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TWIN BALANCE SHEET PROBLEM OR ASSISTANCE: RELATIONSHIP BETWEEN CORPORATE LEVERAGE AND NON-PERFORMING ASSETS

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ABSTRACT

The paper aimed at studying the twin balance sheet problem in Indian context. Twin balance sheet problem connotes that the effect of failure of corporate loans on the balance sheets of two entities i.e. the banker who grants the loan and the corporate entity who takes the loan. The main objective of the study is to know the relationship between leverage indicators of corporate and NPAs of their bankers. To meet this objective the data were collected from the financial statements of three sample companies and their bankers. The collected data were analyzed using leverage ratios and basic statistical tools like mean, standard deviation, and correlation. The study ratiocinates that some leverage indicators of corporate have strong correlation with the NPAs of bankers therefore the bankers should put in place such system that assess continuously the leverage strength of the corporate before & after the loan is imparted. This system will also aid in reducing the amount of NPAs along with the non remittals of the corporations. This will be beneficial to both the parties and result into twin balance sheet assistance instead of the problem.

KEYWORDS: *Twin Balance Sheet, Leverage, Non-Performing Assets, Corporate.*

1. INTRODUCTION

Balance Sheet – A balance sheet is a statement of the financial position of a business entity that lists the assets, liabilities and owner's equity on a particular point of time. In other words, the balance sheet illustrates a business's net worth and its overall performance. When a company's net worth is unable to generate profits and run into losses and unable to pay its debt commitment i.e. repayment of loan. This is terms as weak balance sheet.

Twin Balance Sheet Problem – Investment/deployment of borrowed capital by a corporate on its assets or in projects which fail to generate an adequate rate of return results into losses and have the impact on its capital. This is 'A' company's balance sheet problem. The balance sheet of another company which has financed to 'A' company now company 'B' will not be able to get its loans, debts/ receivables from company 'A' and these assets will be turned into non Performing Assets. To further elaborate 'A' company is a manufacturing company and 'B' company is a Banking co. so non-payment by 'A' company to 'B' company then 'B' company (i.e. banking company), will suffer because the banking co. has to classify these loans as nonperforming assets and make provision.

Economic cycle is the natural fluctuation of the economy between periods of expansion (growth) and contraction (recession). An economic cycle also referred to as business cycle, has four stages: Boom, Recession, Depression and Recovery. During the boom period, the corporate enterprises borrow huge money from the banks and invest the same in infrastructure and capital-intensive industries such as steel, power, etc. When its cyclic change from boom to recession the business of these sectors will suffer due to huge borrowing cost, the borrowing units' profits decline substantially. Consequently, the corporate borrowers are unable to repay the debts to lending banks. As a result, their debts start rising at an alarming rate forcing them to cut back investments. This resulted in the creation of financial burden not only on the borrower-units but also on lender-bankers and the economy as a whole. In other words, the arrears on the projects are so high that the companies find it very difficult to repay the debts. Such investments are categorized as NPAs in the balance sheets of the lending companies.

To address and resolve this TBS problem and its impact on lender bank the Government of India and the Reserve Bank of India have formulated/ enacted a few schemes/Acts such as The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act, 2002); Debts Recovery Tribunals (DRTs) and Debts Recovery Appellate Tribunals (DRATs); LokAdalats; Joint Lenders' Forum (JLF); Corporate Debt Restructuring (CDR, 2001); Strategic Debt Restructuring (SDR, 2015); Flexible refinancing under 5/25 Scheme, S4A, etc. However, these

Schemes have not been able to resolve the TBS problem. Hence, the GoI, in the Economic Survey, 2016-17, mooted the idea of setting up of a new central agency called, Public Sector Asset Rehabilitation Agency (PARA) and also brought insolvency and bankruptcy code to redress the problems of the corporate and the lending bank through a resolution problem.

2. LITERATURE REVIEW

Dr. Amita (2019) undertook a theoretical study on twin balance sheet problem in Indian economy. The study found that the banks give loans according to classification rules made by the RBI. She believes that the problem can be solved if Public Sector Asset Rehabilitation Agency (PARA) a centralized agency will be help in taking difficult decisions which the public sector banks are unable to take. This agency will help in solving debt problems quickly.

Pudhari (2017) examined twin balance sheet problem and its impact. The study found that the previous mechanisms to resolve this issue in the decentralized form were failed. He suggested that various schemes designed and implemented by the authorities to resolve the TBS problem, stressed assets and NPAs of banking, financial institutions and corporate borrower should address with all the seriousness and without the political interference. He believes that it is the right time for the government and related professional parties to implement the provisions of PARA with necessary finance and power to resolve the TBS.

Melka(2017) researched on India: twin balance sheet problem. The study found that the big increase in corporate debt and the deterioration in the financial situation of companies sparked a very strong increase in non-performing loans, primarily among public-sector banks. To date, the sharp rise in credit risks mainly concerns the public-sector banks, which have benefited from vast government support. Corporate loans accounted for only 34.3% of GDP at year-end 2016, a 5-point decline in less than five years. Although this decline reflects in part corporate deleveraging strategies, it can also be blamed on the growing difficulties of public-sector banks.

Gowda, Manjunatha (2017) explored a theoretical study on twin balance sheet problem – is public sector assets rehabilitation agency a panacea. The study found that the reason behind the failure of schemes before PARA is that the success of any scheme depends upon how effectively the scheme is implemented. This is all because of lack of effective implementation. So the provisions of PARA should implement with honest and efficient professionals and with necessary finance and power.

3. RESEARCH METHODOLOGY

3.1 Objectives of the Study

- To study the concept of twin balance sheet problem in India.
- To know the relationship between corporate debt and their bankers' NPAs.

3.2 Research Design

- Descriptive Research - Evaluative and analytical study.

3.3 Sampling Design

- Selection of three companies from companies whose solvency position is not sound and their bankers were randomly selected to know the impact of corporate loan on financial position of company & banks.

3.4 Sources of Data

- Our source of information is Standalone Financial Statements of selected companies and Annual Reports of their bankers.

3.5 Period of the study

- The time period of study is Five years from F.Y. 2014-15 to F.Y. 2018-19.

3.6 Research Tools

- Accounting Ratios – Solvency Ratios
    1. Debt – Equity Ratio
    2. Debt- Assets Ratio
    3. Interest coverage Ratio
- Mean & co-efficient of variance
- To make data more meaningful and understandable the collected data and calculated ratios, means, co-efficient of variances are tabulated and presented in charts.

3.7 Limitations of the study

- The study will be limited to only 5 years from 1-4-2014 to 31-3-2019.
- The study will be limited up to only 3 Companies and their concerned banks.
- The study is based on secondary data and the data collected from secondary sources has certain limitations the same limitations will be applicable to this study.

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- The tools and techniques used for analysis may have certain limitations the same limitations are applicable to this study.
- The ratio analysis deals with quantitative aspect. It totally overlooks the qualitative aspect.

4. DATA ANALYSIS

4.1 Comparison of Solvency status of companies with NPAs of Bankers

Table 4.1:Essar Ltd. Solvency Ratios and their Bankers NPA

(In crore)

Essar							
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Mean**	**CV**
Solvency Ratios							
Debt (RS)	1,578.20	2,464.85	906.58	2,051.25	2,261.63	1852.502	0.336
Debt-Equity Ratio	0.328	0.533	4.380	9.910	2.592	3.549	0.882
Debt Assets Ratio	0.175	0.266	0.144	0.344	0.503	0.286	7.907
Interest Coverage Ratio	0.726	0.607	0.609	0.341	-6.722	-0.888	-3.677
Bankers NPA							
SBI	56725.34	98172.8	112343	223427.5	172750.4	132683.808	0.525
IOB	14922.45	30048.63	35098.26	38180.15	33398.12	30329.522	0.300

(Source: Calculated through Excel Formulas considering B/S data)

Chart 4.1.1 Line Chart on NPA

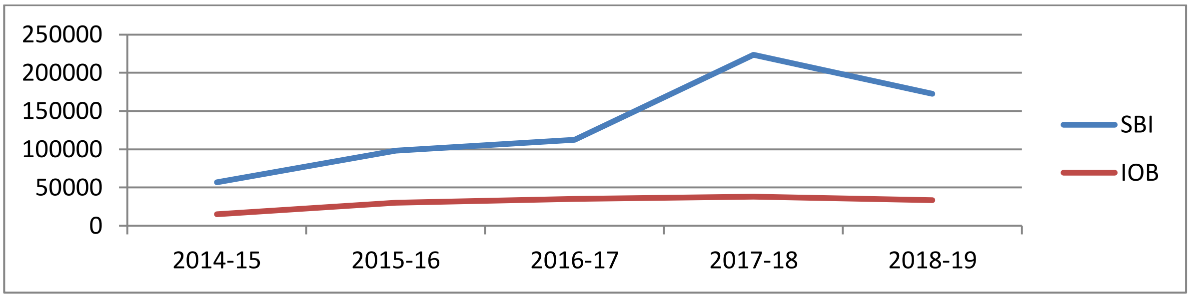
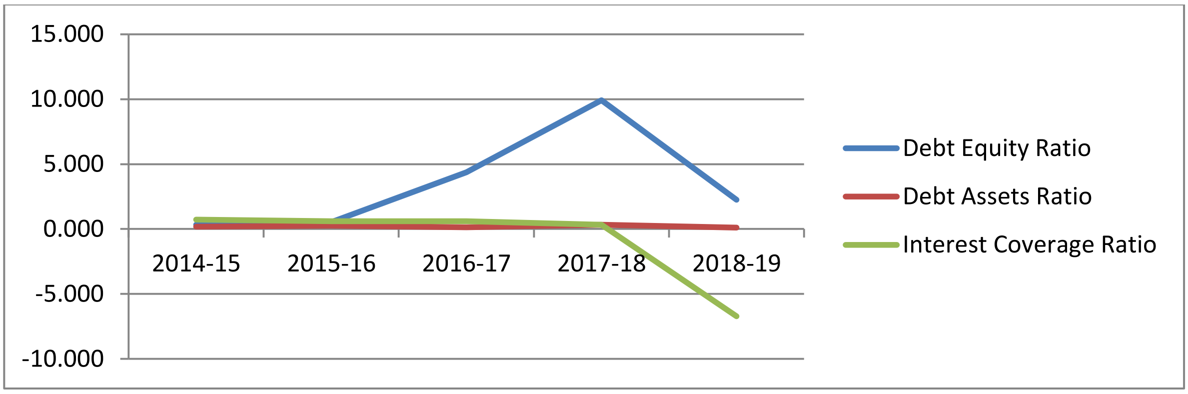


Chart 4.1.2 Line Chart of Ratios



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Data Analysis

The above table shows Debt Equity Ratio, Debt Assets Ratio and Interest Coverage Ratio and also shows bankers' NPA of Essar Ltd. The debt equity ratio and debt assets ratio of Essar ltd. is increasing in the range of 0.32 to 9.91 and 0.14 to 0.34 respectively. The interest coverage ratio of company is decreasing continuously in the range of 0.72 to -6.72. This indicates that the solvency position of the company is very poor. According to the ratio analysis it can also say that at some point of time the company increases its debts very frequently but does not meet its interest liability due to heavy investment in assets and inefficient management that led the company to move towards less profitability and insolvency. Due to the negative impact on company's balance sheet the NPAs of the bankers of the company will be increased.

Probable Impact on Financial position:

As per the data analysis of Essar ltd. it can be say that the financial position of the company is not sound. Company is not able to pay its interest as well as debt liability. The bankers of the company having the impact of such condition of the company like they are not receive principal amount of loan given and interest on those loans.

Table 4.2: Binani Industries Solvency Ratios and their Bankers' NPA
(incrore)

Binani Industries							
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Mean**	**CV**
Solvency Ratios							
Debts (Rs)	449.31	493.96	462.47	417.71	35.74	371.838	0.510614
Debt Equity Ratio	0.001802	0.001952	0.002077	0.001848	0.000365	0.00161	0.437164
Debt Assets Ratio	0.001020	0.001092	0.001040	0.000927	0.000309	0.00088	0.368512
Interest Coverage Ratio	-0.934732	1.089261	1.272414	0.905548	0.823321	0.63116	1.413851
Bankers NPA							
PNB	24924.98	53190.05	52562.47	79720.49	71028.6	56285.3	0.374101
IDBI	12684.97	24875.07	44752.59	55588.25	50027.94	37585.8	0.481828
Indian Bank	5670.44	8827.04	9865.14	5959.56	6793.11	7423.06	0.247902

(Source: Calculated through Excel Formulas considering B/S data)

Chart 4.2.1 Line Chart on NPA

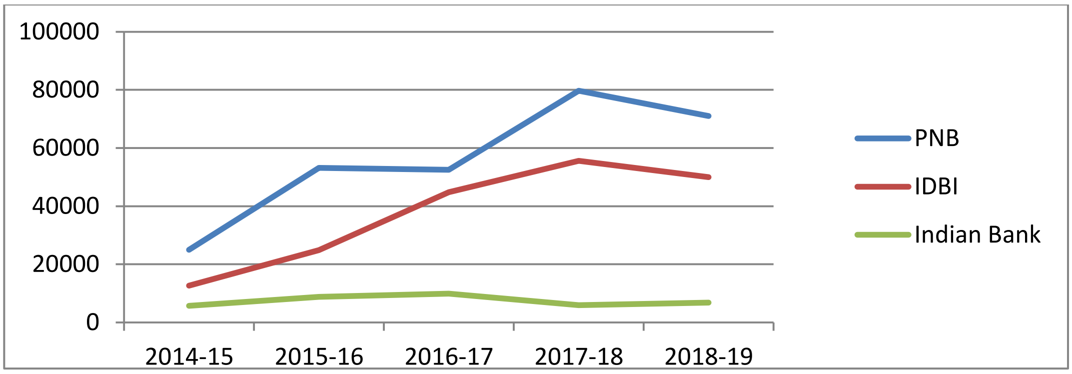

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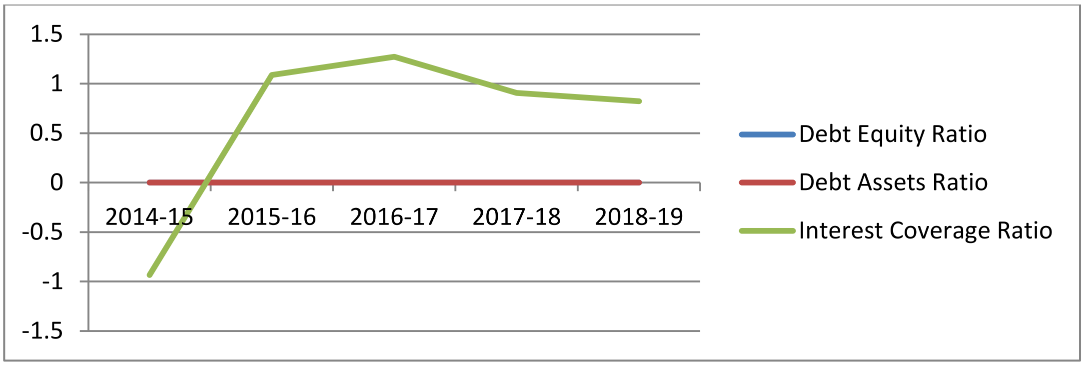
Chart 4.2.2 Line Chart of Ratios



Data Analysis:
The above table shows Debt Equity Ratio, Debt Assets Ratio and Interest Coverage Ratio and also shows bankers' NPA of Binani Industries. The debt equity ratio moves in the range of 0.0018-0.0021-0.0003 which is less than the idol ratio i.e. 1:1. And the same movement can be seen in the debt assets ratio. Interest coverage ratio is fluctuating frequently but not more than 1 except year 2015-16 & 16-17 and again goes to less than 1 which indicates the company has no sufficient profit to pay its interest liability. Due to the insufficient profits the co. cannot pay its debts as well. So that it can be assumed that the bankers' NPA of that company would also have increased.

Probable Impact on Financial position:
As per the data analysis it can be say that the financial position of the company is not good. Company is not in the position to pay its debts and interest on these debts also. It can also say that the NPAs of PNB and IDBI are continuously increasing till 2017-18 and decreases in 2018-19 due to implementation of some remedial steps.

Table 4.3: DB Realty Companies Solvency Ratios and their Bankers NPA

(incrore)

DB Realty							
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Mean**	**CV**
Solvency Ratios							
Debts (Rs)	30.60	115.69	119.56	176.48	63.22	101.11	0.55599
Debt Equity Ratio	0	0	0.000406	0.000618	0.000228	0.00025	1.06646
Debt Assets Ratio	0	0	0.000323	0.000490	0.000168	0.0002	1.08175
Interest Coverage Ratio	1.330043	1.995395	2.737466	-0.259600	0.642969	1.28925	0.90240
Bankers NPA							
OBC	7666.22	14701.78	22859.27	26133.64	21717.07	18615.6	0.39780
Yes Bank	3134	7489.81	20185.57	26268.02	78825.6	27180.6	1.11637
HDFC	3438.38	4392.83	5885.66	8606.97	11224.16	6709.6	0.47558

(Source: Calculated through Excel Formulas considering B/S data)

Chart 4.3.1:Line Chart on NPA

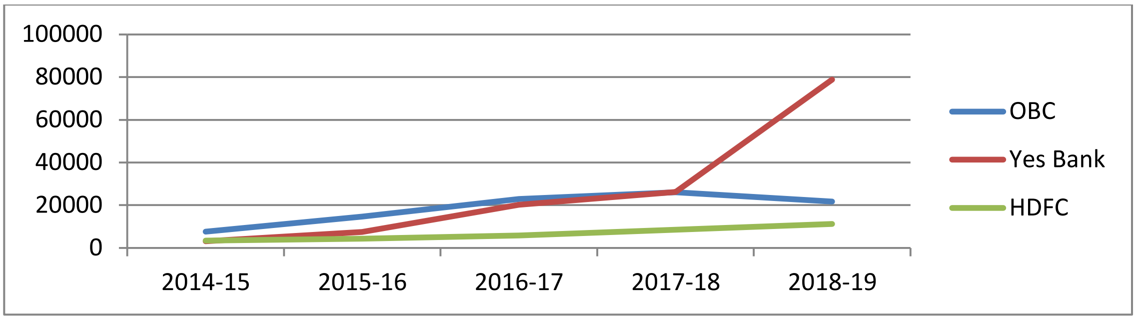
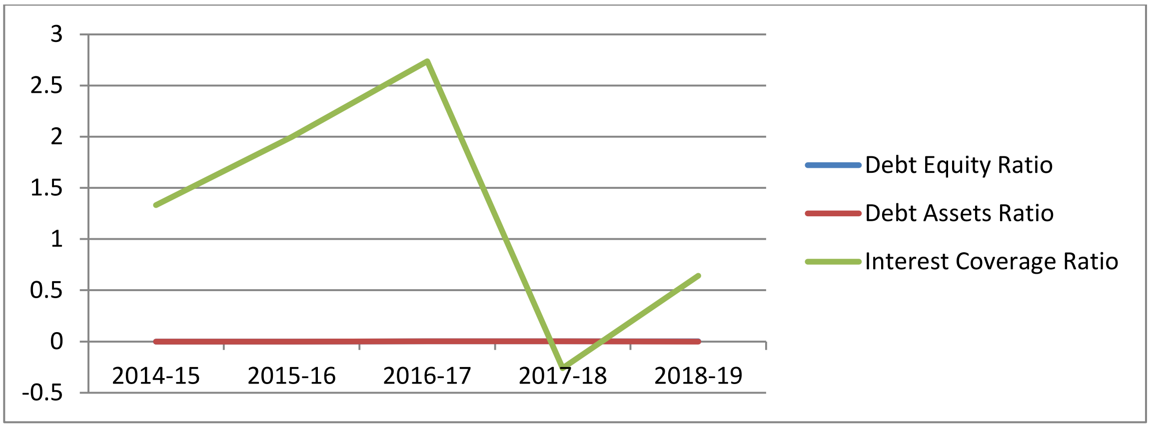


Chart 4.3.2: Line Chart of Ratios



Data Analysis:
The above table shows Debt Equity Ratio, Debt Assets Ratio and Interest Coverage Ratio and also shows bankers' NPA of DB Realty. The result of ratios shows that during this time company increasedits debts and earned sufficient profits. But in 2017-18 company took more loans and its profit decreased which indicates that company used the borrowed funds in repayment of previous debts and invest remaining amount in some beneficial areas that's why the profit of 2018-19 increased. So there are possibilities that the company will earn more profits in near feature and the NPA of the concerned banks will not effect. But if company does not earn higher profit then both parties will get affected.

Probable Impact on Financial position:
According to the above table analysis it can be say that the strategies of the company to run its business is perfect because it pays its old loans and investing in assets through which it will start gain.

4.2 Correlation of Leverage Ratios and Banker's NPAs

Table 4.4: Cross correlation of ratios and NPAs

Essar		
	SBI	IOB
Debt	0.326	0.104
Debt-Equity Ratio	**0.846**	0.411
Interest Coverage Ratio	-0.381	-0.222
Debt Asset Ratio	**0.685**	0.411

Table 4.5: Cross correlation of ratios and NPAs

Binani			
	PNB	IDBI	Indian Bank
Debt	-0.439	-0.449	0.287
Debt-Equity Ratio	-0.364	-0.482	0.308
Interest Coverage Ratio	**0.725**	**0.697**	**0.674**
Debt Asset Ratio	-0.475	-0.482	0.308

Table 4.6: Cross correlation of ratios and NPAs

D B Realty			
	OBC	Yes Bank	HDFC
Debt	**0.746**	-0.109	0.214
Debt-Equity Ratio	**0.894**	0.231	**0.524**
Interest Coverage Ratio	-0.310	-0.403	**-0.593**
Debt Asset Ratio	**0.886**	0.231	**0.524**

DISCUSSION: The cross correlation table has been prepared between leverage ratios and bankers NPAs using Microsoft excel. The data indicate that in the case of Essar there is a strong correlation of debt-equity ratio, debt asset ratio with SBI bank's NPA during the period of study. In case of Binani there is a strong correlation of Interest coverage ratio with the NPAs of all the major bakers i.e. PNB, IDBI, Indian bank. In case of DB Realty there is a strong correlation of debt, debt-equity ratio, and debt asset ratio with OBC bank's NPA, while there is a moderate correlation of debt-equity ratio, interest coverage ratio, and debt asset ratio with HDFC bank's NPA during the period of study. The data also indicate that there is no significant correlation of yes bank and IOB with any of the selected companies; it may be possible that these two banks' NPAs involve other major corporate that are not involved in the sample of this study.

5. FINDINGS, SUGGESTIONS, AND CONCLUSION

Findings

- The debt equity ratio of Essar Ltd. is increasing in the range of 0.32 to 9.90. This indicates that the debts are much higher than the equity which is not good for the solvency of the company.
- The debt assets ratio of Essar Ltd. is moving in the range of 0.17 to 0.34 which indicates that the money taken out of the debt is equally invested in the assets so that the ratio can be maintained.
- The interest coverage ratio of Essar Ltd. shows that the company has no sufficient profits to pay interest. It was between 0.72 to -6.72.
- Due to the inefficiency of management and insufficient profits, the Essar Ltd. cannot pay the debts and interest thereon. So unfortunately the NPA of the related banks may increase.
- The interest coverage ratio of Binani Ltd. was normally less than 1 which shows that the company does not have sufficient profits to pay interest on debts.
- It can be said that the NPAs of Binani Ltd. bankers are increasing because of the poor solvency condition of the company.
- The ratio analysis of DB Realty shows that the company took the right decision at the right time and save the solvency of the company but, if the company will not earn sufficient profit in near future then there is a possibility that NPAs of the concerned bankers may increase.

Suggestions:

- Banks should thoroughly investigate the company's annual reports and solvency conditions before granting loans.
- Even after giving loan, banks should keep checking that how long the company has maintained its solvency condition.
- Banks give loans according to classification rules made by RBI.

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CONCLUSION

The twin balance sheet problem purports that the stress on the balance sheets of the banks due to non performing of assets (NPAs) or bad loans on the one hand and heavily indebted corporations on the other. To meet the objectives of the study, the data were collected from the financial statements of three sample companies and their bankers. The collected data were analyzed using leverage ratios and basic statistical tools like mean, standard deviation, and correlation. This study found the strong correlation of 1) Essar: debt-equity ratio, debt asset ratio with SBIs NPA 2)Binani: Interest coverage ratio with the NPAs of all the major bakers 3) DB Realty: debt, debt-equity ratio, and debt asset ratio with OBC banks NPAs during the period of the study. This clearly indicates that there is some significant relationship between corporates leverage indicators and their bankers' NPAs. In other words, it can be said that there is a significant relationship between two balance sheets. This study can be extended further to know the problem more accurately by using regression analysis with larger samples. The study reason out that there is a strong correlation of some leverage indicators with the bankers' NPAs therefore the bankers must establish a system to continuously evaluate the leverage strength of the corporate before& after granting them loans, this will reduce the corporate defaults in repayments as well as increasing amount of NPAs. This will be salutary to both the parties and result into twin balance sheet assistance rather than problem.

REFERENCES

1. *Sharma R. (2017). The Twin Balance Sheet Problem (TBS): How can Indian Economy Avoid a Crisis.*
2. *Gowda I. P., manjunatha K R. (2017). Twin Balance Sheet Problem-is Public Sector Asset Rehabilitation Agency a Panacea?.*
3. *Singh V. (2017). Ideas to fix the twin balance sheet problem.*
4. *Dr. Amita. (2019). Twin balance sheet problem in Indian Economy: A Study.*
5. *Melka, J. (2017). India: Twin Balance Sheet Problem.*
6. *Pudhari S. (2017). Twin Balance Sheet Problem and Its Impact.*