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FINANCIAL CYCLE INTENSITY IN THE INDONESIAN GREEN FINANCE

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Abstract

The financial cycle intensity as an indicator in identifying, measuring and analyzing the green finance effectiveness in the banking sector. This study uses time series data from Bank Indonesia's Financial Report from 1980 to 2024. In order to measure macroeconomic pressures on the financial cycle intensity that have an impact on the banking sector performance. The data is analyzed with the Ed Waves Index development model using E-views 9 software. The paper's main finding that the financial cycle intensity has a significant effect on the banking intermediary function. However, the banking intermediary function works in an unbalanced condition, resulting in high Non-Performing Loans accompanied by a lack of financial liquidity. Therefore green finance in the banking sector can only increase economic growth and has not been able to maintain financial stability. Furthemore, Bank Indonesia has a strong role in maintaining the financial cycle movement in order to improve the banking intermediary function towards the green finance effectiveness in achieving a balance between the financial ecosystem and the environmental ecosystem simultaneously.

Keywords: green, cycle, intensity, finance, banking

Abstrak

Intensitas siklus keuangan sebagai indikator dalam mengidentifikasi, mengukur dan menganalisis efektifitas green finance pada sektor perbankan. Penelitian ini menggunakan data time series dari Laporan Keuangan Bank Indonesia dari tahun 1980 hingga 2024. In order to mengukur tekanan makroekonomi terhadap inetensitas siklus keuangan yang berdampak pada kinerja sektor perbankan. The data is analyzed with pengembangan model Ed Waves Index menggunakan E-views 9 software. The paper's main finding bahwa intensitas siklus keuangan memberikan efek signifikan terhadap fungsi intermediary perbankan. Namun fungsi intermediary pebankan bekerja dalam kondisi tidak seimbang, mengakibatkan tingginya kredit macet disertai keringnya likuiditas keuangan. Therefore green finance disektor perbankan hanya dapat meningkatkan pertumbuhan perekonomian dan belum mampu menjaga stabilitas keuangan. Furthemore, Bank Indonesia memiliki peranan kuat dalam menjaga pergerakan siklus keuangan agar dapat meningkatkan fungsi intermediary perbankan terhadap efektifitas green finance, untuk mencapai keseimbangan antara ekosistem keuangan dan ekosistim lingkungan secara bersamaan.

***Kata Kunci** :* green, cycle, *intensitas, keuangan, perbankan*

INTRODUCTION

The financial cycle significantly affects the banking sector in a country's financial activities. Consequently, the banking intermediary function is vital in maintaining financial stability and economic growth (Dikau & Volz, 2019 ; Basmar et al., 2022).

Recently, the banking sector faces various pressures in creating financial balance, *first*, macroeconomic pressure, the turmoil of this economic pressure indirectly affects financial behavior in the financial cycle, the risks that arise result in financial pressure shocks that have an impact on financial depression, which directly or indirectly has an impact on the banking sector performance (Rapi et al., 2021; Ye et al., 2022; Sun et al., 2023; Zhang et al., 2022).

Second, the climate change pressure, a symptom of natural damage, which has a negative impact on the economy, has resulted in an increasing turbulent effect on the financial cycle. To date, this problem has not been resolved properly (Akomea-Frimpong et al., 2022; Rakić & Mitić, 2012; Zhou et al., 2022).

Interestingly, previous studies have not found a link between changes in financial cycle pressures in influencing banking performance towards increasing green finance, despite the changes effects in the financial cycle causing a decline in banking sector performance (Kamran et al., 2020; Wang et al., 2023; Rasoulinezhad & Taghizadeh-Hesary, 2022; Dörry & Schulz, 2018).

Crucially, the banking sector plays an important role in controlling the financial cycle movement, in line with preventing the climate change crisis. In other words, the banking sector must carry out its intermediary function as much as possible. However, changes in financial cycle pressures have resulted in the banking sector experiencing a decline in financial performance in preventing the green finance crisis.

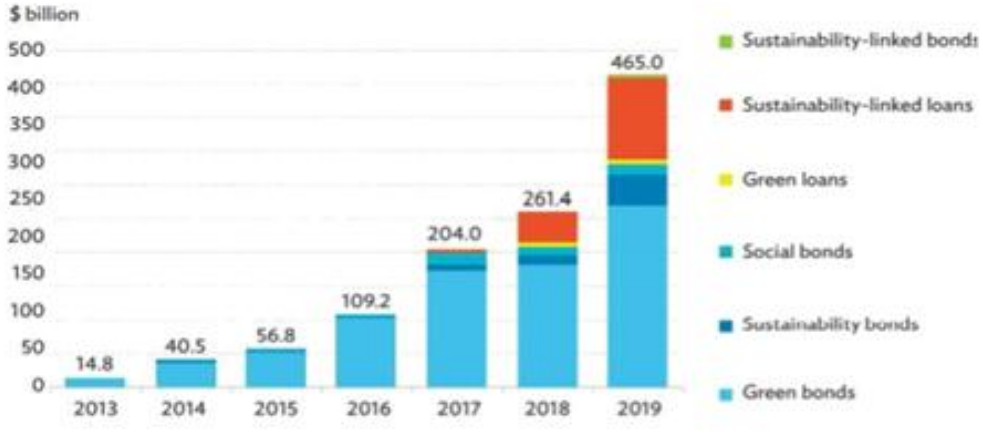


Figure 1. Green Finance Banking Sector
Source: Global Green Finance Index 9 (2022)

Consequently, there is a contraction of financial pressure in the financial cycle movement. This symptom is influenced by environmental damage that is faster than the financial turnover process. However, research conducted by the Asian Development Bank

(ADB) explains that the financial crisis can be suppressed through green finance through a transaction value range of between USD 5.8 Trillion to USD 8.8 Trillion.

Besides, the Central Bank role on economic indicators will help the banking intermediary function in maintaining financial stability and economic growth. Notably, when macroeconomic pressures and climate change simultaneously affect the financial cycle movement. Moreover, when the banking sector faces internal pressures that cause a more acute green finance crisis effect. In Line with the intensity level of financial pressure that influences the financial cycle movement.

Importantly, the green finance crisis has a strong multiplier effect on the economic sector. Every contraction of the financial cycle changes requires special handling from the banking sector that regulates financial flows directly. Furthermore, the Central Bank provides policies that can neutralize the financial cycle pressure that has a negative impact on financial stability and economic growth.

Herein, we measure the changes in the financial cycle intensity on the banking sector through the intermediary function in preventing the green finance crisis (Falcone & Sica, 2019; Sachs et al., 2019; Volz, 2018; Masukujjaman & Aktar, 2014).

On the other hand, comprehensive measurement through internal and external pressures can influence the banking sector in improving the intermediary functions performance (M. Chen et al., 2023; Wang & Zhi, 2016; Mir & Bhat, 2022; Baharudin & Arifin, 2023).

These two dimensions are the main factors in increasing financial stability and economic growth (Z. Chen et al., 2022; Hossain, 2020; Khalatur & Dubovych, 2022; Khairunnessa et al., 2021)

However, some studies present conflicting results, emphasizing that financial circulation is optimal when the financial market needs level is balanced. In other words, the financial cycle always reaches a stable point, regardless of internal or external pressures (Shakil et al., 2014; Nawaz et al., 2021).

Additionally, the reaction to both pressures is only short-term through an effective monetary policy approach (Dikau & Volz, 2021; Islam et al., 2014; Lindenberg & Volz, 2016).

The inconsistency in this study assumes that economic behavior and climate change pressures react to the financial cycle movement, thus indirectly having an effect on the financial performance ability to increase green finance.

This research also provides reinforcement to macroeconomic indicators through climate change pressures elaboration that have a positive influence on the financial cycle movement which has an effect on the banking intermediary function.

The variables selection in this study is due to the direct relationship closeness to the financial cycle is very strong. The effect explains the cause and effect in answering the problems in this study.

In this context, this study provides reinforcement to the financial cycle movements synthesis through the changes identification in internal and external pressures that result in

changes in the intermediary function's ability to green finance.

Meanwhile, this study also identifies financial pressures on the reaction of the financial cycle acceleration that can result in changes in the banking sector's green finance. Lastly, measuring the financial cycle with macroeconomic pressures and climate change is the main basis for the banking sector in preventing a green finance crisis.

Therefore, this study explores and analyzes in depth the relationship between the financial cycle movement and the banking sector ability to influence green finance, especially by measuring internal and external pressures as a model for preventing financial crises.

Overall, the implications of this study provide broad benefits to the banking sector and the Central Bank in setting policies, as part of controlling the financial cycle that has a negative impact on financial interactions in the financial market.

Thus, the financial cycle measurements analysis also aims to be able to increase sustainable financial stability and economic growth.

Consequently, this research aims to find a new model through the relationship between financial activities and the banking intermediary function, and can show the macroeconomic indicators role that stimulate turbulence in the financial cycle that can trigger a green finance crisis.

In Summary, the financial cycle measurement contribution to the process of increasing the banking sector's ability to function as an intermediary in preventing acute financial pressure turbulence which indirectly causes a green finance crisis.

Based on the new measurement elaboration model, this research model design has novelty based on the shift in the financial cycle in responding to green finance in the banking sector which has never been studied by previous researchers, especially in measuring the banking ability sector to improve financial stability and economic growth.

Therefore, through a comprehensive analysis related to the financial cycle intensity on green finance through macroeconomic parameters and climate change both internally and externally, it will answer the green finance crisis problem which has become a global environmental issue.

LITERATURE REVIEW

In comprehending and predicting changes in the financial cycle, Irving Fisher (1927) with the Velocity of Money theory explains that financial fluctuations occur due to adjustments in demand and supply in the financial market (Yan et al., 2022; J. Chen et al., 2022; H. Park & Kim, 2020; Shleifer & Vishny, 2019).

The financial transactions behavior shows financial stability naturally, but the balance phenomenon cannot occur naturally, and imbalance forms a fluctuating response based on the pressure effects.

According to the *velocity of money theory*, the financial movements formed in the financial cycle flow are built by the macroeconomic variables pressure (Ullah, 2013; Taghizadeh-Hesary & Yoshino, 2020; Nedumaran et al., 2020; Shershneva & Kondyukova, 2020; Mikael

Backman, 2011) or other pressures (Schaefer, 2017; Zheng et al., 2021) which have direct or indirect influences (Md. Shafiqul Islam, 2013; Guang-Wen & Siddik, 2023).

The concept in the *Velocity of Money theory* shows that the attachment to financial flows according to economic law forms optimal financial pressure in the economy (Ahmed, 2012; Harun Ur Rashid & Uddin, 2018; Hanson, 2004).

In this context, financial movements in financial flows are a distribution of pressure from high financial needs to low financial needs (Husain et al., 2022; Neto, 2022).

In other words, the *Velocity of Money theory* believes that the financial cycle has a permanent balance in both the short and long term (Dikau & Volz, 2021; Islam et al., 2014).

Indeed, financial circulation in the *Velocity of Money* shows the financial transactions magnitude in the financial market, resulting in the financial shifts volume being determined by the banking intermediary function (Lindenberg & Volz, 2016; Yan et al., 2022; J. Chen et al., 2022).

In turn, the intermediary function mechanism of the banking sector becomes a control of financial balance in the financial cycle as a whole (Shleifer & Vishny, 2019; Ullah, 2013; Taghizadeh-Hesary & Yoshino, 2020).

Changes in financial indicators will then become a monitoring tool for the Central Bank, as an independent institution to determine monetary policy, in anticipating financial cycle pressures that have a negative impact on financial stability and economic growth.

The financial cycle sensitivity movements is influenced by changes in macroeconomic indicators in banking activities (Nedumaran et al., 2020; Shershneva & Kondyukova, 2020).

This reaction contracts the financial flows in the financial markets and the economy, while the financial shift value is translated into a decrease in the financial transactions volume in the industrial sector.

The effects of changes in the financial cycle have been widely studied, several studies have found that there is a significant link between the financial activities of the banking sector and financial flows that affect financial cycle pressures (Mikael Backman, 2011) and have an impact on financial balance (Schaefer, 2017; Zheng et al., 2021).

Financial resilience in improving financial stability and economic growth is determined by the financial cycle effectiveness movement, internal and external pressures have a strong influence in controlling the financial cycle movement rate. The banking sector role in the financial intermediary function policy provides a positive effect in controlling the financial cycle shifting.

One of the most important elements in anticipating financial cycle movements that have a negative effect on the economy is strongly supported by the ability to control macroeconomic behavioral pressures in the banking intermediary function.

Therefore, the financial cycle based movement on banking performance shows the financial transactions function, where the research focus is based on the financial cycle intensity in increasing financial stability and

economic growth through the ability of macroeconomic indicators and climate change simultaneously.

Recently, the banking sector performance has shifted. The banking intermediary function, in addition to anticipating macroeconomic pressures, must also be able to maintain environmental balance through increasing green finance.

The banking sector as the economy engine is supported by the ability to distribute credit which indirectly affects the financial cycle movement. This important measure serves to anticipate financial crises through natural resources scarcity.

Banking intermediaries can indirectly anticipate long-term environmental exploitation by providing facilities to industrial sectors that have responsibility for environmental sustainability.

Previous studies have shown that the environmental resources use will have a positive effect on economic growth ((Md. Shafiqul Islam, 2013; Guang-Wen & Siddik, 2023; Ahmed, 2012). However, in the long term it has a negative impact on climate change, which gradually becomes a long-term crisis (Dong & Akhtar, 2022; X. Zhou et al., 2020).

Referring to the economic stability theory, the Classical School explains that the environment plays a major role in increasing production output. Employment will increase naturally and create a permanent balance (Harun Ur Rashid & Uddin, 2018).

This situation then shifted through increasing household sector needs, resulting in financial instability through massive environmental exploitation, and to meet the market demand magnitude in the economy. Finally, long-term inequality resulted in a green finance crisis.

Previous research has found that there is a significant positive relationship between financial behavior and macroeconomic pressures (Vercelli, 2019; FICCI & UNEP, 2016; Donaldson, 2005; Zarifis & Cheng, 2022; Dikau et al., 2020).

Likewise, the relationship between financial pressure influences banking intermediary functions (Gao et al., 2023; C. Chen et al., 2021).

In contrast, other findings that financial cycles cause financial crises when macroeconomic stress occurs in the long term, and the climate change size does not significantly affect the financial cycle movement (Huang, 2023).

Furthermore, earlier studies have also found that several macroeconomic indicators have a significant impact on the banking intermediary function in increasing financial stability and economic growth (Fathihani et al., 2021; Shen et al., 2021; Ivanova et al., 2021).

RESEARCH METHODOLOGY

Generally, Figure 2 explains the financial cycle intensity in green finance through the banking intermediary function.

We measure changes in the financial cycle intensity through the financial shifts speed based on the velocity of money. Changes in financial flows are carried out using the effects of internal and external pressures.

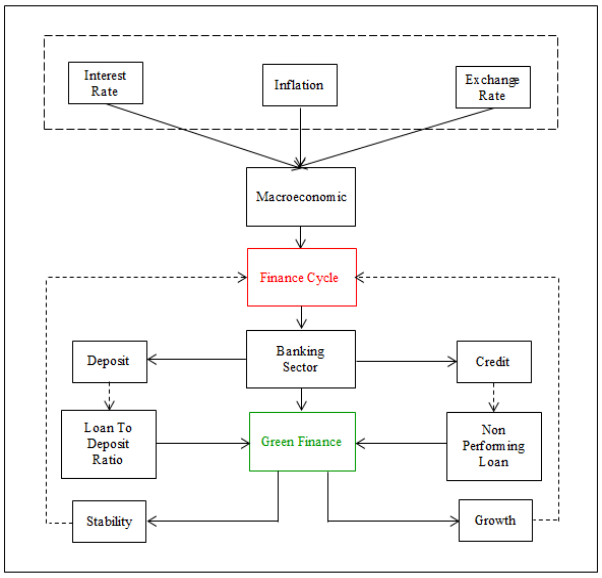


Figure 2. Research Framework

Measurement specifications are carried out by establishing a financial cycle intensity model by identifying the limits in the financial cycle movement, this aims to be able to measure the limits in determining financial stability and economic growth through expressed in standard dimensions.

$$\alpha_{\max} = \frac{1}{3}\left(\sum_{t=0}^{n} \eta + \mu + \pi\right)_{1\leq\infty} \quad (1)$$

Equation 1 explains that the financial cycle movement (α) is influenced by several macroeconomic pressures. Among them are interest rate (η), inflation (μ) and exchange rates (π).

The financial cycle forming indicator moves positively with a shift range of $1 \leq \sim$. The accumulation pressure is assumed to move in the same period ($t = 0$).

As a comparison of financial cycle pressures, the next measurement of economic indicators is through the imbalance in financial flows, this movement which states:

$$\alpha_{\min} = \frac{1}{3}\left(\sum_{t=0}^{n} \eta + \mu + \pi\right)_{-1\leq\infty} \quad (2)$$

In Equation 2, it clearly shows that the changes in the financial cycle are under negative pressure, this period shows that financial activity is declining.

The financial shift in this measurement occurs because macroeconomic pressures move in a range of $-1 \geq \sim$, assuming that the accumulation pressures also moves in the same period ($t = 0$).

To link overall financial performance in determining financial stability as a measurement model for the financial cycle shift magnitude, the following equation is used:

$$\Delta\alpha = \frac{1}{2}\left(\left(\frac{1}{3}\left(\sum_{t=0}^{n} \eta+\mu+\pi\right)_{1\leq\infty}\right) - \left(\frac{1}{3}\left(\sum_{t=0}^{n} \eta+\mu+\pi\right)_{-1\leq\infty}\right)\right)_{1\leq0\geq-1} \quad (3)$$

In addition, we assume that macroeconomic influences on the financial cycle movement are expressed by the Equation 3 model, where the pressure magnitude of the financial cycle movement (Δα) as a whole is formed from the

relationship between α_{max} and α_{min} based on the influencing indicators pressure.

Moreover, the banking performance capability measurement in adopting financial cycle pressure ($\Delta\alpha$) is assessed based on the intermediary function. This activity creates energy in the financial flow that influences the financial cycle, this activity is shown at an angle β as follows:

$$\beta_{\max} = \frac{1}{2}\left(\sum_{t=0}^{n}\gamma+\delta\right)_{1\leq\infty} \quad (4)$$

Where γ and δ represent the level magnitude of savings and loans in banking performance. Equation 4 shows the pressure size of the banking intermediary function β_{max} which can have a positive influence on the financial cycle. This size indirectly shows that the increase in green finance gets positive pressure from banking activities.

Next, financial contraction in the banking intermediary function can be written as:

$$\beta_{\min} = \frac{1}{2}\left(\sum_{t=0}^{n}\gamma+\delta\right)_{-1\leq\infty} \quad (5)$$

Equation 5, we assume that financial contraction occurs due to changes in the equilibrium point in the financial interaction process between γ and δ, and the banking intermediary function β_{min} has a negative effect on financial flows in the banking sector.

Furthemore, the equilibrium point in the overall banking intermediary function can be calculated as:

$$\Delta\beta = \frac{1}{2}\left(\left(\frac{1}{2}\left(\sum_{t=0}^{n}\gamma+\delta\right)_{1\leq\infty}\right)-\left(\frac{1}{2}\left(\sum_{t=0}^{n}\gamma+\delta\right)_{-1\leq\infty}\right)\right)_{1\leq0\geq-1} \quad (6)$$

Equation 6 determines the banking activity extent in implementing the intermediary function to facilitate determining the pressures range caused by the banking sector on the financial cycle flow.

Overall, the green finance reaction model through the financial cycle dimensions and the banking intermediary function can be described based on Adam Smith's equilibrium theory, and we get the reaction

$$\alpha = \beta \quad (7)$$

In the equilibrium measure in Equation 7, using the Ed Waves Index development model, we assume that financial reactions only occur due to macroeconomic pressures on the financial cycle and financial pressures on the intermediary function. The multiplier effect is considered to provide systemic risk through combining Equations 3 and 6, The parameters are written in the following statement :

$$\lambda_{Growth} = \sum_{t=0}\left(\frac{\Delta\alpha+\Delta\beta}{2}\right)_{1\leq\infty} \quad (8)$$

$$\lambda_{Stabil} = \sum_{t=0}\left(\frac{\Delta\alpha+\Delta\beta}{2}\right)_{1\leq0\geq-1} \quad (9)$$

In general, Equations 8 and 9 show how the financial cycle will influence green finance in increasing financial stability and economic growth.

RESULT AND DISCUSSION

Based on the results in this study, the research gap regarding the financial cycle intensity on green finance has been answered.

The volume of financial cycle intensity indicates a significant movement towards the

banking intermediary function. This is in line with the accuracy measurement in determining the measurement variables as in Table 1

Table 1. Descriptive Statistical Analysis

Variable	Mean	Maximum	Minimum	Std. Dev
Interest Rate	12.70522	66.78000	0.770000	9.473929
Inflation	8.518783	10.41500	5.568000	1.098830
Exchange Rate	9.883833	77.60000	-34.50000	12.55221
Credit	-20722.79	53047.00	-35392.00	25896.70
Saving	17217.98	17850.00	14152.00	358.2390
Non-Performing Loans	40.44594	208.2000	-5.850000	55.74212
Loan to Deposit Ratio	118.6263	391.0300	19.73000	60.40570
Green Finance	11.66717	26.50000	5.200000	5.180410

Source: Eviews 9 Processing Results

All data are stated proportionally in describing the relationship between financial cycle performance and green finance in the banking sector. Financial behavior based on macroeconomic variables shows a good reaction in every pressure.

This relationship confirms that each financial variable has a strong influence on banking sector activities which influences policy making in regulating the intermediary function of the banking sector.

Through the effects of pressure resulting in changes in the financial cycle. Although the financial pressure element is greatly influenced by internal macroeconomic pressures, external pressures also have an impact on increasing financial stress in the Indonesian economy.

Next, the close relationship between the financial cycle and green finance is detected through the measurement path of each macroeconomic variable in forming the shift in the financial cycle.

Table 2. Financial Cycle Regression Model

Variable	Coefficient	Std.Error	t-Statistic	Prob.	Reaction
Interest Rate → Finance Cycle	0.162160	0.020861	7.773401	0.0000	Accepted
Inflation → Finance Cycle	-1.942633	0.448787	-4.328633	0.0000	Accepted
Exchange Rate → Finance Cycle	0.038261	0.018606	2.056445	0.0413	Accepted

Note : Marginally significant at 5 %
Source: Eviews 9 Processing Results

The causal reaction in the measurements in Table 2 shows a strong effect on the economic changes volatility, these findings are in line with previous literature reviews and research (Zioło et al., 2021; Burian, 2006; Datta & Mohajan, 2013; Narayan & Sahminan, 2018; Orellana, 2013; Yanarella et al., 2009).

The macroeconomic effects significance through interest rates (p-value 0.0000), inflation (p-value 0.0000), and exchange rates (p-value 0.0413) results in increasing financial velocity.

The increasing effect the reaction speed has a positive effect on financial circulation. The banking sector experiences significant

financial turnover through financial cycle pressures.

In summary, the research results found that macroeconomic variables strongly suppress the financial cycle and cause the banking intermediary function to become increasingly active.

In addition, more convincing research results through financial movement reactions.

First, the interest rate level affects the money amount in circulation by increasing investment from the industrial sector, both domestically and internationally.

This reaction causes financial circulation to move quickly due to increasingly high economic growth.

Second, inflation as a control in financial movements has also increased, resulting in the money amount circulating increasing rapidly, in line with increasing interest rates in the financial market.

Third, a significant exchange rate also has a positive effect on the financial cycle movement, marked by financial stimulation in the economy through exchange rate fluctuations against other foreign currencies.

Typically, this research finds that the intensity of comprehensive financial behavior towards the financial cycle has a very strong influence on the intermediary function of the banking sector.

The financial cycle intensity is the main basis for determining green finance in the banking sector, the significant influence of macroeconomic pressures results in the financial cycle movement becoming more active, and indirectly has an impact on the banking intermediary function as a whole.

Table 3. Banking Sector Regression Model

Variable	Coefficient	Std.Error	t-Statistic	Prob.	Reaction
Credit → Intermediary	5.050005	8.960006	5.638573	0.0000	Accepted
Saving → Intermediary	-0.000256	0.000502	-0.509658	0.6110	Rejected

Note : Marginally significant at 5 %
Source: Eviews 9 Processing Results

In Table 3, the results demonstrate that the financial cycle pressure effect has a significant influence on the intermediary function, but this reaction only applies to bank credit distribution (p-value 0.0000), while bank deposits are not affected by changes in financial circulation (p-value 0.6110).

Overall, the research findings contribute to the banking intermediary function in improving the balance between demand and supply in the financial market, which indirectly strengthens the capital and soundness level of banking.

The imbalance in the banking intermediary function in the short term is not significant, but in the long term it has a negative impact on financial circulation, and this reaction then has a multiplier effect on other banking sectors which can result in a green finance crisis.

Based on this research findings, the banking sector is experiencing difficulties in distributing credit, because banks are experiencing a liquidity shortage, resulting in a decline in credit distribution.

On the other hand, the pressure on credit distribution to the industrial sector aimed at improving environmental sustainability has increased, in line with increasing macroeconomic pressures that have resulted in the industrial sector requiring strong capital.

Although, the concern is in aligning the intermediary functions balance by selectively distributing credit to the industrial sector, therefore financial risk prevention in the banking sector can be anticipated, confirming previous study results (S. Park, 2018; Mohd & Kaushal, 2018; Lee et al., 2022; Ngo et al., 2021).

Table 4. Green Finance Regression Model

Variable	Coefficient	Std.Error	t-Statistic	Prob.	Reaction
NPL → Green Finance	0.029806	0.006444	4.625389	0.0000	Accepted
LDR → Green Finance	0.020008	0.005815	3.440485	0.0007	Accepted

Note : Marginally significant at 5 %
Source: Eviews 9 Processing Results

Interestingly, the financial imbalance in the banking sector through the intermediary function, resulted in financial pressure indicated by a decline in the banking soundness level, both in the financial demand and supply functions in the banking sector as depicted in Table 4, this is in stark contrast to the previous findings in Table 3 which found that only credit distribution had a strong influence on financial circulation.

Referring to this study findings, the sensitivity of Non-Performing Loans pressure has a significant influence on green finance (p-value 0.0000), while the Loan to Deposit Ratio also has a strong significance on changes in green finance (p-value 0.0007).

The results indicate that financial cycle pressures in the banking sector are not affected by the banking intermediary function, characterized by increased financial sensitivity in the financial supply and demand functions. This condition has a negative impact on the banking sector performance, especially on increasing green finance in the industrial sector which aims to improve environmental sustainability.

Table 5. Economic Activity Regression Model

Variable	Coefficient	Std.Error	t-Statistic	Prob.	Reaction
Stability	0.073391	0.046538	1.577002	0.1167	Rejected
Growth	-0.126067	0.058009	-2.173233	0.0312	Accepted

Note : Marginally significant at 5 %
Source: Eviews 9 Processing Results

Overall, the results indicate that the financial cycle intensity on green finance through the intermediary function works effectively.

Considering these findings, the banking sector has a high financial risk with the effect of declining banking soundness. This reaction has the potential to create a very strong multiplier effect, and increase the financial cycle pressure which has a negative effect on financial flows, with the potential for a green finance crisis also increasing.

The description of the intermediary function pressure on the green finance capability of the banking sector is shown in Table 5. The findings show that the ability to increase green finance has no effect on financial stability (p-value 0.1167), while on the other hand, the banking sector ability to increase economic growth is quite significant (p-value 0.0312).

Furthermore, the engagement in the financial cycle intensity has a positive effect, although the banking sector strength is very sensitive, and every reaction to the financial cycle movement causes turbulence in increasing financial risk in the banking sector.

The intriguing finding from this research suggests that the intermediary function in the banking sector must be able to optimally increase financial interactions through financial balance from savings and loans.

Due to high financial instability and sensitivity, the providing credit process to the industrial sector aimed at improving environmental welfare is a priority, taking into account the prudence principle in determining banking sector credit policies.

It is not merely, financial behavior that is very sensitive to green finance in the banking sector triggers financial turbulence, resulting in a decline in banking soundness, because Non-Performing Loans and Loan to Deposit Ratio pressures affect the banking intermediary functions balance.

This reaction gradually gave rise to a green finance crisis, in line with the banking sector inability to improve financial stability through the very strong turbulence of the financial cycle.

The research findings provide insights into the banking sector and Bank Indonesia through monetary policy control and selective credit provision processes in the industrial sector, which focus on optimally improving environmental sustainability.

Policy consistency is implemented based on the reaction of financial pressures indicated by the overall financial cycle intensity shift. Therefore, these findings provide a more comprehensive view of the financial cycle intensity on green finance in the banking sector through the intermediary function in improving financial stability and economic growth.

Additionally, it is important to consider policy techniques in credit decision-making. Non-Performing Loans and Loan to Deposit Ratio Prevention that have negative impacts is a priority as a primary step to prevent a green finance crisis.

Considering these findings, it can be concluded that the financial cycle intensity has a strong influence on the performance of the banking intermediary function in increasing green finance in Indonesia.

Therefore, financial sensitivity in the banking sector must be anticipated and controlled through credit granting policies with the aim that Non-Performing Loans and Loan to Deposit Ratio do not have a negative effect on the banking sector.

Bank Indonesia also plays a role in regulating the financial flows movement through monetary policy, to prevent the

financial cycle intensity from stimulating a financial crisis.

Furthermore, the financial cycle intensity is well maintained, stimulating the increase in green finance through the intermediary function effectiveness of the banking sector, especially in creating a balance between the financial ecosystem and the environmental ecosystem together.

Besides that, it also indirectly increases the sustainability of financial stability and economic growth in Indonesia.

CONCLUSION AND SUGGESTION

The financial cycle intensity shows massive movements through macroeconomic pressures, resulting in increasingly active financial activities. The effects of financial cycle pressures that have shifted significantly have resulted in changes in the banking sector performance.

Furthermore, the banking intermediary function works through the pressure of financial flow imbalances in the economy. The large distribution of banking sector credit to the industrial sector aims to improve the environmental ecosystem, not comparable to the banking sector income through deposits.

Not only that, the banking intermediary function also experienced turbulence due to high financial activities that were unable to encourage increased capital and banking soundness. Turbulence occurred due to the high risk of Non-Performing Loans accompanied by Loan to Deposit Ratio in the banking sector simultaneously.

What is very crucial is shown by green finance in the banking sector in achieving harmony between the financial ecosystem and the environmental ecosystem. The green finance performance was found to only be able to increase economic growth, but on the other hand it cannot maintain financial stability.

More precisely, it can be said that the banking sector has difficulty in increasing green finance in Indonesia, because the high level of macroeconomic sensitivity results in faster changes in financial cycle pressures, compared to the use of industrial sector credit in improving the environmental ecosystem.

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