap: The study does not explore behavioural or institutional reasons why banks choose to hold excess liquidity beyond regulatory requirements. This source is highly useful for supporting my empirical framework on liquidity–profitability relationships.

29. Giordana, G.A. and Schumacher, I. (2017) “An empirical study on the impact of Basel III standards on banks’ default risk: The case of Luxembourg

This study by Giordana and Schumacher (2017) investigates the impact of Basel III regulatory standards on banks’ default risk, using Luxembourg as a case study to understand how strengthened capital and liquidity requirements influence financial stability. The purpose of the research is to empirically evaluate whether Basel III reforms reduce the likelihood of bank default by improving resilience in the banking sector. Key argument: The authors argue that Basel III standards, including stricter liquidity and capital requirements, significantly reduce banks’ default risk by

enhancing financial buffers and stability. Theoretical lens: The study is grounded in banking stability theory and systemic risk theory, which focus on strengthening the resilience of financial institutions and reducing the probability of financial distress. Methodology: The research employs a quantitative empirical approach using bank-level data and econometric modelling to assess the relationship between Basel III implementation and default risk indicators. Key findings: The study finds that Basel III reforms have a statistically significant effect in lowering default risk among banks in Luxembourg, indicating improved financial stability post-regulation. Critical evaluation: A key strength is its rigorous empirical methodology and clear focus on regulatory impact; however, its limitation lies in its narrow geographical scope, which may reduce generalisability to other banking systems. It is primarily intended for academic researchers and financial regulators. Relevance to my study: It supports my research by providing evidence that liquidity regulations such as LCR enhance stability, which helps explain why banks may hold excess liquidity. Research gap: The study does not explore the profitability trade-offs or behavioural reasons behind liquidity accumulation. This source is useful for understanding the stability side of Basel III regulation within my research framework.

30. Ayoush, M.D., Toumeh, A.A. and Shabaneh, K.I. (2021) “Liquidity, leverage, and solvency: What affects profitability of industrial enterprises the most?”

This study by Ayoush, Toumeh, and Shabaneh (2021) examines how liquidity, leverage, and solvency influence the profitability of industrial enterprises, with the purpose of identifying which financial factor has the strongest impact on firm performance. Although it focuses on non-banking firms, its findings are relevant to broader financial management and liquidity behaviour. Key argument: The authors argue that liquidity, leverage, and solvency all affect profitability, but liquidity plays a particularly significant role in shaping financial performance outcomes. Theoretical lens: The study is grounded in corporate finance theory and the risk–return trade-off framework, which explains how financial structure decisions influence profitability. Methodology: A quantitative empirical approach is used, applying statistical analysis

to firm-level financial data to test the relationship between financial indicators and profitability. Key findings: The research finds that liquidity management has a strong and statistically significant influence on profitability, alongside leverage and solvency, highlighting the importance of efficient financial resource allocation. Critical evaluation: A key strength is its comparative analysis of multiple financial determinants of profitability; however, its limitation lies in its focus on industrial enterprises rather than banking institutions, which reduces direct applicability to LCR-specific banking studies. It is written for academic researchers and financial analysts. Relevance to my study: It provides supportive evidence on the importance of liquidity management, which is relevant for understanding idle funds and excess liquidity in banks under LCR requirements. Research gap: The study does not address regulatory frameworks such as Basel III or the behavioural reasons behind liquidity holding in banks. This source helps strengthen the theoretical background of liquidity's impact on profitability in my research.

31. Vu, T.H. (2024) 'Liquidity coverage ratio and profitability: an inverted U-shaped pattern

This study by Thanh Huu Vu (2024) investigates the relationship between the Liquidity Coverage Ratio (LCR) and bank profitability, with a particular focus on identifying whether this relationship is linear or non-linear. The author's aim is to determine how regulatory liquidity requirements influence financial performance in banks. Key argument: The study argues that the relationship between LCR and profitability follows an inverted U-shaped pattern, where moderate levels of liquidity improve profitability, but excessive liquidity reduces returns. Theoretical lens: The research is grounded in banking theory and risk-return trade-off principles, particularly the balance between liquidity safety and profit maximisation. Methodology: The study employs quantitative panel data analysis, using regression models to examine the relationship across banks over time. Key findings: It finds that maintaining an optimal level of liquidity enhances profitability, whereas holding excessive liquidity leads to inefficiencies and reduced earnings. Critical evaluation: A key strength is its robust empirical approach and clear contribution to understanding LCR dynamics; however, it may be limited by data constraints or lack of qualitative

insights into bank decision-making. The article is primarily written for academic researchers and financial professionals. Relevance to my study: This study is highly relevant as it directly explains excess liquidity (idle funds) in banks under LCR requirements. Research gap: It does not explore behavioural or managerial reasons behind holding excess liquidity. This source significantly deepens my understanding and will be central to my empirical and theoretical framework.

PART 3 | PRELIMINARY CRITICAL LITERATURE REVIEW

3.1. Introduction

The UK banking sector holds approximately around £900 billion in central bank reserves far exceeding regulatory requirements under the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) frameworks established by the Basel Committee on Banking Supervision (2013, 2014). This structural excess liquidity, earning near-zero returns, coexists with persistent profit opportunities in foreign exchange markets, where covered interest parity (CIP) deviations have offered 15–50 basis point returns since the 2008 financial crisis (Borio, McCauley & McGuire, 2016; Du, Tepper & Verdelhan, 2018). Yet UK bank treasuries lack systematic frameworks to redeploy this excess liquidity profitably across lending, FX markets, and liquidity facilities.

3.1.2 Research Title

“Unlocking Latent Profit in UK Banks: Decision Rules for Redeploying Structural Excess Liquidity Across UK Financial Services”

3.1.3 Justification

This research is highly relevant in the current UK financial environment due to the build-up accumulation of structural excess liquidity in the UK Financial system, largely driven by post-financial crisis regulation, quantitative easing, and strong liquidity buffers required under Basel III frameworks (LCR and NSFR). UK banks are currently holding very high levels of central bank reserves and high-quality liquid assets (Table 01), which often generate low returns compared to alternative uses of capital. This creates a structural issue where liquidity is maintained for regulatory compliance and safety but may also lead to opportunity cost and reduced profitability.

At the same time, the UK financial system is facing pressure from lower net interest margins, slowing credit demand, and increased competition from non-bank financial institutions, making efficient capital allocation more important than ever. In this context, understanding how banks can safely redeploy excess liquidity without breaching regulatory constraints is both a policy relevant and commercially important issue. The study is timely because it aligns with an ongoing debate on whether post-

crisis liquidity regulations may unintentionally contribute to idle balance sheet inefficiencies.

Table 01 – Excess LCR UK Banks

Bank	2018	2019	2020	2021	2022	2023	Average
HSBC	136%	140%	149%	146%	150%	152%	145.50%
Barclays	150%	154%	161%	159%	157%	158%	156.50%
Lloyds Banking Group	140%	145%	150%	147%	148%	151%	146.83%
NatWest Group	148%	152%	155%	150%	149%	153%	151.17%
Standard Chartered	135%	140%	148%	144%	145%	147%	143.17%
Average	141.80%	146.20%	152.60%	149.20%	149.80%	152.20%	148.63%

Table01-LCR % (*Basel III Minimum = 100%*)

3.1.4. Research Aim

The aim of this study is to investigate how UK banks can identify, interpret, and apply decision rules for the efficient redeployment of structural excess liquidity while remaining compliant with Basel III liquidity regulations (LCR and NSFR), to enhance profitability within UK financial industry.

3.2 Conceptual Framing

3.2.1. Key constructs, Relationships & Scope

This study focuses on key constructs including excess liquidity (LCR buffer), idle funds, bank profitability, and digitalisation in treasury operations. The central relationship examines how structural excess liquidity influences profitability, with digitalisation acting as both an enabler of efficiency and a potential constraint on arbitrage opportunities. The study further explores how decision-making processes mediate the utilisation of idle funds within regulatory constraints. The scope is limited to UK banks and financial institutions, with particular emphasis on Basel III liquidity frameworks and post-financial crisis regulatory environments.

3.3 Thematic Literature Review

While existing literature extensively examines liquidity shortages, risk management, and regulatory compliance, there is limited research on the determinants and implications of excess liquidity holdings in banks. In particular, the impact of surplus liquidity on efficiency, profitability, and balance sheet optimisation in the UK banking sector remains underexplored

1. **Regulatory Gap**

Focus on minimum requirements, not excess liquidity

2. **Efficiency Gap**

No focus on idle funds / profitability loss

3. **Empirical Gap**

Lack of bank-level UK data

4. **Strategic Gap**

Limited insight into liquidity management decisions in terms of excess LCR

3.3.1 Theme 1: Liquidity Regulation and Bank Profitability

(a) Conceptual Foundations

The relationship between liquidity and profitability is grounded in the risk–return trade-off theory, which posits that higher liquidity enhances financial stability but reduces returns due to the holding of low-yield assets (Ayoush et al., 2021). Basel III frameworks, particularly the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR), were introduced to strengthen banking resilience by requiring sufficient high-quality liquid assets (Giordana and Schumacher, 2017). However, these regulations create tension between prudential stability and profit maximisation, as excess liquidity may lead to inefficient capital allocation (Golubeva et al., 2019).

(b) Empirical Evidence

Empirical findings consistently highlight this trade-off. Vu (2024) identifies an inverted U-shaped relationship between LCR and profitability, suggesting that moderate liquidity enhances returns while excessive liquidity reduces performance. Similarly, Golubeva et al. (2019) and Sidhu et al. (2022) find that higher liquidity buffers improve risk management but negatively affect profitability. Rajdeep and Patra (2025) further confirm that LCR compliance constrains profitability in Indian public

sector banks, while Veeramoothoo and Hammoudeh (2022) show that the impact varies depending on profitability conditions across U.S. banks.

(c) Contradictions

Despite general agreement on the liquidity–profitability trade-off, some studies highlight non-linear and heterogeneous effects. Vu (2024) demonstrates that liquidity is beneficial up to an optimal threshold, while Veeramoothoo and Hammoudeh (2022) emphasise that the impact differs across banks depending on their financial condition. These findings challenge simplistic linear assumptions and suggest that the effects of liquidity regulation are context-dependent rather than uniform.

(d) Contextual Variation

The impact of liquidity regulation varies across regions. European-focused studies (Golubeva et al., 2019) emphasise stability improvements, while studies in emerging markets such as India (Sidhu et al., 2022; Rajdeep and Patra, 2025) highlight stronger profitability constraints. U.S. evidence (Veeramoothoo and Hammoudeh, 2022) further demonstrates conditional effects across profitability spectrums. This variation indicates that regulatory outcomes are shaped by institutional, economic, and market-specific factors, limiting direct generalisation to the UK context.

3.3.2. Theme 2: Excess Liquidity and Idle Funds in Financial Systems

(a) Conceptual Foundations

The concept of excess liquidity is closely linked to opportunity cost theory, which suggests that holding idle funds leads to forgone returns (Dobson, 1968). Liquidity preference theory further explains why institutions may prefer holding liquid assets for precautionary reasons. Structural excess liquidity often emerges due to regulatory requirements, monetary policy interventions, and risk aversion within financial systems.

(b) Empirical Evidence

Evidence from both academic and applied sources highlights the persistence of idle funds. Dobson (1968) provides early theoretical insight into the inefficiency of unused public funds. More recent industry evidence shows how banks actively attempt to convert idle liquidity into income-generating assets through financial innovation (*Northstar Bank*, 2014). News-based sources further demonstrate the prevalence of idle funds in practice, such as unused treasury funds (Bizhub, 2026) and large inactive public funds raising concerns about inefficiency (Bizhub, 2025; New Zimbabwe, 2023). Additionally, research summaries (Investment Weekly News, 2024) reinforce that excess liquidity can reduce financial performance when not optimally deployed.

(c) Contradictions

While much of the literature frames excess liquidity as inefficient, alternative perspectives emphasise its role as a protective buffer against uncertainty and financial instability. For example, regulatory frameworks under Basel III encourage liquidity accumulation to enhance resilience (Giordana and Schumacher, 2017), creating a tension between efficiency and prudence.

(d) Contextual Variation

The consequences of idle funds differ across economic environments. In high-inflation contexts such as Zimbabwe, idle funds lose real value rapidly (New Zimbabwe, 2023), whereas in developed economies, including advanced banking systems, the issue is more closely associated with low returns and balance sheet inefficiency (Bizhub, 2026). This highlights how macroeconomic conditions shape the impact of excess liquidity.

3.3.3. Theme 3: Decision-Making and Liquidity Management in Banks

(a) Conceptual Foundations

Liquidity management decisions are influenced by risk management theory, behavioural finance, and institutional theory, which emphasise the role of internal governance, regulatory expectations, and uncertainty in shaping financial decisions. Banks do not simply respond mechanically to regulation but apply strategic judgement in managing liquidity buffers.

(b) Empirical Evidence

Empirical studies suggest that banks often hold liquidity above regulatory requirements due to precautionary motives and institutional constraints. Evidence from LCR-focused studies (Sidhu et al., 2022; Rajdeep and Patra, 2025) indicates that banks maintain higher liquidity levels to ensure compliance and manage risk. Similarly, (b Vu, 2024) and (Investment Weekly News, 2024) highlight that excessive liquidity reflects strategic decisions rather than purely regulatory requirements. Industry evidence (Northstar Bank, 2014) further shows that banks actively develop mechanisms to redeploy idle funds into profitable uses.

(c) Contradictions

A key contradiction exists between regulatory assumptions of optimal liquidity management and actual bank behaviour. While theory assumes rational optimisation, banks may adopt conservative or precautionary strategies, leading to persistent excess liquidity beyond optimal levels (Golubeva et al., 2019).

(d) Contextual Variation

Decision making behaviour varies across banking systems due to differences in regulatory enforcement, market conditions, and institutional culture. Developed banking systems tend to exhibit more advanced liquidity management strategies, while emerging markets face structural constraints (Veeramoothoo and Hammoudeh, 2022; Rajdeep and Patra, 2025).

Despite extensive research on liquidity regulation and bank performance, a significant gap remains in understanding the behavioural and strategic drivers of excess liquidity accumulation, particularly in the UK context. Existing studies are predominantly quantitative and focus on profitability outcomes (Vu, 2024; Sidhu et al., 2022), with limited attention to managerial decision-making processes and practical liquidity redeployment strategies. Furthermore, there is a lack of research integrating both empirical analysis and qualitative insights to develop decision rules for optimising liquidity use. This study addresses this gap by combining panel data analysis with semi-structured interviews to provide a more comprehensive understanding of excess liquidity in UK banks.

3.3.4. Theme 4: Digitalization Paradox

Digitalisation has significantly transformed the financial industry, enhancing operational efficiency through real-time transaction processing, improved data accuracy, and advanced analytical tools. Platforms such as Bloomberg have enabled decision-makers to access timely and reliable information, reducing operational errors compared to the manual era. This technological advancement has facilitated faster and more data-driven decision-making, aligning with the increasing complexity and responsiveness of financial markets. However, a “digitalisation paradox” emerges, whereby increased efficiency simultaneously reduces opportunities for profitable arbitrage. As highlighted by Brunnermeier and Pedersen (2009), market liquidity and funding liquidity are closely interlinked, and improvements in market transparency can compress arbitrage margins. Similarly, Avdjiev *et al.* (2019) demonstrate that enhanced market integration and balance sheet constraints limit deviations such as covered interest parity, thereby reducing arbitrage opportunities. In contrast, traditional intermediaries such as voice brokers retain the ability to structure multi-leg foreign exchange swaps, enabling more flexible deal construction and potential arbitrage gains. Given that FX swaps are central to liquidity management and closely linked to high quality liquid assets (HQLA), this paradox

has direct implications for the utilisation of excess liquidity within banks.

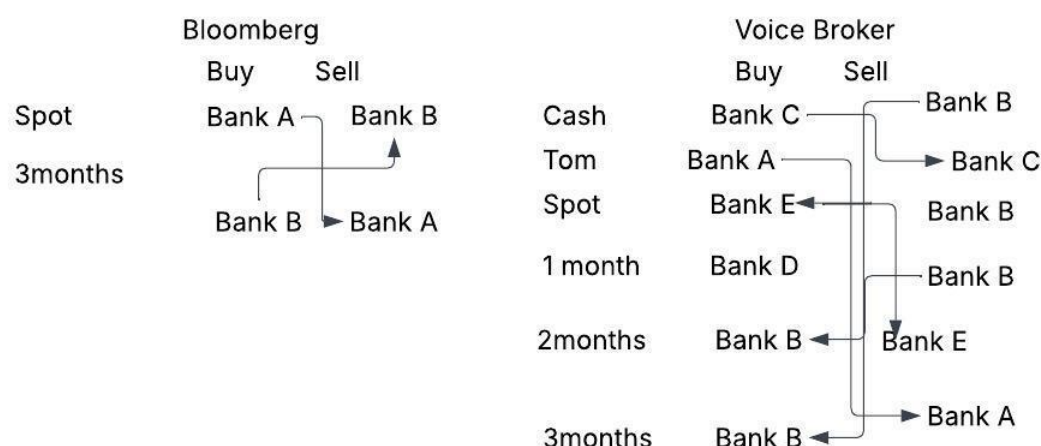


Image creat with Lucid App

Bloomberg allowed Spot/3Month swap as a, through voice brokers similar swap got few legged extra and it's also amalgamated with Fx outright with Bank B purchased Spot and Bank D sold 1 month. This is a one example scenario. In this example Bank B in **receiving side- Buy/Sell** and they have done 2 receiving swap while purchasing Spot value. Bank A has done a **paying Swap- Sell/Buy**. Bank D **sold outright/Fx Forward** 1month while Bank C **paying Swap- Sell/Buy** Cash against Spot.

This analysis suggests that while digitalisation enhances efficiency and transparency, it may inadvertently constrain strategic liquidity deployment by limiting arbitrage opportunities. Therefore, banks should adopt a hybrid liquidity management approach, combining digital platforms with selective use of human intermediation to optimise transaction structuring and market positioning. Additionally, treasury functions should incorporate flexible decision frameworks that allow for opportunistic liquidity deployment under varying market conditions. This would enable institutions to better balance regulatory compliance with profitability, particularly in environments characterised by persistent excess liquidity.

3.4 Synthesis of Findings

Patterns: The literature consistently reveals a structural persistence of excess liquidity, with diminishing marginal returns under Basel III constraints and increasing evidence of underutilised funds within banking systems (Vu, 2024).

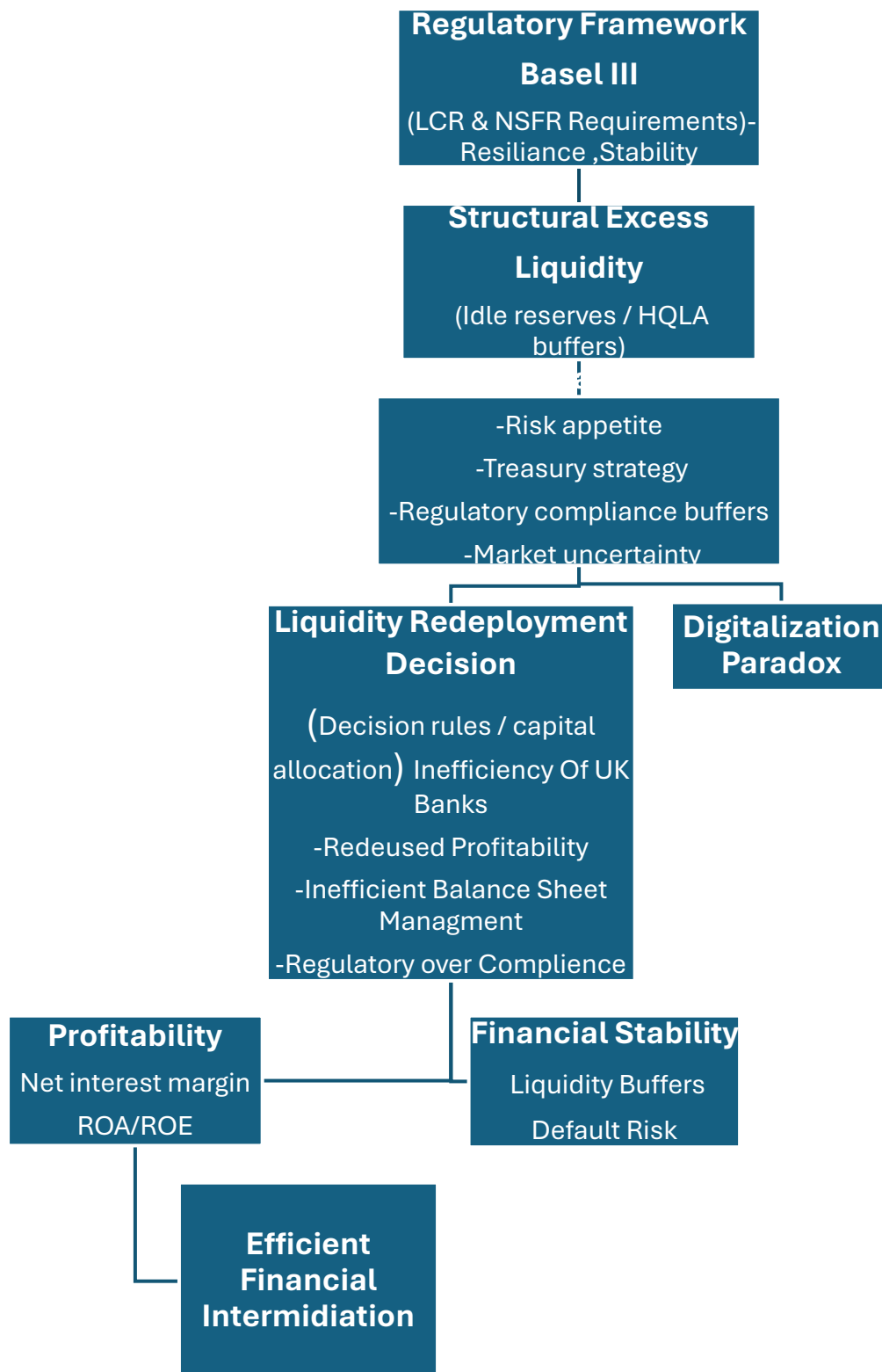
Relationships: Excess liquidity is closely associated with profitability, regulatory requirements (LCR) and liquidity management practices, while digitalisation enhances efficiency but does not fully resolve allocation inefficiencies.

Mechanisms: These dynamics are driven by regulatory compliance pressures, risk aversion, and balance sheet constraints, which collectively limit optimal redeployment of liquidity despite technological advancements (Golubeva *et al.*, 2019).

Research Gap Link: However, existing studies largely overlook the decision-making processes and strategic rules governing liquidity redeployment, particularly within the UK context.

Link to Research Questions: This gap directly informs the study's research questions, which examine how UK banks determine liquidity allocation decisions, what factors constrain optimal redeployment, and how structured decision frameworks can unlock latent profitability.

3.5 Conceptual Framework



3.6 Research Gaps

The existing literature on liquidity regulation and bank performance reveals several important gaps that justify further investigation, particularly within the UK banking context.

Theoretical Gap

Current research largely examines liquidity regulation and profitability within the risk–return trade-off framework, but there is limited integration with behavioural and decision-making theories. While studies acknowledge that banks hold excess liquidity beyond regulatory requirements, they do not sufficiently explain how internal strategic decision rules are formed or applied. As a result, there is a lack of a unified theoretical framework linking regulatory constraints, managerial behaviour, and liquidity redeployment strategies.

Empirical Gap

Empirical studies predominantly rely on cross-sectional or panel data analysis to examine the relationship between liquidity and profitability (Vu, 2024; Sidhu et al., 2022). However, there is limited use of longitudinal and mixed method approaches that capture both quantitative trends and qualitative insights. There is a lack of empirical evidence exploring how banks operationalise liquidity decisions over time, especially in relation to excess liquidity rather than minimum regulatory compliance.

Contextual Gap

Much of the existing literature focuses on emerging markets (e.g., India) or broader international samples, with comparatively limited research dedicated specifically to the UK banking sector (Rajdeep and Patra, 2025; Veeramoothoo and Hammoudeh, 2022). Given the UK's unique financial structure, advanced regulatory environment, and significant levels of central bank reserves, the findings from other contexts cannot be directly generalised.

Methodological Gap

There is a strong reliance on quantitative econometric methods, with limited incorporation of qualitative approaches such as semi-structured interviews. This creates a gap in understanding the behavioural and institutional drivers behind liquidity management decisions. In particular, the absence of qualitative evidence means that existing studies do not capture managerial perspectives, strategic reasoning, and real-world decision rules used in treasury functions.

Overall Research Contribution

This study addresses these gaps by integrating quantitative panel data analysis with qualitative semi-structured interviews, focusing specifically on the UK banking sector. It contributes by developing a more comprehensive understanding of how excess liquidity is managed and how decision rules can be formulated to optimise profitability while maintaining regulatory compliance.

3.7 Draft Research Questions

Derived from the identified theoretical, empirical, contextual, and methodological gaps, this study proposes the following research questions:

- **How does structural excess liquidity affect profitability in UK banks under Basel III (LCR and NSFR) requirements?**
- **What institutional and managerial factors influence the accumulation of excess liquidity beyond regulatory thresholds?**
- **How do UK banks make strategic decisions regarding the retention or redeployment of excess liquidity?**
- **What decision rules can be developed to optimise liquidity redeployment while maintaining regulatory compliance and financial stability?**
- **To what extent does the relationship between liquidity and profitability exhibit non-linear characteristics within the UK banking sector?**

These questions are **specific, researchable, and grounded in theory**, particularly the risk–return trade-off, regulatory compliance frameworks, and behavioural decision-making perspectives. They also justify the use of a **mixed-methods approach**, combining panel data analysis with semi-structured interviews.

3.8 Theoretical Contribution

This study adds to existing theory by going beyond the traditional risk–return trade-off, which views liquidity as a fixed factor affecting profitability. Instead, it shows that liquidity is not just a static variable. The study expands current understanding by including behavioural and institutional perspectives, recognising that liquidity decisions are influenced not only by regulations but also by managerial judgement, risk perception, and organisational strategy.

Second, the study challenges the assumption of optimal liquidity management embedded in Basel III frameworks. While regulatory models assume rational

compliance, this research highlights the persistence of structural excess liquidity, suggesting that banks may systematically deviate from theoretical optimality due to precautionary behaviour and uncertainty.

Third, the research introduces a new relational perspective by linking liquidity accumulation, decision rules, and profitability outcomes, rather than analysing liquidity solely as a constraint. This shifts the focus from compliance to strategic liquidity utilisation.

Finally, the study refines the construct of excess liquidity by distinguishing between regulatory liquidity requirements and structural surplus liquidity, thereby providing a more precise analytical lens for future research.

3.9 Managerial Implications

This research offers practical implications for banking institutions, particularly treasury and risk management functions.

First, it highlights the need for banks to re-evaluate liquidity management strategies, moving beyond a purely compliance-driven approach towards active optimisation of excess liquidity. Organisations should develop formal decision frameworks that identify when and how surplus liquidity can be redeployed into higher-yielding assets without breaching LCR and NSFR requirements.

Second, the study suggests that banks should integrate profitability considerations into liquidity planning, ensuring that excess reserves are not passively held but strategically allocated. This may involve enhanced use of liquidity forecasting models, stress testing, and dynamic asset allocation strategies.

Third, decision-making processes should incorporate clear thresholds and triggers for redeployment, enabling more responsive and data-driven treasury management.

However, these changes also introduce risks. Increased redeployment of liquidity may expose banks to liquidity shortfalls, regulatory breaches, or heightened market risk, particularly under stressed conditions. Therefore, organisations must balance profitability optimisation with prudential safeguards, ensuring that stability is not compromised.

Overall, this research encourages banks to shift from liquidity preservation to liquidity optimisation, fundamentally changing how excess liquidity is perceived and managed.

3.10 Conclusion

This chapter has critically examined the literature on liquidity regulation, excess liquidity, and bank profitability, identifying key patterns, relationships, and underlying mechanisms. The synthesis revealed a consistent trade-off between liquidity and

profitability, alongside the persistent accumulation of excess liquidity within banking systems.

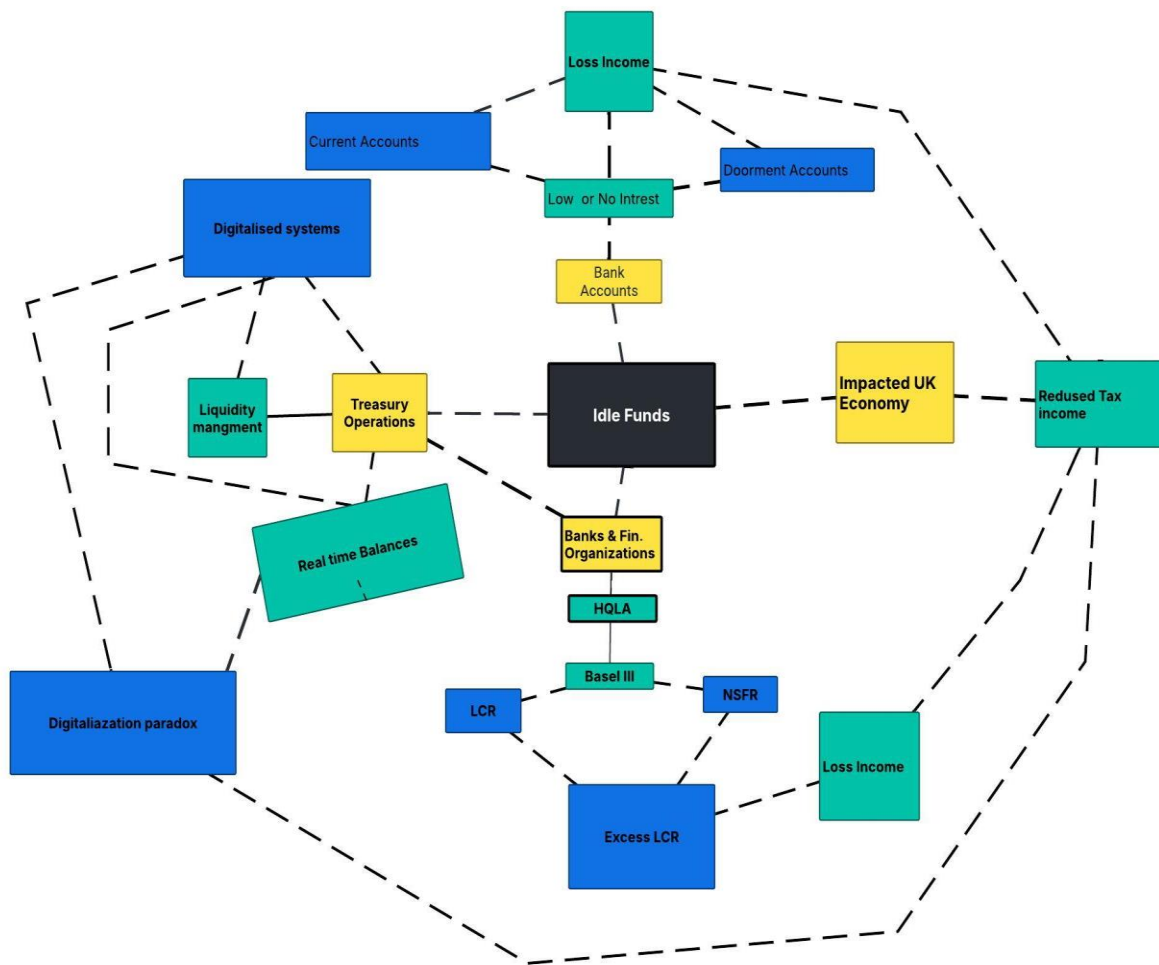
Importantly, the review identified significant gaps, particularly in understanding the behavioural and strategic drivers of liquidity management, the lack of UK-specific evidence, and the absence of practical decision frameworks. In response, this study proposes a mixed-methods approach, combining panel data analysis with semi-structured interviews to generate both empirical and contextual insights.

The research contributes by advancing theoretical understanding, addressing methodological limitations, and offering actionable managerial implications. Ultimately, it aims to provide a more comprehensive framework for unlocking latent profit from structural excess liquidity while maintaining regulatory compliance and financial stability within the UK banking sector.

3.11. Literature Search Strategy and Study Selection

3.11.1. Mind Map

A mind map was used at the initial stage of the literature search process to visually organise key themes and identify emerging research streams. This exploratory step supported the development of search strings and helped structure the subsequent systematic screening process.



(Creat with ELA Mind Map -Lucid App)

- HQLA -High quality Liquid Assetts
- LCR- Liquidity coverage Ratio
- NSFR- Net Stable Funding Ratio

A systematic literature search was conducted using multiple academic and professional databases to ensure comprehensive coverage of both theoretical and applied research. The literature search was conducted using multiple academic databases accessed through the University of Wales Trinity Saint David (UWTSD) online library. This ensured access to high-quality peer-reviewed journals and financial research. In addition, lecture materials were consulted to support

foundational understanding of key concepts-(mainly for part 1), although the analysis primarily relied on academic and industry-based sources. Access to peer-reviewed literature and industry reports.

3.11.2. Databases, Search Strategy & Key Search Terms

Databases

1. The University of Wales Trinity Saint David (UWTSD) online library
2. Google Scholar
3. ScienceDirect

Search Strategy

The search strategy was designed to capture literature related to excess liquidity, idle funds, and bank profitability under Basel III frameworks. A combination of keywords and Boolean operators was used to refine results.

Key Search Terms

“Idle funds”

“Idle funds in UK Economy”

“Idle funds in USA and Europe Economy”

“Excess liquidity”

“Structural liquidity”

“Liquidity Coverage Ratio” or “LCR”

“Net Stable Funding Ratio” or “NSFR”

“High Quality Liquid Assets” or “HQLA”

“Bank profitability and liquidity”

“Treasury operations and liquidity management”

“Digitalisation and banking efficiency”

“Idle funds impact on UK economy”

“Loss of income opportunities in banks”

I have use search strings amalgamation of key words. My search was limited to English-language publications and primarily focused on studies relevant to my study area between 2000-2026 reflecting the relevance of post-financial crisis regulatory

changes However, earlier studies from the 1980s were found related to banking industry with theoretical foundations for the industry – time line.

3.11.3. Inclusion and Exclusion Criteria

Inclusion Criteria

- Peer-reviewed journal articles and credible industry reports
- Studies related to bank liquidity, Basel III, LCR, NSFR
- Research examining profitability, financial performance, or liquidity management
- Studies focusing on banks or financial institutions
- Relevant news sources illustrating real-world cases of idle funds

Exclusion Criteria

- Studies unrelated to banking or financial systems
- Articles lacking empirical or theoretical relevance
- Non-English publications
- Duplicate records across databases
- Studies focusing solely on unrelated sectors (e.g., manufacturing without financial linkage)

3.11.4. Screening and Study Selection

The study selection process followed the **PRISMA framework**

Screening Process

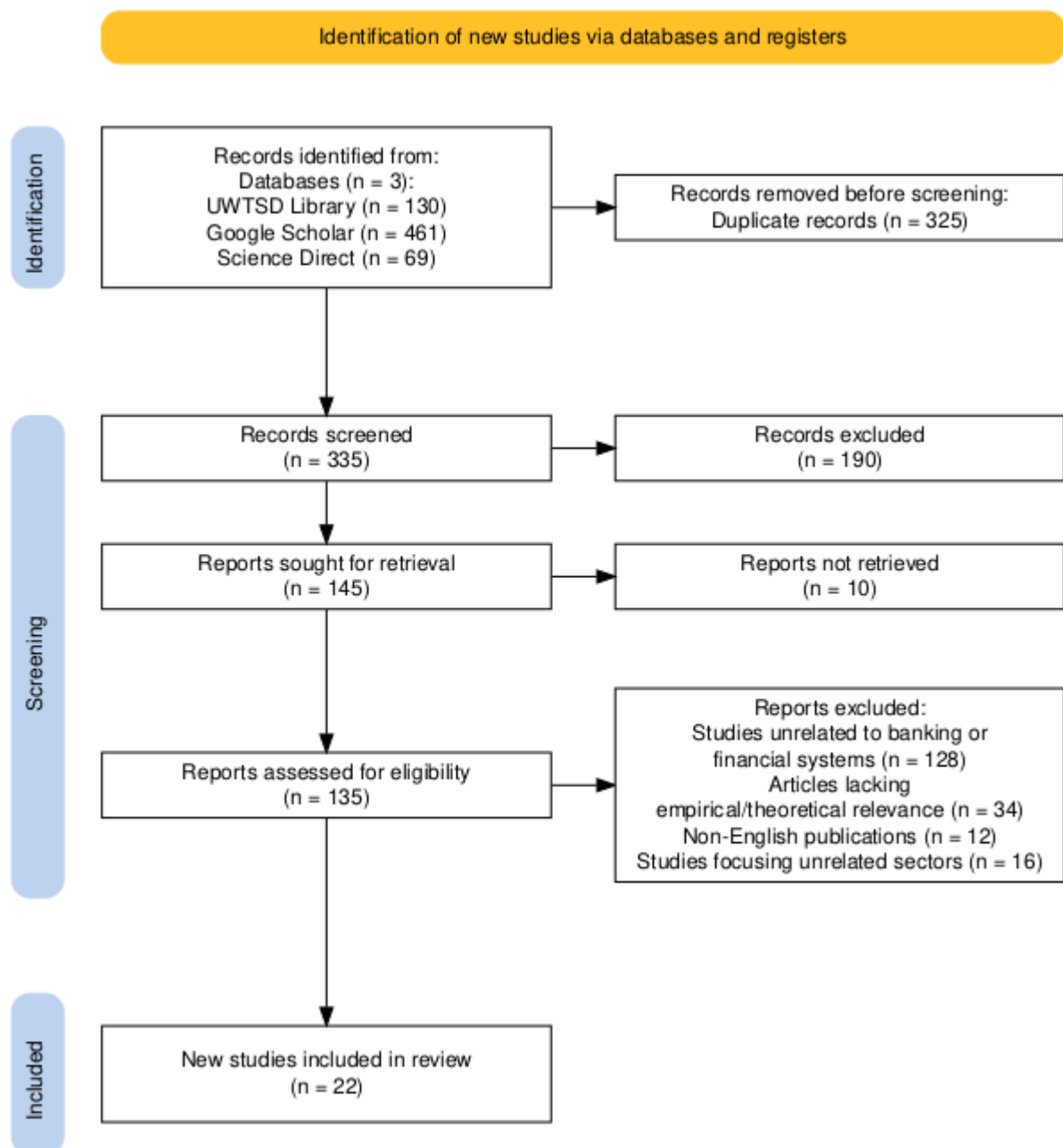
1. **Identification**
Initial searches across databases generated a large pool of studies using the defined keywords.
2. **Screening**
Titles and abstracts were reviewed to remove irrelevant studies and duplicates.
3. **Eligibility**
Full-text articles were assessed against inclusion and exclusion criteria.

4. Final Selection

A refined set of **29 key studies** was selected for in-depth analysis in the literature review.

3.11.5. PRISMA Flow Diagram

The study selection process followed the PRISMA 2020 framework to ensure transparency, consistency, and replicability in identifying and screening relevant literature (Haddaway et al., 2022).



4. Methodology

4.1 Research Design

This study adopts a mixed-methods research design, integrating quantitative panel data analysis with qualitative semi-structured interviews. This approach is appropriate given the complexity of liquidity management, which involves both measurable financial relationships and subjective managerial decision-making processes. While panel data enables the identification of statistical relationships between excess liquidity and profitability, semi-structured interviews provide deeper insight into institutional behaviour, decision rules, and strategic considerations.

The use of mixed methods directly addresses the limitations identified in prior literature, which has predominantly relied on quantitative approaches while neglecting behavioural and organisational dimensions of liquidity management.

4.2 Research Philosophy and Approach

This research is grounded in a **pragmatic research philosophy**, which allows for the integration of both positivist (quantitative) and interpretivist (qualitative) approaches. A **deductive approach** is adopted for the quantitative component, testing relationships derived from the risk–return trade-off theory and Basel III frameworks. In contrast, an **inductive approach** is applied in the qualitative component to explore emerging themes related to managerial decision-making and liquidity strategies.

4.3 Quantitative Methodology (Panel Data Analysis)

4.3.1 Data Sources

The quantitative analysis uses **secondary financial data** collected from

- Annual reports of UK banks
- Financial databases such as Bloomberg, Refinitiv
- Regulatory disclosures (e.g., liquidity ratios, balance sheet data)

The sample consists of **major UK banks** over a period of approximately **07-10 years**, allowing for longitudinal analysis of liquidity trends and profitability outcomes.

4.3.2 Variables and Measurement

Dependent Variables (Profitability):

- Return on Assets (ROA)
- Return on Equity (ROE)
- Net Interest Margin (NIM)

Independent Variable:

- Excess Liquidity (mediated by LCR above 100% or liquid assets ratio)

Control Variables:

- Bank size (log of total assets)
- Capital adequacy ratio
- Loan-to-deposit ratio
- GDP growth (macro control)
- Interest rate environment

4.3.3 Model Specification

The study employs a panel regression model to examine the relationship between excess liquidity and profitability

Example Equation - model

Profitability = Alpha+ Excess Liquidity+ Controls + Bank Specific Effects + Time effects + Errors

4.3.4 Estimation Technique

The analysis employs:

Fixed effects model (to control for unobserved heterogeneity) Random effects model (for robustness checks), Hausman test to determine the appropriate model.

4.4 Qualitative Methodology (Semi-Structured Interviews)

4.4.1 Research Purpose

The qualitative component aims to explore how banks make liquidity management decisions, particularly:

- Why excess liquidity is held
- How redeployment decisions are made

- What constraints influence these decisions

4.4.2 Sample Selection

My sampling strategy is used to select participants with relevant expertise, including:

- Treasury managers
- Risk managers
- Liquidity specialists
- Banking regulators

The expected sample size is 8–15 participants, sufficient for thematic saturation in qualitative research.

4.4.3 Data Collection

Data is collected through semi-structured interviews, allowing flexibility to explore key themes while maintaining consistency across participants. Interviews may be conducted via:

- face-to-face where possible
- Online platforms (Teams/Zoom)
- Telephone face-to-face where possible

Each interview is expected to last 30–60 minutes and will be recorded with consent for transcription and analysis.

4.4.4 Interview Design

Key Themes

Interview questions are structured around the following themes

- Liquidity management practices
- Regulatory influence (LCR/NSFR)
- Decision-making processes
- Risk perception and uncertainty
- Liquidity redeployment strategies

Example questions include- Not limited to,

- How does your organisation determine optimal liquidity levels?
- What factors influence decisions to hold or redeploy excess liquidity?

- To what extent do regulatory requirements shape your liquidity strategy?
- What constraints limit the use of excess liquidity?

4.4.5 Data Analysis

The qualitative data is analysed using thematic analysis, involving:

1. Data familiarisation
2. Coding key concepts
3. Identifying themes
4. Interpreting patterns

This enables the identification of decision rules and behavioural drivers underlying liquidity management.

4.5 Integration of Methods

The study adopts a convergent mixed-methods design, where quantitative and qualitative findings are analysed separately and then integrated.

- Quantitative results identify statistical relationships
- Qualitative insights explain underlying mechanisms and decision processes

This integration enhances the validity and depth of the research findings.

4.6 Reliability and Validity

- Quantitative reliability is ensured using established financial metrics and robust econometric techniques
- Qualitative credibility is supported through careful sampling, consistent interview protocols, and transparent coding
- Triangulation between methods strengthens overall validity

4.7 Ethical Considerations

The study adheres to ethical research standards, including:

- Informed consent from participants
- Confidentiality and anonymity
- Secure data storage
- Compliance with institutional ethical guidelines

4.8 Limitations of Methodology

Potential limitations include:

- Limited access to senior banking professionals
- Potential bias in self-reported interview data
- Constraints in measuring “excess liquidity” precisely

However, the mixed-methods approach mitigates these limitations by combining objective data with contextual insights.

Appendix

Appendix 1 – 104 Literature Review- Key findings and Research Gaps

Author	Year	Method (Simple Category)	Key Findings	Research Gap
Bagehot, W.	1873	Conceptual / Historical	Central banks should lend freely against good collateral during crises	Does not analyse modern bank balance sheet liquidity or QE reserves
Fisher, I.	1933	Macroeconomic theory	Debt deflation amplifies economic downturns through forced asset sales	Limited focus on bank liquidity management
Keynes, J.M.	1936	Macroeconomic theory	Agents demand liquidity for transaction, precautionary, and speculative motives	Bank-level liquidity management not examined
Hicks, J.R.	1937	Macroeconomic theory	Integrated monetary and real sectors in general equilibrium	No bank-specific liquidity analysis
Gurley, J. & Shaw, E.	1955	Macroeconomic theory	Financial development promotes economic growth	Liquidity transformation mechanisms not detailed

Tobin, J.	1956	Theoretical model	Optimal cash holdings balance transaction needs against interest foregone	Bank treasury optimization not considered
Modigliani, F. & Miller, M.	1958	Theoretical model	Capital structure irrelevant under perfect markets	Banking sector specificities not addressed
Tobin, J.	1958	Theoretical model	Liquidity preference emerges from risk-return tradeoffs	Bank treasury portfolio decisions not studied
Tobin, J.	1963	Macroeconomic theory	Banks actively create liquidity through lending and deposit expansion	Limited micro-level analysis of treasury liquidity management
Friedman, M. & Schwartz, A.	1963	Conceptual / Historical	Banking crises contract money supply and economic activity	Bank-level liquidity decisions not examined
Poole, W.	1968	Theoretical model	Banks manage reserves based on stochastic deposit flows	FX and derivative markets not considered
Niehans, J.	1978	Macroeconomic theory	Comprehensive framework for monetary theory	Operational treasury management not addressed
Bryant, J.	1980	Theoretical model	Deposit insurance can prevent self-fulfilling bank runs	Modern liquidity regulation not considered
Stiglitz, J. & Weiss, A.	1981	Theoretical model	Banks may ration credit and hold liquidity instead of lending	No discussion of financial market liquidity redeployment
Bernanke, B.	1983	Empirical / Panel Data	Bank failures amplify economic downturns through credit supply	Liquidity management responses not studied
Diamond, D. & Dybvig, P.	1983	Theoretical model	Liquidity transformation creates vulnerability to bank runs	Does not consider modern regulatory liquidity ratios
Diamond, D.	1984	Theoretical model	Banks exist because they reduce monitoring costs	Liquidity trading and treasury strategies not examined
Bernanke, B. & Gertler, M.	1989	Macroeconomic theory	Borrower balance sheets affect credit availability	Bank liquidity positions not examined
Holmstrom, B. & Tirole, J.	1998	Theoretical model	Liquidity provision may require both private and public sector support	Limited empirical testing in banking systems
Allen, F. & Gale, D.	2000	Theoretical model	Liquidity shocks propagate across banking networks	Treasury trading responses to contagion not studied
Diamond, D. & Rajan, R.	2001	Theoretical model	Bank fragility arises from liquidity creation activities	Does not consider FX funding markets
Kashyap, A., Rajan, R. & Stein, J.	2002	Empirical / Panel Data	Banks provide liquidity through off-balance sheet commitments	Limited discussion of treasury trading or FX swaps
Gatev, E. & Strahan, P.	2006	Empirical / Panel Data	Deposit inflows during crises hedge loan commitment drawdowns	FX markets and treasury trading not examined

Freixas, X. & Rochet, J.	2008	Theoretical model	Provides microeconomic foundation of banking and liquidity	Does not examine digital banking or modern treasury automation
Adrian, T. & Shin, H.S.	2009	Macroeconomic theory	Financial intermediaries actively manage balance sheets	Internal treasury decision rules not examined
Berger, A. & Bouwman, C.	2009	Empirical / Panel Data	Banks create liquidity through loans funded by deposits	Limited focus on market-based liquidity trading
Brunnermeier, M.	2009	Macroeconomic theory	Funding liquidity shocks amplify financial crises	Does not focus on excess reserve environments
Brunnermeier, M. & Pedersen, L.	2009	Theoretical model	Funding liquidity and market liquidity are mutually reinforcing	Bank treasury strategies not directly studied
Gorton, G. & Metrick, A.	2010	Empirical / Market Data	Repo market collapse triggered liquidity shortages	Limited analysis of bank treasury liquidity strategies
Ivashina, V. & Scharfstein, D.	2010	Empirical / Panel Data	New lending fell sharply during crisis; drawdowns on credit lines increased	Treasury liquidity trading not examined
Ranaldo, A. & Soderlind, P.	2010	Empirical / Market Data	Some currencies appreciate during stress	Bank safe haven currency strategies not studied
Acharya, V., Shin, H.S. & Yorulmazer, T.	2011	Theoretical model	Banks hoard liquidity during crises anticipating fire sales	FX swap market liquidity not considered
Cornett, M., McNutt, J., Strahan, P. & Tehranian, H.	2011	Empirical / Panel Data	Banks with higher liquidity reduced lending less during crisis	Does not examine FX funding markets
Hanson, S., Kashyap, A. & Stein, J.	2011	Conceptual / Historical	Macroprudential regulation can reduce systemic fragility	Bank-level implementation challenges not detailed
Jylha, P. & Suominen, M.	2011	Empirical / Market Data	Speculative capital affects carry trade returns	Bank speculative positioning not examined
Lustig, H., Roussanov, N. & Verdelhan, A.	2011	Empirical / Market Data	Common risk factors explain currency returns	Bank FX portfolio management not studied
Cetorelli, N. & Goldberg, L.	2012	Empirical / Panel Data	Banks use internal markets to allocate liquidity globally	FX swap usage in internal funding not examined
Habib, M. & Stracca, L.	2012	Empirical / Market Data	Currency returns linked to macroeconomic factors	Bank trading strategies not detailed
Krishnamurthy, A. & Vissing-Jorgensen, A.	2012	Empirical / Market Data	Treasury debt provides liquidity and safety services	Bank holdings of Treasuries not specifically analyzed
Menkhoff, L., Sarno, L., Schmeling, M. & Schrimpf, A.	2012	Empirical / Market Data	FX volatility risk priced in carry trade returns	Bank carry trade strategies not analyzed

Shin, H.S.	2012	Macroeconomic theory	Global banks transmit liquidity across borders	Treasury FX hedging strategies not studied
Gennaioli, N., Shleifer, A. & Vishny, R.	2013	Theoretical model	Shadow banking creates neglected tail risk	Bank treasury shadow banking activities not detailed
He, Z. & Krishnamurthy, A.	2013	Theoretical model	Financial intermediary capital affects asset prices	Bank liquidity management not examined
Mancini, L., Rinaldo, A. & Wrampelmeyer, J.	2013	Empirical / Market Data	FX liquidity varies systematically across currencies	Bank market-making strategies not examined
Mehring, P.	2013	Conceptual / Historical	FX swaps are hybrid money market instruments	Bank internal FX swap usage not studied
Rossi, B.	2013	Empirical / Market Data	Exchange rates difficult to predict consistently	Bank forecasting methods not examined
Stein, J.	2013	Conceptual / Historical	Liquidity regulation complements monetary policy	Bank-level implementation challenges not detailed
Adrian, T., Etula, E. & Muir, T.	2014	Empirical / Market Data	Intermediary balance sheets predict asset returns	Bank treasury strategies not directly studied
Borio, C.	2014	Macroeconomic theory	Financial cycles require policy attention	Bank liquidity management during cycles not examined
Brunnermeier, M. & Sannikov, Y.	2014	Macroeconomic theory	Financial sector amplifies macroeconomic volatility	Bank treasury operations not addressed
Claessens, S. & Kodres, L.	2014	Conceptual / Historical	Comprehensive regulatory reform implemented globally	Bank treasury adaptation to new rules not detailed
Pozsar, Z.	2014	Conceptual / Historical	Shadow banking integrates with traditional banking	Bank treasury shadow banking linkages not examined
Acharya, V. & Mora, N.	2015	Empirical / Panel Data	Banks hoard liquidity during financial crises	Does not examine treasury trading profitability
Bruno, V. & Shin, H.S.	2015	Empirical / Panel Data	Dollar appreciation reduces cross-border bank lending	Bank internal liquidity management not examined
Gabaix, X. & Maggiori, M.	2015	Theoretical model	Financial frictions affect exchange rate determination	Bank FX trading not examined
Hanson, S. & Stein, J.	2015	Empirical / Market Data	Monetary policy affects term premia and real rates	Bank treasury portfolio decisions not examined
Ivashina, V., Scharfstein, D. & Stein, J.	2015	Empirical / Panel Data	Dollar funding shortages constrain global bank lending	Treasury FX swap usage not detailed
Sunderam, A.	2015	Empirical / Market Data	Shadow banking creates money-like claims	Bank treasury competition with shadow banks not examined

Borio, C., McCauley, R. & McGuire, P.	2016	Empirical / Market Data	Balance sheet constraints cause deviations in FX swap pricing	Limited study of internal treasury decision rules
Engel, C.	2016	Macroeconomic theory	Risk premia central to exchange rate determination	Bank FX risk management not addressed
Farhi, E. & Werning, I.	2016	Theoretical model	Macroprudential policy addresses financial externalities	Bank implementation not detailed
Greenwood, R., Hanson, S. & Stein, J.	2016	Conceptual / Historical	Central bank balance sheet can address financial stability	Bank liquidity responses not analyzed
Hassan, T., Mertens, T. & Zhang, T.	2016	Empirical / Market Data	Central bank currency intervention affects exchange rates	Bank responses to intervention not studied
King, M.	2016	Conceptual / Historical	Banking system requires fundamental reform	Bank treasury operations not specifically addressed
Nagel, S.	2016	Empirical / Market Data	Liquidity premia vary with funding conditions	Bank treasury optimization not examined
Turner, A.	2016	Conceptual / Historical	Money creation through credit causes instability	Bank liquidity management not examined
Cochrane, J.	2017	Macroeconomic theory	Integrates macroeconomics with asset pricing	Bank treasury decisions not considered
Duffie, D.	2017	Conceptual / Historical	Regulation increased bank resilience but raised funding costs	Treasury management responses not detailed
Maggiore, M.	2017	Theoretical model	Financial intermediaries affect international risk sharing	Bank treasury risk management not studied
Moreira, A. & Savov, A.	2017	Macroeconomic theory	Shadow banking expands liquidity creation in booms	Bank treasury responses not modeled
Obstfeld, M. & Taylor, A.	2017	Conceptual / Historical	Evolution of international monetary system	Bank FX management not examined
Rime, D., Schrimpf, A. & Syrstad, O.	2017	Empirical / Market Data	Regulatory constraints segment markets, preventing arbitrage	Limited focus on bank treasury decision- making
Yellen, J.	2017	Conceptual / Historical	Fed has tools for normalization and crisis response	Bank adaptation to policy normalization not studied
Adrian, T. & Liang, N.	2018	Conceptual / Historical	Monetary policy affects financial stability through risk-taking	Bank risk management responses not examined
Caballero, R.	2018	Conceptual / Historical	Shortage of safe assets causes instability	Bank safe asset management not examined
Du, W., Tepper, A. & Verdelhan, A.	2018	Empirical / Market Data	CIP deviations persistent due to balance sheet costs of arbitrage	Bank internal treasury optimization not studied
Engel, C. & Wu, S.P.Y.	2018	Empirical / Market Data	Liquidity affects exchange rate behavior	Bank liquidity provision in FX not studied

Farhi, E. & Maggiori, M.	2018	Theoretical model	Framework for understanding international monetary system	Bank FX swap usage not modeled
Gopinath, G. & Stein, J.	2018	Theoretical model	Network effects create dominant currency in trade	Bank FX trading strategies not examined
Korinek, A.	2018	Theoretical model	Capital flow management can enhance stability	Bank responses to regulations not examined
Plantin, G. & Shin, H.S.	2018	Theoretical model	Monetary spillovers affect exchange rates through banking	Bank FX responses not modeled
Verdelhan, A.	2018	Empirical / Market Data	Common factors explain significant exchange rate variation	Bank FX exposure management not examined
Avdjiev, S., Du, W., Koch, C. & Shin, H.S.	2019	Empirical / Panel Data	Dollar appreciation strengthens CIP deviations via bank balance sheets	Bank internal treasury strategies not examined
Eichengreen, B.	2019	Conceptual / Historical	History of international monetary system	Bank-level FX strategies not addressed
Gourinchas, P.O. & Rey, H.	2019	Empirical / Market Data	Global factors drive real interest rates	Bank funding costs not directly analyzed
Gourinchas, P.O., Rey, H. & Sauzet, M.	2019	Macroeconomic theory	Structure and evolution of international monetary system	Bank FX liquidity management not detailed
Jeanne, O. & Korinek, A.	2019	Theoretical model	Coordinated macroprudential policy manages capital flows	Bank treasury adaptation not studied
Kalemli-Ozcan, S.	2019	Empirical / Panel Data	US monetary policy affects emerging market risk	Bank risk management not studied
Schrimpf, A. & Sushko, V.	2019	Empirical / Market Data	Transition to new benchmarks affects funding markets	Bank treasury adaptation strategies not studied
Vives, X.	2019	Conceptual / Historical	Digitalisation changes banking competition and efficiency	Limited focus on treasury operations
Amador, M., Bianchi, J., Bocola, L. & Perri, F.	2020	Theoretical model	Exchange rate policy effective at zero lower bound	Bank responses to policy not examined
Bernanke, B.	2020	Conceptual / Historical	Central banks have expanded policy toolkits	Bank responses to new tools not examined
Liao, G.	2020	Empirical / Market Data	Credit risk explains persistent CIP deviations	Treasury trading profitability not analyzed
Miranda-Agrippino, S. & Rey, H.	2020	Empirical / Market Data	US monetary policy drives global financial conditions	Bank global liquidity management not examined
Bianchi, J. & Lorenzoni, G.	2021	Theoretical model	Capital controls can improve financial stability	Bank adaptation to capital controls not studied
Boot, A., Hoffmann, P., Laeven, L. & Ratnovski, L.	2021	Conceptual / Historical	Digital technologies reshape financial intermediation	Limited examination of FX trading profitability

Cenedese, G., Della Corte, P. & Wang, T.	2021	Empirical / Market Data	Dealer balance sheet constraints affect currency pricing	Bank internal treasury optimization not studied
Itskhoki, O. & Mukhin, D.	2021	Theoretical model	Exchange rates disconnect from fundamentals	Bank FX hedging not addressed
Jiang, Z., Krishnamurthy, A. & Lustig, H.	2021	Empirical / Market Data	Foreign demand for safe dollar assets strengthens dollar	Bank dollar funding strategies not examined
Stein, J.	2021	Conceptual / Historical	Multiple tools needed to address credit cycles	Bank liquidity cycle management not addressed
Aldasoro, I., Ehlers, T. & Eren, E.	2022	Empirical / Panel Data	Regulatory arbitrage shapes dollar funding strategies	Bank treasury profitability not examined
BIS	2022	Empirical / Market Data	FX swaps represent the largest segment of FX trading	Limited focus on bank internal liquidity management
Coppola, A., Krishnamurthy, A. & Xu, C.	2022	Empirical / Market Data	Liquidity determines currency dominance in debt	Bank currency choice not analyzed
Lilley, A., Maggiori, M., Neiman, B. & Schreger, J.	2022	Empirical / Market Data	Corporate hedging reconnects exchange rates to fundamentals	Bank treasury hedging not examined

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