

A study on NPA : level and determinants in Indian scheduled commercial banks

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Abstract: Banking is considered as the life blood of a country 's economy. But the problem of NPA is creating a block in the smooth operation of banking in the country. Past twenty years were a period that witnessed rapid changes in the economy and banking sector of our country

Keywords: Study, NPA, economy, bank.

Introduction

During the period from 1999 to 2018 the level and performance of our economy has changed. Likewise the NPA levels of commercial banks also revised. Although central bank has introduced many reforms to control the level of NPA, it has continued to remain as a problem. So, it is important to understand whether the macro economic factors has any role in determination of NPA level of Indian scheduled commercial banks.

Statement of problem

Past twenty years in Indian economy has created a huge change and rapid movements. The period has witnessed boom of 2003, recession of 2008, several political changes, demonetisation, introduction of GST and NITI AAYOG in place of planning commission. All these changes has created an impact on the macro economic factors. Banking is the major area where these changes directly reflects. The NPA levels are alarmingly high. So, it is important to study the level of NPA and its macro economic determinants. Present study deals with the NPA level of Indian scheduled commercial banks for past twenty years from 1999 to 2018.

Objectives of study

- To describe the NPA status of Indian scheduled commercial banks
- To highlight the trend of GNPA and NNPA in SCBs in India.

- To find out year to year growth rate of GNPA and NNPA in Indian scheduled commercial banks.
- To study the macro economic determinants of NPA in Indian SCBs.

Scope of the study

- The study will be conducted on Indian Scheduled Commercial Banks.
- Study concentrate on the NPA level of Indian SCBs during past 19 years from 1999-00 to 2017-18

Methodology

- The study considers NPA in scheduled commercial banks which includes public, private and foreign banks which are listed in the second schedule of RBI Act 1934.
- Study based on secondary data
- Study discusses the conceptual framework of NPA
- Highlights the trend and status of NPA of SCBs during last 19 years from 1999-00 to 2017-18.
- RBI report on trend and progress, Database on Indian Economy, websites, newspapers, books and magazines are used for the study
- Study uses ratios, trend analysis, CAGR, correlation as tools of analysis.

Limitation of the study

- Less period of time for study
- The data collected is restricted to last 19 years.
- Data is collected from secondary sources like websites of central bank and its annual reports.
- The study on NPA is limited to Indian SCBs
- NPA amounts in Indian SCBs are based on master circular –prudential norms on income recognition, asset classification and provisioning pertaining to advances
- NPA amounts are changing with the time and revised norms.

Emperical literature review

Meenakshi Rajeev&H.P.Mahesh(2010)

The study starts by saying that due to India's social banking principal, the problem of bad loans remain unsolved. The NPA problem started to be discussed after the financial sector reforms introduced on the recommendations of the report of the Narasimham Committee in 1991. The study

suggest self-help group model to help the poor people to get loans and to ensure the repayment for banks.

Ms. Shalini H.S(2013)

The study identifies the effect of a set of micro economic variables like age,sex,education and marital status of Indian farmers on the management of their credit . Study focus on the difficulties faced by Indian farmers in paying back the borrowed funds . Study use Chi-Square test to know whether these variables have an impact on the non-payment of interest. The study finds out that the bankers can avoid sanctioning loans to the non-creditworthy borrowers by appraisal of projects.

B.Selvarajan&Dr.G.Vadivalagan(2013)

The study states that in India the magnitude of the problem of bad loans was not taken seriously.But the NPA is not only a problem in Indian PSBs ,it prevails in entire banking sector.It finds out that the major portion of bad debts in Indian banks arose out of lending to priority sector at the dictates of politicians and the bad loans can be controlled only if banks are ready to monitor their loans effectively.

Conceptual review

Non-performing asset

It is defined as a credit facility in respect of which the interest and/ or installment of Bond finance principal has remained ‘past due’ for a specified period of time.

Scheduled commercial bank

In India, it refers to a bank which is listed in the second schedule of the Reserve Bank of India Act , 1934. Banks not under this schedule are called Non Scheduled Banks. Scheduled Commercial Banks are usually private foreign and nationalized banks operating in India

Trend Analysis

It quantifies trend and pattern in data over time. It allows to predict what might happen in the future.

Gross non-performing assets

Sum total of all loan assets that are classified as NPAs as per RBI guidelines as on balance sheet date.It reflect the quality of the loans made by banks .It consists of all the non-standard assets like as sub-standard, doubtful and loss assets.

Net non-performing assets

Those type of NPAs in which the bank has deducted the provision regarding NPAs.NNPA shows the actual burden of banks. The provisions made against NPA according to central bank guidelines

are significant because bank balance sheet shows huge NPA and write off of loans are very time consuming . So the GNPA and NNPA vary significantly.

$NNPA = GNPA - Provisions$

GNPA ratio

Ratio of GNPA to gross advances of banks. GNPA is the sum of all loan assets classified as NPA as per RBI guidelines.

$GNPA\ ratio = (GNPA / Gross\ advances) * 100$

NNPA ratio

Ratio of NPA to net advances in which the provision is to be deducted from the gross advances.

$NNPA\ Ratio = ((GNPA - Provision) / (Gross\ Advances - Provision)) * 100$

Provision ratio

These are to be made for to keep safety against the NPA , and it directly affect on the gross profit of the banks. It is the total provision held for NPA to gross NPA of banks.

$Provision\ Ratio = (Total\ Provision / GNPA) * 100$

$Provision = GNPA - NNPA$

Problem asset ratio

Ratio of gross NPA to total asset of the bank

$= (GNPA / Total\ assets) * 100$

Asset classification

Assets can be categorized into four categories namely (1)Standard (2)Sub-Standard (3)Doubtful (4)Loss . The last three categories are classified as NPAs based on the period for which the asset has remained non-performing and the realisability of the dues.

(1)Standard Asset

The loan accounts which are regular and do not carry more than normal risk . Within standard asset, there could be accounts which though have not become NPA but are irregular . Such accounts are called as special Mention accounts.

(2)Sub-Standard Assets

With effect from 31-3-2005 , a sub-standard asset is one , which is classified as NPA for a period not exceeding 12 months (earlier it was 18 months). In such cases , the current net worth of the borrower / guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the bank in full. In other words, such an asset will have well defined credit weakness that jeopardize the liquidation of the debt and are characterized by the distinct possibility that the banks will sustain some loss, if deficiencies are not corrected.

(3) Doubtful Assets

With effect from 31-3-2005, an asset is to be classified as doubtful, it has remained NPA or sub-standard for a period exceeding 12 months (earlier it was 18 months). A loan classified as doubtful has all the weakness inherent in assets that were classified as sub-standard, with the added characteristic that the weakness make collection or liquidation in full, on the basis of currently known facts, conditions and values highly questionable and improbable.

(4) Loss Assets

A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectable and of such little value that its continuance as a bankable asset is not warranted although there may be some salvage or recoverable value. When a Sub-Standard account is classified as Doubtful or Loss without waiting for 12 months:

If the realizable value of tangible security in a sub-standard account which was secured falls below 10% of outstanding, it should be classified loss asset without waiting for 12 months and if the realizable value of security is 10% or above but below 50% of the outstanding, it should be classified as doubtful irrespective of the period for which it has remained NPA.

Macro economic determinants of NPA

1) Annual inflation rate

Inflation is an economic term that refers to an environment of generally rising prices of goods and services within a particular economy. Annual inflation rate is the rate at which prices increase over an year, resulting in a fall in the purchasing value of money.

2) Unemployment rate

It is defined as the percentage of unemployed workers in the total labor force.

3) GDP growth rate

It measures how fast the economy is growing. GDP measure the economic output of a nation.

4) Real interest rate

It is the rate of interest an investor receives after allowing for inflation.

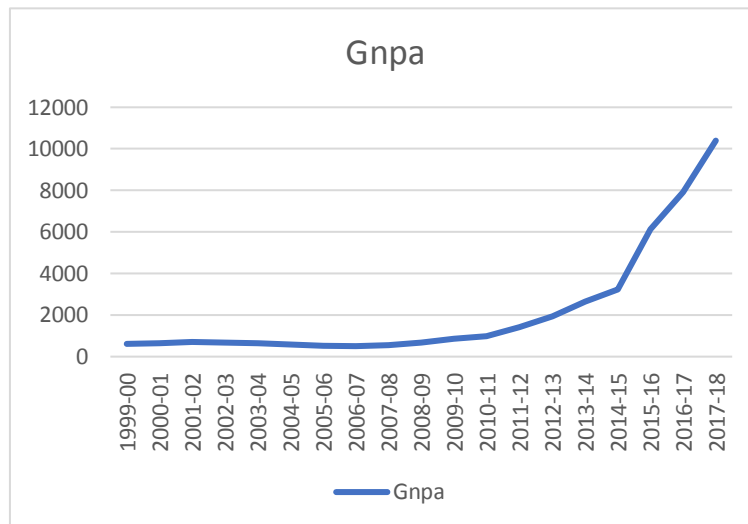
5) Ownership of banks

Indian SCBs are classified into 3 as public sector, private sector and foreign bank on the basis of ownership

Ratio analysis

It is the mathematical expression of relation between two variable expressed in percentage terms. Here four ratios are used for analyzing the status of NPA in Indian scheduled commercial banks.

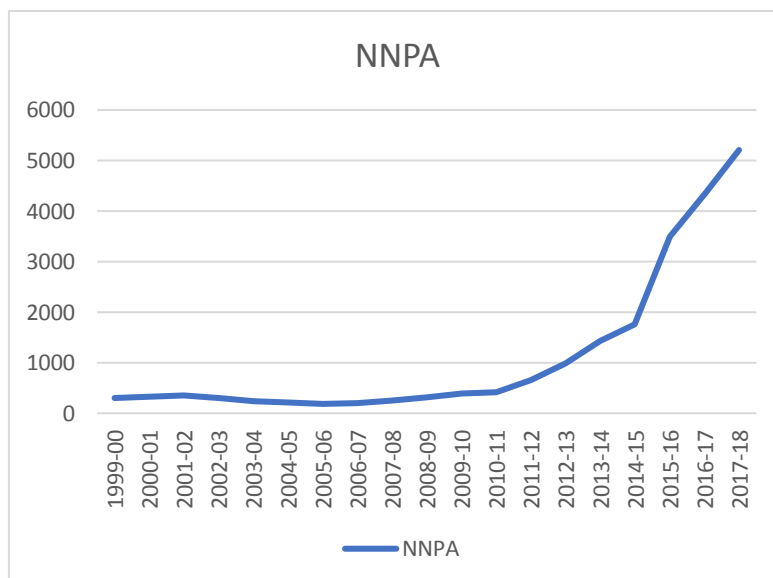
GNPA ratio



Interpretation

GNPA ratio from 1999-00 to 2007-08 shows a clearly declining trend .After 2007-08 GNPA ratio rises and finally in the year 2017-18, it reaches 11.22%.Highest GNPA level is in the year 1999-00 and lowest GNPA level is in the year 2007-08

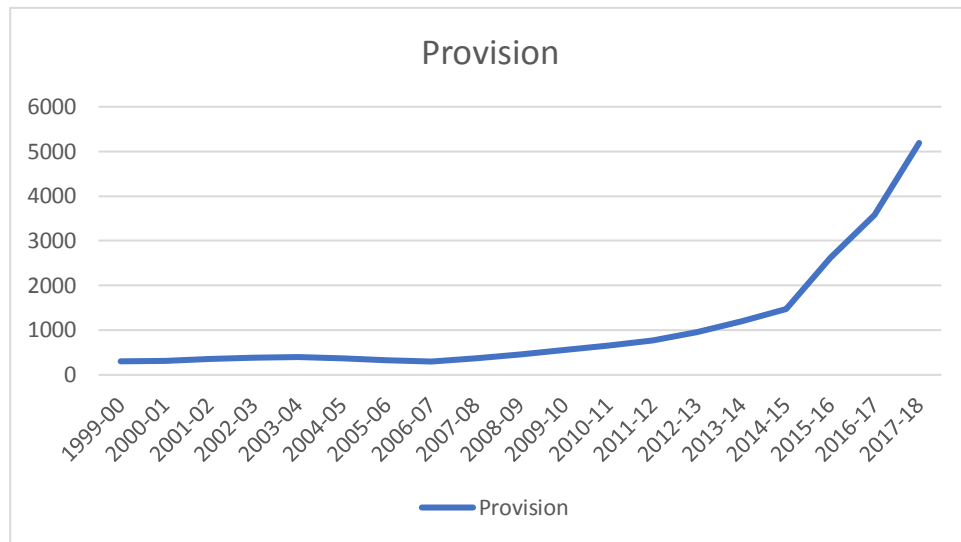
NNPA ratio



Interpretation

NNPA ratio shows a declining trend during 1999-00 to 2007-08. After this NNPA ratio increases and reaches 5.95% in 2017-18. Highest NNPA ratio is 6.76% in 1999-00 and lowest in the year 2010-11.

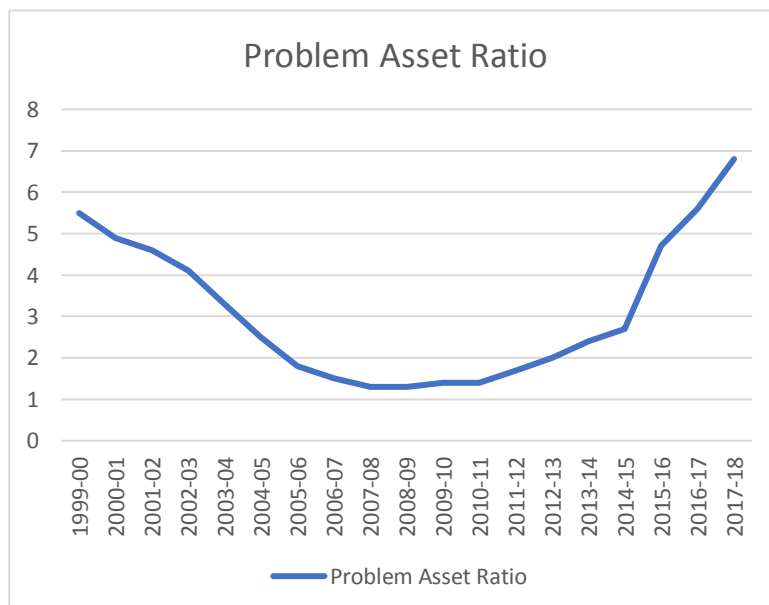
Provision ratio



Interpretation

Provision ratio shows variation in a zigzag manner. Highest provision ratio is 73.62% in 2004-05 and lowest provision ratio is in 2015-16 with 42.80%. In 1999-00 provision ratio was 50.21% and it reaches 49.91% in 2017-18.

Problem asset ratio



Interpretation

As the total assets of the scheduled commercial banks increases GNPA also increases. In 1999-00 the ratio was 5.5%. In 2017-18 it reached 6.8%. The highest ratio is also in this year. Lowest ratio is in 2007-08 and 2008-09 with 1.3%

Trend analysis

Using method of least square

A straight line trend can be fitted to the data by the method of curve fitting based on the principle of least squares.

GNPA trend for 2000-15

Straight line equation

$$Y=a+bx$$

$$b=(\text{sum}(xy))/\text{sum}(x^2)$$

$$=218484.79/570$$

$$=383.306$$

$$a=(\text{sum}(y))/n$$

$$=41492.25/19$$

$$=2183.802$$

$$y=a+bx$$

$$y=2183.802+383.306x$$

When x=2018-19

$$Y=2183.802+383.306(10)$$

$$6016.862$$

When x=2019-20

$$Y=2183.802+383.306(11)$$

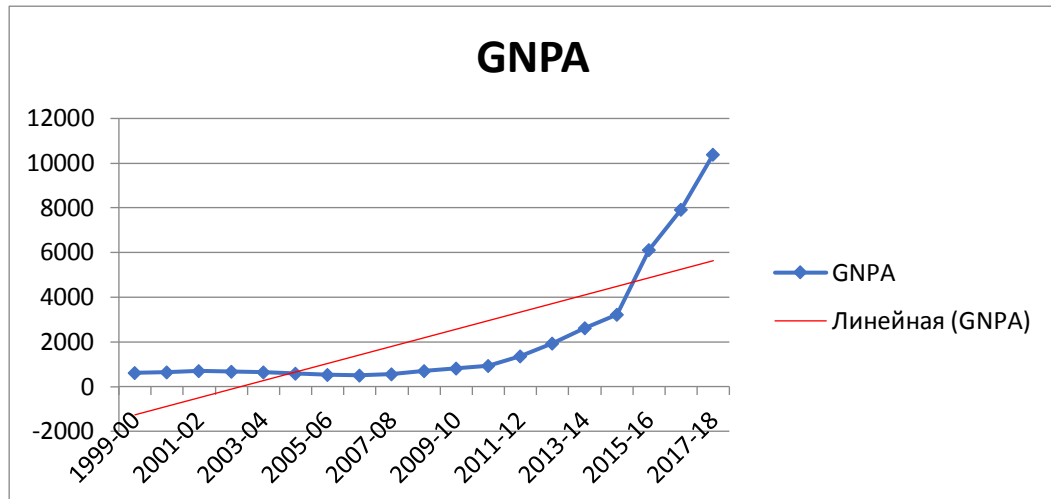
$$6400.168$$

When x=2020-21

$$y=2183.802+383.306(12)$$

$$6783.474$$

Trend of GNPA for 1999-2018



Interpretation

Trend equation and predictions such as Rs 6016.86 Bn in 2018-19, Rs.6400.16 Bn in 2019-20, Rs. 6783.47 Bn in 2020-21 shows an increasing trend in GNPA amount.

Compound annual growth rate (CAGR)

It is a business and investing specific term for the geometric progression ratio. It is useful to compare growth rates from various data sets of common domain.

$$\text{CAGR} = (\text{END VALUE} / \text{BEGINNING VALUE})^{(1/\text{NO.OF YEARS})} - 1$$

CAGR of GNPA

$$\text{CAGR} = (10396.79 / 604.08)^{(1/(19-1))} - 1$$

$$= 0.1712667$$

$$= 17.12667\%$$

CAGR on NNPA

$$\text{CAGR OF NNPA} = 0.1716546$$

$$= 17.16546\%$$

Intertretation

CAGR of GNPA and NNPA are 17.12% and 17.16% respectively. It shows that GNPA and NNPA growth is almost in the same level. Both GNPA and NNPA shows positive growth over the past 19 years.

	GNPA	GDP growth	Annual interest	Inflation rate	Unemployment rate
GNPA	1				
GDP growth	-.328	1			
Annual interest	-.737	.029	1		
Inflation rate	.368	-.1529	-.459	1	
Unemployment rate	.647	-.1415	-.490	.428	1

Correlation analysis Correlation between scheduled banks and variables

Source: <https://dbie.rbi.in>

(Amount in Rupee Billion)

Interpretation

This analysis gives correlation amongst the macro economic variables and GNPA for Indian SCBs. It shows that GNPA is negatively correlated with GDP growth rate and annual inflation rate. But GNPA is positively correlated with unemployment rate and real interest rate.

Findings

- ✚ Ratio analysis such as GNPA ratio, NNPA ratio provision ratio and problem asset ratio indicate that NPA level shows an increasing trend .It shows that NPA has emerged as a major threat in Indian banking system
- ✚ Problem asset ratio shows increasing proportion of Gross NPA to Total Assets of Indian scheduled commercial banks.
- ✚ Provision ratio shows that the banks has to keep about 50% of the Gross NPA as provision. This provision is made out of the banks' gross profits. This has a serious impact on the profitability of Indian scheduled commercial banks.
- ✚ Trend analysis also predicts an increased amount of GNPA in coming years
- ✚ Combined Annual Growth Rate of GNPA and NNPA shows about 17% growth in NPA over the past 19years from 1999-00 to 2017-18.
- ✚ Correlation analysis reveals that as GDP growth and annual inflation rate increases GNPA decreases and vice versa. As unemployment rate and real interest rate increases GNPA will also increase. It is the clear indication of relation between various macro economic determinants and GNPA amount

Suggestions

- ✚ Banks must study the future prospects of the investment proposals before providing loans
- ✚ banks should give proper care for future economic imbalances and macro economic variables for predicting NPA.
- ✚ Government should care for the rising level of NPA as it affects the overall profitability of Indian scheduled commercial banks..
- ✚ Banks should strictly follow Central Bank's guidelines regarding asset classification. This will help banks for early detection of defaulters and reduce the level of NPA
- ✚ Banks can sell the assets with reasonable economic value to any private asset management company or to a national asset management company

Conclusion

Growing Non-Performing Assets is a recurrent problem in Indian banking sector. NPA realization will help the banks in freeing up the capital. The Government also has limitation in infusing funds in public sector banks on a continuous basis. The present study reveals the severity of NPA crisis in Indian SCBs. It also shows the part played by the macro economic variables in NPA level. Banks and government should take more care in NPA management to reduce this crisis and to avail more capital for banks that will ultimately results in more loans to the public.

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