

## The Impact of Financial Sector in Poverty Alleviation

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### ABSTRACT

This study aims to analyze the influence of financial sector development which is divided into four characteristics such as financial deepening, financial access, financial efficiency and financial stability and economic growth on poverty in the ASEAN region which has poverty problems. This study uses secondary data with panel data types with a research period of 2011 to 2023. This study uses the Panel Regression Analysis model. The results of this study indicate that financial deepening and efficiency have a significant negative effect on poverty, and economic instability has a significant positive effect on poverty. While the amount of financial access and economic growth do not have a significant effect on poverty.

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## INTRODUCTION

Financial sector development has become one of the main pillars in the global economic development strategy (Zhang et al., 2012); Wouters & Odermatt, 2013). One of the Sustainable Development Goals (SDGs) is no poverty, which means ending the problem of poverty with all its dimensions (Leal Filho et al., 2021). This goal was established because poverty is a multidimensional problem related to various fields of life such as economics, education, health and other problems. Wagle, (2002) states that poverty is a situation of inability or lack of ability to meet the basic needs of food, shelter, clothing and basic health services.

As the financial sector plays an increasing role in the economy, there is growing attention to how it can affect poverty levels in developing countries. In Southeast Asia, particularly in ASEAN countries, financial sector development can play an important role in reducing social inequality and promoting inclusive economic growth. According to the World Bank (Annual Report, 2019), more than 736 million people worldwide live below the poverty line with an income of \$1.90/day. Based on this data, the East Asia and Pacific region is the third largest region with 47 million poor people out of a total population of 2.328 billion. Based on this information, it was also found that economic growth in the region is the second largest globally at 4.14 percent with income inequality in the region being the second lowest globally. This indicates that the region has rapid economic growth, but its economic progress has not been able to reduce poverty.

Some research suggests that increased economic growth is a reflection of increased national income and productivity which in turn reduces unemployment and ultimately lowers the poverty rate (Griffith, 2011), This is in line with research that shows economic growth will reduce the poverty rate but can have an effect on increasing and decreasing inequality (Serven, 2022). In some developing countries economic growth will also reduce poverty (Jr., 2004).

One aspect that is considered to promote economic growth, which is expected to reduce poverty, is financial sector development. The debate on the need for financial sector deepening to support stable economic growth is becoming increasingly important, because previously the labor, natural resources and capital sectors were considered the main factors that support economic growth. Research on the importance of financial sector development in supporting economic growth has shown that financial sector deepening has an effect on economic growth (Degu, 2021; Sunday-Goya, 2023). Both studies also emphasize the need to allocate funds to the private sector to promote economic growth. Development in the financial sector can also reduce the volatility of economic growth and reduce fluctuations in economic aggregates (Xue, 2020). The need for financial sector development is also seen to encourage the growth of small and medium enterprises, which in turn will drive economic growth (Isabel Sainz-Fernandez, 2018).

In Southeast Asian countries, despite progress in financial sector development, poverty remains a significant problem in many Southeast Asian

countries (Basri & Hill, 2020; Booth & Booth, 2015) . Countries such as Indonesia, Philippines, Vietnam, Thailand, and Malaysia have different challenges in terms of access to financial services, financial infrastructure, and financial inclusion that can affect people's well-being (Koh et al., 2018) . Limited access to banking and other financial services often exacerbates poverty, especially in rural areas and among the poor (Beck et al., 2009).



**Figure 1. Gross National Income Per Capita of Southeast Asian Countries by Income**

Source: World Bank

The World Bank categorizes countries in Southeast Asia based on gross national income per capita, grouping five of the 10 Southeast Asian countries that are members of ASEAN into lower-middle income countries with a range of per capita income values between 1,026 - 3,995 US \$. These countries are Vietnam, the Philippines, Myanmar, Laos and Cambodia. Furthermore, there are three countries that are included in countries with per capita income between 3,995 - 12,375 US \$ which are included in the middle-income country category. Countries in this category are Malaysia, Thailand and Indonesia. Furthermore, two countries, namely Singapore and Brunei Darussalam, are included in countries with high per capita income which has a range of more than 12,375 US \$ as shown in Figure 1.

The financial sector and poverty reduction are supported by research which states that financial sector development will be an intermediation factor that promotes human development and encourages poverty reduction (Babafemi, 2020). Causality tests conducted to examine the relationship between the financial sector and poverty show that there is a relationship between financial sector development and poverty. However, there are also studies that show that financial development does not have a significant effect on poverty reduction in the Sub-Saharan region and does not promote inclusive growth (Akinbobola, 2022).

The advantages, disadvantages, and discussions surrounding the financial sector's impact on poverty and economic development need study on its influence on poverty and economic growth in Indonesia. This research is deemed essential to ascertain the impact of government policies on poverty alleviation and financial sector assistance in Indonesia's economic development. This study differs from prior research by incorporating four dimensions of financial sector development: financial depth, financial accessibility, financial efficiency, and financial stability. The four criteria are employed to encapsulate the phenomena of multidimensional poverty in the ASEAN area.

This study seeks to analyse the influence of diverse financial and economic factors on poverty in ASEAN nations by addressing five principal research enquiries. This study examines the impact of financial sector deepening, access to financing, financial sector efficiency, financial sector stability, and economic development on poverty levels in the region. The study aims to elucidate these links by examining the degree to which banking sector advancement and economic growth facilitate poverty reduction. The study aims to elucidate the impact of financial and economic dynamics on poverty alleviation and to provide policy recommendations for promoting inclusive economic growth in ASEAN nations.

## **THEORETICAL REVIEW**

The poverty rate, which measures the percentage of a population living below an established poverty threshold (Ravallion, 2012), can be significantly influenced by financial sector development. Financial deepening—the expansion and increased accessibility of financial services within an economy (Attah-Botchwey et al., 2022)—creates pathways for poverty reduction by democratizing access to essential financial tools. When individuals previously excluded from formal financial systems gain access to credit, savings accounts, and insurance products, they can better manage risks, accumulate assets, and invest in education and entrepreneurial ventures. This inclusion helps break intergenerational poverty cycles and reduces economic vulnerability among marginalized populations.

The finance sector serves as the backbone for this transformation, facilitating the efficient allocation of resources across an economy through banking systems, capital markets, and various financial intermediaries (Zhuang et al., 2009). Financial efficiency is the optimal allocation of resources with minimal transaction costs (Estrada, 2010) amplifies these positive effects by ensuring capital flows to its most productive uses. However, this relationship exists in delicate balance with financial instability, which occurs when disruptions in financial systems cascade into broader economic crises (Wullweber, 2020). The challenge for policymakers lies in promoting financial deepening without triggering instability, as excessive or poorly regulated financial expansion can lead to credit bubbles, asset price volatility, and banking crises that disproportionately harm vulnerable populations.

Economic growth, measured as the expansion of a nation's output of goods and services (Aprianti et al., 2023), both facilitates and benefits from

financial development in a bidirectional relationship. A well-developed financial system enhances economic growth by mobilizing savings, funding innovative enterprises, and improving resource allocation efficiency. This growth, in turn, creates opportunities for poverty reduction through job creation, increased tax revenues for public services, and wealth generation. Nevertheless, the finance-growth-poverty nexus requires thoughtful policy coordination to ensure that financial sector development genuinely benefits the poor rather than exacerbating inequality. Sustainable and inclusive economic development depends on balanced financial deepening that prioritizes stability, accessibility, and efficiency while protecting against systemic risks.

## **METHODOLOGY**

### ***Scope of Research***

This research utilises secondary data to examine the correlation between financial sector development and poverty in ASEAN nations. The study concentrates on the advancement of ASEAN countries, including Indonesia, Thailand, Malaysia, the Philippines, Cambodia, Laos, and Vietnam. The research encompasses the timeframe from 2011 to 2023.

### ***Types and Sources of Data***

This research follows a quantitative approach using panel data analysis. The cross-sectional data represent different ASEAN countries, while the time-series data span from 2011 to 2023. The secondary data used in this study are obtained from official government websites of the respective countries.

### ***Research Model Specification***

The research model is formulated as follows:

$$PO_{it} = \alpha + \beta_1 CR_{it} + \beta_2 Ac_{it} + \beta_3 ef_{it} + \beta_4 NPL_{it} + \beta_5 Y_{it} + \epsilon_{it}$$

In this equation, PO represents the poverty rate, CR refers to financial deepening, Ac denotes access to finance, ef signifies financial efficiency, and NPL indicates financial instability. Y stands for economic growth, while  $\alpha$  represents the constant term. The coefficients  $\beta_1$  to  $\beta_5$  measure the effect of each independent variable, and  $\epsilon$  represents the error term. The subscript  $i$  corresponds to a country in the cross-section, and  $t$  refers to the time period.

### ***Data Analysis Method***

This study used panel data analysis, integrating cross-sectional and time-series data to investigate changes within nations and throughout time. The Generalised Least Squares (GLS) technique estimates the model using three distinct model selection approaches: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Common Effect Model presumes uniform data behaviour across all nations and temporal contexts, disregarding individual or time-specific discrepancies. The Fixed Effect Model accounts for variations within nations through the use of dummy variables, while supposing that these country-specific effects are stable over

time. The Random Effect Model addresses unobserved heterogeneity by permitting country-specific effects to fluctuate randomly across time.

**Model Selection Tests**

This study utilises two statistical tests to identify the most appropriate model. The Chow Test serves to compare the Common Effect Model and the Fixed Effect Model. The null hypothesis posits that the Common Effect Model is suitable, whereas the alternative hypothesis indicates a preference for the Fixed Effect Model. If the Chow Test statistic surpasses the critical value from the F-table, the null hypothesis is rejected, suggesting that the Fixed Effect Model is more appropriate.

The Hausman Test is employed to compare the Fixed Effect Model and the Random Effect Model. The null hypothesis posits that the Random Effect Model is the suitable option, whereas the alternative hypothesis supports the Fixed Effect Model. If the Hausman Test statistic exceeds the critical Chi-Square value, the null hypothesis is rejected, indicating that the Fixed Effect Model is the more appropriate choice.

**Statistical Tests**

This study conducts significance tests to assess the relationships among variables. The t-test evaluates the effect of each independent variable on the dependent variable. When the absolute value of the t-statistic surpasses the critical value from the t-table, the independent variable in question is deemed to significantly influence poverty. The F-test assesses the collective impact of independent variables on the dependent variable. A greater F-statistic than the F-table value indicates that the independent variables collectively exert a statistically significant effect on poverty. This study employs analytical methods to elucidate the relationship between financial sector development, economic growth, and poverty levels in ASEAN countries.

**RESULTS**

**Panel Data Regression Estimation Results**

The results of the Chow, Hausman, and Lagrange Multiplier tests indicate that the Random Effect Model (REM) is the most suitable method for this study. The table below presents the estimation results of the REM model.

**Table 1. Random Effect Model (REM) Estimation Results**

Variables	Coefficient	Std Error	t-stat	Prob	R <sup>2</sup>	Adjusted R <sup>2</sup>	F stat
C	-12,96404	4,126587	-3,141588	0.0020	0,738	0,710	18,551
CR	-0,050837	0,015597	-3,259409	0.0135			
Ac	-0,026829	0,036551	-0.734017	0.4685			
ef	-1,736954	0,293769	-5,912652	0.0000			
Inst	1,220657	0,657297	1,857085	0.0849			
Y	-0,138	0,290	-0,476	0,6365			

Based on the regression estimation, the following model is obtained:

$$POit = -12.96404 - 0.050837CR - 0.026829Ac - 1.736954ef + 1.220657npl - 0.138Y$$

The constant value of -12.96404 implies that when all independent variables are equal to zero, the poverty rate is 12.964 percent. The coefficient of financial deepening (-0.050837) suggests that a one percent increase in financial deepening leads to a 0.05 percent reduction in poverty. The financial accessibility coefficient (-0.026829) indicates that a one-unit increase in financial accessibility reduces poverty by 0.026 percent. The financial efficiency coefficient (-1.736954) suggests that a one percent increase in financial efficiency reduces poverty by 1.736 percent. The coefficient of financial system instability (1.220657) implies that a one percent increase in financial instability raises poverty by 1.220 percent. The economic growth coefficient (-0.138) suggests that a one percent increase in economic growth reduces poverty by 0.138 percent.

### *Hypothesis Testing Results*

The financial deepening variable exerts a negative and significant impact on poverty, evidenced by a t-statistic of -3.259409, surpassing the critical t-table value. This indicates that an increase in financial deepening, which reflects the expanding role of financial institutions in the economy, significantly decreases poverty levels. The financial accessibility variable exhibits a negative yet statistically insignificant effect on poverty, as indicated by a t-statistic of -0.734017, which falls below the t-table value. This suggests that enhancing financial access does not substantially reduce poverty levels. The financial efficiency variable significantly negatively impacts poverty, evidenced by a t-statistic of -5.912652, exceeding the critical t-table value. Improving the efficiency of financial institutions results in a notable decrease in poverty levels.

The variable representing financial system instability demonstrates a significant positive impact on poverty, evidenced by a t-statistic of 1.857085, surpassing the critical value in the t-table. Financial instability significantly correlates with an increase in poverty levels. The variable of economic growth does not significantly impact poverty, evidenced by a t-statistic of -0.476, which falls below the t-table value. This indicates that variations in economic growth have a negligible effect on poverty levels. The F-statistic of 18.551 exceeds the F-table value of 2.40, indicating that the collective impact of all independent variables on poverty is statistically significant.

### *Coefficient of Determination (R<sup>2</sup>)*

The coefficient of determination (R<sup>2</sup>) is 0.738, which indicates that the independent variables are responsible for explaining 73.8 percent of the changes in poverty. This study does not take into account the factors that have an impact on the remaining 26.2% of the population.

## **DISCUSSION**

The empirical findings demonstrate that financial deepening has a significant negative relationship with poverty rates, supporting the hypothesis that expanded financial services contribute to poverty reduction same as the

previous research by Sugiyanto and Yolanda, (2020). This aligns with theoretical expectations that as the volume of financial services grows relative to economic output, access to credit, savings, and investment opportunities increases for broader segments of the population, enabling income generation and wealth accumulation among lower-income groups. The magnitude of this effect (-0.050837) suggests that while financial deepening is beneficial, its impact on poverty reduction requires substantial expansion of financial services to yield meaningful results. This underscores the importance of sustained and comprehensive financial sector development policies rather than incremental approaches.

The significant negative coefficient for financial efficiency (-1.736954) represents the most substantial impact among all variables, highlighting that how effectively financial institutions intermediate resources may be more important than the mere expansion of financial services. When financial institutions operate with lower overhead costs, reduced interest margins, and more competitive practices, the benefits appear to translate more directly to poverty reduction. Conversely, the positive coefficient for financial instability (1.220657) confirms that systemic fragility worsens poverty via savings erosion, credit crunches, and constrained fiscal responses during crises (Reinhart & Rogoff, 2009). This finding emphasizes the critical importance of prudential regulation and stability-oriented policies alongside financial development initiatives.

Interestingly, the insignificant coefficients for financial accessibility (-0.026829) and economic growth (-0.138) challenge traditional policy assumptions. Limited poverty reduction from accessibility metrics alone aligns with evidence that physical access points fail to address barriers like financial literacy or product suitability (Demirgüç-Kunt & Klapper, 2012). The non-significance of financial accessibility suggests that merely increasing the number of access points without addressing qualitative aspects of financial services—such as appropriateness for low-income users, financial literacy, and institutional quality—may be insufficient for poverty alleviation. Similarly, growth's weak linkage to poverty may reflect unequal benefit distribution or exclusionary growth patterns (Ravallion, 2001). The high  $R^2$  value (0.738) indicates that the model captures a substantial proportion of poverty determinants, though the unexplained variance (26.2%) suggests additional factors beyond financial variables influence poverty outcomes, potentially including social protection systems, educational opportunities, and structural economic characteristics.

## CONCLUSIONS AND RECOMMENDATIONS

The study reveals that financial deepening and financial efficiency have a negative and significant impact on the poverty rate in Indonesia. This indicates that as the role of financial institutions in the economy expands and financial resources are managed more efficiently, poverty levels decrease. Conversely, financial system instability exerts a significant positive effect on poverty, suggesting that economic fluctuations and financial sector disruptions contribute to rising poverty rates. Meanwhile, access to finance does not exhibit a significant influence on poverty reduction, implying that merely increasing financial access

is insufficient to lower poverty levels without complementary factors such as financial literacy or effective utilization of financial resources.

Furthermore, economic growth does not demonstrate a significant effect on poverty reduction in Indonesia, indicating that improvements in economic performance do not necessarily translate into widespread poverty alleviation. However, when analyzed collectively, the independent variables—financial deepening, financial access, financial efficiency, financial instability, and economic growth—significantly influence the poverty rate. This suggests that a holistic approach incorporating financial sector stability, efficiency, and accessibility is necessary to effectively reduce poverty in Indonesia.

### **FURTHER STUDY**

Based on the findings, future studies should explore the mechanisms linking financial sector dynamics to poverty reduction, such as the role of financial literacy and quality of financial inclusion. Research could also examine regional disparities, household-level interactions with financial systems, and the impact of digital financial services. Additionally, investigating the interplay between financial factors and socio-economic variables, as well as conducting longitudinal studies, can offer deeper insights into sustainable poverty alleviation strategies.

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