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MACRO-ECONOMIC INDICATORS OF NON-PERFORMING LOANS: A COMPARATIVE STUDY OF PAKISTAN AND INDIA (2012-2016)

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***ABSTRACT**--Many countries around the world face countless financial crises, and sometimes the reason for such crisis is a Non-performing Loan (NPL). A loan is considered as non-performing if it is default or closed to being in default. It occurs when the borrower defaults and as a result, banks show this loss as a bad debt in the financial statements. These loans reduce the growth and strength of banks and in return, financial instability is developed. On the other hand the in Sovereign debt, money supply, and unemployment has increased the NPLs. In the field of quantitative research it was essential for us to collect the data and analyze its influence on NPLs using the current data rather than using the old data and predicting our results on basis of past trends. This research attempts to analyze the effects of four macroeconomic indicators namely foreign direct investment (FDI), money supply, sovereign debt and unemployment and using the Non-performing loans of a country as the barometer. This research performs linear regression using the NPL as our dependent variable and FDI, money supply, sovereign debt and unemployment as independent variables (predictors). The sources of secondary data were the websites of the World Bank and State Bank of Pakistan; the website of State Bank of India was also used. The data of NPL clearly gave us the idea about two different economies and guided us to compare their results and to find conclusion to our study. The result of the data can be of immense use in future to analyze the factors affecting the NPL in different economies.*

***Keywords**-- Foreign Direct Investment, Money Supply, Sovereign Debt, Unemployment, Non-performing Loans in India and Pakistan*

I. INTRODUCTION

According to Ouhibi and Hammami (2015) NPLs play an important role as a guide on the quality of the assets, credit risk and efficiency in the allocation of resources to several economic sectors. Therefore, the relationship between NPLs and several macro-economic indicators can be explained on the basis that the state of a loan portfolio is influenced by the systemic risks resulting from vulnerability to macroeconomic risk determinants across banks. Credit has long been recognized as one of the tool that contributes towards economic development and supports

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the success of development project. Countries or financial institutions might face financial crisis due to rise in non-performing. However, provision of NPL alone does not support the economic development of the country but it should be accompanied by the factors necessary for efficient utilization of the loan so in future it can be repaid on time as well according to the agreement. With the increasing NPLs, banks do not eager to take on new risks and want to minimize the credit risks. But the methods used by them have flawed and they are unable to spare enough personnel or management focus for the forward-looking work of establishing a new earnings base. Banks are giving away loans without thinking that how it will be paid back. Secondly, the prolonged problem of non-performing loans has preserved inefficient corporations and industries and thus lowered the productivity of the banking industry as a whole. Third problem, concerns about the stability of the financial system which cannot be dispelled due to the problem of non-performing loans. As the results corporations and households have become prudent in their investment and consumption behavior, which in turn serves to block economic recovery (Swamy, 2012).

Financial institutions such as banks are expected to maintain their credit management due to the increasing rate of non-performing loans. The increasing number of non-performing loans of different entities and individual creates a significant impact and negative values to the financial streams. In the long-run, this same impact will reach the entire economy and leads to increase the credit crisis (Swamy, 2012). Inaba, N., Kozu, T., Sekine, T., & Nagahata, T. (2005) argues that, if the non-performing loans are kept existing and continuously rolled over, the resources are locked up in unprofitable sectors. Thus, hindering the economic growth and impairing the economic efficiency. Despite many researches there is still confusion that which indicator affect NPL the most and in what manners.

Waqas, M. Fatima, N. Khan, A. & Arif, M (2017) in study "Determinants of Non-Performing Loans: A comparative study of Pakistan, India and Bangladesh", revealed that the microeconomic indicators affecting NPLs in Pakistan, India and Bangladesh. They suggested a macroeconomic study can be done in future to conduct a further deep study regarding few macro-economic indicators as NPLs keep existing after certain periods. Hence, in this study, macroeconomic variables are discussed to judge their impact on NPLs. Hence, the basic objective of this study is to identify and analyze the impact of macroeconomic variables on NPLs, in Pakistan and India. This study includes five macroeconomic variables foreign direct investment, sovereign debt, money supply and unemployment.

II. LITERATURE REVIEW

Based on the literature review and the knowledge gained through text books on non-performing loans it is important to realize that macroeconomic indicators promote systematic risk and it is essential to find out which factors are influencing the credit risk the most. Four variables have been selected as factors for this study 1) Foreign Direct Investment, 2) Money Supply, 3) Sovereign Debt, 4) Unemployment, and 5) Non-performing loans.

2.1 Foreign Direct Investment

Ahmad, F., & Bashir, T. (2013) refer to foreign direct investment as a direct investment of equity flowing in the economy. It is a cross border flow of money which have over the management of an enterprise that is resident in another economy. In this study, we have interpreted FDI as a tool from the context of businesses of the economy,

as to why they are unable to pay back required installments. Foreign direct investment (FDI) is an investment made by a company or individual in another country and for which the foreign investor has control over the company purchased. The Organization of Economic Cooperation and Development (OECD) defines control as owning 10% or more of the business. Foreign direct investments are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies. FDI outflow is considered in some studies to be an indicator affecting NPL as people invest in foreign countries and if their venture fails they are unable to pay back their loans. But it important to know that it does not happen all the time. FDI can turn out to be successful which can decrease NPLs. Further our studies will show whether FDI has positive or negative impact on India and Pakistan's NPL ratio.

2.2 Money Supply

Badar, M., & Javid, A. Y. (2013) defines Money Supply as an aggregate stock of money available to an economy during a specified time. The money supply is mainly measured by looking at the money circulating in the economy for a specific period of time. We have focused on money supply as macro-economic variable to check how it makes it possible or impossible for borrowers to pay back the money borrowed. The money supply (also known as money stock) is the total value of monetary assets available in a country at a specific time. Several ways are there to define "money supply", but standard measures usually include currency in circulation and demand deposits. Every country's central bank periodically publishes the money supply data based on the monetary aggregates set by them. Money supply is considered important indicator by analysts as it helps to monitored changes in the price level, inflation, the exchange rate and the business cycle. Therefore it is said to have an influence on the NPLs as well.

2.3 Sovereign Debt

Makri, V., & Papadatos, K. (2013) explained sovereign debt (also known as Public Debt), as an amount borrowed by the government from the outside economies. This paper analyzes public debt as an important independent variable which has a valuable effect on NPLs. Sovereign debt is also referred to as central government debt, public debt, and national debt. It is issued by the government in a foreign currency to finance the country's growth and development. The country's sovereign credit ratings issued helps investors weigh risks when assessing sovereign debt investments. If the countries are less creditworthy than they directly borrow from other organizations like World Bank and IMF. It differs from country to country by its maturity and interest rates. Therefore, sovereign debt has been considered as a macroeconomic indicator which reflects an economy's condition and this study will show us how much it affects people's power to pay back loans.

2.4 Unemployment

Vogiazas, S. D., & Nikolaidou, E. (2011) explained unemployment as the share of labor force that is without work but available for and searching for valuable employment. In this study, we have examined unemployment as an effective macro-economic indicator which is directly related to NPL and has a reasonable impact on NPLs. Unemployment has been a major problem in subcontinent since a very long time. In this study we will compare

hoe unemployment has affected NPLs in both the economies and increased credit risks. NPLs are such loans where complete repayment of borrowed amount by the borrower may no longer be expected.

2.5 Non-performing Loans

Given the rise in NPLs in many economies it was natural to ask what was causing the increase in NPLs and how policy-makers should respond. These questions become particularly pressing as countries emerge from the 2008-09 financial crisis and the subsequent recession, with fragile financial systems and often facing sluggish economic recovery. Previous researches on this topic show us that indicators behind NPL vary from economy to economy. Some microeconomic indicators behind NPLs are mainly inefficiency of the banking system which can be measured by researching for indicators in each bank individually. But there are also some macroeconomic indicators behind borrower's inability to repay debt and it inwardly effect the whole economy. Therefore, it became important to identify main determinants of NPLs so macro-prudential and fiscal policies can be designed.

Vogiazas, D. S & Nikolaidou, E. (2011) estimated the determinants of NPLs in the Romanian Banking Sector using the time series modeling. The study was basically focused upon macroeconomic indicators, market analysis, money aggregates, interest rates, financial markets, credit risk and bank specific indicators. Macroeconomics indicators considered in this study were GDP, total external debt, consumer price index, unemployment and trade balance. According to the authors, more weightage was given to Credit risk. The novelty of the study lies in the estimations of Greek crisis happened in the country during a specific period of time. The results showed that the factors like CPI and unemployment rate were not looking good as their economic sector heavily relied on the financial system for growth and it affected the NPLs.

Messai, A. S., & Jouini, F. (2013) conducted a study with a motive to detect the determinants of NPLs, using the sample of 85 banks in three different countries (Italy, Greece and Spain) from the period of 2004 - 2008. Keeping in view, that these countries were already affected by subprime mortgage financial crisis occurred on 2008, the chosen macroeconomic variables were GDP, real interest rate, loans loss reserves, and unemployment. Using the Pearson's Correlation matrix, calculations was derived, the results showed a significant and negatives relationship between GDP and NPLs. While there was a significant positive relationship between variable loans losses reserves and NPLs. Banks that predict a higher capital loss will create higher reserves to cover that loss and strengthen medium - term solvency. Looking upon the unemployment factor, results showed that a positive and significant relationship between Unemployment and NPL. Reasoning provided for such relationship was due to higher rate of unemployment, people were unable to meet their needs and this was a major reason for not paying back their loan.

Makri, V., Tsagkanos, A., & Bellas, A. (2014) analyzed the soundness of the European banking system looking at the factors of NPLs. The chosen macroeconomic factors for this study were unemployment, Public Debt as a % of GDP and GDP. The data was extracted from International Monetary Funds (IMF), The World Bank and Eurostat. After conducting the GMM Regression model, significant positive correlation were investigated. A positive correlation was found between Public Debt and NPL. This relationship indicates that several fiscal problems in Eurozone countries might lead to a significant increase in NPL, which unveiled that the state of the economy of European countries has a clear link with loan performance and their portfolios. Similarly, a positive

correlation was found between NPL and Unemployment, suggesting that the lack of employment makes it difficult for the borrower to pay the loan installments.

Baholli, F. D, Dika, I. D, & Xhabija, G. M. (2015) evaluated the factors of Non-Performing loans in Albania using the Econometric model. As Albania is an importing country, hence international crisis have a huge impact in its economic terms and conditions. This in turn will affect Foreign Direct Investment and will make it problematic for investments out of the country. The results of various models evaluated that Real Interest Rate has a positive effect on increasing of NPLs. this is bound to happen as the national currency depreciates making the imports more expensive, Albanian business that imports goods will have issues in debt service, and as a result, bad debts will occur. Moreover, Interest rates have negative impact on NPLs variations. Interest rates makes loans expensive, this makes the loans less capable.

Dimitrios, A., Helen, L., & Mike, T. (2016) identified the main determinants of NPLs in the euro-area banking system for the period of 1990 to 2015 using GMM estimations. The variables considered in this study were Return on Assets (ROA) & Equity (ROE), Unemployment, Income tax, Government budget balance, Public Debt, GDP and Inflation rate. The bank's performance indicators were found to have a negative relationship with NPLs. ROA and ROE were found to be significant in all models with significant coefficients. Government budget balance and public debt have negative but not significant coefficients. Only Inflation and GDP were shown to have most significant impact. On the other hand, unemployment was said to have a positive relationship with NPLs.

Waqas et.al (2017) define NPLs to be that amount of past due loans which cannot be paid off in an agreed period of time. It is when the lender is unable to recover money from defaulter while the defaulter is unable to pay back the agreed installments. The global financial crisis made the problem of NPLs once again relevant. In 2014 there were 32 countries where more than 10% of total credit was not being repaid on schedule. The NPL ratio was above 15 per cent for 20 of them. The astonishing thing about the data was that majority of the countries belonged to developed economies. It is said that around 34% of Greek loans and 17% of Italian loans were non- performing during that term. Across the European Union, NPLs increased more than doubled in relation to GDP between 2009 and the end of 2014. Euro- area banks (1990-2015) suffered from increasing losses due to NPLs.

2.6 Non-performing Loans in India

Pradhan, R. S, & Pandey, A. (2014) examined the effects of firm related and macroeconomic variables on NPLs of Nepalese commercial banks. The examination was based on panel data of analysis of 21 Nepalese commercial banks. The theory hypothesizes that NPL depend on several microeconomic variables such as Return on Assets, GDP, Inflation and Annual Money Supply growth. To test the significance of each variable multiple regression models were run. Initially, the study assumed that an increase in aggregate money supply will result in declining banking portfolios in the country with an adverse effect on NPL. The results showed the higher the annual money supply and GDP, higher will be the NPL. It estimated a positive relationship between Money supply and NPL, which indicates as the money supply rises, NPLs are more likely to occur. India has been growing in the past few years even as the lenders have come under pressure due to unpaid dues. Recently, gross NPLs increased to 10.2% in September 2017. The expectations by the Indian government report are that this percentage might rise 10.8% in March 2018. The International Monetary Fund already warned India of an impending shock if that

happens. Hence, in order to deeply the variables involved in the occurrence of NPLs in the economy of India, we will further find out the results through World Bank indicators

2.7 Non-performing Loans in Pakistan

NPLs in Pakistan were at a huge rise a decade ago but they have decreased since 2012 according to report of State Bank of Pakistan (SBP), amount of NPLs of banking sector, in the year 2012, has reached to Rs.176.77 billion which has decreased ever since. Therefore, there is an ominous need of studying about Non-Performing Loans and its factors. Banks in previous years were facing default risk, which is one of the major causes of banks' failure. In absolute terms, NPLs in the corporate sector were the lowest by the end of 2016. Sector-wise, textile companies had the highest NPLs, according to a recent report by the State Bank of Pakistan (SBP).

Badar, M., & Javid, A. Y. (2013) examined a broad study to assess long run and short run dynamics between macroeconomic variables and NPLs. The studied variables in this paper were Inflation, exchange rate, GDP and Money supply. Several methods are conducted in this paper to analyze the effects of macroeconomic variables on NPLs. Using the Bivariate co-integration the authors analyzed that Money supply and Interest rate has a pair wise co-integration with NPLs. it suggests that NPL has an equilibrium with Money supply. The empirical results showed there is a long term relationship between NPLs and Money supply. Ahmad, F., & Bashir, T. (2013) used both bank-specific and macroeconomic factors to analyze the effects these have on NPLs. The study was based on the evidences take from private banks of Pakistan. Macroeconomic variables selected altogether nine, named; GDP, Unemployment rate, Interest rate, Real effective exchange rate, consumer price index, Stock price index, exports, Industrial productions and Foreign Direct Investment. For proper investigation, 22 years' time series data was used on NPLs ration and nine macroeconomic variables, and Ordinary least square method was employed to get empirical results. The OLS results of macroeconomic variables that six variables, named GDP, interest rate, inflation rate, CPI, exports, and industrial production have a significant relationship with NPLs, whereas the other three variables, named, Unemployment, real effective exchange rate and FDI are insignificantly associated with NPLs. Unemployment rate has a positive association with NPL, suggesting that as unemployment increases, the ratio of NPLs rise. The study further shows that FDI has an insignificant negative relationship with NPLs. The negatives association explains that when a decline in future prospects of the economy is expected, foreign investor to pull out their investments. These withdrawals result in recession of economic activity, the business stabilities and make it difficult for the individuals to repay loans.

Waqas et.al (2017) deeply analyzed the bank specific factors and macro-economic indicators to determine the main reasons behind economic deterioration of revenues and bank failures in Pakistan, India and Bangladesh. The macro-economic indicators chosen were GDP growth. Inflation, Interest Rate, Exchange rate and Unemployment Rate. The method used in this dissertation was GMM estimation. These estimations found that Unemployment indicates a positive relationship and is significantly correlated with NPL. The authors suggest the one percent increase in Unemployment results in an immediate rise in NPLs. Hence, due to the deterioration in the economy, borrowers are unable to pay back the loan installments resulting in bank failures and increased debt burden. The research framework for this study is mentioned in Figure 1:

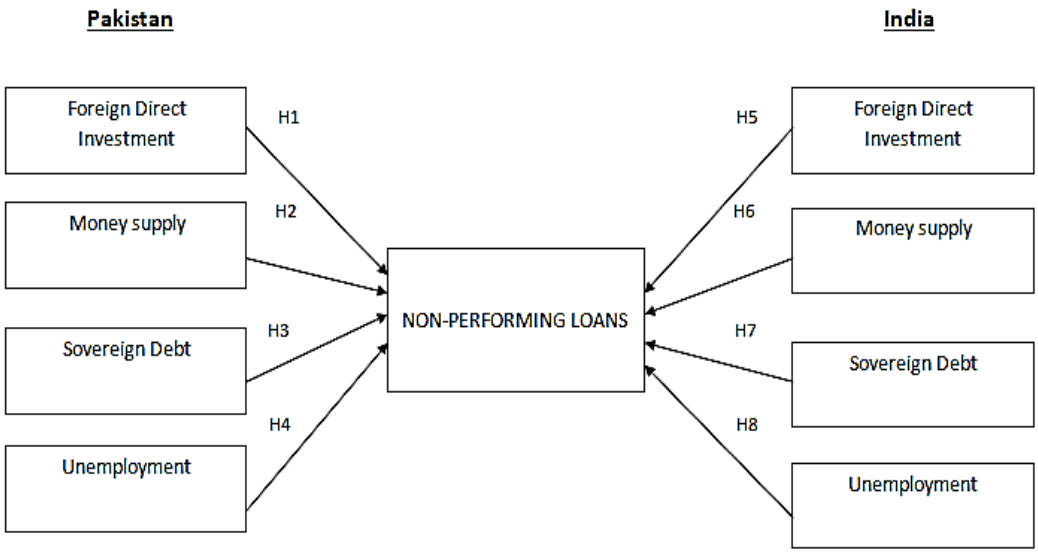

Figure 1: Research Framework

Based on the research framework, the hypotheses of the study are:

H1: There is a significant relationship between Foreign Direct Investment and Non-performing Loans in banking sector of Pakistan.

H2: There is a significant relationship between Money Supply and Non-performing Loans in banking sector of Pakistan.

H3: There is a significant relationship between Sovereign Debt and Non-performing Loans in banking sector of Pakistan.

H4: There is a significant relationship between Unemployment and Non-performing Loans in banking sector of Pakistan.

H5: There is a significant relationship between Foreign Direct Investment and Non-performing Loans in India.

H6: There is a significant relationship between Money Supply and Non-performing Loans in banking sector of India.

H7: There is a significant relationship between Sovereign Debt and Non-performing Loans in banking sector of India.

H8: There is a significant relationship between Unemployment and Non-performing Loans in banking sector of India.

III. RESEARCH METHODOLOGY

Research design is a plan that describes how, when, and where data are to be collected and analyzed. It refers to a framework or strategy that is chosen to use as a guideline in order to find the required results. This is a quantitative study, which explores the factors and pre-existing statistical data from year 2012-2016. Population of this study includes all the banks of India and Pakistan. The past studies have been conducted on micro-economic

indicators influencing NPLs but relative researches for macro-economic indicators especially in this region are almost non-existent. Therefore, data of NPLs for both countries was used in this study for the purpose of answering the research question and testing the hypothesis. The sampling method used is non-random sampling. The data for the NPLs of Pakistan and India was collected from the reliable website www.theglobaleconomy.com. Furthermore, the official website of State bank of Pakistan (www.sbp.org.pk) and State Bank of India (https://sbi.co.in) were used to collect data of different macroeconomic indicators. Some of the data was also collected from www.ibef.org and https://tradingeconomics.com. The data was analyzed using linear regression.

IV. DATA ANALYSIS

The reports available on website of the State Bank of Pakistan website shows that the NPLs of the banking system of Pakistan has increased up to 605 Billion (2016) of 6 trillion loan. This gave us ratio of 10.06%. This ratio was 14.47% in 2012 Table 1. Thus, the statistics show that the ratio of NPL has decreased in Pakistan which is good for the economy. Table 1 also shows that in India the ratio has gone worst the latest data from word bank nonperforming loans data shows that their loan defaults were at 9.19% of the total gross loans in banking sector in 2016. It was the second highest ratio recorded in Asia after Pakistan. In comparison to Pakistan this data might not look bad but if compared with India own previous record the figures are not just bad but alarming. According to the data by the World Bank, India's bad loans have surged drastically in the past five years. In 2012, India had just 3.37% of bad loans, which rose to 5.88% in 2015. The sharpest surge came in 2016 when the bad loans shot up to 9.19%. This data shows us that Indian economy will be suffering effects of NPLs if the figures do not improve. The worry only increases when it has observed that provisioning in India is now twice as high as all other countries in Asia beside Indonesia. Therefore, it becomes supremely important for us to study that what factors are affecting the increase in NPLs in India.

Table 1: NPLs in Pakistan and India

YEAR	PAKISTAN	INDIA
2012	14.47	3.37
2013	12.99	4.03
2014	12.27	4.35
2015	11.36	5.88
2016	10.06	9.19

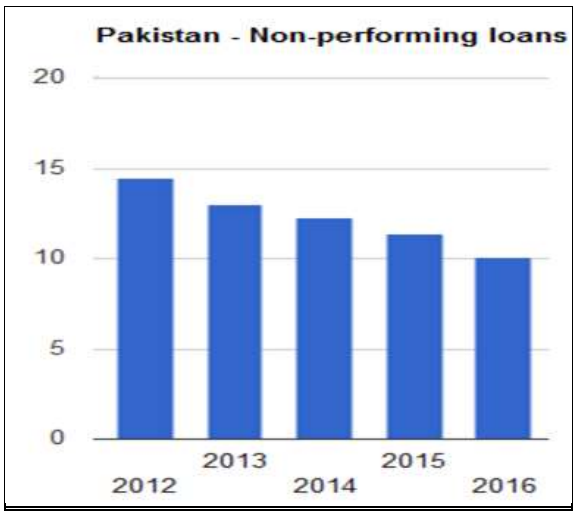

Figure 2: NPLs in Pakistan

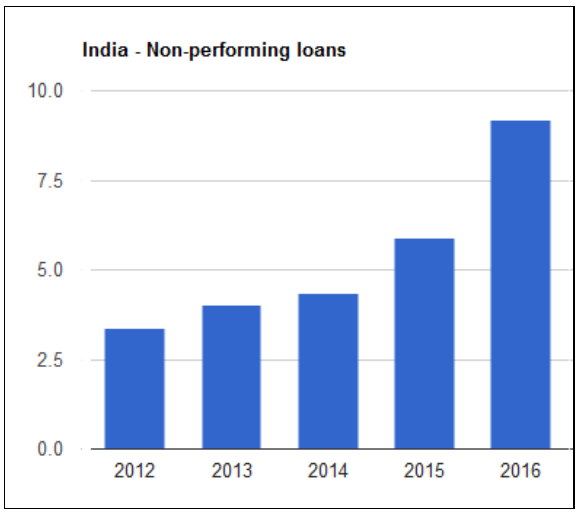

Figure 3: NPLs in India

Through linear regression we were able to see that which factors affected the NPLs to increase or decrease in India and Pakistan respectively. The data for independent factors was collected and entered in SPSS and linear regression was performed. NPL was kept as the dependent variable.

4.1 Testing the Hypotheses (Pakistan)

The results of first linear regression on data available for Pakistan will show if there is a significant relationship between Foreign Direct Investment and Non-performing Loans. The data of the FDI inflow of Pakistan showed us that the FDI has increased over the past five years. So it will be predicted that it has a significant relationship between them. The results will further confirm our assumptions. The data for sovereign debt, money supply and unemployment will also be analyzed.

Table 2: Hypotheses testing (Pakistan)

Mode	Unstandardized Coefficient β	Std. error	Standardized Coefficient β	t	Sig.
FDI	-8.29	1.806	-.935	4.197	.001
Money supply	-.687	6.185	-.906	4.941	.016
Sovereign Debt	.840	.499	-.697	2.065	.0131
Unemployment	2.340	4.218	.130	.065	.0952

The first hypothesis was to find if there is a significant relationship between FDI and NPLs in the banking sector of Pakistan. As shown in Table 2 the standardized Beta of FDI is -.935 indicating strong contribution in explaining the variation in NPL. The t-value is +4.197 and significance (p) is 0.001 respectively; this value being less than 0.05 leads the result that H1 is accepted.

The second hypothesis was to find if there is a significance relationship between money supply and NPLs in banking sector of Pakistan. As shown in Table 2 the standardized Beta of Money supply is -.906 indicating strong contribution in explaining the variation in NPL. The t-value is +4.941 and significance (p) is 0.016 respectively; this value being less than 0.05 leads to the result that H2 is accepted.

The third hypothesis was to find if there is a significance relationship between sovereign debt and NPLs in banking sector of Pakistan. The results according to the Table 2, the standardized Beta of Sovereign Debt is -.697 indicating strong contribution in explaining the variation in NPL. The t-value is +2.065 and significance (p) is 0.0131 respectively; this value being less than 0.05 leads to the result that H3 is accepted.

The fourth hypothesis was to find if there is a significance relationship between unemployment and NPLs in banking sector of Pakistan. The results according to the Table 2, the standardized Beta of Unemployment is 0.130 indicating that only .130 changes in NPL are due to Unemployment in Pakistan. This result contradicts the previous researches done in Pakistan which explains that unemployment has major effect on NPLs. The t-value is 0.065 which should be more than 1.96 and significance (p) is 0.0952; this value being more than 0.05 leads the result that H4 is rejected.

4.2 Testing the Hypotheses (India)

For India the linear regression will show that which macroeconomic factor is the main reason behind the growth of NPLs. The reason on micro economic level behind this can be lack of efficiency of the banking sector in India who is unable to recover loans on such big level. But our results will focus on the reason.

Table 1: Hypotheses testing (India)

Mode	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	β		

FDI	8.124	2.490	.083	-0.94	.146
Money supply	-1.602	.426	.808	3.921	.030
Sovereign debt	3.082	.932	.886	3.222	.049
Unemployment	20.924	7.032	-.684	4.750	.017

The fifth hypothesis was to find if there is a significant relationship between FDI and NPLs in banking sector of India. As shown in Table 3 the standardized Beta of is .083 indicating weak contribution in explaining the variation in NPL. And the t-value is -0.94 which should be more than +1.96 and significance (p) is 0.146 respectively; this value being more than 0.05 leads to the result that H5 is rejected.

The sixth hypothesis was to find if there is a significant relationship between money supply and NPLs in banking sector of India. According to the Table 3, the standardized Beta of Money supply is 0.808 indicating strong contribution in explaining the variation in NPL and the t-value is +3.921 and significance (p) is 0.030; this value being less than 0.05 leads the result that H6 is accepted.

The seventh hypothesis was to find if there is a significant relationship between sovereign debt and NPLs in banking sector of India. The results shown in the Table 3 tell that standardized Beta of Sovereign debt is .886 indicating strong contribution in explaining the variation in NPL. The t-value is +3.222 and significance (p) is 0.49; this value being less than 0.05 leads the result that H7 is accepted.

The eighth hypothesis was to find if there is a significant relationship between unemployment and NPLs in banking sector of India. As shown in Table 3 the standardized Beta of unemployment is -.683 indicating strong contribution in explaining the variation in NPL. The t-value is +4.750 and significance (p) is 0.017; this value being less than 0.05 leads the result that hypothesis H8 is accepted.

V. CONCLUSIONS AND RECOMMENDATION

The output analyzed from the study shows that FDI is positively associated with NPL. When the investment from overseas is decreased, the employment is less in an economy. Therefore, the increase in FDI inflow in Pakistan has led to increase in employment opportunities, which has decreased the NPLs and better off the economy. The result for India shows that, the increase in FDI inflows has not affected the NPLs. The FDI inflow shows that the economy is growing and income is coming from other countries but still people in India are not paying back the loans. Hence, Pakistan may be benefitting from the fact that increased FDI has caused to decrease NPL, but economy of India is already facing more employment issues than Pakistan, therefore, NPLs has remained same and did not decrease in India.

The result shows positive relationship between money supply and NPL. As money supply starts accelerating in an economy, it significantly impact on inflation of that economy. If money supply grows in a faster rate than annual GDP then it causes inflation. Inflation refers to increase in sustainable prices of goods and services, which makes individuals to spend more and save less. The spending pattern of the economy eventually boosts to higher level which makes it impossible or difficult to repay the loans. This all initiate Non Performing loan. As people cannot save money due to increased inflation they cannot pay installments to creditors. Both the economies (Pakistan and India) have been facing the same outcomes to an increasing Money supply in the country. Pakistan

and India have tougher time to face inflation due to increased Money supply. Therefore, NPL tends to rise after rising money supply in both the countries.

The result reveals that there is a positive relationship between Sovereign debt and NPL. The findings show that in Pakistan the sovereign debt has decreased in the past five years 2012-2016. Government has been taking debt period by period, but due to the policies of SBP, the ratio has not increased significantly. Therefore NPL decreased in Pakistan. The results shows that the sovereign debt has most affected the NPLs in India. The data also suggests that the sovereign debt has increased in the past decade indicating the increase in the taxes and decrease in the income which affects the paying capacity of the normal people of India. For Sovereign Debt, both economies have different ways. In Pakistan, the sovereign debt has decreased, which leaves people to pay less taxes and save more income. As a result, NPLs have decreased in Pakistan. Whereas, the government of India has been injecting more debt in the economy and as a result, NPLs have raised in India.

The result shows that unemployment affects the NPLs. But in Pakistan despite the fact that unemployment ratio has increased, the NPLs ratio is decreasing which gave us the final result that increase in unemployment does not affect the NPLs in Pakistan. The results show that the unemployment ratio which has increased in India causing increase in NPLs. The unemployment is root cause of lots of crisis in Indian economy, unemployment causes difficulty for people to pay back loans.

Overall, results clarifies that NPLs play a vital role in deciding the betterment of the economy. NPL has been a major cause to bring each economy to higher or lower standards. If the problems associated with NPL will not be rectified then the economies of Pakistan and India will continuously be facing consequences. Measures must be suggested to completely erase the concept of NPLs from India and Pakistan as this problem already gives birth to other long-term issues. This study has created awareness related to an issue suggesting the extent of macroeconomic factors on NPLs in Pakistan and India. The government and policy makers of concerned countries must therefore look upon certain measures that could help in decreasing the number of NPLs.

Macroeconomic indicator like FDI has both positive and negative influence on NPLs but study has focused on negative part; studies on positive part may be conducted. Furthermore, the studies with a more comprehensive set of variables may add value to the research. Studies should focus on the negative impacts of FDI in the economy and should continue to closely monitor the determinants that detect any early warning of potential credit risk in the future.

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