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Impact of Financial Development and Economic Growth on Domestic Credit to Private Sector by Banks in Vietnam

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Abstract**—*****This study assesses the impact of financial development and economic growth on domestic credit access for the private sector in Vietnam from 1996 to 2022. The study used an Autoregressive Distributed Lag model to find empirical evidence of the impact relationship. The results show that the intrinsic capacity for domestic credit access for the private sector in Vietnam is increasing, although financial development directly impacts changes in the amount of domestic credit available to the private sector. Despite this, economic growth during the study period tends to restrict domestic credit access for the private sector, while financial development stimulates domestic credit access for the private sector. Therefore, policymakers should make greater efforts to develop and enhance the credibility of the financial sectors in Vietnam, which will build confidence among lenders and, consequently, monitor borrowers' activities to ensure that those loans are used effectively.*

Keywords**—*****Credit to private sector by banks; Financial Development; Economic Growth.*

I. INTRODUCTION

In the context of financial globalization and increasingly deep international economic integration, financial development is considered one of the core drivers of economic growth and improved resource allocation efficiency in the economy. According to Levine (2004), financial development reflects the level of perfection of the financial system through its ability to mobilize capital, allocate credit, manage risks, and reduce transaction costs in the financial market. Financial development is a crucial driver of economic growth by redirecting capital from those with financial resources but lacking investment ideas to those with investment decisions but lacking the resources to launch their investment projects. The development of this sector not only promotes economic growth but also builds confidence among lenders in providing capital to investors, and these funds will be monitored to ensure they are used in productive projects to prevent defaults and financial crises. Both theoretical and empirical studies show that a developed financial system has the potential to promote capital accumulation, technological innovation, and increased economic productivity. In particular, in developing economies, the banking system plays a central role in channeling capital to the production sector and the private sector. Levine (2004) also affirmed that the development of financial intermediaries has a positive impact on economic growth by reducing information asymmetry and loosening financial constraints on businesses.

Simultaneously, economic growth is generally understood as a sustainable increase in the scale of national output and income, usually measured through the GDP growth rate or GDP per capita. In endogenous growth theories, economic growth and financial development have a close reciprocal relationship. When the economy grows, the demand for investment and expansion of production by businesses increases, leading to a need for access to credit from the banking system. Meanwhile, the development of the financial sector facilitates the more efficient allocation of capital to high-productivity production sectors. Beck, Levine and Loayza (2008) argue that the development of the banking system has a significant impact on total factor productivity and long-term GDP growth through its ability to expand credit to the private production sector. This shows that economic growth is not only a result but also a driving factor in expanding credit in the economy.

One of the indicators that clearly reflects the relationship between financial development and economic growth is "Domestic Credit to Private Sector by Banks" – domestic credit provided by banks to the private sector. This indicator reflects the amount of financial resources that commercial banks provide to businesses and households to support investment, production, and consumption. According to World Bank data, the proportion of domestic credit allocated to the private sector in Vietnam has increased sharply in recent years, showing the economy's significant dependence on bank credit. Given Vietnam's bank-based financial system, bank credit has become the primary source of capital for the private sector. However, excessive credit expansion also carries risks such as increased bad debt, liquidity imbalances, and decreased efficiency in capital allocation. McCaig & Stengos (2005) emphasize that the impact of financial development on growth and credit largely depends on the quality of institutions and the efficiency of capital allocation in the economy.

In Vietnam, the process of innovation and reform of the banking system since the late 1980s has facilitated the strong development of the private sector. This sector is increasingly playing an important role in job creation, promoting innovation, and contributing to national GDP growth. However, access to credit for private enterprises, especially small and medium-sized enterprises (SMEs), remains limited due to information asymmetry, collateral requirements, and the uneven development of the financial market. Beck, Demirgüç-Kunt and Levine (2008) argue that financial development has the potential to boost the growth of small enterprises by reducing barriers to credit access and expanding capital mobilization capabilities. Therefore, studying the impact of financial development and economic growth on domestic credit for the private sector has profound theoretical and practical significance, contributing to providing a scientific basis for credit policy planning, improving the efficiency of capital allocation, and promoting sustainable development of the private economic sector in Vietnam.

On December 30, 2016, the State Bank of Vietnam (SBV) also issued Circular No. 39/2016/TT-NHNN regulating lending activities of credit institutions and branches of foreign banks to customers, and Circular No. 43/2016/TT-NHNN, dated December 30, 2016, regulating consumer lending by finance companies. These two circulars established a new legal framework for lending, aiming to improve credit policy and eliminate discrimination between state-owned enterprises, private enterprises, and households, ensuring equality in credit relationships with banks. In particular, Circular No. 39/2016/TT-NHNN simplified some loan application procedures and added many regulations to ensure transparency in lending activities and protect the rights of borrowers. This enhances the autonomy of credit institutions in their lending activities, while also increasing transparency and ensuring the safety of their lending to the private sector. Furthermore, according to Circular No. 39/2016/TT-NHNN, the new policy does not limit the purpose of loans for the private sector as in the old regulations, but divides loan needs into two groups: (i) Loans for living expenses; (ii) Loans for business activities and other activities, excluding those capital needs that are not eligible for loans.

In this context, studying the impact of financial development and economic growth on domestic credit access for the private sector in Vietnam provides empirical evidence to help policymakers develop and enhance the credibility of the financial sectors in Vietnam.

II. LITERATURE REVIEW

The relationship between financial development and domestic credit to the private sector provided by banks has become a central theme in modern financial economics. Classical studies suggest that financial development contributes to improved financial intermediation efficiency, reduced information costs, and increased access to capital for the private sector. According to Goldsmith (1969), the development of the financial system is a crucial condition for increasing capital accumulation and promoting credit expansion in the economy. This view was further developed by McKinnon (1973) and Shaw (1973) through the "financial liberalization" hypothesis, which argues that financial liberalization improves the efficiency of capital allocation and expands bank credit to the private sector. Based on this, King and Levine (1993) demonstrated that countries with developed financial systems generally achieve higher private credit growth and more sustainable economic growth rates. Levine (2004) further asserted that financial development helps reduce information asymmetry, improve risk management, and enhance the ability to mobilize social savings into productive investment.

Recent studies continue to reinforce the positive relationship between financial development and private sector credit, while simultaneously sparking academic debate about the non-linearity and dual impact of financial expansion. Beck, Demirgüç-Kunt and Levine (2008) argue that a developed financial system helps small and medium-sized enterprises (SMEs) improve their access to credit, thereby fostering innovation and productivity growth. Similarly, McCaig & Stengos (2005) note that the impact of financial development on credit and growth depends significantly on the institutional quality and level of economic development of each country. Guo and Stepanyan (2011) further point out that credit growth in emerging economies is strongly influenced by economic growth, international capital flows, and the level of development of the financial system. However, Arcand, Berkes and Panizza (2015) warn that when the financial sector develops beyond its optimal threshold, credit expansion can increase financial instability and undermine long-term growth efficiency. Sahay et al. (2015) also pointed out that excessive financial development can lead to increased bad debt, asset bubbles, and systemic banking risks.

Regarding the relationship between economic growth and domestic credit for the private sector, theoretical studies suggest that economic growth increases the demand for investment capital and expands production and business activities, thereby promoting the growth of bank credit. According to Schumpeter (1911), the banking system plays a role in providing capital for innovation and promoting economic development. Robinson (1952) argued that "where enterprise leads, finance follows," meaning that economic growth is the driving force behind the development of the financial and credit sectors. Patrick (1966) developed two hypotheses, "supply-leading" and "demand-following," suggesting that in the early stages of economic development, finance plays a leading role in growth; however, in higher stages of development, economic growth itself will create the demand for expanded credit and the development of the financial system.

Modern empirical studies show that the relationship between economic growth and private credit is multidimensional and dependent on the institutional context of each country. Beck and Levine (2004) demonstrated that GDP growth has a positive impact on the ability to expand bank credit in countries with efficient financial systems. Guo and Stepanyan (2011), through research in emerging economies, argued that economic growth is one of the most important factors driving bank credit growth in the long term. However, research by Cecchetti and Kharroubi (2012) showed that excessively rapid credit growth during periods of economic expansion can lead to inefficient capital allocation and degrade long-term productivity. In Southeast Asian countries, Duc (2024) noted that economic growth in Vietnam has a positive impact on private sector credit, but credit efficiency also depends on the capital absorption capacity of businesses and the level of macroeconomic stability.

Although numerous studies have individually analyzed the role of financial development or economic growth on private sector credit, several notable research gaps remain. Firstly, most previous studies have focused on the relationship between finance and economic growth in general, rather than directly examining the impact on Domestic Credit to Private Sector by Banks - an indicator specifically reflecting the level of bank capital supply to the private sector. Secondly, many studies primarily rely on multinational data, while in-depth empirical evidence for Vietnam is relatively limited, especially given its transitional economy and strong dependence on the banking system. Thirdly, recent studies have mainly considered linear impacts without fully assessing the potential for non-linear effects, financial optimality thresholds, or differences in short-term and long-term impacts. Furthermore, the economic fluctuations following the COVID-19 pandemic, the digital transformation of banking, and financial reforms in Vietnam during the 2020–2026 period have not been fully reflected in previous studies. Therefore, this study is novel as it focuses on analyzing the simultaneous impact of financial development and economic growth on domestic credit for the private sector in Vietnam in this new context, thereby supplementing empirical evidence and providing a scientific basis for sustainable financial and banking policy planning.

III. Research Model

To assess the impact of financial development and economic growth on domestic credit access for the private sector in Vietnam from 1996 to 2022, the author uses the Autoregressive Distributed Lag (ARDL) model. This model was proposed by Pesaran, Shin & Smith (1996).

The mathematical form of the ARDL model used in this paper is:

$$D(Credit)_t = \alpha_0 + \sum_{i=1}^{m}\alpha_i D(Credit)_{t-i} + \sum_{i=1}^{n}\beta_i D(Financial\_development)_{t-i} + \sum_{i=1}^{p}\gamma_i D(Economic\_growth)_{t-i} + u_t.$$

In this equation, D denotes the difference operator, $\alpha_i, \beta_i, \gamma_i$ are the regression coefficients, and u_t is the residual that is concurrently correlated but not lagged and not correlated with all independent variables. Therefore, the right-hand side of the regression equation consists of lagged variables of the independent variables, and here we can use the least squares estimation method.

IV. Research Results

Research data was collected from the World Bank (https://data.worldbank.org/) for the period from 1996 to 2022. The research variables are summarized in Table 1 below.

The trend of change of the variables is illustrated in Figure 1 below.

Based on the graph from 1996–2022, it can be observed that the three variables CREDIT, FINANCIAL_DEVELOPMENT, and ECONOMIC_GROWTH all show significant fluctuations over time; however, the degree of fluctuation and the trend of change for each variable differ significantly.

TABLE I. Research Variables

Variable name	Meaning	Calculation method
Credit	Domestic credit to private sector by banks refers to financial resources provided to the private sector by other depository corporations (deposit taking corporations except central banks), such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment. For some countries these claims include credit to public enterprises. This indicator is expressed as a percentage of Gross Domestic Product (GDP) which is the total income earned through the production of goods and services in an economic territory during an accounting period.	Growth rate (%)
Financial_development	Broad money is the sum of all liquid financial instruments held by money-holding sectors that are widely accepted in an economy as a medium of exchange, plus those that can be converted into a medium of exchange at short notice at, or close to, their full nominal value. This indicator is expressed as a percentage of Gross Domestic Product (GDP) which is the total income earned through the production of goods and services in an economic territory during an accounting period.	Growth rate (%)
Economic_growth	Gross domestic product is the total income earned through the production of goods and services in an economic territory during an accounting period. It can be measured in three different ways: using either the expenditure approach, the income approach, or the production approach. This indicator denotes the percentage change over each previous year of the constant price (base year 2015) series in United States dollars.	Growth rate (%)

Source: Compiled by the author

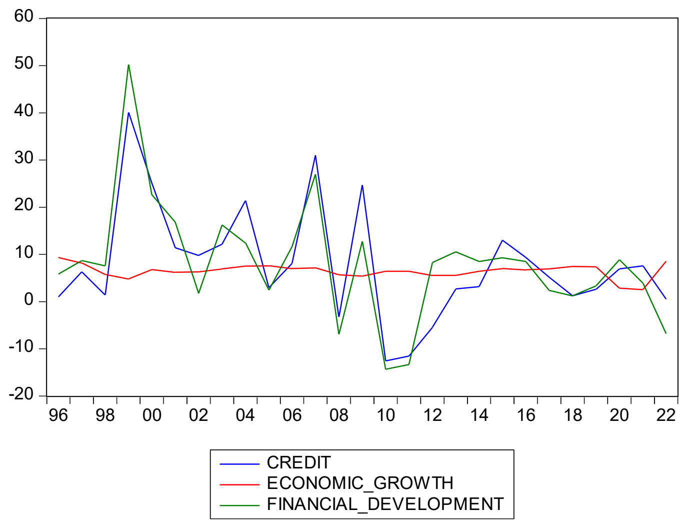

Fig. 1. Graph of research variables

Source: The author

For the CREDIT variable, the trend of fluctuation shows the strongest fluctuation among the three variables studied. During the period 1996–2000, the growth rate of private sector credit increased rapidly and peaked around 1999 with a very high increase, reflecting the strong credit expansion of the banking system during the early period of economic reform and financial liberalization in Vietnam. After this period of rapid growth, CREDIT tended to decline sharply during the period 2000–2002 before recovering again in the years 2003–2007. In particular, the period from 2007 to 2010 witnessed very large fluctuations with sudden increases and decreases, reflecting the impact of the 2008 global financial crisis and credit adjustment policies aimed at controlling inflation and stabilizing the macroeconomy. Since 2012, the rate of credit fluctuation has tended to be more stable, fluctuating at lower levels than in the previous period, indicating that the State Bank of Vietnam's credit management policy has become increasingly cautious in order to control bad debts and improve credit quality.

Regarding the FINANCIAL_DEVELOPMENT variable, the trend of change is generally relatively in sync with CREDIT, but the degree of volatility is somewhat lower in some periods. In the late 1990s, this variable increased sharply and peaked around 1999–2000, reflecting the expansion of the financial system, banking reforms, and increased capital supply to the economy. Subsequently, FINANCIAL_DEVELOPMENT decreased significantly in the early 2000s, showing the adjustment effect after the previous rapid financial growth. The period 2005–2007 continued to witness a strong increase in financial development along with the process of international economic integration and the expansion of the financial market in Vietnam. However, the 2008 global financial crisis caused this variable to decline sharply, even showing negative values during the 2008–2010 period, reflecting the difficulties of the banking system and the decline in the efficiency of financial intermediation. From 2012 onwards, FINANCIAL_DEVELOPMENT tended to be more stable, fluctuating within a narrow range, indicating that the Vietnamese financial system entered a phase of in-depth development with a focus on bank restructuring, risk control, and improving credit quality instead of excessive expansion.

Meanwhile, the ECONOMIC_GROWTH variable tends to be significantly more stable than the other two variables. Its curve fluctuates around a relatively stable average throughout the study period, reflecting Vietnam's economic growth characteristics, which remain at a fairly high and relatively sustainable level in the long term. Although there were periods of slight decline, particularly around the 2008–2009 global financial crisis and the period affected by the COVID-19 pandemic at the end of the study period, the volatility of ECONOMIC_GROWTH was not excessive. This suggests that the Vietnamese economy is capable of maintaining relatively stable growth thanks to economic reforms, expanded international trade, and attracting foreign investment. Compared to CREDIT and FINANCIAL_DEVELOPMENT, the ECONOMIC_GROWTH variable is less affected by short-term shocks and tends to move more stably in the long term.

Overall, the graph shows that CREDIT and FINANCIAL_DEVELOPMENT have a fairly clear positive correlation, as both experience periods of strong growth, decline, and recovery relatively simultaneously. This reflects the significant dependence of private sector credit on the level of development of the financial system in Vietnam. Meanwhile, ECONOMIC_GROWTH tends to be more stable and does not fluctuate strongly in sync with the other two variables, indicating that economic growth impacts credit and financial development indirectly and with a certain time lag.

The results of the stationarity test of the research variables are presented in Table 2.

TABLE II. Results of the stationarity test for the research variables

Variable	Augmented Dickey-Fuller		Conclusion
	t-Statistic	Prob.	
Credit			
Intercept	-4.351	0.0022	Station
Trend and intercept	-4.923	0.0028	
Financial development			
Intercept	-3.856	0.0071	Station
Trend and intercept	-4.624	0.0055	
Economic growth			
Intercept	-6.281	0.0000	Station
Trend and intercept	-6.20	0.0002	

Source: The author

The unit root test in Table 2 shows that all variables are stationary. To select the optimal lag order, the author allowed the software to automatically estimate the ARDL model multiple times with lags decreasing to 0. Among the estimated models, we selected the one with the smallest Hannan-Quin information standard cost. In this paper, the author tested lags up to a maximum of order 5 for the dependent variable and up to order 3 for the independent variables. The ARDL(2,0,2) model results are recommended as optimal according to the Hannan-Quin standard. The ARDL(2,0,2) model estimation results are presented in Table 3.

TABLE III. ARDL model estimation results(2,0,2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CREDIT(-1)	0.093656	0.086693	1.080317	0.2943
CREDIT(-2)	0.216750	0.087671	2.472319	0.0236
FINANCIAL_DEVELOPMENT	0.820762	0.086523	9.486062	0.0000
ECONOMIC_GROWTH	1.613965	1.009156	1.599321	0.1272
ECONOMIC_GROWTH(-1)	-2.592214	1.114012	-2.326918	0.0318
ECONOMIC_GROWTH(-2)	2.230919	1.380402	1.616137	0.1235
C	-9.479096	10.28637	-0.921520	0.3690

Source: The author

The model estimation results show that the two-year lag variable of domestic credit to the private sector provided by banks (Domestic Credit to Private Sector by Banks) has a positive impact on current private sector credit. This result reflects the "credit persistence" in the operation of the banking system, meaning that the scale of credit in the previous period tends to create a foundation for credit expansion in subsequent periods. In practice, when private sector credit has grown steadily in the past, the banking system usually accumulates experience in appraisal, expands its customer network, and increases its ability to raise capital, thereby continuing to maintain the trend of credit expansion in the future. At the same time, businesses with a good credit history will find it easier to access capital in subsequent cycles due to reduced

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information asymmetry and increased creditworthiness. This result is consistent with the view of Berger and Udell (2004) that long-term credit relationships between banks and businesses help reduce information costs and promote the expansion of private sector credit in the long term.

Furthermore, research results indicate that financial development has a positive impact on domestic credit for the private sector within the same year. This shows that as the financial system develops further, the banking sector's ability to supply capital to businesses and households improves significantly. In terms of the mechanism of impact, financial development enhances the efficiency of financial intermediation through expanding the capital market, improving the quality of banking services, diversifying financial instruments, and improving the risk management capabilities of credit institutions. When the financial system operates more efficiently, banks are able to mobilize larger amounts of capital from the economy and allocate credit more effectively to the private sector. Simultaneously, the development of financial technology and digital transformation in banking also contributes to reducing transaction costs and increasing access to capital for businesses, especially small and medium-sized enterprises (SMEs). This result is consistent with Levine's (2004) theory, which suggests that financial development promotes credit by reducing information costs and improving the efficiency of allocating financial resources in the economy.

Conversely, the research results show that economic growth (ECONOMIC_GROWTH) has an inverse impact on domestic credit for the private sector after one year. This result reflects a relatively unique credit adjustment mechanism in the context of a developing economy like Vietnam. In the short term, when the economy grows strongly, businesses tend to improve profitability, increase internal accumulation, and expand self-financing sources, thereby reducing their dependence on bank credit in the subsequent period. At the same time, high economic growth is often accompanied by a trend of tightening monetary policy to control inflation and stabilize the macroeconomy, leading to tighter control over the growth rate of bank credit afterward. In addition, under conditions of rapid economic growth, large enterprises tend to diversify their capital sources through issuing bonds, stocks, or attracting direct investment, reducing the private sector's need for bank loans. This result may also reflect the phenomenon of "credit reallocation," where banks shift their lending priorities to less risky sectors in the post-growth phase to ensure the safety of the financial system. Therefore, the inverse impact of economic growth on credit after one year shows that the relationship between growth and credit is not entirely linear but depends significantly on the monetary policy mechanism, the capital absorption capacity of businesses, and the level of development of the financial market.

The results of the cointegration test are presented in Table 4.

In the cointegration test, the negative and statistically significant cointegration regression coefficients are evidence that a cointegration relationship exists between the variables. That is, the current data shows a long-term equilibrium relationship between the variables. However, only the positive impact of FINANCIAL_DEVELOPMENT on Domestic Credit to Private Sector by Banks is statistically significant in the long term. Meanwhile, long-term economic growth has no impact on Domestic Credit to Private Sector by Banks.

TABLE IV. Results of cointegration testing and long-term equilibrium relationship

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CREDIT(-1))	-0.216750	0.087671	-2.472319	0.0236
D(FINANCIAL_DEVELOPMENT)	0.820762	0.086523	9.486062	0.0000
D(ECONOMIC_GROWTH)	1.613965	1.009156	1.599321	0.1272
D(ECONOMIC_GROWTH(-1))	-2.230919	1.380402	-1.616137	0.1235
CointEq(-1)	-0.689594	0.117305	-5.878648	0.0000

Cointeq = CREDIT - (1.1902*FINANCIAL_DEVELOPMENT + 1.8165 *ECONOMIC_GROWTH -13.7459)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FINANCIAL_DEVELOPMENT	1.190211	0.231462	5.142143	0.0001
ECONOMIC_GROWTH	1.816532	2.344384	0.774844	0.4485
C	-13.745912	15.290638	-0.898976	0.3805

Source: The author

V. CONCLUSION AND IMPLICATIONS

The empirical results of the study show that domestic credit to the private sector is simultaneously influenced by the intrinsic factors of the credit system, the level of financial development, and economic growth. These impacts not only reflect the dynamics of Vietnam's financial market but also demonstrate the role of macroeconomic management mechanisms in the process of capital allocation to the private sector. Based on this, proposing appropriate policy implications is crucial for improving the efficiency of credit supply, developing a sustainable financial system, and promoting long-term economic growth.

Firstly, it is necessary to leverage the internal strength of domestic credit to the private sector (Domestic Credit to Private Sector by Banks) by improving the quality and efficiency of capital allocation instead of simply expanding the scale of credit. Research shows that credit has strong continuity and inertia; therefore, maintaining the stability of credit flows plays a crucial role in the private sector's ability to expand investment. The State and the banking system need to focus on improving the national credit database, strengthening information sharing among credit institutions to reduce information asymmetry and improve the quality of credit assessment. At the same time, priority should be given to capital flows for manufacturing, innovation, digital transformation, and small and medium-sized enterprises

(SMEs) – sectors with the potential to create significant added value and jobs for the economy. Furthermore, controlling bad debts, improving risk management standards, and developing green credit will contribute to enhancing the long-term sustainability of the credit system.

Secondly, regarding financial development, it is necessary to continue promoting the modernization of the financial system towards transparency, diversification, and increased depth of the financial market. Research results show that financial development has a direct positive impact on private sector credit, implying that an efficient financial system will facilitate businesses' access to capital and expansion of production and business activities. Therefore, Vietnam needs to accelerate the restructuring of the commercial banking system, improve financial capacity and governance according to international standards to increase resilience to economic shocks. At the same time, it is necessary to develop the capital market, the corporate bond market, and non-bank financial institutions in a coordinated manner to reduce excessive dependence on bank credit. Promoting digital transformation in the finance and banking sector, developing fintech, and expanding financial inclusion will also contribute to reducing transaction costs and improving access to credit for businesses and households, especially in areas with limited access to traditional financial services.

Thirdly, regarding economic growth, emphasis should be placed on improving the quality of growth towards sustainability and enhancing the economy's capacity to absorb capital. Research shows that economic growth has an inverse impact on private sector credit after one year, reflecting the potential for credit adjustment mechanisms or a trend towards reduced reliance on bank loans as businesses have better internal capital accumulation capabilities. Therefore, instead of pursuing only high short-term growth targets, Vietnam needs to promote a growth model based on innovation, improving labor productivity, and enhancing the quality of human resources. Simultaneously, the government needs to maintain macroeconomic stability, control inflation, and build a transparent investment environment to foster confidence in the business sector and the financial system. Improving the efficiency of capital utilization in the economy, enhancing corporate governance capabilities, and promoting linkages between the financial sector and the production sector will contribute to ensuring that bank credit truly becomes a driving force supporting sustainable long-term growth.

This study is of significant theoretical and practical importance as it contributes to clarifying the mechanisms by which financial development and economic growth impact private sector credit in the context of the Vietnamese economy. The research results not only provide empirical evidence for financial-growth theories but also offer a scientific basis for credit policy planning, financial system development, and improved capital allocation efficiency. Therefore, the study contributes to promoting the private sector as a central driving force of sustainable economic growth in Vietnam in the new era.

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