LSI Financial Services

Confederation of Indian Industry

Turnaround in the Indian Banking Sector – A Fact Check

Executive Summary:

- According to the recent announcement made in the Union Budget of 2019, India aims to be US$ 5 Trillion by 2024-25 and for achieving this the country needs to grow at a rate of 8% to 9% every year.
- The mounting level on non-performing assets have negatively affected the Indian banking sector. To assess the situation Reserve Bank of India (RBI) also started the process of Asset Quality Review in 2016 across the Public and Private sector banks.
- Many of the Public sector banks identified with huge NPA were put under Prompt Corrective Actions (PCA) for controlling their credit deployment activities. It helped banks to increase its Statutory Liquidity Ratio (SLR) holdings at a CAGR of 8.85% between FY14 to FY19, but the net profit of the banking business also reduced.
- The Reserve Bank of India's Financial Stability Report reveals the first half-yearly decline in the ratio of Gross Non-Performing Assets (GNPA) to advances since September 2015. The ratio across all Scheduled Commercial Banks (SCBs) has eased to 10.8% as of end-September 2018, from 11.5% in March 2018, with both public sector and private sector lenders posting drops in the key indicator of bad loans.
- Provision Coverage Ratio (PCR) of all SCBs rose sharply to 60.6 % in March 2019 from 52.4% in September 2018 and 48.3% in March 2018, increasing the resilience of the banking sector. As per RBI estimates, SCBs' GNPA ratio may decline from 9.3% in March 2019 to 9.0% in March 2020.
- High corporate NPAs have increased pressure on corporate banks. Segmental profiles of NPA show that the large and mid-corporates have taken the biggest hit. It is evident that banks want to increase the share of retail loans in their total advances even though corporate banking has traditionally contributed 40% - 60% of the profits at most banks (and up to 80% for some foreign banks operating in India).
- Indian Bankruptcy Code or IBC was launched in 2016 to deal with the innumerable bankruptcy cases with Indian banks. The gross NPA ratio decreased from 11.5% to 9.3% between March'18 to March'19 after the implementation of IBC. Till Jun'19, the average recovery rate of all the resolved cases has been 41.73%.
- Apart from the use of internet, the Indian banking industry has been also experiencing the active presence of fintech or financial technology for some times. Emergence of the trends like blockchain, artificial intelligence, cloud computing etc. are expected to bring some revolutionary changes with their innovative features like payment banking, optical character recognition system for capturing documents, humanoid chatbots for customer interactions and many more.

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FOREWORD by CII

The banking sector plays an important role in promoting economic growth not only by channelling savings into investments but also by improving allocative efficiency of resources. The Indian banking sector has witnessed wide ranging changes under the influence of the financial sector reforms initiated during the early 1990s. The approach to such reforms in India has been one of gradual and non-disruptive progress through a consultative process. India's financial system has remained stable, and the banking sector shows signs of improvement, even though the global economic environment and the emerging trends in financial sector pose challenges.

At present the prolonged spell cast on banks by Non-Performing Assets (NPAs) seems to be lifting making it appear to be on course to recovery. As per Reserve Bank of India's Financial Stability Report, macro-stress tests for credit risk indicate that under the baseline scenario, Scheduled Commercial Banks GNPA ratio would narrow from to 9.3% in March 2019 to 9.0% in March 2020.

With an aim to accelerate the economic growth of India, the recent announcement of mega bank merger of PSBs came to strengthen the economy. Under the bank reforms and consolidation plan, the government would infuse an upfront capital of Rs 55,250 crore in the banks for their growth. The banking sector will play the most pivotal role towards paving the way for India to achieve the targeted $5 Trillion economy.

In this context, CII is organizing the 12th edition of Banking Colloquium to deliberate on the recent developments in the Banking sector and to expand the knowledge base about the different conceptual frameworks and futuristic initiatives on digital banking in the respective areas towards achieving the goal.

With "Turnaround in the Indian Banking Sector - A Fact Check" being the subject matter of the CII-LSI Report, considerable time and energy has been devoted to identifying the key factors which can pave the way for a turnaround of the banking sector and in turn overall economy in India. Not only has the research done a sector-wise performance analysis in this changing economic dynamics, it also delved into the recent policy and technological developments which would stimulate the turnaround of the sector.

We hope that the readers would find this report useful.

Mr Chandra Shekhar Ghosh
Chairman, CII Eastern Region &
MD & CEO, Bandhan Bank Ltd

FOREWORD by LSI

The Indian banking scenario is definitely on the cross roads. Never before such stress has manifested itself in the history of Indian banking.

The bullish banking undertaken during the decade 2004/05 to 2014/15 started taking its toll in 2012/13, accounts started manifesting stress. All banks were chasing the mirage of growth in top line without paying heed to their risk appetite, core competency etc. It was, probably a sort of a gold rush. When this mad scramble burnt itself out, the banks were left holding the NPAs and fraud accounts. Every PSB, to a large or small degree took a beating and the bottom line of 14 PSBs were red for two consecutive years. This had kicked in the PCA plan of the RBI.

Various RBI schemes were formulated to contain the stress. But unfortunately, nemesis caught up. None of the schemes of RBI actually delivered as planned. Finally, the IBC was passed as an Act in 2016. This also has delays and the expectations of ultra- quick resolution of stressed assets to a large degree has not been happening. Further, the recovery rate for the Banks is woefully low, averaging around 42%.

The post facto examination of these stressed accounts brought in new concerns of misappropriation, diversion and defalcation of the Banks funds. This again triggered, as per laid down norms, enquiries by the various Government departments.

The whole effect of all the above is that the funding of existing and new projects has dried up. Bankers are not inclined to take exposures because of the economic situation, PCA restrictions, native prudence, etc. In effect, the investments for capital formation, setting up industries etc all have practically come to a halt. This has a negative impact on job creation and resultantly consumer demand is hit badly.

Thus, with this backdrop, what we need to examine is how do we **Turn Around the Banking Sector** because to do an economic recurve, Banks are the ultimate panacea.

The basic things which come to mind are: mindset changes, skill building, risk identification, further mergers etc.

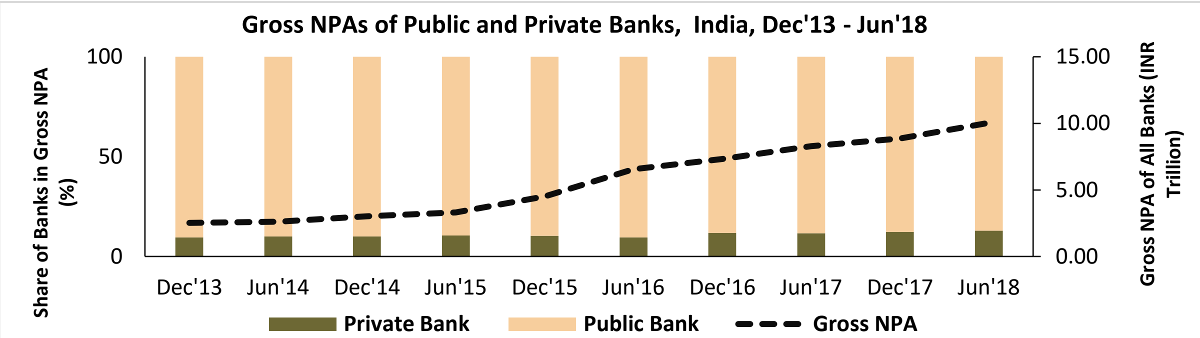
It is hoped that this Conclave, with participation by such luminaries, will throw up solutions, suggestions etc. for Turning Around the Banking Sector.

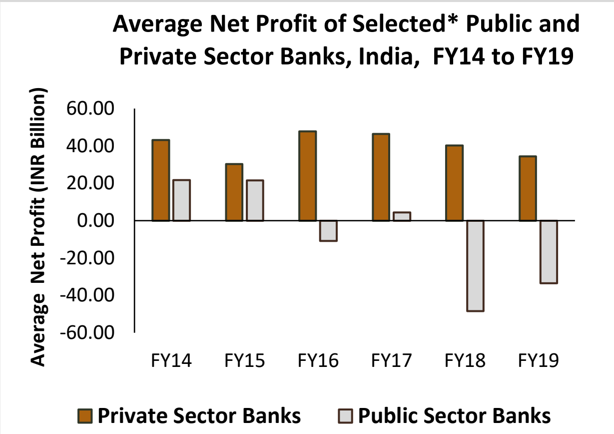
Jyoti Ghosh
Director, LSI Financial Services Pvt. Ltd

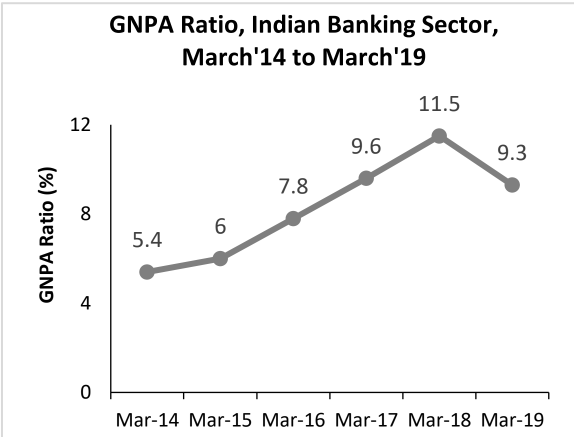
1 Indian Banking Sector Performance in the Recent Past

Banks in India are primarily engaged in deposits and loans or advances business. Investment portfolio happens to be there but it has not taken off because there is no depth in the bond market. Most of the investment businesses done by the treasuries of Indian banks, especially the Public Sector Banks and the Private Sector Banks revolve majorly around maintenance of Statutory Liquidity Ratio (SLR) & Cash Reserve Ration (CRR).

The role of banking sector is always crucial in the economic progress. The crisis generated out of the Non-Performing Asset or NPA portfolio has affected all the public sector banks. In 2018, the PNB stunned the whole market and its stakeholders after the revelation of fraudulent transactions worth INR 114 Billion. The assessment of the NPA actually started with the Asset Quality Review (AQR) of RBI. The process was maintained for a period of time when suddenly RBI cracked down and immediately gave instructions for the identification of NPA. AQR is not an annual or a regular exercise but an additional and random inspection conducted by RBI for examining the genuine status of the bank assets. Based on the matter of rising NPA, RBI conducted an inspection on the balance sheets of some selected banks in 2015. The report from this inspection is termed as AQR. Thereafter, large numbers of banks especially the PSBs landed into serious asset quality problem whereby the provisioning requirements were generated due to growth of NPAs. This resulted in the balance sheets showing huge losses. Between FY06 to FY18, NPAs in the public and private sector banks grew at a CAGR of 28.9% and 25.4% respectively.





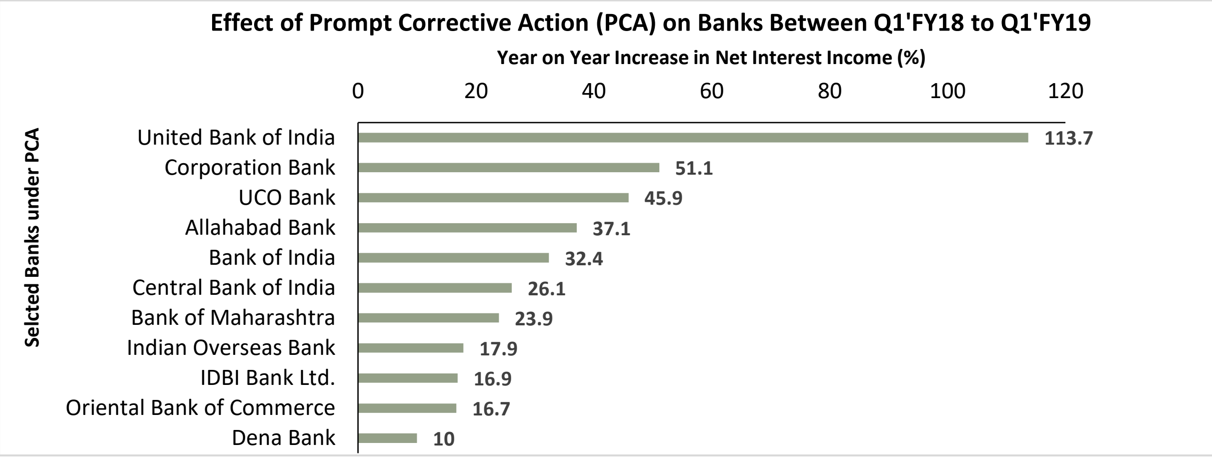


*: 15 Public Sector Banks and 7 Private Sector Banks

Source: Reserve Bank of India, First Post, LSI Research

However, after the implementation of IBC (Insolvency and Bankruptcy Code) in 2016, things started to improve. In March'19, the GNPA ratio declined to 9.3% against the 11.5% of March'18. The crisis has already impacted the whole economy negatively and further recovery will definitely take time. However, the process has not come to an end. Along with the management of bankruptcy cases of large loans, the banks are now finding huge stress building up in the SME and Retail Segments.

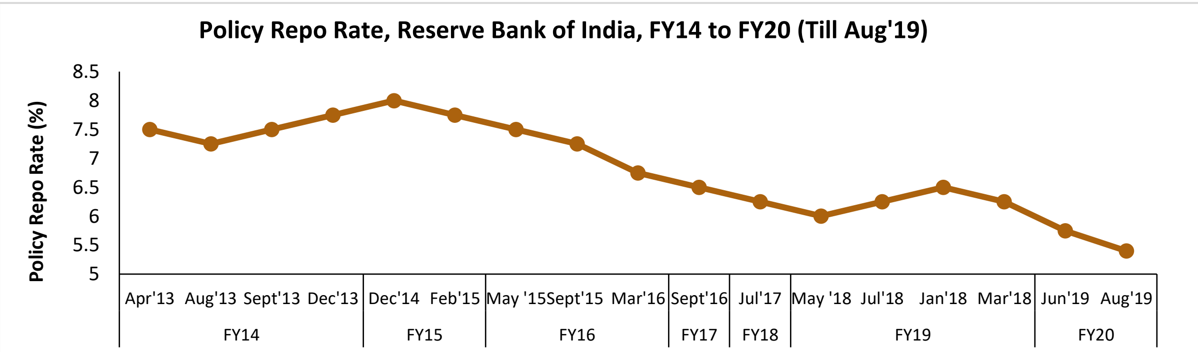
Presently the fraud cases in banking sector leading to numerous bankruptcies, collapse of pivotal financial entities and liquidity crunch have caused serious hindrances in the flow of money supply in the economy. After the intervention of Reserve Bank of India, the lending process of banks also got curbed. A total of 11 Public sector banks were identified by Reserve Bank of India for Prompt Corrective Action or PCA between February 2014 to January 2018 for not maintaining a desirable level of capital which restricted their business activity. The PCA is about helping a weak bank to take corrective actions for restoring its financial health. According to a recent published data, as an effect of PCA imposition, the selected banks witnessed a growth in the net interest income between Q1'FY18 to Q1'FY19. Bank of India, Bank of Maharashtra and five more banks had already been taken out of PCA in the last quarter of FY19 due to their improved performances.



Source: Livemint, Capitalline, LSI Research

Moreover, the series of internal crises of all the sectors like Automobile, Real Estate, Agriculture etc. are causing wide range of layoffs of workers and lowering down of both the rural and corporate wages and job creation. The unemployment rate which used to roam around 2% to 3% in the previous years has climbed up to 6% according to a recent report. So, the lower consumption in the economy is an obvious situation.

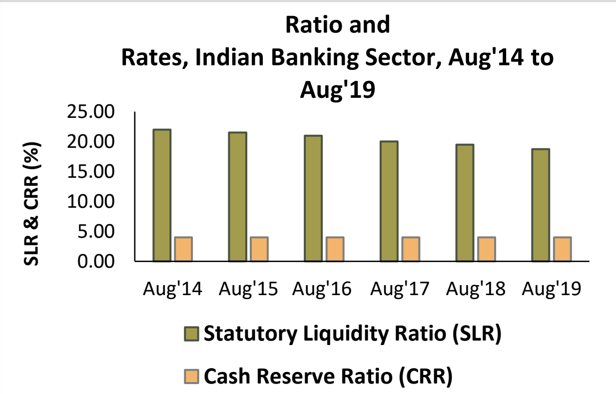
The Reserve Bank of India (RBI) is cutting the repo rate in each quarter continuously. The agenda is to deal with the economic slowdown and maintain an accommodative monetary policy.

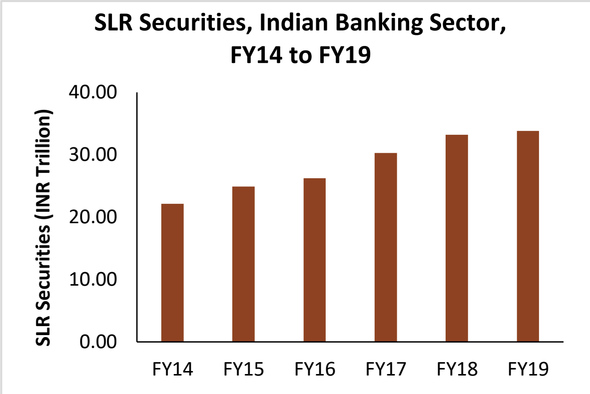


Source: Reserve Bank of India, LSI Research

Interest rate cuts or lowering the interest rate is not the panacea for all economic ills presently threatening India. It is only one side of the coin; the other side is that a sustainable demand needs to be created. Then only the industries will perk up and produce more and generation and circulation of money will take place. In all, the central bank has cut interest rates by 110 bps this year but this has not yet boosted the economic activities. While the growth rate has slowed to a six-year low, consumer confidence is waning and foreign direct investment has plateaued and presently on a downward curve.

Besides, the SLR fixed by the RBI has reduced marginally over the years but the tendency of the Indian banks of securing the SLR holdings have increased. Between FY14 to FY19, the SLR securities holdings of the banks have risen at a CAGR of 8.85%. As discussed earlier, many banks were under the PCA in the last few years which restricted their access to make capital intensive investments. Since SLR is risk free, banks preferred to stock excess funds in the SLR bonds. In the process, the interest income of the banks reduced by investing in less risk laden government securities. However, going forward when the credit demand will increase in the economy, the banks will liquidate their excess holdings in government securities.





Source: Reserve Bank of India, LSI Research

The overall banking sector currently seems to be in a recovery state after being affected by the huge amount of stressed assets, sectoral slowdown and several other monetary issues. The ending of FY19 on a relatively better note compared to FY18 was an indication towards it. The credit and deposit growth rate were 13.23% and 9.99% in FY19 compared to 9.85% and 6.15% of FY18 respectively. This is expected that the recapitalisation of public sector banks helps to improve their financials. Besides, further cases of resolution of stressed assets under the IBC are also there to recover written off amounts and also write back of provisions – both will add to the bottom lines of the Banks. It is expected that increased credit off take will generate renewed confidence in the banking system.

2 Is the Indian Banking Sector Heading Towards A Turnaround?

The fog of bad loans shrouding the banking sector appears to be lifting after a long period of sustained stress. The Reserve Bank of India's Financial Stability Report reveals the first half-yearly decline in the ratio of Gross Non-Performing Assets (GNPA) to advances since September 2015. The ratio across all Scheduled Commercial Banks (SCBs) has eased to 10.8% as of end-September 2018, from 11.5% in March 2018, with both public sector and private sector lenders posting drops in the key indicator of bad loans.

However, state-owned banks continue to have higher levels of bad loans than their private sector peers and are projected to show slower improvements over the second half of the fiscal. The GNPA ratio for Public Sector Banks (PSBs) lowered minimally to 14.6% in March 2019, from 14.8% in September 2018. One reason is that PSBs have a disproportionately higher share of bad loans from among large borrowers, who accounted for almost 55% of loans advanced by all banks as of September 2018. The GNPA ratio for this category at PSBs was 21.6%, compared with just 7% at private banks.

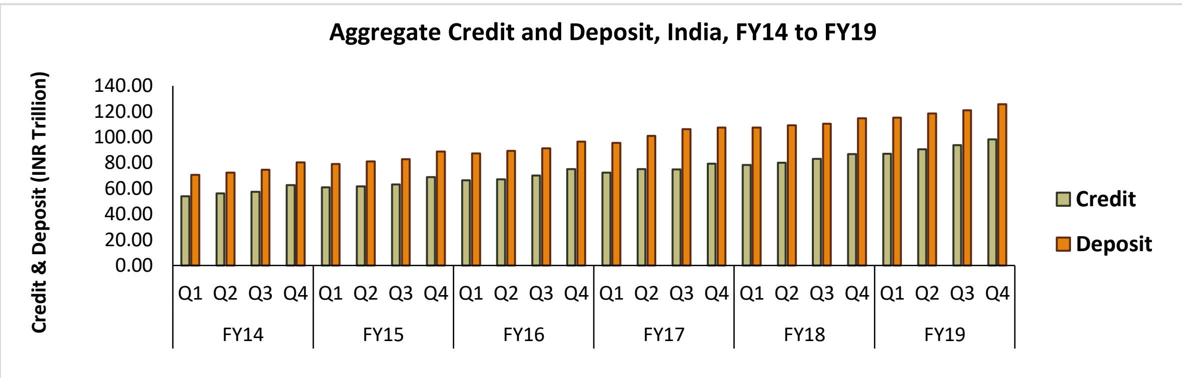
Credit growth of SCBs picked up, with PSBs registering near double digit growth. Capital adequacy of the SCBs improved after the re-capitalisation of PSBs. With the bulk of the legacy NPAs already recognised in the banking books, the NPA cycle seems to have turned around. Provision Coverage Ratio (PCR) of all SCBs rose sharply to 60.6% in March 2019 from 52.4% in September 2018 and 48.3% in March 2018, increasing the resilience of the banking sector.

As per RBI estimates, SCBs' GNPA ratio may decline from 9.3% in March 2019 to 9.0% in March 2020.

Banking Sector Scoreboard

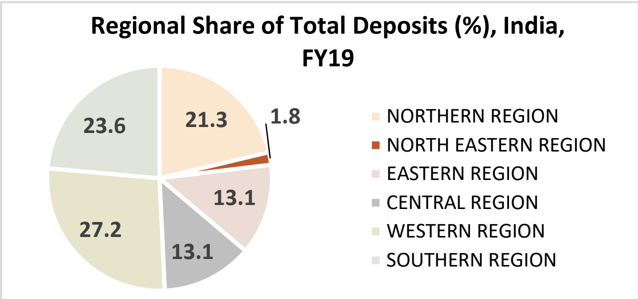
1. The growth story of credit and deposits

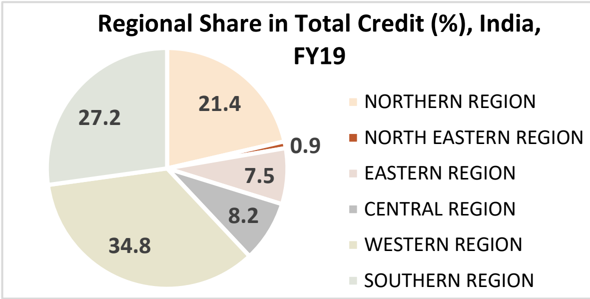
- Credit off-take has surged in the past decade, aided by strong economic growth, rising disposable incomes, increasing consumerism & easier access to credit.
- During FY07-18, credit off-take grew at a CAGR of 10.94%. As of Q4 FY19, total credit extended surged to INR 98.18 trillion. Demand has grown for both corporate & retail loans; particularly the services, real estate, consumer durables & agriculture allied sectors have led the growth in credit.



Source: Reserve Bank of India, LSI Research

- Credit to non-food industries increased by 12.3 % year-on-year reaching INR 86.33 trillion in March 29, 2019.
- During FY07–18, deposits grew at a CAGR of 11.66 % and reached INR 107.45 trillion by FY17. Deposits at the end of Q4 FY19 (as of Dec 2018) stood at INR 125.59 trillion.
- Strong growth in savings amid rising disposable income levels were the major factors influencing deposit growth.
- Access to banking system has also improved over the years due to persistent government efforts to promote banking-technology and promote expansion in unbanked and non-metropolitan regions.
- The western region of India is responsible for contributing in the major share of both credit off-take and deposits maintained in Indian banking system. As of May 29, 2019, the deposit and credit share of the region was 27.2% and 38.4% respectively.

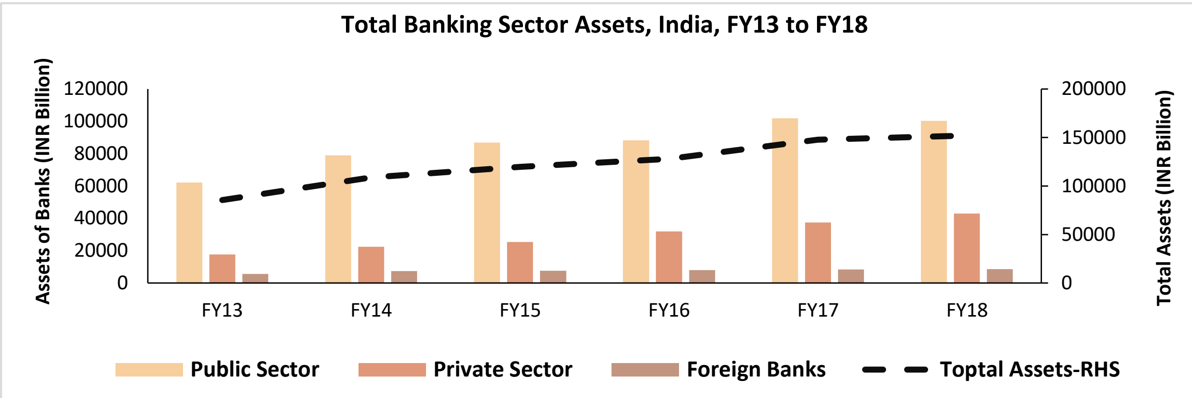




Source: Reserve Bank of India, LSI Research

2. Asset Base Expanded

- FY13-18 saw growth in assets of banks across sectors. Total banking sector assets (including public, private sector and foreign banks) have increased at a CAGR of 7.01% to INR 151.98 trillion during FY13–18.
- In FY18, total assets in public and private banking sector were INR 100.35 trillion and INR 42.99 trillion, respectively.



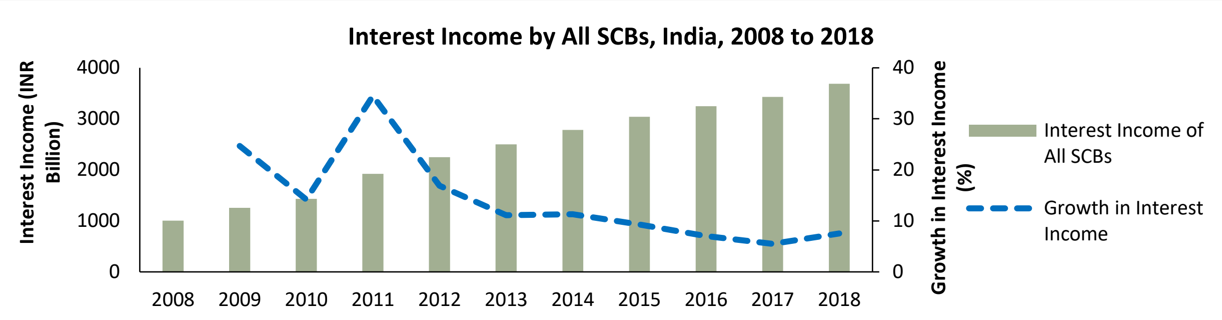
Source: Reserve Bank of India, LSI Research

- Assets of public sector banks account for 66.03% of the total banking assets (including public, private sector and foreign banks).
- Private sector assets expanded at a CAGR of 12.68 % during FY13–18, while foreign banks posted a growth of 4.25% during FY13–18.
- Foreign banks' assets reached INR 8.65 trillion in FY18.

3. Growth in Interest Income

Public sector banks accounted for over 64.98% of interest income in the sector in FY18.

- Public sector banks lead in interest income growth with a CAGR of 6.61% over FY09-18.



Source: Reserve Bank of India, LSI Research

- Overall, the interest income for the sector (including public, private sector and foreign banks) has grown at 7.55% CAGR during FY09-18.
- Interest income of all SCBs stood at INR 3684.7 billion in FY18.

4. Growth in Other Income

- Public sector banks account for about 58.92% of other income.
- ‘Other income’ for public sector banks has risen at a CAGR of 8.01% during FY09-18 and stood at INR 1100.8 billion in FY18.
- Overall, ‘other income’ for the sector has risen at 7.54% CAGR during FY09-18.
- In FY18, private banking sector’s other income was INR 668.35 billion. Same for the foreign banks reached INR 131.43 billion during this period.

Notable Trends in Banking

- *Improved risk management practices*: Indian banks are increasingly focusing on adopting integrated approach to risk management. Banks have already embraced the international banking supervision accord of Basel II. Interestingly, according to RBI, majority of the banks already meet capital requirements of Basel III, which had a deadline of March 31, 2019. The NPAs (Non-Performing Assets) of commercial banks has recorded a recovery of INR 400,000 crore in last four years including record recovery of INR 156,746 crore in FY19.

- *Diversification of revenue stream:* Total lending has increased at a CAGR of 10.94% during FY07-18 and total deposits has increased at a CAGR of 11.66%, during FY07- 18. India’s retail credit market is the fourth largest in the emerging countries. It increased to INR 18.11 trillion on December 2017 from INR 11.07 trillion on December 2014.

- *Technological innovations:* As of September 2018, total number of ATMs in India increased to 205,866. However, many such ATMs will be closed as a result of adhering to an RBI guideline which rendered them financially unviable. This will also increase dependence of the common people on mobile banking. India stepped up to 28th position on the government's adoption of e-payments ranking in 2018. By 2022, digital assistants, social media and third-party channels are projected to act as primary channels for banking.

- *Derivatives and risk management products:* The increasingly dynamic business scenario & financial sophistication has increased the need for customised exotic financial products. Banks are developing innovative financial products & advanced risk management methods to capture the market share.

- *Consolidation:* Due to the foreign banks, competition in the Indian banking sector has intensified. Banks are increasingly looking at consolidation to derive greater benefits such as enhanced synergy, cost take-outs from economies of scale, organisational efficiency & diversification of risks.

- *Focus towards Jan Dhan Yojana:* Key objective of Pradhan Mantri Jan Dhan Yojana (PMJDY) is to increase the accessibility of financial services such as bank accounts, insurance, pension, credit facilities, etc. mostly to the low-income groups. As of September 2018, the Government of India has made the Pradhan Mantri Jan Dhan Yojana (PMJDY) scheme an open-ended scheme and has also added more incentives. Under the Jan Dhan Yojana, INR 983.20 billion were deposited and 357.5 million accounts were opened in India (up to May 29. 2019). 278.3 million 'Rupay' debit cards were issued to users (as of April 24, 2019).

- *Wide usability of RTGS, NEFT and IMPS:* Real Time Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) are being implemented by Indian banks for fund transaction. Securities Exchange Board of India (SEBI) has included NEFT & RTGS payment system to the existing list of methods that a company can use for payment of dividend or other cash benefits to their shareholders & investors. The number of transactions through Immediate Payment Service (IMPS) increased to 183.33 million in volume and amounted to INR 1.80 trillion in value in May 2019.

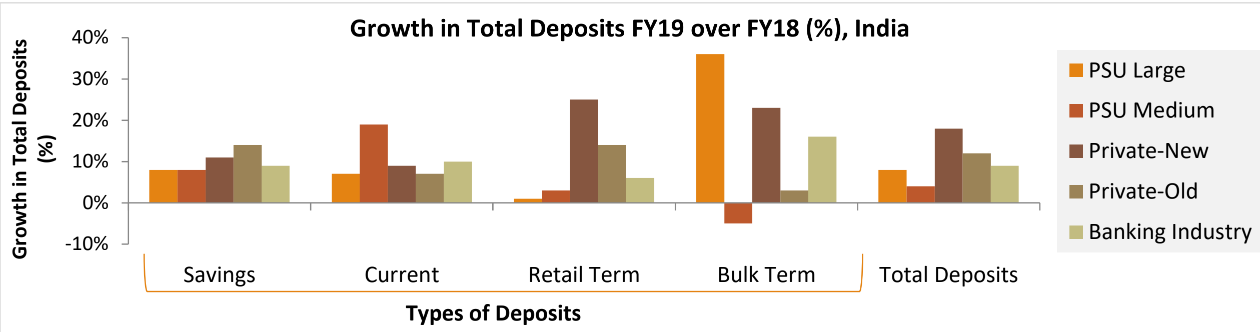
- *Know Your Client:* RBI mandated the Know Your Customer (KYC) Standards, wherein all banks are required to put in place a comprehensive policy framework in order to avoid money laundering activities. The KYC policy is now mandatory for opening an account or making any investment such as mutual funds.

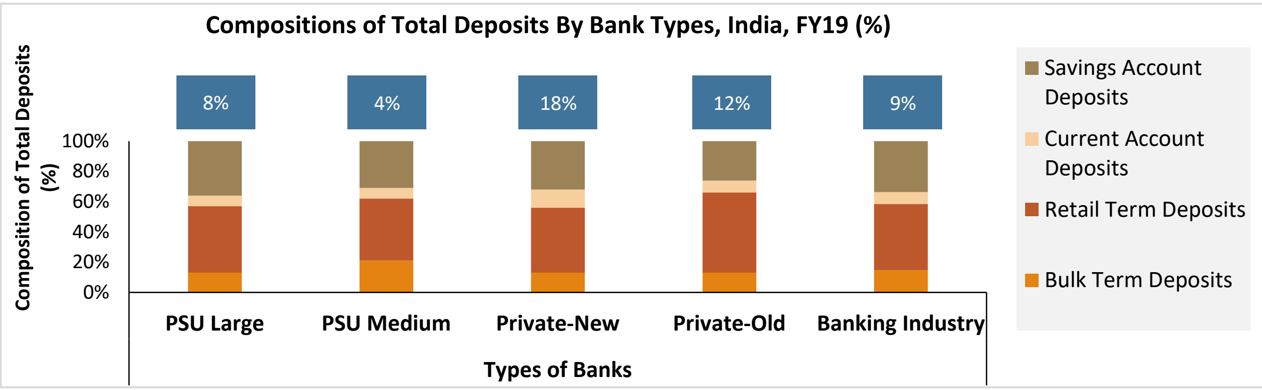
Banking wrap: Budget 2019 lists of measures for financial services sector

1. Rs 70,000 crore capital infusion into public sector banks was announced as an effort to boost credit. PSBs are likely to see a turnaround in profitability given that most of the pain has been recognised and Non-Performing Assets (NPAs) and credit costs are peaking out. This will lead to an improvement in return ratios, experts suggest.
2. In a major step aimed at easing the ongoing stress in the NBFCs, the Centre will lend a helping hand to top-rated entities. To enhance liquidity access for the sector, the government will provide one-time six-month partial guarantee of INR 1 lakh crore to state-run banks for purchasing consolidated high-rated pooled assets of financially-sound NBFCs. This will cover their first loss of up to 10 percent.
3. Several measures to enhance participation in India's debt markets were declared. One of the aims is to direct the much-needed flow of investments to the country's infrastructure sector via debt instruments.
4. The RBI announced liquidity easing measures on July 5 to improve flow of credit to NBFCs and housing finance companies (HFCs), following steps taken by the government to ease stress in the sector. The Reserve Bank has front loaded the increase in Facility to Avail Liquidity for Liquidity Coverage Ratio (FALLCR) by a percent. For banks, the RBI has increased the FALLCR by a percent of their NDTL (Net Demand and Time Liabilities) to the extent of incremental outstanding credit to NBFCs and HFCs.

The stress in India's NBFC sector has contributed to slowdown in consumption as lack of liquidity from mutual funds and banks impaired its lending capabilities to the economy. This may continue to impact growth in the current financial year as well. The improvement in the asset quality of banks over the last financial year is expected to help bring the capex cycle back on track, but concerns remain on sluggish credit growth. As per the Economic Survey released on July 4, 2019, there are signs of continuing resolution of stressed assets in the banking sector.

Growth Scenario of Deposits and Advance in Indian Banks



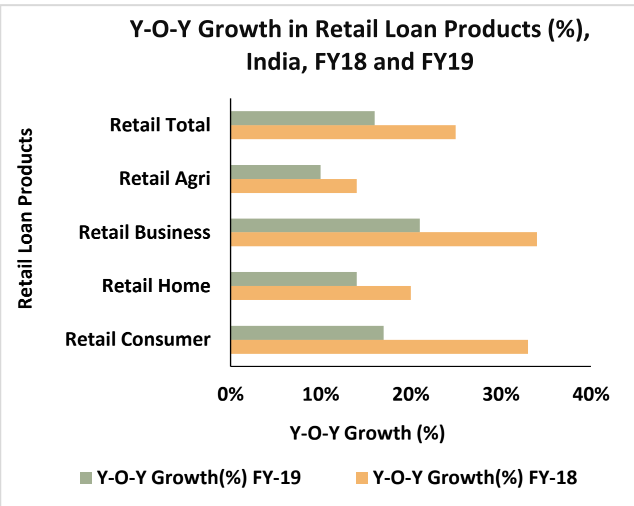


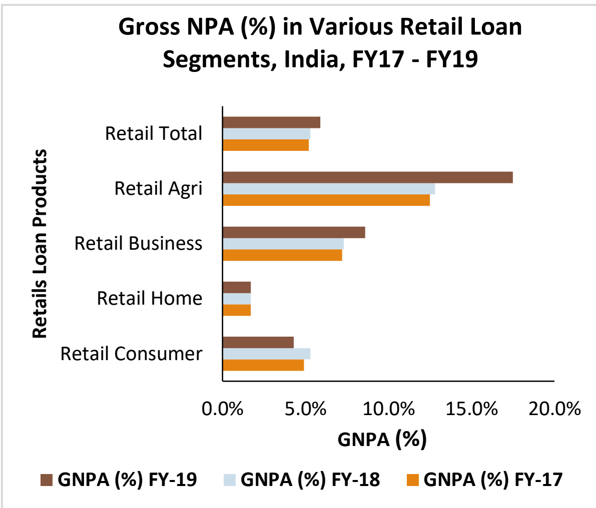
Denotes growth in total deposit within the particular bank type/ banking industry

Source: Reserve Bank of India, LSI Research

Key Takeaway:

- Private-new banks grew retail term deposits the most hence transforming the liability side of their balance sheet.
- Overall growth in deposits was muted with the industry registering a 9% growth in FY19 over FY18; slowest growth in a decade. FY17 saw a growth in deposits of 25% over FY16.

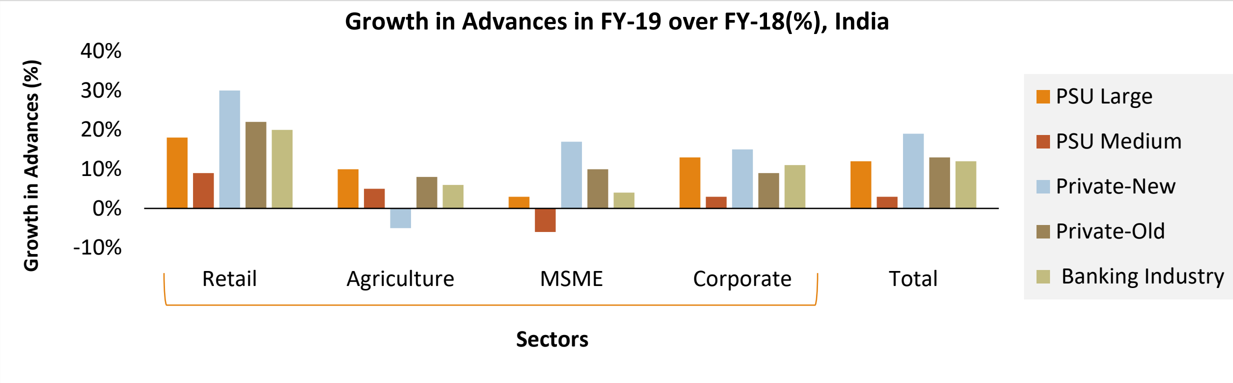


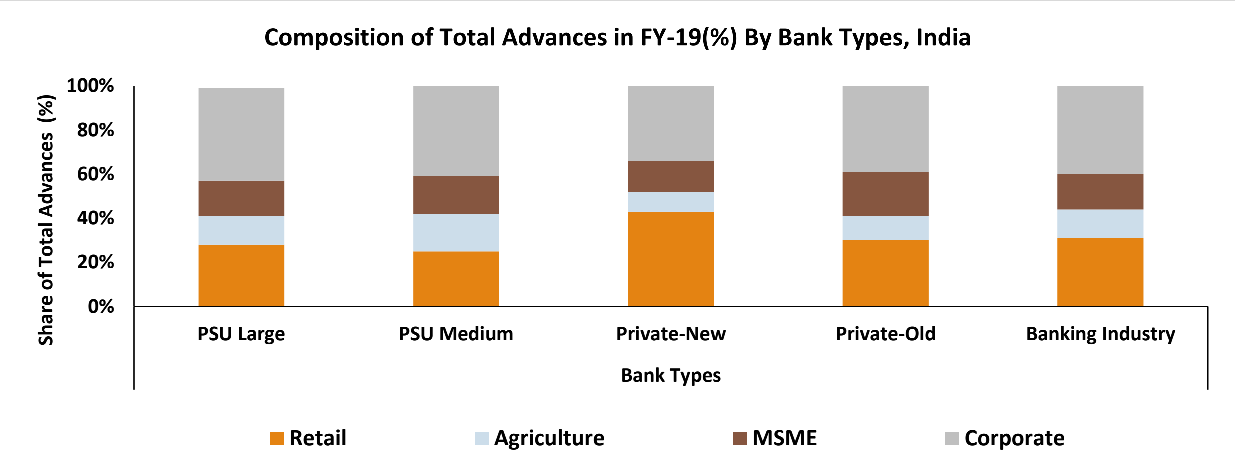


Source: Reserve Bank of India, LSI Research

Key Takeaway:

- Retail loans growth (y-o-y) came down in FY19 as compared to FY18. The difference in growth is maximum in consumer loans followed by business loans.
- While NPA in retail home loans remain under control, retail business loans showed sign of stress. Agri-loans remained a segment under threat.
- Trigger of retail NPA expected due to job losses, downturn in businesses and agriculture.





Source: Reserve Bank of India, LSI Research

Key Takeaway:

- Retail loans continues to grow in FY19 with Private-New banks leading the pack show casing a 30% growth while the retail loans by banking industry grew by 31%.
- Among the bank types, PSU-Medium registered extremely slow growth in advances across the board.

The Bank Consolidation Spree — How Far Will This Help Revive the Indian Banking Sector?

The recent consolidation exercise in the PSBs started in 2017 where 5 of State Bank of India's associate banks merged with the parent bank. In 2018, Dena Bank and Vijaya Bank were merged with Bank of Baroda.

To create a set of strong public sector banks, the government announced a mega merger plan in the last week of August 2019 that amalgamates 10 lenders into four combinations.

The announcement by the Finance Minister, Nirmala Sithraman, is second of her promised three-dose economic booster, came on a day GDP growth hit a six-year low.

Post this mega merger effective form April 2020, India will have 12 public sector banks against 27 two years ago. In the first set of consolidation, Oriental Bank of Commerce and United Bank will be amalgamated with Punjab National Bank. This will form the second largest public sector bank in terms of business and branches. In the second, Syndicate Bank will amalgamate with Canara Bank to form the fourth largest bank in terms of business and the third largest in terms of branch network.

Andhra Bank and Corporation Bank will join Union Bank of India and the new entity will be the fifth largest in terms of business and fourth largest in terms of branches. Finally, Allahabad Bank will become a part of Indian Bank, forming the seventh largest combine in terms of business.

The tables below show the next generation PSBs of India.

Anchor Bank	Amalgamating Bank(S)	Business Size (INR Lakh Crore)	PSB rank by size
Punjab National Bank	Oriental Bank of Commerce United Bank of India	17.94	2nd largest
Canara Bank	Syndicate bank	15.2	4th largest
Union Bank of India	Andhra Bank Corporation Bank	14.59	5th largest
Indian Bank	Allahabad Bank	8.08	7th largest
SBI	SBI Associate Banks	52.05	The largest
Bank of Baroda	Vijaya Bank and Dena Bank	16.13	3rd largest

To Strengthen Regional Focus

Bank	Business Size (INR Lakh Crore)
Indian Overseas Bank	3.75
UCO Bank	3.17
Bank of Maharashtra	2.34
Punjab & Sind Bank	1.71

To Strengthen National Presence

Bank	Business Size (INR Lakh Crore)
Bank of India	9.03
Central Bank of India	4.68

Source: The Hindu Business Line, August 30th, 2019

India's GDP growth slowed to 5% in the April-June quarter. From 8.2% a year ago, growth has fallen sharply quarter after quarter. This is the combined effect of a cyclical global downswing and serious structural flaws that are pulling down long-term growth.

Exports, which revived in 2018 after five years, are falling again. On the manufacturing side, the Purchasing Managers' Index (PMI) decreased to 51.4 in August'19 from 52.5 in July'19. Investment has slumped. The bad loans of banks are shrinking too slowly, and the current slowdown threatens to expand them again. The crisis in NBFC sector arising from the collapse of IL&FS and DHFL is still not over.

Merging of a loss-making bank with a profitable bank

A merger of a loss-making bank is seen as a key revival strategy. RBI norms often prohibit fresh lending for a bank with substantially large non-performing assets. When such small and weak banks are larger in number, regulatory oversight of the government and banking authorities becomes difficult. Such banks also find it difficult to sustain and cover for operational costs. A merger with a successful bank helps pump in the necessary capital required for servicing existing obligations of the weak bank, and the profitable bank also earns in the process – due to the addition of customers, resource base, employees and get access to units in unexplored areas.

How such mergers affect customers?

- ***Access to better facilities:*** The banking sector being very competitive, with almost all banks offering similar deposit and lending services, the key distinguishing element is often the add-on services such as priority lending, access to facilities at home, high rates of interest and flexibility on fixed deposits etc. A merger of two banks helps the customers of both banks access more services and benefit from a larger bouquet of offerings.

- ***Benefit to investors:*** Any news of a merger has a specific impact on its stock indices. For example, after the news of the merger of Vijaya Bank and Dena bank was made public, Dena Bank's stock gained almost 20 percent, while Vijaya Bank's stock witnessed a one percent increase, both of which had been seeing a bearish trend in the past. Thus, mergers also benefit the investors and stock owners. It also gives the hope of a higher rate of return on investment in the future.

- ***Economies of scale & reduced transaction costs:*** A merger of two banks makes it possible to reap the advantages of economies of scale. Since the resource and asset base is combined, the merged entity finds it easier to target new customers and offer better and customized services, owing to its large base of finances. The administrative and operating expenses also reduce, since the same costs are now spread over a large number of customers.

Many economists believe that instead of having many levels of banks present in India, there should be few consolidated large banks having a presence in multiple cities and rural areas. This makes access to banking facilities easier and monitoring efficient, thereby reducing chances of failure in the banking industry. Several weaker public sector banks have been merged with strong ones. Optimists hope the mergers will provide scale economies, and improve management in the weaker banks.

To soak up past losses and recreate lending ability of the weaker banks, the government has pledged to give Rs 70,000 crore for bank recapitalisation, strengthening the bank mergers. This will be a short-term reprieve. But only structural change will prevent public sector banks from sliding downhill again.

3 Trends in Corporate Banking

Globally, corporate banking is going through a turbulent phase. Corporate lending margins are reducing, borrowing is shifting towards capital markets, corporate clients are demanding greater digital experience, fintechs are posing as formidable alternatives and frauds are becoming commonplace. Leading corporate banks are shifting their focus on non-lending products such as transaction banking and deposit products, thereby reducing the capital requirements and potential loan losses from lending.

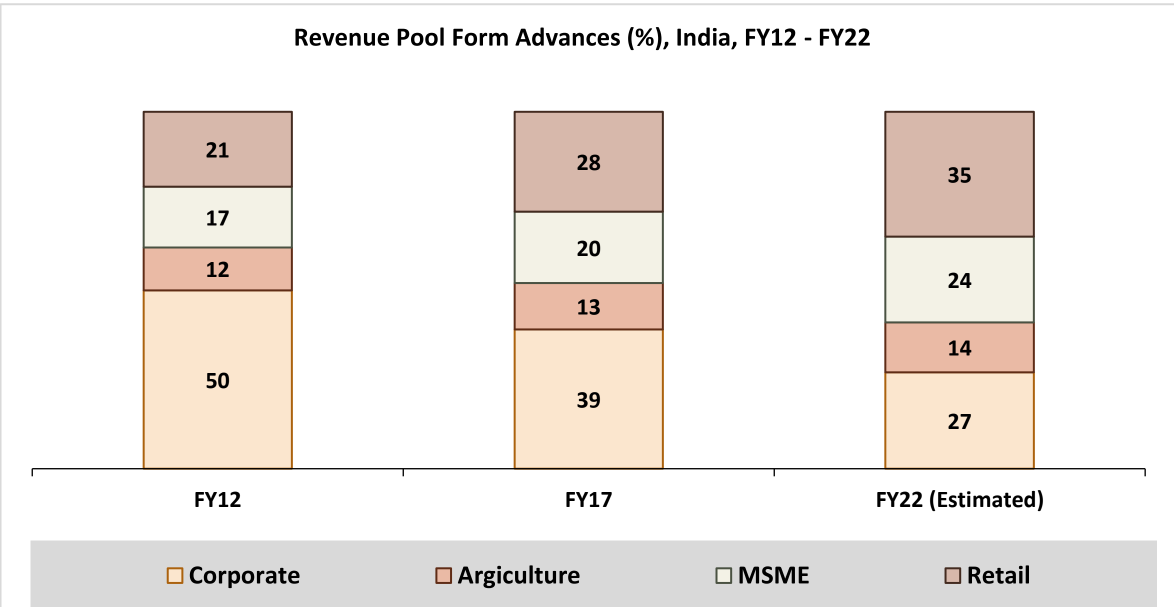
The Indian corporate banking industry is currently operating in a high-pressure environment. On one hand, banks are facing mounting challenges from growing corporate NPAs, bans on Letter of Undertakings (LOUs)/ Memorandum of Understandings (MOUs) and increasing cyber and fraud risks while on the other hand, increasingly sophisticated customers are demanding digital and customized experiences at every point of the journey. Corporate clients in India are not satisfied with the current offerings from their bankers.

What Plagued India's Corporate Banking Sector?

1. % Share of Corporate Banking in Lending Revenue Shrinking

The reduction in % value from corporate banking has primarily been driven by:

- Movement of large ticket credit to wholesale markets
- Lingering bad debts in corporate segments leading to
- lower appetite for corporate lending
- Pressure on lending margins

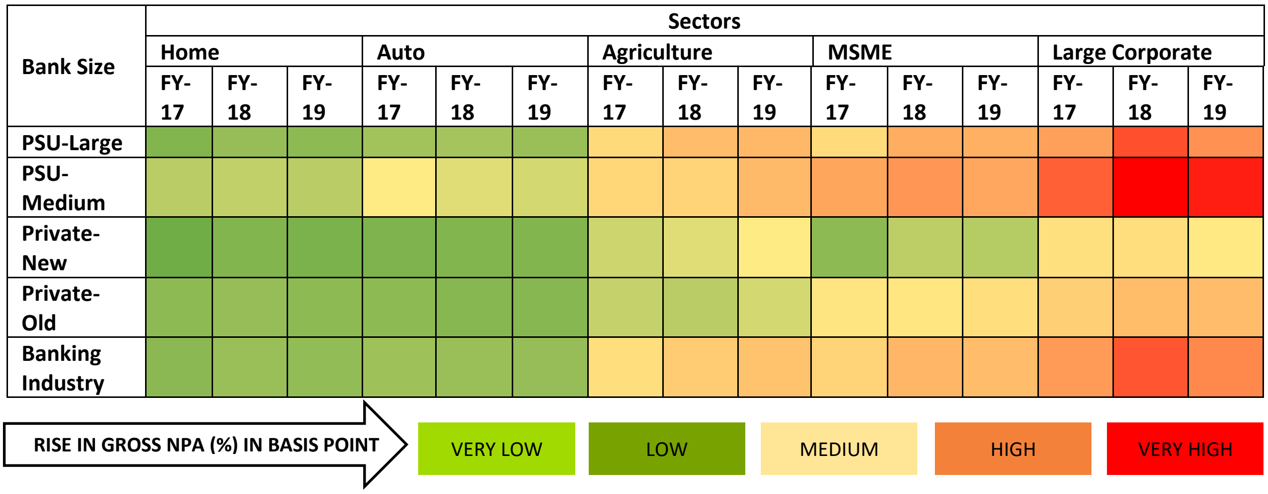


Source: Reserve Bank of India, LSI Research

2. Unprecedented Rise in NPA

- High corporate NPAs have increased pressure on corporate banks
- Segmental profiles of NPA show that the large and mid-corporates have taken the biggest hit. The table below shows the rise in Gross NPA (%) in basis point.

Rise in Gross NPA (%) in Basis Point

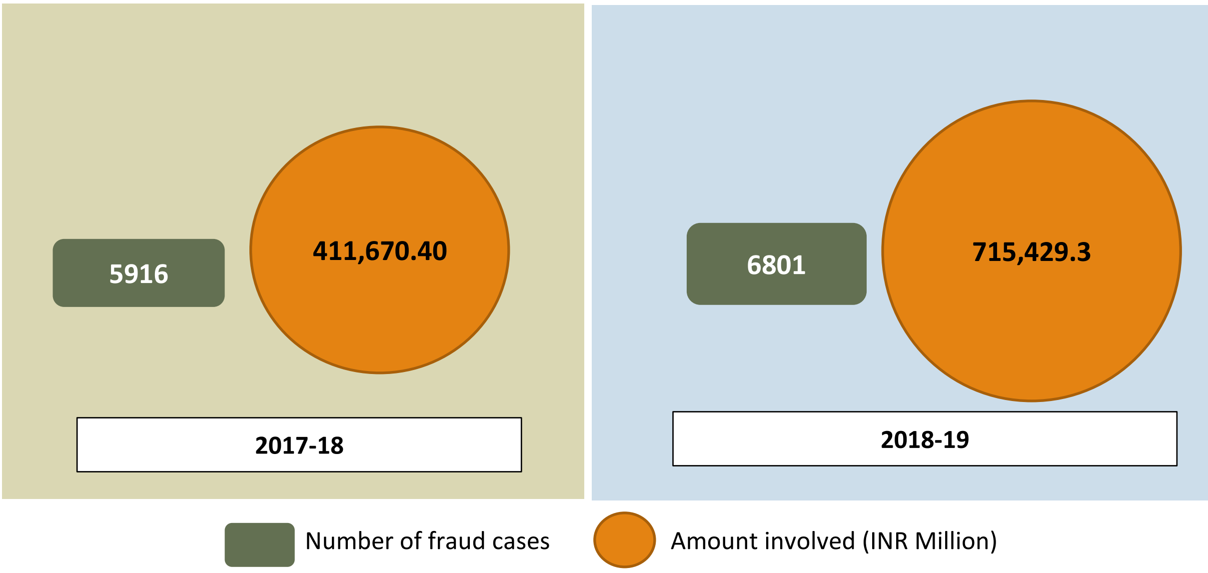


Note: Commercial loans classified into various segments on the basis of ticket size of loan amount disbursed, Micro <1 cr, Small 1cr-25cr, Mid 25cr-100cr, Large >100 cr.

Source: Reserve Bank of India, LSI Research

3.Increasing Fraud Risk

a. Fraud risks have grown manifold in the Indian banking industry
b. According to RBI, Indian banks are losing at the rate of INR 46 crores a day to cheating and forgery. The figure below depicts the increasing amount of losses form cheating and forgery over the years. Given the grim economic situation, banking fraud amount rises by over 70%.



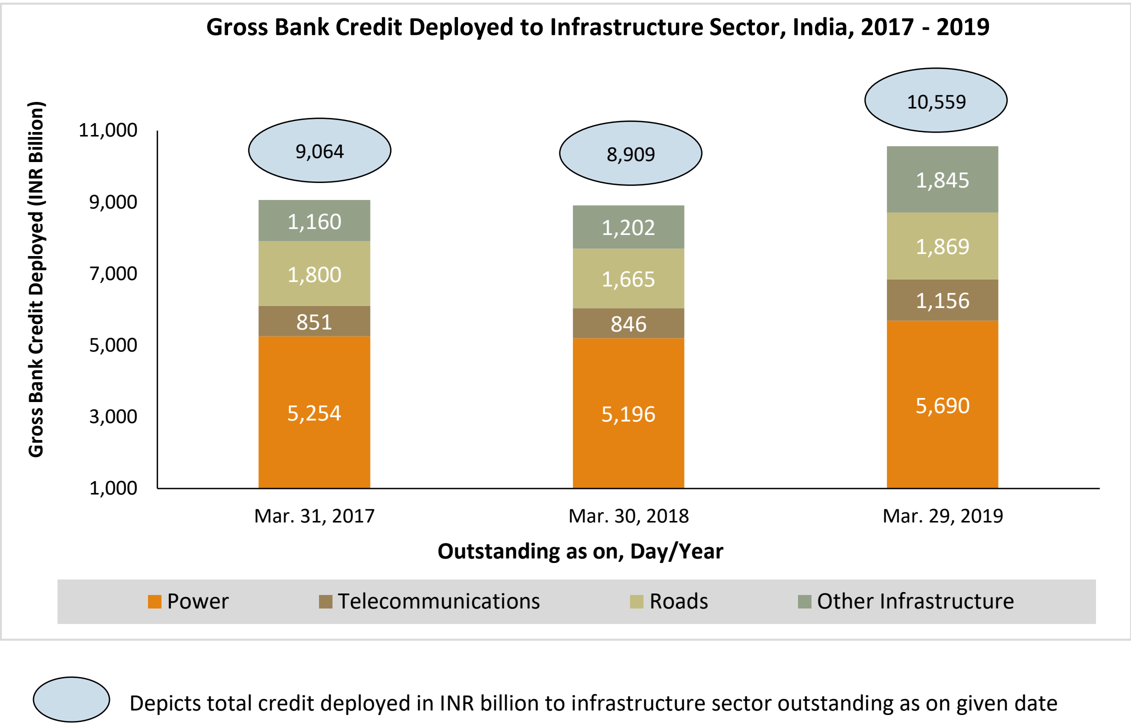
Source: Reserve Bank of India, LSI Research

It is evident that banks want to increase the share of retail loans in their total advances. While corporate banking has traditionally contributed 40%-60% of the profits at most banks (and up to 80% for some foreign banks operating in India), the question is whether this is sustainable. What should corporate banks do to reinvent themselves?

Various Segments of Corporate Banking

Infrastructure / Project Finance

It is being emphasised quite often that the infrastructure sector is a crucial driver for the Indian economy. The sector would be responsible for propelling India's overall development and enjoys intense focus from the Government for initiating policies that would ensure time-bound creation of world-class infrastructure in the country. Infrastructure sector includes power generation and transmission, highways, ports, bridges, dams, industrial zones, railway freight corridors, inland waterways and urban infrastructure development including smart cities, housing, water supply and sanitation. The Global Infrastructure Outlook reflects that rising income levels and economic prosperity is likely to further drive demand for infrastructure investment in India over the next 25 years. Around US$ 4.5 trillion worth of investments are required by India till 2040 to develop infrastructure to improve economic growth and community wellbeing. The current trend shows that India can meet around US$ 3.9 trillion infrastructure investment out of US$ 4.5 trillion. The cumulative figure for India's infrastructure investment gap would be around US$ 526 billion by 2040.



Source: Reserve Bank of India, LSI Research

According to RBI's Financial Stability Report while NPAs slide gradually, the gross deployment of credit has reported a growth of 12.2% during FY19, as compared with 8.2% last year. The cause of concern is that it comes in the backdrop of an offtake in the infrastructure sector which was primarily responsible for the widespread NPAs in the first place.

Recent data from the RBI shows that credit deployment in the infrastructure sector has grown considerably at 8% in FY19, against (-) 1.7% in FY18. Within the infrastructure sector, more than half of the disbursement has been to the power sector, which has been saddled with stressed assets.

Deployment to the infrastructure sector exhibited a significant year-on-year growth of 19 %, as compared to the overall 12 % growth in overall credit off-take during the fourth quarter of FY19.

Lending to the infrastructure sector is like a double-edged sword. While the sector by and large has shown large amount of NPA, it is also true that the sector is in dire need of funds. There are a couple of alternatives that can be explored. Issuing infrastructure bonds which could be subscribed by institutional investors, insurance firms, pension funds, amongst others, is one such alternative.

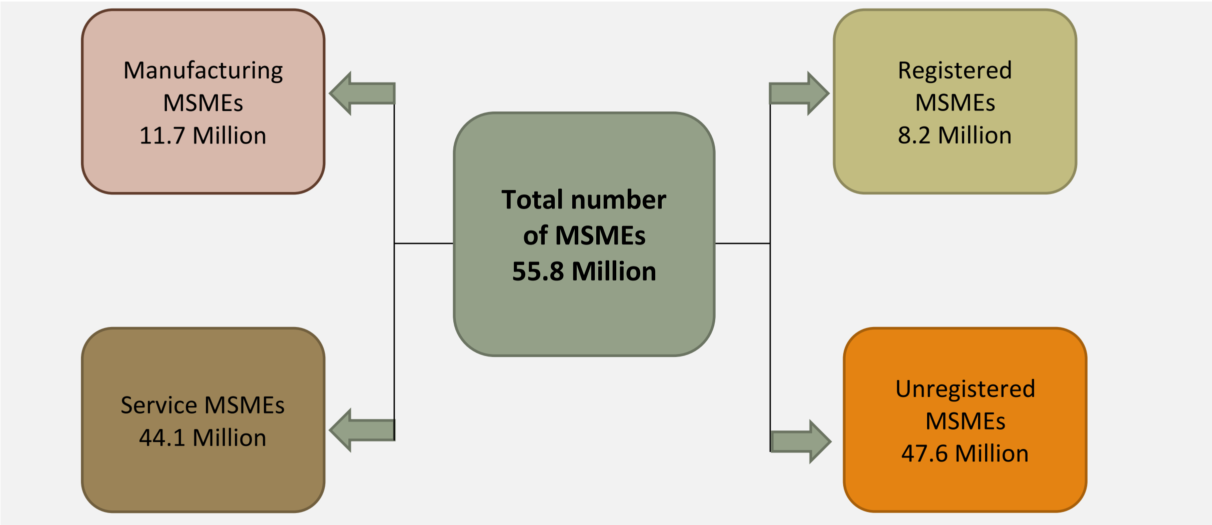
Infrastructure financing is fraught with higher credit and market risks due to the longer investment tenures, and hence becomes unsuitable for commercial banks, which are into medium-term financing. The expertise for such long-term financing lies more with Development Finance Institutions (DFIs). Over the last few decades, many of the DFIs converted to universal banks. With the dwindling of DFIs, the burden of financing private investment in areas like infra has fallen on the commercial banks, especially PSU banks, leading to stressed assets. Re-emphasising on development banking would be the best way forward. China, South Korea and Malaysia still follow this model. Development banking requires fiscal support and regulatory forbearance.

The Micro, Small and Medium Enterprises (MSME) Finance

The Micro, Small and Medium Enterprises (MSME) are crucial to India's economy. There are 55.8 million enterprises in various industries where 124 million people are employed. Of these over 14% are women led enterprises and close to 59% are situated in rural areas. By and large the MSME sector accounts for 31% of India's GDP and 45% of exports.

The financing needs of the sector depends on the size of operation, industry, customer segment and the stage of development. Financial institutions have limited their exposure to the sector because of small ticket size of loans, higher cost of servicing the segment and limited ability of the MSMEs to provide immovable collateral.

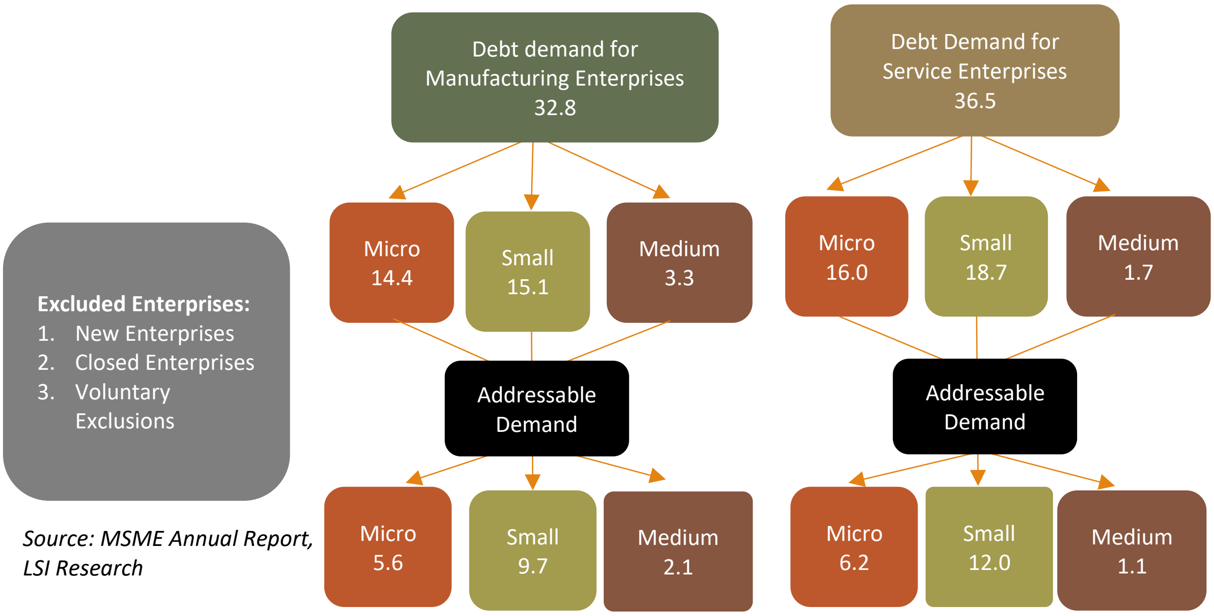
Broad Classification of MSMEs in India



Source: MSME Annual Report

Debt demand in the MSME Sector: The overall demand for both debt and equity finance by MSMEs is estimated to be INR 87.7 trillion which comprises of INR 69.3 trillion of debt demand and INR 18.4 trillion of equity demand.

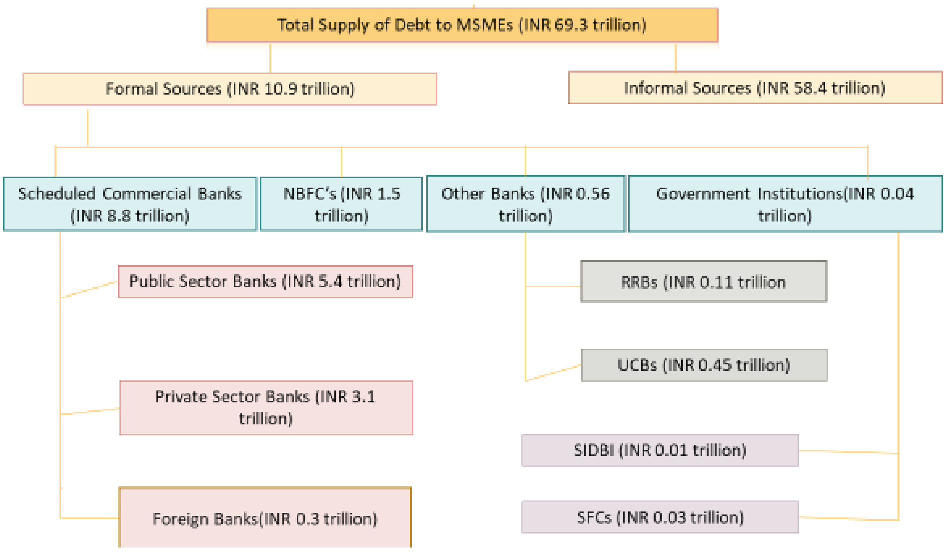
Addressable Debt Demand from MSMEs in India (INR Trillion)



Source: MSME Annual Report, LSI Research

It is seen that of the overall debt demand of INR 69.3 trillion, a major portion of 84% (INR 58.4 trillion) is financed from informal sources. Formal sources only cater to 16% (INR 10.9 trillion) of the total MESME debt financing. Within the formal sector, scheduled commercial banks account for nearly 81% of debt supply to the MSME sector, contributing INR 9.4 trillion. NBFCs and smaller banks and government financial institutions constitute the rest of the formal MSME debt flow. Within the informal sector non-institutional sources include family, friends and family business while institutional sources comprise of money lenders and chit funds.

Overall Credit Supply to MSMEs in India



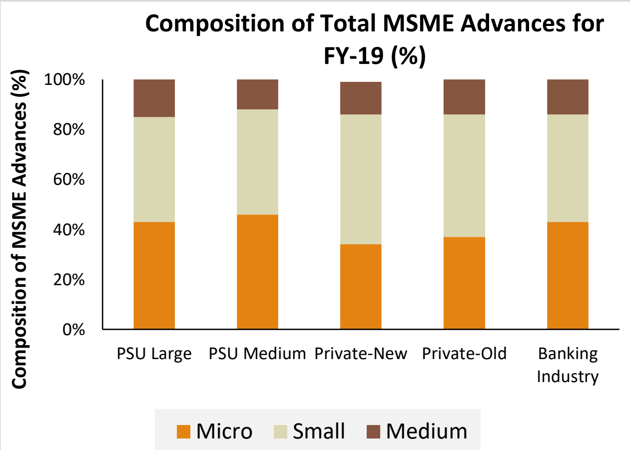
RRBs: Regional Rural Banks; UCBs: Urban Co-operative Bank; SIDBI: Small Industries Development Bank of India; SFCs: State Finance Corporations

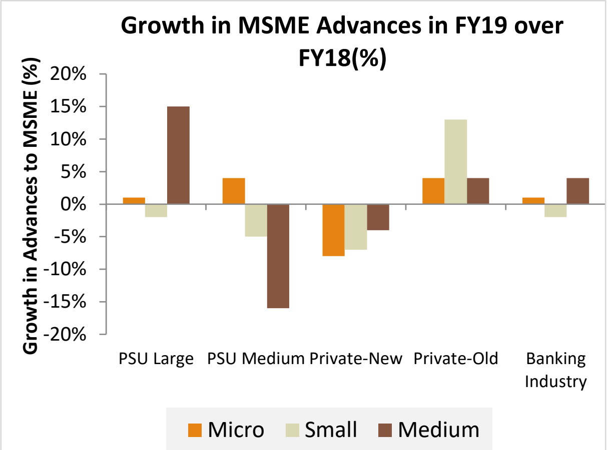
Source: MSME Annual Report

MSME Credit Gap in the Sector

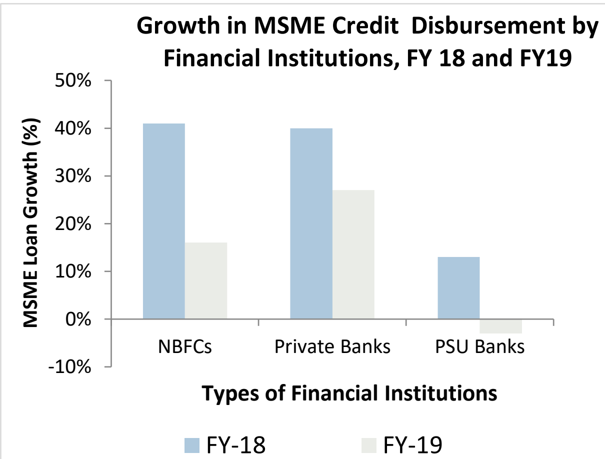
Despite increased financing in the MSME sector in the recent years, the addressable credit gap is estimated to be INR 25.8 million which the formal financial institutions are expected to finance in the near term.

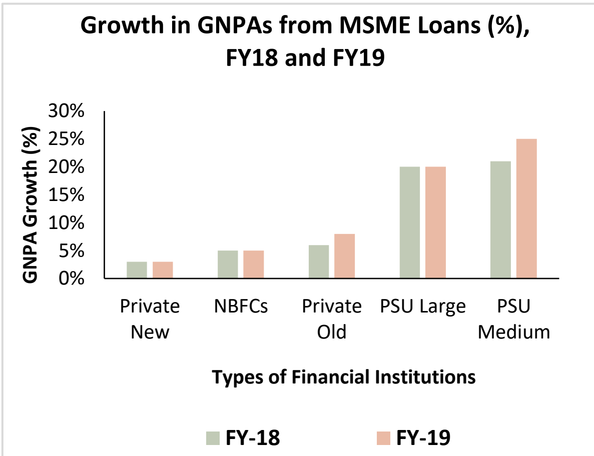
The micro, small and medium enterprise segments respectively account for INR 8 trillion, INR 16.8 trillion and INR 1 trillion of the debt gap that is viable. Micro and small enterprise together account for 95% of the viable debt gap that can be addressed by financial institutions.





MSME (BY TICKET SIZE)	Y-O-Y Loan Growth (%)		GNPA (%)		
	FY-18	FY-19	FY-17	FY-18	FY-19
<10 Lacs	35.0%	10.0%	14.7%	16.4%	18.3%
10 Lacs - 1 Crore	23.0%	16.0%	10.0%	11.3%	11.1%
1Crore - 10 Crore	28.0%	14.0%	11.4%	11.8%	11.1%
10 Crore - 50 Crore	22.0%	1.0%	15.2%	16.1%	15.6%
MSME Total	25.0%	9.0%	12.7%	13.5%	13.0%





Source: Reserve Bank of India, LSI Research

Key Takeaways:

- Loans to Medium sized enterprises growing fastest within MSME with PSU-Large banks leading all the way
- Within MSME lending, loans to the ticket size between INR 10 Lacs to 10 Crores emerging as the sweet spot for lenders
- A sharp reduction in MSME credit by PSU banks is observed due to high NPAs

Trade Finance

Broadly trade financing activities are multi-stakeholder endeavours, and commercial banks are one of the key participants in the process, which mainly include payment, credit and document handling services. Involvement of banks in trade financing has also been very crucial in terms of exercising monitoring and supervision for ensuring compliance and restricting trade based financial crimes. Trade financing activities of banks are clearly connected with global trade activities that remained relatively stable in 2018 in spite of protectionist approach of the USA and similar response by some other big economies.

The pursuit of business prospects in international markets involves every challenge and complexity involved in doing business with a local supplier or buyer. According to the World Trade Organisation (WTO), a shortage of trade finance is the second-biggest obstacle to the expansion of global trade, infrastructure being the first. Access to bank finance has always been limited and expensive, and India is no exception to this.

It is interesting to note here that the requests of SME's for trade finance are on average rejected 57% of times versus 10 percent for large companies. With Indian public sector banks struggling to deal with increased non performing asset resolution, access to timely credit will remain challenging for SMEs.

Current Challenges in Trade Finance

Challenges	Description	Impact
Paper heavy processes	• Flow of physical paper documents like Purchase Orders, Invoices, Bill of Lading (BOL) etc. across borders throughout the transaction cycle	• Increase in transaction turnaround time • Handling & storage costs • Risk of losing or tampering important documents
Labour intensive	• Authenticity of paper documents like BOL, signatures, address is verified manually • Manual handoffs across fragmented operational processes and IT systems	• Manual checking is subjective & error prone • Lack of standardization across geographies makes it difficult to scale operations • Staff development is critical which may take as many as 6 months to 7 years • High staff turnover and relative inexperience increases operational risks and leads to client dissatisfaction
Legacy IT systems	• Fragmented and outdated legacy systems are integrated in an ad-hoc manner with manual processes by staff	• Manual handoffs increase complexity in tracking and limit efficiency improvement by automation • Low paced adoption of operationally efficient technological innovations like Bank Payment Obligation (BPOs)

Challenges	Description	Impact
Stringent regulatory & financial crime compliance	• Basel III, Dodd Frank Act, Foreign Account Tax Compliance Act (FATCA) and Anti Money Laundering (AML require banks to invest heavily in systems and procedures to deter, detect and protect from money laundering. This is one of the significant cost drivers in the industry.	• Enhanced due diligence, KYC compliance, Sanctions screening has introduced costly manual checks • Reliance on 3rd party providers like World Check, Sea Searcher, Blacklist check, Defaulters list check increases manual handoffs and turnaround time • Nonstandard reporting processes and formats for ad-hoc transaction reporting to regulators
Funding Unknown	• The absence of guaranteed payment due to little or no clarity on the counterparty and absence of payment default rules	• Delayed or no payments

Source: Role of Trade Finance for Inclusive Growth, Deloitte, January 2018

The Indian banking industry is also seeking steps to simplify trade finance processes by developing blockchain technology, with advocates saying it has the potential to save billions of dollars in costs and speed up transaction times. Blockchain solutions have the added benefit of providing imputable information on the history of a transaction, thereby reducing uncertainty and therefore risk.

Much of the above-mentioned challenges can only be resolved using technology and digital solutions that not only make access to capital much simpler for businesses across the board but also bring about unparalleled transparency and efficiency in the marketplace, which is the need of the hour.

Also, as per a paper by RBI, banks need to expand their global banking relationship and shift towards globally accepted trade finance instruments instead of indigenous instruments (such as Letter of Undertaking (LoU)/ Letter of Credit (LoC)).

Incidentally, the drying up of trade credit disbursed through domestic banks in the aftermath of prohibition of LoUs/LoCs by the Reserve Bank of India in March 2018, confirms that their narrow overseas network base is a binding constraint for trade credit business. The paper observed that both demand and supply-side dynamics influence the flow of cross-border trade credit to India. The fall in trade finance intensity in recent years is clearly an indication of supply-side constraints. In particular, the financial health and size of overseas network of banks operating in India matter for trade credit.

As tight global financial conditions are found to impede trade credit flows, the policy efforts towards strengthening banks' overseas business network may make these flows more resilient.

The Needs of Current Corporate Customers

1. **Customized and superior advisory:** Corporate clients demand customized and industry specific advisory services from their banks to enable them to carry their day to day business activities efficiently. According to a survey conducted by Ernst & Young (E&Y), 67% of interviewees believe that advisory services provided by many of their core banks are the top benefit of their relationships
2. **End to end solutions:** Corporate clients require integrated end to end solutions that connect all the silo lines of business of the corporate bank ecosystem which includes the bank, corporate clients and any other parties such as vendors, partners and credit and debit bureau.

This enables banks to provide holistic and complete solution with no misalignment of data and improved process efficiency.

3. **Innovative products and services:** Corporate customers demand innovative solutions that cater to their specific business need. According to the survey conducted by E&Y 63% of corporate clients rate it is as an important requirement to choose a banking service provider but many are disappointed with current banks in their lack of ability to provide innovative products and services.
4. **Customized solutions:** Majority of corporate clients are disappointed with their bank's ability to offer customized offerings. They prefer solutions that are tailored to their specific industry and business needs.
5. **Price competitiveness:** According to E&Y 69% of corporate clients mention that competitive pricing is very important and many of corporate clients want relationship-based pricing advantage over other customers and also bundled products and services with discounts and other price benefits.
6. **Transparency:** Corporate clients require complete transparency across all their transactions. According to E&Y (69%) say their banks' position and transparency on risk, liquidity and capital, and portfolio concentration are extremely important in today's volatile financial marketplace. Banks should communicate the status of every transaction to customers in real time.
7. **Superior digital experience:** Digitization has raised the bar for customer experience by promising a seamless and frictionless experience across industries. Companies such as Amazon, Argos and Uber who have changed the nature of the game are providing quick, seamless and efficient service at every step of the customer journey and customers are expecting the same quality of service from banks as well.

Large corporates seem to be going back to bank for funds and moving away from NBFCs. Loans to industry rose by 6.4% in May 2019 as compared with an increase of 1.4% in May 2018, according to the latest figures released by the Reserve Bank of India. The pick-up in credit to large corporates is significant against the backdrop of a sharp slowdown in these loans for over two years now. The four key areas in which corporate bankers should focus at the moment for a sustainable existence are: Risk management, Capital Sensitivity, Pricing and Technology.

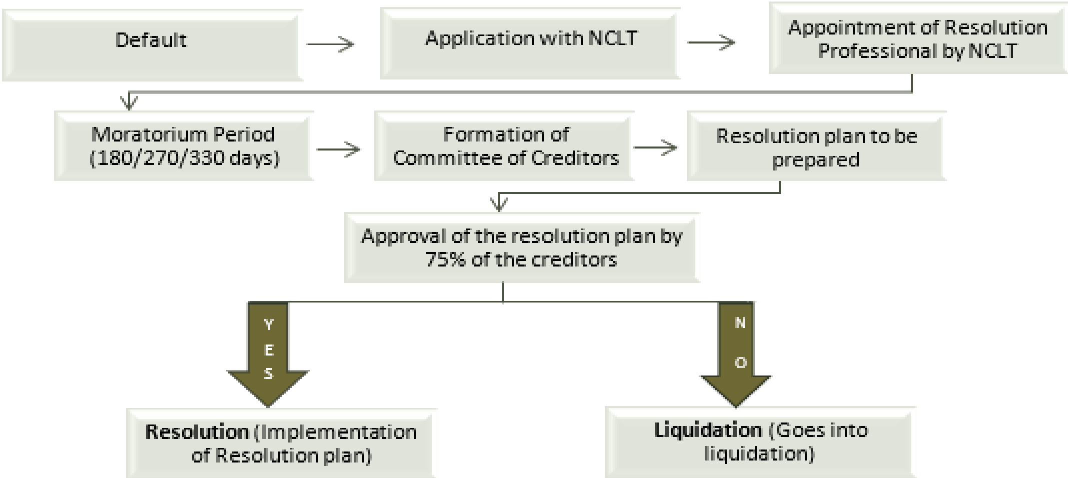
In short, the wish list of the corporates consists of (a) efficient information dissemination, (b) lower rates and (c) delivery time reduction.

4 New Resolution Mechanism and the IBC Scorecard

Recovering loans has always been a tough job for lenders and creditors. The things get worse when borrowers wilfully decide to default, and perhaps get away with it. Until the introduction of Insolvency and Bankruptcy Code 2016, multiple laws were there in the Indian legal system to address the problems of bad loans. However, none of it were that much promising to deal with innumerable cases of bankruptcy. Sick Industrial Companies Act (SICA), 1985, SARFAESI Act were the examples of such laws.

The Insolvency and Bankruptcy Code (IBC) is the bankruptcy law of India which is designed to consolidate all the laws which are related to insolvency by creating a single law. It was passed by Lok Sabha on 5 May 2016 and the Code received the approval of the President of India on 28 May 2016. The IBC allows the creditors, lenders, employees and debtors to initiate insolvency proceedings. The proceedings start only when NCLT or Debts Recovery Tribunal (DRT) verifies the initiators' claim. The insolvency resolution process of a corporate debtor is known as the Corporate Insolvency Resolution Process (CIRP). Insolvency of corporate persons deals with the insolvency of a corporate bodies like a private limited company or limited company. Proper implementation of IBC actually helps to reduce the amount of NPA across the country.

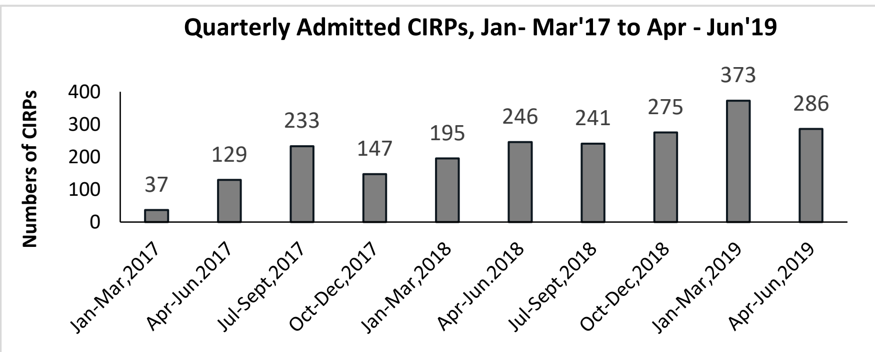
What happens when a creditor files a case against the debtor or the debtor registers about his/her bankrupted business in NCLT? What are the stages which take place during this time?



Status of Corporate Insolvency Resolution Process (CIRP)

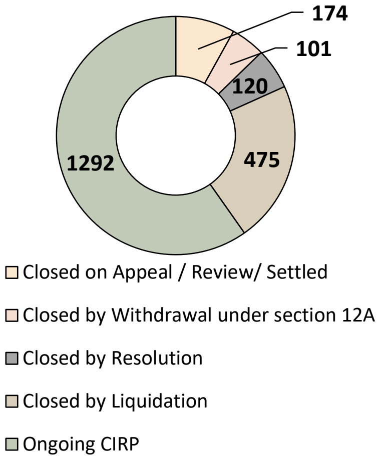
Total numbers of admitted Corporate Resolution Insolvency Process (CIRP) in NCLT till 30th June,2019

2162

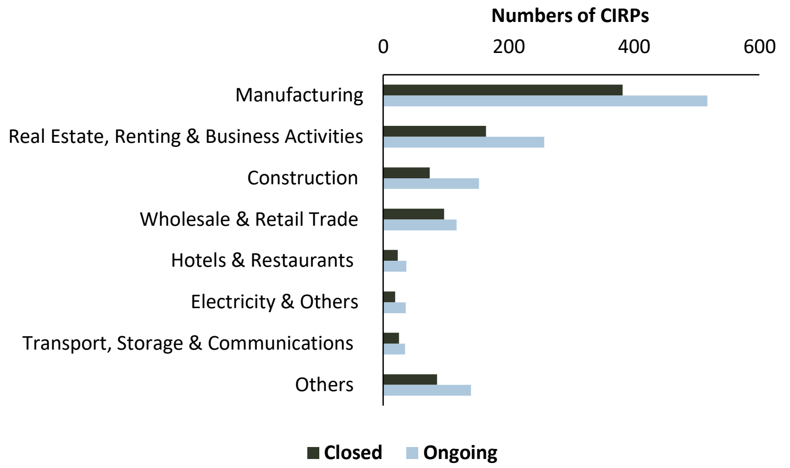


Source: IBBI, LSI Research

Status of All the Admitted CIRPs as on June'19



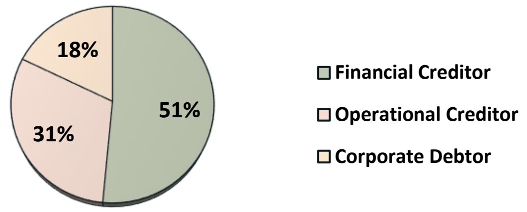
Sector Wise Distribution of CIRPs as on June'19



Details About the Resolved Cases (Till Jun'19):

Total No. of Cases Resolved	101
Total Claim of Financial Creditors (INR Billion)	1692.18
Amount Recovered by Financial Creditors (INR Billion)	706.21
% of Recovery to Financial Creditors	41.73%

Details of Admitted CIRPs in NCLT by the Initiators , Till Jun'19



Dynamics of Resolved Cases as per Claim Size (Till Jun'19)

Range of Admitted Claims of Financial Creditors (INR)	No. of Cases	Claim of Financial Creditor (INR Billion)	Recovery to Financial Creditor (INR Billion)	% of Recovery
Less than 500 Million	34	7.21	5.62	77.95%
Between 501 Million to 1 Billion	18	12.68	5.12	40.38%
Between 1.01 Billion to 5 Billion	19	36.2	16.05	44.34%
Between 5.01 Billion to 10 Billion	8	61.13	15.97	26.12%
Between 10.1 Billion to 50 Billion	12	258.65	102.03	39.45%
Between 50.1 Billion to 100 Billion	6	388.12	80.27	20.68%
More than 100 Billion	4	928.17	481.15	51.84%
Total	**101**	**1692.16**	**706.21**	**50.21%**

Top 5 Highest Admitted Financial Claims by Financial Creditors (Till Jun'19)

Sl. No.	Name of CD	Date of Commencement of CIRP	Date of Approval of Resolution Plan	CIRP initiated by	Total Admitted Claims of FCs (INR Billion)	Realisable by FCs as % of their Claims Admitted	Amount Recovered (INR Billion)
1	Bhushan Steel Ltd.	26-07-2017	15-05-2018	FC	560.22	63.49%	355.68
2	Electro steel Steels Ltd.	21-07-2017	17-04-2018	FC	131.75	40.38%	53.20
3	Amtek Auto Ltd.	24-07-2017	25-07-2018	FC	126.05	34.38%	43.34
4	Monnet Ispat & Energy Ltd.	18-07-2017	24-07-2018	FC	110.15	26.26%	28.93
5	Deccan Chronicle Holdings Ltd	05-07-2017	03-06-2019	FC	81.81	4.37%	3.57

Source: IBBI, LSI Research

- The maximum numbers of admitted cases in the NCLT belong to the manufacturing sector.
- Though the rate of liquidation is still high between the cases of resolution and liquidation, still the procedure of resolution has made remarkable progress. The numbers of resolved cases which were 79 at the end of Dec'18 increased to 101 at the end of Jun'19.
- Till Jun'19, the average recovery rate of all the resolved cases has been 41.73%.

The impact on NPA after the implementation of IBC in India

NPA or Non-Performing Assets are true reflector of a lender's or debtor's stressed condition. Between FY06 to FY19, the gross NPAs of all the Indian scheduled commercial banks has increased at a CAGR of 24.92%. However, as per RBI data on global operations, the NPAs of Schedule Commercial Banks, after reaching the amount of INR 10362 Billion in FY18 have reduced to INR 9336 Billion at the end of FY19 with a reduction of 9.9% (based on its year on year growth). Hence, it can be said that after the implementation of IBC, the situation has started to get improved.

An updated version of IBC 2019 was passed on 1st August'19. This is the third time government has amended the law since its enactment in 2016. Some of the modified features of the law are as follows:

- **Corporate Restructuring:** It states about the inclusion of provisions in the resolution plan for shaping the restructure of corporate debtor through a merger or demerger.
- **Disposal of Resolution application on time:** Checking the status of the application by finding out the existence of default within 14 days of receiving any application. Based on its finding, NCLT may accept or reject the application.
- **Timeline of CIRP:** The newly set deadline for the completion of any CIRP has been fixed at 330 days which used to be 270 days earlier.
- **Voting Authority of the Financial Creditors:** The bill makes capable an authorised representative to cast the vote in respect of the financial creditor as per the instruction received from him.
- **Role of stakeholders:** The resolution plan under the Corporate Insolvency Resolution Process (CIRP) will also be binding on the Centre, State and local authorities to reduce the delays in the CIRPs caused by them.

Changed behavioural pattern and functional activities across the different sectors demand the updation in the amendments time to time. The main agenda is to improve efficiency in the overall process. The implementation of IBC has dealt with severe cases in the last few years and is expected to revive the financial crisis by solving many more issues of stressed assets in the coming years.

5 Fintech vs Traditional Banking

Fintech also known as financial technology is the imposition of digitization and several other technologically advanced services in the financial services industry including the banking sector. Like any other developed and developing economies, the banking system in India is not a new concept. The timeline of the banking structure can be defined as follows:

Pre- Independence Era (1770 - 1947) → **Pre-Nationalization of Banking** (1947 - 1969) → **Post Nationalization of Banking** (1969 - 1991) → **Modern Phase of Banking** (1991 - Present)

Bank of Hindustan is considered as the first bank of India established in the year 1770 and continued to be operative till 1832. However, there are multiple banks which were established during that period and still performing successfully in the current phase. **Allahabad Bank** (Estd. 1865), **Punjab National Bank** (Estd. 1894), **Bank of Baroda** (Estd. 1908) etc. are the examples of such banks. **State Bank of India**, the Indian multinational public sector and financial sector statutory body had also been originated from the **Bank of Calcutta** (Estd. 1806), **Bank of Bombay** (Estd. 1840), **Bank of Madras** (Estd. 1843). These three banks became merged into a single entity in 1921 and started to be known as **Imperial Bank of India**. After the independence, the Government of India took the control of this bank in 1955 and it became renamed as **State Bank of India.**

14 and 6 banks were nationalised in the 1969 and 1980 respectively by Indian Government with an agenda of keeping the banking assets under the control of state. Hence, the banking system became accessible to rich-poor, rural-urban and banked-unbanked areas and the deposited funds started being used in multiple sectors (e.g. agriculture, small and large village industries etc.) for their expansion and also in various government programmes for achieving long term economic development.

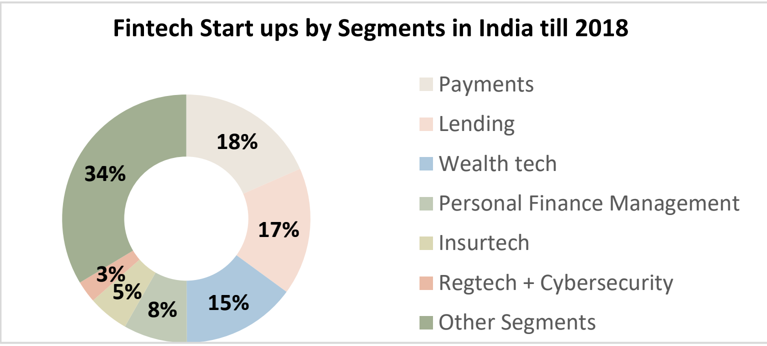
By traditional banking system basically we mean the accomplishment of most of the banking operations through the active presence of customers. Whether it is about opening a bank account, withdrawal or deposit of money, clearance of cheques, starting or closing of several types of investment etc. all things were supposed to be done by the physical presence of the customers. Since its origin, the Indian banking system have been operative by playing these rules of traditional banks. Till the 70s, all the documentation in the banks used to take place through papers. However, with the increasing need of a systematic transaction, data management, calculation accuracy, and improved customer service, computerization was introduced in the Indian banking system in the 80s.

The private and foreign banks appeared in the Indian economy with their updated banking technologies back in the 90s when the reform of Indian economy took place. It influenced the existing Indian banks to modify their operational procedures to become more flexible, self-sufficient and competitive at the global level and to establish a strong network in the banking sector. ICICI Bank was the first bank to use internet in India in 1998. Use of internet started to help the customers to operate their bank accounts virtually whenever and wherever they want.

Core Banking Solutions for centralised management of banks with innumerable branches across the country and globe, **Magnetic Ink Character Recognition (MICR)** or online Image based cheque clearing system, card (Credit, Debit etc.) based secure payments for any types of transaction, **RTGS (Real Time Gross Settlement)** or **NEFT (National Electronic Funds Transfer)** for money transfer within a short time span, **ATM (Automated Teller Machines)** for withdrawal of money anytime, Internet and Mobile banking services for the customers for handling account and transaction related activities from anywhere, online loan processing etc. are a few examples of digital revolution in the banking sector.

The mentioned services are the examples of implementation of the technology in the banking sector. However, this technology in the finance sector, better to be mentioned as Fintech, appeared as a new industry with multiple features in India post 2010. The industry with a large number of companies, came up with the services like **e-wallet or Mobile wallet** (an online device for monetary transaction), **Payment banking** (system providing banking services on a smaller scale of amount without involving any credit risk), **e-trading, Peer to peer lending services, Insurance, Investment and personal finance management, Loan services** to the underserved and unserved people, **Wealth & Brokerage management** and many more.

According to a latest report, India is in the 2nd positions for having more than 2000 financial technology (fintech) start-ups just after United States at the global level. 42% of these fintech companies are concentrated in Bengaluru and Mumbai followed by New Delhi, Gurugram and Hyderabad.



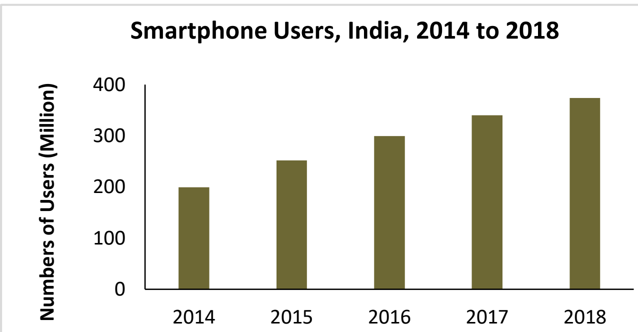
Some of the Renowned Indian Fintech Companies:

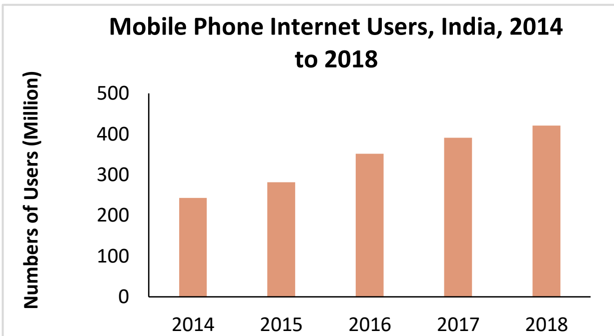
Sl. No.	Companies	Established on
1	MobiKwik	2009
2	Paytm	2010
3	Paisabazaar	2011
4	Lendingkart	2014
5	PhonePe	2015
6	Shubh Loans	2016

Source: India Fintech Report 2019, LSI Research

Being the 2nd largest populated country with more than 1.3 billion people and 42% share of youth in it, a tenacious environment of adopting new technologies, increasing level of per capita income, availability of smartphones in the market at various price ranges for all categories of customers, accessibility of internet at cheaper cost with versatile packages are some of the basic reasons for the emergence of fintech industry in India.

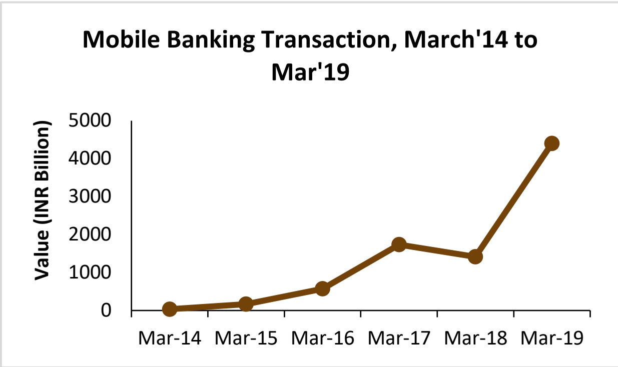
Besides, the urge of government towards a digitized banking system for the increasing cashless activities among the mass, targets to reach the people of rural, unbanked and remote areas for increasing the process of financial inclusion, rising interest of emerging talent with innovative ideas in the tech start-ups have also helped the fintech industry to grow massively. The presence and importance of fintech services felt prominently during the time of demonetisation happened in India in 2016.

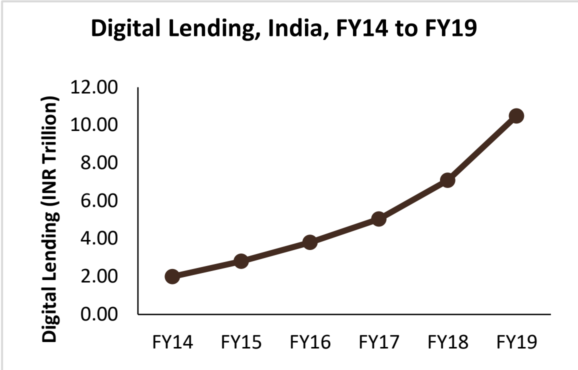




Source: Statista, LSI Research

Between 2014 to 2018, the smartphone users and the mobile phone internet users have increased at CAGR of 17.06% and 14.72% respectively in India.





Source: Reserve Bank of India, IBEF, LSI Research

Between Mar'14 to Mar'19, the mobile banking transaction process has increased at a CAGR of **164.39%** and between FY14 to FY19 the digital lending has increased at a CAGR of **35.37%.**

As discussed previously being a part of fintech revolution both types of monetary deals have taken a huge jump in the last few years.

How will Fintech affect the traditional banking system in India?

The evolution of fintech industry has made the banking and financial procedures faster, smarter and smoother. Whether it's a matter of fund transfer, issuance of cheque, loan applying, lodging any complaint, verification of customer data or updating any customer-based information and many more things have become easier. The current performance of the industry also assures about outstanding development of it in the coming years. Greater use of fintech not only increases the money transaction across the nation but also fastens the reach of banks and financial services with advanced technology at any place. Looking at its versatile features, several banks have also tied up with multiple fintech services for providing customers a flawless banking experience.

However, this needs to be mentioned that the majority people of the country still seem to be comfortable with the traditional banking system. The tendency to visit the bank and operate the account related activities physically, ease of communicating with the particular bank personnel for solving different issues, simplicity of regular cash transaction procedures etc. are still very much popular among the people. A lesser reach and awareness of digitized technology in the semi-urban, outskirts areas and among the non-working and aged people, absence of substantial active initiatives taken by bank for spreading digital literacy among the customers are some of the biggest reasons behind it.

Hence, cash transaction process is still dominating in the Indian economy, no matter how severe the experience of demonetization had been. Lesser knowledge of fintech activities make people anxious just with the thought of using it. Most of the people are still unaware of the terms like "**Artificial Intelligence**", **"Cloud Computing"**, **"Cryptocurrency"** or **"Bitcoin".** Besides, the evolving fintech industry also faces different challenges like data security for maintaining confidentiality, protecting information and mitigating risks, changing nature of regulations issued by central authorities for making the fintech procedures secure and many more.

For example, if we discuss about the effect of payment banking system in the Indian economy then the situation can be understood a bit. The idea of payment bank was originated to ensure the financial inclusion by providing payments services to all types of customers specially to the ones belong to the lower income households, workers from the unorganized sectors or live in rural areas. Opening up of current or savings account, maintaining zero balance account, issuance of ATM or debit card and associated services, mobile payment, fund transfers, net banking etc. are some of its special features. Airtel Payments Bank, Fino Payments Bank, Jio Payments Bank, Paytm Payments are the examples of some of the payment banks in India.

The idea of this banking model was licensed by the RBI for extending the banking services to those who are left unbanked by the traditional banking system. However, instead of its distinct characteristics, the service still went downhill recently. Unlike traditional lenders, payment banks cannot keep public deposits of more than Rs. 1 lakh with them. Besides, they cannot offer loan, credit cards, accept deposits from NRIs (Non- Residential Indians), set up subsidiaries for non-banking financial purposes and many more essential services. Otherwise, many times, the banking activities of several payment banks had been deactivated for being incapable to maintain the data security of the customers and for violating certain norms by opening account without the customers' consent.

The payment banks are supposed to give a new edge in the fintech market and ensure higher growth to their customers with the smart services. However, the existing rigidities make their revenue stream limited and keep the process less appealing to the users. Absence of some mandatory banking services making the payment banking system incomplete and less reliable to the customers specially to the ones who are not that much accustomed with the digital banking system. The offerings of the payment banks are found to be so specific niche oriented that sometimes the customers need to have another full-service bank account along with the payment bank account for fulfilling the banking needs. According to a report of RBI, the payments banks faced net losses of INR 5.2 Billion for the fiscal year 2018, which is almost double amount of the fiscal year 2017 when the loss was INR 2.42 Billion.

Fintech is a very much needed step toward modernization and it has tremendous growth potential in India. It is true that the people are being more digitized but proper knowledge, continuous practice, and right guidance from the specific authorities are mandatory for dealing with technologically advanced monetary transaction. Besides, the educated people also need to go up. Hopefully with time and suitable support people will get accustomed to this system and fintech industry will also be able to maintain the consumer expectations.

6 Future of NBFCs and ARCs

NBFC (Non-Banking Financial Companies)

The NBFC sector in India has undergone a significant transformation over the past few years and has come to be recognized as systemically important components of the financial system and it is growing quite consistently year-on-year. **NBFCs** are playing a critical role for the development of core infrastructure, transport, employment generation, wealth creation, economic development, to finance economically weaker sections and considerable contribution to the state exchequer.

NBFCs are crucial links of the economy delivering a different set of services such as lending, Investment banking, and capital market operations. Non-banking financial Company is a company registered under the companies act 2013 (1st 1956). These types of companies are mostly engaged in the business of lending, insurance business and acquisition of stocks, debentures, and securities.

India's NBFC sector continues to remain at the forefront in driving new credit disbursals for the country's underserved retail and MSME market. Despite recording robust growth, the NBFC market share has been dominated by large players, while many small players have struggled to scale up operations profitably.

Non-banking Financial Companies in the Indian economy is on the rise as they target those left traditionally out by the banks. These companies are tech-driven and may achieve 19% of credit market by 2020. NBFC is hence the critically important component of the financial system of our economy.

The contribution of NBFC to Indian Economy

- Substantial employment generation
- Major thrust on semi-urban rural areas and first-time buyers or users
- To finance economically weaker sections
- Help and increase wealth creation
- Supplement bank credit to the rural segment of the Indian economy
- Economic development

The NBFC lending model

The NBFC lending model is under pressure as a result of the following internal and external forces:

1. Stiff competition from incumbents and the entry of Fintech players.
2. Dynamic regulations that are increasing the cost to comply and are restricting the ability to freely impose pricing.
3. Technology advances that are enabling customization, real-time and social mobility.
4. Levels of customer expectation are rising, the need for 24×7 pervasive experience.
5. Economic volatility, shrinking credit performance and pricing pressure as a result of eroding margins.

Moreover, some time back, the sector has taken a beating in the stock market with defaults and liquidity challenges, specifically related to one large NBFC. Although the problem seems isolated, it has concerned regulators due to the risk of contagion effect and the overall governance in the sector.

Such disruptive forces necessitate another look at what are the building blocks of a robust, scalable and profitable NBFC business model that will sustain through similar stress cycles. Despite concerns surrounding the sector, it is believed that such NBFC's with robust business models, strong liquidity mechanism, governance and risk management standards are well positioned to take advantage of the market opportunity.

Hence it is even more critical for incumbent and new-to-market NBFCs to define and implement a balanced strategy that meets table-stakes across essential, core capabilities and differentiates across high value-adding capabilities. NBFCs or shadow banks as now being called are a definitive part of the financial landscape and will continue to thrive and grow in future notwithstanding a few hiccups now and then.

How will the NBFCs flare in 2019 and onwards?

The ability to bring formal finance to the doorstep of the unbanked has driven the growth at nonbanking finance companies (NBFC), but 2019 could well alter the operating environment for many of them.

To begin with, NBFCs would have to put up with higher funding costs. In the October-December quarter of 2018, better-run NBFCs got easier access to money compared to smaller or weaker NBFCs with poor track record and underwriting capabilities. In the past, robust growth of over 20% gave NBFCs access to debt capital regardless of stringent quality.

Sources of borrowing of NBFCs

Sources of borrowings of NBFCs-ND-SI (Share in %)			
	At end Mar 2017	**Mar-18**	**Sep-18**
Debentures	48.6	46.2	42.5
Bank borrowings	21.2	24.2	26.1
Borrowings from FIs	2.2	1.6	1.8
Inter-corporate borrowings	3.4	3.7	4.5
Commercial paper	9.4	8.9	9.7
Borrowings from government	1.6	1.3	0.01
Subordinated debts	2.8	2.6	2.3
Other borrowings	10.8	11.5	13.1

Source: RBI Supervisory Returns

The Reserve Bank of India has talked about strengthening the regulatory vigil on the sector in general and on Asset Liability Management (ALM) framework in particular in its latest report. The default by IL&FS on repayment of commercial papers shook the industry, making debt investors wary of investing in them. At present, ALM guidelines are applicable to non-deposit taking NBFCs with an asset size of 100 crores and above and to those deposit taking companies that have a deposit base of 20 crores and above. ALM guidelines as prescribed for the sector relate to ALM information systems, ALM organization including setting up of asset liability committee and its composition and the ALM process.

Managing Growth - Strong economic growth of the past four-five years that led to robust expansion of NBFCs will not last forever. Newer NBFCs will see their first downturn and companies with models that can withstand downturns will stand out.

The sector with a size of 15% of bank's balance sheet has been filling up the void created by public sector banks under prompt corrective actions. NBFCs and Housing Finance Companies (HFCs) have been growing at 18-20% over the last two years. Growth is expected to take a hit in the calendar year. They are expected to report 300-400 basis points lower growth as a few NBFCs have stopped lending. NBFCs are looking for newer avenues to diversify their lending portfolios. Companies will further have to expand the asset base to add newer products and reduce concentration in large clients. They will have to move deeper into cities to improve the risk adjusted return.

Lenders will have to let go of lazy lending and reach out to new customers. Takeover of home loans from one by the other, which is estimated to have jumped to as much as 20% of all mortgages sanctioned, may have to be reduced as lenders incur cost while originating loans.

Changing the Business Model - NBFCs would like to focus on direct assignment to ensure that risk is not transferred to their balance sheet but they are able to raise fee income to maintain return on equity. Large banks, including State Bank of India, ICICI Bank and HDFC Bank, have been buying portfolios from top-rated NBFCs and HFCs. After recapitalisation of public sector banks, lenders under PCA will also be able to buy portfolios of NBFCs and HFCs.

Also, RBI has allowed NBFCs to co-originate priority sector loans with banks. This will help NBFCs in managing low-cost funds from banks and lower their cost of operations.

Watch Out for Asset Quality - NBFCs have maintained strong asset quality compared to banks. Since November 2014, the asset classification norms of NBFCs have been incrementally aligned with those of banks, leading to higher NPA recognition.

However, both the gross nonperforming assets (GNPAs) ratio and the net non-performing assets ratio declined during 2017-18 to 5.8% and 3.8% as part of the portfolio of assets classified as NPAs were upgraded to standard assets compared to

2016-17. In the September quarter, the gross non-performing ratio deteriorated marginally and NBFCs made larger provisions and, hence, the NNPA ratio improved.

Diversify Borrowing Profile - NBFCs deal with retail customers but have not used the segment for raising liability. When the going was good, Bajaj Finance learnt the lesson in 2013 and decided to build deposit franchise. Now, it borrows 15-20% of incremental lending through fixed deposit. NBFCs will have to expand into retail NCDs (Non-Convertible Debentures) to tap into the existing customer franchise. High-rated NBFCs leverage 5-6 times while some large housing finance companies have leverage ratio touching 10 times. If they don't get required funds, NBFCs will have to reduce leverage. This raises the need for NBFCs to be highly capitalized.

NBFCs will have to diversify their borrowing profile from mostly debentures, commercial papers, equities and banks to include instruments like external commercial borrowing, masala bonds and expand the number of banks.

Budget Announcements Favouring NBFC Sector

Finance Minister Nirmala Sitharaman recognized that NBFCs are playing an extremely important role in sustaining consumption demand as well as capital formation in the small and medium industrial segment. Besides providing working capital support to micro, small and medium enterprises, NBFCs have helped create consumption demand in several sectors— auto, consumer durable, etc.—by providing easy loans during the past few years. However, the payment default by IL&FS in September 2018 hit the NBFC hard. The DHFL crisis also made the case for NBFC stress test stronger. Due to increased fear, banks restricted their stopgap funding arrangement with the NBFC sector and this liquidity crisis has adversely impacted other sectors. This is why the Finance Minister chose to address this issue by announcing specific measures.

The most important measure was the provision to create Rs 1 lakh crore securitization facility with government guarantee. Public sector banks (PSBs) can participate in this scheme without fear because the government will be offering a one-time six-month partial credit guarantee to them for losses of up to 10%. While this government guarantee won't help clean the entire NBFC mess, it will provide immediate relief to the sector by restoring confidence among NBFCs.

One can reasonably believe that it is not aimed at top rung NBFCs such as HDFC or Bajaj Finance because they are not facing any liquidity issues right now. Due to government parentage, NBFCs such as Power Finance Corporation, LIC Housing Finance, etc., are also not facing any liquidity issues. So, it appears that the targeted beneficiaries of the proposed scheme are the middle rung private sector NBFCs. The help these NBFCs need also depends on their asset liability management

The Finance Minister proposed bringing the housing finance companies (HFCs) directly under the RBI to strengthen the central bank's regulatory authority over all NBFCs. Currently, HFCs are regulated by the National Housing Bank, an RBI subsidiary.

Other than ALM-linked liquidity issues, some NBFCs have also been facing solvency and regulatory issues. The solvency issue is more prominent with NBFCs associated with real estate or infrastructure projects because these sectors are still under duress.

Given the sector is fairly large now to impact the overall economy, this certainly entails some potential implications, including new compliance measures by the regulator, lending slowdown and potential consolidation by larger players. A year after the nonbanking finance companies, NBFCs, were hit by a credit squeeze, the problems of sector appeared to be over, said chief economic advisor Krishnamurthy Subramanian while speaking at the 6th State Bank of India's Banking & Economics Conclave

Asset Reconstruction Companies

With Asset Reconstruction companies, the NPAs just get transferred from one entity to another without a promise of resolution.

The government, the Reserve Bank of India and the banks seem to be completely at a loss for ideas to handle the ₹12 lakh-crore of non-performing assets of banks. This is evident from the decision to set up a new committee which will go into the possibility of creating an Asset Reconstruction Company and/or Asset Management Company for faster resolution of assets that have multiple banks involved.

The Narasimham Committee Report (1998) mentioned that an important aspect of the continuing reform process was to reduce the high level of NPAs. At that time, it was (wrongly) expected that with a combination of policy and institutional development, NPAs in the future would be lower. However, to reduce the huge backlog of NPAs, the Report suggested to create an Asset Recovery Fund to take the NPAs off the lenders' books at a discount.

Thus, ARCIL was the first ARC set up by ICICI Bank, State Bank of India and IDBI. There are 24 ARCs now and Edelweiss is the largest one.

ARC is a company registered under Section 3 of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002. The RBI regulates ARCs as Non-Banking Financial Companies.

The mandate of ARCs

ARCs have been set up to provide a focused approach to non-performing loans resolution issue by:

(a) Isolating non-performing loans from the financial system,
(b) Freeing the financial system to focus on its core activities and
(c) Facilitating the development of a market for distressed assets.

To what extent has the main activity of ARCs been achieved? And what are the hurdles in achieving the goal?

- Under the SARFAESI Act, a bank puts up stressed assets for auction after applying a haircut but with a reserve price and sells them to the highest bidding ARC.
- ARCs acquire these assets by paying in cash or by issuing security receipts or 'hope notes' whose redemption is contingent on the recoveries made. Security Receipts (SRs) are backed by impaired assets. Hence there is no definite cash flow.

An ARC considers a number of different routes to maximise realisation from the assets, including liquidation/settlement/restructuring or rehabilitation and turnaround to ensure payment from the improved operating cash flows of the company. Proceeds, if any, are distributed according to the shareholding of the SRs. As intermediary recovering dues on behalf of SR holders, ARCs charge a management fee.

Capitalisation, the key

ARC's operations can be fruitful only if they are adequately capitalised to meet the requirement of banks to transfer NPAs and also to turn around of the NPA accounts transferred from banks. Payment to SR holders is also a factor for funds generation.

ARCs issued SRs of ₹24,410 crore in 2016 and ₹28,640 crore in 2017 and so on. But redemption of SRs was only a fraction at ₹1,390 crore in 2016 and ₹1,950 crore in 2017.

There is also a fundamental flaw in transferring NPAs to ARCs. A mere transfer of NPA from one entity to another does not enable recovery. The transfer is actually a clean-up of banks' books with a haircut. The haircut has obvious positive and negative effect in the bottom lines.

ARCs have the same rights to recourse as banks do, but they do not have any magic wand for recovery. In fact, the financing bank will have more comfort while dealing with the borrower, as it has handled the borrower right from the time of the appraisal. ARCs do not have any special skill or judicial means to recover the money.

The only advantage with them will be that they buy the written down value and hence the recoverable NPA will be less.

NPA is not like a communicable disease that needs isolation and treatment. The policy makers must attempt a meaningful resolution of this problem including stringent action on the defaulters and judicial reform instead of preaching banks to soft pedal with borrowers or to transfer the problem to another entity. Otherwise it is simply scratching the surface.

Recovery performance by ARC's shows decline in recent year

Recovery performance by asset reconstruction companies (ARCs) measured against security receipts (SRs) issued shows decline in recent years, especially for assets that originated after 2014, according to a Reserve Bank of India (RBI) report.

For assets distributed based on security receipts origination dates, and reflecting SR recovery distribution of the top six ARCs, 2018 witnessed the lowest average recovery measured as a proportion of total SRs issued at 5.7%, though higher than the median of 3.0%.

However, data reflecting Arcs' recovery performance measured as a proportion of total bank claims showed an average recovery of 2.3% against a median of 0.9%. The average recovery in the second instance is far lesser than 5.7% as determined average recovery measured as a proportion of total SRs issued.

This remains consistently true for years 2004 to 2018. However, the central bank states, "Notwithstanding a fairly poor recovery experience for banks…, the recovery performance when measured with regard to the SRs issued (that is, after factoring in the discount to the total bank claims) is generally better."

However, as the Financial Stability Report further reads, "…the higher recoveries with regard to SRs as compared to bank claims across ARCs possibly reflects the pricing power of a few of them rather than their recovery prowess." Meanwhile, other data shows recovery in the early stages dominated aggregate recovery in stressed assets, which was in line with international experience though recovery rates in the Indian case were significantly lower.

"Given the aging profile of recovery there is possibly a case to look at the efficacy of collateralisation in the Indian context with regards to recovery. In this regard the prudential framework for resolution of stressed assets released on June 7, 2019 may have a salutary effect through its inbuilt incentivizing of early resolution," the report read.

Given that, data indicates maximum recovery earlier in the life of a stressed asset than later, the regulator believes built in incentives through aggressive provisioning norm that is part of the revised circular should ensure banks are 'incentivised' to look for an early resolution of the impaired assets thereby improving recovery prospects.

7 Emerging Trends in Financial Services

The diversified Indian financial sector always encounters rapid changes. Change is inevitable if any industry wants to update itself with time and enhance the customer experience. The emerging trends are supposed to bring some useful features in the industry by updating the operational procedures with innovative technologies, maximizing the satisfaction level of both the customers and service providers and boosting the industry growth factors. The Indian financial sector has experienced versatile types of trends which have impacted the economy from time to time. The emerging trends of recent times are expected to make the growth trajectory of the finance sector smooth and worthy. Some of the emerging trends are as follows:

• Blockchain

Blockchain is a decentralized system of recording and verifying any transaction electronically over a network of computers rather than by any single entity. Each of the blocks are basically the storage of data related to the transaction of individuals. The overall system of Blockchains is distributed across peer-to-peer networks which are continually updated and kept in sync with a single change in every transaction. All the information stored in the blockchain are time-stamped, encrypted and easily traceable. This makes it impossible to change or alter the unique identification code if someone wants to fraud.

A consortium of India's eleven largest banks including ICICI Bank, HDFC Bank, Yes Bank, Standard Chartered Bank, Axis Bank etc. have launched the first ever blockchain-linked loan system in FY19. This system can be used for automated account opening process, completing KYC details, international payment and in many more procedures. Besides, the features of it like maintaining smart contracts, built-in governance help the banks dealing with trade finances, insurance, digital transactions and several types of cross border payments easily in a very short time span.

Though the blockchain solution is still in its infancy but the value of it is expected to cross US$ 5 billion across all the sectors in India in the next five years. The system is capable to bring operational efficiency, simplicity and transparency in banking operations. Proper guidance to the users and service providers and implementation of suitable polices can be helpful to the industry.

• Artificial Intelligence

Artificial intelligence (AI) is a part of computer science which aims to create intelligent machines as a simulation of human intelligence. Speech recognition, learning, reasoning, planning, perception, problem solving etc. are few examples of its features.

- Adoption of AI helps to empower banking sector by establishing innovative products and services. Humanoid Chatbot interfaces to interact with customers,
- OCR or Optical Character Recognition system for capturing documents,
- Use of machine learning for generating insights from the text data,
- Use of Bot Advisors for managing the personal portfolios of the clients for estimating risk and expected return on any investment,
- Image/Face recognition facility in the ATMs by using real camera with advanced AI techniques to prevent frauds,
- Anomaly detection system for detecting fraud and anti-money laundering etc. are some of its specialties.

Though just like the other types of innovation, the AI is still in its nascent stage but the use of it in the Indian banking sector can be helpful. Increasing population, initiatives of financial inclusion, huge addition of data and rising chances of corrupted insights from falsified data require some advanced and sensitive services like AI. Multiple banks in India like HDFC & ICICI bank have started using chatbots for customer service. Last year, Canara bank installed robots in some of its offices to interact with customers.

The appropriate use of AI expects to add nearly US$ 1 trillion in the Indian economy by 2035. However, key challenges like availability of persons with proper skill of data science, inserting the details of 150+ languages with sizable spoken population in the robots and system can be hectic.

• Cloud Computing

Cloud Computing or Cloud Storage is a technology for storing data over the internet rather than any computer device. Companies who are designated as cloud providers deliver this service to the user company via internet. The user can have their own private cloud or they can rent a certain portion of any public cloud.

Cloud service is regarded as better source for securing information rather than conventional hard drives. With cloud services, information is encrypted and backed up continuously. The cloud-based services can be used for accounting, inventory control, human resources, and customer relationship management. The capital expenditure and ongoing operational costs can easily be reduced if the traditional storage process gets eliminated with the cloud service. Besides, the data stored in cloud can easily be accessed by the workers regardless of their location. Moreover, it also allows the users to pick and choose the services required on a pay-as-you-go basis.

Cloud computing enables the banks to upgrade with the changing market, customer and technological needs. Citibank Wealth Management replaced its fragmented CRM system with a unified cloud-based solution for providing customers a better experience. Besides, Yes bank also moved all its applications to private cloud back in 2011. Greater use of it in coming years can help to reduce costs, increased productivity, speed and efficiency, performance, and security.

• Application Programming Interfaces

Application Programming Interfaces or API is a software intermediary which allows two applications to communicate with each other.

The application of APIs helps banks to collaborate with their stakeholders like Fintechs and third parties to achieve their digital targets and create innovative products. Integrating with ERP systems of the corporate clients, verifying eKYC and PAN, recovering credit scores, association with third parties for creating innovative products, collecting customers' data across various platforms for understanding their preferences, controlling digital traffic, monitoring the access of various types of users, maintaining security etc. are some of its special features.

These kinds of role of APIs guide the banks to add suitable features in the procedures of online banking, customer data, cards, payments, and accounts and strengthen their revenue structure. In India, YES BANK was one of the first banks to launch API banking services to digitise B2B supply chain. Moreover, ICICI, RBL Bank, Kotak Bank, DCB Bank, Citi Bank and several others have seemed to be adopted this approach.

• Cyber Security

Cyber Security or Information Technology Security is the protection of devices, network, programmes, hardware, software and data from any attack from unauthorized access.

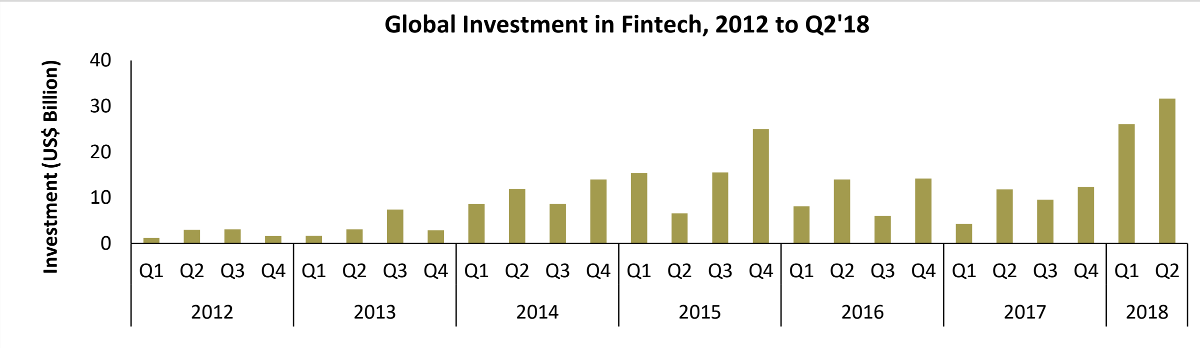
With the emerging threats in the banking and financial sector, cyber-attacks are now a global issue. Improper encryption of data leading to data theft, lack of protection towards CCTV cameras and connected devices, unprotected third party services, fraudulent activities by expert hackers leading to theft of high value payments, theft of credentials from customers' accounts are some of the critical examples of cyberattacks.

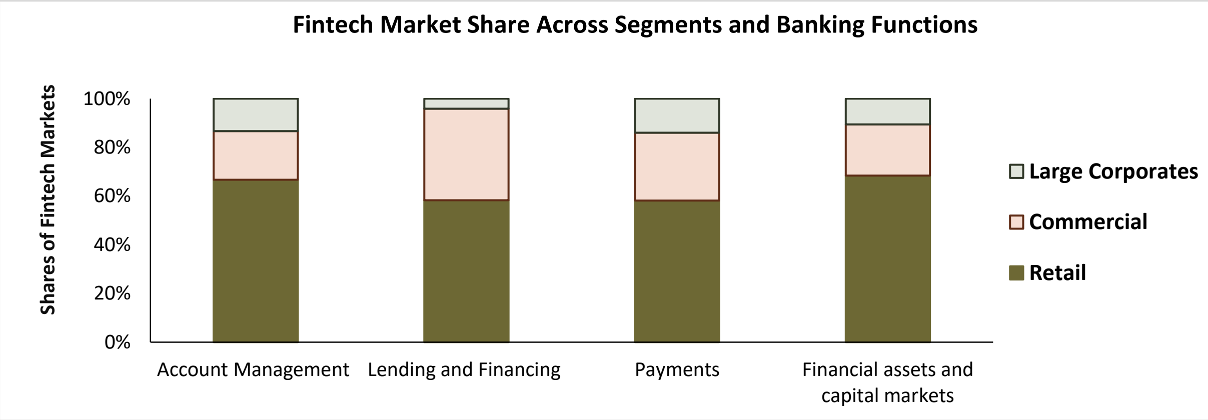
The cyber security threats need to be managed with the technically advanced protection system. A severe level of cyber-attack in banking sector can definitely lead to the failure of any bank. In India, new private sector and foreign banks accounted for 36 % each of all cyber fraud reported in debit, credit and ATM cards, among others.

According to a report, between 2008 to 2017, Indian banks faced INR 700 billion worth of cyber fraud cases. The banking system needs to prepare itself to address the risks and challenges. Proper IT system, regular scrutiny for appropriate policy and supervisory intervention, offsite monitoring mechanism, structured audit management system, active cyber security cell with advanced infrastructure are highly required.

Impacts of Tech Trends in Indian Banking sector:

- Emergence of the technological trends have caused huge expansion of fintech companies across the country. Their Independent and collaborative work with banks are providing the mass multiple opportunities to access the banking activities in easier way.





Source: Oracle, LSI Research

- The technologies have made mobiles not only a device for communication or connectivity but a crucial source for dealing with banking activities.
- The emerging trends are raising competition among the banks for adopting different technologies appropriately and providing customers better services.

- Besides, installation of ATMs, Cash Deposit Machine, Cheque Deposit Machine, Passbook Printing Machine across innumerable corners of the country have made the banking work easy.
- The trends are also increasing the requirement of skilled workforce in the domain of Information Technology for handling such advanced system proficiently.
- Interest towards the adoption of 5G network has also emerged in recent times.

With the advanced, fast and unique features, each of the trends is capable to bring revolution in the Indian banking industry. However, many remote parts of this country are still unbanked and a significant portion of the population is comfortable using the traditional banking system. Hence, smooth expansion of all the mentioned trends might take some time. Hopefully, with the increase in numbers of digitally literate people and better digital infrastructure, the growth prospect of these trends will be good.

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, playing a proactive role in India's development process. Founded in 1895, India's premier business association has around 9000 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from around 276 national and regional sectoral industry bodies.

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.

Extending its agenda beyond business, CII assists industry to identify and execute corporate citizenship programmes. Partnerships with civil society organizations carry forward corporate initiatives for integrated and inclusive development across diverse domains including affirmative action, healthcare, education, livelihood, diversity management, skill development, empowerment of women, and water, to name a few.

India is now set to become a US$ 5 trillion economy in the next five years and Indian industry will remain the principal growth engine for achieving this target. With the theme for 2019-20 as 'Competitiveness of India Inc - India@75: Forging Ahead', CII will focus on five priority areas which would enable the country to stay on a solid growth track. These are - employment generation, rural-urban connect, energy security, environmental sustainability and governance.

With 66 offices, including 9 Centers of Excellence, in India, and 10 overseas offices in Australia, China, Egypt, France, Germany, Singapore, South Africa, UAE, UK, and USA, as well as institutional partnerships with 355 counterpart organizations in 126 countries, CII serves as a reference point for Indian industry and the international business community.

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LSI Financial Services Pvt. Ltd. is a SEBI approved Category - I Merchant Banking company. It is a full-service financial solution entity relating to Mergers & Acquisitions, syndication of debt, Project Finance Advisory and other peripheral services as well as investment banking.

The Group comprises two independent operating companies:

• LSI Financial Services Private Limited
• LSI Engineering & Consultants Limited

LSI started operations in 1997 with focus on Project Finance Advisory, Issue Management, Equity Placements, Mergers & Acquisitions, Techno Economic Viability Studies etc. LSI has presence in Kolkata, New Delhi and Mumbai.

It is empanelled with all the PSU Banks and various Government Nodal Bodies for conducting Techno Economic Viability Studies, Preparation of Concession Agreements, Preparation of Detailed Feasibility Reports (DFR's), Financial Appraisals, Valuation, Lenders' Independent Engineer, Specialised Monitoring and Project Monitoring.

The Company has gathered significant knowledge and ability to tackle the challenging assignments across varied sectors, in the areas of sourcing funds, be it in the form of debt or equity and also for their expertise in advising in the M&A space. The company has catered to sectors like Energy & Power, Road & Infrastructure, Real Estate, Iron & Steel, Healthcare, Hospitality and Education.

LSI has a dedicated Research Team comprising seasoned professionals, who provide the requisite global and national economic updates & critical analytical support on the sectoral front. These reports reach out to more than 3,000 professionals across the country.

part from the above services LSI Financial Services Pvt Ltd is a Project Appraisal Agency for conducting qualitative appraisals of DDUGKY projects (Skill Development) in India.

LSI has two decades old understanding of the needs of the clients which enables the company to customize the financial solutions. LSI has in place a highly motivated team that shapes its mantra of "Adding Value, Partners in growth" into reality.

Important Empanelment:

West Bengal Finance Department	India Infrastructure Finance Company Limited (IIFCL)	National Highways Authority of India	Indian Port Association	Indian Banks' Association

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We are also present in Bengaluru, Bhubaneshwar, Hyderabad, Nagpur, Raipur, Rajasthan and Haryana.

Important Definitions:

- ***ARC or Asset Reconstruction Company:*** *An Asset Reconstruction Company is a specialized financial institution that buys the NPAs or bad assets from banks and financial institutions so that the latter can clean up their balance sheets.*
- ***ALM or Asset Liability Management:*** *Asset and liability management is the practice of managing financial risks that arise due to mismatches between the assets and liabilities as part of an investment strategy in financial accounting.*
- ***AQR or Asset Quality Review:*** *An asset quality rating is a review or evaluation assessing the credit risk associated with a particular asset.*
- ***CIRP or Corporate Insolvency Resolution Process:*** *Corporate Insolvency Resolution Process is a recovery mechanism for creditors. If a corporate becomes insolvent, a financial creditor, an operational creditor, or the corporate itself may initiate CIRP.*
- ***CRR or Cash Reserve Ratio:*** *Cash Reserve Ratio (CRR) is the share of a bank's total deposit that is mandated by the Reserve Bank of India (RBI) to be maintained with the latter in the form of liquid cash.*
- ***CAD or Current Account Deficit:*** *A current account deficit occurs when a country spends more on its imports than what it receives for its exports.*
- ***FDI or Foreign Direct Investment:*** *A foreign direct investment is an investment in the form of a controlling ownership in a business in one country by an entity based in another country.*
- ***FER or Foreign Exchange Reserve:*** *Foreign exchange reserves are cash and other reserve assets held by a central bank or other monetary authority that are primarily available to balance payments of the country, influence the foreign exchange rate of its currency, and to maintain confidence in financial markets.*
- ***FPI or Foreign Portfolio Investment:*** *A foreign portfolio investment is a grouping of assets such as stocks, bonds, and cash equivalents. Portfolio investments are held directly by an investor or managed by financial professionals.*
- ***GNPA Ratio:*** *Gross NPA Ratio is the ratio of total gross NPA to total advances (loans) of the bank.*
- ***IBC or Insolvency and Bankruptcy Code:*** *The Insolvency and Bankruptcy Code is the bankruptcy law of India which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy.*
- ***NBFC or Non-Banking Financial Company:*** *A non-banking financial institution or non-bank financial company is a financial institution that does not have a full banking license or is not supervised by a national or international banking regulatory agency.*
- ***NDTL or Net Demand and Time Liabilities:*** *The Net Demand and Time Liabilities or NDTL shows the difference between the sum of demand and time liabilities (deposits) of a bank (with the public or the other bank) and the deposits in the form of assets held by the other bank.*
- ***NPA or /non- Performing Assets:*** *A Non-performing asset (NPA) is defined as a credit facility in respect of which the interest and/or installment of principal has remained 'past due' for a specified period of time.*
- ***PCA or Prompt Corrective Action:*** *Prompt Corrective Action or PCA is a framework under which banks with weak financial metrics are put under watch by the RBI.*
- ***PCR or Provision Coverage Ratio:*** *The provision coverage ratio gives an indication of the provision made against bad loans from the profit generated.*
- ***PMI or Purchasing Managers' Index:*** *The PMI is an indicator of economic health for manufacturing and service sectors.*
- ***SLR or Statutory Liquidity Ratio:*** *Statutory liquidity ratio is the Government term for the reserve requirement that the commercial banks in India are required to maintain in the form of cash, gold reserves, RBI approved securities before providing credit to the customers.*

Abbreviations:

- ***AI:*** *Artificial Intelligence*
- ***ALM:*** *Asset Liability Management*
- ***AML:*** *Anti Money Laundering*
- ***AQR:*** *Asset Quality Review*
- ***ARC:*** *Asset Reconstruction Company*
- ***ATM:*** *Automated Teller Machines*
- ***B2B***: *Business to Business*
- ***BOL***: *Bill of Lading*
- ***BPO***: *Bank Payment Obligation*
- ***CAD***: *Current Account Deficit*
- ***CAGR***: *Compound Annual Growth Rate*
- ***CD***: *Corporate Debtor*
- ***CIRP***: *Corporate Insolvency Resolution Process*
- ***CRM***: *Customer Relation Management*
- ***CRR***: *Cash Reserve Ratio*
- ***DFI:*** *Development Finance Institutions*
- ***DRT:*** *Debts Recovery Tribunal*
- ***ERP:*** *Enterprise Resource Planning*
- ***FALLCR:*** *Facility to Avail Liquidity for Liquidity Coverage Ratio*
- ***FATCA:*** *Foreign Account Tax Compliance Act*
- ***FC:*** *Financial Creditor, Financial Claims*
- ***FDI:*** *Foreign Direct Investment*
- ***FER:*** *Foreign Exchange Reserve*
- ***FMCG:*** *Fast-Moving Consumer Goods*
- ***FPI:*** *Foreign Portfolio Investment*
- ***FSR***: *Financial Stability Report*
- ***FY:*** *Financial Year*
- ***GDP:*** *Gross Domestic Product*
- ***GNPA:*** *Gross Non-Performing Assets*
- ***HFC:*** *Housing Finance Companies*
- ***IBBI:*** *Insolvency and Bankruptcy Board of India*
- ***IBC***: *Insolvency and Bankruptcy Code*
- ***ICE:*** *Internal Combustion Engine*
- ***IL&FS***: *Infrastructure Leasing & Financial Services*
- ***IMPS***: *Immediate Payment Service*
- ***INR:*** *Indian Rupee*
- ***KYC:*** *Know Your Customer*
- ***LOCs:*** *Letter of Credit*
- ***LOU:*** *Letter of Undertaking*
- ***MICR:*** *Magnetic Ink Character Recognition*
- ***MOUs***: *Memorandum of Understanding*
- ***MSME:*** *Micro, Small and Medium Enterprises*
- ***NBFC:*** *Non-Banking Financial Company*
- ***NCLT:*** *National Company Law Tribunal*
- ***NDTL:*** *Net demand and Time Liabilities*
- ***NEFT:*** *National Electronic Funds Transfer*
- ***NPA:*** *Non – Performing Assets*
- ***OCR:*** *Optical Character Recognition*
- ***PAN:*** *Permanent Account Number*
- ***PCA:*** *Prompt Corrective Action*
- ***PMJDY:*** *Pradhan Mantri Jan Dhan Yojana*
- ***PMI:*** *Purchasing Managers' Index*
- ***PSB:*** *Public Sector Banks*
- ***PSU:*** *Public Sector Units*
- ***RERA:*** *Real Estate (Regulation and Development) Act*
- ***RRBs***: *Regional Rural Banks*
- ***RTGS***: *Real Time Gross Settlement*
- ***SARFAESI***: *Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act*
- ***SCB:*** *Scheduled Commercial Banks*
- ***SEBI:*** *Securities Exchange Board of India*
- ***SFCs***: *State Finance Corporations*
- ***SIDBI:*** *Small Industries Development Bank of India*
- ***SLR:*** *Statutory Liquidity Ratio*
- ***SME:*** *Small and Medium-Sized Enterprises*
- ***SR:*** *Security Receipts*
- ***UCBs***: *Urban Co-operative Bank*
- ***WTO:*** *World Trade Organization*
- ***Y-o-Y:*** *Year on Year*

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