

### DETERMINANTS OF INTERNAL AND EXTERNAL FACTORS OF NON – PERFORMING LOANS OF LOCAL COMMERCIAL BANKS

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#### **ABSTRACT**

The Banks play a major role in fostering the economic well-being of a State. Their basic objective is to bridge the gap between the people who have surplus funds and the ones who have the scarcity of funds. The role of financial institutions as financial intermediaries is well established and is highly regulated throughout the world. After the financial turmoil of 2008 which was triggered due to the non-performing mortgages loans of US and had a spill over affect throughout the world. The regulators as well as the researchers have focused on the menace of non-performing loans in order to unveil the factors which should be curtailed in order to avoid any such situation in the future. This study analyzed the bank internal factors and bank external factors which had an impact on the Non-Performing Loans (NPL). The objective was to provide the factors which significantly influence the non-performing loans and such elements can be controlled by the Bank's management. The impact of ROA, SIZE, CAR (Capital Adequacy Ratio) and Ownership concentration with a level of more than 10%, 25% and 50% and external factor INFLATION, UN EMPLOYEMENT and PUBLIC DEBT was analyzed by using Fixed Effect Method and the validity was tested by Hausman test. Data of 17 Pakistani Commercial Banks and economic variables which was gathered for the period 2010-2016. The results revealed that the ROA, SIZE and CAR have a significant and negative impact on the non-performing loans. It was also observed that ownership concentration more than 10% and less than 25% was significant but was inversely related to the NPLs.

**Keywords:** Non Performing loans, Pakistani Banks, Bank internal factors, bank external factors

#### INTRODUCTION

"It is well enough that people of the nation do not understand our banking and monetary system, for if they did, I believe there would be a revolution before tomorrow morning!" Henry Ford

The purpose of this article is to provide a comprehensive statement of theoretical and applied problems in the Pakistani banking system. Regardless of Ford's fear, I don't think that reading this paper will cause a revolution, but at least, I hope to provide an enjoyable and interesting image of banking activity.

Banks role in the economy of any country is very significant. The Banks play a major role in nurturing the economic well-being of a State. Their basic objective is to bridge the gap between the people who have surplus funds and the ones who have the scarcity of funds.

The role of financial institutions as financial intermediaries is well established and is highly organized throughout the world. As the basic objective of a Bank is to collect money from depositors and lend money to the borrowers as Lending is known as the heart of the banking industry.

Loans are the controlling asset and that represent 50-75% of the total Sum of money at almost every banks, that create the largest share of operating income and that represent the banks greater risk exposure (Mac Donald and Koch, 2006). Therefore

the need for a healthy credit portfolio is always needed to retain a good earnings stream.

Banks are the Custodians of Public money and when they lend money to potential borrowers even after rigorous scrutiny the chances of loan default cannot be neglected. The loan defaults are not always willful it has been observed that the loan defaults are also circumstantial where in the borrower has little control on the externalities. The Banks have to suffer huge losses due to their (NPLs) non-performing loans therefore it is very obligatory to dig out the factors which determine the non-performing loans.

When a loan is defaulted by a borrower not only the capital is impaired, profitability is also hurt and in addition the extension of credit to the deserving borrowers is also restricted due to concentration of bad loans in a particular segment.

The assets of a Bank are the loan extended to its borrowers and the deposit taken from its Customers. The insolvency surfaces when the asset value deteriorates with respect to its liabilities mainly due to its incapacitated borrowers.

Since the Government has introduced foreign banks in the local market the competition in the local financial sector can be boosted and the regulatory authority can be compelled to induce banking reforms for provision of progressive banking (Demirgüç-Kunt & Detragiache, 1998).

As per the world Banks Economic indicator & State Bank of Pakistan the ratio of non-performing loans to gross loans of Pakistan as of 2016 was 11.1% as compared to 12.4% in 2015 and was 12.8% in 2014 and Although there is consistent improvement in the ratio from 16.20 % as in 2011 but still there is a dire need to probe in to the elements which contribute to the portfolio of non-functioning loans.

Pakistan is a progressive Country with annual GDP Growth of 4.5% in 2016 as per economic survey of Pakistan and was 4.41% (Al-mulali, Fereidouni, Lee, & Sab, 2013). In order to keep a pace with its development a vibrant and Profitable Banking System is needed. In this perspective there is a need to focus on how to minimize the Non-Performing loans of Banks to retain maximum profitability the banking sector.

In Pakistan the Banks are regulated by the Central Bank, which is State Bank of Pakistan (SBP) and it issue directives from time to time for maintenance of Credit Discipline by the Banks. The SBP has issued Prudential Regulations (PRs) for the Banks in order to regulate the borrowers falling in different business

segments. At present the SBP has issued Prudential Regulations for Consumer financing, small and Medium Enterprises and Commercial and Corporate Clients of Banks wherein the minimum criteria for extension of credit facilities to the borrowers are explicitly narrated. The Classification Criteria of the loans is also provided in the said Regulations.

As per the SBP PRs a loan is termed as non-performing where interest/ mark-up/ or principal is overdue by 90 days or more from the due date. Therefore a stringent monitoring of loan portfolio is needed in order to maintain a healthy credit portfolio. In another words, when a loan no longer generates income for the bank as well as cease to perform in accordance with the loan agreement between the bank and borrower, it can be stated as non-performing loan.

#### An Overview of the Pakistani Banking Sector

This Research has been carried out in the Public and private sector of Pakistani banks. The outline of the banking sector is presented.

The literature states that country banking sector is gone through many changes since its existence in 1947. (Hussain 2010). These changes have both positive and negative effect on the performance of this sector. Banking sector play a key role in different scenario e.g. it creates employment, the major contribution in the improvement of GDP of the county, and provides basic facilities to its customer. There has been increase in the banks since the privatization took place which in turn shows that still new banks can came in the business if they managed properly but the ownership structure of the banks changes which in turn affected their performances. A sound financial system strengthens the infrastructure and economic stability. Pakistan Banking sector is one the best banking sector in the developing countries and this sector is the major cause of the non-performing loans.

The Pakistani financial market is dominated by 17 private sector banks, 5 public sector banks, 4 specialized banks, 7 foreign banks, and 5 Islamic banks. The Non-performing loans as a % of Gross loans of Pakistani Banks have a consistent decreasing trend from 16.2% in 2011 to 12.8 % in 2014 (Rashid, Azid, & Malik, 2014).

The state bank of Pakistan has developed policy for last 20 years but the level of nonperforming loans is not fallen as it was planned. According to World Bank the average NPL ratio of the Pakistani banks

was 14.87% 1997-2016 it was 7.3% in the year 2006 and maximum of 23.4% in 2001. Pakistan has ranked 24<sup>th</sup> among the highest NPL countries among 119 countries. Pakistan has ranked once 7<sup>th</sup> in 2008.

The objective of banking overview study is to identify the NPLs factors both internal factors and External factors that affect NPLs.

### An Overview of Non-Performing Loans.

The theme of "non-performing loans" (NPL) has drawn more attention in recent decades. There is no global standard to define NPL at the practical level. Variation exists in terms of the classification system, the ambit, and contents. A Non-Performing Loan is a loan that is in default or close to being in default.

A loan is non-performing when payments of interests and principal are due by 90 days or more, or over due by 90 days of interest payment have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payment will be made in full (IMF, 2009).

A nonperforming loan is in a default or close to being in default. Another name of nonperforming loan can be stated as problem loan.

Non-performing loans (LPNs) Normandy relate to loans which approximately for long period of time do not generate income; that is the principal and/or interest on these loans which has been remained overdue or remained unpaid for at least 90 days (Caprio and Klingebiel, 2002). LPNs can be treated as undesirable outputs or costs to loaning banks which decreases the bank's performance.

According to Van Gruening and Bratanovic (2009) NPLs are considered as assets which do not generate income. This is when principal (outstanding) or interest is overdue and remained unpaid for more than 90 days. It has been widely accepted that percentage or quantity of non-recovering of loans is often associated with banks less profitability. Generally speaking there may be two reasons for non-payment of loans; one is no ability to return and another may be unwillingness to Unwillingness to return the borrowed amount could be because of borrower's forged attitude. Another reason which is none capability to repay can have several factors such as economic downfall, rising rate of inflation, increased liabilities, natural disasters and instability of financial structure of the country etc.

#### **Research Ouestions**

- 1. To examine the bank internal determinants of nonperforming loans of local commercial banks.
- 2. To examine the bank external determinants of nonperforming loans of local commercial banks.

#### **Research Hypothesis**

H1: Return on Asset effect Non performing loans?

H2: Size of bank effect Non performing loans?

H3: Capital Adequacy ratio Effect non-Performing loans?

H4: Ownership Concentration effect non-performing loans?

H5: Inflation effect non-performing loans?

variables on delinquent loans was tested.

H6: UN- Employment effect non-performing loans?

H7: Public debt effect on non-performing loans?

#### **Literature Review**

Research Work on Macroeconomic Variables as Determinants of NPLs in a Specific Country A panel data study was conducted by Gizycki (2001) where in quarterly data for 35 Australian banks for the period June 1990 to September 1999 was gathered and the significance of macroeconomic

The healthy GDP growth rate tended to curtail the non-performing loans and the increased interest rate and credit growth rate lead to increased NPLs. The exchange rate variation was no non-detrimental during the period. The influence of macroeconomic indicators on the non-performing loans implied that sufficient responsibility rests on the shoulders of the macroeconomic policy makers to formulate the policy in such a manner that a conducive atmosphere is available to the Banks to function effectively.

Saba et al. (2012) gathered data from 1985-2010 of US banking sector and analysed the illustrative power of GDP per capital, interest rate and total loans on Non-Performing loans. It was revealed that all the factors have a significant influence on bad loans. Moreover it was recommended that at the time of granting loans the GDP per capital must also be taken into account.

In progressive countries for better containment of the loan losses priority should be extended to selective macroeconomic indicators. The macroeconomic conditions must be taken into account while assessing the loan application as Lithuania since 2009 has the highest contribution in NPLs in European Union and the impairment of repayment

capacity of the defaulters has widely been recognized due to macroeconomic instability (Mileris, 2014). Zaib, Farid, and Khan (2014) gathered data of Selective macroeconomic indicators and eight banks from the Pakistan was collected for the period of 2003-2011 in order to find their explanatory power on non-performing loans. The model showed an explanatory power of 61%. The study findings showed that the foreign banks operating in Pakistan were better able to manage their advances portfolio. Moreover the GDP growth and the greater the risk craving of banks measured by advances to asset ratio the lower are the stuck up loans.

### Research Work on Bank Centric Variables as Determinants of NPLs in a Specific Country

Ahmad (2013) attempted to establish the relationship of corruption and information sharing on stuck up loans of Pakistani Banks for the period 2001 to 2010. The study revealed that the corruption had a positive association with the bad loans but it failed to prove any significance likewise the information sharing had a negative association with stuck up loans but had no significance.

Rashid et al. (2014) analyzed the microeconomic elements which had an impact on the credit management of Banks. For this purpose quarterly data from 2002 to 2010 was retrieved from the Pakistani Banking Sector and it was concluded that proficiently approved loans, capable management, responsible and proper scrutiny of loan applicants supports in efficiently managing the advances portfolio.

These banks specific variable include net profit as dependent variable whilst independent variables are non-performing loans, bank size, net interest margin, loan growth, insider lending, taxation, non-interest earning, overhead expenses, operating expenses, profit to asset ratio, and return on asset ratio and deposit to asset ratio. The results disclose that deposit to asset ratio, loan to asset ratio, return on asset, growth of loans, net interest margin, tax, and non-performing loans significantly impact the bank's profitability but large banks are managing their non-performing loans efficiently than those of small banks.

Akhtar et al. (2011) examine the banks specific factors that influence the profitability of conventional banks by applying multivariate regression analysis on the data set of year 2006 to year 2009 pertains to conventional banks of Pakistan.

As per their study, return on equity and return on assets are the profitability determinants which can be used to measure the bank's performance.

Therefore they use separate model for return on asset and return on equity. In both models it is found that NPLs ratio, gearing ratio and asset management have significant effect on the commercial banks' profitability. When return on assets is employed as a proxy to measure profitability of bank then the bank's size is a significant indicator of bank profitability; whereas, an insignificant relationship find when return on equity is used as a proxy for measuring profitability of banks. This study reveals that the effectiveness of the banking system and the excellence of the services being offered by them can be extended by implementing number of driving factors. The actions needed to be taken at the end of policy makers, bank management and practitioners for enhancing banks' competence.

### Research Work on Macro Economics and Bank Related Variables as Determinants of NPLs in a Single Country

Rajan and Dhal (2003) analyzed the contribution of Lagged GDP growth, banks' exposure to priority sector, business cycle effect with three scenarios, Bank's Size calculated separately by total asset and capital, Credit Deposit ratio, Operating expense and interest cost of deposit to total assets, the loan maturity, and collateral value by proxy of expected stock market return as the rise in stock of the firms will indicate high collateral value and business cycle on nonperforming assets of Indian Public Sector Banks.

It was found that the improved economic activity leads to reduced NPLs .The bank size in terms of total assets is significantly but negatively related to NPLs and bank size measured in terms of capital is positively and significantly related to NPLs. The Credit deposit ratio has negative but significant impact on NPLs showing that the positive divergence from the credit deposit ratio from the industry will lead to lower NPLs.

Khemraj and Pasha (2009) performed the empirical study on the determinants of Non-performing loans in the banking sector of Guyanese using fixed effect model. The study focused on both the macroeconomic and bank specific factors. The impact on NPL of the variable GDP was negative and significant, Real Effective Exchange Rate was

positive and significant, real interest rate positive and significant.

The growth of loans was negative and significantly associated with NPLs and the inflation was found to have negative relationship with the NPLs both results are contradictory to the literature. In addition the banks with more risk appetite calculated by Loan to Assets ratio have higher NPLs and the size of the banking company has no impact on the non-performing loans.

Jameel (2014) regressed the non-performing loans of Pakistani Banking Sector Data for the period of 200 to 2010 on firm centred and macroeconomic indicators. It was observed that with of advancement of economy the classified loans tend to decrease and the Banks which have sufficient capital to combat the non-performing loans were also able to reduce their infected credit portfolio. The increase in lending rate also impairs the repayment capacity of the borrowers. It was also postulated that the performing loans with lesser maturity period have low chances of conversion into non-performing.

#### Research Work Macro Economic Variables as Determinants of NPLs across Countries

Espinoza and Prasad (2010) took the data of eighty banks of six Gulf Cooperative Council countries for the period 1995-2008 and found out that the advancement in financial health of the economy brings prosperity and the non-performing loans tend to decrease. It was concluded that both internal and external factors contribute to the stuck up advances of the Banks. For more realistic and transparent results the non-oil GDP growth was included as independent variable instead of growth in overall GDP.

The feedback effect of delinquent advances on economic growth was loans also estimated and it was determined that the stuck up advances affect the economic activity in the short run. It was also revealed that the increased credit sanctioned in the past leads to greater NPLs and the Banks who efficiently manage their portfolio are in a better position to restrict their bad

Mahmoud Abdelaziz (2015), et al has taken the data from 2000- 2012 from Arab countries tested macroeconomic (External) variables. Outcome suggested that Inflation has negative impact. The impact of the international financial crisis, the results show that the crisis had a negative effect on the level of NPLs. With regard to household utilization, the

outcomes indicate blended results where this effect appears to be negative in non-petroleum countries but positive in petroleum countries. Whereas increasing of government spending is related with low level of NPLs in both groups of countries.

### Studies Conducted On Macroeconomics and Bank Related Variables as Determinants of NPLs across Countries

A study of NPL was conducted by Klein (2013) for Central Eastern and South Eastern Europe. He gathered data from 1998-2011 of ten largest banks of 16 countries. He introduced Bank level, country Level and Global Variables to gauge their explanatory power of NPLs. His findings suggest that the banks with strong equity to asset ratio have lesser NPLs likes wise with increased ROE the NPLs are low as the Banks are better managed.

The aggressive lending is appraised by loan to assets ratio and past growth rate and both contribute to the increase in NPLs. The upsurge in unemployment, inflation, and exchange rate deterioration also contribute to increase NPLs. He also found that with the decline of economic activity the NPLs raises as the repayment capacity of the borrowers' gets impaired and the higher stock market volatility index leads to increased NPLs as the external financial avenues are contracted.

In addition the study also analyzed the feedback effect between the banking system and the real economy. It was observed that the NPLs in the CESSE area have a significant impact on Credit as Share of GDP, Real GDP Growth, inflation, unemployment and in the coming years affirming that a sustainable growth is not possible in the absence of a robust banking system.

Vasiliki Makri et al (2014), has done research work to identify those factors of Euro zone's banking which are affecting the non-performing loans rate (NPL) systems for the period 2000-2008. Findings shows us strong correlations between NPL and various bank-specific (capital adequacy ratio, rate of nonperforming loans of the previous year and return on equity) factors and macroeconomic (External variables) such as (public debt, annual growth rate of gross domestic product unemployment,).

According to Anjom & Karim (2016), among four macroeconomic (External) variables only public Debt was found significant and among nine bank specific (Internal) variables only return on equity (ROE), and return on assets (ROA). Total loan to

total deposit ratio, Total loan to total asset ratio, and operating expense to operating income ratio was significant affecting NPLs .Inflation, public debt as a percentage of GDP, return on equity, return on assets, total loan to total asset ratio, total loan to total deposit

ratio and non-interest income to total income ratio are negatively related to nonperforming loan.

### Methodology

The data which we have gathered comprised of both time series and cross sectional therefore the selection of methodology was adopted while taking into account this important factor. The data consisted of balanced panel data and we have employed Fixed Effects / LSDV (least square dummy variable).

Commercial Banking horizon of Pakistan the institutions which are actively trading in Karachi Stock Exchange and are included in the KSE 100 index were made the part of the sample and the Macroeconomic variables data was gathered from

Government of Pakistan Websites (GOP), World Bank Indicators and statistical Beaurea of Pakistan. There are 17 banks which were included in the KSE 100 index have been selected. We have chosen the convenient sampling technique. Annual data of banks have been selected from their audited balance sheets.

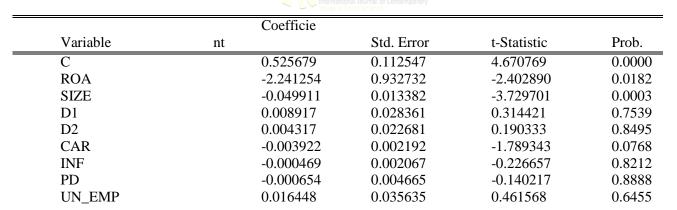
The research was contained for the period of six years ranging from 2010-2016 and restricted to the commercial banks and data for the Macroeconomic Variables for the year ranging in between 2010-2016 will be considered. The frequency of data is annual and quarterly in nature.

#### **Equation**

 $NPLit = \beta_0 + \beta_1 \text{Size} it + \beta_2 \text{Roa} it + \beta_3 \text{Car} it + \beta_4 \text{Owc} * \text{D1} + \beta_5 \text{OWC} * \text{D2} + \beta_6 \text{Inf} it + \beta_7 \text{Pd} it + \beta_8 \text{Uem} it$ 

#### **Fixed Effect Model**

Dependent Variable: NPL



#### Effects Specification

Cross-section fixed (dummy variables)					
R-squared	0.822611	Mean dependent var	0.122248		
Adjusted R-squared	0.777320	S.D. dependent var	0.079692		
S.E. of regression	0.037606	Akaike info criterion	-3.538985		
Sum squared resid	0.132933	Schwarz criterion	-2.955136		
Log likelihood	235.5696	Hannan-Quinn criter.	-3.301903		
F-statistic	18.16288	Durbin-Watson stat	1.322943		
Prob(F-statistic)	0.000000				

In our model specification the  $R^2$  is (0.822611) which shows independent variables regression explain (82.26) % variation of the dependent variable that our independent variables explaining our dependent variable collectively on Non-Performing loans. Adjusted  $R^2$  is 0.777320 which tell us about the statistical significance of the econometric model. F-statistic, value F = 18.16 with a level of probability p = 0.000, which confirms or tell us that the model is

statistically significant because of the high value of F-test and the probability is below the level of significance which is =0.10 %.

C coefficient represents the intercept that depicts the NPL ration when all the independent variables are equal to zero. The other coefficients are the expected slopes of how much the NPL ratio will change, for one percent of change of each independent variable.

#### **Hausman Test**



Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.362925	8	0.1000
After the results have been obtain application of FEM it is needed to ensure	•		

application of FEM it is needed to ensure that it is the appropriate model used for testing. Then, Hausman (1978) test controls whether the unobservable heterogeneity is linked with the explanatory variables by testing for systematic differences in the random effects and fixed effect coefficient variables. The null hypothesis is that the estimator used in the test is not different noticeably. The H1 is that In order to verify the null hypothesis the estimates from both models are compared. It is noteworthy that the consistency of Random Effect model remains there under the null and H1.

In the event of non-acceptance of Ho the Random Effect model is not used which means that the random effects are correlated with one or more independent variables (Gujarati, 1970). But in this case the sig value is non-significant and the null hypothesis is accepted and therefore the Random Effect Model will be used due to greater effectiveness.

Null Hypothesis: Random Effect model is appropriate

Alternative Hypothesis: Fixed Effect model is Appropriate.

If we get statistically significant P value, we shall use fixed effect model otherwise Random affect model.

If P - value is less than 10% we shall reject null hypothesis and accept Alternative hypothesis.

#### **Random Effect Model**

Dependent Variable: NPL

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.429384	0.070016	6.132631	0.0000
SIZE	-0.028924	0.009593	-3.015030	0.0032
ROA	-2.395463	0.845164	-2.834317	0.0055
CAR	-0.003696	0.002017	-1.832621	0.0696
D1	-0.017308	0.024346	-0.710921	0.4786
D2	-0.026503	0.020258	-1.308228	0.1935
INF	-0.001226	0.001778	-0.689355	0.4921
PD	-0.002513	0.003000	-0.837781	0.4040
UN_EMP	0.013958	0.032995	0.423049	0.6731

### **Weighted Statistics**

R-squared	0.230469	Mean dependent var	0.029914
Adjusted R-squared	0.174503	S.D. dependent var	0.042379
S.E. of regression	0.038504	Sum squared resid	0.163080
F-statistic	4.118021	Durbin-Watson stat	1.113982
Prob(F-statistic)	0.000251		

#### **RESULTS**

The results revealed that Size has negative but significant relationship with NPL.

This study shows that the larger the bank size smaller the non performing loans. This signifies that the stringent credit policies at the larger banks also reflect the efficient recovery of advances and loans and follow up with the loans.

The Negative co relation means size of the bank does have effect on the occurrence of Nonperforming loans

Return on assets also has negative but significant relationship with the Non Performing loans. In fact, a bank with strong profitability has less incentive to generate income and therefore less constrained to engage in risky activities such as granting risky loans. Instead, inefficient banks are obliged to grant credits considered risky and subsequently achieve high levels of impaired loans.

Nonperforming loans (NPLs) increases return on asset decreasing.

The relationship between NPL and ROA signifies that whenever NPLs tends to increase the ROA will decrease. This means that the variable ROA has significant impact with NPLs

The institutions where the shareholding is concentrated either with one individual or entity the chances of manipulation and being monopolistic in

decision making cannot be ignored. The discretionary powers to authorize loans may be vested with ownership concentration as the majority rules and might is right. Recent research has also paid attention to this element and it was found that with the high concentration of ownership the nonperforming loans in a particular country increase for a certain level of ownership (Louzis et al., 2012). We have introduced a three dummy variables D1, D2 and D3 with three level of ownership where it is vested with on shareholder either individual or an entity. The concentration of ownership where it exceeds 10% is represented by 1 and beyond 25% it is assigned number 2 and over 50% it is characterized by as number 3. The Banks are bound to disclose their share holder pattern in their audited financials study confirmed that the ownership This concentration of greater than 10 % and less than 25% is insignificant and has no impact on the nonperforming loans. Whereas when the ownership concentration is concentrated from 25% and above 50% also have no impact on NPLs. This was also postulated by Shehzad, de Haan, and Scholtens (2010) where he extensively tested by gathering data of 500 banks located in 50 different countries. The data had the range from 2005-2007 it was the period just before the financial plunge of 2008 which ignited the liquidity crunch throughout the world. The need

to explore the ownership concentration was aimed to diagnose that to what extent the menace of delinquent advances can be controlled.

A similar study was done in Greece by Louzis et al. (2012)where the ownership concentration was tested to determine its impact on the loan portfolio segregated into consumer, mortgage and commercial loans. Due to the dynamics of Greece the findings showed that the greater concentration of ownership above 25% and 50% tend to increase the non-performing loans which shows the discretionary practices of power vested owners in the extension of loans. In such cases the owners advanced to the borrowers on softer terms. Consequently it resulted in the proliferation of non-performing loans.

The Capital Adequacy was significant but its inverse relationship with the stuck up loans was proved. According the regression results beta is -0.03916 and is not significant at 10% percent. In fact the sign of the coefficient is the same as in the international evidence showing that an increase of the CAR will cause a reduction of the NPLs ratio.

Inflation has negative but no significant relation with NPLs.

As far as when inflation is increasing this means that the purchasing power of the individuals increasing. When the purchasing power of the masses erodes their ability to repay back their loans increases and NPLs decreases.

In inflation the banks they are not giving loans to the every individual as their ability to repay back loan decreases that why NPLs will also decreases.

But inflation has no significant impact on NPLs.

Public debt has also negative relationship with NPLs. This is because our country is a developing country and Government is heavily spending on the infrastructure development and for its expenses. For that government is borrowing money from the banks as internal debt and from IMF as external debt.

When Government is borrowing money from local banks against securities that is secured and the banks normally finance from the deposits it receives form the account holders. When banks give his advance to the government against securities it facing fewer amounts of deposits to finance to the customers as loans that will affect negatively to the NPLs as fewer amounts of loans the banks will provide and NPLs will decreases.

#### Conclusion

To assure the endurance of the Banking industry of any Country is the prime responsibility of the Central Bank of a State. We have observed many cases worldwide where the Central Banks of the state has given relieve not only the financial sector but also to the entire country. Look at as Greece as an Example of the European Central Bank which has taken curative measures to convince that the country nonpayment must be avoided. Our study therefore concentrate on the factors responsible for the mushrooming of stuck up loans of Banks with emphasis on the elements which are in the ambit of the Banks. Since the individual institutions do not have control on the externalities of the economy. We regressed various variables on the dependent variable and found that the Return on Assets (ROA), Size and Capital Adequacy Ratio (CAR) have significant impact on the non-performing loans. The analysis was in compliance with the earlier research done at in various Countries.

Whereas Ownership concentration, public debt, UN employment and Inflation have no significant impact on NPLs. Following hypothesis were tested and there results suggesting that

### H1: Return on Asset effect Non performing loans?

The result tells us that the return on asset has significant but negative relationship with NPLs.

#### H2: Size of bank effect Non performing loans?

The result is showing the negative but significant relationship of size of bank with non-performing loans.

### **H3:** Capital Adequacy ratio Effect non-Performing loans?

Capital adequacy ratio also has negative but significant relationship with NPLs.

### **H4:** Ownership Concentration effect non-performing loans?

The ownership concentration both d1 and d2 both have no significant effect on non-performing loans.

#### **H5: Inflation effect non-performing loans?**

The result shows that inflation has no significant impact on non-performing loans.

### **H6:** UN- Employment effect non-performing loan?

UN employment and non-performing loans have no significant relationship in between them.

### H7: Public debt effect on non performing loan?

Public debt result is showing that it has no significant relationship with non performing loans.

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