

The Nexus between Liquidity Creation and Capital : Evidence from Indian Banks

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Abstract

This study explores the interrelationship between liquidity creation and capital for scheduled commercial banks operating in India during 2005-2019. Liquidity creation construct is developed following the approach of Berger and Bouwman(2009). Using a simultaneous equation model with GMM estimator, a negative bi-directional relationship is observed between the two, which suggest higher capital will decrease liquidity creation and vice versa. This relationship holds for different ownership structures as well. This study highlights how regulators and policymakers over-emphasize the risk-minimizing role of capital and overlook the trade-off between financial stability and output. It is also observed that when banks face illiquidity, they prefer deposits over capital because they are considered to be stable and better accessible.

JEL Code : G01, G18, G20, G21

Keywords : Banks, Liquidity, Capital, Crisis, GMM, SCBs, Econometric, India

I. Introduction

BANKS ARE INTEGRAL institutions in the economy. Liquidity creation is a crucial function of a bank. When a bank transforms customer deposits into loans, liquidity is created. Liquidity creation has positive effects on real economic output and increases the credit flow in the economy (Berger and Udell, 2004; Berger and Udell, 2004; Berger and Udell, 2004). However, by holding illiquid assets and offering ready access to the deposits, bank incurs liquidity and withdrawal risks. Since there are chances of asset-liabilities mismanagement, for example, situations like unexpected withdrawals by customers will impel banks to dispose of assets at lower prices. The subprime crisis is the

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of “financial fragility crowding-out hypothesis” raises a challenge for the policymakers in terms of choosing between financial stability and delivering output. Tightened capital norms will hamper liquidity creation, whereas holding higher capital ensures solvency. Policymakers should be mindful of such tradeoff while implementing stringent capital norms. Incomplete deposit insurance makes depositors more vulnerable. To make sure their safety and maintain stability in the system, RBI has been strict towards the implementation of capital ratios. RBI has stipulated stricter capital norms. Such stringency may strengthen solvency but may restrict the liquidity creation process. India is highly dependent on the banking sector, which makes deposit mobilization easier for banks. Banks prefer deposits over capital when they are faced with higher illiquidity because they are considered to be more stable and accessible. Hence banks are not strengthening their capital ratios according to the Basel norms. Some leniency is recommended in capital adequacy norms because it is hampering the liquidity creation process.

Notes

1. Based on RBI's reclassification, IDBI bank has been treated as private sector bank throughout the study period after LIC acquired 51% stake in it.
2. Earlier the deposit coverage of banks operating in India was Rs.1 lakh, this amount has increased from Rs.1 lakh to Rs.5 lakh with effect from 4th February 2020.

References

- Allen, F., and D. Gale, (2004), "Competition and financial stability", *Journal of Money, Credit and Banking*, pp. 453–480.
- BIS, (2010), "*Basel III: A global regulatory framework for more resilient banks and banking systems*", Bank for International Settlement, Geneva.
- Berger, A. N., and C.H. Bouwman, (2009), "Bank liquidity creation", *The Review of Financial Studies*, Vol. 22, No. 9, pp. 3779–3837.
- Berger, A. N., and C.H. Bouwman, (2017), "Bank liquidity creation, monetary policy, and financial crises", *Journal of Financial Stability*, Vol. 30, pp. 139–155.
- Berger, A. N., C.H. Bouwman, T. Kick and K. Schaeck, (2016), "Bank liquidity creation following regulatory interventions and capital support", *Journal of Financial Intermediation*, Vol. 26, pp. 115–141.
- Berger, A. N., and J. Sedunov, (2017), "Bank liquidity creation and real economic output", *Journal of Banking and Finance*, Vol. 81, pp. 1–19.
- Bhattacharya, S., and A.V. Thakor, (1993), "Contemporary banking theory", *Journal of Financial Intermediation*, Vol. 3, No. 1, pp. 2–50.
- Casu, B., F. di Pietro and A. Trujillo-Ponce, (2019). Liquidity Creation and Bank Capital. *Journal of Financial Services Research*, Vol. 56, No. 3, pp. 307–340.

Èihák, M., and H. Hesse, (2010), "Islamic Banks and Financial Stability: An Empirical Analysis", *Journal of Financial Services Research*, Vol. 38, No. 2, pp. 95–113.

Diamond, D. W., and R.G. Rajan, (2000), "A Theory of Bank Capital", *The Journal of Finance*, Vol. 55, No. 6, pp. 2431–2465.

Diamond, D. W., and R.G. Rajan, (2001), "Liquidity risk, liquidity creation, and financial fragility: A theory of banking", *Journal of Political Economy*, Vol. 109, No. 2, pp. 287–327.

Distinguin, I., C. Roulet and A. Tarazi, (2013), "Bank regulatory capital and liquidity: Evidence from US and European publicly traded banks", *Journal of Banking and Finance*, Vol. 37, No. 9, pp. 3295–3317.

Eichengreen, B., and P. Gupta, (2012), "*The global financial crisis and indian banks: Survival of the fittest?*"

Fecht, F., K.G. Nyborg and J. Rocholl, (2011), "The price of liquidity: The effects of market conditions and bank characteristics", *Journal of Financial Economics*, Vol. 102, No. 2, pp. 344–362.

Flannery, M. J., and K.P. Rangan, (2008), "What caused the bank capital build-up of the 1990s?", *Review of Finance*, Vol. 12, No. 2, pp. 391–429.

Fu, X. (Maggie), Lin, Y. (Rebecca) and P. Molyneux, (2016), "Bank Capital and Liquidity Creation in Asia Pacific", *Economic Inquiry*, Vol. 54, No. 2, pp. 966–993.

Fungáčiová, Z., L. Weill and M. Zhou, (2017), "Bank Capital, Liquidity Creation and Deposit Insurance", *Journal of Financial Services Research*, Vol. 51, No. 1, pp. 97–123.

Gorton, G., and A. Winton, (2017), "Liquidity provision, bank capital, and the macroeconomy. *Journal of Money, Credit and Banking*, Vol. 49, No. 1, pp. 5–37.

Holmström, B., and J. Tirole, (1998), "Private and public supply of liquidity", *Journal of Political Economy*, Vol. 106, No. 1, pp. 1–40.

Horváth, R., J. Seidler and L. Weill, (2014), "Bank capital and liquidity creation: Granger-causality evidence", *Journal of Financial Services Research*, Vol. 45, No. 3, pp. 341–361.

Horvath, R., J. Seidler and L. Weill, (2016), "How bank competition influences liquidity creation", *Economic Modelling*, Vol. 52, pp. 155–161.

Joh, S. W., and J. Kim, (2012), "*Does Competition Affect the Role of Banks as Liquidity Providers?*" Seoul National University Working Paper and Korean Finance Association Conference Proceedings, pp. 1478–1520.

Kashyap, A. K., R. Rajan and J.C. Stein, (2002), "Banks as liquidity providers: An explanation for the coexistence of lending and deposit-taking", *The Journal of Finance*, Vol. 57, No. 1, pp. 33–73.

Laeven, L., and R. Levine, (2009), "Bank governance, regulation and risk taking", *Journal of Financial Economics*, Vol. 93, No. 2, pp. 259–275.

Le, T. (2019), "The interrelationship between liquidity creation and bank capital in Vietnamese banking", *Managerial Finance*, Vol. 45, No. 2, pp. 331–347.

Lei, A. C. H., and Z. Song, (2013), "Liquidity creation and bank capital structure in China", *Global Finance Journal*, Vol. 24, No. 3, pp. 188–202.

Matz, L. M., and P. Neu, (2007), " *Liquidity risk measurement and management: A practitioner's guide to global best practices*", John Wiley and Sons (Asia) Pte Ltd.

Petersen, M. A., and R.G. Rajan, (1995), "The effect of credit market competition on lending relationships", *The Quarterly Journal of Economics*, Vol. 110, No. 2, pp. 407–443.

Repullo, R. (2004), " Capital requirements, market power, and risk-taking in banking", *Journal of Financial Intermediation*, Vol. 13, No. 2, pp. 156–182.

Roy, S., A.K. Misra, P.C. Padhan and M.R. Rahman, (2019), " Interrelationship among Liquidity, Regulatory Capital and Profitability- A Study on Indian Banks", *Cogent Economics and Finance*, Vol. 7, No. 1, pp. 1664845.

Tran, V. T., C.T. Lin and H. Nguyen, (2016), " Liquidity creation, regulatory capital, and bank profitability", *International Review of Financial Analysis*, Vol. 48, pp. 98–109.

Umar, M., G. Sun and M.A. Majeed, (2017), "Bank capital and liquidity creation: Evidence of relation from India", *Journal of Asia Business Studies*, Vol. 11, No. 2, pp. 152–166.

Umar, M., G. Sun, K. Shahzad and Z.R. Rao, (2018), " Bank regulatory capital and liquidity creation: Evidence from BRICS countries", *International Journal of Emerging Markets*, Vol. 13, No. 1, pp. 218–230.

Von Thadden, E.-L. (2004), " Asymmetric information, bank lending and implicit contracts: The winner's curse" *Finance Research Letters*, Vol. 1, No. 1, pp. 11–23.