Effect of Recapitalization on the Performance of Public Sector Banks: The Case of India

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ABSTRACT

The Government of India recapitalized the public-sector banks with INR 22,915 crores and INR 2, 11,000 in the year 2016 and 2017 respectively. The Government intends to reduce the NPA level and infuse capital into the public sector banks to meet the liquidity standards. The study has been undertaken to analyze the effect of recapitalization on the performance of Indian public sector banks. The study considered two different events (July 19, 2016 and Oct 24, 2017) and used paired sample t test to analyze the effect of recapitalization on public sector banks. Overall the study found significant difference in Earnings per Share (EPS) and Net non-performing assets (NPA (%)) of selected public sector banks during pre and post announcement of recapitalization. However, the study found no significant difference in performance of Nifty PSU stock index during pre and post recapitalization announcement. Thus, Recapitalization has a greater potential to reduce the NPA of banks and earnings quality of Indian banking sectors. However, the government and RBI must take necessary policy reforms and prevention measures to enhance the profitability of public sectors banks and economic growth of the country.

Keywords: Recapitalization, Public-Sector Banks, Earnings per Share, Net non-performing assets (%), Nifty PSU stock Index and Indian Economy.

INTRODUCTION:

The banking industry is a vast industry which includes segments like the retail banking sector, investment banking, corporate banking, wealth management and asset management. The European market is the most dominant market in the banking industry as they have 43% of the overall market shares. The Asian banking industry is the fastest growing market when compared to the European and American markets for the year between 2006 and 2011. The rise in the per capita income and increased savings has led to the growth of this industry. As on 2017, the Department of Financial services reported that the Indian Banking system has 21 public sector banks, 20 private sector banks, 1574 urban cooperative banks and 56 regional rural banks. Here, the public-sector banks have a control on more than 70 percent of the assets of the banking system.

The banking sector reforms as given by the Government, simply have one main objective, which is to ensure that there is efficiency and soundness in the banking system. These reforms should ensure that there is flexibility in the banks which can enhance the overall development of the economy, as banks are one of the most important aspect of the financial sector of the country. Thus, the banking industry must get a highly

diversified and strong system, which will improve the working of the entire system where the depositors' have a guarantee of their money and the borrowers have adequate supply of funds to meet their requirements. This will develop the economy of the country. When the economy of a country is an open economy and the financial infrastructure is not very strong, it may lead to banking sector crisis and the failure of the sector. The lack of liquidity, solvency, high NPA, weakness in the governance and undercapitalization (Adegbaju & Olokoyo, 2008)along with a weak banking sector, may lead to a failure in the banks and a crisis in the sector. When Bank Balance sheets are weak, the bank will never have a healthy growth. Thus, the banks which are not optimally capitalized will only survive but they cannot accomplish the required growth. This results in the weak loan supply, thus, create huge blockages to the growth in the economic activity of the country.

In the last year, public sector banks had a Rs. 10 trillion of assets that were stressed, and these bankers have had to spend a lot of time in reporting these defaulters and taking them to the court. In 2016, the RBI financial report showed that the gross non-performing assets of public sector increased by 7.6%, which is the highest in a record of 12 years. In 2017, the RBI started to identify accounts that are defaulters. In June, the Reserve Bank of India close to twelve accounts that needed immediate attention and be charged for bankruptcy. Also, it was decided that the bank would declare the 500 most stressed accounts and try to recover their loans, and if there is no means of resolving the NPAs then the defaulters can be taken to the court for further proceedings. An addition of new capital can help the banks in removing the toxic assets at a very quick pace and in an efficient manner. Bank recapitalization is therefore, a very aspect, as it adequate recapitalization can impact the profits of the bank. Recapitalization depends on the shareholders' capability of investing into the bank. When the shareholders don't show willingness, the Government comes into the picture to fulfill the requirements. Thus, the intervention of recapitalization by the Government has an important role in assessing the health of the bank. In the Indian context, the public-sector banks were recapitalized on 19th July 2016 where the Central Government announced a total of Rs. 22,915 crores to recapitalize the public-sector banks. This was done to boost the credit growth of economy.

On 24th October 2017, the ministry of Finance announced a recapitalization of Rs.2.11 trillion for the banks in order to ensure a smooth flow of the credit and attract private investors. As pointed out by Rajiv Kumar, the secretary of Department of financial services, this would ensure that the borrowers who are genuine get an adequate amount of funding. This would thus, try to bring in new investment from the private investors, which will give a boost to the overall economy, which has been growing in a downward trend, where the quarter ending June 2017, showed a growth of 5.7% in the economy which is the slowest in the past three years.

REVIEW OF LITERATURE:

(Tomec & Jagrič, 2017) analyzed the impact of bank recapitalization on the profits of the banks while the global financial crisis was going on and it has a positive impact on their profits and the amount of profit increased proportionately with the increase in the amount of recapitalization amount. (Acharya, 2017) stated that a few banks are under the Reserve Bank to give the banks a Prompt Corrective Action (PCA), as most of them have not met the asset quality, recapitalization or the profitability requirements given by the Reserve Bank. (Shraddha Kokane & Dr. Shriram Nerlekar, 2017) derived that introduction of new capital will help in lowering the levels of NPA as new capital in the balance sheet reduces the assets that are toxic. (Axis, 2017) analyzed that the finance Minister announced a 2.11 trillion of recapitalization of the public-sector banks over the two years, it was because it would reduce the NPA of the banking sector and this reduction would cause a growth in the overall economy. (Patel, 2016) stated that recapitalization is a monumental step taken by the Government, which will restore the health of the health of the Indian Banking sector. (Samson et al, 2016) found that the recapitalization of the bank has led to increased profits since the start of the recapitalization process and thus, its highly beneficial for the sector. (Acharya & Subramanian, 2016) pointed out that the public-sector banks need a significant increase in their capital to avoid the shrinkage in their balance sheet and meet the Basel 3 requirements. (Juliet Ifechi & Akani, 2015)) pointed out that the banks need recapitalization as it increases the capital adequacy, liquidity, management quality, quality of assets and earnings quality.

(Ailemen et al, 2014) derived that the recapitalization must be one of the most aspect in the banking sector as it ensures the development of the bank. (Merler & Wolff, 2014) found that there should be a focus on bank recapitalization now, after the creation of the Central Bank of the European region that supervises the entire system. (Prostok, Kay, & Briggs, Sep 2013) pointed many banks are unable to recapitalize without a reduction in their debt component. (Manupatra, 2013) to meet the credit requirements, banks would ensure that the funds also increase in that proportion so that there is an increase in the Risk Weighted Assets (RWAs).

(Moschella M. , 2011) explained that the British Government used direct infusion of equity capital for the banks

that failed. The Italian Government on the other side had a different approach where they indirectly helped in recapitalization by acquiring the debt of the banks. (PHILIPPON, 2010) examines recapitalization programs to be efficient, there needs to be a cooperation in the global scenario. (Schäfer & Zimmermann, 2009) explained that the Government ensures the bank are relieved by converting these assets into workout units that are sponsored by the public, in order to remove the toxic assets and give out a fresh start to the bank. It helps the tax payer in keeping their costs minimum and also, there is a lower risk of moral hazard.(Adegbaju and Olokoyo, 2008) showed that there is a change in the profitability ratios post the introduction of new capital. (Andrews, 2003) explains that the Government has taken several measures to lower the restricting costs of the banks by recapitalizing by issuing government bonds. (Diamond, 2001) suggested that a bank should be recapitalized to an extent where they can write off their loans or they can avoid failures by liquidating the collaterals that they possess. (Enoch, Garcia, & Sundararajan, 2001) explained that the method of recapitalization should ensure that the present value of the cash outflow of the Government is minimized.

Objectives :

1) To analyze the effect of recapitalization on the performance of Nifty PSU stock index of NSE.
2) To analyze the effect of recapitalization on the Net NPA (%), EPS and ROA (%) of selected public sector banks. India

Hypothesis :

H_{0a}- There is no significant difference on the performance of the PSU Bank stocks before and after the recapitalization announcement.

H_{0b}- There is no significant difference in Net NPA (%), EPS and ROA (%), of selected PSU banks before and after the recapitalization announcement

METHODOLOGY :

The research is an analytical research which aims to prove the impact of recapitalization on the public-sector bank stock prices and profits of individual bank's performance.

Data and event window:

1. For the recapitalization on 19th July 2016, daily closing prices of NIFTY PSU BANKS are collected for 200 days pre and post recapitalization, that is, from 23.09.15 to 11.05.17. For the recapitalization on 24th October 2017, daily closing prices of NIFTY PSU BANKS are collected for 73 days pre and post recapitalization, that is, from 07.07.17 to 06.02.18.
2. The recapitalization which took place on 19th July 2016, quarterly data on Earnings per share, Net NPA (%) and Return on Assets (%) are taken before recapitalization and after recapitalization is collected for 13 public sector banks. Four quarters were taken before recapitalization and four quarters after recapitalization. The quarters that were taken before recapitalization are September'15, December'15, March'16 and June'16. The quarters considered after recapitalization are December'16, March'17, June'17 and September'17.

Source of data - The daily closing prices of Nifty PSU Banks on NSE website. The quarterly data for 13 public sector banks for their EPS, NET NPA (%) and ROA (%) are collected from money control website.

Selection of public sector banks: The banks that were involved in the recapitalization on 19th July 2016 are State Bank of India, (Allahabad Bank, 2017), (Bank of India, 2017), (Corporation Bank, 2017), (Central Bank of India, 2017), (Canara Bank, 2017), (Dena Bank, 2017), (Indian Overseas Bank, 2017), (Punjab National Bank, 2017), (Syndicate Bank, 2017), (UCO Bank, 2017), (Union Bank of India, 2017) and United Bank India.

ANALYTICAL TOOLS:

Paired sample t test- The study used paired sample t test to analyze the effect of recapitalization on performance public sector banks.

Return - The logarithmic return of Nifty PSU Banks is calculated using following formula.

$$\text{Ri} = \ln\left[\frac{P1}{P0}\right] * 100$$

Where, P1=today's closing price of the respective index, P0=yesterday's closing price of the respective index, ln=natural logarithm.

Earnings per share (EPS) = (net income of the business – dividends on preferred stock) / number of outstanding

common shares

Return on Assets (%) (ROA (%)) = (Net Profit after tax / Average Total Assets) *100

NET NPA (%) = Gross NPA - (DICGC/ECGC claims received and held pending adjustment + Part payment received and kept in suspense account + Balance in Interest Suspense account + Total provisions held)

Where DICGC/ECGC claim refer to the claims by the Deposit Insurance and Credit Guarantee Corporation and Export Credit Guarantee Corporation of India Ltd.

FINDINGS AND DISCUSSION:

Table 1: Shows the Descriptive statistics

Variable	Event Date	Pre-Post	N	Mini	Max	Mean	Std. Deviation	Skewness	Kurtosis
EPS	July 19 2016	Before	65	-71.92	10.3	-3.85	12.78	-3.174	13.24
		After		-21.87	6.57	-0.49	4.19	-2.32	9.75
NETNPA	July 19 2016	Before	65	2.14	14	6.03	2.77	0.76	-0.08
		After		3.71	15	8.57	2.53	0.542	0.15
ROA	July 19 2016	Before	65	-3.18	0.75	-0.43	1.01	-1.274	0.80
		After		-1.82	0.44	-0.23	0.59	-1.017	-0.01
Nifty PSU Index	July 19 2016	Before	200	-6.36	9.44	-0.05	2.25	0.463	2.39
		After		-7.14	8.36	0.13	1.77	0.219	3.26
Nifty PSU Index	Oct 24 2017	Before	73	-4.98	3.56	-0.19	1.43	-0.528	1.49
		After		-6.3	18.1	0.19	3.51	2.552	10.72

Source: researchers own calculation

Table (1) shows the descriptive statistics of EPS, Net NPA, ROA and public Nifty PSU index returns during pre and post recapitalization. The descriptive statistics clearly shows the mean values and volatility values are reduced after recapitalization except mean NPA.

Table 2: Shows the correlation between pre and post recapitalization values

Variable	Event Date	N	Pre and post values	Correlation
PS BANKS	July 19 2016	65	EPS_Before & EPS_After	0.086
PS BANKS	July 19 2016	65	NETNPA_BEFORE & NETNPA_AFTER	0.705
PS BANKS	July 19 2016	65	ROA_BEFORE & ROA_AFTER	0.431
Nifty PSU	July 19 2016	200	BEFORE_JULY_RECAP & AFTER_JULY_RECAP	-0.013
Nifty PSU	Oct 24 2017	73	BEFORE_OCT_RECAP & AFTER_OCT_RECAP	0.134

Source: researchers own calculation

Table (2) shows the cross correlation statistics of EPS, Net NPA, ROA and public Nifty PSU index returns during pre and post recapitalization. It clearly indicates pre and post values have positively correlated except Nifty PSU returns for July 19, 2016 event.

Table 3: Shows Paired Samples Test results

Variable	Event Date	N	Pre and post values	t	Prob
PS Banks	JULY 19 2016	65	EPS_BEFORE - EPS_AFTER	-2.066 **	0.043
PS Banks	JULY 19 2016	65	NETNPA_BEFORE - NETNPA_AFTER	-10.006***	0.000
PS Banks	JULY 19 2016	65	ROA_BEFORE - ROA_AFTER	-1.725	0.089
Nifty PSU	JULY 19 2016	200	BEFORE_JULY_RECAP - AFTER_JULY_RECAP	-0.866	0.388
Nifty PSU	OCT 24 2017	73	BEFORE_OCT_RECAP - AFTER_OCT_RECAP	-0.909	0.367

Source: researchers own calculation (*** and ** indicates significant at 1% and 5% level respectively)

Table (3) shows paired sample t test results. It clearly shows that the probability values of EPS and Net NPA values are significant at 5% and 1% significantly respectively. It indicates that there is a significant difference in EPS and NET NPA of selected public sector banks before and after announcement of recapitalization on July 19, 2016 respectively. Further the study found no significant difference in ROA and daily returns of selected public sector banks and Nifty PSU stock index before and after the recapitalization on July 19 2016 and October 24 2017 respectively.

CONCLUSION:

The study has been undertaken to analyze the effect of recapitalization on the performance of Indian public sector banks. The study considered two different events (July 19, 2016 and Oct 24, 2017) and used paired sample t test to analyze the effect of recapitalization on public sector banks. Overall the study found significant difference in Earnings per Share (EPS) and Net non-performing assets (NPA (%)) of selected public sector banks during pre and post announcement of recapitalization. However, the study found no significant difference in performance of Nifty PSU stock index during pre and post recapitalization announcement. Thus, Recapitalization can enhance liquidity and earnings quality of Indian banking sectors. Further, it reduces the NPA of public sectors banks and this reduction influence the overall growth of the Indian economy

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