



Confederation of Indian Industry



# Reimagining Banking for India@2047

September 2024



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# Contents

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<b>Foreword, Message, &amp; Preface</b>	<b>2-5</b>
<b>Section 01: Building India's Banking System for 2047</b>	<b>6</b>
<b>Section 02: Technology is the Game Changer in Banking Industry</b>	<b>19</b>
<b>Section 03: Strengthening Finance for MSMEs</b>	<b>33</b>
<b>Abbreviations</b>	<b>41</b>

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# Foreword

**O**ur country is among the fastest-growing major economies, benefiting from factors such as a favourable demographics, structural reforms, and a revitalizing manufacturing sector. To sustain this momentum, the economy needs to be supported by an improved banking and financial ecosystem.

Last year, our banks achieved their best performances in over a decade, with profitability reaching multi-year highs. Even as global banking faced challenges, India's banking sector has maintained stability with improved asset quality and growing credit flow.

Looking ahead, we need to ensure the right credit flow to sectors like MSMEs, which contribute nearly 30% of the GDP but are often unserved. These areas hold immense potential for improving productivity and driving growth.



## **Bijay Murmuria**

Chairman

Banking & Financial Services Subcommittee

CII Eastern Region

The use of AI, machine learning, and better credit assessment practices will be instrumental in advancing the banking sector. With a constantly growing number of fintech companies in India, fintech-bank collaborations are poised to drive financial inclusion and provide more customized products.

Our evolving digital infrastructure, such as the Unified Payments Interface (UPI), processed 131 billion transactions in FY 2024 alone, demonstrating how digitization has formalized the economy. Formalization along with further economic reforms, can help bridge the credit gap and propel India towards a strong and prosperous future.

I extend my congratulations to CII Eastern Region and Sumedha Fiscal Services for their decade-long partnership. Their report, 'Reimagining Banking for India@2047' presented at this year's Banking Colloquium, is both insightful and timely. I trust that readers will find it valuable and informative.

# Foreword

The banking sector in India is experiencing significant transformation due to technological advancements, regulatory changes, and evolving customer expectations. Amidst global uncertainties over the last few years, the global banking system has managed to remain resilient due to swift policy and regulatory interventions. The Indian banking system too, has demonstrated stability with sound capital reserves, improved asset quality and strong earnings growth. NBFCs are also contributing towards the sustained and robust growth of the country's overall financial system.

India is on the growth trajectory and poised to move towards achieving the \$7 trillion gross domestic product (GDP) goal in 2030. Banking services are an important contributor to our economic aspirations, and the sector has grown positively across all fundamental pillars in the last few years (i.e. capital adequacy, asset quality, profitability). Moreover, it has adequate leverage to be the growth catalyst for the broader economy in our journey towards our goal for 2030.

The sector is poised to grow at a rapid pace by digitising financial services dissemination, further formalising credit to micro, small and medium enterprises (MSMEs), adopting innovative digital operating models, adapting to the continuously evolving landscape, benefiting from the adoption of emerging technologies,

and driving consumption-fuelled growth for our economy. As the digital revolution continues to change industries worldwide, Indian banks are also adapting to new trends to stay competitive and meet the demands of a tech-savvy population.

Artificial intelligence (AI) is also rapidly transforming the Indian banking sector and there has been an increase in AI-tailored financial products and services to individual needs. The adoption of digital banking capabilities, along with Government initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY), UPI and GST, has brought over 50 crore individuals and numerous small businesses into the formal banking system. Ongoing initiatives such as the streamlining of credit processes and the adoption of artificial intelligence are bound to create opportunities that banks can capitalise upon to further their growth aspirations and remain relevant until 2047 and beyond.

Looking ahead, it is important for banks to anticipate and prepare for mandates related to financial stability, IT sourcing, consumer protection and security measures to navigate the regulatory landscape effectively. Additionally, proactive governance, well-defined processes, and timely investments in technology to automate regulatory compliance will help banks to become future-ready. I trust the readers would find this report interesting and useful.



**Samir Agarwal**

Co-Chairman, Banking & Financial Services Subcommittee  
CII Eastern Region

# Message

Esteemed Guests, Distinguished Speakers, and Fellow Industry Leaders,

It is an honor to be part of the 17th Banking Conclave organized by the Confederation of Indian Industry, Eastern Region and releasing the Report on Banking.

In today's rapidly evolving financial landscape, forums like this provide an invaluable platform for discussion and collaboration, as we explore new opportunities and challenges shaping the future of banking.

With technological advancements, regulatory shifts, and the increasing importance of sustainable finance, it is crucial for the banking sector to adapt, innovate, and build resilience.

This report offers a comprehensive view on Banking Landscape in the modern economic world.

Let us embrace the future of banking with optimism and determination.

Best Regards,



**Pradeep Pal**

Co-Chairman

Banking & Financial Services Subcommittee

CII Eastern Region

# Preface

As 2047 approaches, marking India's 100<sup>th</sup> year of independence, we envision an era of transformation. The banking industry stands at the forefront of this change, serving as the key driver. Currently, the Indian banking sector is more resilient than ever, marked by decade-low non-performing asset (NPA) levels, adequate liquidity, and growing credit.

Moving ahead, India will need substantial capital and effective mobilization of savings to support its expansion. Additionally, prioritizing financial inclusion will be crucial for ensuring broad-based growth. Leveraging the opportunities such as the expanding mass-affluent class could be beneficial in near term. Furthermore, Indian banks must aspire to achieve top global rankings by strengthening their international presence.

As the banking sector strengthens, it must expand its support to the backbone of the economy - Micro, Small, and Medium

Enterprises (MSMEs), which contribute significantly to employment and output but face a large credit gap. Despite high demand, much of MSME financing still comes from costly informal sources. Bridging this gap is crucial, and the Udyam portal's registration of around 50 million MSMEs marks progress towards formalization of MSMEs.

In this transformational journey, technology has a big role to play. The integration of AI, ML and data science into banking operations has revolutionized credit risk assessments, fraud detection, and customer engagement. According to the RBI, India leads in online transactions, accounting for 46% of all digital payments globally. This achievement is largely attributed to the Unified Payments Interface (UPI), which has significantly streamlined digital payments and broadened financial inclusion. By harnessing these technologies, Indian banks are not only enhancing operational efficiency but also expanding their reach to underserved segments, paving the way for a more inclusive and dynamic financial ecosystem as we approach 2047.



**Vijay Maheshwari**

Chairman, Sumedha Fiscal Services Ltd

# 01

## Building India's Banking System for 2047

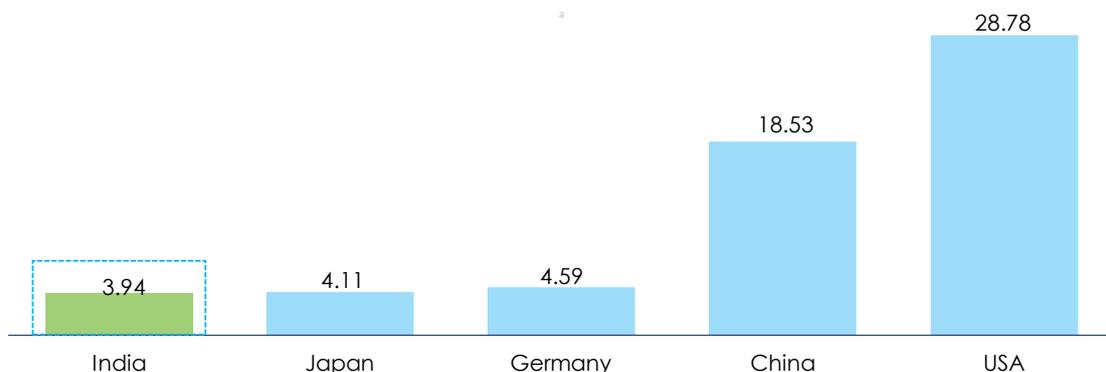
As India approaches its 100<sup>th</sup> year of independence in 2047, the nation stands at a pivotal moment in its economic journey. Currently recognized as the fastest-growing major economy in the world, India aspires to join the ranks of the world's developed economies. With a projected GDP of USD 30 trillion by 2047, India is on course to become one of the largest global economic powerhouses. However, achieving this ambitious goal requires a comprehensive strategy that balances infrastructure development, industrial growth, technological advancements, and sustainable development. Central to this transformative growth is the role of the banking sector, which will serve as the financial backbone of the economy.

Banks in India are not merely facilitators of credit but are positioned to be catalysts for economic expansion, playing a key role in financing infrastructure projects, supporting industries, and enabling the digital transformation of businesses. This paper explores how the banking sector can help India achieve its 2047 economic goals.

### India's Economy: Today and Tomorrow

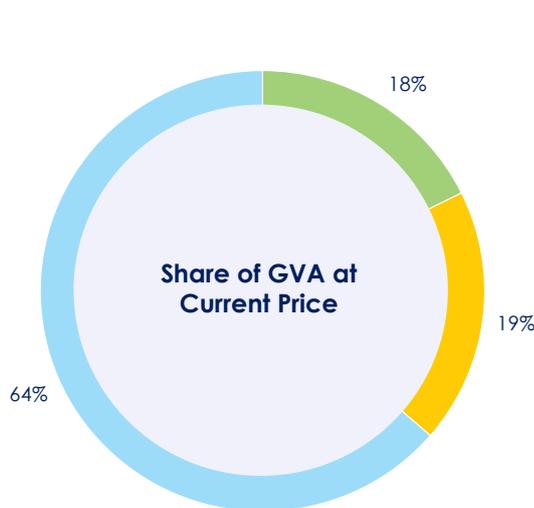
Over the past 77 years since gaining independence, India has made a remarkable progress. Initially an agrarian economy, with agriculture contributing the majority, the country has evolved into a predominantly services-driven economy. Today, Indian economy is the fifth largest in the world, standing at around USD 3.94 trillion (as of 2024).

Top 5 Largest Economies (by GDP) – in USD Trillion



Source: IMF (as of 2024)

## India's Economy is Supported by Three Main Sectors



Share of Gross Value Added (GVA) at Current Price as on FY 2024; Data Source: Reserve Bank of India

64%

### Services Sector

The largest contributor of economic growth in India, the services sector accounts for around 64% of the country's GVA. Information technology (IT), telecommunications, financial services, real estate, tourism, and public administration are some of the industries that fall under this sector.

18%

### Agriculture Sector

Although agriculture's contribution to GVA has dropped to roughly 18%, it still plays a vital role in India's economy, particularly in terms of employment, since over 40% of the country's population depends on agriculture and related industries for a living.

19%

### Industry Sector

The industry sector accounts for 19-20% of India's GVA and includes manufacturing, gas, power, water supply, utility services, and construction. The goal of government programs like "Make in India" is to increase the contribution of manufacturing and other industrial activities to the growth of the Indian economy.

## India – 2047

India will complete 100 years of independence in 2047, making it a pivotal benchmark for evaluating its economic achievements and GDP growth.

Countries that have leveraged on key economic opportunities have historically experienced an accelerated growth. For example, China, after the economic reforms in the late 1970s, rapidly industrialized, shifted to a market economy, and became a global manufacturing hub. Similarly, Germany's Wirtschaftswunder (economic miracle) was driven by industrialization, technological innovation, and a strong manufacturing sector. These countries maintained high economic growth rates and lifted millions out of poverty. Currently, India is at a similar stage and poised to achieve the status of a developed country in the next 23 years fuelled by demographic dividend,

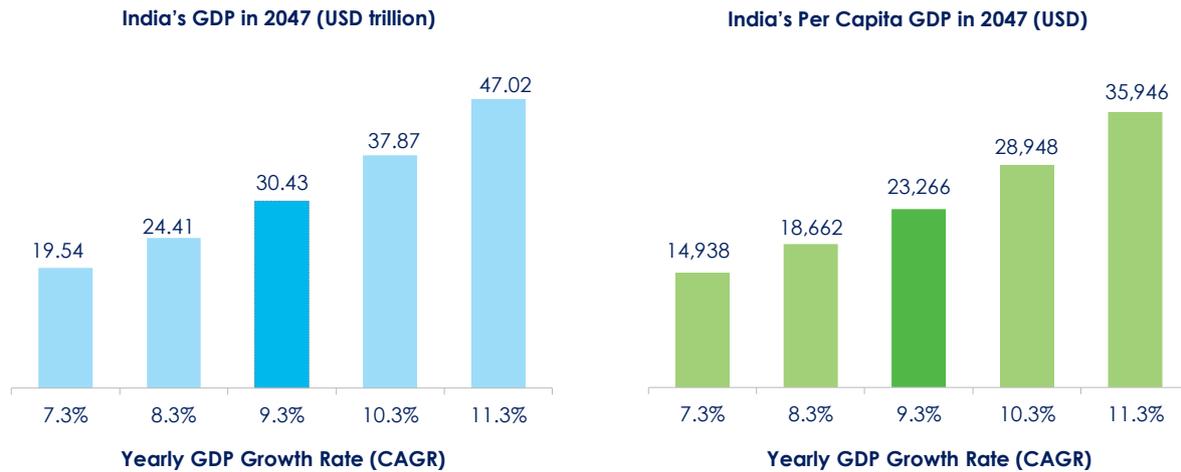
expanding middle class, growing technological infrastructure and favourable economic reforms. Even after the severe worldwide financial crisis and COVID-19 shock, the successful recovery of growth momentum has generated enormous hope for the economic transition of India.

**The projections indicate that by 2047, India can achieve a GDP of USD 30 trillion and a GDP per capita of USD 22,000.** Such milestone may be achieved based on following assumptions<sup>1</sup>:

- *A real growth rate of 7% (can vary and may not always be fully accurate)*
- *Expected Long term Inflation in India = 5% (based on the inflation targeting of 4%±2%)*
- *Expected USD inflation = 2.34%<sup>2</sup>*

<sup>1</sup> With assumptions, the implied nominal GDP growth rate for India, expressed in INR terms, is calculated at 12% (7%+5%). Considering the inflation difference between India and the USA, which is at 2.66% (5% - 2.34%), India's nominal GDP growth rate in USD term is calculated at 9.33% (12%-2.66%). Base figure for GDP and per capita GDP: USD 3.572 trillion and USD 2,730 (numbers for the year 2023, source: IMF).

<sup>2</sup> USD Inflation rate: Federal Reserve Bank of Cleveland, 30-Year Expected Inflation [EXPINF30YR], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/EXPINF30YR>



The calculations are based on the assumptions mentioned above. The graphs illustrate GDP and per capita GDP at various levels of GDP growth.

## Banking for 2047

India's ambitious target of becoming a USD 30 trillion economy by 2047 will require substantial financial support across all sectors of the economy. The banking sector will be pivotal in facilitating this growth by expanding access to capital, fostering innovation, and supporting structural reforms.

- **Facilitating Capital and Investment**

India requires significant capital inflows to finance infrastructure projects, industrial expansion, and international trade. Ensuring adequate liquidity for business expansion through effective fund allocation is essential, particularly for small and medium enterprises (SMEs), which form the cornerstone of the Indian economy. India's expanding role in global supply chains, particularly in manufacturing and pharmaceuticals, requires efficient banking systems that can handle trade settlements, provide export credit, and manage international capital flows.

- **Enhancing Financial Inclusion**

India's vision for 2047 cannot be realized without inclusive growth. More people must be brought into the formal financial system, ensuring that financial inclusion expands, particularly among underbanked and rural populations. Through microfinance, rural credit, and digital banking, the banking sector can facilitate entrepreneurship, boost agricultural productivity, and increase household consumption.

- **Innovation and Technology Growth**

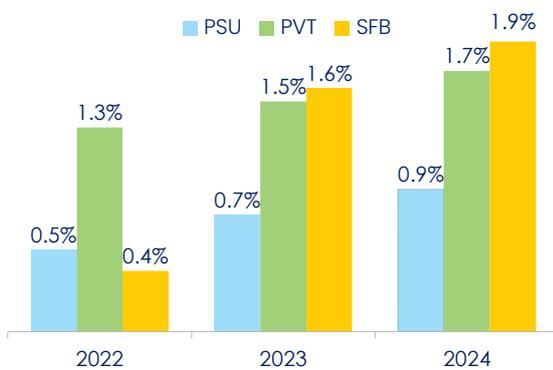
Banks are increasingly collaborating with fintech companies to create new financial products and services, improving access to credit and expanding payment solutions across the economy. India's robust digital infrastructure, including platforms like the Unified Payments Interface (UPI), demonstrates the transformative role banking can play in developing an economy that is both inclusive and innovation driven.

## Current Landscape of Banking in India

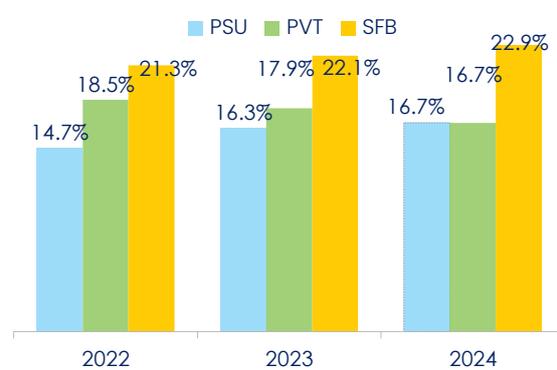
India's financial system is currently admired globally for its resilience. The strength of the Indian banking sector is evident from its performance in key areas such as **profitability, asset quality, liquidity and growth**, all of which have shown consistent positive trends.

Indian banks have largely remained insulated from global financial spillovers, thanks to stringent prudential regulations, and improved asset quality.

**Profitability (Return on Assets)**



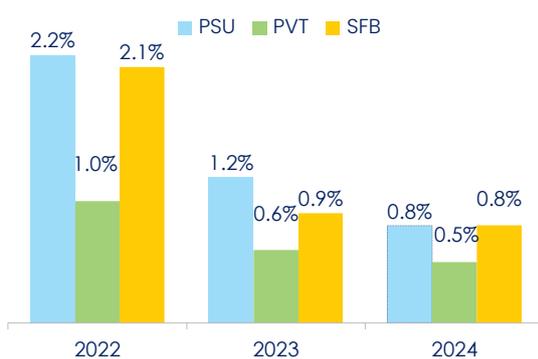
**Liquidity - Capital Adequacy Ratio - Basel III (%)**



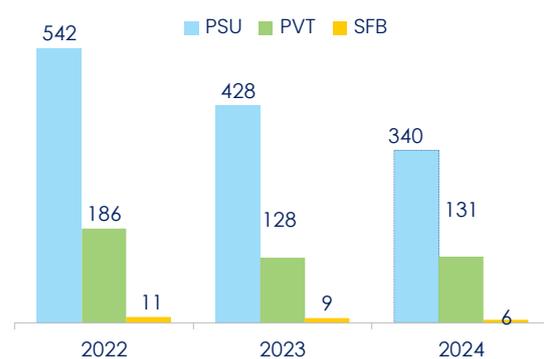
PSU: Public Sector Banks; PVT: Private Sector Banks, SFB: Small Finance Banks. The Minimum Capital Adequacy Ratio for all three years is 11.50%. Data Source: IBA (Indian Banks' Association)

**Asset Quality**

**Net NPA (as % of Net Advances)**



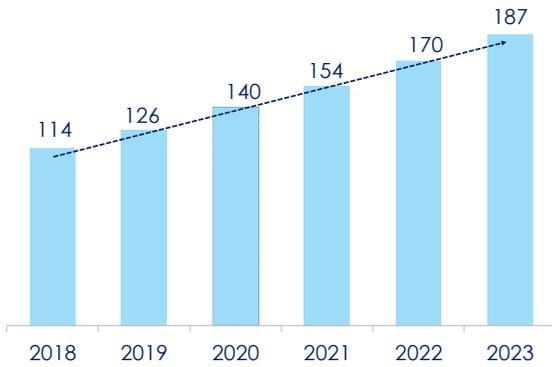
**Gross NPA (INR Thousand Crores)**



PSU: Public Sector Banks; PVT: Private Sector Banks, SFB: Small Finance Banks. Data Source: IBA (Indian Banks' Association)

Growth

Deposits of Scheduled Commercial Banks (INR Trillion)



Credit of Scheduled Commercial Banks (INR Trillion)



Source: RBI's Handbook of Statistics on Indian Economy

### Future of Indian Banking

When a developing country like India aspires to transition into a developed nation, certain key banking metrics are critical indicators of its financial and economic growth. Among these, three metrics are particularly important:

- **Private Credit to GDP**
- **Bank Assets to GDP**
- **Bank Deposits to GDP**

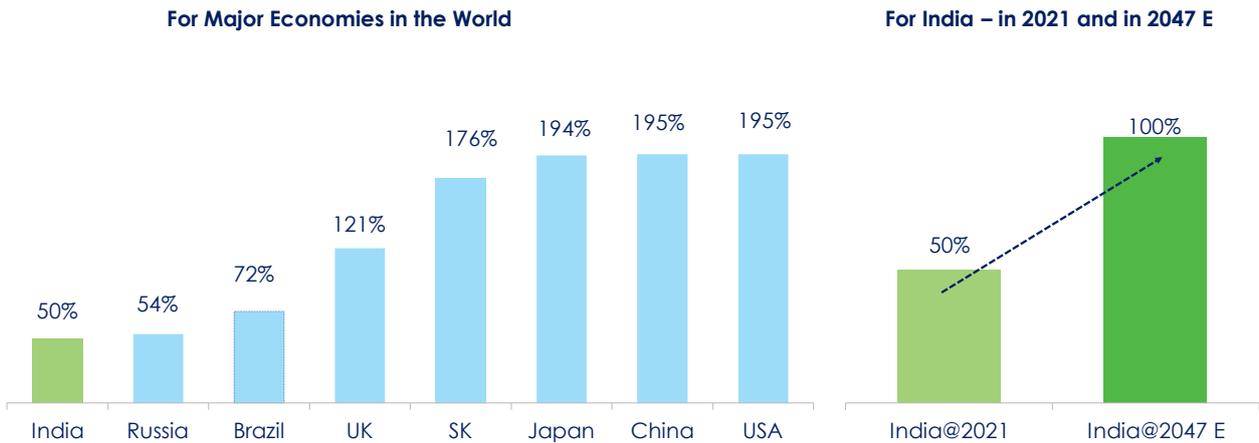
By analysing these indicators and comparing them to those of developed nations, we can gauge where India stands and what targets it must achieve on the path to a USD 30 trillion economy.

#### ▪ Private Credit to GDP

The credit-to-GDP ratio measures the size of a country's credit market relative to its economy, reflecting how much credit is being extended to businesses and consumers in relation to the overall output. A higher ratio generally indicates a more developed financial system capable of providing significant capital for business expansion and economic development. A low ratio indicates a need for enhanced credit availability and financial inclusion. As of 2021, India's credit-to-GDP ratio is relatively low, approximately 50%.

For a developing nation aiming for rapid growth, a gradual increase to about 80-100%, similar to the levels observed in other successful emerging economies, will be essential to meet the ambitious goal of 2047.

**Domestic Credit to Private Sector (as % of GDP)**



Source: World Bank, For India: Year Ended 2021, Russia: 2021, Brazil: 2023, UK: 2023, South Korea: 2023, Japan: 2023, China: 2023, USA: 2023., SK: South Korea;

**Empirical Evidence/Examples**

▪ **South Korea**

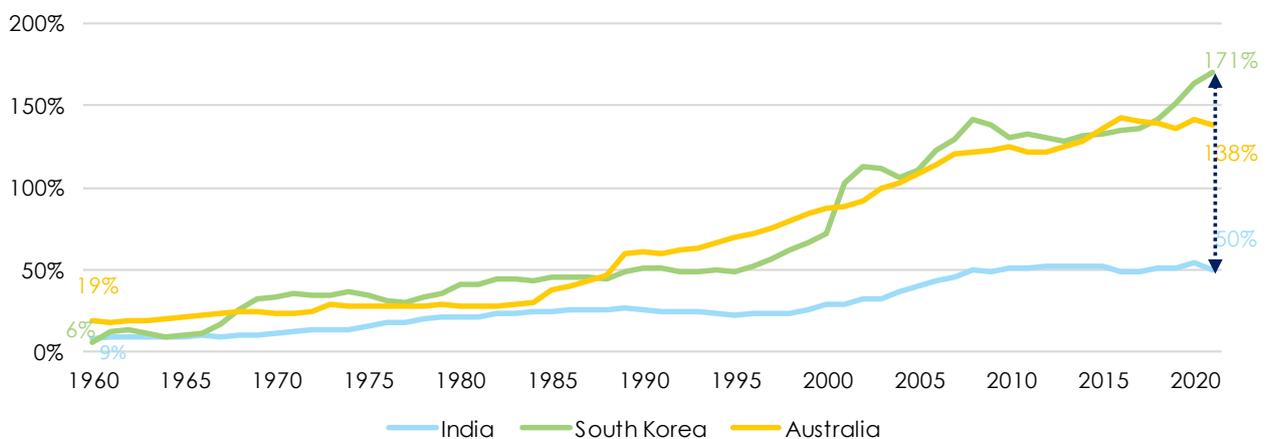
South Korea's economic success largely stems from its export-oriented strategy, supported by a preferential credit policy. This policy prioritized the export sector by directing financial resources to key industries at subsidized rates, fuelling the country's export-led growth. The gap between India and South Korea's ratios widened to 120% in 2021, from being similar in early 1960s.

It is reflected in South Korea's per capita GDP being 13 times higher than India's.

▪ **Australia**

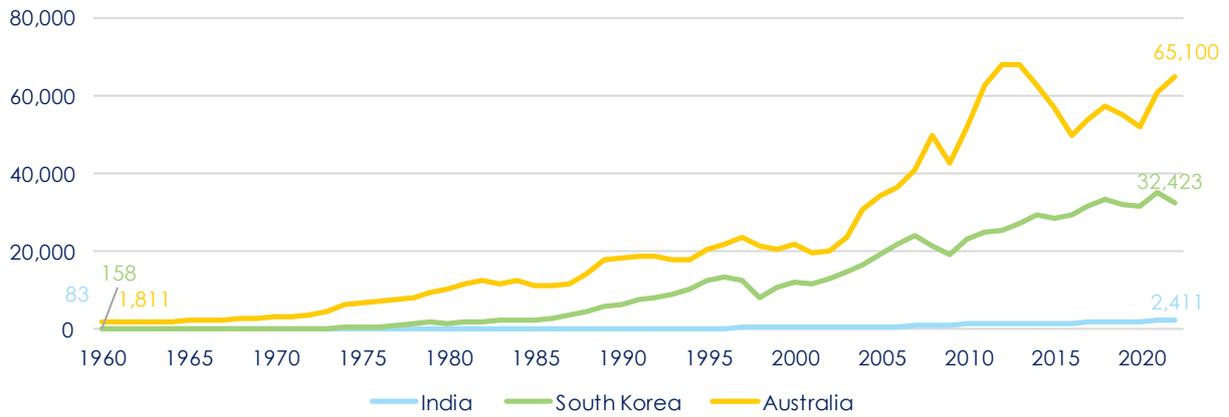
Australia's broader credit access has driven its economic growth, with studies showing that reduced credit supply lowers its GDP by about 0.33% in a year ahead (Jacobs and Rayner 2012). The gap between India and Australia's ratios widened from 11% in 1960 to 87% in 2020, reflected in Australia's per capita GDP being 26 times higher than India's.

**Domestic Credit to Private Sector (% of GDP)**



Source: World Bank, with inputs from the book India@100 by Krishnamurthy Subramanian

### Nominal GDP per capita (USD)



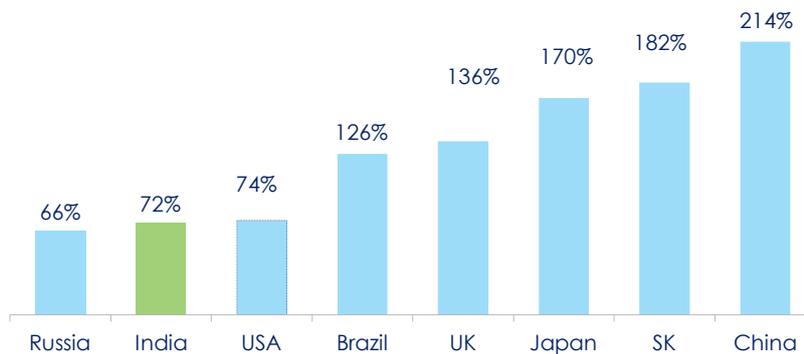
Source: World Bank, Source: World Bank, with inputs from the book India@100 by Krishnamurthy Subramanian

#### Bank Assets to GDP

The Bank Assets to GDP ratio is a key indicator of the size of the banking sector relative to the economy and reflects the depth and maturity of the banking sector. A higher Bank Assets to GDP ratio indicates a larger and more developed banking sector capable of channelling funds into investments, which can lead to higher economic growth.

Currently India's Bank's Assets to GDP stands at 72%, according to the most recent figure sourced from World Bank data. Even with a conservative estimate, if the ratio reaches to 100% by 2047, as seen in other advanced economies, India could see its bank assets grow 13 times, reaching USD 30 trillion, in line with a projected USD 30 trillion GDP by 2047.

Banks' Assets as % of GDP (For Major Economies in the World)



Indian Banks – Assets (USD trillion)



Source: World Bank, the USA data is for the year 2020, and for rest countries, data is for the year 2021. (For India@2047 – based on our estimations); SK – South Korea

**Banks' Deposits as % of GDP (For Major Economies in the World)**



**Indian Banks – Deposits (USD trillion)**



Source: World Bank, the USA data is for the year 2020, and for rest countries, data is for the year 2021. (For India@2047 – based on our estimations); SK – South Korea

▪ **Bank Deposits to GDP**

This ratio reflects the banking sector's ability to mobilize savings and provide liquidity, which is essential for supporting economic activities and investments. A higher Bank Deposits to GDP ratio signifies a stronger capacity for financial intermediation.

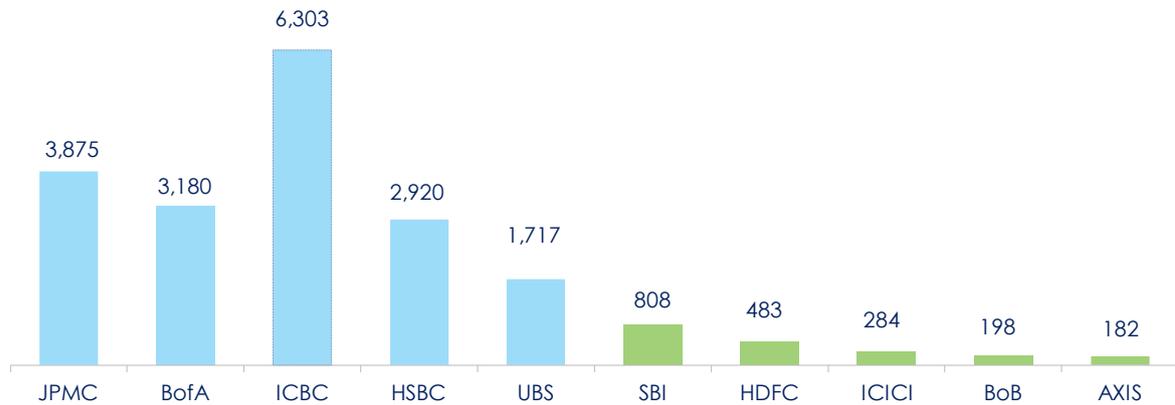
Currently, India's Bank Deposits to GDP ratio stands at 72%, according to the most recent data sourced from the World Bank. Even with a conservative estimate, if the ratio remains unchanged by 2047, India could witness its bank deposits grow approximately 9.5 times, reaching USD 21.7 trillion.

**Indian vs Global Banks: A Comparison of Scale**

While India is currently the world's fifth-largest economy, it lacks representation in the global top 10 banks.

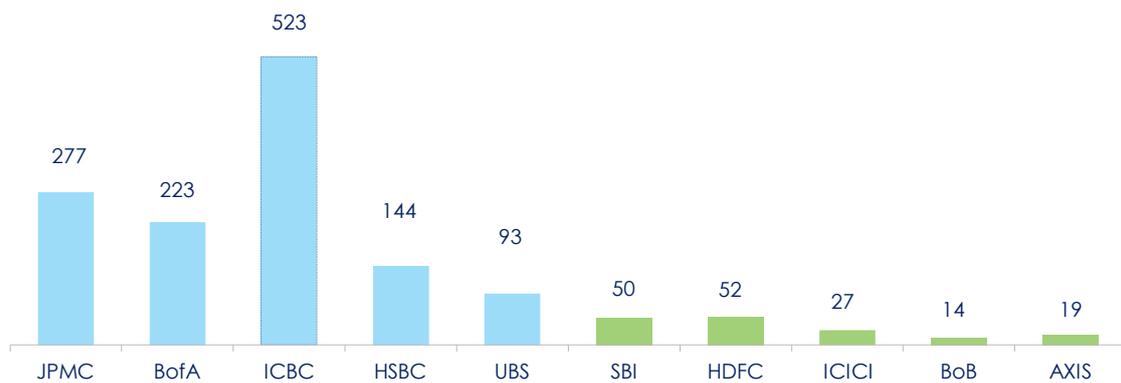
As India's economy expands and approaches the USD 30 trillion mark, its global ranking is expected to rise, and it would be reasonable to expect at least one of its banks to enter the ranks of the largest global players. Comparing the size and scale of Indian banks with international giants highlights the substantial room for growth that Indian banks must achieve to align with the country's economic ambitions.

**Total Assets (USD Billion)**



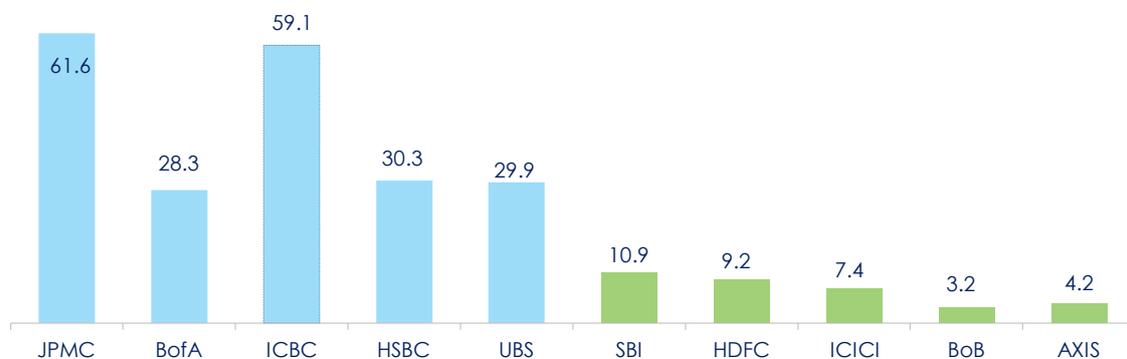
Source: Annual report of individual banks and other publications. JPMC: JPMorgan Chase, BofA: Bank of America, ICBC: Industrial and Commercial Bank of China. SBI: State Bank of India, HDFC: HDFC Bank, ICICI: ICICI Bank, BoB: Bank of Baroda, AXIS: Axis Bank

**Tier I Capital (USD Billion)**



Source: Annual report of individual banks and other publications. JPMC: JPMorgan Chase, BofA: Bank of America, ICBC: Industrial and Commercial Bank of China. SBI: State Bank of India, HDFC: HDFC Bank, ICICI: ICICI Bank, BoB: Bank of Baroda, AXIS: Axis Bank

**Pre-Tax Profits (USD Billion)**



Source: Annual report of individual banks and other publications. JPMC: JPMorgan Chase, BofA: Bank of America, ICBC: Industrial and Commercial Bank of China. SBI: State Bank of India, HDFC: HDFC Bank, ICICI: ICICI Bank, BoB: Bank of Baroda, AXIS: Axis Bank

## Future Opportunities

Looking ahead, the Indian banking sector has numerous opportunities to leverage and challenges to address, which will be critical in helping India achieve its 2047 goals. Key areas of focus include:

- **Rural Penetration**
- **Rise of Affluent Indians**
- **Indian Capex Cycle**

### ▪ Rural Penetration

India's rural economy has a significant role on the direction of the nation's economic growth. Currently rural population accounts for 65% of India and majority of that is dependent on agriculture for livelihood, which contributes to around 18 % of India's GDP. However, financial inclusion remains a significant challenge in rural India. Banking penetration, as measured by the number of branches, deposit accounts, and credit accounts, hovers around 35% for the rural population. It is significantly less than 65% (Indian rural population), which highlights the need for greater reach.

While deposits, measured by the number of accounts, cover 32% of the population, but comes down to 10.5% when measured by the amount outstanding. Similarly, for credit, which accounts for 27% of accounts, covers only 9.6% of total amounts outstanding of credit.

This can be attributed to the fact that informal finance is still thriving in rural India, despite the penetration of the formal financial sector. Among the total outstanding loans of rural households, 69 per cent is sourced from informal lenders. Penetration of informal loans is particularly high among the lowest economic strata of households.

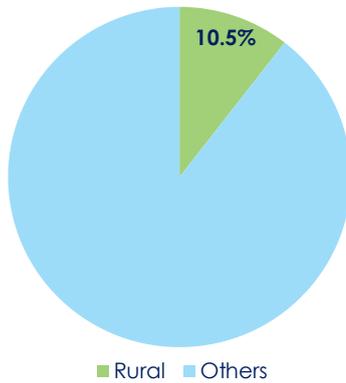
This existence of informal finance along with disparity between number of accounts and amount outstanding, reflects underlying issues of rural banking such as limited financial literacy, lack of collateral, and the difficulty rural populations face in meeting formal banking requirements. Expanding credit access is vital for driving entrepreneurship, improving livelihoods, and fostering local economic development, especially in rural and underserved areas.

### Statistics of Scheduled Commercial Banks according to Population Group

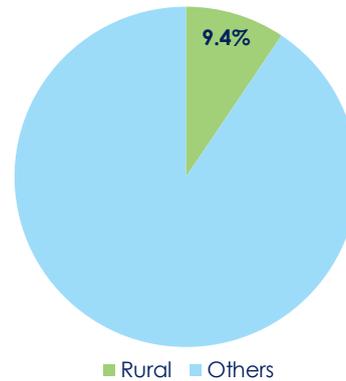
	Rural	Other
<b>No. of Branches</b>	<b>54,228</b>	<b>1,00,755</b>
% of Total	35%	65%
<b>No. of Accounts - Deposit</b>	<b>8,06,975</b>	<b>17,16,830</b>
% of Total	32%	68%
<b>No. of Accounts - Credit</b>	<b>96,501</b>	<b>2,63,742</b>
% of Total	27%	73%

Source: RBI's Handbook of Statistics on Indian Economy

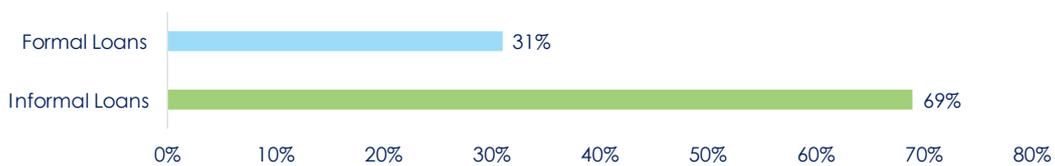
Deposits of Scheduled Commercial Banks - according to population group



Credit of Scheduled Commercial Banks - according to population group



Total Outstanding Loans of Rural Households



Source: RBI's Report on Currency and Finance 2023 -24, Other includes – Semi Urban, Urban and Metropolitan

▪ **Rise of Affluent Indians**

As GDP per capita rises, consumption rates are expected to increase exponentially, leading to an improved lifestyle. A significant consumption surge lies ahead, and banks will play a crucial role in supporting this trend.

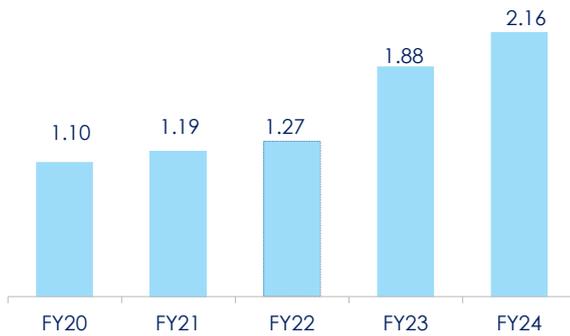
**Trends seen recently:**

- ✓ **Income Tax Filing:** The number of individuals filing income tax returns with disclosed incomes exceeding INR 10 million has grown at a compound annual growth rate (CAGR) of approximately 18%, in last 5 years.
- ✓ **Credit Card numbers:** The number of credit cards in India has grown at a CAGR of 16.7% over FY19-24, compared to the number of debit cards which grew at a CAGR of 1.3% in the same period.

It reflects higher consumer spending because credit cards enable users to spend beyond their available cash balance, offering credit limits and incentives such as cashback that encourage larger and more frequent purchases.

Moreover, an improved lifestyle often fuels greater ambition, leading more individuals to pursue higher education, either through financing or personal funds, which in turn results in higher salaries and increased consumption, driving demand for automobiles, tourism, and other sectors. These trends present numerous opportunities for banks to leverage, such as offering customized private banking services, wealth management, premium credit cards and salary accounts with additional benefits.

**No. of individuals who submitted an e-ITR with income of more than 10 million INR (in lakh)**



Source: RBI and Media Reports

**Number of debit cards (in million)**



**Number of credit cards (in million)**



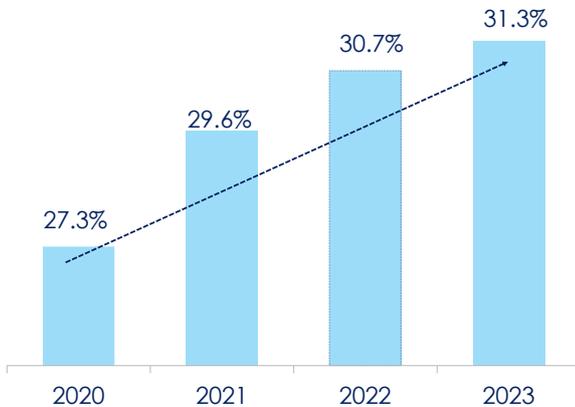
▪ **Capex Cycle**

India is on the brink of a new capital expenditure (capex) cycle, with rising government and public-sector

investments expected to drive significant growth in corporate lending in the coming years.

**Visible Trends**

**GFCF as % of GDP**

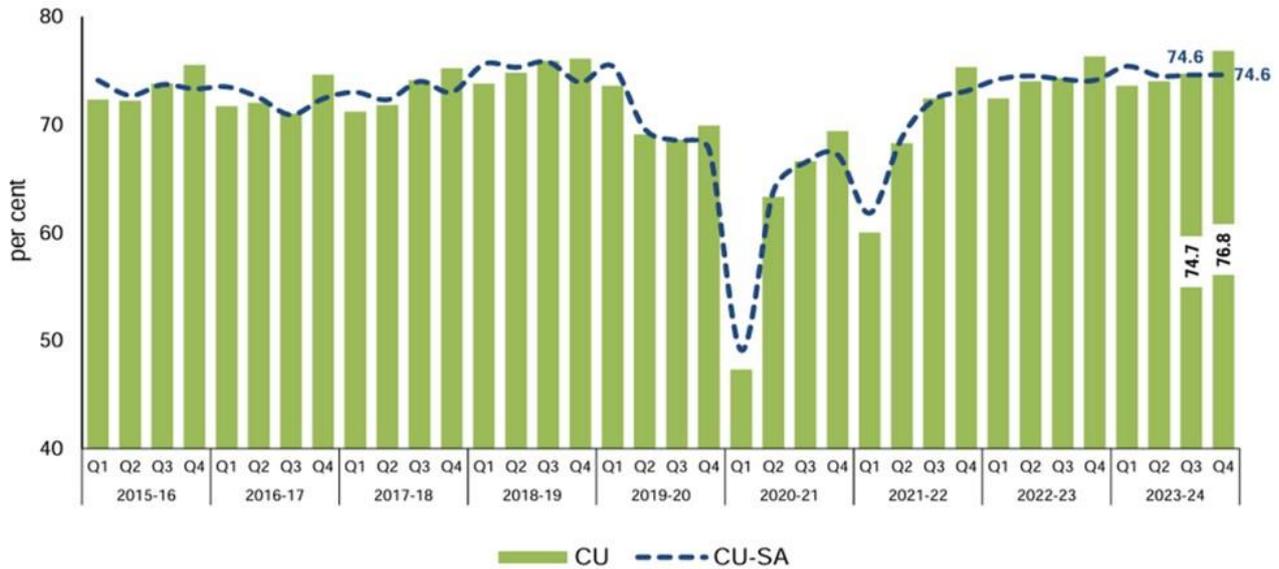


The percentage of Gross Fixed Capital Formation (GFCF) relative to GDP is on the rise, reflecting a strong commitment to ongoing and future capital projects. This trend signals a robust and optimistic outlook for capital expenditure. Source: World Bank

**Growth in New Orders**



New orders received by the companies of manufacturing sector during Q4:2023-24 increased on both sequential (q-o-q) and annual (y-o-y) basis. Source: RBI's Quarterly Order Books, Inventories and Capacity Utilization Survey



Overall capacity utilization of the Manufacturing Sector is near 10-yr high, at 76.8 (Q4-FY24), significantly higher from the low of FY21. Source: RBI's Quarterly Order Books, Inventories and Capacity Utilization Survey

The convergence of rising Gross Fixed Capital Formation (GFCF), increased capacity utilization levels, and expanding new order books creates a compelling opportunity for a capital expenditure (capex) cycle. This upsurge in capex presents a significant opportunity for banks, as they stand to benefit from increased demand for financing to support these large-scale investments. By providing capital and tailored financial solutions, banks can play a crucial role in fuelling this capex cycle, enhancing their portfolio while contributing to broader economic development.

### Conclusion

India's journey toward a USD 30 trillion economy by 2047 will be shaped by the strategic decisions made today. The performance of the Indian banking sector—strong in profitability, asset quality, and liquidity—has largely shielded it from global financial volatility, proving its resilience and adaptability.

As seen in the experiences of other nations, a robust and responsive banking system is a key enabler for transitioning from a developing to a developed economy and it will require enhancements in key metrics such as private credit to GDP, bank assets to GDP, and bank deposits to GDP. To compete with global banking giants, Indian banks must scale up their assets while leveraging domestic strengths.

The future presents exciting opportunities for Indian banks, including deeper rural penetration, the rise of affluent Indian households, and the ongoing Indian capex cycle, which promises to boost infrastructure and industrial investment. While challenges remain, such as maintaining sustainable growth and adapting to evolving global financial landscapes, Indian banks are well-positioned to be the driving force behind India's economic transformation.

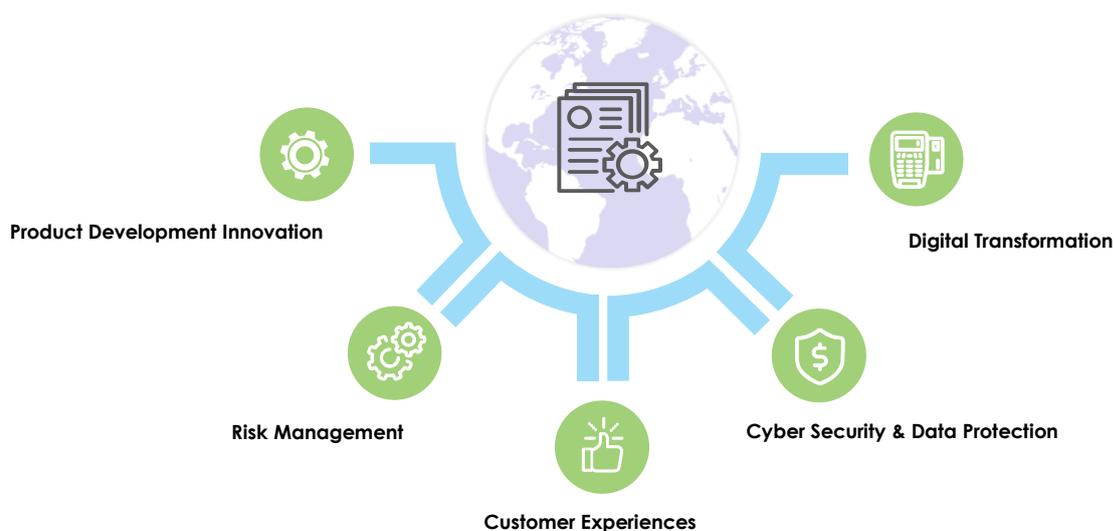
# 02

## Technology is the Game Changer in Banking Industry

Technology can significantly improve the process, customer satisfaction and revenue build in any industry. The banking industry is not an exception. The banking industry is the foundation of a country's economy. So, it is persistent to understand how a company which is embracing technological advances effectively can leapfrog the technologically challenged companies. The entry of technology companies in the banking sector has rendered the banking ecosystem highly competitive.

As every player in the competition tries to get their cut in shrinking pie, the traditional banks are also on the verge of losing their market share to the emerging fintech companies. This section of report aims to focus on the opportunities and challenges related to technological innovation the banking sector can have in the impending future. Organisations are prioritising innovation to diversify their product and service offerings to address evolving customer needs and maintain market competitiveness.

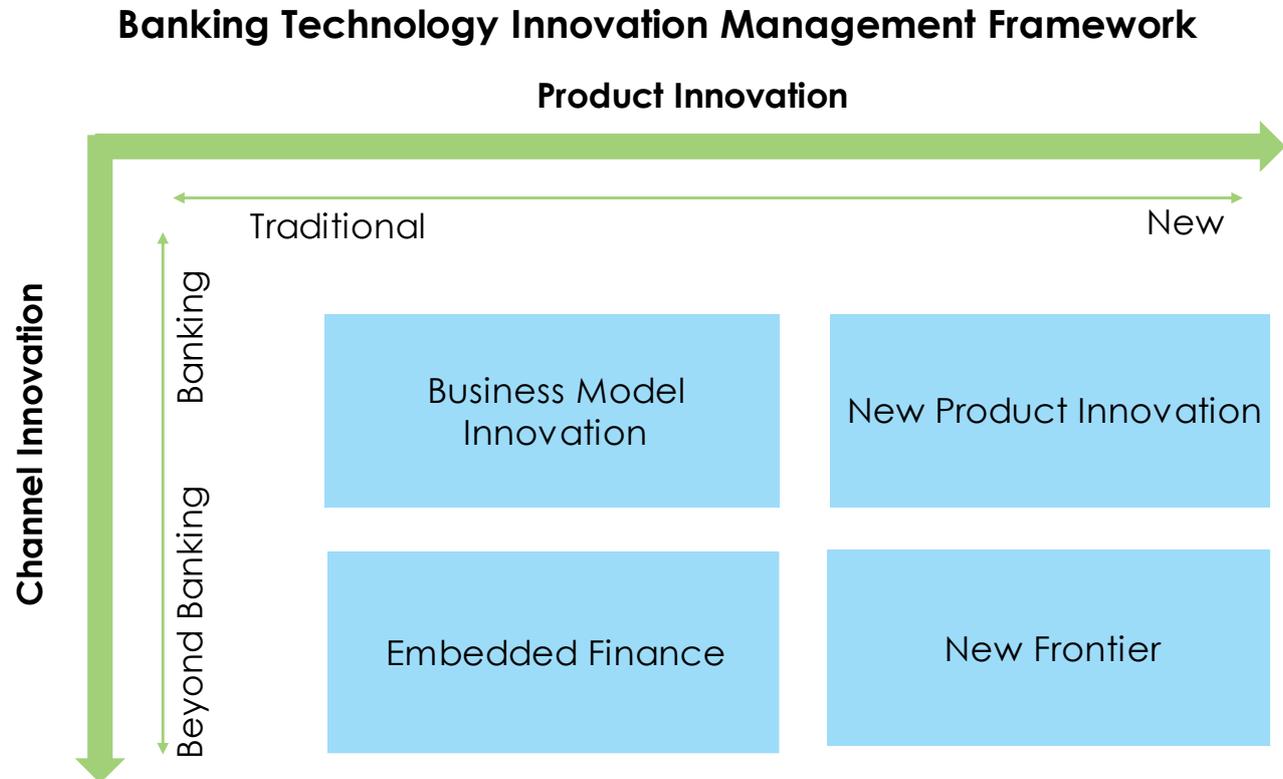
### Top Priority in the Banking Sector



Innovation and Digital Transformation are notable priorities of every contemporary bank to stay relevant in the market. Risk Management, Customer Experience and Cyber Security and Data Protection are the need of the hour.

## Product Development Innovation

Many organizations have developed the following framework to keep track of new innovations in the ecosystem.



## Business Model Innovation

The banking industry is at a crucial phase. Newer technologies and changes in consumer behavior are leading to new business models for banks. The situation post Covid-19 has accentuated this trend. The increasing use of artificial intelligence (AI) and machine learning (ML) is providing banks with a unique opportunity to increase income at lower cost. The banks are able to engage with customers and serve them in a new way. The banks with increased use of AI and ML will be the banks of the future. It has been seen that **AI** and **Gen AI, Data Analytics, Open Banking and API solution, Digital Banking Solutions, RPA/ Intelligent automation, Blockchain/DeFi** are the dominant technologies that current banks are focusing for innovation.

### Challenges:

- ✓ **Lack of Customer Insights:** Banks have not been able to come up with customized strategies for the customer segment of one. Only a limited number of banks in Asia Pacific believe they truly understand their customers.
- ✓ **Slow to Innovate:** Innovation momentum is easier built from the ground up, while traditional banks are held back by traditional products, processes, and people.

The current banking customers often on specific cases e.g. quick loan etc. tend to switch to neo banks or new digital challengers.

Mostly neo banks or new digital challengers are built on agile innovative best practices — way ahead of incumbents in terms of flexibility, self-service capabilities, customer needs, and personalization. It is felt that a major portion of revenues of traditional banks are at risk because of emerging new players and future digital disruption in the industry.

▪ **Data Analytics**

Data analytics is a key enabler in banking, allowing banks to offer personalized products and gain insights into consumer behavior. By combining and analyzing customer data, banks can target the right market with tailored financial services. Additionally, monetizing raw data can generate alternative revenue streams and support the creation of new services.

▪ **AI-Banking**

AI technologies can help boost revenues

through increased personalization of services to customers (and employees); lower costs through efficiencies generated by higher automation, reduced error rates, and better resource utilization; and discover new and previously unrealized opportunities based on an improved ability to process and generate insights from sizeable amount of data.

▪ **API/Open Banking**

The use of API/Open Banking is the key to success in the customer driven banking sector. In the hyper-connected society, the growth of a bank is dependent on its ability to build, collaborate and participate in digital ecosystems. The main prerequisite is the ability of the bank to integrate its products and services, both internally and externally, with various third-party services and applications.

**Open Banking Use Case in World vs India<sup>3</sup>**

Jurisdiction	Launch	National Digital Id	Perimeter of Participants	Interoperable Payment Initiation (“write access”)	Mandate	Data Classes	Features
Australia	2020	Yes	Accredited Data Recipients (ADRs), including banks and non-banks	Not included in initial designs	Regulated	Business and individual bank/ credit card account balances and transactions; mortgages , retirement savings accounts. Future: energy and telecom account data	Fully reciprocal for all ADRs
China	-	Yes	Banks and Regulated Fintechs	Yes;no mandate	Market Driven	Account Information	n/a
European Union (PSD2 and GDPR)	2019	None across the EU; Strong customer identification; national schemes exist in some member countries	Banks , regulated fintechs, payment service providers	Yes, mandate	Regulated	Payment Account Data	Asymmetric; banks required to share; others subject to GDPR probability requirement with 30-day delay
India (UPI)	2016	Yes	Licensed banks (UPI)	Yes; no mandate	Mix of market-driven and regulated	Digital payments and later other sectors	Reciprocal
New Zealand	2017	No	Banks and regulated fintechs	Yes; no mandate	Market-driven	Payments Accounts Data	
United Kingdom	2018	No	Banks and regulated fintechs	Yes , mandate	Regulated	Account balances , Transactions	Banks , non-banks may participate voluntarily

<sup>3</sup> Source: IMF

### Open Banking gives Consumer Spending Insight:

In India, ICICI Bank announced the launch of 'iFinance', which enables crores of customers- retail and sole proprietors, to get a consolidated view of their savings and current accounts in one place. Customers of other banks can also obtain the benefit from this facility, which ICICI Bank has introduced by leveraging the Account Aggregator ecosystem, on the Bank's digital platforms, namely iMobile Pay app, Retail Internet Banking (RIB), Corporate Internet Banking (CIB) and InstaBIZ, the Bank's mobile app for businesses. Open banking aggregator in India helps in **wealth management, personalization and private banking solutions.**

### Open Banking Payment use cases out-side India:

- ✓ **Credit card bill payments:** Open banking can help users make payments towards their credit card balances.
- ✓ **E-commerce:** Open banking can impact online shopping, especially e-commerce.
- ✓ **Sharing financial information:** Open banking allows users to share financial information with trusted third parties to access personalized financial products.
- ✓ **Faster payments:** Open banking can help businesses make and receive account-to-account payments that can be more cost-effective than card payments.
- ✓ **Account top-ups:** Users can top up their current, savings, and investment accounts, as well as e-money transactional accounts.  
***Example:** Mastercard's Open Banking Top-up Payments service can be embedded seamlessly into user journey, to provide a simple, fast and safe top-up payment experience. User can offer your customers an increased range of payment options to make top-ups to*

wallets, investment accounts, saving accounts, pension accounts and more.

### Open Banking Payments use cases in India:

In India, the **Unified Payments Interface (UPI)** is a popular example of open banking in action. UPI, developed by NPCI, allows users to send money directly to a business account using a smartphone and a bank account with a participating bank.

### **Challenges and limitations in UPI Payments**

UPI payments are more vulnerable to cybercrime than the open banking payments adopted by other countries. Customer loyalty in open banking payment system in India is less than European open banking payment systems.

### Use Cases of Open Banking which are not available in India:

With the advent of open API and data analytics, customers' data flows to and fro between bank to other businesses. Customers may be finicky about sharing the data openly with the ecosystem.

### Consent Management through Open Banking

Open banking allows third-party financial service providers access customer's financial data and services with their consent. The consent management itself is considered as an important process and not to be overlooked. It is the process of encouraging, collecting, and managing bank customer's consent before a third-party provider collects or shares the customer's financial information. In an open banking ecosystem, once a bank customer requests a service via a third-party provider application for the first time to access the customer's data, the customer requires to authorize and grant consent.

## New Product Innovation

### Gen AI

As Gen AI choose to transform the landscape of banking ecosystem, the incumbent should adopt right operating model to achieve success. *Some of the use cases are:*

- ✓ Preparation of account plans and proposals semi automatically by leveraging latest client data and public info;
- ✓ Providing a **24/7 “Virtual SME”** bot to answer spot questions trained on proprietary know-how, client data, “live” news feeds and/or latest public information;
- ✓ Suggest client-specific actions (**e.g. next-to-buy**) to front line by mining latest corporate initiatives with a corporate action monitor;
- ✓ Shape preliminary responses to steer live client call based on product offering, previous Q&A, policies and past client log;
- ✓ **Automate Client Call** assessment and summarization into actionable commercial next steps;
- ✓ Automatically write, fill or interpret technical documents (**e.g. know your customers, deal terms**) based on deal info/ term sheets;
- ✓ Create **quick email drafts** in response to clients and reminders of action points.

### Truly Omni-Channel, Truly Omni-Experience:

Banks are increasingly focussing on interactions, and not just transactions, with new ways to interact, such as pre-staged transactions and intelligent automation. AI is mostly used in fields of data science, operations, IT, marketing and sales, and customer support in global banks, insurers and wealth and asset managers. AI is also used in supervision of large data in banking industry.

## Embedded Finance

Embedded banking integrates financial services into non-financial services like e-commerce, ride sharing and social media apps. It benefits both the customers and its users. Some of the application scenarios of embedded banking in India are mentioned below:

- ✓ **Payments:** Online payment options such as **credit cards, debit cards** and **UPI** used at the time of checkout on shopping websites and apps.
- ✓ **Lending:** Users can opt for **buy now pay later (BNPL)** or **equated monthly instalments (EMI)** at the time of checkout on shopping websites and apps.
- ✓ **Insurance:** Users can avail travel insurance while booking flights or phone breakage insurance while buying a phone.
- ✓ **Savings and Investments:** Users can save directly or indirectly within non-financial apps.
- ✓ **Financial Management Tools:** Budgeting tools, expense tracking and financial literacy resources are provided for better user experience.
- ✓ **Integrated Analytics:** New datasets are acquired from partners which are further modified to understand product offerings and manage risks.

The BFSI industry is optimistic about the growth of the FinTech ecosystem and is anticipating a growth in solutions – specifically in **payment systems, risk management, credit** and expansion into other non-FS sectors such as **e-commerce, insurance, telecom, real estate, and retail**. With the growing awareness in cyber and data risk solutions, FinTechs are also developing solutions independently and through partnerships, with a focus on regulatory compliance and long-term sustainability.

### **Software-as-a-service:**

Software-as-a-service (SaaS) model is a cloud-based model which enables financial services companies to pay as they use model of a software stack. Software-as-a-service banking solutions can be used from any location with a cellular connection. SaaS model is highly scalable and easy to integrate.

*Airtel and Jio, both telco giants, currently in India have introduced new business model Airtel Finance and Jio financial services respectively. Airtel also has payment bank revenue model named Airtel Payment Bank. Airtel and Jio are the largest SIM card providers in India, they safely bet on their database as customer base for loan and payment business. Their customer acquisition cost is minimal for the fintech business.*

### **New Frontier**

#### ▪ **CBDC (Central Bank Digital Currency)**

A central bank digital currency (CBDC) is the digital form of a country's fiat currency, which is regulated by its central bank. It has been adopted in many nations including India. Digital currency is a form of money which can be used as a store of wealth, medium of exchange and form of unit of account. The RBI (Reserve Bank of India) is contemplating to make CBDC accessible to a broader retail segment by enabling non-bank payment system operators to offer CBDC wallets even as UPI is gaining currency by the day.

#### ▪ **Recommendations and Advisory-Based**

It is assumed that at least one fourth of bank's business in India will be advisory-based by 2025 and will continue to grow. Banks should be able to proactively reach out to customers at the right time, with the right advice and offer.

#### ▪ **Sustainable Finance/Climate Finance**

Environmental, social and governance factors are imperative regulatory mandates for banking industry. Some of the unique use cases in the domain of green and sustainable finance are: Financial Inclusion, Lower cost of delivery, ease of access to capital markets, targeting investors, improving risk management, inculcate sustainable consumer behaviour. Providing loan and insurance to electric vehicle is one use case of sustainable finance.

#### ▪ **Crypto Currency**

Decentralized exchanges, synthetic assets, and flash loans are totally new applications that can only rely on blockchains. This paradigm shift in financial infrastructure yields a number of advantages with regard to risk, trust, and opportunity.

Decentralized finance leverages key principles of the Ethereum Blockchain to increase financial security and transparency, unlock liquidity and growth opportunities, and support an integrated and standardized economic system.

#### ▪ **DeFi**

Decentralized finance, which eliminates the need of financial intermediaries by using blockchain networks, and cryptocurrencies, will fundamentally transform how money moves and bank operates. With the virtue of integrations by trusted financial institutions, accessing directly to crypto assets, making peer-to-peer transactions, and generating yield through open platforms will become mainstream.

### Some of the use cases are as follows

- ✓ Banking customers will be privileged to access regulated stablecoins fully collateralized by currency and government bonds to enable instant domestic and cross-border money movement 24X7. Customers can directly exchange currencies during foreign travel or split bills across currencies in real time without fees or delays.
- ✓ Permission to tokenize and trade assets, including real estate, precious metals, intellectual property, and more, through licensed decentralized exchanges wired into the traditional finance system.
- ✓ Having access to open lending platforms will enable peer-to-peer loans using cryptocurrency as collateral.
- ✓ Interest rates could be set algorithmically based on supply and demand.
- ✓ Banks embracing crypto today, like Goldman Sachs and DBS, will have a first-mover advantage as DeFi matures from its early days. Their pivotal role will be integrating decentralized finance into trusted and secure platforms.

### Risk Management

The financial institutions should be able to determine the institutions who defines risk guardrails (such as those related to data privacy and intellectual property infringement) and strategies related to mitigation of risk. They should also decide which areas of existing frameworks should be adjusted to account for risks specific to gen AI, including whether additional governance is required for particular use cases (such as customer-facing ones).

- ✓ Mastercard has recently launched a new Generative AI model to empower banks to better detect suspicious transactions on its own.
- ✓ Gen AI also helps enhancing the accuracy of risk assessment in customer onboarding process ensuring compliance with stringent AML and KYC regulations.
- ✓ Climate risk assessment and mitigation has been undertaken as part of regulatory agenda. Gen AI also helps in Climate Risk Assessment.
- ✓ Risk aversion should be considered while investing in technology of banks. For instance, more careful spending, reliance on X-as-a-service, and greater emphasis on return on investment (ROI). Technology investments should not disadvantage banks through higher IT and ops expenses.

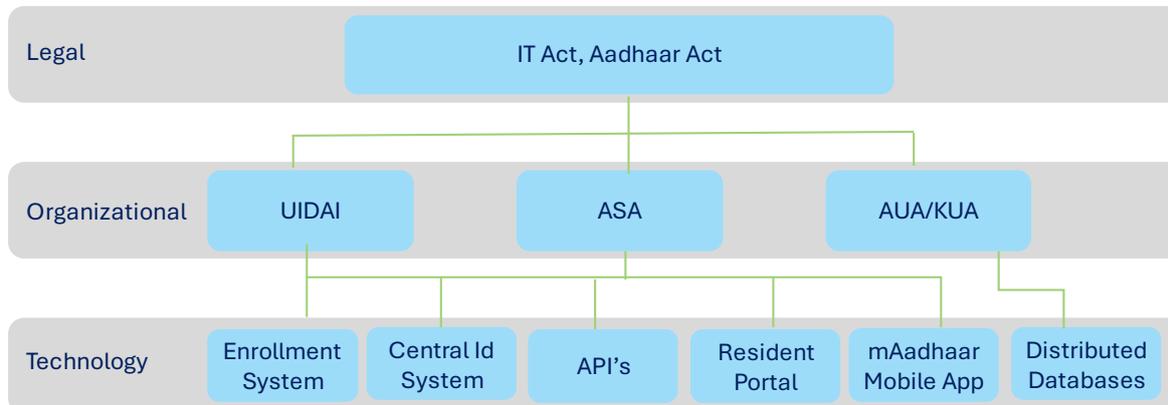
### Privacy by Design in India

Privacy by Design has legal, organizational and technological contours. As technology evolves, thus evolves cyber security measures. Privacy is the matter of legal department and security is the matter of IT department. So, the combination of both privacy and security measures should be implemented beforehand in the any product design to make it digital resilient. India has implemented digital ecosystems to be used by e-KYC and opening bank account or any other financial process initiation to be done by UIDAI Aadhaar authentication.

#### Legal

The Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act 2016,8 aims to provide a legal basis for Aadhaar, the unique identification number project which was launched in 2009. It was passed on 11 March 2016 by the Lok Sabha, the federal Indian Parliament.

### Indian Privacy Ecosystem



Source: World Bank

UIDAI has open APIs to allow service providers in the public and private sector to authenticate users based on one or more of the following: biometrics, demographics, and One Time Password (OTP) on registered mobile phones. The service providers must register as AUA/ sub AUA with UIDAI and access the APIs via the ASA.

e-KYC service shares the demographic data and the photograph of the user with the service provider when the user provides consent. This enables the onboarding of users for services such as opening bank accounts, getting up a SIM card, etc. Recently, UIDAI has announced that a limited e-KYC API would also be made available for a category of service providers with limited KYC data.

▪ **Upcoming Regulation for Data Protection**

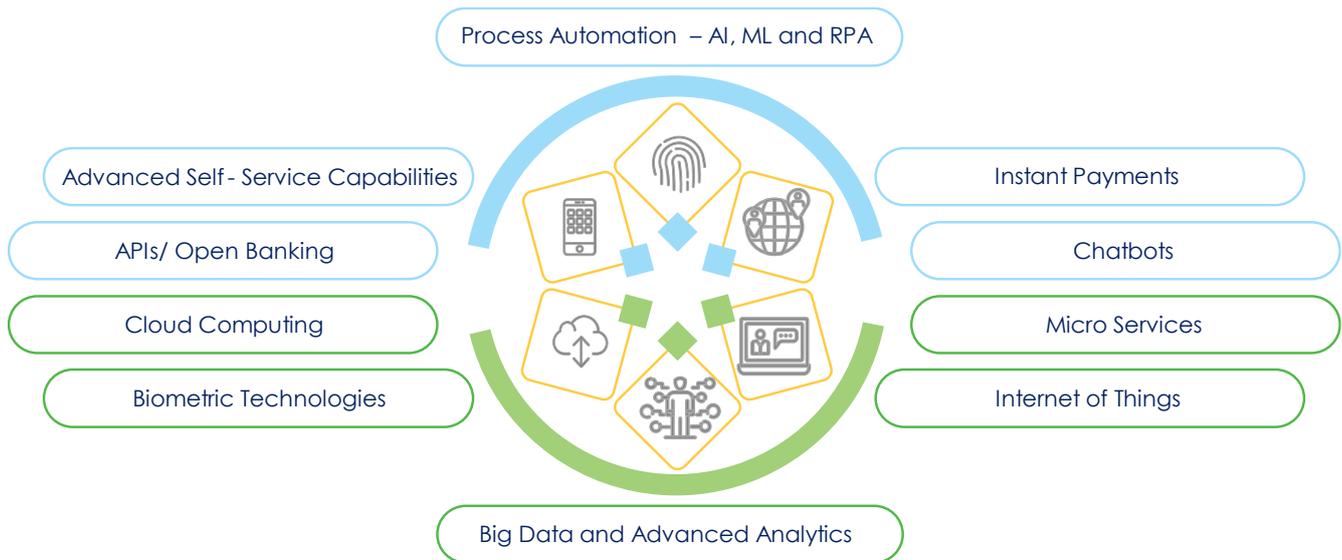
India is also in charge of making data protection rules named Digital Personal Data Protection Act (DPDPA) which is expected to come into effect in 2024. DPDPA is similar to the European Union's General Data Protection Regulation (GDPR) in that both provide individuals with rights over their personal data, such as the right to access, delete and modify their data.

Breaches of these rights will attract penalties in both DPDP Act and GDPR. However, there are certain differences between both acts including:

- ✓ **Scope:** DPDPA is in its nascent stage and has limited scope than GDPR
- ✓ **Consent:** The DPDPA has a "strictly defined consent" requirement, while the GDPR has more flexible options.
- ✓ **Penalties:** The DPDPA has significantly higher penalties than existing Indian law, with fines of up to INR 250 crores.

### Customer Experiences (Growing customer expectations in enhancing experience)

As the technology progresses, customer needs change rapidly. The bank needs to keep pace with the changing customer demands. The future of each bank depends on how well it can leverage the latest innovations to focus on customer needs, wants, and behaviours. In exchange, customers will reward banks with referrals, loyalty, trust, and support. Customer's experience can be enhanced by adopting the following fintech specialities:



Fast turnaround time, conversational banking, and personalization at scale are the top three factors driving customer loyalty. But there are also challenges which the contemporary banks and fin techs are facing e.g.: Poor customer adoption: **A majority of Asia Pacific banking customers view banking processes as tedious. Less than 50% of the banking customer base is active on digital banking channels.**

### Cybersecurity and Data Protection

As rising online fraud has become critical issue to banks, fintech and banking regulators, it has become one of the top priorities for them to monitor and mitigate the issue along with technological advances.

While competing with one another in showcasing their technological prowess, banks are equally concerned about the security of the customers' money. With the rise of online fraud, banks are constantly evolving on their technological front to safeguard money. With fierce competition, contemporary banks cannot afford stricter control as stricter control may lead to customer disengagement.

On the other hand, if a bank loosens up the control which makes it user friendly, it exposes the bank to too many unwanted and unavoidable risks. Therefore, enhancing security with technological advances is a tight rope walk with user friendly system, simpler procedures on one hand and safety of customers' money, security and compliance with regulatory requirements on the other hand.

#### Payments Sectors

The payment sector is the most vulnerable segment to cyber-crime. Mastercard Inc. aims to fight online payment fraud by expanding the use of token technology to replace credit card numbers and passwords with biometric data such as fingerprints and face scans. The company is processing 1 billion tokenized transactions weekly and plans to tokenize all e-commerce transactions in Europe by the decade's end.

#### ▪ Fight Against Digital Payment Frauds

The RBI promised to launch a digital payments intelligence platform to combat a surge in digital payment frauds. **Fraud cases reported to the RBI jumped 300% to 36,000 in FY23 compared to FY22, highlighting the need for a system-wide approach.** The central bank has formed a committee that would examine setting up this infrastructure to facilitate real-time data sharing across the digital payments' ecosystem.

To successfully combat fraud, banks must beat cybercriminals at their own game, which requires making advanced technology part of their first line of defence — technology such as:

- ✓ *Artificial Intelligence,*
- ✓ *Machine learning,*
- ✓ *Biometric Authentication,*
- ✓ *Two-factor and/or Multi-factor Authentication,*
- ✓ *Advanced Analytics.*

### Digital Transformation

Digital transformation has been mostly catering to the **Digital Payments, Digital lending, Insurtech, Digital capital raising, Digital banking and Savings.** Indian banking is going head-to-head with global players in the industry with respect to customer services, process improvement arising out of effective deployment of technology showing a paradigm shift in the way a bank used to be perceived earlier by the customer. Previously the word “bank” to the customer was brick and mortar structure having a building with branch manager and other officials keeping huge voluminous ledgers in the counter and with people in a long queue standing in front of counters. But mostly Gen Z and millennials visualize bank as their computer or ATM or mobile.

### Challenges to Digital Transformation

#### ▪ Legacy Views of Value Chain

Banks are not fully successful to take advantage of potential ecosystem partners as they still hold traditional views of the value chain. Most of the top banks still prefer to own the entire value chain of banking, with third party-contributed business at a very lower share.

#### ▪ Slow to Innovate

Banks still find it too difficult and expensive to transform legacy core systems. Core banking systems are difficult to replace and transform as well as they are hardly responsive and up-to-date with the demands of the digital era.

### Future Target

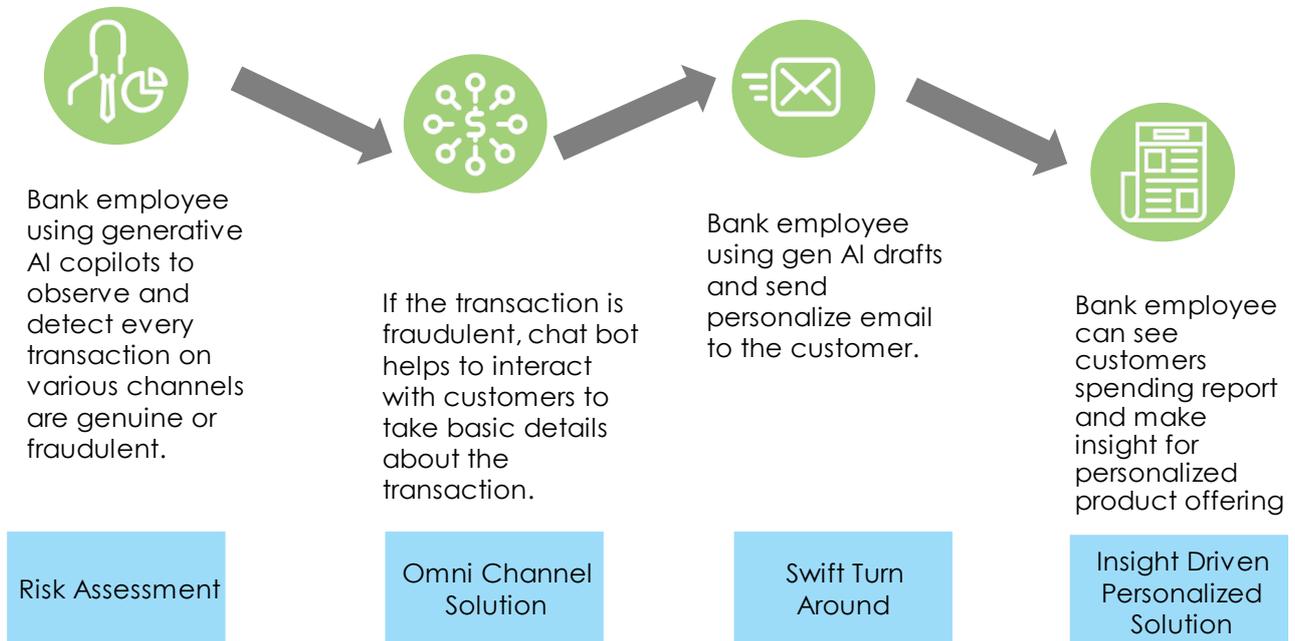
Banks across India target to attain significant improvements overall to business processes. These include: **know your customer (KYC), onboarding and origination, credit collections, and advisory.**

#### ▪ Modern Core Banking

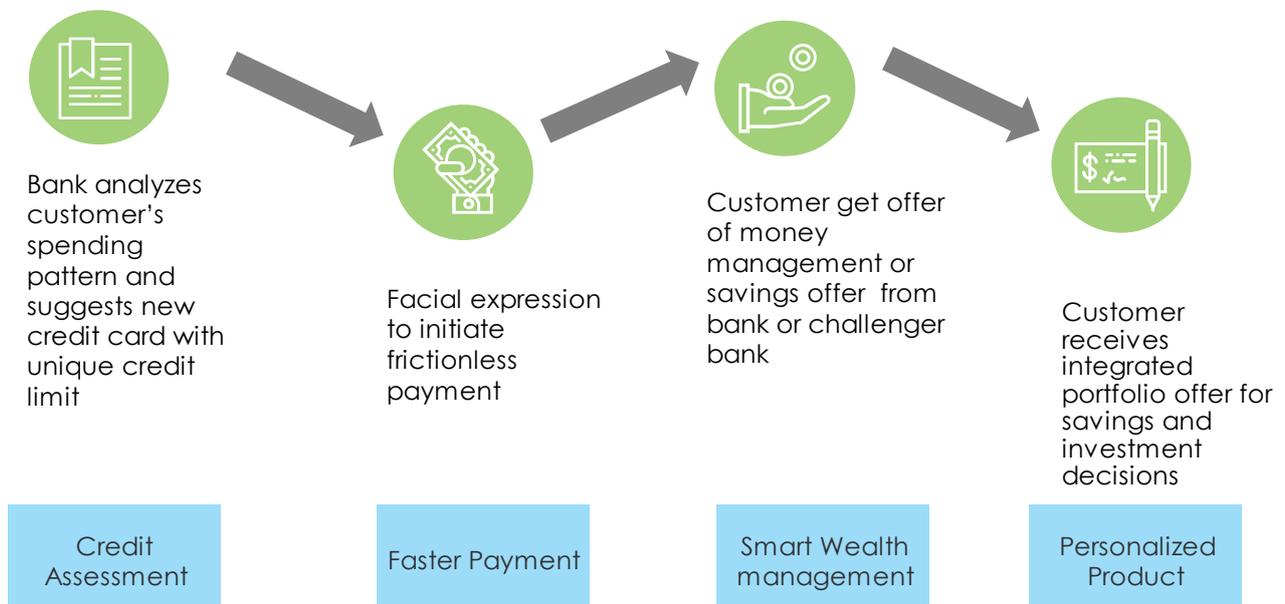
All top incumbent banks in India are offering their “connected core” transformation — working on platform-based and componentized modernization, and API-enablement.

## Digital Transformation Use Cases

### Digital Transformation for the Banking Users and Customers



### Digital Transformation for Offering Banking Products to Customer



## Banking Technology Ecosystem

Indian banking technology or fintech ecosystem is in its growth stage currently and has immense potential to invent new business and revenue models. Globally the Indian Fintech ecosystem stands at the third position as it has continued to grow rapidly with tripling of Unicorns/Soonicorn and quadrupling of Minicorns over the last four years. The focus of the startup players should be innovation, strong adherence to Indian Banking Regulations and foster customer's trust for long-term going concern.

### Credit Domain

Credit is the main revenue source for banks. The incumbent banks do stricter due diligence for provisioning loans to their customers. However, the challenger bank and other fintech aggregators are disrupting the end-to-end credit life cycle mostly for MSME and retail customers.

#### ▪ Fintech

Fintech has come of age having experienced full lending cycle now. The portfolio built as well as enabled by fintech have seasoned with lot of learnings from this experience. Fintech companies have assisted in expanding the credit market thereby driving the Financial Inclusion agenda. Customers have benefited by way of quicker and more accessible credit. The current focus of fintech lending is largely focused on small ticket segment. Today, Fintech lending is a fine example of how incumbents and new entrants can come together to create value propositions. Given India's low credit penetration levels compared to other developed economies coupled with India's growth story there is enough room for everyone to grow. Partnership with incumbents is in the interest of both end consumer as well as individual fintech companies.

### Payments Domain

Payment Industry is the topmost segment in banking disrupted by technology. This is the reason players in payment domain should innovate rapidly to enhance personalised customer service and build customer loyalty. Airtel Payment Bank has metamorphosed from telco company to payment bank as it could built good customer service which yields the company a trusted customer base.

### Pay-Tech Industry's growth driver

#### ▪ Growing customer expectations and increase profitability and sustainability

Consumers expect seamless and convenient payment experience. Participants should redefine their payment system for faster, more user-friendly and more personalized payment options.

#### ▪ Innovations

The payment industry is frequently adopting new technologies such as artificial intelligence, blockchain and machine learning. Businesses must embrace and incorporate these innovations to stay relevant in the market.

#### ▪ Regulatory Compliance

Payment systems must comply with various financial regulations, data protection laws and industry standards. Redefining systems ensure compliance with the latest requirements, reducing legal risks.

#### ▪ Business scalability

As businesses grow, their existing payment system will become insufficient to manage higher transaction volumes. Companies should ensure economies of scale and try to innovate to accommodate future growth.

## Payment Ecosystem in India



### Acquirer and Processors

A merchant acquirer or acquiring bank is a financial institution which manages merchant accounts and processes card payments. Acquirers are responsible for: Transaction facilitation, Risk management and fraud prevention, Settlement and reporting, Compliance and Regulation Management, Relationship management, Merchant account services, Customer support . (E.g. Fiserv)



### Payment Network Companies

In India, payment networks are generally self-governed and maintained by a group of their own members and operated under the governance of a specific set of guidelines and regulations. (E.g. Paytm, PayPal India, PayU, RuPay)



### Payment Gateway

A payment gateway is a technology based platform that lets businesses to accept and process payments from customers. (E.g. CCAvenue , Cashfree Payments , Razor Pay , Phone Pe)



### Merchant Service Providers in India

Merchant Service Providers in India, merchant service providers (MSPs) help businesses process payments from customers by acting as intermediaries between the business, customer, and financial institutions.

Other elements of the ecosystems are: Insurers, ISOs, ISVs, VARs etc. MSPs provide a plethora of services, including:

- Payment processing: MSPs provide the tools and software to process payments, such as payment gateways and point-of-sale (POS) systems.
- Fraud prevention and security measures: MSPs help protect businesses and customers from fraud.
- Analytics tracking and reporting: MSPs can provide businesses with analytics to help them track and report on their payments.
- Customer Support: MSPs can provide customer support to help businesses handle payment-related issues.

## Conclusion

Technology has become a threat as well as an opportunity to disrupt the banking industry. The banking industry is mature and highly commoditized. Incumbent banks to non-incumbent players in the banking industry, all, face stiff competition and challenges for market share and profit.

Thus, innovation integrated with technology is required to invent new revenue model for the players in the banking ecosystem. A good example can be digital fund-raising, which incumbent bank does not do. This industry also faces rapid mergers and acquisitions and spinoff too between bank to bank and bank to technology companies.

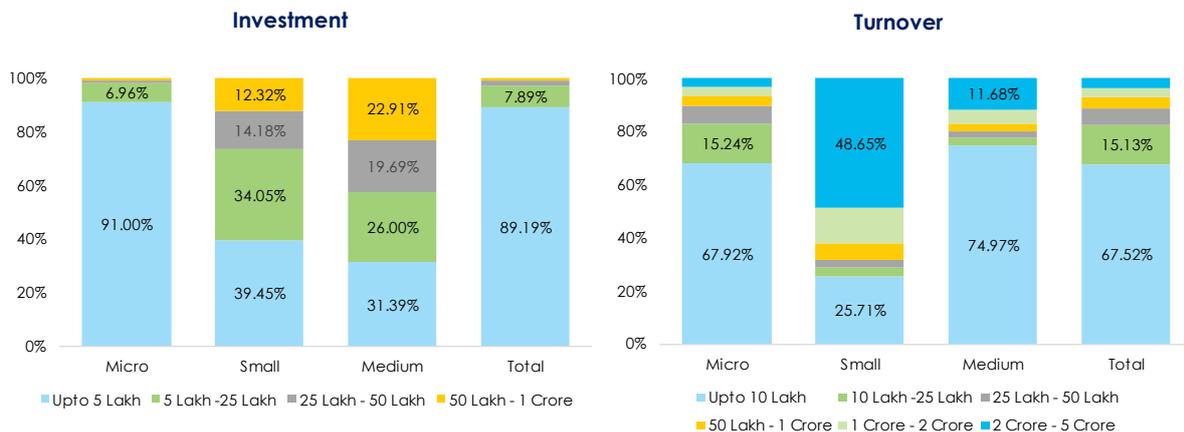
# 03

## Strengthening Finance for MSMEs

**M**icro, Small and Medium Enterprises (MSMEs) have contributed immensely towards the development of the world economy. MSMEs constitute roughly 90% of businesses worldwide, employing 60-70% of the global workforce and contributing 50% to global GDP<sup>4</sup>. In India, the MSME sector contributes to nearly 30% of country's GDP and provides direct and indirect employment to over 216<sup>5</sup> million people. However, despite their contributions, MSMEs face several challenges, with limited access to formal credit being one of the most pressing. To achieve its goal of becoming a USD 30+ trillion economy by 2047, India must address the funding issues faced by MSMEs.

### Investment and Turnover of MSMEs

The majority of MSMEs in India are very small in terms of both annual turnover and business investment. According to Udyam data (Dec'2022), over 89% of these enterprises have invested up to INR 5 lakh, with mostly operating as sole proprietorships where the owner manages the business directly. Regarding turnover, 67.72% of MSMEs recorded annual revenues up to INR 10 lakh, while an additional 15.13% recorded turnover between INR 10 lakh and INR 25 lakh.



Data Source: Udyam Portal (As on December 31, 2022) & Annual Report of Ministry of MSMEs. Data is shown for a turnover of up to INR 5 crore. Investment data is based on 22.72 Mn MSMEs and Turnover data is based on 22.09 Mn MSMEs

<sup>4</sup> The United Nations

<sup>5</sup> Udyam (udyamregistration.gov.in), as on September 09, 2024. Job created by Udyam Registered MSMEs and MSMEs registered in Udyam Assist Platform.

## Accessing the MSMEs' Demand for Credit

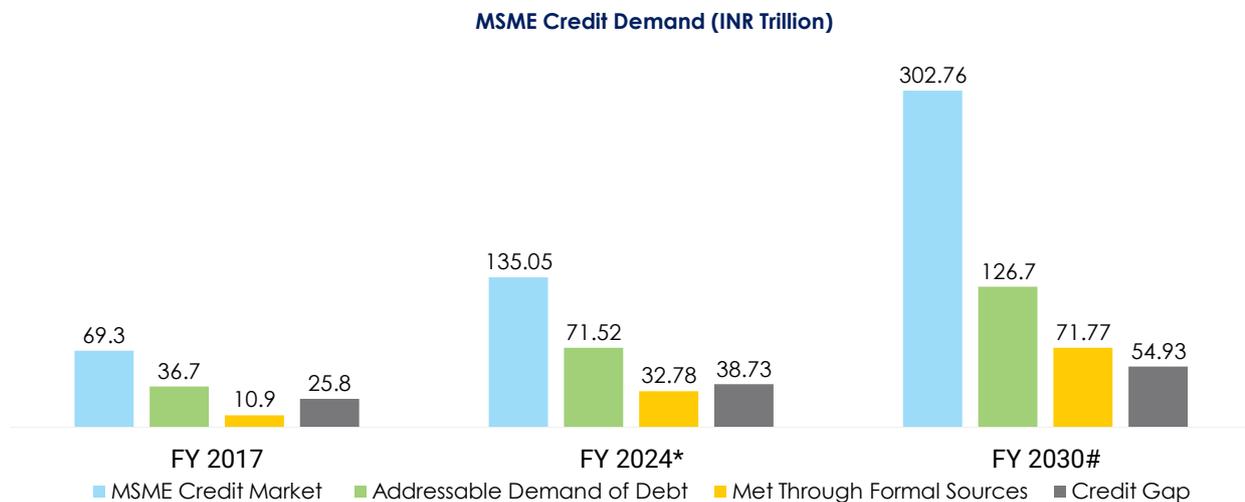
In 2018, the International Finance Corporation (IFC),<sup>6</sup> in partnership with the Government of Japan, estimated the total credit demand of Indian MSMEs at INR 69.3 trillion, with INR 36.7 trillion classified as viable and addressable debt demand. The viable and addressable demand, representing about 53% of overall MSME credit demand, excludes the credit needs of commercially unviable MSMEs and those have voluntarily opted out from the formal credit system.

According to IFC estimates, only 16% of the MSME credit needs were met through formal sources such as banks, NBFCs, SIDBI and state finance corporations.

Assuming a 10% compound annual growth rate (CAGR)<sup>7</sup> in overall credit market between FY 2017 and FY 2024, and using ICF's

estimation of a 53% viable and addressable demand, the overall credit market, and total addressable market for MSMEs have been derived at INR 135.05 trillion and INR 71 trillion, respectively. Out of which, the formal sources have contributed around INR 33 trillion in FY 2024, representing a 24% share, up from 16% in FY 2017.

Projecting the same 10% CAGR, the overall credit market and total addressable market are expected to reach INR 239.24 trillion and INR 126.70 trillion respectively by 2030. With increased formalization, and use of technology, it is assumed that the share of formal source in MSME lending will rise to 30%, providing a 14% annual growth (CAGR) opportunity for MSME credit between FY 2024 and FY 2030.



Data Source: IFC (Financing India's MSMEs); SIDBI & TransUnion CIBIL (MSME Pulse).

\*Number for 2024 is our estimation based on realist assumption, input from RBI, SIDBI and variables considered by IFC;  
#A representative number based on past track records, and certain assumptions. The final outcome may vary depending on actual data and market condition.

<sup>6</sup> Financing India's MSMEs, Estimation of Debt Requirement of MSMEs in India, International Finance Corporation (November, 2018);

<sup>7</sup> Based on historical data and trend

## Supply of MSME Credit

The IFC data indicates that only 16% of the INR 69.3 trillion MSME credit demand is met through formal sources, with the remainder being fulfilled by informal channels such as family and friends, moneylenders, chit funds, and microfinance institutions. By FY 2024, our estimates show that the share of formal credit as percentage of total credit demand has increased to 24% from 16% in FY 2017. Despite this improvement, the viable addressable demand, which is around 53% of total credit demand (based on IFC's estimates), remains significantly unmet.

However, the encouraging trend is that the credit gap, defined as the difference between viable addressable debt demand and the amount met through formal sources, has been narrowing. It has reduced from 70% (INR 25.80 trillion) in 2017 to 54% (INR 38.73 trillion). Based on our assumption, with 30% loan demand expected to be met through formal sources by 2030, the credit gap is expected to shrink further to 43%.

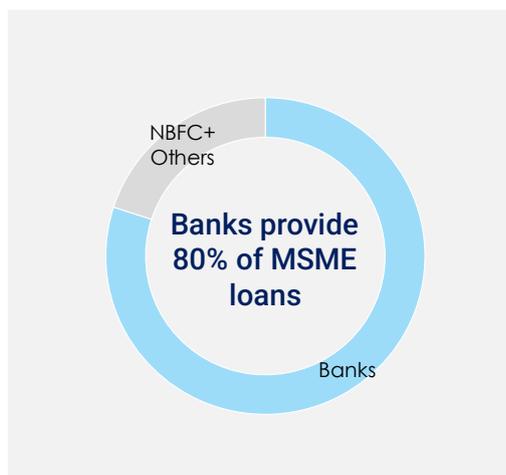
This indicates that supply of credit is growing at a faster pace than the demand for MSME loans.

## Formalization of MSMEs

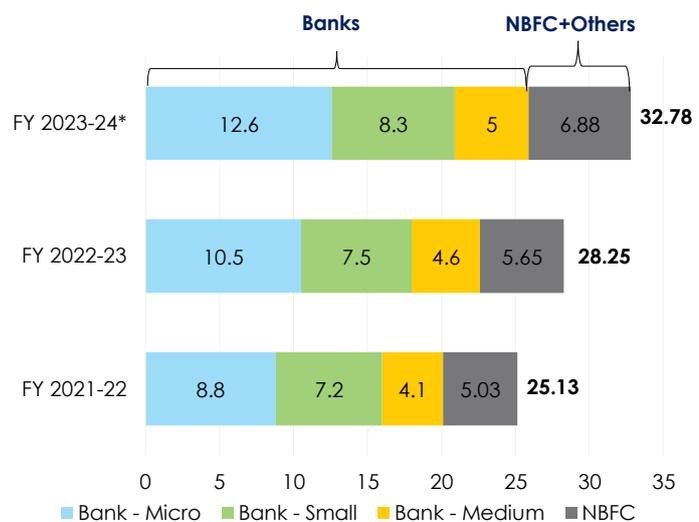
The informal sector dominates the MSME space worldwide. According to ILO estimates, about 90% of the MSMEs operate in the informal sector. As informal entities, many MSMEs are deprived from accessing various benefits, including financial assistances and easier financing options provided by the Government.

The formalization of MSME began in 2015 with the introduction of the Aadhaar Memorandum (UAM) platform for registration. A simplified version, Udyam Portal, was launched in 2020. Due to procedural requirements, Informal Micro Enterprises (IMEs) were not covered under the Udyam portal until 2023. They were later included under Udyam through Udyam Assist Platform (UAP), and the certification issued on UAP now considered equivalent to the Udyam Registration Certificate (URC).

MSME Loan Mix



Banks account for lion's share of MSME loans (approximately 80%). Date Source: RBI Annual Report, \*as on December 2023.



MSMEs with either UAP or Udyam Registration Certificate are now eligible for loans on favorable terms and better rates. Additionally, these registered MSMEs are eligible for a range of other benefits and subsidies.

As per latest data, 50.32 million MSMEs either have an Udyam Registration Certificate or are registered on the Udyam Assist Platform. Considering the criteria for obtaining a URC, approximately 58% MSMEs (29.11 million) have PAN and GST Registration number. Of the 29.11 million MSMEs with a URC, more than 97% are micro-enterprises, with an annual turnover of less than INR 50 million, a net investment of less than INR 100 million, or both.

According to the National Sample Survey (NSS) 73<sup>rd</sup> round conducted in 2015-16, India had 63.39 million MSMEs, out of which 63.05 million (or 99.47%) are micro-enterprises. Considering current MSMEs population of approximately 75 million<sup>8</sup>, formalized MSMEs represent about 67% of the total.

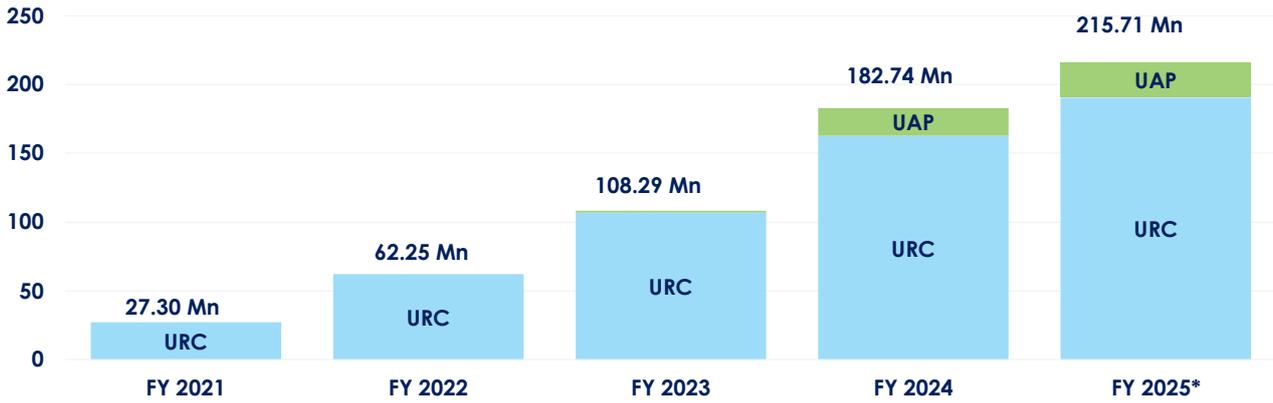
These 50.32 million MSME, which have either a URC or are registered on UAP, created a total 215.71 million jobs as on June 09, 2024. The 29.11 million Udyam-registered MSMEs have created a total 190.61 million jobs, averaging 6.55 jobs per firm. In contrast, the 21.21 million informal micro enterprises have created only 25.10 million jobs, averaging 1.18 jobs per firms.

**A total 50.32 Million MSMEs either have URC or are registered on UAP. Of these, 50.26 Million are classified either as Micro, Small or Medium Enterprises.**



- 98%** **Micro Enterprises**  
Out of 50.26 Million classified MSMEs, 49.48 Million or over 98% are small enterprises.
- 1%** **Small Enterprises**  
Only 1.43% or 0.72 Million out of these 50.26 Million MSMEs are small enterprises.
- 0%** **Medium Enterprise**  
The number of medium enterprises is only 68,087 out of total 50.26 Million classified MSMEs

<sup>8</sup> CGTMSE Annual Report 2023;



## 50.32 Mn MSMEs created a total 215.71 Million jobs.

These 50.32 Million MSMEs, which have either a URC or are registered on UAP, created a total of 215.71 million jobs as of June 9, 2024. The average employee per MSME is 6.55. Cumulative job numbers at the end of each period are shown. \* as on June 9, 2024.

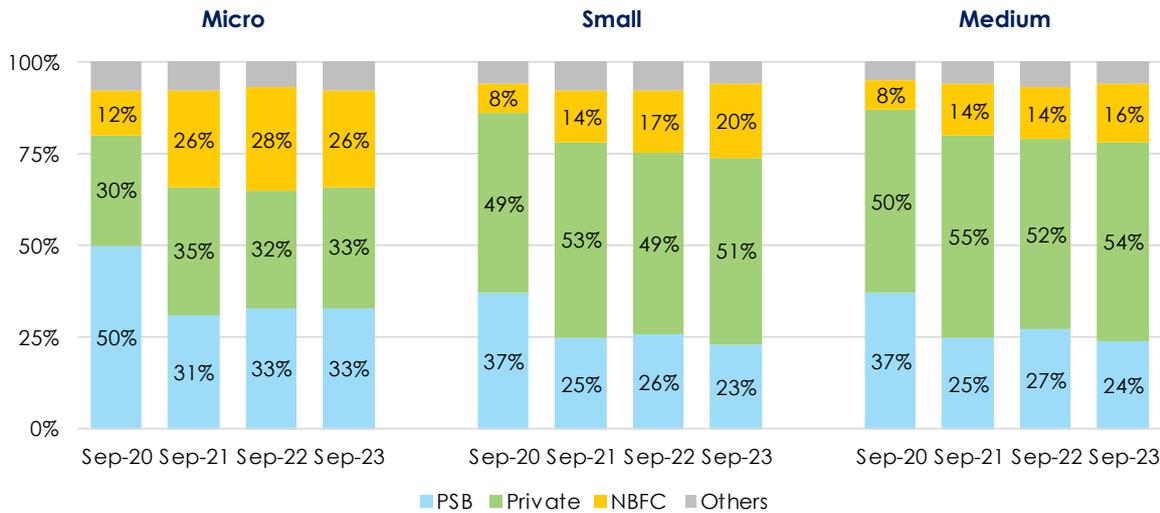
## NBFCs gaining market share in MSME Loans

The MSME loan portfolios of NBFCs are growing at a faster pace than those of PSU and private sector banks. The RBI data shows that the MSME loan book of NBFCs has grown at a CAGR of over 30% between FY 2021 and FY 2023, compared to around 17% for private banks and 9% for PSU banks. Over the last three years, both NBFCs and private banks have gained market share in MSME loans at the expense of PSU banks.

MSME loan focused NBFCs are aggressive and willing to take extra risks to serve customers to whom banks are reluctant to finance. NBFCs, with their small branches and minimal operating costs, have a better reach. In contrast, bank branches which are located in large catchment areas, serve a diverse range of financial needs, and consequently have higher operating costs, making them less competitive.

PSU banks typically serve walk-in customer or source business from DSAs, whereas NBFCs have their in-house sales teams for business acquisitions. The key difference lies in underwriting: banks still rely on legacy appraisal methods involving extensive paperwork, while tech-driven NBFCs have developed their own assessment models backed by data stacks, which are now widely available due to the digitalization of the economy and the formalization of the MSME sector.

**Origination by Lenders across MSME Segment**



In origination of loan, NBFC and Private Banks are gaining market share from the PSU Banks. Data Source: MSME Pulse – February 2024 (www.sidbi.in)

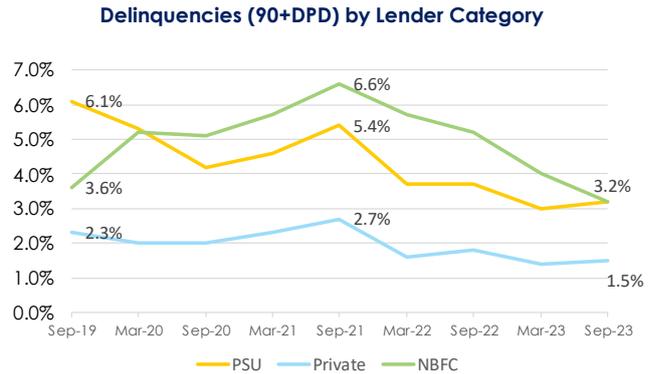
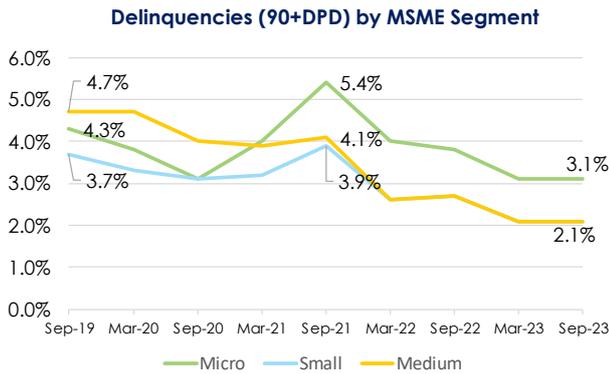
**A higher interest rates on MSME loans – may not be viable in the long term**

The interest rates on MSMEs loans are determined by several factors, including the applicant’s credit profile, strength of the business, the available collateral, and the specific nature of loan requirements. These loans include various types such as working capital loans, bill discounts, overdrafts, supply chain financing, term loans, cash credits, letter of credit, bill of purchase, merchant cash advance, and loans under government schemes, among others. The interest rates on loans provided by PSU banks to MSMEs range from 9.00% to 14% or higher. Interest rates charged by private banks are slightly higher, starting at 10.5% and going up to 25% or higher. For NBFCs, the rates are even higher, in some cases exceeding 30%. At these high interest rates, some NBFCs maintain net interest margin of over 15%.

The key question remains: How do businesses absorb such high interest rates?

**Improvement in MSME Asset Quality**

Post pandemic, there has been a significant improvement in asset quality across MSME segment. At the end of September 2023, the overall balance-level delinquencies, measured as 90 days-past-due to 720 days-past-due and including substandard reports, have substantially improved across the MSME segment and various lender categories. Among lenders, private banks have consistently maintained low level of delinquencies. NBFCs, which were worst affected during the pandemic, have shown gradual improvement.



Post Covid-19 there have been a substantial improvement in delinquencies. Data Source: MSME Pulse – February 2024 ([www.sidbi.in](http://www.sidbi.in))

## Developments Towards an Improved MSME Credit Ecosystem

Reason for Poor SME Credit	Solutions/Initiatives
<b>No Collaterals/Limited Collaterals</b>	<p><b>CGTMSE</b></p> <p>The Government, through the Credit Guarantee Fund Trust for Micro, Medium and Small Enterprises (CGTMSE), has addressed the issue to some extent. The original scheme was launched in the year 2000 and has since undergone a series of modifications. In 2023, the maximum credit guarantee limit under this scheme was increased from INR 20 million to INR 50 million.</p> <p>Most importantly, the annual guarantee fee was reduced from 2% to 0.37% for loans up to INR 10 million. Given the typically low-ticket size of MSME loans, this development has immensely benefitted borrowers. According to the 2023 annual report of CGTMSE, more than 11 million cumulative guarantees were approved, with a total guarantee amount exceeding INR 4 trillion under this scheme.</p>

## Reason for Poor SME Credit

## Solutions/Initiatives

### Limited data on borrowers and lengthy application process

### India Stack and digitalization of MSME credit system

Over the years, India has developed India Stack, a digital infrastructure that addresses key challenges in customer background verifications, financial history check, past track records, and recent financial conditions. By integrating various application programming interfaces (APIs), this system has streamlined the onboarding process for MSME customers, making it significantly easier than it was just a few years ago. With data from sources such as Udyam, the GST portal, ITR filings, and linked bank accounts, lenders can now digitally assess the creditworthiness of borrowers. This innovation has not only expanded formal credit access for a large number of MSMEs but has also substantially reduced loan processing time. In addition to loan appraisal and disbursal, digital tools like AI and machine learning have enhanced the overall customer experience and expectations.

### Concluding Thought

Backed by innovation, diversification, and sustainable practices, the Indian economy is poised for exponential growth by 2047, marking 100 years of independence. MSMEs will play a pivotal role in this transformation. The share of formal credit in meeting MSMEs' overall credit needs is set to rise significantly, driven by formalization, government initiatives, and digitalization.

While banks, which provide the majority of MSME loans, have adopted a cautious approach, NBFCs are pursuing a more aggressive strategy. However, the high interest rates on MSME loans remain a concern. We expect that these issues will be resolved over time, enabling MSMEs to contribute more significantly to the nation's progress.

# Abbreviations

Full Name	Abbreviation	Full Name	Abbreviation
Gross Domestic Product	GDP	Financial services	FS
International Monetary Fund	IMF	Software as a Service	SaaS
United States Dollar	USD	Central Bank Digital Currency	CBDC
United States of America	USA	Development Bank of Singapore	DBS
Non-performing asset	NPA	Anti- Money Laundering	AML
Indian Rupee	INR	Know Your Customer	KYC
Reserve Bank of India	RBI	Return on Investment	ROI
Gross Value Added	GVA	Information Technology	IT
Financial Technology	Fintech	Operations	Ops
Artificial Intelligence	AI	Reserve Bank of India	RBI
Machine Learning	ML	Financial Year	FY
Generative Artificial Intelligence	Gen AI	Generation Z	Gen Z
Application Programming Interface	API	Automated teller machine	ATM
Robotic Process Automation	RPA	Micro, Small & Medium Enterprises	MSMEs
Decentralized finance	DeFi	Customer Relationship Management	CRM
Accredited Data Recipients	ADRs	Consent Management Services	CMS
Payment Services Directive 2	PSD2	Anything-as-a-service	X-a-a-s
General Data Protection Regulation	GDPR	International Finance Corporation	IFC
European Union	EU	Compound Annual Growth Rate	CAGR
Electronic Commerce	E-Commerce	Small Industries Development Bank of India	SIDBI
Unified Payment Interface	UPI	Udyam Registration Certificate	URC
Retail Internet Banking	RIB	Udyam Assist Platform	UAP
Corporate Internet Banking	CIB	Informal Micro Enterprises	IMEs
Electronic Know Your Customer	eKYC	Unique Identification Authority of India	UIDAI
One Time Password	OTP	Authentication User Agency	AUA
American Standards Association	ASA	Digital Personal Data Protection Act, 2023	DPDPA
National Payments Corporation of India	NPCI	National Sample Survey	NSS
Subject Matter Expert	SME	Non-Banking Financial Company	NBFC
Questions and Answers	Q&A	Direct Selling Agent	DSA
Buy now pay later	BNPL	Public Sector Banks	PSB
Equated monthly instalments	EMI	Credit Guarantee Fund Trust for Micro, Medium and Small Enterprises	CGTMSE
Banking, Financial Services and Insurance	BFSI		
General Data Protection Regulation	GDPR		



## Sumedha Fiscal Services Ltd

- Founded in 1989, Sumedha Fiscal Services Limited (SFSL) has evolved into a prominent financial services company, marked by a resolute and committed journey.
- Our array of services encompasses Debt Syndication, Financial Restructuring, Stressed Asset Resolution, Mergers and Acquisitions, Equity Placement, Valuation, Takeover, Delisting and buyback, Initial Public Offering, and Mutual Funds Distribution.
- SFSL has promoted Sumedha Management Solutions Pvt Ltd as Insolvency Professional Entity.
- SFSL has a pan-India presence across five locations with offices in Kolkata, Mumbai, Delhi, Ahmedabad, and Bangalore.
- SFSL is managed by a group of eminent chartered accountants with vast experiences in various financial sectors supported by about 65 members well-knit team of experienced professionals across the industry.
- It shares a strong relationship with corporates, banks, financial institutions, PE Funds, distressed assets funds & ARCs.

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## Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society, through advisory and consultative processes.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, with around 9,000 members from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 365,000 enterprises from 294 national and regional sectoral industry bodies.

For more than 125 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. CII charts change by working closely with Government on policy issues, interfacing with thought leaders, and enhancing efficiency, competitiveness, and business opportunities for industry through a range of specialized services and strategic global linkages. It also provides a platform for consensus-building and networking on key issues.

Through its dedicated Centres of Excellence and Industry competitiveness initiatives, promotion of innovation and technology adoption, and partnerships for sustainability, CII plays a transformative part in shaping the future of the nation. Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes across diverse domains including affirmative action, livelihoods, diversity management, skill development, empowerment of women, and sustainable development, to name a few.

For 2024-25, CII has identified "Globally Competitive India: Partnerships for Sustainable and Inclusive Growth" as its Theme, prioritizing 5 key pillars. During the year, it would align its initiatives and activities to facilitate strategic actions for driving India's global competitiveness and growth through a robust and resilient Indian industry.

With 70 offices, including 12 Centres of Excellence, in India, and 8 overseas offices in Australia, Egypt, Germany, Indonesia, Singapore, UAE, UK, and USA, as well as institutional partnerships with about 300 counterpart organizations in almost 100 countries, CII serves as a reference point for Indian industry and the international business community.

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