

Impact of Corruption, Political Instability and Environmental Risk on Non-Performing Loans (NPLs) of Indonesian Banks

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The global position of Non-Performing Loans (NPLs) is persistent and on the rise which indicates a global deterioration of bank asset quality. The problem also exists in developing countries, especially in Indonesia. The objective of this study to examine the effect of Corruption, Political Instability and Environmental Risk on Non-Performing Loans (NPLs) of Indonesian Banks. To fulfil the objective of this research a data set of 95 Indonesian banks for a 10 year period was utilised. The findings reveal that an increase in oil price improves bank asset quality, which signifies that a rise in the level of corruption increases the level of NPLs and this in turn indicates that corruption positively affects NPLs. Moreover, political instability and environmental risk also have a positive influence on NPLs. The findings of this study will contribute to the body of literature in the field by offering fresh empirical evidence to mitigate bank NPLs. The findings of this research will be helpful for Indonesian banks and the Indonesian government in future policy making in the context of quality of banking assets and non-performing loans.

Key words: *Corruption, Political Instability, Environmental Risk, Non-performing Loans.*

Introduction

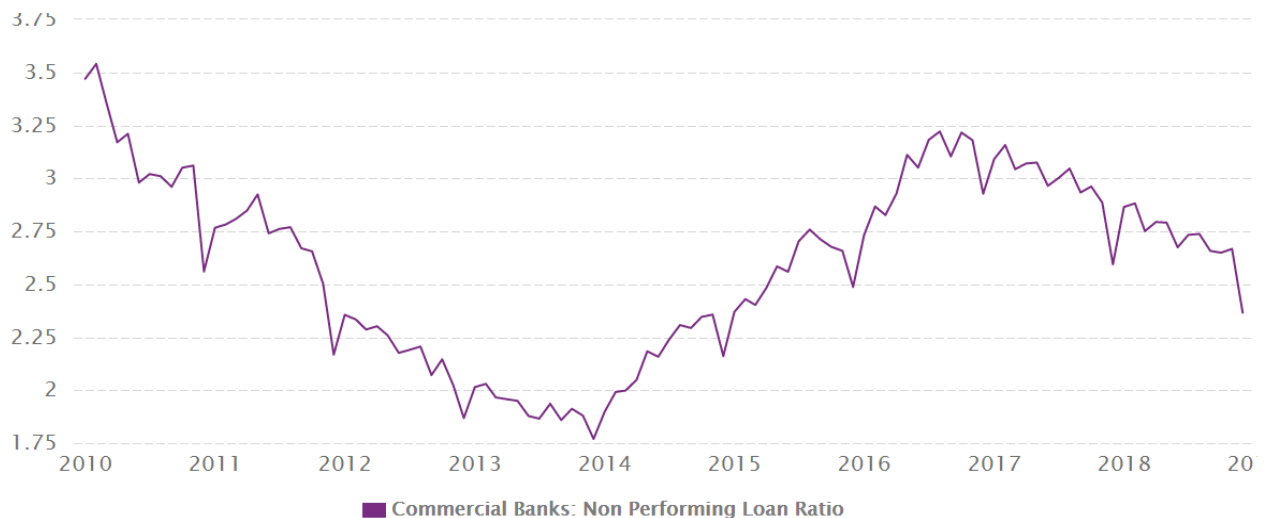
The financial system is an integral part of any economy that facilitates economic growth and development of every state. Further, financial institutions are the foundation of economic development of any nation that stimulates the allocation of resources across space and time (Levine, 2005). Economies around the world organise their financial activities on certain parameters that are in consonance with their individual national needs or are based on certain opportunities or threats with which they are confronted, perhaps because of their internal strengths or weaknesses. In most cases, these financial systems are compositions of financial institutions, financial markets and financial regulators (Ben Saada, 2018). Depending on the political-economy of a country, the financial institutions may consist of finance companies, banks, insurance companies, mutual fund, pension funds and stock exchanges.

However, these financial institutions and markets operate in a business context that is correlated with many of the elements associated with society and these elements will decide the activities of the respective financial institutions (Fitri et al., 2019). The business environment includes activities associated with economic, political, environmental, technological, societal and legal factors that influence the activities of financial institutions and markets. According to Ben Saada (2018) and Madura (2014), financial institutions came into being to facilitate financial intermediations that allow funds flow from those financial units that have additional cash reserves, or a shortage of funds for consumption or investment purposes. Moreover, Richard (2011) suggests that Financial Institutions (FIs) are very important in any economy because of their ability to mobilise additional funds in profitable investment and provide capital flow to support numerous segments of an economy by motivating investments and enhancing productivity.

Moreover, the existence of banks suggests that they perform critical functions of intermediation more efficiently among borrowers and investors in comparison with the direct transaction of capital markets (Frankel et al., 2011). Banking activity is one of the most important segments of the financial system of economies that provides a safe link between surplus economic units and deficit economic agents. Further, banks as an important member of financial markets play, a significant role in financial stability and economic development. According to Beck et al., (2006) banks provide a substantial proportion of external finance to deficient economic agents around the globe. Hence, the stability of the banking industry in every nation is essential for sustainable economic growth and development. Amuakwa-Mensah et.al, (2017) raised an important question: ‘What is the business of banks?’ and argued that bank’s business is that of accepting deposits and channelling the capital into lending or investment activities. Further, Jain (2007) claimed that banks are financial institutions that perform the function of lending and collection of money. This definition makes the role of banks in facilitating economic growth, imperative. Additionally, Ghosh (2017) emphasised that the role of banks remains

central in financing economic activity. Consequently, Ramlall (2018) argues that developing countries and emerging markets tend to put great reliance on bank credit, as it is central for investment. This trend is characteristic of the banking system of Indonesia which is a combination of both a developing country and an emerging market.

In the context of Indonesian banks, owner equity did not grow in the same proportion with their assets and customer deposits, which is an indication of potential banking problems especially when there is a significant proportion of Non-Performing Loans (NPLs). This can create liquidity crises as the owner equity will not cover the shortfall that could occur with NPLs. Furthermore, there are a series of fluctuations in total assets, total deposit of customers, gross loans and shareholder equity, as well as eventual declines of all the highlighted balance sheet parameters of banks. The huge and persistent NPLs indicate the apparent existence of financial fragility and raise a concern for financial stability in the Indonesian banking systems.



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The banks, in the process of performing their statutory functions of deposit mobilisation and loan creation, are faced with NPL credit risk challenges which revolve around bank assets qualities (Beck et al., 2015). This is a situation where the borrowing customers cannot pay back their loans, either the principal amount and/or interest when due past the 90 day period. Loans that have not been paid within the 90 day period are considered NPLs (Akinlo & Emmanuel, 2014; Idris & Nayan, 2016). These NPLs are the bone of contention in banking and finance research as they determine the success or failure of lending banks and other financial institutions. This issue is crucial because of its impact on the generation of general financial stability and the multiplier effects on the real sectors of the economy.

Multiplier effects of the distressed banking sector, due to NPLs, are a serious obstacle for the real sector growth of the economy because these effects can lower financial activities of intermediation, employment growth and real GDP (Ghosh, 2017). Further, Piatti and Cincinelli

(2019) argued that unattended NPLs will lead to a persistent decline in aggregate economic activities. Therefore, the multiplier effects of NPLs on the real sector is akin to financial pollution that is harmful not only for the economy but also has an extended multiplier effect on the social welfare of citizens because banks are constrained from further lending (Zeng, 2012). Moreover, Ghosh (2015) contends that NPL effects are not only limited to the deterioration of bank assets quality but can degenerate economic inefficiency and impair customer welfare. Further, the credit quality of bank loan portfolios is an important factor in financial systems that can determine the level of financial stability and economic efficiency. Additionally, the study of McNulty and Akhigbe (2015) provides documented evidence on the multiplier effects of NPLs on the real sector of the economy, transmitted through both microeconomic and macroeconomic financial vulnerabilities.

During recent decades, global bank asset quality remained relatively stable until the Global Financial Crisis (GFC) of 2007 to 2008 (Beck et al., 2015). Despite the importance of credits in the economic setup, the World Development Indicators (WDIs) record a world-wide recognition and increasing amount of NPLs. The presence of a huge and persistent ratio of global NPLs indicates the intensity of loan quality deterioration and the level of financial fragility. This situation can influence the general financial stability of the global economy and financial systems. Therefore, this study is a response to a dire need to highlight the root causes of the problem with a view to its resolution and the protection of not only Indonesian financial systems but the preservation of the global financial stability that is yet to recover from the 2007-2008 GFC.

The majority of research in this field has attempted to comprehend the causes of NPLs with the major focus on bank-specific, industry-specific and macroeconomic variables. The most researched variables in relation to NPLs are those of bank advancing rate, bank administration, size of bank, credit progress, bank independence, exchange charges, Gross Domestic Product, (GDP), interest rate, inflation and unemployment percentage (Anastasiou et al., 2019; Dimitrios et al., 2016). As a consequence of these wide-ranging variables, the problem of global bank assets quality has remained unresolved. Further, studies of the determinants of NPLs are inconclusive because there are mixed results in the findings, some results show a significant positive relationship, others significant negative relationships and in some cases, insignificant relationships. Therefore, the ongoing problem of unresolved deteriorated assets quality and the inconclusive results of previous studies regarding root causes and solutions, necessitate further NPL research. This study aims to investigate possible new factors that affect NPLs especially the role of systematic risks, referred to in this study as systemic risks variables.

In this study, the term systematic risks is used with the context of the undesirable and contagious occurrence of events in larger business environments that adversely affect the financial system. Global corporations provide special attention to development models to

alleviate the risk emerging in multiple forms (Nugraha et al., 2019). The dynamic environment of global business has created numerous unique challenges and demands that companies establish an essential set of strategies to mitigate and manage risk (Basheer et al., 2019). To execute a planned strategy, business corporations require strategic guidance under current and future supervision (Fitri et al., 2019).

The Systemic Risk Centre (CSR) of the London School of Economics and Political Sciences explains systematic risk as the factor that causes the failure of an entire system instead of the failure of separate parts. Further, Bollen, Skully, Tripe, and Wei (2015) argue that systematic risk is a degree of sensitivity regarding banking that causes economic change in a wider sense. Anastasiou (2016) pose that systematic risk is a widely recognized essential factor in the studies of economic instability and proposed strategy creation. Additionally, Louri (2017) suggested that highly interdependent financial markets have resistance ability in response to system risks. Therefore, financial markets are more sensitive to external factors that are responsible for system failure, such as natural disasters or outbreak of war. Most current financial models are based on the assumption that risk is created by triggers, called outside factors by economists (CSR). Collier et al., (2013) stipulated that systemic risks elements include triggers such as corruption, political instability and natural disasters (environmental risks). This does not exclude other systemic risk factors such as what occurred during the 2007-2008 global financial crisis or other contagious triggers like prevalent corrupt practices (Beck et al., 2015; Castro, 2013). Additionally, Berger and DeYoung (1997) conclude that uncontrollable external 'bad luck' events along with other factors such as 'bad management' cause bank failures.

Kambhu et al. (2007) argues that reliability of economic system and the intensity of events to impact the operational capacity of system remained a crucial area of study for state banks and research students. Thus, the study of financial stability has become a major force in modern macroeconomic policy (Nikolaidou & Vogiazas, 2017). Based on available statistics, the key sources of concern that could potentially destroy the stability of the Indonesian financial systems are corruption, political instability and environmental risks.

Review of Literature

Non-Performing Loans in Banking

The concept of NPLs is crucial for lending banks because it represents an amount of funds against which the borrowing customer has not made a scheduled payment for over 90 days. They are risky assets to the lending banks because they can affect the bank ability to lend further. In addition, the NPLs can also affect bank capacity in discharging their obligations regarding customer deposits. Klein (2013) stated that NPLs are the kind of loan where a customer does not repay the actual loan amount or interest charged on it over 90 days. Akinlo

and Emmanuel (2014) defined NPLs as the kind of loan that does not generate interest for banks for a long time period, 90 days.

The NPLs include not just the principal amount involved in the loan but also all the accrued interest and other bank charges. This classification is necessary because the longer the loan remains nonperforming, over the 90 day mark, the riskier the credit risks characteristics. Idris and Nayan (2016) reported two approaches to NPLs classifications. The first approach states the 90 days' due time or the non-probability of the borrower to pay back loans. The second approach indicates the prominent financial problems faced by the borrower, insolvency and breach of agreement. Idris and Nayan further stress that prudential guidelines in most cases provide for loans classification systems that require banks to classify loans and advances into categories. These categories are usually defined by days of past due and creditworthiness. This view is essential because the main driving force of loan classification is credit risk as well as its two components of default and loss.

There is no single fit for all methods of loan classification that will suit all countries. Loan classification is a country-specific issue where each country tends to choose different loan periods for loan classes as determined by different provisioning methods (Majnoni & Laurin, 2003). However, the classifications are normally influenced by country prudential guideline requirements and/or accounting standards or International Financial Reporting Standards (IFRS). Hence, NPLs are classified as substandard loans, doubtful loans and loss loans. Each of these classes of loans is associated with time frames and perceived credit risks and specific percentages are attached to them for provisioning purposes (Hulster et al., 2014). The presence of huge NPLs on banks' balance sheets has serious consequences that affect not only their liquidity, lending abilities and performance but also impacts on their economy in terms of investment and productivity (Ghosh, 2015; Klein, 2013).

Zeng (2012) argued that NPLs are "financial pollution" that may have significant harmful impact on the financial system of a nation and its nationals. Accordingly, banks are expected to uphold a clean record of loans where no NPLs are granted. In contrast, banks are unable to maintain clean record of loans without NPLs. However, the proportion of NPLs in any bank loan portfolio should be small because higher existence of NPLs will be harmful to the financial system of a nation and its nationals. Furthermore, NPLs will also result in banking sector incompetency. Barseghyan (2010) argued that the presence of NPLs works together with the deferment of government bailouts and may mean possible decrease in total financial transactions. Importantly, in many cases, governments rescue their banks by providing bailout packages utilizing funds collected in the form of taxes. However, governments should not promote these practices, except in times of acute financial emergency as this means that the government regulates banks in concerned countries through the supervision of country's central bank with the collaboration of other regulatory bodies. Central banks should provide periodic

prudential procedures and appropriate reporting guidelines to the banks with the non-scheduled examination and supervision of activities.

Alternately, NPLs are not only an indication of the parameter of low or non-quality loans but also provide a quality measure for bank portfolios (Filip, 2014). The adverse effect of non-quality loans and bad bank asset is not only confined to the banking sector but also leads to national economic inefficiency and impaired social welfare (Ghosh, 2015, 2017). Therefore, the lending banks should be held responsible for all NPLs as legally, they are custodians of all deposits made with them by the investors. The research indicates that bank management must be more efficient in terms of assets such that credits are not able to destroy bank qualities. The effects of NPLs on banks' balance sheets, performance and the economy as presented above, has necessitated the investigation of NPL determinants by practitioners, supervisory and regulatory bank authorities, policymakers and researchers.

There are aspects of the literature review sourced for this study that attempted to investigate the relationship of bank-specific, macroeconomic factors and other macro variables with NPLs. Furthermore, there are various empirical studies that analysed the effects of the said mentioned explanatory variables on NPLs. For example, the bank-specific variables are the micro factors that are individual bank level variables within the banks and have effect on the relationship with bank asset quality. Some of these bank-specific factors include credit growth, bank profitability, bad management and operating efficiency (Abid et al., 2014; Ghosh, 2015; Louzis et al., 2012). The macroeconomic factors are those variables external to the banks (Berger & DeYoung). The macro factors involve (such as during the global financial crisis), corruption, political instability, environmental risks and stock prices (Al-Khazali & Mirzaei, 2017; Kjosevski & Petkovski, 2017). However, the literature has not provided in depth empirical evidence linking the systematic risks variables of corruption, political instability and environmental risks to NPLs.

Corruption and Non-Performing Loans

Country-wide corruption interfaces with virtually all segments of society thereby affecting growth while its negative effect on growth is found to diminish in countries with high degree of regulation. It creates inefficiencies and misallocation of resources (Hodge et al., 2011). The definition of corruption by Nye (1967) goes beyond the issue of bribery or related offences for the personal benefits of receivers and extends also to the givers. Another very important consideration is the perceived restriction of coverage of corruption to public services. The private sector is equally affected by corrupt practices, which logically extend to the banking sector. Corruption is a global phenomenon that affects not only economic life but also social activities (Podobnik et al., 2008). Therefore, in this study, corruption will mean country-wide

corruption that affects the entire economy under investigation, the banking sector, the law enforcement agencies, financial regulatory agencies and the judiciary (Goel & Hasan, 2011).

It is also argued that in general, financial sector and in particular, banking system, can be affected by corruption from both aspects of borrowing and lending (Goel & Hasan, 2011). On the borrowing side, corrupt borrowers might bribe their way to obtain undue loans. On the lending side, bankers may engage in corrupt practices, for example, by demanding bribes before they grant loan facilities or refuse to manage loans efficiently. It is also possible that bank owners will engage in insider-credit practices which can easily violate lending procedures and eventually become bad debts. The relevance of corruption in the context of the financial sector in general and banking in particular can be perceived in relation to the risk factor in a county (Goel & Hasan, 2011).

With regard to the influence of country-corruption on banking activities and loan performance, most of the previous empirical studies concentrated on its influence on economic growth-related activities. The studies of Goel and Hasan (2011) and Park (2012) are the most prominent investigations conducted directly on the relationship between corruption and NPLs. Similarly, there is very little literature on the effect of corruption on the performance of the financial sector in general and banking industry in particular. The few researchers that investigated the association between corruption and related banking activities are Abu et al. (2014), Petrou and Thanos (2014) and Beck et al. (2006) and the literature on this association of variables is still in its infancy. Therefore, this study relies on the underlining theories of financial intermediation likewise theory of banking, systemic risk theory and credit-default theory (Dewatripont et al., 2010; Haldane & May, 2011) and will contribute to the wider literature of finance and economics use. Continued research aims to demonstrate both positive and negative associations between corruption and economic fundamentals and contribute to developing the issues' theoretical foundation and hypotheses.

The studies of Park (2012) and Goel and Hasan (2011) revealed positive effects of corruption and NPLs. Furthermore, based on the presumption of the theories of this study, the variable of corruption is expected to be a factor in the approval of inappropriate loans, insider credits or insider related credits. Significant country-wide corruption will weaken corporate governance on the part of the banks as well as compromise regulatory authorities which will increase the chances of enlarged NPLs (Goel & Hasan, 2011). This can make loans recovery exercises extremely difficult as the law enforcement agencies and the judiciary will be part of the problem instead of solutions to the problem. Therefore, the following hypothesis was proposed:

H1: *Corruption has significant relationship with NPLs in Indonesia.*

Political Instability and Non-Performing Loans

Political instability and political environment of the state are significant factors responsible for creditworthiness of the economy (Rios-Morales, Gamberger, Šmuc, & Azuaje, 2009). Various empirical analyses show the effects of political factors on creditworthiness (Brewer & Rivoli, 1990; Rivoli & Brewer, 1997). These early studies in most cases tend to relate political instability to country credit risks as against NPLs. In this study, political instability will mean all types of political difficulties such as unstable government, political and social violence, civil and armed conflicts, terror attacks and wars as well as politically motivated policies that might endanger smooth running of all categories of business activity (Kaufmann et al., 2011).

There are four categories of study that investigated the effect of political instability on economic and financial activities, country credit risks and bank assets quality. The studies of Busse and Hefeker (2007) and Le (2004) investigated the effect of political risk and political instability on FDI and private investment respectively but never in relation to banking activity. Rather, the greatest volume of literature centred around the association of political instability and country credit risks and not NPLs (Cuadra & Sapriza, 2008). Additionally, intense political instability ignites interruption into the society in general and economic activities in particular. Banks create loans on the premise that the political atmosphere will be conducive throughout the loan period which will ensure stable cash flows to the borrowing entities and the consumers of final products. This is stipulated by the underpinning theories of financial intermediation theory of banking, systemic risk theory and credit-default theory (Berger & DeYoung, 1997; Collier et al., 2011). Major or prolonged political instabilities in the form of civil conflicts, unstable governments and terrorism can interfere with not only firm production process but also the consumption of the final products and hence the cash flow of economic units.

Additionally, it has been suggested that there is evidence of an association between political instability and NPLs (Rehman, Zhang, & Ahmad, 2016) and that there is a relationship between political instability and finance and economics activities. Rehman et al.'s study finding reveals that a democratic (civilian regime) political system, considered to be a stable political system, leads to higher NPLs. Most previous findings indicate a positive association between political instability and economic adversity which can also affect government revenue and spending. This situation can have devastating consequences on the cash flow of borrowing customers, adversely affecting their net worth and ability to pay loans back when they are due. Therefore, this study anticipates a significant relationship between political instability and NPLs in OPEC member countries (Rehman et al., (2016). So, the following hypothesis is made:

H2: *Political instability has significant relationship with NPLs in Indonesia.*

Environmental Risks and Non-Performing Loans

Banks operate in a wider business environment that is characterised by different layers of environmental risks which can affect banking deposit and lending activity. Therefore, loans are made in a highly volatile physical environment that may impact on general loan qualities across the globe. The current global physical environment is more challenged than ever in our recent history given the frequency and intensity of natural and technological disasters in recent years, however very little attention has been given by researchers to their effects on economic development (McDermott et al., 2013). Therefore, in this study, environmental risks refer to natural and technological disasters that can impact on general business activities (Loayza et al., 2012). Further, significant financial and human loss due to natural disasters has been experienced for millennia (Noy, 2009) and this is also considered as systemic risks that have significant influence on banking business (Collier, 2013; Collier et al., 2011; Klomp, 2014).

Environmental risks can materialise as natural, technological and intentional disasters that have the capacity to impact economic, political, ecological and social settings. These disasters are expressed in the form of oil spillage, flooding, tornados, volcanic eruptions, earthquakes, nuclear meltdowns, environmental pollutions and disease. The consequences of these disasters transcend borders of economy and industry. The effects, in the form of destruction of business and critical infrastructures, limited income and investments as well as the spread of diseases and social problems are felt in: oil exploration and exploitation industries of the Middle East; the manufacturing and aviation industry in Europe and tourism in Asia, as well as world-wide government spending and banking business (Collier & Skees, 2012).

Sharfman and Fernando (2008) suggest an alternative perspective of environmental-economic relationship which is dominated by the opinion that improvement in economic performance is a function of better environmental performance. Overall, Klomp (2014) also concluded that disasters impact negatively on bank assets quality. Furthermore, in the advent of significant disaster, so many resources are diverted to response actions and search and rescue missions as well as recovery actions are prolonged and painful processes. This can affect production, consumption and savings which are critical in causing not only credit defaults but also adversely affect the quality of bank loan portfolios (Klomp, 2014). Consequently, the relationship between environmental risks and NPLs is hypothesised as follows:

H3: *Environment risk has significant relationship with NPLs in Indonesia.*

Methodology

Measurement of Variables and Sources of Data

This section includes a description of the variables, measurement criteria and the statistical model of the study.

Table 1: Variable and Sources of Data

Variables	Measurement	Source
NPLR= Non-performing loans ratio	NPL/Total loans	Bank scope data base
COR= Corruption	Control of corruption	Worldwide Governance Indicators-World Bank data base
PIS= Political instability	Political stability and absence of violence/Terrorism	Worldwide Governance Indicators -World Bank data base
ERS= Environmental risks	Environmental risk	EM-DAT
GDP= Gross domestic product	Real GDP	WDI-World Bank data base
INF= Rate of inflation	Consumer price index	WDI-World Bank data base
IR= Interest rate	Lending interest rate	WDI-World Bank data base

Sample

A sample of 95 Indonesian banks for the period 2008 to 2017 is the population of the study. The objective is to investigate the impact of corruption, political instability and Environmental risks on Non-performing of Indonesian banks

Statistical Model

A statistical model for this study was developed to quantitatively examine the influence of corruption, political instability and Environmental risks on Non-performing loans of Indonesian banks which incorporates all of the above-mentioned variables to draw meaningful conclusions. This model is shown as below.

$$NPLR_{i,t} = \beta_0 + \beta_1 (COR)_{i,t} + \beta_2 (PIS)_{i,t} + \beta_3 (ERS)_{i,t} + \beta_4 (Control\ Variables)_{i,t} + \varepsilon_{i,t}$$

In the above model the Non-performing loans of banks “i” at time “t” is the dependent variable and the independent variables are Corruption, Political instability, Environmental risks and a set of control variables where “ε” is the error term.

Results and Discussion

Descriptive Analysis

This section includes analysis of descriptive statistics and correlation of key variables of the study. The descriptive analysis is carried out in order to explain the preliminary features of the variables used. The statistics are presented in Tables 2 and 3 below for descriptive and correlation coefficients respectively.

Table 2: Descriptive Statistics Results ($n=95$; $t = 10$)

Variables	Mean	Std. Deviation	MAX	MIN
NPLs	15.176	23.004	93.980	0.400
COR	-0.282	0.788	1.720	-1.380
PIS	-0.429	0.894	1.210	-1.620
ERS	7.764	9.624	54.000	0.000
GDP	1.96	1.23	5.20	3.30
INF	16.67	18.59	99.88	-1.130
LIR	14.44	49.55	0.25	9.79

Note: NPL is Non-performing loans; COR is Corruption; PIS is Political instability; ERS is Environmental risks; GDP is Gross domestic product; INF is Inflation and IR is Interest rate.

Table 3: Correlation Coefficient Matrix

	NPLs	COR	PIS	ERS	GDP	INF	LIR
NPLs	1						
COR	-0.355*	1					
PIS	-0.326*	0.191*	1				
ERS	0.153**	0.229**	0.253	1			
GDP	-0.495**	0.027	-0.156**	0.001	1		
INF	0.091	-0.384*	-0.198**	-0.220**	-0.274**	1	
LIR	0.0324	0.528	0.211**	-0.240**	-0.290**	0.552**	1

** Significant at 1% level and * Significant at 5% level (1-tailed).

Table 3 above presents the correlation coefficients and their respective probability values for each relationship pair among the variables. The statistics show that all variables are negatively related to NPLs except for inflation and lending interest rate. The strength of correlation

coefficient among the explanatory variables shows the possibility of having multicollinearity in a model.

Regression analysis

The subsequent procedure was to compare between random effect and fixed effect models. This was carried out using the Hausman (1978) specification test (Clarke et al., 2010). The estimate of the Hausman test presented in Table 4 below reveals a probability value of 0.002. This shows that the fixed effect model is more appropriate when compared to the random effect model (Hausman, 1978).

Table 4: Random Effect Model Estimates

Dependent Variable: NPLs				
Method: Panel Regression (Cross-section Fixed effects)				
Sample: 2008-2017				
Periods included: 10				
Cross-sections included: 95				
Total panel (balanced) observations: 950				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
COR	4.173	1.279	3.262	0.000**
PIS	3.203	0.851	3.764	0.000**
ERS	0.300	0.135	2.223	0.012**
GDP	-1.046	1.148	0.912	0.215
INF	1.927	0.806	2.390	0.023*
LIR	-3.189	0.934	3.414	0.000**
Adjusted R-squared	0.4896			
F-statistics	8.320			
Prob.(F-Stat)	0.000			
Hausman Test	Chi-Sq.		Prob.	
	29.60		0.002	

** Significant at 1%, * significant at 5% and

The results show that corruption has a positive relationship with the Non-performing loans of Indonesian banks with a β of 4.173. This result is similar with the study of Park (2012) which reveals a significant positive relationship between corruption and the assets quality of the banking sector, that is, NPLs. The estimated coefficient of the political instability variable shows a positive and significant relationship between the variables. This finding might be related to Rehman et al.,'s (2016) study on the relationship between the political system of a country and its NPLs. Although the coefficient of environmental risks was found to be weaker than the rest of variables, it has significant positive relationship with NPLs. The finding is explained by the natural and technological disasters which usually lead to the destruction of lives, properties and means of livelihood and eventually lead to credit default and bad loans (Klomp, 2014).

Conclusion

Based on the empirical results, this study draws the conclusion that corruption, political instability and environmental risks have positive effects on non-performing loans of Indonesian banks. With regard to the control variables, inflation is found to have a significantly positive influence on NPLs of Indonesian banks. However, lending interest rate is negatively related with NPLs of Indonesian banks. This research study will play a significant role in the improvement of quality of assets of Indonesian banks. Overall, the policy implications of the findings of this study on the relationship between corruption, political instability, environmental risks and bank asset quality (Non-performing Loans) are highly relevant to financial stability. Hence, there is a need for macro prudential policy and action plans that will mitigate the impact of corruption, political instability and environmental risks on loan performance and financial stability. This study employed Worldwide Governance Indicators for corruption and political instability to test their effect on NPLs of Indonesian banks. The study recommends using indicators from other rating agencies such as Transparency International and the US State department among others. Further studies should study these factors in diverse contexts, again in Indonesian NPLs, but also beyond.

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