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Empirical Study of How Macro Economic Influences Appraised the Non- Preforming assets of Indian Banks

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Abstract:
The term called NPAs (Non-Performing assets), related to loans or advances that have concluded to create income for creditors due to debtor avoidance or overdue repayments. This study is mainly about investigating the connection amid macroeconomic variables and NPAs by bearing in mind numerous influences such as economic growth, inflation, interest rates, fiscal policies, and regulatory frameworks. Understanding the connection amid macroeconomic factors and NPAs is essential for articulating actual policy actions and risk managing approaches to alleviate their influence.

Keywords: NPA, Macroeconomic, Inflation, Fiscal policies, Regulatory Frameworks.

Introduction

Non-Performing Assets (NPAs) have been a tenacious topic for the banking sector in India, affectation substantial encounters toward economic stability and economic growth. NPAs denote to loans or advances that have still in terms of creating revenue for creditors due to debtor avoidances or overdue settlements. This outline provides an impression of the NPA condition in Indian banks and inspects how macroeconomic factors have subsidized to their development.

The Indian banking system, encompassing public sector banks, private sector banks, and cooperative banks, has perceived a flow in NPAs over the past decade. The NPA problem gained distinction afterward a inclusive asset quality appraisal showed by the Reserve Bank of India (RBI) in 2015, which exposed a considerable amount of concealed tense assets in banks' balance sheets.

Numerous macroeconomic influences have contribute a lot in the appreciation of NPAs in Indian banks. Economic growth, has been a vital driver. During periods of economic stoppage or shrinkage, businesses face complications in making profits, important to abridged money flows and an improved probability of avoidance. Sectors such as infrastructure, real estate, and small and medium enterprises (SMEs) have been predominantly vulnerable to economic fluctuations, thereby conducive to the NPA problem.

Inflation, additional macroeconomic factor, has also wedged NPAs. High inflation erodes debtors' procuring power, making it problematic for them to capability their loans effectually. Furthermore, inflation can prime to higher interest rates, which surge the cost of borrowing and additional strain borrowers' repayment capability, ultimately foremost to an uptick in NPAs.

Interest rates, set by the RBI, have a direct effect on NPAs. When interest rates are high, debtors face bigger financial load, making debt settlements extra challenging. Conversely, during times of low interest rates, debtors might be incentivized to take on unnecessary debt, hypothetically leading to a rise in NPAs if they are not able to satisfy their requirements.

Fiscal policies and regulatory frameworks too influence NPAs. Insufficient fiscal discipline, government subsidies, and overdue payments to outworkers and suppliers can have undulation effects on debtors' capability to repay debt, aggravating the NPA problem. Furthermore, weak controlling mistake and careless advancing practices contribute to the accretion of NPAs in banks. The appreciation of NPAs in Indian banks is a multifaceted singularity influenced by numerous macroeconomic influences.

Literature survey

Swamy & Vighneswara (2012), “Impact of macroeconomic and endogenous factors on non performing bank assets”, The researcher completed an experimental study estimating the causes of NPA of all SCBs (standard charted banks) in India. The study finally suggests that Pvt. SBs and FBs hold extra compensations concerning efficacies and performs in credit management helping in repression of NPAs. This designated the sale has enticed and better-quality risk management of banks.

Avneet Kaur, (2012) “An Empirical Evaluation on the Performance Evaluation of Public Sector Banks”, the study shows that there is important positive association of profitability with interest earned and interest paid. There is no significant difference between the growth rates, total income, total expenditure and net profit of PSBs. Lastly study recommended banks need to emphasis on atomization of banks, to take rapid actions to recuperate the debt dues by organize awareness programs among the rural.

Sriharsha Reddy, (2015) ,“Non-Performing Loans in Emerging Economies – Case Study of India”, the research is intended at proportional examination of movements in NPAs with choice economies and draw strategy measures to limit the problem of NPA. The study concluded the priority sector advances, return on assets; capital adequacy ratio, growth in loans and total assets are damagingly associated with NPAs. The study concluded that importance should be on banks with smaller customer base and less yielding banks that show higher NPAs.

Vivek Rajbahadur Singh (2016) [152], “A Study of Non-Performing Assets of Commercial Banks and its recovery in India”, through his study expressed in spite of efforts taken by controllers to trim down NPAs, it is moderately high in PSBs. Researcher orated the issue of recoupment confusing due to important default from big debtors somewhat with small debtors. Finally, researcher concluded that Government should settle undecided cases at faster rate and the obligatory lending to PSAs should be studied as this is creating the major credit avoidances.

Objective:

1. To find relation between the inflation and the NPSs of Indian public sector banks
2. To find how the interest rates affect the NPSs in Indian public sector banks
3. To find the effectiveness of the regulatory framework.

Methodology:

Methodology:

The Data of all the public sector banks in India is taken from the RBI websites Public database. In the time frame From year 2017-18 to 2021-22. Along with that Numerical data related to inflation, interest rate and quantitative and qualitative data of the regulatory framework. To examine the data of this timeframe there are few addition article also needed to be taken in consideration like yearly reports and diverse managing accounting diaries. To make the examination substantial the data is assessable through correlation, and regression analysis using MS-excel

Analysis :

Year	Opening Bal	Cloasing Bal	%of recoverd Amt
2022	**196450.8**	**154745.39**	78.8
2021	**219816.3**	**196450.8**	89.4
2020	**67369.88**	**55683.41**	82.7
2019	**425807.52**	**285122.17**	67.0
2018	**344489.39**	**454472.66**	131.9
2017	**68894.38**	**96932.22**	140.7
Total	**1322828.27**	**1243406.65**	**94.0**

Table No. : NPA's Of Public sector banks.
(source of data : RBI website)

The primary reason of choosing only public sector banks is public sector banks have high NPA ratios as compared to the Private sector and other types of banks, as well as public sector is more prone to any change in the policies and trend in the financial market as it is the major driver of the money market and it have major rights for the money market instruments.

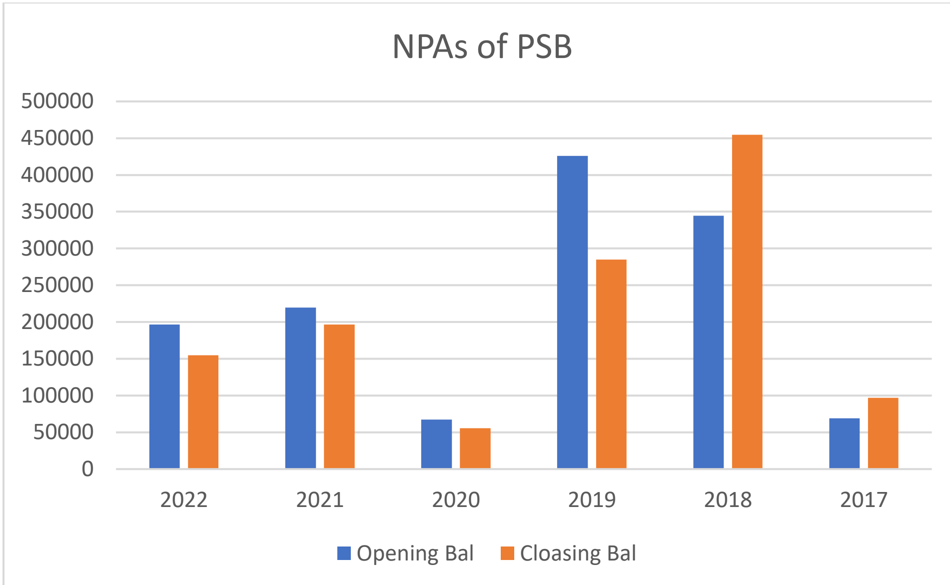

Fig No. 1A : Graphical representation of change in NPA (2017-2022)

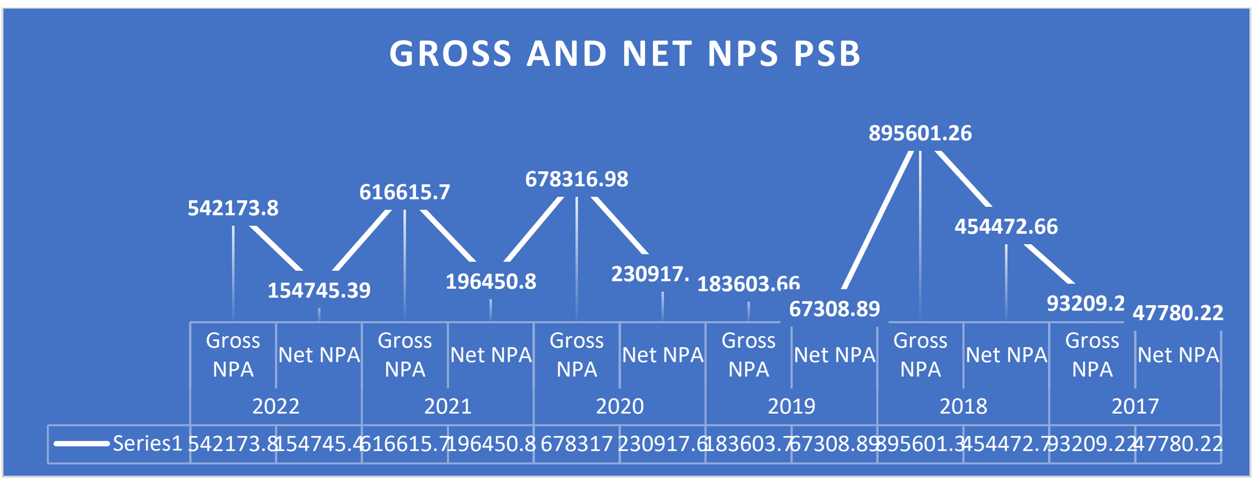

Fig No. 1B: Graphical representation of gross and net NPA (2017-2022)

Now Graphical representation is giving us broader view of the NPA's Appreciation And Depreciation rate. Here it can be observed that in financial year 2018 and 2019 the NPA's are getting more appreciated, the part of discussion for year 2019 due to the pandemic the Marginal propensity of Consumption was at very low rate due to various factor and the debtors were having Long term debts like housing loans , vehicle loan , Business loans etc. came to the defaulter and majority of loan and advances of public sector banks were disbursed at this pattern only.

Inflation Rate

Year	India
2023	**6.67%**
2022	**4.70%**
2021	5.13%
2020	6.62%
2019	3.73%
2018	3.94%
2017	3.33%

Table No. 2 : Inflation rate of India (2017-2023)

(Source : Rbi Website)

The relationship between inflation and fluctuating repo rates in India is a crucial aspect of the country's monetary policy framework. The Reserve Bank of India (RBI), which is the central banking institution of India, uses the repo rate as one of its primary tools to control inflation and stabilize the economy. The repo rate is the rate at which the RBI lends short-term funds to commercial banks. When the repo rate is increased, it becomes more expensive for banks to borrow from the RBI, leading to a reduction in the money supply in the economy. Conversely, when the repo rate is decreased, it becomes cheaper for banks to borrow, increasing the money supply. Inflation refers to the rate at which the general price level of goods and services in an economy increases over a period. High inflation means prices are rising rapidly, and it erodes the purchasing power of money, adversely affecting consumers and businesses. Inflation refers to the rate at which the general price level of goods and services in an economy increases over a period. High inflation means prices are rising rapidly, and it erodes the purchasing power of money, adversely affecting consumers and businesses. On the other hand, when inflation is low or there is a risk of deflation (a sustained decrease in the general price level), the RBI may reduce the repo rate. Lowering the repo rate makes borrowing cheaper for commercial banks, encouraging increased lending and spending. This, in turn, boosts demand for goods and services, helping to counter deflationary pressures. The effect of changes in the repo rate on inflation takes time to work through the economy. The process is known as the "transmission mechanism." Generally, it takes several months for changes in the repo rate to impact inflation. The effect of changes in the repo rate on inflation takes time to work through the economy. The process is known as the "transmission mechanism." Generally, it takes several months for changes in the repo rate to impact inflation. The relationship between inflation and fluctuating repo rates in India is part of the broader monetary policy efforts by the RBI to maintain price stability and support economic growth. By adjusting the repo rate, the RBI aims to influence borrowing costs, money supply, and demand in the economy, thereby managing inflationary pressures.

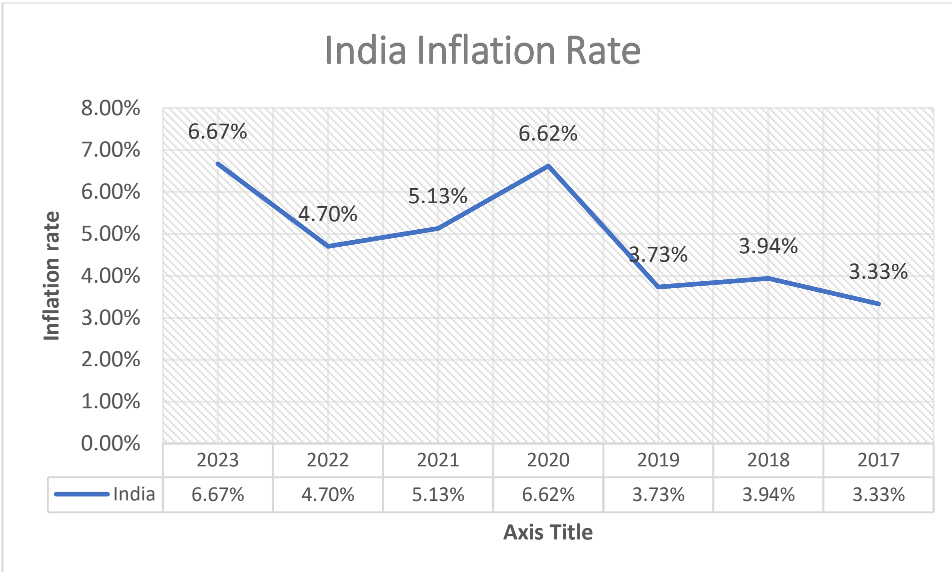

Fig No . 2 : Graphical Representation of Inflation

Correlation of affect Of inflation	
None	0
Positive	0
Negative	-0.47838

Table No. 3 : Correlation of Inflation

By the statistical analysis of the correlation of inflation with the per capital income is very negative which is illustrating that as the inflation rate is in continuously in increasing order affecting in the negative manner. in year 2017-2018 the per capital income was ₹1,12,835 with growth rate of 8. 6 percent
When inflation rate hyped from 3.33 % to 3.94 % but again when the inflation rate dropped down at the year of 2019 the 3.73 the per capital income was ₹1,25,397 at the growth rate of the 11.1 percent. As we have previously discussed the scenario of pandemic the Rbi made changes in the repayment policies hence even after having good growth rate of per capital income the capability of individual to repay the debt was very low.

Year	Repo -rate
2022	6.25%
2021	6.5%
2020	4%
2019	5.15%
2018	6.5%
2017	6%

Table no. 5 : Repo rate of Indian Banking (2017-2022)

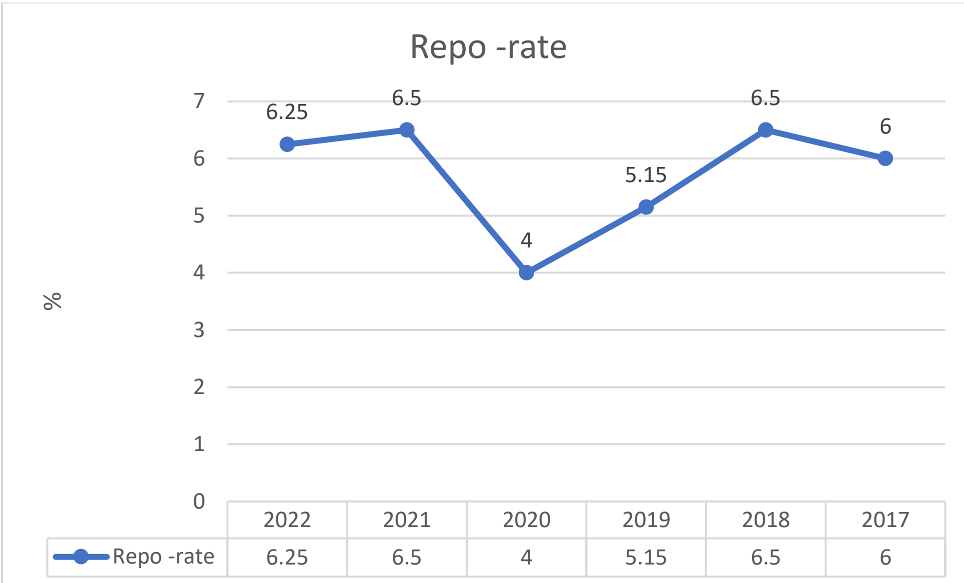

Fig NO 3 : Graphical representation of change in repo rate

The repo rate plays a crucial role in monetary policy transmission. When the RBI depresses the repo rate, it converts inexpensive for banks to borrow funds from the RBI. This, in chance, leads to a lessening in advancing rates for debtors, including individuals and businesses. Lower interest rates can stimulate borrowing, investment, and economic growth.

Correlation of Repo - rate	
None	0
Positive	0.479152
Negative	-2.57803

A reduction in the repo rate can potentially improve the financial health of borrowers by reducing their interest burden. This may enhance their ability to service their loans and decrease the likelihood of default. Consequently, lower repo rates can have a positive impact on reducing NPAs, especially during periods of economic stress. Hence as the repo rate goes down it shows positive impact on the per capital income.

On contrary A decline in lending rates resulting from a repo rate cut can reduce banks' interest income and margins. To compensate for this, banks may adopt riskier lending practices or offer loans to borrowers with weaker credit profiles. Such actions can increase the probability of NPAs if adequate risk assessments are not performed.

The Indian government and the Reserve Bank of India (RBI) have implemented various measures to control and manage NPAs. The IBC was introduced in 2016 to provide a time-bound and efficient resolution process for stressed assets. Under this code, defaulting borrowers can be taken to the National Company Law Tribunal (NCLT) for insolvency proceedings. The objective is to either resolve the default or liquidate the borrower's assets to recover dues. The RBI conducts periodic asset quality reviews to assess the true state of NPAs in banks. Through the AQR, banks are required to classify stressed assets appropriately and make adequate provisions. This helps in recognizing and addressing potential NPAs more effectively. The government has infused capital into public sector banks to strengthen their balance sheets and enable them to absorb losses arising from NPAs. This recapitalization helps banks meet regulatory capital requirements and continue their lending operations. The government and RBI have emphasized responsible lending practices to prevent the creation of new NPAs. Banks are encouraged to conduct proper due diligence before extending credit to borrowers and to closely monitor the performance of loan accounts. The RBI imposes Prompt Corrective Action (PCA) on banks that do not meet certain regulatory thresholds, such as capital adequacy, asset quality, and profitability. PCA aims to improve the financial health of these banks by restricting certain activities until they meet the required standards. Asset Reconstruction Companies are entities that buy NPAs from banks at a discounted price and attempt to recover the dues from defaulting borrowers. The government has encouraged the use of ARCs to help banks offload their stressed assets and focus on their core banking operations. Strategic Debt Restructuring allows banks to convert part of their debt into equity and take control of a stressed borrower. This mechanism provides banks with an opportunity to restructure the management of the defaulting company and find a viable solution for the recovery of loans. The government has undertaken the consolidation of public sector banks to create stronger and more efficient institutions. The merger of weaker banks with stronger ones is aimed at reducing NPA levels and enhancing overall operational efficiency.

In September 2021, the Reserve Bank of India (RBI) has certain mandatory norms and guidelines related to the audit of Non-Performing Assets (NPAs) and income recognition in Indian banks. These norms are put in place to ensure transparency, accuracy, and prudence in the classification of assets and recognition of income by banks.

1. NPA Classification and Provisioning Norms:

- The RBI has specific guidelines on the classification of assets as NPAs based on the age of overdue payments. These norms define different categories like Substandard, Doubtful, and Loss assets based on the period of default.
- Banks are required to make provisions against NPAs to cover potential losses. The provisioning norms vary based on the category of the NPA.

2. Income Recognition Norms:

- The RBI mandates that banks should recognize income from various sources, including interest on loans and advances, based on the principle of prudence and certainty.
- Interest income is recognized on an accrual basis, which means it should be recorded when it is earned, irrespective of actual receipt.

3. Asset Classification and Provisioning through Audit:

- Banks are subject to both internal and external audits, including statutory audits, to ensure compliance with RBI guidelines.
- External auditors review the bank's accounts, including NPA classification and provisioning, to provide an independent opinion on the accuracy of the financial statements.

4. Asset Quality Review (AQR):

- The RBI conducts periodic Asset Quality Reviews (AQR) to assess the asset quality of banks. This review helps in identifying NPAs and ensuring appropriate classification and provisioning.

5. Prudential Norms and Capital Adequacy:

- The RBI sets prudential norms and capital adequacy requirements for banks to ensure their financial stability and ability to absorb losses, including those arising from NPAs.

The RBI's regulatory framework aims to maintain the health and stability of the banking sector, protect depositors' interests, and foster confidence in the financial system. It is crucial for banks to adhere to these norms to mitigate risks and promote sound banking practices. However, as mentioned earlier, regulations may evolve over time, so it's essential to refer to the latest guidelines issued by the RBI for up-to-date information.

Conclusion:

In conclusion, the combination of inflation, repo rates of the Reserve Bank of India (RBI), and the COVID-19 pandemic has significantly impacted non-performing assets (NPAs) in Indian banks.

High inflation reduces the per capita income and purchasing power of individuals, which can lead to reduced settlement capacity and an increased probability of loan defaults. This, in turn, contributes to the formation of NPAs. Additionally, inflation can negatively affect different sectors of the economy, further impacting the ability of businesses to repay their loans and increasing the risk of NPAs in specific industries.

The repo rate set by the RBI plays a crucial role in controlling the banking system. Lowering the repo rate stimulates borrowing and credit availability, which can improve the financial health of borrowers and reduce the chances of NPAs. However, it is important to monitor the impact of reduced interest income and margins on banks' lending practices, as a desperate search for higher yields may lead to riskier lending and increased NPAs. The COVID-19 pandemic added an additional layer of challenges to the NPA situation in Indian banks. The economic slowdown caused by the pandemic disrupted businesses, reduced income levels, and strained borrowers' repayment capacity. The RBI implemented several relief measures, such as loan moratoriums and restructuring schemes, to mitigate the impact on NPAs. However, these measures were temporary in nature, and the full extent of the pandemic's impact on NPAs may only be realized over the longer term.

To address the challenge of NPAs effectively, a multi-faceted approach is required. This includes maintaining a stable inflation environment, ensuring prudent repo rate management, implementing robust risk assessment and lending practices by banks, fostering economic growth and income generation, and having appropriate regulatory frameworks and monitoring mechanisms in place.

Overall, the interplay between inflation, repo rates, and the pandemic has indeed appreciated the levels of NPAs in Indian banks. Mitigating the NPA problem requires a comprehensive and coordinated effort from policymakers, regulators, and banks to support economic recovery, improve loan repayment capacity, and foster a healthy banking system.