

Liquidity Metrics and Bank Resilience:

A CAMEL-Based Inquiry into Indian Private-Sector Banks

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Abstract:

This investigation scrutinises the liquidity posture of India's leading private-sector banks through the prism of the CAMEL architecture. Employing four quintessential liquidity metrics—Liquid Assets-to-Total Assets (LATA), Liquid Assets-to-Total Deposits (LATD), Liquid Assets-to-Liquid Liabilities (LALL) and Government Securities-to-Total Assets (GSTA)—the study paints a nuanced tableau of liquidity risk from FY 2016-17 to FY 2022-23. Findings reveal a generally adequate, albeit heterogeneous, liquidity cushion that has gradually strengthened under the impetus of supervisory refinements and heightened risk awareness. We contend that a forward-looking liquidity governance regime, anchored in rigorous stress tests and scenario construction, is indispensable for safeguarding systemic robustness during macro-financial perturbations.

Key words: Liquidity Metrics, CAMEL, Private-Sector Banks

Introduction

Liquidity, the lifeblood of banking, occupies a cardinal slot within the CAMEL composite that regulators deploy to gauge institutional soundness. An institution's aptitude for instantly honouring withdrawal demands and funding shocks without distress-liquidating assets signals its capacity for continued solvency under duress. By interrogating a suite of liquidity ratios, observers can distil an institution's short-run financial stamina and

its readiness to navigate abrupt market turbulence. The present paper elucidates the interpretative power of these ratios and situates them within the broader discourse on prudential oversight.

Literature Review

- ✚ Nayak (2001) juxtaposed the liquidity, efficiency and productivity profiles of foreign and domestic banks operating in India between 1985-86 and 1996-97. Leveraging bank-level panel data, the author discerned that foreign institutions, relatively unencumbered by public-policy mandates, exhibited superior labour productivity and profit ratios.
- ✚ Singla (2008) underscored the pivotal contribution of financial management to industrial expansion, surveying the profitability trajectories of sixteen banks from 2001 to 2006. The enquiry concluded that strong capital backing and balanced sheets enabled the sample banks to absorb economic vicissitudes with equanimity.
- ✚ Khurana and Goyal (2011) inspected the fiscal health of Indian public-sector and commercial banks via operating-cost metrics, cost-to-income ratios, net interest spreads, non-performing assets and capital adequacy. They advocated for accelerated technology assimilation and targeted upskilling to augment sectoral yields.
- ✚ Suresh and Pradhan (2023) applied the CAMEL scaffolding to compare public-sector undertaking banks (PSUBs) with private-sector counterparts, concluding that the latter out-performed on most dimensions—a cue for policymakers to redress operational lacunae in PSUBs.

Research Objective

To dissect the nexus between liquidity posture and systemic risk across India's pre-eminent private-sector banks using a one-way ANOVA framework. The analysis orbits around four sentinel ratios—LATA, LATD, LALL and GSTA—over FY 2016-17 to FY 2022-23.

Research Design

The investigation is quantitative. The sample canvasses the ten private-sector banks with the densest branch networks as catalogued by the Reserve Bank of India. Secondary data spanning seven fiscal years (2016-17 –

2022-23) were harvested from RBI publications, annual reports and authoritative databases. Ratio analysis preceded the application of a one-way ANOVA to spotlight inter-bank disparities.

Discussion

The CAMEL rubric posits liquidity as a sine qua non for institutional viability. We reprise each liquidity proxy below:

- LATA gauges the proportion of readily realisable assets to the total balance-sheet footprint; an elevated ratio intimates a generous liquidity cushion.
- LATD contextualises liquid-asset stockpiles against the deposit base, signalling the bank's dexterity in honouring potential withdrawals.
- LALL aligns liquid assets with maturing short-term obligations—values above unity vouchsafe near-term debt coverage.
- GSTA chronicles the share of government securities within the asset mix; such investments are prized for their salability and credit quality.

Average Liquidity Performance for selected Private Sector Banks of India for the Period from 2016-17 to 2022-23

Bank	LATA	LATD	LALL	GSTA	Mean	Rank
Axis Bank	8.21	11.82	188.58	16.34	56.24	8
Federal Bank	7.64	20.75	779.34	17.30	206.26	1
HDFC Bank	7.31	9.23	157.26	19.24	48.26	10
ICICI Bank	10.52	13.29	213.98	16.85	63.66	7
IndusInd Bank	9.36	12.40	246.89	17.87	71.63	6
J&K Bank	7.40	11.06	282.21	20.45	80.28	4
Kotak Mahindra	9.68	12.64	251.68	18.32	73.08	5
RBL Bank	10.13	21.17	489.44	18.79	134.88	2
South Indian	6.71	8.43	370.43	20.13	101.43	3
YES Bank	8.30	13.75	173.78	15.37	52.80	9
Average	8.53	13.46	315.36	18.07	88.85	—

Source: RBI Annual Reports (FY 2016-17 – FY 2022-23)

A mean LATA of 8.53 % communicates a middling yet serviceable liquidity stance. The LATD mean of 13.46 % hints at adequate depositor-run resilience, whereas an imposing mean LALL of 315.36 % denotes ample headroom for settling imminent liabilities. With government securities constituting roughly 18 % of assets, banks evidently prize liquid sovereign instruments.

Statistical Analysis

A one-way ANOVA was executed on the banks' composite liquidity scores. The computed F-statistic (0.306) undershoots the critical value at the 5 % significance threshold (2.211), compelling the retention of the null hypothesis of homogeneity. Thus, inter-bank liquidity differentials are statistically inconsequential for the study horizon.

Recommendations

- Maintain multidimensional liquidity buffers calibrated through dynamic stress scenarios.
- Broaden the palette of funding conduits to attenuate rollover risk.
- Vigilantly monitor asset-liability tenors to pre-empt mismatches.
- Stay abreast of evolving prudential edicts and recalibrate liquidity strategy correspondingly.

Conclusion

The analysis vindicates the relative liquidity sturdiness of India's premier private-sector lenders. Although intra-sample variability is muted, the perpetual mutability of the macro-financial landscape necessitates disciplined vigilance. Banks that inculcate a culture of anticipatory liquidity stewardship will be better poised to withstand future convulsions.

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