CHAPTER – I

INTRODUCTION

"It is not by augmenting the capital of the country,
but by rendering a greater part of that capital active
and productive than would otherwise be so,
that the most judicious operations of banking
can increase the industry of the country."

- *Adam Smith, Wealth of Nations, Book II, Chapter II, 1776*

1. INTRODUCTION

1.1. Introduction and Role of Banking in Economic Development

Banking is the heart of an economy; it assists in mobilising the funds and channelizes the same for productive use. Business surplus and household savings require an opportunity to park money, bank undertakes this function and extends by further giving loans and advances to those with shortfalls. However, the borrower is expected to make viable and judicious use of the loan. It is believed that the banking progress or regress is a reflection of development of an economy. The banking sector assists the government in many ways to execute its plans of economic development; In India, Jan Dhan Yojna, Direct Benefit Transfer against various schemes like MNREGA, Ujjwala, Ujala, Skill Development, Girl Child Education, Atal Pension, Mudra Yojaana are few examples among many other socio-economic schemes where banking sector plays a very crucial role in their execution and success.

Among all other functions capital formation is the most important function of a bank. Desired economic growth and development is not possible without Capital Formation. Capital formation leads to increase in production, employment, income, consumption, saving and investments which in turn accelerates economic development. Banks mobilize savings into investment; as it acts as an intermediary between surplus from depositors and deficit to borrowers. Banks fund small to large corporate houses, agriculture, and give retail loans for vehicles, housing, education etc. Banks are also the lender of last resort to the government. The contribution of banks in fuelling the flow of money in the economy is enormous. Banks are thus known as the 'life line of an economy'.

An old adage, "Stock Markets are the Barometer of an Economy" indicates the sentiments of investors in the economy. Like banks, even stock markets significantly contributes towards the flow of money in the economy and ultimately to the development of an economy. Interestingly, Banking, Financial Services and Insurance sector (BFSI) constitute twenty-five percent weightage on Sensex and Nifty, India's two most prominent stock indices.

Only few economies are in surplus of a resource, like Middle Eastern economies in terms of crude oil. However, for everything else even they need to depend upon others. Since most of the resources are in scarcity, adequate and effective allocation of these resources, including money requires a judicious decision. In case of financing from bank, one has to be more cautious and must ensure that the resources borrowed are optimally and productively used. One should be mindful of the fact that these resources belong to the depositor and not to the bank. Bank is merely a keeper of these scarce resources.

Banks on the other hand needs to be more cautious while lending. Banks need to select a proper mix of sector allocation and ensure a diversified composition of the lending portfolio to avoid risk of bad debts. Several other factors like balance liquidity, interest rate, rate of inflation and the desired growth rate in the economy also influence the role of banks in lending. However, banks do not have a free hand in lending; both in quantitative and qualitative terms. It is important to note that banks, especially commercial banks are governed by monetary policy. Central Bank executes the monetary policy with an objective to meet the overall needs of economic growth and development. Central bank also ensures adequate flow of money in the economy and controls commercial banks' ability to lend. The three set of tools under monetary policy helps central bank to maintain desired liquidity in the economy; namely, Reserve Requirements like Statutory Liquidity Ratio and Cash Reserve Ratio, Open Market Operations and Interest Rates.

A Glimpse of the past can help with better understanding of current scenario in the banking system. History of banking and evolution of this sector brings more insights to understand the dynamics of banking sector today.

1.2. History and Evolution of Banking

The concept of Banking is 4000 years old, loans for food grains were provided to the farmers and merchants. In ancient Greek and Roman Empires, temples were at the centre where the traces of banking activities like accepting deposits and changing money were found. The name *bank* derives from the Italian word *banco* which means a desk or a bench. In 14th Century, the seeds of formal banking system were germinated at Florence, Italy. It was initially funded by Bardi and Peruzzi family; they were very prominent and reputed in Florence region. Objective behind starting the concept of bank was to support trade and commerce. Later, the state owned and recognized official bank was established in 1407 at Genoa, Italy (Dadabhoy, 2013).

Banking had a major role to play in Industrial revolution in Europe; machines were invented and production was commercialized leading to massive scale of operations. Due to invention of machinery the production output increased more than domestic demand. Since requirement for capital to buy machinery and raw material increased, businessmen were finding it difficult to expand with their own capital and hence need for borrowing capital increased. During the same time the World economy was facing distress due to the Great depression in US and World War II. Gradually, World economy collapsed and brought diverse challenges for different countries. India too, faced many economic problems post-independence. Apart from poverty, India faced problems in terms of unemployment, lack of investments, poor agriculture, heavy borrowings both internal and external leading to higher inflation and other economic problems (Dandekar, 1988).

Further, looking back in the history of banking; the social fabric tells about the presence of banking in different regions of India. Few Mercantile communities like Shroff, Multani, Marwari, Chettiar, Jain, Vaishya, Bohra, Khatri and Shikharpuri were involved in money lending function of the bank (Dadabhoy, 2013).These indigenous bankers had three types of model; entire business as banking, those whose principal business was trading but parked surplus money in banking and those who divided their money half in trading and other half in banking. Bills of Exchange, an instrument to transact was used for short-term financial as well as the inter-local transfer of funds called *hundi* .In addition, there were large number of private money lenders in India. The prominent names include Jagat Seth, Nagar Seth from Ahmedabad, Gopaldas Sahu from Benares, Trawadi Arjunji Nathji from Surat, VirjiVorato name few. (Robin, 2006) (Dadabhoy, 2013).

Modern banking was firstly formalized in 18th Century with the incorporation of Bank of Hindustan by Alexander and Co. However, it collapsed in 1832 as the parent company failed in England. Few more banks failed during the same time, like General Bank of India, Calcutta Bank and Bengal Bank. The main reasons for the bank failures were imprudent investment decisions and fraud cases. However, the commercial banking activities continued to thrive, as private businesses started incorporating their own banks for mobilising funds. Bank of Bengal in 1806, Bank of Bombay in 1840 and Bank of Madras in 1843 were incorporated with this objective and it helped many small traders to thrive businesses. When the *Swadeshi* Movement started in 1906, banking started gaining momentum and capital and reserves increased from Rupees five lakh to eighteen lakhs (Dadabhoy, 2013). Small sized banks started to exist and evolve during this period; these include Bank of Baroda, Bank of India, Central Bank of India and Bank of Mysore. The banking boom started to fizzle out between 1913 and 1917, when 87 banks failed by losing Rs. 1.75 crore. After World War I, furthermore 21 banks failed. Later, the banking sector once again started making its mark and there was a need to consolidate three giant banks; Bank of Bengal, Bank of Bombay and Bank of Madras into a single entity named Imperial Bank of India; currently known as the State Bank of India. Private industries continued to promote banking business in India in order to develop their industries, like Tata incorporated Tata Industrial Bank (TIB), a very prominent industrial group even today (Dadabhoy, 2013).

1.3. Reserve Bank of India (RBI)

Reserve Bank of India has been stellar, reliable and has strived to revitalize Indian economic condition during troubled periods. The history of RBI takes to the year 1926; there was a discussion on the dire need to steer the banking system where the Royal Commission (Hilton Young Commission) on Indian Currency recommended incorporating a central bank of India to be named Reserve Bank of India and was enacted in 1934. It came into existence on 1st April, 1935 having Sir Osborne Smith as the first governor. After its commencement, RBI has witnessed distinct phases of the banking sector from mere Issue of Currency Notes to Nationalization of Banks, incorporation of Private Sector Banks and also evolution of technology in banking along with addressing various economic problems to meet the larger objective of economic growth.

In 1937, Companies Act, 1936 was amended where an exclusive chapter on Bank as an entity was included. In 1938, RBI issued Currency notes for the first time. Later, laws related to public debt and government securities issues were consolidated under Public Debt Act, 1944. RBI was nationalized in 1949 through Reserve Bank (Transfer of Public Ownership) Act, 1948 and later banks were mandated to follow the rules of Statutory Liquidity Ratio (SLR) and Banking Companies Act which was renamed as Banking Regulation act, 1949 (RBI, Chronology of Events).

RBI was closely working with the government of India on development plans focusing on agriculture as well as Small and Medium Enterprises. In order to enable the states with finance, State Financial Corporation Act, 1951 came into effect for the credit requirement of Small, Medium Enterprises (SME) segment. Imperial Bank of India was nationalized in 1955 and renamed as State Bank of India. Later, banks of princely states like Travancore, Saurashtra, Bikaner and Jaipur, Patiala, Hyderabad and Mysore were made its subsidiaries. The objective was to penetrate the rural area and mobilize their savings. RBI was also very cautious about the failure of small banks. The failure of Laxmi Bank in 1960 among others instigated RBI to introduce the scheme of reconstruction and compulsory amalgamation of banks. Between 1960 to 1982 more than 200 banks were nationalised, merged or suspended in India (RBI, Evolution of Banking in India, 2008) (RBI, Chronology of Events)

Period between 1968 and 1985 brought major social controls and nationalization of banks for expansion and reach. In 1969, 14 scheduled commercial banks were nationalized with the objective to serve the nation better. But it was opposed by the banks; banks sued the government to safeguard their interest but it did not help them eventually as an ordinance to acquire princely state owned bank was passed and replaced by the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970. (RBI, Chronology of Events)

In 1973, Foreign Exchange Regulation Act was enacted to conserve foreign exchange by making it stricter and stringent; to achieve the objective this task was entrusted to the RBI. It resulted in tougher situation to use foreign exchange for import-export and securities. However, it was later repealed and replaced to Foreign Exchange Management Act, 1999 to relax the restrictions on foreign currency usage.

During 1980s, the inflation rate was 9% and monetary policy required intervention from the government and, a committee was formed in 1982 under the chairmanship of Sukhamoy Chakravarty, the Committee provided remarkable recommendations which included RBI must work independent of government, the monetary policy has to be maintained by the central bank and fiscal policy should be managed by the government. The objective is to focus on the country's economic conditions and both are expected to work in harmony. However, the reserve requirement was still very high due to conservative approach of the government in 1980's. During the period, SLR and CRR were 38% and 15% respectively, leaving inadequate amount for lending. Due to inordinate weight given to a socialistic philosophy based approach, the economic condition of India was deteriorating. In 1991, India was in the middle of multiple economic problems of very high inflation of 10%, Current Account Deficit of 3.1% to GDP, Balance of Payment crisis, depleted foreign exchange reserves, rise in external borrowing. India was under tremendous pressure from international bodies to change policies where a structural reform popularly known as LPG; Liberalization, Privatization and Globalization was to be inducted. Forex Reserves were at its lowest which to sustain barely fortnight oil imports (Valerie & Saxena, 2002) (Bajpal, 1996) (Siddiqui, 2014). Before private entities was provided licence in banking sector total public sector banks in India was 27 including Associate Banks of State Bank of India. In March 1991, aggregate deposits were Rs. 2.01 crores total bank credits were Rs. 1.21 crores while Loans and Advances were Rs. 1.09 Crores (RBI, 1998).

In 1993, Narasimham Committee-I was constituted in suggested radical reforms in the banking sector including accounting standards for banks and reduction of SLR and CRR in phase wise manner, to bring Capital Adequacy Ratio to 8%, deregulation of interest rates, competition in the banking sector by allowing private entities (Narasimham, 1991).

In 1993, guidelines for private sector bank were issued to introduce competition in the banking sector. At least 9 institutions were awarded banking licences with ICICI bank becoming the first major private sector bank in India. ICICI Bank fulfilled the requirement of Rs. 100 Crore capital requirement and 8% Capital Adequacy Ratio. Other private and financial quasi-governmental institutions included Unit Trust of India (Now Axis Bank), Global Trust Bank, HDFC Bank, IDBI Bank and others.

Since 1991, Private sector banks have proved to be the game changers as they pioneered in adoption of technology. This pressurized Public Sector Banks to perform better as slowly and gradually private sector started increasing market share. Private Sector Banks provided better services dominated by the use of technology which made them more efficient and preferable. In the next phase; IndusInd, Kotak Mahindra and Rabo bank were given license (Vikramnan, 2017). So far, the technology has been the driving force for the banking sector and RBI was working promptly by keeping abreast with the technological advancements in the world. RBI has timely appointed various committees to focus on technology to ensure the benefits for investors and general public.

1.4. Technology in Banking

With the advent of technology, the banking sector changed phenomenally. RBI took many initiatives to upgrade technology starting from 1982 by constituting a committee under the leadership of Dr. Y B Damle. The committee worked on the feasibility to introduce the Magnetic Ink Character Reader (MICR) technology for sorting cheques at the central hub starting with metropolitan cities and progressed towards regional centres. In 2000, its implementation was under the leadership of Mr. C. Rangarajan, Former Deputy Governor of RBI. It was strategized to implement MICR in the cities with more than 10 branches and penetrate gradually. In 1987, a Committee on Communication Network for Banks and Society for Worldwide Interbank Financial Telecommunications (SWIFT) implementation was constituted under the chairmanship of Mr. T N A Iyer. ‘Banknet’ a network of interconnected nodes to equipment which allows the devices to connect remotely for communicating was introduced. The connection between RBI and public sector banks was proposed to be established with the use of such network. The upgrade in the technology enabled inter-bank fund transfers on banks' own account and on customers' account, inter-branch funds transfers on banks' own account and on customers' account, currency chest transactions, government transactions, improvements in payment systems by facilitating automated clearing services (similar to Bankers Automated Clearing Service), any branch banking, etc. In 1988, other than the refinement of the recommendation given in the earlier committees, there was an addition in the area of customer service with the introduction of online banking, standardization and rigorous security features to ensure an efficient and risk free transfer of funds electronically and the setting up of a network of Automated Teller Machines (ATMs) in Mumbai followed by its subsequent spread throughout the country.

After 1991, banking has witnessed plethora of reforms, the major reform was witnessed after the Committee on Technology Issues relating to Payments System, Cheque Clearing and Securities Settlement in the Banking Industry under the leadership of Shri W. S. Saraf. Committee. In 1994, it recommended introduction of Electronic Fund Transfer for high valued institutional transfers through batches working every hour (RBI, 1998).

Promotion of card culture, optimal usage of SWIFT and NICNET to report currency chest transactions were also recommended. Best practices from USA and UK were adopted in Indian banking sector, the legislation enacted for Electronic Fund Transfers was influenced by developed to introduce Delivery versus Payment (DvP) system for Subsidiary General Ledger transactions, electronic Clearing Service Credit for low value repetitive transactions such as interest, dividend, salary, pension payments and Electronic Debit Clearing for payments to utility companies and 'Clearing Bank' concept for decentralised cheque processing. As per the suggestions of The Committee on Banking Sector Reforms chaired by Shri M. Narasimham,in April 1998, a dedicated Committee on Technology Upgradation in the Banking Sector was constituted under the chairmanship of Shri A. Vasudevan, Executive Director, Reserve Bank of India. The committee highlighted major limitations related to the use of technology in Indian Banks and suggested measures for improvement.

Following were the key observations and suggestions:

1. Automation in bank was inadequate.
2. Weak commercially oriented inter-bank platform.
3. Lack of a planned, standardise electronic payment systems backbone.
4. Inadequate telecom infrastructure.
5. Inadequate marketing effort.
6. Lack of clarity and certainty on legal issues
7. Lack of Data Warehousing network.
8. Rural areas should get quick credit at reasonable rates as it is sensitive to the vagaries of nature.
9. A friendly system for encouraging savings into the financial mainstream.
10. Easy access to a wide range of banking and payment services of high quality customised to as narrow a segment of customers as possible.
11. Computerisation in tracking spreads, costs and NPAs better for higher profitability, prompt information for strategic decisions, risk and Asset-Liability management; and Efficient Treasury Management

In 2004, automation was introduced through Screen-Based Trading for developing the money and debt market. The specifications of hardware, network and software were recommended in depth by Report of Working Group on Screen-Based trading for Government Securities under the chairmanship of Dr. RH Patil (Patil, 2004).

In 2011, the Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds under the chairmanship of Smt. Shyamala Gopinath recommended Banks needed to formulate a Board with IT strategy/plan document. Appointment of Independent Director on the Board for IT Strategy committee, and Chief Information Officer should be responsible to construct IT corporate governance structure covering requirements for implementation. It was also recommended to build up strong Management Information System, Project Management methodology with periodic review and measuring the effectiveness of the IT at different levels. IT architecture should be robust in terms of security, there should be provision for continuous surveillance, customer information confidentiality, Cyber Crisis Management Plan, reporting information related to cyber security incidents to the RBI. (Gopalkrishna, 2011).

The technological innovation in financial sector is going at a very rapid pace and in order to keep up with the development, RBI constituted the Working Group on FinTech and Digital

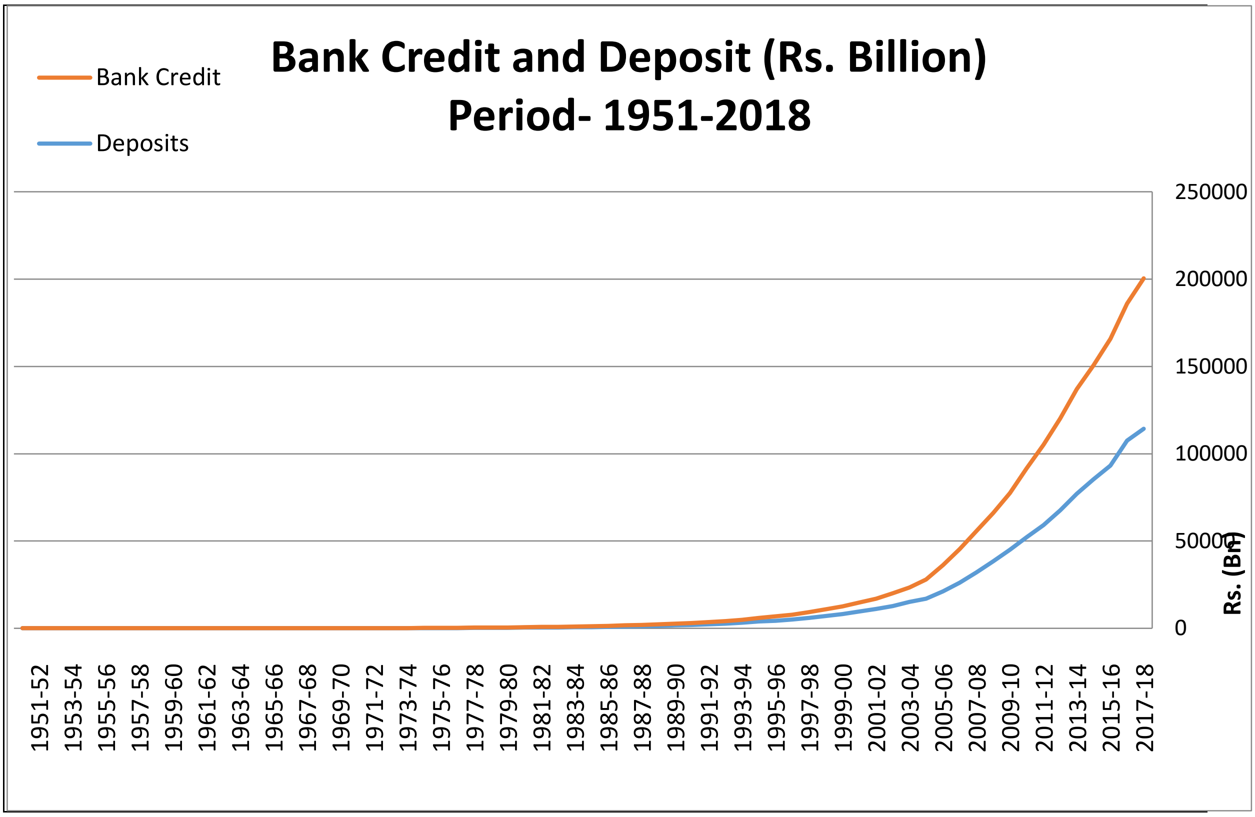
Banking. Innovations related to payments, lending, asset management and insurance are the challenges to various business models and strategies of financial institutions. To keep up breast with the technological advancement in the world Block-chain Technology, Mobile and web-based payments Digital currencies Distributed ledger, Crowd-funding, Peer to peer lending Digital currencies Distributed Ledger, Smart contracts Cloud computing e-Aggregators, Robo advice Smart contracts e-Trading and Big data Artificial Intelligence & Robotics were reviewed by the committed lead by Shri Sudarashan Sen. (Ravikumar, 2016) (RBI, Report of the Working Group on FinTech and Digital Banking, 2018)

India has coped up decently well with reference to use of technology. The promptness and readiness of RBI has enabled the sector to grow faster and better. RBI has been prompt in undertaking research on latest technological issues like, block chain technology and FinTech enterprises among others. RBI oversees banking affair to safeguard the investors, creditors and banks' capital. A study on Credit growth helps to understand development of the banking sector better.

1.5. Credit, Deposit and NPA Growth in India

After Independence, banking sector operated with Rs. 9 Billion (Bn) of Credit and Rs. 5 Bn of Deposit in 1951 and grew to Rs 1,14,260 Bn of Credit with Rs. 86,254 Bn of Deposit in 2018. The graph on credit and deposits from 1951 may look flat in the below Figure 1-1. But there was a steady rise in deposits in 1955, deposits increased to Rs. 11 Bn and credit to Rs. 6 Bn, in 10 years its grew 3 times when deposits were almost Rs. 33 Bn and credit to Rs. 22 Bn in 1965. In the next decade, it grew to Rs. 156 Bn that is almost 5 times in that decade and credit to Rs. 106 Bn. In 1980 deposited amounted to Rs. 440 Bn while credit was Rs. 272 Bn. It is clearly visible from the Figure 1-1 that the thrust in deposits was from 1990, owing to major structural reforms in India and introduction of private sector banks.

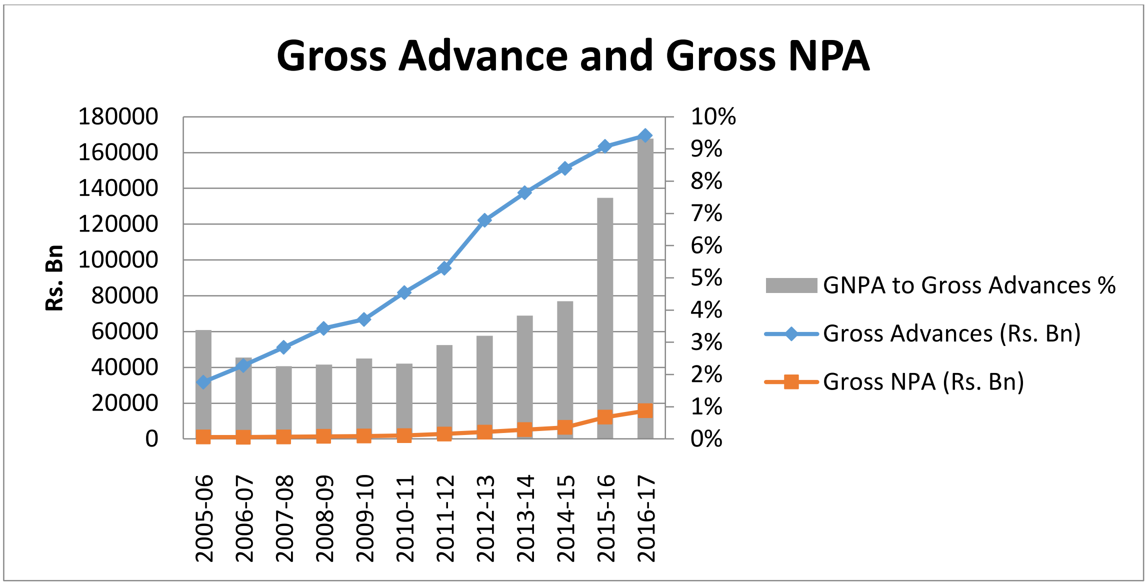
Figure 1-1: Bank Credit and Depsoit from 1951 ti 2018 in India



Source: HBS-Table 45-Scheduled Commercial Banks - Select Aggregates, RBI

Along with increase in credit, bank losses related to Non-performing assets also increased drastically. The amount and share of Gross Non-Performing Assets also increased. The amount reached nearly Rs. 10,000 Bn in 2018. At 9%, the ratio of Gross NPA to Gross Advance was highest in the year 2018. From the below Figure 1-2, GNPA to Gross Advances from 2010 increased while from 2014 to 2017 there was a steep rise in GNP to Gross Advances, Gross NPA.

Figure 1-2 Gross Advances and Gross NPA from 2005-2017



Source: HBS-Table 65- Gross and Net NPA of

Scheduled Commercial Banks, Bank Group-Wise, RBI

Since the start of the new millennium the economic health of Indian Banking Sector started deteriorating. The intervention from RBI gained importance. RBI introduced several measures including Asset Restructuring Schemes, Strategic Debt Restructuring (SDR) Scheme, Scheme for Sustainable Structuring of Stressed Assets (S4A), Prompt Corrective Action, Rule of 5:25, Mission *Indradhanush*, Asset Quality Review, Insolvency and Bankruptcy Code, Public and Private Asset Restructuring Companies (Meher, 2018).

1.6. Concept and Functions of Banking

The primary business of bank is borrowing and lending; deposits and loans. The customer deposits are accepted for long and short term through fixed, savings and current accounts. Loans provided are short, medium and long term. Bank provides a wide platter of loans; cash credit, overdraft, corporate, home, vehicle, gold, education, rural and agriculture, MSME Credit, etc. as suitable to the requirement of firms and households. Also, provide indirect assistance through letter of credit, letter of reference, trustee and executor, discounting of Bills of Exchange, underwriting, payment of utilities bill, investment assistance in securities, insurance, mutual funds, and income tax consultancy, etc. The major revenue comes from the interest income and makes it very sensitive with the changes in rate. When the rate of interest is increased it attracts more deposit but decreases borrowings. This leads to difference between borrowing and lending amount which can affect the Asset-Liability balance of the bank. The difference between borrowing and lending interest rates is called 'spread'. Lower the spread more efficient is the bank.

While lending, bankers have to be very cautious and are expected to make judicious use of money from deposits. If the equation of deposits and lending fails, it results in huge losses for short and long period which can be detrimental to the financial health of Bank and economy at large.

In modern days, the scope of banking is very wide and has become a financial multiplex where the institution provides solution to almost all financial issues like investment, insurance, and beyond. The services provided includes Insurance, Mutual Fund, Demat Account, Foreign Exchange, Point of Sale, National Electronic Fund Transfer (NEFT), Real Time Gross Settlement, Immediate Payment System, Credit Cards, Debit Cards, Payment gateways, ATM, Wealth Management and Investment Banking.

1.7. Support to Banking Sector

In order to have smooth functioning in the banking sector RBI has empowered many committees and boards to oversee the delegated objectives. Broadly, there are 6 committees working for various objectives. Board for Financial Supervision (BFS) constituted in 1994 with the objective to undertake integrated supervision of different sectors of the financial system. Banks, financial institutions and non-banking financial companies (including Primary Dealers) are reviewed by the committee and meet on monthly basis. BFS plays a critical role in the effective discharge of RBI's duties.

Audit Sub-Committee is constituted by the BFS with the objective to improve the quality of the statutory audit and internal audit in banks and financial institutions.

- Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) oversees the functions of policy initiatives on payment and settlement systems within the country. Board is responsible to approve new technology in the space of payment and settlement.
- Deposit Insurance and Credit Guarantee Corporation (DICGC) came into existence in the year 1978 with the objective to integrate the functions of deposit insurance and credit guarantee of savings, current, fixed and recurring deposits with Eligible banks. Every eligible bank depositor is insured up to a maximum of (Rupees Five Lakh for both principal and interest amount held by him.
- National Housing Bank (NHB) was set up on July 9, 1988 with the objective to promote a sound, healthy, viable and cost effective housing finance system to all segments of

the population and to integrate the housing finance system with the overall financial system. The effect on increase in housing demand is an indicator of growth; it provides avenue for all peripheral suppliers to get more business. Further it indicates some kind of future financial stability of home buyer to an extent.

- Bharatiya Reserve Bank Note Mudran Private Limited (BRBNMPL) was incorporated in 1995 to bridge the gap between demand and supply of currency notes.
- National Bank for Agriculture and Rural Development (NABARD) has been working to provide credit flow for promotion and development of agriculture, small-scale industries, cottage and village industries, handicrafts and other rural crafts. \

1.8. Banking Structure in India

Banking in India is categorized as Schedule and Non-Schedule Banks. Schedule Banks are the banks with minimum paid up capital and reserve of Rs. 25 lakh and submits a weekly report to the RBI while the banks not listed in the second schedule of RBI act are Non-Schedule Banks. In September 2020 there were 12 Public Sector Bank, 22 Private sector Bank, 10 Small Finance Banks, and 46 foreign banks with 158,318 branches and 2.38 lakhs ATMs present across India as presented in Figure 1-3. The total deposits with all the commercial banks were Rs. 119 Trillion and Outstanding Credit is Rs. 89 Trillion (RBI, 2020).

The classification is as follows Figure 1-3 Classification of Banks with the total banks in each category (as on January 2021)

Figure 1-3 Classification of Banks with the total banks in each category (as on January 2021)

Scheduled Commercial	Scheduled Co-operative	Non-Scheduled
• Public Sector-State bank-1 and Nationalized-12 • Private Sector-22 • Local Area-3, Payment Banks-7, Small Finance-10 • Foreign Bank-46 • Regional Rural Bank (RRB)-43	• State Co-Operative-23 • Urban Co-Operative-53	• State co-operative-11 • District Co-operative-352 • Urban Co-Operative-1481

Source: List of Scheduled Commercial Banks (SCBs), RBI

With the objective to promote more usage of technology for transactions; commercial bank provides the facility of National Electronic Funds Transfer (NEFT), Immediate Payment Service (IMPS), Card Transactions and Mobile Banking.

As per Financial Stability Report July 2020 and January 2021, RTGS presently processes around 6 lakh transactions daily valuing around Rs. 4 Trillion across 237 participant banks with the average transaction of Rs. 57.96 lakh (November 2020). (RBI, Statement No.3A :Distribution of Reporting Offices according to Size of Aggregate Deposits, 2020) (RBI, Financial Stability Report, 2020) (RBI, Financial Stability Report, 2021).

The issue of NPA was in limelight especially after Dr. Raghuram Rajan presided over as the governor of RBI. With the hard work of RBI and investigation by few prominent media like Indian Express, the problem of NPA was highlighted. The reasons quoted by Dr. Rajan includes over optimism between 2006-2008 while lending loans, slow growth rate, loss of promoters as well as bankers interest, malfeasance and fraud. (Rajan, 2018).

1.9. Non-Performing Assets of Commercial Banks

The canvas of banking history depicts rise and fall of banks in various episodes primarily because of cyclical lending practices. Bad loans have been a matter of concern for the banks during the recessionary trend in business cycles. Each cycle brings newer challenges and the paradigm keeps shifting with a newer challenges and opportunities. The evolution of any discipline is studied at its best through the development of definition provided at various juncture of time.

During the period of 1970s, different nomenclature was used by different banks as appropriate, the NPA were called distinctly as sticky, out of order, hard core, overdue accounts, etc. Later on Tandon committee Year suggested there should be a uniform nomenclature or definition and proposed to categorize accounts as Excellent, Good, Average and Unsatisfactory/bad and doubtful debts. Later, Chore committee emphasize on monitoring of accounts with big ticket size of Rs. 10 lakhs and more. With the recommendations by Pendharkar committee in 1981, RBI instituted the concept of health coding system of banking portfolio which was to be classified under eight categories. Though it was a step towards standardization of classifications India was not following the international practice of classifying the loans. In 1988, a committee of the Bank for International Settlements based at Basel, Switzerland prescribed important rules, regulations, norms and procedure to stabilize the banking system in the world. Basel norms were introduced to all the member countries to adopt standardized set of prudential banking norms. Risk-Weighted assets approach assigned weight to both on and off balance sheet exposures of a bank as perceived risk for the method of measuring capital adequacy. By 1992, as per the recommendations of Narasimham Committee it was emphasized that banks are not a social enterprise and needs to earn profit for sustainability. Thus a minimum standard of eight per cent Capital Adequacy Ratio (CAR) was to be implemented. CAMEL Analysis (Capital, Asset Quality, Management, Earnings and Liquidity) is internationally accepted measure for profitability and sustainability of banks was suggested by the committee. Finally, in order to increase transparency, committee came up with the norms related to Income Recognition and Asset Classification with four categories; Standard, Substandard, Doubtful and Loss. It was perceived to be better and lucid to interpret the categories of bank assets.

1.9.1. Concept and Definition

Non-Performing Asset is loan or advance of which the principal and/or interest payment is overdue for a period of 90 days. In most of the country's NPA is called as nonperforming loan (NPL) which is defined in line with the definition provided by RBI. The account can be declared as NPA when:

1. Interest and/ or instalment of principal remain overdue for a period of more than 90 days.
2. Outstanding balance remains continuously in excess of the sanctioned limit/drawing power for Overdraft or Cash Credit.
3. In case of discount bill, overdue for more than 90 days.
4. Instalment of principal or interest thereon remains overdue for two crop seasons for short or long duration crops
5. Outstanding liquidity facility remaining unpaid for more than 90 days.

6. Derivative transaction remaining overdue from positive mark-to-market value of the contract.

As per the Master Circular- Income Recognition, Asset Classification, Provisioning and Other Related Matters on 1st July 2015, two important aspects of Asset Classification as Non-Performing and Asset Classification were discussed separately:

Asset Classification as Non-Performing broadly as Past Due and Over Due and as follows:

1. **Past Due**-An asset becomes non-performing when it stops generating income for the bank. A 'non-performing asset' (NPA) was defined as credit in respect of which interest and / or instalment of principal has remained 'past due' for a specific period of time. The specific period was reduced in a phased manner as under: An amount is considered as past due, when it remains outstanding for 30 days beyond the due date.
2. **Over Due**-Principal, Interest, Cash Credit, Overdraft outstanding is overdue for more than 90 days is considered to be Over Due.

While Asset Classification is based on Standard, Sub-Standard, Doubtful and Loss Assets:

1. **Standard Assets-** Assets which does not disclose any problem and faces normal risks are Standard Assets.
2. **Sub-standard Assets**-If NPA is for a period up to 12 months and the mortgaged asset price is lower than the due amount then it will be categorized as sub-standard asset.
3. **Doubtful Assets**- The assets are not able to generate income for more than 12 months and shows no signs of recovery is categorized as doubtful assets.
4. **Loss Assets**-When the recoverable amount is un-collectible or some salvage value can be recovered and the loss is identified by the bank, auditors or RBI is categorized as loss assets. (RBI, MASTER CIRCULARS, 2015)

1.9.2. Causes for Non-Performing Assets (NPA)

The causes of NPA can be internal as well as external factors. Internal includes lack of managerial or entrepreneurial skills, diversion of funds, weak credit collection system, inadequate operations and production processes, poor decision making in the field of technology, market, expansion, diversification, the use of long-term funds for working capital, substantial expansion beyond current capacity etc.

External factors include recession, political instability in the state, policies of the government, legal framework that constricts operations or survival, natural and man-made calamities, etc. One cannot turn down the fact that political interference leads to dilution of credit appraisal process and probably contribute to the cause of NPA. At times to garner more vote political party (ies) presses bank to conduct *loan melas*, directed lending without making proper assessment leading to massive non-repayment. Many a time agriculture loans are waived off for political reasons (Gopalkrishnan T. , 2004). Other reasons include economic conditions leading to NPA can be changes in fiscal and monetary policy, Export Import policy, Credit policy, Exchange Rate Policy, Labour policy, pandemic and other policy which may impact the business. It may be due to international events leaving a cascading effect on many business houses.

Technological obsolescence is also seen as one of reasons for the decline of business in competitive market. Private business entities consider technological advancement as unnecessary investment thus they are not able to keep abreast leading to decline in business. But the fast changing technology due to digitalisation of business activities has challenged business activities across the sectors. E-commerce is just one of sector that has emerged due to technological advancement in recent times. The traditional businesses who fail to respond timely and appropriately may perish. This has also been one of the many factors leading to loss of revenue and profit for business in India, lately.

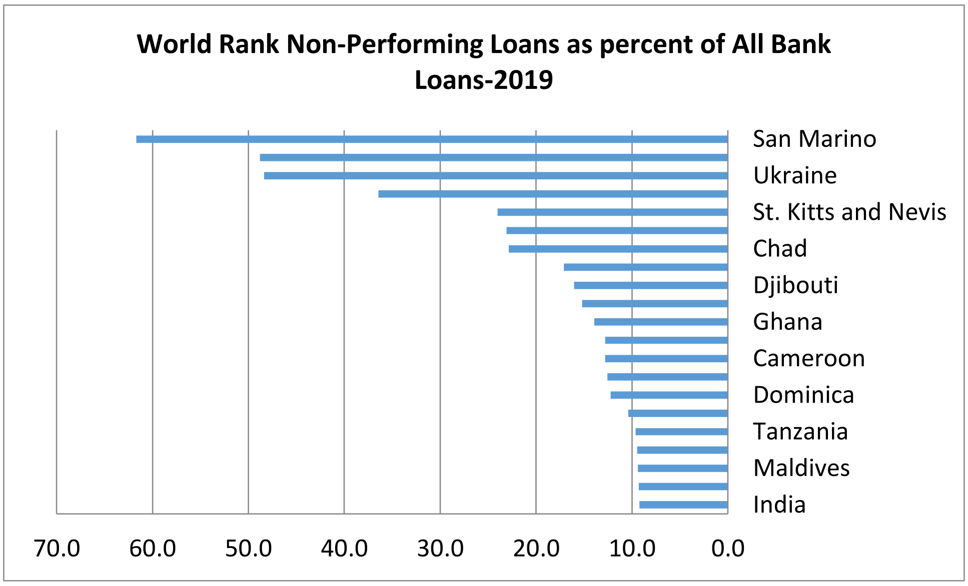
When the business opts for loan from the banks and has to face challenging external environment, the risk of loss multiplies along with the pressure of repayment. The banks on the other hand need to implement a robust appraisal process to curtail the risk of default. Banks are required to make detailed analysis and appraisal to ensure funds are not given in wrong hands. For this, a lot of responsibility is thrust upon the bank appraisal officer to identify intentions of the borrowers; he is updated with current trends in business and sectors. Officers are also being cautious about sensitive sectors during the appraisal process. In any of thing goes wrong in evaluation it may lead to huge loss.

In reference to loan appraisal process, there were many guidelines for loan approval by past committees like Tandon Committee in 1975. The committee proposed a formula for the concept called Maximum Permissible Bank Finance. In 1997, the formula was altered by Chore committee which was eventually scrapped by RBI as it got outdated. Simultaneously, in 1988 at international level, Bank for International Settlements (BIS) introduced Basel I norms for credit risk and later included market risk. Then in 2004, an additional dimension of risk was introduced; Operational Risk. Operational risk arises due to loss resulting from inadequate or deficient internal processes, people and systems or from external events. In 2008, after witnessing the widespread effects of sub-prime crisis, there was a need to restrict excessive leverage by the bank and to consider systemic risk along with the previous risk liquidity risk was incorporated in Basel Norms III (Suresh & Paul, 2018).

1.9.3. NPA in Recent Times

India has been ranked at 21st position according to World Bank Non-Performing Loans as Percent of all Bank Loan in 2019.The data is presented in the following Figure 1-4 World Rank Non-Performing Loans as percent of All Bank Loans, 2019 on World Rank Non-Performing Loans as percent of All Bank Loans, 2019. At top position tax haven and high income country San Marino is listed with 61.69 % of NPL to Loans followed by Ukraine, Ghana, Greece, Russia, Maldives amongst high, middle and low income countries across the world.

Figure 1-4 World Rank Non-Performing Loans as percent of All Bank Loans, 2019



Source: World Bank2019, Non-Performing Loans as percent of All Bank Loans

According the Table 1-1from2014, India's rank in terms of NPA to advances has been deteriorating. In 2014, India ranked at 61st position with 4.34 % and slipped to 21st rank in 2019 with 9.23% of NPA to advances. In 2017, per cent of NPA to advances was the highest at 9.98 where India ranked at 36 position.

Table 1-1 India's Rank in World in terms of per cent NPA to Advances

Year	Rank	Per Cent NPA to Advances
2019	21	9.23
2018	23	9.46

2017	36	9.98
2016	44	9.18
2015	60	5.58
2014	61	4.34

From the below Table 1-2 in 2018, the amount of NPA stood Rs. 10 Trillion at 11.18% to Gross Advances. The amount of Advances has increased from Rs. 15 Trillion to Rs. 92 Trillion between 2005 to 2018 is almost 6 times increase as against Gross NPA increased from Rs. 517 Billon to Rs. 10,361 Billion which is 20 times increase.

Table 1-2 Gross Advance and Gross NPA from 2005 to 2018 in Rs. Bn

Year	Gross Advances (Rs. Bn)	Gross NPA (Rs. Bn)	GNPA to Gross Advances (%)
2005-06	15457.30	517.53	3.35
2006-07	20074.13	505.17	2.52
2007-08	25034.31	566.06	2.26
2008-09	30246.52	699.54	2.31
2009-10	32620.79	817.18	2.51
2010-11	39959.82	939.97	2.35
2011-12	46488.08	1369.68	2.95
2012-13	59718.20	1927.69	3.23
2013-14	68757.48	2630.15	3.83
2014-15	75606.66	3229.16	4.27
2015-16	81711.14	6116.07	7.48
2016-17	84767.05	7902.68	9.32
2017-18	92662.09	10361.87	11.18

Source: Department of Supervision, Reserve Bank of India, 2018)

Further, bifurcation of the figures is represented in Table 1-3 based on Type of Schedule Commercial Banks; Nationalized, Private Sector and Foreign Banks with percent share of Gross NPA and Gross Advances for the year 2018.

Table 1-3-Bank-Wise Gross Non-Performing Assets, Gross Advances and Gross NPA Ratios of Scheduled Commercial Banks 2018

Banks	Gross NPAs (Rs. Bn)	% Gross NPA of Total	Gross Advances (Rs. Bn)	% Gross Advances of Total	Gross NPAs to Gross Advances Ratio (%)
Nationalised Banks	8956.013	86.43	61416.98	66.53	14.58
Private Sector Banks	1258.629	12.15	27258.91	29.53	4.62

Foreign Banks	138.2966	1.33	3633.047	3.94	3.81
Small Finance Banks	8.93349	0.09	353.1599	0.38	2.53
Total	10361.87	100	92308.94	100	11.18

Source: Department of Supervision, Reserve Bank of India, 2018

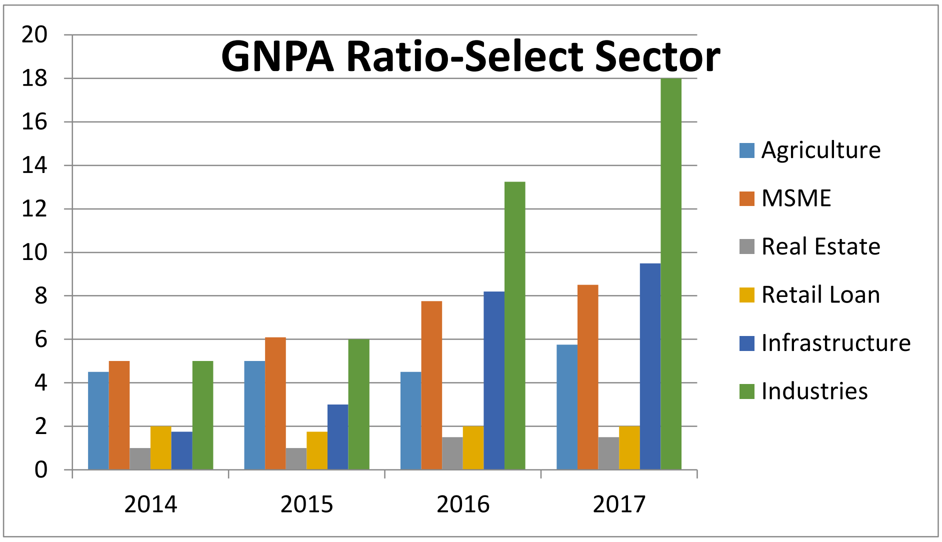
As per the data of NPA to Gross Advance, maximum share of Advances is of Nationalized Banks with 66.53% but the share in total NPA is 86.43%, this raises several concerns over the management of funds and quality of credit of PSU banks in India. On the other hand, private Sector Banks provided Advance worth Rs. 27,258 which is nearly 30% of total Advances but Gross NPA to Advances ratio is just 4.62% while nationalized bank has 14.58%. Foreign Bank and Small Finance Bank have a miniscule presence of Advances as well as Gross NPA of 4 per cent and 1.42 per cent respectively. Overall these figures highlight some kind of inefficiency by nationalized banks over Private, Small Finance and Foreign banks.

RBI has categorized lending as Priority and Non-Priority after 1967, the word priority was firstly used by the former Prime Minister Shri Morarjibhai Desai in the parliament. Formal introduction of the word priority was made by Dr. K S Krishnamurthy in National Credit Council in 1972. The rationale of such bifurcation lies in the outlook of RBI and the government to uplift few sectors. Since 50% of the total workforce is engaged in agriculture and allied sector but contributing meager 16% to the GDP (Sweetline, 2017). Priority sector includes:

1. Agriculture
2. Micro, Small and Medium Enterprises
3. Export Credit
4. Education
5. Housing
6. Social Infrastructure
7. Renewable Energy
8. Others

Each category has been defined by RBI with fund limits. Few selected sectors like Agriculture, MSME, Real Estate, Retail Loan, Infrastructure and Industries is discussed in Report on Trend and Progress of Banking in India, 2017.From the Figure 1-5 on GNPA ratio of few selected sector, NPA in industries have spiked drastically in comparison to other categories between 2014 and 2017. Overall, there has been an increase in the trend of NPAs relating to Agriculture, MSME, Retail, Infrastructure, Retail and Industries. The lowest ratio is of Real Estate followed by retail. The most troubled sectors were MSME and Infrastructure.

Figure 1-5: GNPA Ratio as per cent of Total Advances of Selected Sectors

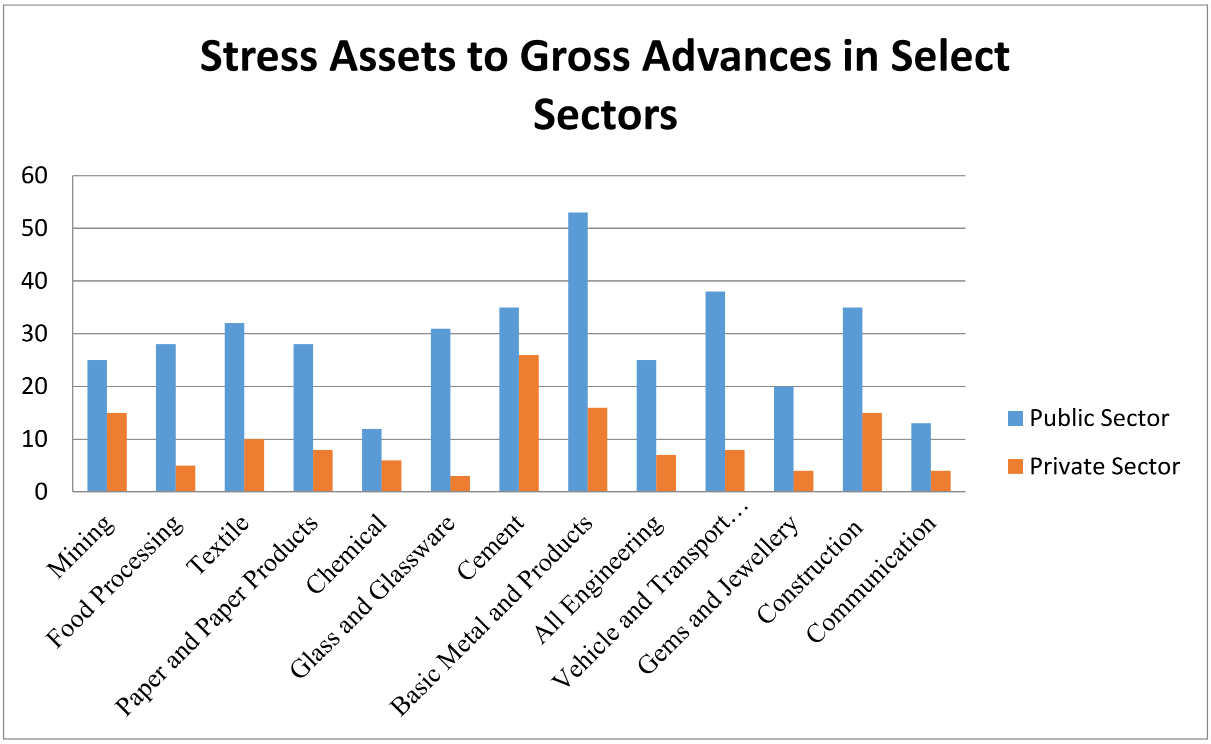


Source: Report on Trend and Progress of Banking in India, RBI, 2017

NPA is the actual loss of the bank while stress assets are the losses in the pipeline by identifying Special Mention Accounts (SMA) based on the period of overdue of principal and/or interest from 1 to 30, 31 to 60 and 61 to 90 days as SMA-0, SMA-1 and SMA-2. (RBI, 2014). Stress assets provide a better picture of what bad is going to come next. Ratio of Stressed Assets to Gross Advances is one of the prominent yardsticks to gauge the problem of NPA.

Stressed Assets to Gross Advances in few selected sectors of Public and Private Sector Banks are highlighted in Figure 1-6. It indicates Base Metal and products have been worst with more than 50% outstanding loans for Public Sector Banks, followed by Vehicle and Transportation, Construction and Cement industries. Except for Chemical and Communication sector, rest all other sectors have ratio more than 10% of Stressed Asset to Gross advances. Private sector banks are facing major problem with Cement Industry where the ratio is more than 20% while less than 10 % in the remaining sectors except Mining, Base Metal and Construction.

Figure 1-6 Stress Assets to Gross Advances in Selected sectors



Source: Report on Trend and Progress of Banking in India,2017

As discussed earlier, the reasons for NPA or Stressed assets can be internal or external. Internal measures are within the control of banks and thus should be preferred to safeguard the banks from the losses. Two measure are indispensable in this context; robust credit appraisal system and prompt monitoring after disbursement. The study further discusses the credit appraisal system followed in India in brief.

1.10. Credit Appraisal System

'Prevention is better than cure', the loan going bad can be controlled to an extent at the appraisal stage itself. This process involves human intervention along with robust documentation. Bank officer need to be trained to assess the requirements, intentions, capabilities as well as capacity beforehand. Documents related to Income Tax Return File, Final Accounts are the evidentiary proofs of borrower, however, documents may not always show true and correct picture and hence officer needs to be very alert of prospective borrower through body language, background check from suppliers and customer and also by interpersonal communication.

Typically, the process of credit appraisal starts with Know Your Customer (KYC) compliance and basic information. In this process the officer gets information about the identity and address, income levels, creditworthiness and reference check through neighbors and existing bank customers.

The second stage of the process is to understand the borrower’s nature of business and risk associated with it. The officer gets well versed with the dynamics of the sector in which borrower is dealing. He checks with their customers and suppliers for credibility. If the background check is positive then the officer understands the credit requirements, particularly the purpose of taking loan and making sure that the loan request is fair and reasonable. The officer identifies the nature of loan after making assessments. Later, the borrower gets through all formalities of filling up the application form and KYC documents. The officer then checks the background in terms of assets owned, pre-existing loan, mortgaged property, history of default, criminal background etc. with the use of Credit Information Companies like TransUnion CIBIL, Equifax, Experian and CRIF High Mark. These companies provide personal and commercial data of the borrower with the history of loan and repayment pattern. Prospective borrower should not be listed on any Defaulter list if the property is mortgaged through Central Registry of Securitization Asset (CERSAI) database along with Ministry of Corporate Affairs website in case of Public, Private Limited Companies and Limited Liability Partnership.

Further, the credit officer in order to complete the verification of borrower’s loan application should make personal visits to the borrower before approving the loan. Adequate communication with the borrower helps in better judgment about the personality and his intention of borrowing.

The documents related to registration, Income Tax returns, GST returns, Credit Monitoring Arrangement Data for working capital, Project report for Term loan, Net-worth statement authenticated by a Chartered Accountant (CA) and utility bills are collected and scrutinized thoroughly. In case of mortgage, the property related documents must be sent to a qualified Chartered Accountant for due diligence. (RBI, 2015)

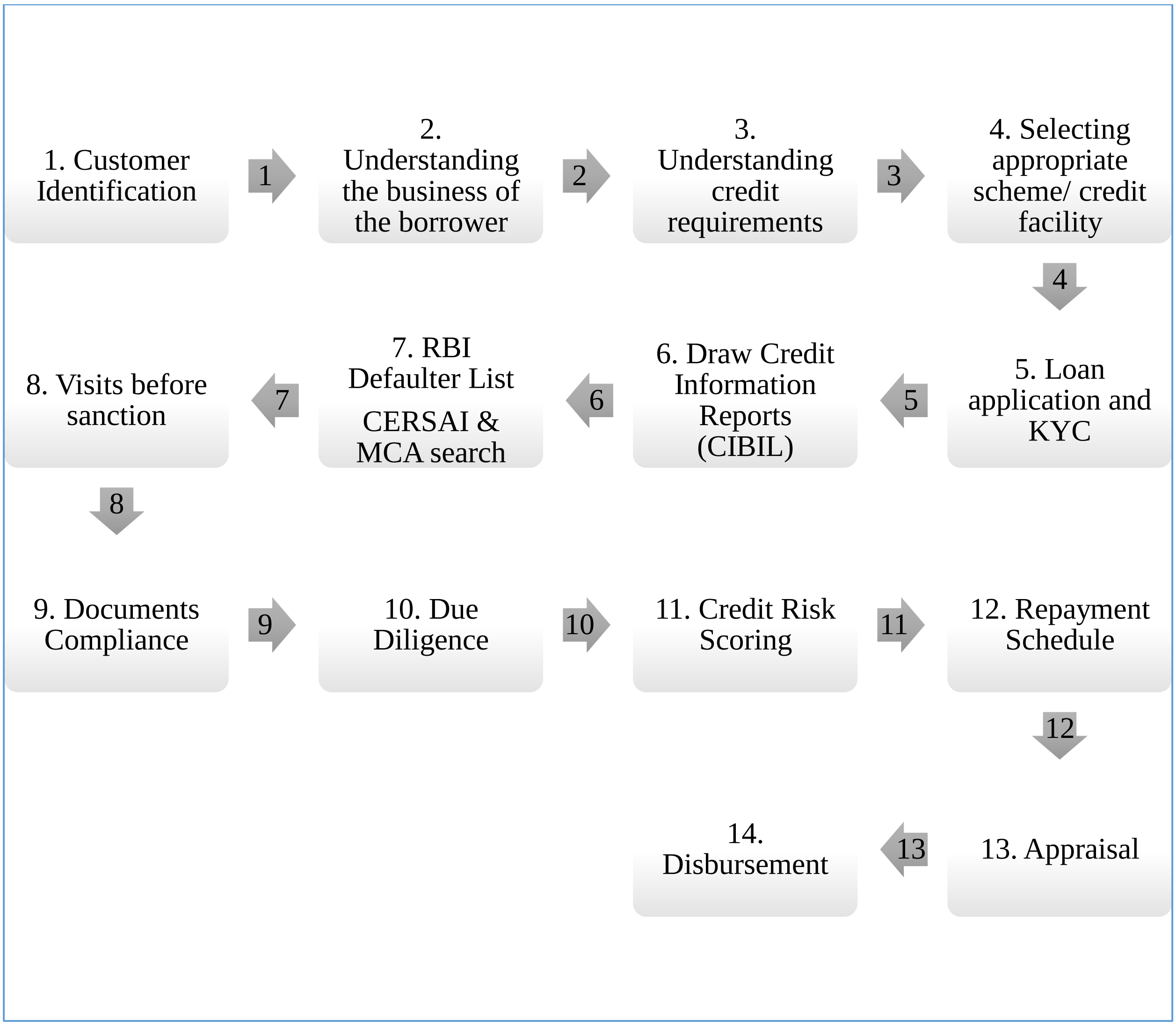
Simultaneously, internal team works on the credit scoring as guided by RBI. A score card is prepared in order to scale the borrower’s creditworthiness. Many bankruptcy prediction models are available like Altman Z-score, Zeta Score, Ohlson O-Score, and other models.

If the findings are satisfactory then the officer works on the repayment schedule of the loan and lay down the terms and conditions of the loan. Finally, disbursement is decided, i.e., whether to give in lump sum or in various tranches depending on the requirement and assessment.

After disbursement monitoring has to be vigilant; bank officer must keep abreast with the development in the sector and performance of the borrower. In case of any doubt or suspicious event, it must be reported to the bank seniors for corrective measures; such prompt action can avert losses.

The crux of the entire Credit Appraisal process is presented in Figure 1-7 Credit Appraisal Cycle.

Figure 1-7 Credit Appraisal Cycle



The above credit appraisal cycle is an ideal system and commercial banks are expected to follow the guidelines as prescribed by RBI (RBI, 2015):

1. Identifying prospective customer followed by understanding the requirement of funds.
2. Followed by selection of suitable credit facilities like type of loans then initiate the formal procedure with Loan application and KYC.

3. After receiving the request for loan background check of the prospective borrower is done through CIBIL reports, checking RBI defaulter list.
4. A visit to the office or plant is a must before further process and then verifying all financial and related documents like Income Tax Return File, Final Accounts, Auditor's Report, and other relevant documents.
5. The document has to be authentic, one needs to sure genuineness by cross-verification from Chartered Accountant, other Banks, Income Tax department, etc.
6. One undergoes due diligence through suppliers, competitors, customers and other stakeholder and finally making the decision about disbursement.
7. And the final decision about disbursement in lump sum or installments.

In addition to the above highlighted micro aspects involved in performing appraisal it is also required to consider some broad technical aspects like financial soundness of the business, capabilities of top management, industry analysis, competition in the sector, review of customers and suppliers of the prospective borrower and technical and market analysis in great detail. Technical assistance using a software for Decision Support System can be of great help to the bank.

At national and international level, banks are provided with a variety of software; Financle from Infosys, Trust Bank CNC from US, CART of SIDBI, Ideal Invent, Oracle Financial Software Services, SAP, Polaris, 3i Infotech, Fidelity National Information Services, TCS-Financial Services, Nucleus software, Temenos, etc. are few software packages powered to enhance the process of lending in India and worldwide. (Sofia, 2016)

At international level, Australia practices Portfolio Credit Risk Modelling; it is a comprehensive framework of risk assessment for local banks and Reserve Bank of Australia, it also provides clarity on the role of credit appraisal officers (APRA, 1999). In USA, the regulatory bodies like Federal Reserve, Office of Comptroller of Currency and other monitoring agencies uses CAMEL rating (Capital Adequacy, Assets, and Management capabilities, Earnings, Liquidity and Sensitivity). Post sub-prime crisis, the USA government enacted Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010 and new agencies created include the Financial Stability Oversight Council, the Office of Financial Research, and the Bureau of Consumer Financial Protection was created (CONGRESS), 2010).

1.11. NPA Recovery Measures

In 2017, India recovered meagre 26% of its stressed assets compared to 92% by Japan and 81% by Germany. The reason for such low recovery lies with overall infrastructure for stressed assets. Judicial processes with repeated prolonged appeals in higher courts of law leads to delay in judgements. The quantum of NPA in recent years has affected the economy at large. It is extremely important for any country to have smooth mechanism for recovery. Infrastructure for NPA recovery is critical part of World Bank's index on Ease in Doing Business. India had a quantum leap in Ease of Doing Business ranking; majorly, it is because of Insolvency and Bankruptcy Code, 2016 (Mondal, 2019).

Lok Adalat, Debt Recovery Tribunal (DRT) and Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) have been most prominent of all recovery mechanism in India before Insolvency and Bankruptcy Code. Somehow, the mechanism remained ineffective and inefficient where the recovery rate is 12-22 per cent between 2012 and 2017; total number of cases referred to Lok Adalat was nearly 2 million as per the data present in Table 1-4 NPAs of Scheduled Commercial Banks Recovered through Various Channels.

Since 2014, several other measures to address the problem of NPA were undertaken by the government and central bank. Initially, the banks tried to stabilize the lender through Asset Reconstruction and Corporate Debt Restructuring schemes by buying the equity of the borrower. Among others, infrastructure sector is the worst hit; the rule of 5:25 for infrastructure lending was introduced in July 2014. The scheme extends the tenure of loan up to 25 years and has a scope to get refinance at time interval of 5 to 7 years (Roy & Karnik, 2014).

The government introduced a scheme called Mission *Indradhanush* (Rainbow) with seven different suggestions. Later, Asset Quality Review and Sustainable Structuring of Stressed Assets (S4A) were introduced by RBI for regular review of assets. Insolvency and Bankruptcy Code was then introduced to resolve the problem of insolvency; not just for the banks but for all types of creditors like operational creditors.

In 2012-13 half of the total cases filed for recovery were through SARFAESI Act with maximum amount where recovery rate was 27 per cent. Overall recovery from Lok Adalat SARFAESI and DRT was 22 per cent as presented in the below Table 1-4. In 2013-14 Recovery dropped to 18 per cent where Lok Adalat processed maximum cases. While in 2016-17 it further reduced to 10 per cent amounting to Rs. 280 billion.

Table 1-4 NPAs of Scheduled Commercial Banks Recovered through Various Channels

			(Only Amount in Rs. Billion)			
Year	**Sr No.**	**Recovery Channel**	**Lok Adalats**	**DRTs**	**SARFAESI Act**	**Total**
2012-13	1	No. of cases referred	840691	13408	190537	1044636
	2	Amount involved	66	310	681	1057
	3	Amount recovered	4	44	185	233
		3 as per cent of 2	6	14	27	22
2013-14	1	No. of cases referred	1636957	28258	194,707	1859922
	2	Amount involved	232	553	953	1738
	3	Amount recovered	14	53	253	320
		3 as per cent of 2	6	10	27	18
2014-15	1	No. of cases referred	2958313	22004	175355	3155672
	2	Amount involved	310	604	1568	2482
	3	Amount recovered	10	42	256	308
		3 as per cent of 2	3	7	16	12
2015-16	1	No. of cases referred	4456634	24537	173582	4654753
	2	Amount involved	720	693	801	2214
	3	Amount recovered	32	64	132	228
		3 as per cent of 2	4	9	17	10
2016-17	1	No. of cases referred	2152895	28902	80076	2261873

	2	Amount involved	1058	671	1131	2860
	3	Amount recovered	38	164	78	280
		3 as per cent of 2	4	24	7	10

Source: NPAs of Scheduled Commercial Banks Recovered through Various Channels, RBI

Based on Table 1-4 the recovery rate of NPA through various channels for commercial banks is presented in Table 1-5. There has been a constant decline of recovery rate from 2012-13 it was 22 per cent and reduced to 10 per cent in 2016-17.

Table 1-5 NPA Recovery Rate (%) through various channels for Commercial Banks

Year	Recovery Rate (%)
2016-17	10
2015-16	10
2014-15	12
2013-14	18
2012-13	22

Source: Report 2, NPAs of Scheduled Commercial Banks Recovered through Various Channels, Reserve Bank of India

A convenient and legitimate Infrastructure for recovery plays a vital role in the larger business interest of existing and new corporate, for expanding sources of finance including foreign investment and maintaining overall health of banking system. There are various avenues for recovery which includes Compromise Settlement Schemes, Debt Recovery Tribunal, SARFAESI Act, Asset Reconstruction Company, Lok Adalat, Credit Information Companies, Insolvency and Bankruptcy Code, Special Mention Accounts, Corporate Debt Restructuring, 5:25 Rules and Mission Indradhanush. All-important bodies, mechanism and relevant schemes are discussed and elaborated hereafter.

1.11.1. Compromise Settlement Schemes

Compromise settlement refers to a negotiated settlement where bank accepts a considerable portion of total outstanding as full and final settlement of the dues. One-time Settlement Scheme comes with less chance of recovery with less efforts, time and money. RBI has empowered banks by issuing the guidelines for One Time Settlement Scheme (RBI, 2003). Obviously, the bank is at the losing end since they have to compromise for a defunct asset. It affects the quality of the Balance Sheet and reduces the profit of the bank. However, such arrangement increases liquidity, speedy recovery and cash flow in the system. It works like 'Something is better than Nothing' (Kumar R. , 2020).

1.11.2. Debt Recovery Tribunals and Recovery of Debts

As a part of Recovery of Debts Due to Banks and Financial Institutions (RDDBFI) Act, 1993 Debt Recovery Tribunal machinery incorporated especially for the banks. In total there are 39 DRTs in India. DRTs take cases from banks side where outstanding amount is above Rs 2 million. DRT referral is barely 1 to 3 per cent out of total cases going for recovery as stated in the Table 1-4 NPAs of Scheduled Commercial Banks Recovered through Various Channels.

1.11.3. Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002 and Asset Reconstruction Companies (ARC):

As per the recommendation of Narsimaham Committee (II) 1998, the Asset Reconstruction Company should be set up in India. In 2002, SARFAESI act provided the guidelines for ARC and the first ARC was set up by ICICI Bank, IDBI Bank and State Bank of India. The objective was to purchase the defunct assets of the bank and keep the cash flow in the bank. Under SARFAESI, bank put up its NPA with haircut for auctioning the property mortgaged by the borrower. ARC acquires the asset in cash or through Security Receipts (SR). SR is backed by the NPA asset and has uncertainty of cashflow.ARC considers a number of different medium to maximise returns from the assets, including liquidation, settlement, restructuring or rehabilitation and turnaround with the objective of improved operating cash flows of the company. In this way, it helps the company to continue and function at the same time assists banks to recover loans.

The dynamics of buying NPA is very difficult and risk is borne by ARC. The risk faced with ARCs are incorrect valuations, regulatory and policy constraints, inadequate capital, difference of opinion of many creditors, lack of market for Security Receipts and liquidity, lengthy resolution and lack of management expertise in variety of areas (Acharya, 2017)

1.11.4. Lok Adalats

For smooth execution of NPA recovery, Indian Bank Association (IBA) has issued guidelines to member institutions for taking up the cases of settlements. It is a stage before going for litigation where the objective is to resolve the dispute amicably. The cases amounting up to Rs.

5 Lakhs are referred without any fees, in special cases the amount of NPA can go up to Rs. 10 Lakhs. The statutory status of Lok Adalat is under the Legal Services Authorities Act, 1987 and has powers similar to those vested in a civil court. It is a quasi-judicial system with highest numbers of cases of recovery referred to this channel; it amounts to more than 85-95% of the total recovery cases. Each bank has been authorized to have own set of guidelines for Lok Adalat.

1.11.5. Credit Information Companies (CIC)

True and fair financial credit information availability is a critical component of Financial Infrastructure. It helps in reducing information asymmetry between lenders and borrowers. Efficient credit information system saves time, energy, money, and enhances competition leading to better market. RBI has approved Experian Credit Information Company of India Private Limited, Equifax Credit Information Services Private Limited, CRIF High Mark Credit Information Services Private Limited and Credit Information Bureau (India) Limited (CIBIL) to commence/carry on the business of credit information (RBI, 2015).

CIC uploads the data of wilful default entities on regular basis in public domain. They also keep the record of credit score of each individual, firms, trusts, and other entities. The idea is to provide historical credit information and assess the capacity of prospective borrower. Before services from CICs, it was difficult to track or trace the loans taken by single entity from various banks and financial institutions. The platform is called Central Repository of Information on Large Credits (CRILC). Banks/FIs are required to submit suit-filed accounts and non-suit filed accounts of wilful default more than Rs. 25 Lakhs monthly. Speedier the information displays better for banks to approve loan and side by side assess the recovery possibility to avoid misuse, misappropriation, fraud of funds. CIC is required to display the list of wilful defaulters on their website as directed by RBI. It is categorized as Rs. 25 Lakhs and more and More than Rs. 1 Crore (RBI, 2015).

1.11.6. Insolvency and Bankruptcy Code

In 2016 India ranked 136 out of 189 countries in the World Bank’s Index on Ease of Resolving Insolvencies and it takes more than 4 years to resolve the issues of insolvency in India which drastically improved to rank 52 in 2019 after enactment of Insolvency and Bankruptcy Code, 2016 with recovery rate at 72 per cent Figure 1-4 World Rank Non-Performing Loans as percent of All Bank Loans, 2019 . India's weak insolvency problem solving mechanism, significant inefficiencies and systemic abuses are some of the reasons for distress state of credit markets in India. The issues of bankruptcy have gained momentum on account of increase in NPA.As presented in Table 1-6 around 19,000 applications that were dealt with, as many as 14,884 cases involving defaults of Rs. 5.15 lakh crore were withdrawn by September, 2020.

Table 1-6:Outcomes under the Code: Status of applications filed (as of December 2020)

Particulars	No. of Corporates	Amount (` Crore)	
Applications filed	28,441	NA	
Applications Pending for consideration	9,549	NA	
Application Dealt	18,892	Liquidation Value	Realisation Value
Applications withdrawn before admission*	14,884*	NA*	5,15,170*
Process commenced	4,117	NA	NA
Process closed mid-way	897	NA	NA
Process closed by resolution plan	308	1,03,270	1,99,511
Process closed for liquidation	1,112	42,362	NA
Ongoing processes	1,800	NA	NA

Source: Insolvency and Bankruptcy Quarterly Newsletter, Oct-Dec2020

Note: *Data on applications withdrawn before admission is maintained by MCA. This data is as of September, 2020.

Till December 2020, total number of companies revived under IBC were 308, while companies ordered for liquidation were 1112. From Table 1-7 it is found the aggregate liquidation value of companies rescued is Rs. 103,270 Crores and Resolution amount was nearly Rs. 2 Lakh crore which is 193 per cent of liquidation value. Asset available at of aggregate claims of companies rescued is 20.65 per cent while companies ordered for liquidation was 7.12 per cent.

Table 1-7: Rescue of distressed assets (as of Dec 2020)

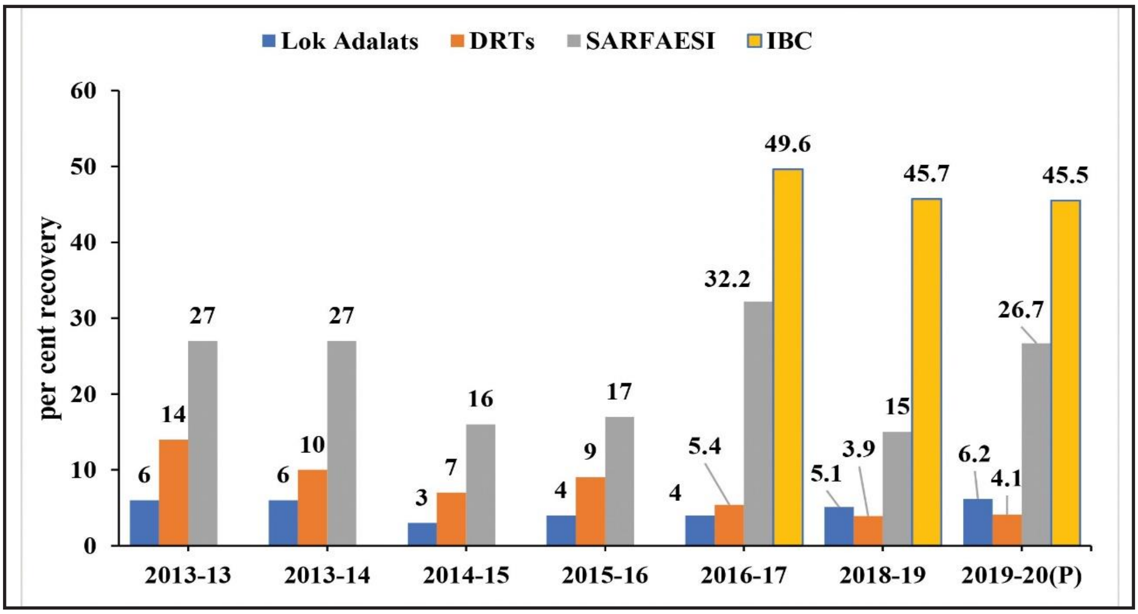
Description	Companies Rescued	Companies Ordered for

		Liquidation
No. of Companies	308	1,112
Aggregate Claims	4,99,928	6,04,574
Aggregate Liquidation Value	1,03,270 (Cr.)	43,048 (Cr.)
Assets available % of Aggregate Claims	20.65	7.12
Resolution Value	1,99,511 (Cr.)	NA
Resolution Value as % of Liquidation Value	193.19	NA
Resolution Value as % of Aggregate Claims	39.91	NA
Average time taken	441 days	328 days
Cost % of Resolution Value	0.42	NA

Source: Insolvency and Bankruptcy Quarterly Newsletter, Oct-Dec2020

IBC has been able to make a mark to treat the bankruptcy issue; however, the average time taken is 328 days and 441 days of liquidating and rescued companies respectively. Recovery from Lok Adalat, DRT and SARFAESI has been not encouraging as discussed before. However, with the introduction of IBC the recovery has definitely improved. From the Figure 1-8 recovery has shoot up to more than 40 per cent from 2016 till 2019.

Figure 1-8-Recovery from Lok Adalat, DRT, SARFAESI and IBC channels



Source: Insolvency and Bankruptcy Quarterly Newsletter, Oct-Dec2020

As discussed about IBC, the infrastructure for bankruptcy has brought in major change in the overall system. It was reflected in Ease of Doing Business Index where India is now ranked 63 in 2020. In 2016, India ranked 136th in Ease in Resolving Bankruptcy Index, this index is prepared by World Bank. It constitutes a significant important in overall Ease of Doing ranking. Due to the introduction of Insolvency and Bankruptcy mechanism India now ranks 52 in 2020. There has been positive and progressive change in the system.

1.11.7. Corporate Debt Restructuring (CDR)

When outstanding debt is more than Rs. 20 Crores bank can use Corporate Debt Restructuring method to resolve the problem of NPA. For smaller amount of NPA Lok Adalats, DRT and SARFAESI are used as the channel for recovery; Corporate Debt Restructuring is used especially when NPA is likely to occur with multiple banking accounts, syndicates or consortium accounts. CDR is constituted with CDR Standing Forum, CDR Empowered Group and CDR Cell. Standing Forum consists of top management of various banking institutions; Empowered group is responsible for the actual assessment and studying the case while Cell assists in the process. The purpose of restructuring is to reduce the debt component, reduce interest rate and transfer the unpaid interest component into term loan. Prominent examples of CDR include GTL Ltd., Gammon India, Suzlon Energy, Electrosteel Steels, Soma Enterprises, Bharati Shipyard, Hotel Leelaventure, Hindustan Construction Company Ltd., Visa Steel, Tulip Telecom and Educomp Solution (IBBI, 2020).

1.11.8. Special Mention Accounts

In 2014, RBI had issued guidelines for better classification of bad assets before 90 days. Classification is as given in the below Table 1-8:

Table 1-8: Classification of Special Mention Accounts (SMA)

SMA Sub Category	Classification basis
SMA – NF	Non-financial (NF) signals of stress
SMA-0	Principal or interest payment not overdue for more than 30 days but account showing signs of incipient stress.
SMA- 1	Principal or interest payment overdue between 31 to 60days.
SMA – 2	Principal or interest payment overdue between 61-90 days.

Source: Reporting of Large Exposures to Central Repository of Information on Large Credits (CRILC) – UCBs, Reserve Bank of India

Central Repository of Information on Large Credits (CRILC) is the centralized database to collect, store, and disseminate credit data to lenders. The credit information includes all types of exposures as defined under RBI Circular on Exposure Norms and Banks have to furnish credit information to CRILC on all borrowers having a total fund-based and non-fund based exposure of Rs.500 Crores and above with them. As soon as an account is reported to CRILC as SMA-2, the lenders form a Joint Lenders' Forum (JLF) and formulate a joint Corrective Action Plan for early resolution of the stress in the account. Corrective Action Plan can be for rectification, restructuring or recovery as the case may be.

1.11.9. Infrastructure financing 5:25 Rule

Apart from Debt Restructuring and Special Mention Accounts Infrastructure sector was taken up separately by RBI. Infrastructure being a capital intensive sector was one of the worst hit sectors in NPA. By and large, the projects have a life of 25-30 years and very long gestation period. In order safeguard the general public money and banks finance, 5:25 rule was introduced. The loan tenure of infrastructure project can be up to 25 years which was earliest 10-12 years. The number 5 in the ratio mentioned is the refinancing period, now the project can get fresh finance at an interval of 5 to 7 years (Meher, 2018).

1.11.10. Mission *Indradhanush*:

Government had come up with the plan in 2015 for the public sector banks to compete with private sector. As per the recommendation by PJ Nayak committee, the mission has 7 parts; Appointments, Banks Board Bureau, Capitalisation, De-Stressing, Empowerment, Framework of Accountability and Governance Reforms (ABCDEFG) (Mehta, 2015).

1. Appointments- separate appointees to the positions of CEO and MD to reduce excessive power concentration; appointments allowed from the private sector also to induct talent.
2. Banks Board Bureau: The committee to advice on how to raise funds, mergers and acquisitions, NPA and eventually transiting bureaucracy to bank holding company for better functions.
3. Capitalisation: over the period of 4 years Rs. 70,000 Crore to be infused in the public sector banks and implement BASEL Norm-III.
4. De-Stressing: Solve issues in the infrastructure sector to check the problem of NPA in the bank.
5. Empowerment: To provide greater autonomy to the bank for hiring manpower.
6. Framework of accountability: Banks need to be assessed with new Key Performance Indicators. It includes qualitative and quantitative aspects like NPA, return on investment, human resources and strategic decision for asset quality improvement.
7. Governance Reforms: Brainstorming sessions for the making the governance better.

1.11.11. Strategic Debt Restructuring (SDR)

In case of Corporate Debt Restructuring, bank tries to revive the operations of a borrower and when it still fails it is considered for Strategic Debt Restructuring. Under SDR, the Joint Lenders' Forum of banks converts the overdue amount to equity. The ownership has to be more than 51% for restructuring. The scheme was announced in 2015 when NPA problem was shooting up and RBI was grappling. The pricing formula is exempted by SEBI under Securities and Exchange Board of India (SEBI) (Issue of Capital and Disclosure Requirements) Regulations, 2009. The scheme or the arrangement was then scrapped by RBI in February 2018 and all the banks were directed to use route provided under IBC through National Company Law Tribunal.

1.11.12. Asset Quality Review

At international level, Asset Quality Review is to check the financial health of banks regularly. It involves reviews of loan, financial instruments and securities in detail. In India, due to underreporting of NPAs by banks, RBI had taken up the task of randomly checking the financial health through Balance Sheet. In 2015, RBI announced one more measure to curb NPA and state true and correct picture of financial health of banks. The report suggested the quality of Assets deteriorated and banks delayed to report the losses.

1.11.13. Sustainable Structuring of Stressed Assets (S4A)

In order to help the borrowers who are facing problem in business, RBI provided another avenue to restore the financial capabilities of assets under stress. It included substantial write-off of the loan which is certainly not in favour of lenders. After consulting lenders RBI has come up with the scheme of S4A as an option framework for the resolution of stressed assets. It focuses on large ticket size borrowing. It allows the promoter to stay with the company with small share of the stake unlike SDR. The team has to submit the sustainability report by consulting an independent agency for techno-economic viability.

1.11.14. Bad Banks

The Bad Banks is mere a concept in India which is gaining momentum. More recently during the Union Budget 2021-22, the finance minister proposed to constitute an asset reconstruction and asset management company to take over existing stressed debt with an intention of disposing the assets to alternative investment funds. It is proposed to be a venture promoted by private as well as public sector banks (FEBureau, 2021).

The idea is to transfer all the toxic assets to single entity. This help banks in cleaning up their balance sheet from NPA and the problem of recovery or writing off is address centrally. In 1988, US based bank Mellon Bank had come up with this concept for the first time and had been successful in managing their toxic assets. The concept was adopted by many other countries as per their condition; the countries were Finland, Portugal, Indonesia, Greece, France, Austria, UK and Belgium.

There are many measures taken by government and RBI to stabilize the banking system. However, the scheme of CDR, SDR, S4A, and JLF to restructure the debt was later on withdrawn by the RBI. So far, IBC has been able to show good results in resolving the bankruptcy cases.

As discussed, the problem of NPAs and remedial measures by the government and RBI has been phenomenal. However, if total loan given as 100 then 10 is lost, and out of these 10 almost 4 are due to wilful default; when the wilful defaults are almost a half of total defaults, it is required that substantial research is to be undertaken on the subject of wilful default. Wilful defaulters are the ones whose dishonourable actions are premeditated despite having financial capacities. The number is huge and this is certainly not attributed to only external reasons. Recently, many cases of bank default have emerged from across the nation. It is interesting to note that the wilful default arises not only from the urban centres like Mumbai but also from small cities like Vadodara.

1.12. Wilful Defaults

A "wilful default" would be considered to have occurred if any of the following events is noted, when the unit has: (RBI, 2015)

(a) Capacity to repay but still defaulted in meeting its repayment.

(b) Diverted the funds for other purposes other than specified in the loan terms.

(c) Siphoned off the funds-the funds are neither used in buying assets specified in the loan terms nor other assets.

(d) Disposed or removed the movable fixed assets or immovable property pledged by the borrower for the purpose of securing a term loan, without the knowledge of the bank/lender.

The recent cases are reported by the lender to RBI, Securities and Exchange Board of India (SEBI) through Credit Information Companies (CIC) like Experian Credit Information Company of India Private Limited, Equifax Credit Information Services Private Limited, CRIF High Mark Credit Information Services Private Limited and Credit Information Bureau (India) Limited (CIBIL). Banks are required to take few measures in such cases as directed by RBI, are:

1. No additional funds and facilities shall be granted by the banks/FIs for 5 years from the date of listing in the defaulters list.
2. Expeditious, legal process should be initiated against borrowers or guarantors for foreclosure of recovery dues and wherever necessary criminal suit should be filed against the wilful defaulters.

3. If possible banks/FIs should take proactive measure to change the management of wilful defaulters.
4. The enlisted entities (persons) should not be inducted on the board. If found then remove him/her from the board.
5. In case of window dressing of books of accounts and if it is observed that the auditors were negligent and deficient in auditing then Banks/FIs should lodge a complaint to Institute for Chartered Accountants in India (ICAI). Such information shall be shared with SEBI, Ministry of Company Affairs (MCA), Comptroller Auditor General (CAG) and other relevant market regulators. (RBI, Master Circular, 2014)

Centralized information infrastructure is critical for lending and with the establishment of Credit Information Companies, India is moving towards better lending area (Ranjan & Dhal, 2003).

For further details of NPA, Wilful Default is presented in Table 1-9 as on 31st March 2018 and Table 1-10as on 31st March 2017. It includes the two categories of Wilful Default as More Than Rs. 1 Crore and Rs. 25 Lakhs and above. The parameter mentioned above are for Schedule Commercial Banks; Nationalized, Private Sector and Foreign Banks.

Table 1-9 Suit Filed Accounts-Wilful Defaulters as on 31-March-18 - Summary

	More than Rs. 1 crore (Amt. Rs. Bn.)	Share of Total (%)	No of Cases	Rs 25 lacs and above (Amt. Rs. Bn.)	Share of Total (%)	No of Cases
Foreign Banks	112.32	3.56	390	8.46	0.66	43
Nationalised Banks	2543.92	80.58	15284	1125.95	87.51	8058
Private Sector Banks	500.66	15.86	2964	152.19	11.83	1399
Total	**3156.91**	**100**	**18638**	**1286.61**	100.00	**9500**
Grand Total (Amt. Rs. Bn.)	**4443.53**					

Source: Suit Filed Accounts – Defaulters, 31st March, 2018, Transunion and Cibil

The total share of wilful default is around 44% of the total NPA of Rs. 10 Trillion in 2018. Public Sector bank has the maximum share of not only NPA but also wilful default. PSB has a giant share ranging between in terms of share of wilful default, in 2017 and 2018 has been ranging between 80 to 90 %. Interestingly, Wilful Defaults increased dramatically by 78% from 2017 to 2018 amounting Rs. 44 Trillion from Rs. 34 Trillion.

Table 1-10 Suit Filed Accounts-Wilful Defaulters as on 31-March-17-Summary

	More than Rs. 1 crore (Amt. Rs. Bn.)	Share of Total (%)	No of Cases	Share of Total (%)	Rs 25 lacs and above (Amt. Rs. Bn.)	No of Cases
Foreign Banks	93.93	3.77	355	0.56	5.44	42
Nationalised Banks	2080.95	83.47	13947	86.04	831.01	7182
Private Sector Banks	318.24	12.76	2360	13.39	129.35	1231
Total	2493.14	100.00	16662	100.00	965.81	8455
Grand Total (Amt. Rs. Bn.)	3458.95					

Source: Suit Filed Accounts – Defaulters, 31st March, 2017, Transunion and Cibil

Public Sector banks are at critical position; their Advances are more than 60 per cent while Wilful Default is more than 80 per cent in total lending space of Commercial Banks. It gives direction to explore more facets of wilful default; wilful default is nothing but bankruptcy. There is a plethora of literature focusing on various aspects of Bankruptcy; prediction, legal, technology, etc. The research hints towards the direction of going in depth of wilful default and bankruptcy prediction along with legal aspects.