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Investigating Influential Factors Affecting Regional Development Banks (Rdbs) Performance in Indonesia

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Abstract

Purpose: Regional development banks in Indonesia exclibit much lower financial performance than their private and state-owned counterparts. Researchers intend to investigate the factors responsible for the poor performance of the Regional Development Banks (RDBs) in light of this situation. Theoretical framework - To examine how to improve development bank performance in Indonesia, this study an enhanced Political Risk, Credit Risk, and Product Diversification. Method - The data was obtained from the published financial statements of RDBs in Indonesia. The research was conducted in three stages. In the first stage of the study, in-depth interviews were conducted with banking administrators (Board of Directors - BOD and Board of Commissioners - BOC) from several RDBs in Indonesia to gather initial information related to the banking management process. The second stage involved quantitative research in secondary data analysis using multiple regression analysis techniques. The third stage involved deepening the analysis of findings through another round of qualitative research in the form of Focus Group Discussions (FGDs). Findings - The results show that both political risk and credit risk have significant effects on the financial performance of regional development banks. However, the diversification of products has no substantial impact on financial performance. Moreover, the Capital Adequacy Ratio (CAR) also considerably affects the financial performance of regional development banks. Research limitations/implications This study could be expanded further to identify the optimal product diversification structure for forecasting the financial performance of RDBS in Indonesia. Practical implications - This paper is part of a growing body of literature emphasizing the significant connection between Political Factors, Credit Risk, and Product Diversification with the Performance of Regional Development Banks in Indonesia. This relationship is essential for RDBs to consider when making lending decisions and for local governments to formulate policies to replace RDBS administrators in Indonesia. Originality/value – This research aims to encourage RDBs in Indonesia that face political and credit risks and the need to diversify their products to minimize risks and reinforce their financial stability. Furthermore, this research can serve as valuable input for local governments, facilitating them in reducing their interference in managing RDBs in Indonesia.

Keywords Political Factors, Credit Risk, Product Diversification, Performance of Regional Development Banks

Introduction

Regional Development Banks (RDBs) play a significant role for local governments in Indonesia. RDBS serves as a crucial source of financing for local governments. The funds

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received can support various regional development programs, including infrastructure development, education, health, and others. In particular, RDBS can extend long-term loans to local governments with lower interest rates than private banks and State-Owned Bank (Himbara). RDBS offers banking services to local governments for the management of local finances. This includes employee salary payments, tax payments, and other financial transactions. By lending to productive sectors in the region, including Micro, Small, and Medium Enterprises (MSMEs), Small and Medium Enterprises (SMEs), and the agricultural industry, RDBS can aid local governments in boosting the local economy. RDBS could help local governments and the private sector build stronger relationships to encourage cooperation in regional economic development. RDBS can support local government programs such as poverty reduction, public housing, and health programs to improve community welfare. It can provide financing access for sectors other banks tend to overlook, including agriculture, fisheries, and SMEs. The bank prioritizes its development. RDBS can become a driver of the regional economy by providing loans to MSMEs that have the potential to grow and develop. This is an excellent opportunity to support local businesses and to help them contribute to the economy. Offer banking services readily available to individuals living in the regions to promote financial access and expedite the growth of regional economies. Enhance the regional economy by cultivating and reinforcing local business networks, encouraging inclusive and sustainable economic growth.

The performance of RDBs in Indonesia tends to be worse than that of the country's stateowned and private banks. This can be deduced from the figures at the end of 2022, showing that the average total assets of state-owned and private banks in Indonesia were IDR. 59,807,680,555,556, compared to the total assets of RDBs which were IDR. 30,577,518,518,519. As a rule, the credit growth of state-owned and private banks in Indonesia outperforms that of RDBs. At the close of 2022, the credit growth of state-owned and private banks in Indonesia surged to 10.33%, whereas RDBs recorded only 5.05% growth. The Non-Performing Loan (NPL) ratio of RDBs is lower compared to the average ratio of state-owned banks in Indonesia. As of the end of 2022, RDBS's NPL ratio was 2.13%, lower than the average NPL ratio of 2.54% for state-owned banks and private banks in Indonesia. At the close of 2022, RDBS's pre-tax profit stood at IDR. 647,185,185,185, compared to state-owned and private banks in Indonesia, whose pre-tax profit totalled Rp1,825,500,000,000. Despite some variable performance across key metrics, RDBS can keep up with State-Owned Enterprises and Private Banks in Indonesia regarding performance analysis. Furthermore, RDBS has the added advantage of providing financial assistance and overall economic growth across the regions of Indonesia, which serves as a critical focus of RDBS in supporting national economic development. Several factors can impact RDBS's financial performance, such as political risk, credit risk, and product diversification.

Theoretical Framework

The relationship between political risk and the financial performance of banks has been relatively understudied in existing academic research. Previous studies (Barth et al., 2004; Fries & Taci, 2005; Iqbal Philip, 2005; Shamsuddin & Xiang, 2012) have predominantly focused on investigating the impact of political risk on industrial efficiency and stability. However, these studies have not particularly explored the relationship between political instability and the financial performance of banks. Recent scholarly investigations, conversely, argue that a clear and significant association exists between the level of competition in loan markets and the vulnerability of banks, sometimes

referred to as risk or instability. About this subject matter, there exist two prevailing theories. The first hypothesis is known as the "fragility-competition" approach, whereas the second hypothesis, referred to as the "stability-competition" view, is a more recent and contemporary perspective. This is because intense competition limits banks' ability to exert market power, hence increasing their inclination to engage in risk-taking activities to enhance profit margins and charter value (Allen & Gale, 2004; Keeley, 1990). Thus far, empirical investigations have yielded varying results on the fragility-competition perspective.

According to the findings of Bermpei et al., (2018), there is evidence to suggest that in countries with strong institutional quality, political stability plays a crucial role in enhancing the favourable impact of capital requirements and activity limitations on bank stability. According to the study conducted by Clark et al., (2018)), it was observed that the presence of legal rights for lenders and borrowers, as well as the regulatory authority of supervisory bodies, has a positive impact on the stability of banks operating in undeveloped markets. According to a study conducted by (Danisman & Demirel, 2019), it has been demonstrated that stringent supervision and extensive activity limitations have the potential to elevate bank risk, consequently leading to a decline in overall bank financial performance. According to (Cheng et al., 2021), financial institutions characterized by lower (higher) levels of political risk are inclined to experience reduced (increased) risk stemming from moral hazard. They show that during periods of higher policy uncertainty, banks with political connections offer more loans with smaller loan loss provisions compared to those without political connections. The presence of low levels of policy uncertainty plays a crucial role in limiting the scope and impact of political contracts. The study conducted by (Al-Shboul et al., 2020) revealed a negative correlation between political risk and bank stability, thereby providing empirical support for the financial fragility hypothesis. The findings of the investigation indicate that political risk has varying impacts on the stability levels of conventional and sharia banks. The impact of political risk on the level of risk associated with Islamic banks is comparatively less severe in comparison to conventional

The mitigation of credit risk can be achieved through the implementation of effective credit analysis and the enforcement of stringent credit regulations by the Regional Development Bank (RDB). RDB must prioritize the verification of borrowers' capacity to repay loans, particularly in cases involving borrowers affiliated with shareholders. Additionally, RDB should maintain constant vigilance in monitoring credit performance. In addition to this, the implementation of credit product diversification can effectively mitigate credit risk through the provision of a range of credit products to clients. Product diversification is a strategic approach aimed at mitigating risk by providing a range of different products or services to clients. This measure is expected to assist in mitigating risks associated with market fluctuations and evolving customer preferences for RDBS. By diversifying their product or service offerings, business and professional entities (RDBs) can enhance their financial resilience and augment their revenue streams. Nevertheless, the process of product diversification necessitates meticulousness and thorough investigation. Individuals diagnosed with Regional Development Bank (RDB) should take into account their capacity to effectively handle novel products and ascertain if these products align with the requirements and expectations of customers (Betavia et al., 2022). In summary, Regional Development Banks in Indonesia must handle the concerns of political risk, credit risk, and the necessity to diversify their product offerings. By engaging in comprehensive risk analysis and adopting stringent procedures, business process departments (RDB) can enhance their financial stability and mitigate the potential risks inherent in their operations

Research Methodology

This research aim aligns with our research objectives: investigating RDBS in Indonesia. Secondary data from the financial statements of RDBS has been used. Additionally, primary data was obtained through interviews with RDBS administrators, specifically BOC and BOD. Political risk variables were measured through dummy variables, where a value of 1 is assigned if there is no change in the local government, particularly the Controlling Shareholder (PSP), followed by a change in RDBS management, while a value of 0 otherwise. Credit risk was assessed using Non-Performance Loan (NPL) data, while product diversification was evaluated based on the types of loans offered as a proportion of the total revenue. Return On Assets (ROA) was used to measure financial performance.

To achieve objective four, secondary data collection was carried out. Qualitative methods were employed to achieve objectives one and two, including Focus Group Discussions (FGDs) and interviews with RDBS administrators in Indonesia. The participants were selected using purposive sampling. A particular protocol was used in conducting in-depth FGDs to ensure the validity and reliability of the questions. The data collected will be analysed using qualitative techniques.

Results and Discussion

Table 1 is based on financial statement data from regional development banks across Indonesia. Descriptive statistics of the research information are presented in the following table.

	Ν	Minimum	Maximum	Mean	Std. Deviation
Political Risk	156	,00	1,00	,5449	,49959
Credit Risk	156	-,07	4,92	,9677	1,00963
Product Diversification	156	,03	1,18	,1694	,19021
Capital Adequacy Ratio	156	9,01	43,38	23,1094	4,86652
Loan to Deposit Ratio	156	2,37	146,77	84,8163	21,02665
Efficiency	156	,14	2,91	,4243	,40523
Equity To Asset	156	,07	,26	,1340	,02940
Return On Assets	156	-3,80	4,01	2,1459	1,17027
Valid N (listwise)	156				

Table 1 Descriptive Statistics of Research Dat.

Source: Created by Author.

The Political Risk Level in Indonesian Rdbs

According to several RDBS administrators interviewed, it has been stated that political conditions could affect RDBS's financial statements. Lately, shifts in regional heads have caused changes in RDBS management. Specific risks that banks encounter can affect their financial performance. These risks should be reduced to avoid disturbing banking operations. Several risk categories associated with banking ought to be considered, among them being (1) Credit Risk, (2) Market Risk, (3) Liquidity Risk, (4) Operational Risk, (5) Legal and Compliance Risk, and (6) Reputational Risk.

In addition to the risks described earlier, banking in Indonesia, especially at RDBS and stateowned banks, carries political risks. It is a fascinating phenomenon that every time there is a change in the regional head, especially the controlling shareholder (majority shareholder), there is a change in the BOD and BOC. This replacement will impact the policy changes implemented by the new board. Ultimately, these policies have an impact on the financial condition of banks. While the replacement of the board of directors and commissioners may sometimes have a favourable effect on the company, the reality is that many changes carry negative consequences.

It is a recent phenomenon that most Presidential Commissioners of RDBs in Indonesia are active local government officials. A few of the Chief Commissioners continue to hold their position as active Regional Secretaries. Considering his role as the primary commissioner and responsibilities as a Regional Secretary, his work is substantial. Usually, the controlling shareholders appoint non-independent commissioners, who need more expertise in banking, to reduce their supervisory function.

The excessive involvement of controlling shareholders in the company's operations, particularly in the selection of management (BOC and BOD), often results in unrest among banking employees and the public. Employees often feel insecure about the impact on their performance. New management often needs to acknowledge existing employees' abilities before new hires. Young new employees are often hired with salaries far exceeding their existing colleagues. These conditions lead to unhealthy competition among employees, leaks of sensitive bank information to third parties, and increased risks related to operations, reputation, legal and regulatory compliance, and other risks.

One way of mitigating political risk is to hold an Initial Public Offering (IPO) for public investors. This avoids a concentration of shares in a single PSP. PSPs should also consider the views of other shareholders when making decisions or taking action, notably when appointing or replacing the BOC/BOD. Obtaining more substantial funds is one of the critical reasons for accessing the capital market. Selling shares to the public provides the company access to a vast pool of funding from investors of all backgrounds. The company can use proceeds from selling these shares to expand its operations.

Credit Risk Level in Indonesian Rdbs

Credit risk is assessed based on non-performing loans (NPLs). On average, the value of non-performing loans held by RDBS from 2017 to 2022 was 0.967. During the observed years, some RDBs had gross NPLs that exceeded the standard limit of 22,27% (more than 5%). The credit risk faced by RDBS Indonesia is comparable to that encountered by other banks. Some credit risks that RDBS Indonesia could face include the following:

- 1. Recovery Risk: The risk that the debtor will not be able to repay the loan or debt provided by the bank. Possible reasons behind the debtor's inability to fulfill payment obligations include financial troubles within the borrowing company, shifts in economic conditions, or other related factors.
- 2. Credit Quality Risk: There is a risk that the credit quality of some borrowers or sectors may decline, which could lead to a deterioration of the loan portfolio quality at RDBS. As an illustration, agricultural loans provided by RDBS may turn non-performing if the agricultural sector undergoes economic pressure.
- 3. Concentration Risk: There is a risk that a RDBS may have a high concentration of loans in a specific industry sector, a particular geographic region, or a single borrower. The RDBS could suffer significant losses in the case of an adverse event in these sectors or areas.

- 4. Liquidity Risk: The risk of the RDBS's inability to meet its payment obligations as they fall due. This can occur if the RDBS faces sudden large withdrawals or difficulties obtaining short-term financing.
- 5. Internal Control Risk: Risks associated with weaknesses in RDBS's internal control systems, including lack of monitoring, weak governance, or non-compliance with established policies and procedures. This may lead to undetected errors, fraud, or losses.

To manage credit risk, RDBS Indonesia should implement stringent credit policies and procedures, thoroughly analyze creditworthiness and perform routine monitoring of its credit portfolio. It should also have sound risk management, robust governance, and an effective oversight system to diminish credit risk and curtail potential losses.

The Effect of Political Risk, Credit Risk, and Product Diversification on the Performance of Indonesian Rdbs

The data processing results using SPSS to test the effect of political risk, credit risk, and product diversification on the performance of RDBS Indonesia can be seen in Table 2 below.

	Model		dardized ficients	Standardized Coefficients	t	Sig.	Collinearity Statistics				
			Std. Error	Beta			Tolerance	VIF			
1	(Constant)	2,882	,361		7,982	,000					
	Political Risk	,977	,131	,417	7,453	,000	,723	1,383			
	Risiko Kredit	-,661	,065	-,570	-10,091	,000	,710	1,409			
	Product Diversification	,542	,330	,088	1,644	,102	,789	1,268			
	Capital Adequacy Ratio	-,045	,021	-,189	-2,163	,032	,297	3,370			
	Loan to Deposit Ratio	,004	,003	,075	1,395	,165	,779	1,284			
	Efficiency	-,282	,166	-,098	-1,701	,091	,686	1,458			
	Equity To Asset	,704	3,609	,018	,195	,846	,276	3,626			
Adjusted $R^{2=}$ 0,649											
F = 41,891											

Table 2 Hypothesis Test.

Source: Created by Author.

The data analysis revealed that political and credit risks significantly affect regional development banks' financial performance (RDBS). The financial performance is measured by Return On Asset (ROA). In the event of a change in controlling shareholders (PSP), the financial performance of RDBS weakens. There is a significant impact on the financial performance of RDBs in the year of a change in the controlling shareholder (PSP) and the following year. Additionally, the study indicated that a high level of credit risk leads to the deteriorating financial performance of RDBS.

The results of the study suggest that the diversification of products offered by RDBs does not significantly impact their financial performance. This could result from the average RDBS offering the same products to the public. The findings may vary if the study included state-owned enterprise Banks (Himbara) and Private Banks as research samples. Both Himbara and private banks offer a variety of products apart from credit.

The Effect of Political Risk on the Financial Performance of Regional Development Banks

Regional development banks face political risks. Political risk arises from local government interference in business management. Political risk impacts the financial performance of

regional development banks. The results of this study indicate that political risk significantly affects the financial performance of regional development banks. Research results by (Ahmed & Hussainey, 2023; Carboni et al., 2023) revealed that political influences on performance rely on the firm's features. Consistent with this view, (Chaney et al., 2011) demonstrated that issues related to agency problems and the quality of corporate governance are among these features. When the company has fewer agency problems, the impact of politics on performance will be diminished. (Chaney et al., 2011) state that good corporate governance impacts the relationship between political risk and firm financial performance. The dominating influence exercised by shareholders in shaping the make-up of management, viz., the Board of Commissioners (BOC) and the Board of Directors (BOD), has a bearing on the sense of ease of all employees and management. Management, represented by the BOC and the BOD, is frequently discharged prematurely prior to the end of their tenure. As a result, administrators are always uneasy when performing their duties. The fear of sudden dismissal is bound to impede their work performance. Some administrators prefer safeguarding their vested interests over enhancing the company's performance.

The findings of this study are in line with the study of (Khanchel et al., 2023), who investigated the impact of political factors on bank performance through a sample of MENA banks between 2009 and 2019 (Khanchel et al., 2023). Khanchel et al.'s investigation indicated that political factors affect bank performance. The study's outcomes also confirm that conflict of interest and resource dependency contribute to political issues. While constructing the hypothesis, we utilized theories such as agency theory, moral theory, and resource dependency theory. According to the results, replacing regional heads as controlling shareholders impacts banks' performance. In case of a change in controlling shareholders, the company's performance will significantly alter in the year of change and the following year. Future researchers are advised to use moderating variables such as the public share ownership believed to diminish the impact of political factors on bank performance in this study. We recommend that regional development banks in Indonesia require better corporate governance mechanisms to curb the possible adverse effect of political factors. Theoretically, the findings corroborate the agency theory and moral hazard theory and demonstrate the conflict of interest by utilizing political influence as a counterbalance to the considerable command power of politically affiliated members. The structure of share ownership, particularly public shares, efficiently alleviates the detrimental impact of political associations on bank performance.

Previous studies have analyzed the correlation between political risk and bank behavior by concentrating on the impact of political risk on bank efficiency, stability, and risk. However, in the context of regional development banks and other areas, a limited amount of research examines the effect of political risk on bank financial performance. (Miah & Uddin, 2017) state that political risk significantly impacts economic growth. (Miah & Uddin, 2017) assert that political risk harms bank efficiency and stability. (Chen et al., 2017a, 2017b) revealed in their study using a sample of banks from developing countries that bank risk increases when monetary policy is loosened. Other studies, such as (Bitar et al., 2020; FROOT et al., 1993; Pawlowska, 2016; Tabak et al., 2012), have reported that political risk has adverse effects on the banking industry, including increasing profit variability, decreasing credit growth, raising the probability of default, and intensifying banking fragility. According to recent literature (Ashraf, 2017; Belkhir et al., 2017; Cubillas & González, 2014; Haque & Brown, 2017; Herrala & Turk-Ariss, 2016), the influence of political risk on the determinants of bank risk-taking has been considered. However, despite examining it, these studies do not provide conclusive and clear evidence of the relationship between political risk and bank risk.

The Effect of Credit Risk on the Financial Performance of Regional Development Banks

The results of this study are in line with previous studies conducted by (Abdelaziz et al., 2022; Boussaada et al., 2023; Reinhart & Rogoff, 2011), which concluded that the financial performance of banks is affected by political risk. Banking literature recognizes credit risk as the most severe threat to banks' financial performance and stability since credit represents the principal activity for revenue generation in banks. Consequently, a high level of non-performing loans (NPLs) will likely decrease the bank's profitability.

Bank performance falls due to credit risk, with higher provisions for loan losses (PLL) and lower interest income. Weak performance simultaneously reduces bank capital, which is held back due to higher Non-Performing Loans (NPLs). Therefore, as the bank's situation deteriorates, its funding costs tend to increase. Banks with high costs perform poorly, as mentioned by (Tölö & Virén, 2021). Effective credit risk management by the banks supports their sustainability and profitability. It contributes to the economic stability and efficient allocation of capital in the economy, as stated by (Psillaki et al., 2010).

The current literature on the relationship between credit risk and bank performance generates inconsistent findings. According to (Abdelaziz et al., 2022; Athanasoglou et al., 2008; Berrios & Modern Hairstyle Institute, 2013; Cucinelli, 2015), credit risk adversely affects banks' financial performance. An increase in credit risk leads to a company's financial performance decline. However, some other studies have divergent conclusions from our research findings. However, comparatively fewer studies report a positive relationship (Abdelaziz et al., 2011; Flamini et al., 2009). Banks may invest riskier to increase their profitability (Boussaada & Karmani, 2015). Projects with a high degree of risk require a higher interest rate. To bolster their profits, banks may adopt a risky investment approach and finance projects with potentially high returns and a lower probability of success.

In a developing context, (Laryea et al., 2016) investigated the effect of non-performing loans (NPLs) on bank profitability using a sample of 22 Ghanaian banks from 2005 to 2010. The primary outcome of their study indicates a negative correlation between credit risk and bank profitability. More recently, (Abdelaziz et al., 2022) examined the interplay among credit risk, liquidity risk, and bank performance in the Middle East and North African (MENA) countries. The authors used a sample of 38 banks from 2004-2017 and performed seemingly unrelated regression analyses. The empirical evidence shows that credit risk significantly negatively impacts bank performance. The non-performing loans (NPL) ratio increases when bad debts increase. Under such circumstances, borrowers become incapable of fulfilling their commitments, resulting in a loss of principal and interest. Therefore, the bank's profitability is decreased. In addition, higher levels of NPLs lead to banks becoming more rigid and stricter with lending, resulting in reduced interest income and, ultimately, bank profitability.

A review of relevant studies on the impact of bank credit risk on financial profitability and loan size shows mixed results, with findings that generally vary between positive and negative relationships (Abbas et al., 2019; ElBannan, 2015; Kani, 2017; Wood & McConney, 2018). Historical studies (de Nicolo, 2005; Iannotta et al., 2007; Lanotte et al., 2016; Sapienza, 2004) indicate that public banks assume more risk than private banks, believing they will receive a bailout from the state during a crisis. Through conducting multiple regression analysis, (Saeed & Zahid, 2016) analyzed two credit risk variables, i.e., impairment and non-performing loans, and their impact on bank profits calculated by return on assets (ROA) and return on equity

(ROE). The study showed a positive relationship between credit risk and profitability. (Islam & Nishiyama, 2016; Kodithuwakku, 2015) have demonstrated the impact of non-performing loans and provisions on profitability.

In contrast, contemporary studies suggest that banking performance is influenced by the risks inherent to the global financial system and the EPU. A study conducted by (Jayakumar et al., 2018) using an error correction model on European countries reveals that in the long term, banking competition and stability are driving forces behind stock market dynamics and development and vice versa. In another study conducted by the same author in 2020 using the same sample and multivariate framework, it is also demonstrated that there is a causal connection between banking competition, insurance market development, stock market development, and long-term economic growth. Likewise, (Jayakumar et al., 2018) demonstrate that banking competition and stability in European countries are the vectors of long-term economic growth.

Effect of Product Diversification on the Financial Performance of Regional Development Banks

The results of this study are not in line with the research conducted by (Hailu & Tassew, 2018; Rop et al., 2016). In this study, it is concluded that product diversification does not affect the financial performance of RDBS in Indonesia in a significant way. If this study increases the research sample of state and private banks, it may yield different results. The products offered by regional development banks in Indonesia are quite similar. Each of these banks relies solely on the income from loans offered to civil servants.

The relationship between banking performance and diversification has been examined by (Rop et al., 2016) by categorizing the number of investments on Kenyan banks' balance sheets into three categories: real estate investments, government securities, and insurance investments. The findings reveal that the three types of investments positively and significantly influenced banking performance. Likewise, (Hailu & Tassew, 2018) aimed to analyze the effect of investment income diversification on banking performance in Ethiopia. They used a range of diversification variables, such as loans, government securities, and insurance investments. The results indicated a significant and positive impact of investment diversification on the financial profitability of banks.

There is limited research on the relationship between product mix and bank performance that considers the impact of economic conditions. Specifically, a large portion of previous studies on the subject only considers a limited number of components of banks' non-interest income, and it is done so within a static framework (Chiorazzo et al., 2008; B. De Jonghe et al., 2009; Kroszner & Rajan, 1997; Lown et al., 2000; K. J. Stiroh & Rumble, 2006). This section compares the results obtained from our comprehensive approach with the existing evidence in the literature, particularly emphasizing the most reliable findings.

Our findings align with the literature, supporting previous research findings that retail noninterest income is the primary driver of ROAs (Busch & Kick, 2021; Gallo et al., 1996; Vander Vennet et al., 2011). However, the literature needs to clarify the effect of trading activities on bank performance. For instance, (Estrella, 2004; K. J. Stiroh & Rumble, 2006) suggest that trading activities decrease banks' risk-adjusted returns, whereas (Lepetit et al., 2008) demonstrate that trading can mitigate risk for small banks. (Admati et al., 1994; Schmid & Walter, 2009) indicate that trading can boost banks' franchise value. We anticipate that trading could be a vital bank performance driver, but its impact may rely heavily on the business cycle phase.

1304 Investigating Influential Factors Affecting Regional Development Banks (Rdbs) Performance in Indonesia

Over the last three decades, banks have expanded their sources of income by engaging in noninterest activities such as securities underwriting and insurance, brokerage services and mutual funds, venture capital, and asset securitization. Past research investigating the impact of product diversification on financial performance (profitability) and bank risk has produced inconclusive results. Research on US banking has revealed that non-interest income enhances profitability and increases risk levels. (Deyoung & Roland, 2001), along with (K. Stiroh, 2004; K. J. Stiroh & Rumble, 2006), concluded that moving to non-interest-based activities heightens the risk. (DeYoung & Torna, 2013) recent research discovered that broadening into noninterest activities affected the financial crisis-related failures of US banks, and this impact varied based on the bank's financial condition. In contrast, some studies conducted in the US imply that there are potential benefits for banks from broadening the scope of their activities. For instance, (Gallo et al., 1996) discovered that the combination of bank and mutual fund activities, to some extent, heightened profitability and lowered the risk of proprietary US bank firms during 1987-1994.

Similarly, studies focusing on European banks provide inconsistent results regarding the impact of diversification on bank performance. According to (Mercieca et al., 2007), small European banks did not gain any advantages from their diversification strategy, as the non-interest income share was negatively related to profitability and positively correlated with risk, resulting in lower-adjusted returns. The authors clarify that these results are due to the small banks' need for more proficiency in handling unfamiliar business lines and various activities. (Lepetit et al., 2008) discovered that European banks that branch out into activities generating non-interest income displayed more significant risks and higher insolvency rates. These outcomes are primarily linked to small-sized banks and are mainly influenced by commission and fee-based activities. When reviewing the implication of diversification on the systemic risk of European banks, (O. De Jonghe, 2010) reported that non-interest-generating activities raise banks' tail beta and diminish bank stability. To maintain financial stability, spending needed to be cut, expenses needed to decrease, and reforms should have been implemented in order to get the promised financial aid (Sawaya et al., 2023).

In contrast, (Vennet, 2002) examined European banks' cost and profit efficiency and observed that financial conglomerates demonstrate superior cost and profit efficiency compared to focused banks. Similarly, (Baele et al., 2007) discovered that activity diversification in a sample of banks established in 17 Western European countries between 1989 and 2004 is associated with more excellent franchise value and reduced idiosyncratic risk. By examining Italian banks, (Chiorazzo et al., 2008) demonstrated that higher activity diversification enhances the trade-off between risk and return and that the benefits of diversification are more substantial for large banks.

There are several ways in which banks can mitigate risk. As per the portfolio theory, banks can lower their risk if non-interest income sources are unrelated to interest income. On the other hand, if non-interest income sources are hazardous and dependent on interest income, banks become more vulnerable to risks. Through a study conducted on a sample of US banks from 1994 to 2009, (M. Nguyen et al., 2012) examined the correlation among market power, income diversification, and bank stability. The study suggests that income diversification tactics enhance the banking sector's stability. (Deng et al., 2013) analyzed the properties of income diversification and noticed that institutional ownership positively impacts diversification, which, in turn, helps decrease bank risks. (Saunders et al., 2020) discovered that diversifying income helps increase profits and reduce bankruptcy risk for banks based in the US. Unlike in

the previous study, (Maudos, 2017) found a positive impact of non-interest income on bank risk when using a sample of European banks. (Abedifar et al., 2018) examined the correlation between non-interest income and credit risk in a sample of US banks from 2007 to 2016. According to their findings, smaller banks participating in many prudential activities tend to have lower credit risk. The study (AlKhouri & Arouri, 2019), which used a sample of 69 Islamic and conventional banks in the Gulf Cooperative Council countries, concluded that income diversification positively impacts bank risk-taking, while asset diversification has a negative impact. (K. N. Nguyen, 2019) documented the positive effects of income diversification on the risk appetite of commercial banks operating in Vietnam.

(El-Dyasty & Elamer, 2021) find that asset and income diversification significantly affects banks' risk-taking. The diversification of banks into non-interest income ultimately results in increased risk-taking. Moreover, non-interest-bearing assets also compel banks to undertake additional risks. While diversification has emerged as a significant strategy to survive in a competitive business environment, implementing this strategy leads to instability and more risk-taking to pursue higher returns.

The issue of bank risk-taking is a topical research area in finance and banking literature and is of significant concern to bank regulators. The act of bank risk-taking influences the probability of bank failure at the micro level and additionally affects the sustainability of the banking system at the macro level. According to (Van Greuning & Brajovic Bratanovic, 2009), bankruptcy and credit risks are significant hazards for banks. Banks take on potential risks due to information asymmetry and limited capital.

Further research is needed to improve bank financial performance, banks should adopt fintech concepts. Top management support is needed in implementing this. Top management backing denotes the extent to which leaders within an organization are supportive of adopting fintech and provides resources and investments to advance this goal (Marei et al., 2023). Competitive pressure relates to the external forces that compel organizations to adopt fintech in order to remain competitive in the market

Conclusions

Political conditions will affect the condition of the financial statements of the Regional Development Bank (RDBS). Recently, there has been a tendency for changes in regional heads to affect changes in management at RDBS. Some of the risks faced by banks will affect their financial performance. The average RDBS Non-Performing Loan (NPL) value from 2017 to 2022 is 0.967. During the observed years, some RDBs had Gross NPLs that exceeded the standard limit of 22,27% (greater than 5%). Based on the data processing results, political risk and credit risk influence the financial performance of RDBS, which in this case is measured by Return On Asset (ROA). Diversification of products offered by RDBS has no significant effect on the financial performance of RDBS. This may be because the average RDBS one and the other have the same products offered to the public. Further research is needed to improve bank financial performance, banks should adopt fintech concepts. Top management support is needed in implementing this.

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References

- Abbas, F., Iqbal, S., & Aziz, B. (2019). The impact of bank capital, bank liquidity and credit risk on profitability in postcrisis period: A comparative study of US and Asia. *Cogent Economics and Finance*, 7(1). https://doi.org/10.1080/23322039.2019.1605683
- Abdelaziz, H., Mouldi, D., & Helmi, H. (2011). Financial liberalization and banking profitability: A panel data analysis for Tunisian banks. *International Journal of Economics and Financial Issues*, 1(2), 19–32.
- Abdelaziz, H., Rim, B., & Helmi, H. (2022). The Interactional Relationships Between Credit Risk, Liquidity Risk and Bank Profitability in MENA Region. *Global Business Review*, 23(3), 561–583. https://doi.org/10.1177/0972150919879304
- Abedifar, P., Molyneux, P., & Tarazi, A. (2018). Non-interest income and bank lending. *Journal of Banking and Finance*, 87, 411–426. https://doi.org/10.1016/j.jbankfin.2017.11.003
- Admati, A. R., Pfleiderer, P., & Zechner, J. (1994). Large Shareholder Activism, Risk Sharing, and Financial Market Equilibrium. *Journal of Political Economy*, 102(6), 1097–1130. https://doi.org/10.1086/261965
- Ahmed, F., & Hussainey, K. (2023). A bibliometric analysis of political connections literature. Review of Accounting and Finance, 22(2), 206–226. https://doi.org/10.1108/RAF-11-2022-0306
- Al-Shboul, M., Maghyereh, A., Hassan, A., & Molyneux, P. (2020). Political risk and bank stability in the Middle East and North Africa region. *Pacific Basin Finance Journal*, 60(February), 101291. https://doi.org/10.1016/j.pacfin.2020.101291
- AlKhouri, R., & Arouri, H. (2019). The effect of diversification on risk and return in banking sector: Evidence from the Gulf Cooperation Council countries. *International Journal of Managerial Finance*, 15(1), 100–128. https://doi.org/10.1108/IJMF-01-2018-0024
- Allen, F., & Gale, D. (2004). Competition and Financial Stability. *Journal of Money, Credit, and Banking, 36*(3b), 453–480. https://doi.org/10.1353/mcb.2004.0038
- Ashraf, B. N. (2017). Political institutions and bank risk-taking behavior. *Journal of Financial Stability*, 29, 13–35. https://doi.org/10.1016/j.jfs.2017.01.004
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money*, 18(2), 121–136. https://doi.org/10.1016/j.intfin.2006.07.001
- Baele, L., De Jonghe, O., & Vander Vennet, R. (2007). Does the stock market value bank diversification? *Journal of Banking and Finance*, 31(7), 1999–2023. https://doi.org/10.1016/j.jbankfin.2006.08.003
- Barth, J. R., Caprio, G., & Levine, R. (2004). Bank regulation and supervision: What works best? *Journal of Financial Intermediation*, 13(2), 205–248. https://doi.org/10.1016/j.jfi.2003.06.002
- Belkhir, M., Boubakri, N., & Grira, J. (2017). Political risk and the cost of capital in the MENA region. In *Emerging Markets Review* (Vol. 33). Elsevier B.V. https://doi.org/10.1016/j.ememar.2017.08.002
- Bermpei, T., Kalyvas, A., & Nguyen, T. C. (2018). Does institutional quality condition the effect of bank regulations and supervision on bank stability? Evidence from emerging and developing economies. *International Review of Financial Analysis*, 59, 255–275. https://doi.org/10.1016/j.irfa.2018.06.002

- Betavia, A. E., (2022). General Ledger and Reporting System Cycle: Traditional Vs Digital Accounting Information System Era (Implementing In Pharmaceutical Sector and Local Bank). *Journal of Pharmaceutical Negative Results*, 3533-3541.
- Berrios, M. R., & Modern Hairstyle Institute. (2013). the Relationship Between Bank Credit Risk. *Business and Finance*, 7(3), 105–118.
- Bitar, M., Pukthuanthong, K., & Walker, T. (2020). Efficiency in Islamic vs. conventional banking: The role of capital and liquidity. *Global Finance Journal*, 46(November). https://doi.org/10.1016/j.gfj.2019.100487
- Boussaada, R., Hakimi, A., & Karmani, M. (2023). Non-performing loans and bank performance: what role does corporate social responsibility play? A system GMM analysis for European banks. *Journal of Applied Accounting Research*. https://doi.org/10.1108/JAAR-10-2021-0283
- Boussaada, R., & Karmani, M. (2015). Ownership Concentration and Bank Performance: Evidence from MENA Banks. *International Journal of Business and Management*, 10(3). https://doi.org/10.5539/ijbm.v10n3p189
- Busch, R., & Kick, T. K. (2021). Income Diversification in the German Banking Industry. SSRN Electronic Journal, 09. https://doi.org/10.2139/ssrn.2794032
- Carboni, M., Fiordelisi, F., & Irwan Trinugroho, I. (2023). Do investors like political connections? *Economics Letters*, 222(110943).
- Chaney, P. K., Faccio, M., & Parsley, D. (2011). Munich Personal RePEc Archive The Quality of Accounting Information in Politically Connected Firms The Quality of Accounting Information in Politically Connected Firms. *MPRA Paper*, 21116.
- Chen, M., Wu, J., Jeon, B. N., & Wang, R. (2017a). Do foreign banks take more risk? Evidence from emerging economies. *Journal of Banking and Finance*, 82, 20–39. https://doi.org/10.1016/j.jbankfin.2017.05.004
- Chen, M., Wu, J., Jeon, B. N., & Wang, R. (2017b). Monetary policy and bank risk-taking: Evidence from emerging economies. *Emerging Markets Review*, 31, 116–140. https://doi.org/10.1016/j.ememar.2017.04.001
- Cheng, H., Gawande, K., Ongena, S., & Qi, S. (2021). Connected banks and economic policy uncertainty. *Journal of Financial Stability*, 56(422), 100920. https://doi.org/10.1016/j.jfs.2021.100920
- Chiorazzo, V., Milani, C., & Salvini, F. (2008). Income diversification and bank performance: Evidence from Italian banks. *Journal of Financial Services Research*, 33(3), 181–203. https://doi.org/10.1007/s10693-008-0029-4
- Clark, E., Radić, N., & Sharipova, A. (2018). Bank competition and stability in the CIS markets. Journal of International Financial Markets, Institutions and Money, 54, 190–203. https://doi.org/10.1016/j.intfin.2017.12.005
- Cubillas, E., & González, F. (2014). Financial liberalization and bank risk-taking: International evidence. *Journal of Financial Stability*, 11(1), 32–48. https://doi.org/10.1016/j.jfs.2013.11.001
- Cucinelli, D. (2015). The Impact of Non-performing Loans on Bank Lending Behavior: Evidence from the Italian Banking Sector. *Eurasian Journal of Business and Economics*, 8(16), 59–71. https://doi.org/10.17015/ejbe.2015.016.04
- Danisman, G. O., & Demirel, P. (2019). Bank risk-taking in developed countries: The influence of market power and bank regulations. *Journal of International Financial Markets, Institutions and Money*, 59, 202–217. https://doi.org/10.1016/j.intfin.2018.12.007
- De Jonghe, B., Lacherade, J. C., Sharshar, T., & Outin, H. (2009). Intensive care unit-acquired weakness: Risk factors and prevention. *Critical Care Medicine*, *37*(SUPPL. 10), 309–315. https://doi.org/10.1097/CCM.0b013e3181b6e64c

- De Jonghe, O. (2010). Back to the basics in banking? A micro-analysis of banking system stability. *Journal of Financial Intermediation*, 19(3), 387–417. https://doi.org/10.1016/j.jfi.2009.04.001
- de Nicolo, G. (2005). Size, Charter Value and Risk in Banking: An International Perspective. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.255465
- Deng, S., Elyasiani, E., & Jia, J. (2013). Institutional ownership, diversification, and riskiness of bank holding companies. *Financial Review*, 48(3), 385–415. https://doi.org/10.1111/fire.12008
- Deyoung, R., & Roland, K. P. (2001). Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Total Leverage Model. In *Journal of Financial Intermediation* (Vol. 10, Issue 1). https://doi.org/10.1006/jfin.2000.0305
- DeYoung, R., & Torna, G. (2013). Nontraditional banking activities and bank failures during the financial crisis. *Journal of Financial Intermediation*, 22(3), 397–421. https://doi.org/10.1016/j.jfi.2013.01.001
- El-Dyasty, M. M., & Elamer, A. A. (2021). The effect of auditor type on audit quality in emerging markets: evidence from Egypt. *International Journal of Accounting and Information Management*, 29(1), 43–66. https://doi.org/10.1108/IJAIM-04-2020-0060
- ElBannan, M. A. (2015). Do consolidation and foreign ownership affect bank risk taking in an emerging economy? An empirical investigation. *Managerial Finance*, 41(9), 874–907. https://doi.org/10.1108/MF-12-2013-0342
- Estrella, A. (2004). The cyclical behavior of optimal bank capital. *Journal of Banking and Finance*, 28(6), 1469–1498. https://doi.org/10.1016/S0378-4266(03)00130-4
- Flamini, V., Schumacher, L., & McDonald, C. A. (2009). The Determinants of Commercial Bank Profitability in Sub-Saharan Africa. IMF Working Papers, 09(15), 1. https://doi.org/10.5089/9781451871623.001
- Fries, S., & Taci, A. (2005). Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries. *Journal of Banking and Finance*, 29(1 SPEC. ISS.), 55–81. https://doi.org/10.1016/j.jbankfin.2004.06.016
- FROOT, K. A., SCHARFSTEIN, D. S., & STEIN, J. C. (1993). Risk Management: Coordinating Corporate Investment and Financing Policies. *The Journal of Finance*, 48(5), 1629–1658. https://doi.org/10.1111/j.1540-6261.1993.tb05123.x
- Gallo, J. G., Apilado, V. P., & Kolari, J. W. (1996). Commercial bank mutual fund activities: Implications for bank risk and profitability. *Journal of Banking and Finance*, 20(10), 1775– 1791. https://doi.org/10.1016/S0378-4266(96)00024-6
- Hailu, A. A., & Tassew, A. W. (2018). The impact of investment diversification on financial performance of commercial banks in Ethiopia. *Financial Studies*, 22(3), 41–55. http://hdl.handle.net/10419/231666
- Haque, F., & Brown, K. (2017). Bank ownership, regulation and efficiency: Perspectives from the Middle East and North Africa (MENA) Region. *International Review of Economics and Finance*, 47, 273–293. https://doi.org/10.1016/j.iref.2016.10.015
- Herrala, R., & Turk-Ariss, R. (2016). Capital accumulation in a politically unstable region. In *Journal of International Money and Finance* (Vol. 64). Elsevier Ltd. https://doi.org/10.1016/j.jimonfin.2016.01.008
- Iannotta, G., Nocera, G., & Sironi, A. (2007). Ownership structure, risk and performance in the European banking industry. *Journal of Banking and Finance*, 31(7), 2127–2149. https://doi.org/10.1016/j.jbankfin.2006.07.013
- Iqbal Philip, M. M. (2005). Efficiency in Islamic Banking. Na, NA(NA), 88-104.
- Islam, M. S., & Nishiyama, S. I. (2016). The determinants of bank net interest margins: A panel evidence from South Asian countries. *Research in International Business and Finance*, 37(August 2017), 501–514. https://doi.org/10.1016/j.ribaf.2016.01.024

- Jayakumar, M., Pradhan, R. P., Dash, S., Maradana, R. P., & Gaurav, K. (2018). Banking competition, banking stability, and economic growth: Are feedback effects at work? *Journal of Economics and Business*, *96*, 15–41. https://doi.org/10.1016/j.jeconbus.2017.12.004
- Kani, S. (2017). Credit Risk and Banks Performance: Evidence from WAEMU Countries. IOSR Journal of Economics and Finance, 08(01), 05–11. https://doi.org/10.9790/5933-0801020511
- Keeley, M. C. (1990). Deposit insurance, risk, and market power in banking. American Economic Review, 80(5), 1183–1200.
- Khanchel, I., Lassoued, N., & Ferchichi, O. (2023). Are political connections a curse for banks of the MENA region? The moderating effect of ownership structure. *International Journal of Emerging Markets*. https://doi.org/10.1108/IJOEM-03-2022-0480
- Kodithuwakku, M. S. (2015). Impact of Credit Risk Management. *Procedia Economics and Finance*, 26, 325–331. https://doi.org/10.1016/s2212-5671(15)00860-6
- Kroszner, R. S., & Rajan, R. G. (1997). Organization structure and credibility: Evidence from commercial bank securities activities before the Glass-Steagall Act. *Journal of Monetary Economics*, 39(3), 475–516. https://doi.org/10.1016/S0304-3932(97)00022-6
- Lanotte, M., Manzelli, G., Taboga, M., & Tommasino, P. (2016). Easier Said than Done? Reforming the Prudential Treatment of Bankss Sovereign Exposures. SSRN Electronic Journal, 73–103. https://doi.org/10.2139/ssrn.2772541
- Laryea, E., Ntow-Gyamfi, M., & Alu, A. A. (2016). Nonperforming loans and bank profitability: evidence from an emerging market. *African Journal of Economic and Management Studies*, 7(4), 462–481. https://doi.org/10.1108/AJEMS-07-2015-0088
- Lepetit, L., Nys, E., Rous, P., & Tarazi, A. (2008). Bank income structure and risk: An empirical analysis of European banks. *Journal of Banking and Finance*, *32*(8), 1452–1467. https://doi.org/10.1016/j.jbankfin.2007.12.002
- Lown, C. S., Morgan, D. P., & Rohatgi, S. (2000). Listening to Loan Officers: The Impact of Commercial Credit Standards on Lending and Output. July, 1–16.
- Marei, A., Mustafa, J. A., Othman, M., Daoud, L., Lutfi, A., & Al-Amarneh, A. (2023). the Moderation of Organizational Readiness on the Relationship Between Toe Factors and Fintech Adoption and Financial Performance. In *Journal of Law and Sustainable Development* (Vol. 11, Issue 3). https://doi.org/10.55908/SDGS.V11I3.730
- Maudos, J. (2017). Income structure, profitability and risk in the European banking sector: The impact of the crisis. *Research in International Business and Finance*, *39*, 85–101. https://doi.org/10.1016/j.ribaf.2016.07.034
- Mercieca, S., Schaeck, K., & Wolfe, S. (2007). Small European banks: Benefits from diversification? *Journal of Banking and Finance*, 31(7), 1975–1998. https://doi.org/10.1016/j.jbankfin.2007.01.004
- Miah, M. D., & Uddin, H. (2017). Efficiency and stability: A comparative study between islamic and conventional banks in GCC countries. *Future Business Journal*, 3(2), 172–185. https://doi.org/10.1016/j.fbj.2017.11.001
- Nguyen, K. N. (2019). Revenue Diversification, Risk and Bank Performance of Vietnamese Commercial Banks. *Journal of Risk and Financial Management*, 12(3), 138. https://doi.org/10.3390/jrfm12030138
- Nguyen, M., Skully, M., & Perera, S. (2012). Market power, revenue diversification and bank stability: Evidence from selected South Asian countries. *Journal of International Financial Markets, Institutions and Money*, 22(4), 897–912. https://doi.org/10.1016/j.intfin.2012.05.008
- Pawlowska, M. (2016). Does the size and market structure of the banking sector have an effect on the financial stability of the European Union? *Journal of Economic Asymmetries*, 14, 112– 127. https://doi.org/10.1016/j.jeca.2016.07.009

- Psillaki, M., Tsolas, I. E., & Margaritis, D. (2010). Evaluation of credit risk based on firm performance. *European Journal of Operational Research*, 201(3), 873–881. https://doi.org/10.1016/j.ejor.2009.03.032
- Reinhart, C. M., & Rogoff, K. S. (2011). From financial crash to debt crisis. *American Economic Review*, 101(5), 1676–1706. https://doi.org/10.1257/aer.101.5.1676
- Rop, M. K., Bokongo, J., & Yusufkibe, D. (2016). Effect of investment Diversification on the Financial Performance of Commercial Banks in Kenya. *IOSR Journal of Business and Management*, 18(11), 102–115. https://doi.org/10.9790/487X-181101102115
- Saeed, M., & Zahid, N. (2016). The Impact of Credit Risk on Profitability of the Commercial Banks. Journal of Business & Financial Affairs, 5(2). https://doi.org/10.4172/2167-0234.1000192
- Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of Financial Economics*, 72(2), 357–384. https://doi.org/10.1016/j.jfineco.2002.10.002
- Saunders, A., Schmid, M., & Walter, I. (2020). Strategic scope and bank performance. *Journal of Financial Stability*, 46. https://doi.org/10.1016/j.jfs.2019.100715
- Sawaya, C., Al Maalouf, N. J., Elia, J., Toros, E., & Zakhem, N. B. (2023). Lebanese Banking System: Ponzi or Not? *Journal of Law and Sustainable Development*, 11(6), 1–29. https://doi.org/10.55908/sdgs.v11i6.1204
- Schmid, M. M., & Walter, I. (2009). Do financial conglomerates create or destroy economic value? Journal of Financial Intermediation, 18(2), 193–216. https://doi.org/10.1016/j.jfi.2008.07.002
- Shamsuddin, A., & Xiang, D. (2012). Does bank efficiency matter? market value relevance of bank efficiency in australia. *Applied Economics*, 44(27), 3563–3572. https://doi.org/10.1080/00036846.2011.577027
- Stiroh, K. (2004). Diversification in Banking: Is Noninterest Income the Answer? Journal of Money, Credit and Banking, 36(5, 853–82).
- Stiroh, K. J., & Rumble, A. (2006). The dark side of diversification: The case of US financial holding companies. *Journal of Banking and Finance*, 30(8), 2131–2161. https://doi.org/10.1016/j.jbankfin.2005.04.030
- Tabak, R. G., Khoong, E. C., Chambers, D. A., & Brownson, R. C. (2012). Bridging research and practice: Models for dissemination and implementation research. *American Journal of Preventive Medicine*, 43(3), 337–350. https://doi.org/10.1016/j.amepre.2012.05.024
- Tölö, E., & Virén, M. (2021). How much do non-performing loans hinder loan growth in Europe? European Economic Review, 136, 103773. https://doi.org/10.1016/j.euroecorev.2021.103773
- Van Greuning, H., & Brajovic Bratanovic, S. (2009). Analyzing Banking Risk: A framework for assessing corporate governance and finacial risk management. In *Analyzing Banking Risk A* framework for assessing corporate governance and finacial risk management. http://books.google.com/books?id=73CX8O8akZ4C&pgis=1
- Vander Vennet, R., De Jonghe, O., & Baele, L. (2011). Bank Risks and the Business Cycle. SSRN Electronic Journal, January 2004. https://doi.org/10.2139/ssrn.615564
- Vennet, R. Vander. (2002). Cost and Profit Efficiency of Financial Conglomerates and Universal Banks in Europe. *Journal of Money, Credit, and Banking*, 34(1), 254–282. https://doi.org/10.1353/mcb.2002.0036
- Wood, A., & McConney, S. (2018). The impact of risk factors on the financial performance of the commercial banking sector in Barbados. *Journal of Governance and Regulation*, 7(1), 76–93. https://doi.org/10.22495/jgr_v7_i1_p6