Changing Contours of Indian Banking

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Abstract

Banks today are making rapid and irreversible changes due to the developments in technology, customer behaviour and regulations. As we move forward, Artificial Intelligence, Machine Learning and Big Data are becoming central to financial services innovation. The Indian banking system is on the cusp of a transformation. Conventional banking is making way for next-generation banking with focus on digitisation and modernisation.

I. Introduction

The banking system has played a crucial role in the upliftment of our country, especially in the last decade. However, concomitantly in this decade, the sector also went through a large overhang, a constant churn grappling with multiple challenges, including Non-Performing Assets (NPAs), global and domestic economic downturns, adaptation of technology and consolidation and competition from new age fintech companies. The Government and the RBI employed a 4R's strategy of Recognizing NPAs transparently, Resolution and Recovery, Recapitalizing PSBs and Reforms in the financial ecosystem to lay out a comprehensive roadmap for the financial system. In particular, (i) Asset Quality Reviews (AQR) of the banking system initiated in 2015 ensured a fuller recognition of stressed assets and subsequently provisioning being policy-driven; (ii) The implementation of a new framework for resolution of stressed assets under the overarching mandate of the Insolvency and Bankruptcy Code (IBC) speeded up the de-stressing of balance sheets; and (iii) The Government undertaking steps for recapitalisation of the PSBs in order to bolster their financials, improving governance practices, expanding the reach and quality of financial services and enhancing the adoption of digital banking while ensuring that customer interests were protected and the financial sector is well cushioned with capital and liquidity buffers.

Against this backdrop, Indian banking is transforming rapidly. Banks today are making rapid and irreversible changes due to the developments in technology, customer behaviour and regulations. The banks and all the stakeholders like Government of India and RBI have worked assiduously in the last decade to ensure a stable, resilient and adequately capitalized banking system that is a sin qua non for financing India's growth story. For the decade ended FY24, Indian banks consolidated profit was Rs 3.2 trillion, 4 times

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jump over FY14. Deposits and Credits have jumped by 2.7 times during the period with asset quality now among the best along with all operating ratios. In terms of capitalization, in $ terms, market capitalization of Bank Nifty has jumped by a staggering 2.9 times since pandemic.

In this article, the section II will highlight the growth of banking business, especially deposits and credit during the last decade. The section III, IV and V discusses the relationship between bank deposits, savings, credit and other monetary aggregates. Before concluding in section VII, we discuss the challenges and opportunities in the banking sector in section VI.

II. Growth in Banking Business

Banking business remained buoyant during 2022-23, 2023-24 and in 2024-25 too. The combined balance sheet of commercial banks expanded in double digits, driven by sustained credit growth. Lower slippages helped improve asset quality across all bank groups, with Gross Non-Performing Asset (GNPA) to total advances ratio of Scheduled Commercial Banks (SCBs) dropping to a 10-year low. Higher lending rates and lower provisioning requirements helped to improve the profitability of banks and shored up their capital positions.

During the last 3-years, credit growth continued to grow in double digits and has become broad based across sectors. Credit growth continues to outpace deposit growth as shown by the latest fortnightly data with credit growth at 12.8% as on 04 October, 2024 and deposit growth at 11.8%. The sector-wise credit growth numbers reveal a sustained pick up across Agriculture, MSME and Services. In November 2023, RBI increased risk weights on select segments, which slowed unsecured personal loans growth, along with NBFC linkages and credit cards debt.

However, there are many researcher/analysts expressing concern that deposits in the banking system have significantly fallen behind, as household savings in bank deposits are being crowded out to other financial instruments, like mutual funds, equity markets etc. For the record, there are currently 265 crores of deposit accounts in the system against 40 crores credit accounts. Both these concerns need to be fact checked.

With continued economic activity in post-pandemic period, the credit cycle has reversed in December 2021 and continue to grow upward. Deposits growth also reaching an all-time high in FY23 but credit growth surpassed deposits due to higher demand for bank credit. In FY23, ASCBs had registered the highest amount of growth in deposits and credit since 1951-52. Deposits grew by Rs. 15.7 lakh crore and credit by Rs. 17.8 lakh crore, which has pushed the incremental CD Ratio to 113%. The same story continued in FY24 and deposits grew by Rs. 24.3 lakh crore and credit by Rs. 27.5 lakh crore. The incremental Credit-Deposit (CD) ratio again surpassed 100% and stood at 113%. Thus, the myth of a flagging deposit growth is only a statistical myth with credit growth outpacing deposit growth being tom-tommed as a deceleration in deposit growth. Incremental deposit growth at Rs. 68 trillion has outpaced incremental credit growth at Rs. 63 trillion since FY22.

Table 1 depicts the growth of aggregate deposits and bank credit of SCBs from FY14 to FY24.

Table 1: SCBs Deposits and Credit Growth								
Year	Aggregate Deposits			Bank Credit			Incremental CD Ratio	CD Ratio
	Level (O/S)	Growth		Level (O/S)	Growth			
	(Rs. lakh crore)	(Rs. lakh crore)	YoY (%)	(Rs. lakh crore)	(Rs. lakh crore)	YoY (%)		
FY14	77	10	14.1	60	7	13.9	77%	78%
FY15	85	8	10.7	65	5	9.0	66%	77%
FY16	93	8	9.3	72	7	10.9	90%	78%
FY17	108	14	15.3	78	6	8.2	41%	73%
FY18	114	7	6.2	86	8	10.0	117%	75%
FY19	126	11	10.0	98	11	13.3	100%	78%
FY20	136	10	7.9	104	6	6.1	60%	76%
FY21	151	15	11.4	109	6	5.6	37%	72%
FY22	165	14	8.9	119	9	8.6	70%	72%
FY23	180	16	9.6	137	18	15.0	113%	76%
FY24	205	24	13.5	164	28	20.2	113%	80%
FY25 (Till 04 Oct'24)	219	14	11.0	173	9	12.8	63%	77%

Source: RBI, SBI Research

III. Financial Savings vs. Bank Deposits

As financialization of household savings has gathered significant momentum post pandemic, households are indeed investing in alternative instruments of savings like mutual funds, equity and non-bank deposits. These instruments accounted for Rs. 3.2 trillion /10.5% of incremental household savings at Rs. 29.7 trillion in FY23. Households still invested Rs 10 trillion in bank deposits and another Rs. 2.5 trillion in small savings deposits out of this Rs. 29.7 trillion pie /42%. The remaining were household investments in pension and provident funds channelized by respective market players. Many analysts mistakenly consider such savings in alternative instruments as a leakage from financial system and hence, a cause for decline in bank deposits. This is, however, incorrect as banking deposits are purely used for transactional purposes through which households change instruments of savings say from bank deposits to mutual funds/equities (except deposits in small savings) and hence, it stays within the financial system.

IV. Bank Deposits, Credit and Money Supply

The apparent slowdown in deposits has also ensured misplaced narratives gaining crescendo with a lower money supply growth being cited as a potent reason for lower reserve money creation and hence, lower deposit growth. However, in an Inflation Targeting (IT) framework, money is endogenous and also the link between money supply and reserve money is agnostic as digitization has resulted in an increasing money multiplier with much lower currency leakage.

In the IT framework, the central bank targets inflation, through policy rate to bring price stability, with due consideration to the objective of growth. So, the central bank does not target monetary aggregates like M0, M3 etc. but uses interest rate as the instrument variable. In an IT framework, money evolves endogenously in tune with the structural changes in the economy as well as the evolution of the payment system landscape. Endogeneity ensure that bank credit creates deposits and not reserves. Results from our Granger Casualty analysis (data: 1953-2024) also indicate that credit granger cause deposits and hence a decline in credit will lead to decline in deposits going forward.

Table 2: Granger Causality

Null Hypotheses	F-Stat	P-Value
H0: Deposits does not Granger cause Credit	15.13	0.184
H0: Credit does not Granger cause Deposits	3.38	0/-1*

Source: Authors' calculations; *Significant at 1%

V. Digitalization vs. Bank Deposits

Back in mid-2015, Nandan Nilekani had made a presentation in Mumbai and a few other cities, articulating what he reckoned could be a "WhatsApp moment" in finance for India. He said, "Smartphones are going to be the banks for Indians". That would mean smartphones double up as a bank branch and e-commerce replaces the conventional shopping experience.

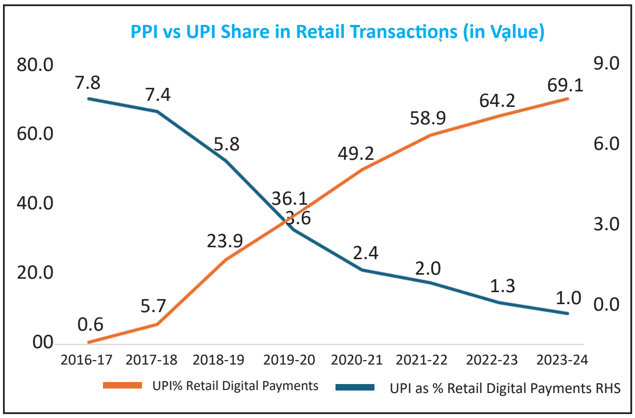
If we look the digital transactions data today, we feel the words of Mr. Nilekani became true as Indians are adopting digital payments at a scorching pace. The payment system indicators data for 2023-24 indicate that digital payments continued to register robust growth. Large-value transactions through Real Time Gross Settlement (RTGS) system sustained double-digit growth (y-o-y), both in volume and value terms in tandem with the economic recovery. Retail payments expanded strongly across the payment modes. The UPI sustained near 100% growth in volume and value of transactions. The National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS) and the National Automated Clearing House (NACH) also demonstrated remarkable growth. Transactions under the Bharat Bill Payment System (BBPS) clocked a triple-digit growth volume.

If we look at the data in detail, the total digital transactions (in volume) grew by 748%, from 593 crore transactions to over 16395 crores in the 9-years from FY16 to FY23. The growth was led by the UPI, which has grown at a Compound Annual Growth Rate (CAGR) growth of 168% in volume of transactions and 142% CAGR in value of transactions. IMPS is also registered a CAGR growth of 44.3% in volume and 50.7% in value of transactions during FY16-FY24. It is interesting to note that the 'Paper-based instruments (cheque)' transactions has been declined by -5.4% in CAGR in volume terms and -1.4% in value terms. The share of digital transactions has increased to 97.1% in volume in 2024, compared to 84% in volume in 2015-16.

Table 3: Payment Systems Indicators						
Item	Volume (in mn)			Value (₹ Lakh Crore)		
	2015-16	2023-24	FY24 as x times as FY16	2015-16	2023-24	FY24 as x times as FY16
1. Large Value Credit Transfers – RTGS	**98**	**270**	**2.7**	**825**	**1709**	**2.1**
2. Credit Transfers	**2854**	**148611**	**52.1**	**89**	**675**	**7.6**
2.1 APBS	718	2589	**3.6**	0	4	**21.0**
2.2 IMPS	221	6005	**27.2**	2	65	**40.0**
2.3 NACH Cr	623	1623	**2.6**	3	15	**5.3**
2.4 NEFT	1253	7264	**5.8**	83	391	**4.7**
2.5 UPI	18	131129	**7285.0**	0.1	200	**2872.4**
3. Debit Transfers and Direct Debits	**277**	**1825**	**6.6**	**2**	**17**	**7.3**
4. Card Payments	**1959**	**5847**	**3.0**	**4**	**24**	**6.1**
4.1 Credit Cards	786	3561	**4.5**	2	18	**7.6**
4.2 Debit Cards	1174	2286	**1.9**	2	6	**3.7**
5. Prepaid Payment Instruments	**748**	**7878**	**10.5**	**0**	**3**	**5.8**
6. Paper-based Instruments	**1096**	**663**	**0.6**	**82**	**72**	**0.9**
Total - Retail Payments (2+3+4+5+6)	**6934**	**164823**	**23.8**	**178**	**791**	**4.5**
Total Digital Payments (1+2+3+4+5)	**5936**	**164430**	**27.7**	**920**	**2428**	**2.6**
Total Payments (1+2+3+4+5+6)	**7033**	**165093**	**23.5**	**1002**	**2500**	**2.5**
Source: RBI						

Digital Payments impact on Monetary Aggregates & Deposits

The increasing usage of digital channels have 2-impacts; (i) Substitution of cash; and (ii) PPI/ E-money/Coins etc. The substitution of cash (central bank money) is replaced by UPI/IMPS etc. (commercial bank money). Though, all the money transacted through UPIs are from the deposits of the banks and counted in money supply aggregates. While the money stored in e-wallets are not considered in any of the money supply aggregates of M0, M1, M2 or M3. For example, consumer prefers to use e-money (or PPI in the case of India) vis-à-vis currency. Though, e-money might be used mainly for small value transactions and thus could be used to substitute central bank notes and coins at least partially. The increased use of pre-paid instruments will change the composition of both reserve money as well as monetary base and has further impacted central bank's control of money supply.



In recent years, the rapid increase in usage of technology has facilitated the ability to make instantaneous bank transfers and withdrawals through UPI/IMPS. This has associated costs in the form of decline in the saving bank deposits. To see the impact of UPI transactions on Current Account Saving Account (CASA) deposits, we have used the quarterly data from FY17 to FY24, which indicate that every Rs. 10 increase in UPI led to redistribution of Rs. 7 in CASA deposits and remaining Rs. 3 moved to other asset classes. Assuming the holding period of 3-5 years, the UPI increase hit the deposits for long-term.

Further, to test the result of UPI transactions on currency in circulation empirically, we carried out a Structural Vector Autoregressive (SVAR) model to find out the of the impact of UPI and Prepaid Payment Instruments (PPI) on the Currency in Circulation (CIC), M0, M3, Money Multiplier (MM) and Bank deposits, individually, with short run constraints. Monthly data has been used for all variables in the unit of INR crores, for the period of April 2016 to July 2024, in the SVAR model with UPI as impulse variable.

The VAR (p) model in its standard form is expressed as:

$$Y_t = \beta X_t + u_t$$

Where, Y_t is the (2*1) vector of the two endogenous variables and X_t is the lag of endogenous variables, U_t is residual of (2*1) vector.

As expected, the results reveal that the increase in UPI is negatively affecting the CIC, M0 and deposits but it has no significant impact on M3 (which is also insignificant). It has also been found that increase in UPI leads to increase in Money Multiplier. It has been estimated that every INR crore increase in UPI leads to decrease in CIC, M0 and SCB deposits by Rs. 1.03 crore, Rs. 1.09 crore and Rs. 0.42 crores respectively.

Table 4: Results from Structural VAR Model

Response variable	Impulse Variable	Coefficient	P-value
CIC		-1.03	0/-00*
M0		-1.09	0/-00*
M3	UPI	0.01	0.9480
MM		0.22	0.0300*
SCB Deposits		-0.42	0/-00*

Source: Authors' calculations; *Significant at 5%

VI. Opportunities and Challenges of Indian Banking

- ***Declining CASA Ratio:*** The CASA ratio of SCBs has been declining and is at 39.3% in Q1FY25, from 40.5% FY24 and 43.1% in FY23 and 44.82% in FY22. The share of CASA in total deposits decreased as customers preferred higher-yielding fixed deposits and other avenues to park their money. The share of time deposits in incremental deposits has increased to 89% in FY25 (05 October 2024) from 44.39% in FY22, while CASA share has declined to 10.2% in FY25 from 55.61% in FY22.

- ***Shorter Duration Term Deposits:*** According to RBI's Basic Statistical Return (BSR) - 2 (Annual) 2024, the share of term deposits with original maturity period of '1 year to less than 3 years' soared up to 79.1% in March 2024 from 64.2% as at end-March 2023. This is mainly due to higher interest rates in short-term than long duration buckets. However, this strategy exposes banks to risks as banks finance for long-term projects say minimum 7 years to 25 years.
- ***Redefining Financial Inclusion:*** Under PMJDY, banks have opened around 53.74 crore accounts with Rs. 2.4 lakh crore deposits. However, the Overdraft (OD) facility to these accounts is very negligible, which is guaranteed by Government and considered under Priority Sector Lending (PSL) too. So, banks should strategize with the help of technology to funding the unfunded in last mile. This shall include innovative solutions that make it easier for people to not only access basic but also to use a variety of financial services in their fingertip like insurance, MFs, stocks etc.
- ***Transition to a low-carbon economy:*** RBI's latest 'Currency and Finance Report 2022-23' on 'Towards A Greener Cleaner India', offers a valuable glimpse into the potential effects of India's low-carbon transition across different sectors. The report indicates that achieving net zero by 2050 is the most promising scenario, while the National Determined Contributions (NDCs) reflect a continuation of business as usual. In this bank can play an essential role in financing the transition to a low-carbon economy by channelizing finance to sustainable and green projects as well as by developing new financial products that incentivize green initiatives. Our actions will set the course not only for the future of the planet but also determine the kind of environment which we bequeath our future generations.
- ***Use Technology for better Customer Experience:*** By leveraging data analytics, banks can gain insights into customer behaviour, market trends and emerging risks, enabling them to make more informed credit decisions.
- ***Challenges of account aggregators:*** Managing Account Aggregators (AAs) will be one of the key challenges for banks in retaining valued customers/ensuring customer loyalty. As AA is envisaged as a platform for financial services companies to reach out to targeted consumers and seek personal data to optimize product offerings banks falling behind in anticipating, assessing and offering curated products/ services will bear the burnt most.
- ***The rise of Digital Currency/ Internationalization of Rupee:*** CBDCs are the new avatars of fiat money, promising to change the way transactions/payments and settlements are hitherto done, while upending user experiences many times. Both the versions of the e-Rupee (Wholesale and Retail) would revolutionize the money, currency and investments landscape and

banks would need to make suitable strategies to remain ahead of the curve in the evolving scenario, while facilitating transitions towards a better harmonized environment. Also, the pace of internationalization of rupee would gather further traction as Local Currency Settlement System (LCSS) frameworks are increasingly put in place for cross-border transactions between select jurisdictions while seeking enhanced cooperation for interlinking their payment and messaging systems.

- ***Unified Lending Interface (ULI):*** Not only banks are innovating in technological space, but the regulator (RBI) has also taken several initiatives to facilitate digital public infrastructure. Last year, RBI announced the Public Tech Platform initiative through the RBI Innovation Hub, aiming to provide frictionless credit by enabling the seamless flow of digital information to lenders. This open, plug-and-play digital platform, now renamed Unified Lending Interface (ULI) allows financial sector players to connect effortlessly. The ULI platform with the 'new trinity' of JAM-UPI-ULI, is expected to propel India's growth story and is going to revolutionise access to credit, especially for farmers and MSMEs.
- ***Digital Fraud/Cyber Risk:*** We believe that the most pressing challenge is the increasing threat of cyber risk owing to fast pace of digitalization of financial services and collaboration with fintech. This needs to be addressed. Technology risk and cyber risk will have to be optimally addressed to keep digital banking a saleable proposition.

  Recently a gang of fraudsters allegedly duped a 65-year-old woman of Indore (Madhya Pradesh) for ₹46 lakh after subjecting her to fake interrogation for five days, in the latest case of 'digital arrest'. This is one of the examples of Digital arrest: a new method of cyber fraud, in which the fraudsters scare people by making audio or video calls by posing as law enforcement officers and confine them to their homes by giving them the false pretense of arrest. According to the National Capital Region (NCR) police, a staggering 600 cases were reported within a mere three-month period, each involving losses exceeding Rs. 20 lakh.

VII. Concluding Remarks and Future of Banking

A sound and resilient financial system is a prerequisite for a modern economy that involves all sections of its society in sharing equitably the benefits of economic and social progress. The Indian banking system is on the cusp of a transformation. Conventional banking is making way for next-generation banking with focus on digitisation and modernisation. The need for brick-and-mortar branches is being reviewed continuously as digitisation has brought banking to the fingertips of the people, obviating the need to physically visit a bank branch. The transformation of the financial services landscape caused by technological innovations can blur the difference between a bank and a technology company, as technological giants are making rapid strides into areas such as payments, traditionally the domain of banks.

As we move forward, Artificial Intelligence, Machine Learning and Big Data are becoming central to financial services innovation. Analysis of vast amount of data, both structured and unstructured, has been made possible using these techniques. Increasing levels of expectations of compliance to regulations and a greater focus on data and reporting has brought RegTech and SupTech into limelight. They are being applied in areas such as risk management, regulatory reporting, data management, compliance, e-KYC/ anti-money laundering/Combating the Financing of Terrorism and fraud prevention.

On the last but not least, there is a genuine need to offer tax incentives to bank deposits to keep them competitive and centric to savers. Currently, bank deposits are subject to taxation of interest income at accrual level and we must appreciate that banks in India largely fund themselves through retail deposits rather than wholesale funding as seen in other regions which has been a clear and frequent source of contagion. It may be also reminded that India has limited social security and interest from bank deposits are often used by senior citizens for offsetting consumption expenditure. Ideally, the deposits could be categorized as short-term (less than 1 year) and long-term deposits (more than 1 year) in line with MFs and taxed accordingly as like any other asset classes.

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