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CHAPTER 1_INTRODUCTION

1.1. Rationale for the Study

Foreign Direct Investment (FDI) inflows and Financial Inclusion (FI) are two central pillars shaping the trajectory of economic growth. However, theory and practice show that FDI does not automatically generate positive spillover effects if the host country lacks absorptive capacity. Without a strong endogenous financial foundation to allocate capital and support domestic enterprises, a sudden surge in FDI inflows can lead to crowding-out effects, increase inequality, and create isolated economic enclaves. Therefore, strengthening the FI system is the key to unlocking bottlenecks, providing a foundation for the entire economy to access and maximize the value of knowledge and technology from FDI.

Although this mutual relationship is of strategic importance, contemporary academic literature still largely evaluates FDI and FI in a disjointed manner, or only measures absorptive capacity through macroeconomic financial depth indicators rather than actual access capacity. This research gap is particularly urgent for the group of Emerging and Growth-Leading Economies (EAGLEs). Despite leading the world in attracting FDI, EAGLEs face massive asymmetries in their domestic financial infrastructure.

Consequently, delve deeply into dissecting the moderating role of FI on the interaction between FDI and economic growth in the EAGLEs group is an extremely pressing research requirement. Addressing this issue not only fills the current quantitative gap but also provides a scientific basis for these nations to design balanced policies that harmonize foreign capital attraction with domestic capacity building, thereby preserving long-term economic growth trajectories.

1.2. Research Objectives and Reseach Questions

1.2.1 General Objective

The general objective of this thesis is to assess the impact of FDI and FI on economic growth, and to examine the moderating role of FI in the impact of FDI on economic growth in the EAGLEs economies. Based on these findings, the study proposes policy recommendations and practical implications aimed at improving the efficiency of FI and the utilization of FDI inflows to drive economic growth in these nations.

1.2.2 Specific Objectives and Research Questions

Specific objectives:

- Assess the impact of FDI on economic growth in EAGLEs economies.
- Assess the impact of FI on economic growth in EAGLEs economies.
- Examine the moderating role of Financial Inclusion in the impact of FDI on economic growth in EAGLEs economies.

Drawing on the empirical findings, the dissertation also pursues an applied objective: to develop policy implications for FDI and FI that support economic growth and reflect the financial conditions and characteristics of the countries in the sample. The study addresses the following research questions:

- How does FDI affect economic growth in EAGLEs economies?
- How does FI affect economic growth in EAGLEs economies?
- How does FI moderate the effect of FDI on economic growth in the EAGLEs, including by offsetting or reversing that effect?

1.3. Scope and Subject of Research

1.3.1. Subject of Research

The subject of research is the impact of FI and FDI on economic growth, and the moderating role of FI in the impact of FDI on economic growth.

1.3.2. Scope of Research

Spatial Scope: 12 EAGLEs countries, including Bangladesh, Brazil, China, Egypt, India, Indonesia, Malaysia, Mexico, Pakistan, the Philippines, Turkey, and Vietnam. The EAGLEs group comprises 15 countries. However, the International Monetary Fund's FAS, which provides the data used to construct the FI index, does not offer continuous coverage for Iran, Nigeria and Russia over the full study period. These three countries are excluded to ensure continuity in the component indicators, maintain a balanced panel and provide a consistent basis for measurement across countries and over time.

Temporal Scope: 2008-2023. The year 2008 marks a post-financial crisis turning point, when EAGLEs began strengthening domestic financial infrastructure to enhance FDI absorptive capacity. This 15-year period covers the physical network era and policy lags including the FDI boom and COVID-19 pandemic shocks.

Content Scope: Assessment of direct impacts of FDI and FI on economic growth, and the interactive moderating role of FI on FDI's growth effects in the EAGLEs.

1.4. Research Methodology

The thesis employs a mixed-methods approach, combining qualitative and quantitative analyses:

Qualitative Method: Synthesizing, analyzing, and comparing existing literature to build the theoretical framework, historical context, and justify research hypotheses.

Quantitative Method: Descriptive statistics, correlation analysis, and advanced econometric techniques. Specifically, the Method of Moments Quantile Regression (MMQR) is the primary model used to address slope heterogeneity and non-normality. SGMM is applied for robustness checks to control for dynamic endogeneity.

1.5. New Contributions of the Thesis

1.51. Theoritical Contributions

First, the dissertation adds evidence on the moderating role of FI in the relationship between FDI and economic growth. Using the FDI × FI interaction term and marginal-effect analysis, it identifies FI values associated with changes in the magnitude and potential sign reversal of the estimated effect of FDI, clarifying the conditional nature of the benefits from foreign investment.

Second, the dissertation extends the analysis of financial absorptive capacity by using traditional FI to capture the breadth and coverage of the financial system. Indicators of access to and use of banking services complement measures of financial depth and help assess the financial conditions that enable host economies to benefit from FDI.

Third, the dissertation examines heterogeneity in the effects of FDI and FI and in the moderating role of FI across the conditional quantiles of LGDP. Combining MMQR with an interaction term and marginal-effect analysis reveals differences that estimates of average effects may not fully capture.

1.5.2. Practical Contributions

First, the dissertation provides empirical evidence to help identify the FI conditions needed to improve the growth effects of FDI in the EAGLEs.

Second, it provides an empirical basis for tailored policy strategies rather than general macroeconomic recommendations.

Third, it offers a reference for policymakers and international organizations designing support programs for emerging economies.

1.7. Thesis Structure

The thesis consists of five chapters: Chapter 1: Introduction; Chapter 2: Theoretical Framework and Literature Review; Chapter 3: Research Methodology; Chapter 4: Empirical Results and Discussion; Chapter 5: Conclusion and Policy Implications.

CHAPTER 2: THEORETICAL FRAMEWORK AND LITERATURE REVIEW ON FINANCIAL INCLUSION, FOREIGN DIRECT INVESTMENT, AND ECONOMIC GROWTH

2.1. Overview of financial inclusion, foreign direct investment, and economic growth

2.1.1. Overview of financial inclusion

2.1.1.1. Definition

2.1.1.2. Measurement of the financial inclusion index

2.1.2. Overview of foreign direct investment

2.1.2.1. Definition

2.1.2.2. Measurement of foreign direct investment inflows

2.1.3. Overview of economic growth

2.1.3.1. Definition

2.1.3.2. Measurement of economic growth

2.2. Theoretical basis of the impact of financial inclusion on economic growth

2.2.1. Financial development theory

Founded by Schumpeter (1911) and the financial liberalization school (McKinnon-Shaw), affirming the role of unlocking capital flows and efficiently allocating them to high-productivity projects to drive technological progress and growth.

2.2.2. Theory of information asymmetry and credit rationing

Stiglitz & Weiss's (1981) model explains the micro-mechanism of inefficient credit rationing, where asymmetric information barriers and collateral requirements exclude the dynamic private enterprise sector (SMEs).

2.2.3. Theory on the long-term impact mechanism of Financial Inclusion on economic growth

The Galor & Zeira (1993) model demonstrates that FI enables low-income households to overcome the poverty trap and make long-term investments in human capital, thereby upgrading labor quality and total factor productivity. The Banerjee & Newman (1993) model asserts that financial inclusion unlocks the entrepreneurial potential of vulnerable groups, optimizes structural labor shifts, and channels capital flows toward agents capable of utilizing funds most efficiently.

2.2.4. Economic resilience theory

This theory explains how FI provides macroeconomic financial self-defense tools, assisting enterprises in sustaining production, stabilizing household consumption, and bolstering overall resilience against adverse shocks.

2.2.5. Transmission channels of Financial Inclusion's impact on Economic Growth

This section identifies the primary transmission channels, including: fostering the SME sector; accumulating human capital; mobilizing domestic savings and improving the efficiency of capital allocation; enhancing financial stability; and mitigating poverty and inequality.

2.3. Theoretical basis of the impact of FDI on economic growth

2.3.1. Neoclassical growth theory

Represented by the Solow model (1956), viewing FDI as a crucial exogenous capital source that supplements domestic savings.

2.3.2. Endogenous growth theory

Initiated by Romer (1986, 1990) and Lucas (1988), asserting that FDI drives long-term growth via the transfer of knowledge, management skills, and advanced technology.

2.3.3. Dependency theory

Warns that multinational corporations (MNCs) exploit macroeconomic resources, crowd out nascent domestic enterprises, and repatriate profits.

2.4. Theoretical framework on the role of financial inclusion in the impact of FDI on economic growth

2.4.1. Absorptive capacity theory

Drawing on absorptive capacity theory (Cohen & Levinthal, 1990) and the technological gap, the dissertation argues that positive spillovers from FDI do not arise automatically but depend on the host country's capacity to absorb them.

2.4.2. Financial inclusion consolidates national absorptive capacity

FI strengthens national absorptive capacity through three microeconomic transmission channels: (1) easing credit constraints so that domestic firms, particularly SMEs, can upgrade technology and join FDI-related value chains; (2) building a skilled workforce; and (3) improving capital allocation to generate crowding-in effects and prevent FDI enclaves. FI is therefore regarded as a prerequisite for developing countries to convert FDI into a source of long-term growth rather than experience crowding-out effects.

2.5. Literature review on related studies

2.5.1. Empirical studies on the impact of FDI on economic growth

Research findings on the impact of FDI on economic growth remain highly complex and contradictory. Many findings affirm a positive impact driven by spillover effects through technology transfer, management innovation, and the stimulation of international trade (Blomström & Wolff, 1997; Borensztein et al., 1998; Liu et al., 2002; Omri & Kahouli, 2014; Iamsiraroj & Ulubaşoğlu, 2015; Donaubauer et al., 2016; Biørn & Han, 2017; Dinh et al., 2019; Jayadi & Prasetyo, 2022; Ayenew, 2022; Ha et al., 2023; Nguyen & Minh, 2024; Hafeez et al., 2025; Ghosh & Saha, 2025; Giang et al., 2025).

Conversely, numerous studies find an insignificant or even negative impact, generating a crowding-out effect that eliminates nascent domestic enterprises and fractures symbiotic relationships with the host market (Brecher & Alejandro, 1977; Haddad & Harrison, 1993; Aitken & Harrison, 1999; Carkovic & Levine, 2002; Harrison & McMillan, 2003; Damijan et al., 2003; Bende-Nabende et al., 2003; Lipsey, 2003; Durham, 2004; Barry et al., 2005; Ang, 2009; Karimi & Yusop, 2009; Ahmed, 2012; Curwin & Mahutga, 2014; Temiz & Gokmen, 2014; Danladi et al., 2015; Dinh et al., 2019; Jayadi & Prasetyo, 2022; Wu et al., 2023; Abdulwakil et al., 2023; Ozili, 2025).

Furthermore, recent empirical studies indicate that the effective impact of FDI on economic growth is contingent upon the internal conditions of the host country, such as: the threshold of human capital accumulation (Borensztein et al., 1998; Li & Liu, 2005; Ford et al., 2007; Tu & Tan, 2012; Ramzan et al., 2019), the quality of institutional transparency (Durham, 2004; Azman-Saini et al., 2010; Shen et al., 2010; Jude & Levieuge, 2017; Ghosh & Saha, 2025), technological infrastructure and fixed capital accumulation (Ramzan et al., 2019; Scalamonti, 2026), and particularly, the development of the financial system (Mckinnon, 1973; Hermes & Lensink, 2003; Alfaro et al., 2004, 2010; Azman-Saini & Law, 2010; Adjasi et al., 2012; Agbloyor et al., 2016; Nguyen, 2022; Nkoro & Uko, 2022; Bazile et al., 2024).

2.5.2. Empirical studies on the impact of financial inclusion on economic growth

Research findings on the impact of Financial Inclusion (FI) on economic growth currently remain contradictory and multi-dimensional. Many findings affirm the positive impact of FI, such as promoting investment activities, reducing poverty, resolving inequality, and creating leverage to sustain a sustainable development trajectory (Sarma & Pais, 2011; Azimi, 2022; Pal & Bandyopadhyay, 2022; Saha, 2025; Hasan et al., 2024; Khan, 2024), driven by the effect of unlocking capital flows, integrating a large segment of the population from the informal sector into the

formal economy, and providing credit leverage for small and medium-sized enterprises (SMEs) (Adedokun & Ağa, 2023; Kamara, 2024).

Conversely, numerous studies find a negative or insignificant impact of FI on economic growth. The excessive and lax expansion of credit in the absence of risk monitoring mechanisms has generated the risk of increasing non-performing loans, creating debt traps for households, and inducing systemic risks (Bhattarai, 2015; IMF, 2024; Simatele, 2021; Ozili, 2024). Particularly in countries with weak institutional quality, the expansion of financial services can exacerbate the income gap (Pearce, 2011; Chattopadhyay, 2011; Boachie, 2023). Several other studies, however, find no statistically significant relationship between these two variables (Emara & El Said, 2021; Chehayeb & Taher, 2024).

Furthermore, recent empirical studies indicate that the effective impact of FI on economic growth is not linear but also depends on the host country's internal conditions, such as: the level of income development (Saha & Qin, 2023), the quality of legal institutions (Ofoeda et al., 2024; Basnayake et al., 2025), the financial literacy of the population (Simatele, 2021), and particularly the existence of critical financial development thresholds (Nizam et al., 2020; Siddiki & Bala-Keffi, 2024; Huy et al., 2025; Nsiah & Tweneboah, 2025) that shape a non-linear trajectory (U-shaped or inverted U-shaped) for the impact of FI on macroeconomic growth.

2.5.3. Empirical studies on the moderating role of financial inclusion in the impact of FDI on economic growth

Numerous empirical studies affirm that the development of the financial system is the core component shaping national absorptive capacity, even creating reversal thresholds or amplifying the impact of FDI on economic growth (Hermes & Lensink, 2003; Alfaro et al., 2004; Nguyen, 2022; Guan, 2024...). However, a significant gap in these works is that they primarily focus their analysis on the macroeconomic aspect of financial depth, leaving open the micro-level access aspect regarding the role of FI, a foundational measure reflecting the breadth and actual inclusiveness of the financial system for the economy.

2.5.4. Synthesis of previous research findings and identification of research gaps

2.5.4.1. Synthesis of previous research findings

First, theoretical foundations provide a multi-dimensional explanatory framework but also encompass opposing perspectives. While many theories advocate the positive impacts of FDI and FI (e.g., capital supplementation, knowledge spillovers), numerous theories warn of negative consequences (e.g., domestic squeezing, resource crowding-out).

Second, empirical studies clearly reflect the complexity and inconsistency regarding the impacts of FDI and FI on economic growth. Regarding the impact of FDI on economic growth, many studies find positive impacts through technology spillover and trade promotion channels (Borensztein et al., 1998; Dinh et al., 2019; Hafeez et al., 2025; Ghosh & Saha, 2025; Scalamonti, 2026). Conversely, numerous other studies indicate negative or insignificant impacts, primarily due to crowding-out and domestic resource depletion effects (Aitken & Harrison, 1999; Harrison & McMillan, 2003; Bende-Nabende et al., 2003; Damijan et al., 2003; Barry et al., 2005; Ang, 2009; Ahmed, 2012; Temiz & Gokmen, 2014; Wu et al., 2023; Abdulwakil et al., 2023; Ozili, 2025). Regarding the impact of FI on economic growth, although the majority of studies support a positive impact, especially in developing countries (Azimi, 2022; Kamara, 2024), there are still works showing insignificant or even negative impacts, particularly when FI expansion lacks a robust institutional and supervisory framework (Chehayeb & Taher, 2024; Boachie, 2023).

Third, the lack of consensus in empirical findings has driven the academic stream toward identifying moderating factors, among which absorptive capacity emerges prominently. Recent studies increasingly concur that the effective impact of both FDI and FI heavily depends on the host country's conditions, such as human capital, institutional quality, and particularly the level of financial system development (Cohen & Levinthal, 1990). Empirical research

has convincingly demonstrated that a well-developed financial system is a prerequisite for maximizing the benefits derived from FDI (Alfaro et al., 2004; Hermes & Lensink, 2003).

2.5.4.2. Researach gaps

First, the central substantive gap concerns the moderating role of FI in the FDI–growth relationship. Within the literature reviewed, studies of FDI absorptive capacity examine the financial system as a factor that may alter the effects of FDI. However, they generally emphasize financial depth without fully capturing access to and use of financial services across the economy. This dissertation adds an FI perspective through the access and usage dimensions, treating them as aspects of domestic financial conditions that may affect the ability to benefit from FDI. This approach complements measures of financial depth by clarifying the role of financial service coverage and usage.

The mixed findings on FDI call for an examination of host-economy conditions beyond the effect of FDI in isolation. A remaining question is whether FI changes the magnitude and direction of the FDI effect and whether this moderation varies across the conditional quantiles of the economic outcome.

The dissertation addresses this gap by combining an FI index with the FDI × FI interaction term and marginal-effect analysis. It focuses on how the effect of FDI varies with FI, including the possibility of an FI value at which the estimated marginal effect changes sign. This approach adds evidence on the conditional benefits of FDI and extends the assessment of financial conditions from depth to access and usage.

Second, the empirical gap concerns the limited number of studies specifically examining the EAGLEs.

Among the studies reviewed, few directly examine the moderating role of FI in the FDI–growth relationship in the EAGLEs. Evidence from broader samples, such as developing countries or emerging markets, is insufficient to establish this relationship within the group. A dedicated study therefore extends the empirical coverage and assesses the FI conditions under which FDI may be associated with more favorable economic outcomes. The EAGLEs offer a suitable and relevant setting because of the following characteristics.

FDI position: The EAGLEs are major global manufacturing centers and leading destinations for international capital. Despite receiving substantial inflows, many are still seeking to escape the middle-income trap and have yet to translate foreign investment fully into domestic technological capabilities. This raises questions about the actual effectiveness of FDI in these economies.

Diversity of financial structures: Financial system development varies considerably across the EAGLEs. Some have near-universal financial access, such as China, where account ownership reached 89% in 2021. Others, including Indonesia, Türkiye and Mexico, still face capital shortages, inadequate infrastructure and limited financial literacy. Indonesia's account ownership rate was only 52% in 2021, while Türkiye, despite a rate of 74%, faced a substantial gender gap in financial access. These differences, together with the volatility typical of emerging markets, make the EAGLEs a suitable setting for testing heterogeneous effects in the FI–growth relationship.

To address these two gaps, the dissertation uses MMQR as a supporting methodological tool, alongside interaction and marginal-effect analysis, to assess FI moderation across the conditional quantiles of economic growth. Most previous empirical studies use conventional panel estimators, such as fixed effects (FEM), random effects (REM) or GMM/SGMM. Although useful, these approaches estimate the average effect of explanatory variables on the dependent variable. They assume homogeneous effects of FDI and FI across the sample and may overlook cross-country heterogeneity. This limitation is particularly relevant to the EAGLEs, which differ in growth and development levels. MMQR allows the effects of FDI and FI to be estimated at different growth quantiles, showing how these effects vary across countries located in different parts of the growth distribution.

2.6. Proposed research framework

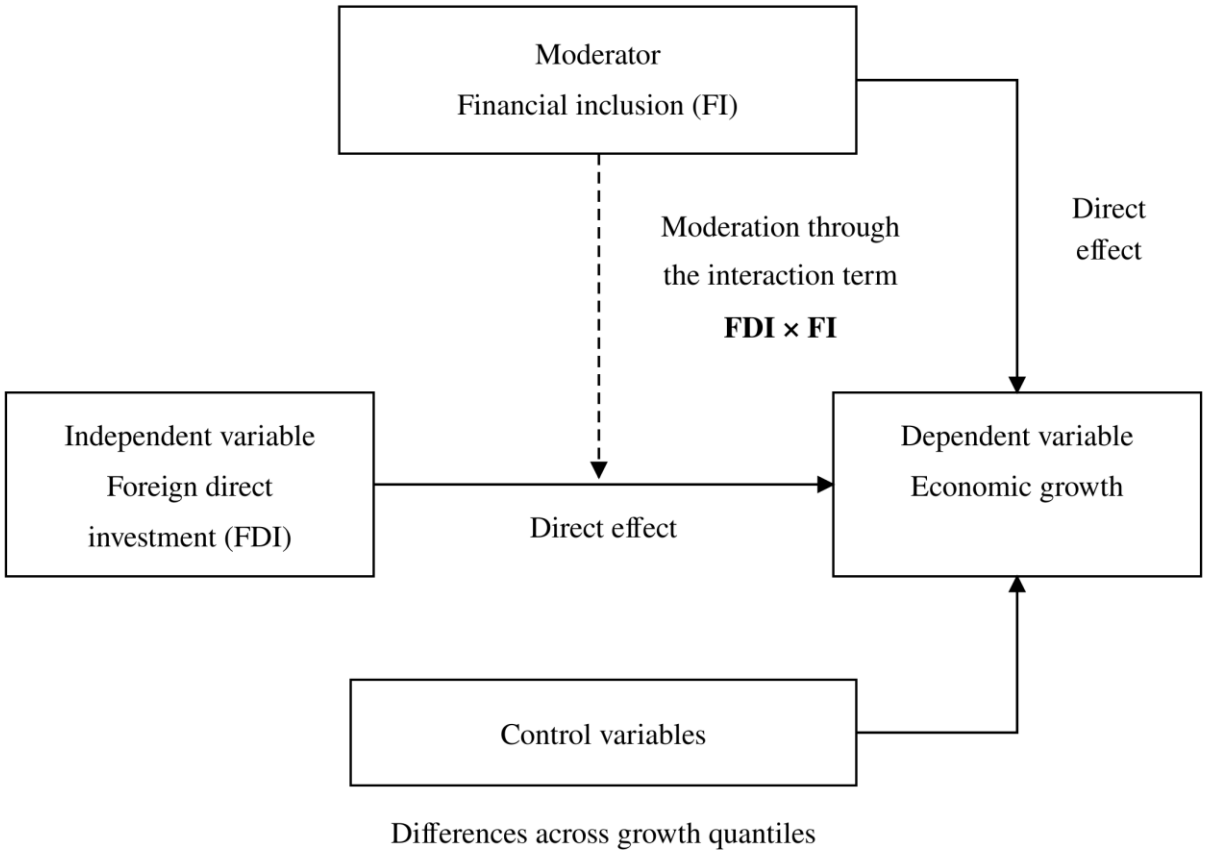


Figure 2.1. Research framework

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Research process

To achieve the research objectives and test the research hypotheses, the thesis employs a mixed-methods approach, combining both qualitative and quantitative methodologies.

3.2. Research hypothesis

(1) Research hypotheses on the impact of FDI on economic growth

Regarding the impact of Foreign Direct Investment (FDI), macroeconomic theoretical foundations assert that these capital inflows do not merely compensate for shortages in physical resources but also generate positive spillover effects through the transfer of technology and managerial skills, thereby enhancing the total factor productivity of the entire economy. However, the process of materializing these benefits does not occur automatically; rather, it is strictly governed by the intrinsic absorptive capacity of the host country. Specifically, in low-growth stages, when institutional foundations and the financial system remain substantially weak, the presence of foreign entities with overwhelming advantages poses a risk of triggering a crowding-out effect on domestic enterprises. Conversely, as the economy ascends to higher growth levels accompanied by the maturation of macroeconomic infrastructure, international capital flows will be most effectively assimilated and optimized. Based on these theoretical arguments, the study proposes the following hypotheses:

H_1: FDI has a positive impact on economic growth

H_2: The impact of FDI on economic growth is heterogeneous across growth quantiles

(2) Research hypotheses on the impact of FI on economic growth

Regarding the impact of Financial Inclusion (FI), theory indicates that expanding the traditional financial network assists the economy in overcoming deficiencies in resource allocation. Specifically, this process unlocks idle capital from the informal sector to channel it into productive investment, while simultaneously dismantling barriers to credit access for small and medium-sized enterprises (SMEs). However, according to Patrick's (1966) theory, this effect is not static but varies dynamically along the development trajectory. In stages where the economy experiences low growth, the penetration of the financial system creates a powerful macroeconomic leverage. Conversely, as the economy enters a high-growth stage, credit expansion—if devoid of commensurate risk management capacity—can lead to resource misallocation and an increase in non-performing loans, thereby diminishing marginal benefits. Built upon this theoretical foundation, the study proposes the following hypotheses:

H_3: FI has a positive impact on economic growth

H_4: The impact of FI on economic growth is heterogeneous across growth quantiles

(3) Research hypotheses on the moderating role of FI (interaction variable FDI*FI)

In the context of integration, the financial system acts as a mechanism for refining and transforming capital, helping to moderate FDI inflows through two parallel channels. On one hand, FI provides counterpart capital enabling domestic enterprises to maintain competitiveness, thereby mitigating the crowding-out effect from multinational corporations. On the other hand, credit flows finance SMEs to innovate technologically and integrate into the global supply chain, serving to maximally amplify knowledge spillover effects from foreign entities. Notably, this synergy cannot fully materialize during stages of economic weakness, but it becomes increasingly cohesive and acts as the primary transmission channel as the economy advances to higher growth quantiles. From the arguments above, the study posits the following hypotheses:

H_5: FI plays a positive moderating role in the impact of FDI on economic growth

H_6: The moderating role of FI in the relationship between FDI and economic growth is heterogeneous across growth quantiles

3.3. Research Model

Model 1: Assessing the direct impact of FDI and FI on economic growth across quantiles:

$$\boldsymbol{LGDP_{it} = \varphi + \alpha FDI_{it} + \beta FI_{it} + \theta X_{it} + \mu_i + \varepsilon_{it}}$$

Model 2: Testing the moderating role of FI on FDI's impact on economic growth:

$$\boldsymbol{LGDP_{it} = \varphi + \gamma FDI_{it} + \beta FI_{it} + \delta(FDI * FI)_{it} + \theta X_{it} + \mu_i + \varepsilon_{it}}$$

Where i = 1, ..., 12 countries; t = 2008, ..., 2023. LGDP is the natural log of real GDP per capita (constant 2015 USD). FI is the multidimensional financial inclusion index. FDI represents net inflows as % of GDP. The interaction term (FDI * FI) captures the moderating effect. X is a vector of control variables including Gross Capital Formation (GCF), Trade Openness (LTRADE), and Population Growth (POP). φ is the constant term, μ represents the fixed effects of the model, and ε is the estimation error term, which is assumed to be independently and identically distributed with a mean of zero and a constant variance $\sigma^2(\varepsilon_{it} \sim i.i.d(0, \sigma_\varepsilon))$.

3.4. Variables description

Tab 3.1. Variables description

Symbol	Variable	Measurement	Source	Theoretical and empirical basis	Expected sign
Dependent variable					
LGDP	Economic growth	Ln (GDP per capita at constant 2015 prices)	WDI	Solow (1956), Romer (1986), Huang et al. (2021)	
Independent variables					
FI	Financial inclusion	Constructed using two-stage PCA based on two groups of indicators: (1) financial system penetration and access; and (2) use of financial services.	Author's calculations using IMF FAS data	Schumpeter (1911), Sarma (2008), Andrianaivo & Kpodar (2011); Huang et al. (2021)	(+) under H1
FDI	Foreign direct investment	Net FDI inflows (% of GDP)	WDI	Moran (1978), Aitken & Harrison (1999), Bruno & Campos (2013)	(+) under H3
Interaction term					
FDI*FI		FDIit * FIit	Author's calculations		(+) under H5
Control variables					
GCF	Domestic investment	Gross capital formation (% of GDP)	WDI	Solow (1956), Levine & Renelt (1992), Huang et al. (2021)	(+)
POP	Population growth	Percentage change in total population in year t relative to year t − 1 (%)	WDI	Solow (1956), Mankiw et al. (1992), Barro (2003)	(-)
LTRADE	Trade openness	Ln (total exports and imports of goods and services as a percentage of GDP)	WDI	Frankel & Romer (1999), Dollar & Kraay (2004), Huang et al. (2021)	(+)

Sources: Authors

3.5. Research Data

3.5.1. Overview of the research sample

EAGLEs (Emerging and Growth-Leading Economies) is a classification introduced by BBVA Research in 2010. The selection criterion is not based on static speed or scale, but rather on Incremental Gross Domestic Product (IGDP): the expected contribution of a country's IGDP to global growth over the next decade must exceed the average of the G6 group (G7 excluding the United States).

As of 2016, the group comprised 15 members: China, India, Indonesia, Brazil, Russia, Mexico, Turkey, Nigeria, the Philippines, Iran, Pakistan, Egypt, Bangladesh, Malaysia, and Vietnam. The EAGLEs group was projected to contribute up to 64.3% to global economic growth (during the 2015-2025 period). During the 2008-2018 period, the average growth rate of the EAGLEs reached 4.47%, far exceeding the global average (2.73%). From 2019 to 2023, despite facing macroeconomic shocks and supply chain disruptions, the overall growth of the group decelerated to 3.42% (yet remained higher than the global rate of 2.52%).

For an economy to grow rapidly, domestic capital flows must be abundant (in reality, credit supply in China, Malaysia, and Vietnam has exceeded 100% of GDP). When crises occur, causing public debt to surge (above 60% of GDP) and liquidity to tighten, the economy cannot perpetually rely on government bailout packages. At this juncture, developing a robust traditional financial system that ensures consistent access to capital for SMEs and the general populace is the core solution enabling the economy to stand on its own and overcome adversities.

3.5.2. Data collection

A strongly balanced panel dataset is collected for 12 EAGLEs countries, including Bangladesh, Brazil, China, Egypt, India, Indonesia, Malaysia, Mexico, Pakistan, the Philippines, Turkey, and Vietnam (according to BBVA Research, 2016), with an annual frequency from 2008 to 2023, sourced from the WDI and FAS (as shown in Table 3.1).

3.5.3. Data processing procedures and methods

3.5.3.1. Data processing procedures

The WDI variables used in the models have complete annual observations for all 12 countries during 2008–2023. No interpolation or other missing-value imputation is therefore required.

Some FAS indicators used to construct FI contain missing observations within the country time series. Cubic spline interpolation is used to fill these internal gaps before constructing the FI index.

3.5.3.2. Data processing methods

To overcome the limitations of previous Financial Inclusion (FI) measurement methods—such as the subjectivity in assigning weights from the supply side or data discontinuities over time from the demand side—this study applies a two-stage Principal Component Analysis (PCA) to construct an objective, multi-dimensional composite FI index. This index is composed of two core dimensions: Access and Usage.

Specifically, the access dimension is measured via four indicators reflecting demographic and geographic coverage density, including: the number of commercial bank branches and the number of ATMs per 100,000 adults, combined with the number of branches and ATMs per 1,000 km². A notable point in this aspect is that the thesis limits its research scope, strictly focusing on the traditional financial foundation and deliberately excluding indicators related to digital finance or fintech. This choice is an optimal methodological decision aimed at closely adhering to the practical context of the EAGLEs during the 2008-2023 period, as introducing technological variables (which only boomed post-COVID-19 pandemic) into a long-term historical data series would cause severe measurement bias.

Concurrently, the usage dimension is integrated to reflect the actual transactional depth of the market through three indicators: the number of deposit accounts per 100,000 adults, alongside the outstanding deposit volume (% of

GDP) and outstanding loan volume (% of GDP) of commercial banks. This combination helps prevent the FI index from being purely exaggerated by the physical infrastructure facade.

Prior to inclusion in the PCA model, all seven component variables undergo a data normalization step (Min-Max Scaling). This technical step plays an essential role in eliminating biases arising from differences in measurement units (between absolute values such as the number of branches/ATMs and relative values such as % of GDP). Accordingly, the raw data of each indicator in both the access and usage dimensions are uniformly converted to a standard scale within the range of [0; 1] using the formula of dividing the difference between the observed value and the minimum value by the range of the sample.

The data, after being uniformly scaled, is then inputted into the two-stage PCA, yielding superior statistical reliability: the KMO coefficients at all steps reach the standard threshold, Bartlett's test of sphericity is strictly significant (p = 0,000), and the first principal component consistently satisfies the Kaiser criterion (Eigenvalue > 1). Notably, the final composite FI index possesses an explanatory power of up to 79.28% of the total variance in the original dataset, with approximately equal weight distribution between the infrastructure and usage behavior components. These diagnostic test results affirm that the composite FI variable has high representativeness and statistical robustness, effectively eliminating the barrier of multicollinearity and establishing a reliable foundation for subsequent econometric regression models.

3.6. Research Methodology

(1) Pre-estimation tests

Prior to model selection, the thesis conducts two foundational tests to capture the complex characteristics of the panel data for the 12 EAGLEs. The results from these two tests demonstrate that conventional mean-based estimation methods (such as Pooled OLS, FEM, and REM) would be biased and inconsistent.

Cross-sectional dependence test (Pesaran, 2007; Friedman): Evaluates whether there is dependence and spillover effects among the economies in the sample. Ignoring this characteristic would bias the estimation results.

Slope homogeneity *test (Pesaran & Yamagata, 2008):* Assesses whether the impact coefficients of the independent variables are identical across all countries. The results reveal that the slope coefficients are heterogeneous, affirming that the impacts of FI and FDI vary depending on the specificities and growth quantiles of each economy.

(2) Method of Moments Quantile Regression (MMQR)

To thoroughly address cross-sectional dependence, slope heterogeneity, and capture asymmetric impacts along different growth levels (from low to high), the thesis selects the Method of Moments Quantile Regression (MMQR) developed by Machado and Santos Silva (2019). This method possesses three outstanding advantages:

Robustness against noise and outliers: MMQR minimizes weighted absolute deviations rather than squared residuals, requires no assumption of normal distribution, and effectively controls for heteroskedasticity and heterogeneity across cross-sectional units.

Robust handling of endogeneity: MMQR features conditional heterogeneous covariance effects, allowing it to address endogeneity by distributing risk along the entire quantile distribution rather than merely shifting the mean.

Dynamic and non-linear modeling: This method evaluates the changing impacts of FI, FDI, and the interaction variable at different economic development thresholds (quantiles of LGDP).

The MMQR model operates based on a location-scale structure. The superiority of MMQR lies in the individual fixed effects that depend on each quantile. This structure allows not only the intercept but the entire marginal impacts of the model to vary flexibly along the distributional spectrum of economic growth.

(3) Robustness check using two-step System GMM (Two-step SGMM)

The thesis does not employ Pooled OLS, FEM, or REM as they induce Nickell bias (in the presence of lagged variables) and fail to address reverse causality. Instead, the thesis utilizes the two-step System Generalized Method of Moments (Two-step SGMM) developed by Arellano & Bover (1995) and Blundell & Bond (1998) to test for robustness. This method is suitable for dynamic panel data (incorporating the lagged variable of LGDP) and effectively handles endogeneity due to its asymptotic efficiency in dealing with heteroskedasticity and autocorrelation.

CHAPTER 4: RESEARCH RESULT AND DISCUSSION

4.1. The impact of FDI on economic growth considering the moderating role of financial inclusion in the EAGLEs

4.1.1. Descriptive statistics

Statistical data affirm that the EAGLEs group is a dynamic economic region with growth rates and capital accumulation surpassing many developed regions. However, a common characteristic of the group is its heterogeneity and high volatility. The massive disparities in FI indices, trade openness, and demographic structures indicate that these countries are at highly diverse stages of development. This implies that each country faces distinct risks from global economic fluctuations, thereby posing a necessary requirement to conduct an in-depth analysis of the specific impact of each factor on economic growth through more detailed quantitative methods in the subsequent sections.

4.1.2. Correlation analysis and multicollinearity test

The correlation matrix shows that most correlations among the explanatory variables are below 0.5. A few exceed 0.5, however, raising concerns about multicollinearity. Variance inflation factors (VIFs) are therefore examined to determine whether severe multicollinearity is present.

The mean VIF is 3.25, and all explanatory variables have VIFs well below the threshold of 10. The model therefore does not exhibit severe multicollinearity.

4.1.3. Cross-sectional dependence test

To ensure the validity of the model given the tight economic and trade linkages among the EAGLEs, the study conducts a test for cross-sectional dependence using the methods of Pesaran and Friedman. The results show that the key variables, including LGDP, FI, FDI, the interaction term (FDI*FI), LTRADE, and POP, all reject the null hypothesis at the 1% significance level. This statistical evidence confirms the clear existence of cross-sectional dependence due to the spillover effects of global macroeconomic shocks. Only the GCF variable does not exhibit this phenomenon, implying that intrinsic characteristics regarding capital and institutions are independent and country-specific. The presence of cross-sectional dependence entirely rejects the suitability of first-generation panel data models, which rely on the assumption of independence across observational units.

4.1.4. Slope homogeneity test

To accurately reflect the diversity in economic structure and development stages of the EAGLEs bloc, the study applies the Delta test (Pesaran & Yamagata, 2008) to evaluate slope homogeneity. The statistical results achieve a 1% significance level, providing robust evidence affirming that the magnitude of impact of the independent variables on economic growth is entirely heterogeneous across the countries.

4.1.5. MMQR regression result

Table 4.1. MMQR regression result _ Model 2

Variables	Location	Scale	Q10	Q20	Q30	Q40	Q50	Q60	Q70	Q80	Q90
FI	-0,1736	-0,2876	0,2194	0,1470	0,0794	-0,0368	-0,1689	-0,2643	-0,4221	-0,4862	-0,6189
	(0,3838)	(0,1949)	(0,4494)	(0,4235)	(0,4069)	(0,3888)	(0,3867)	(0,3960)	(0,4327)	(0,4539)	(0,5093)
FDI	-0,0897	-0,0750**	0,0128	-0,0061	-0,0237	-0,0540	-0,0885	-0,1134*	-0,1545**	-0,1713**	-0,2059***
	(0,0585)	(0,0297)	(0,0690)	(0,0643)	(0,0622)	(0,0599)	(0,0599)	(0,0610)	(0,0661)	(0,0692)	(0,0779)
FDIFI	0,3726***	0,0071	0,3629**	0,3647**	0,3664**	0,3693***	0,3725***	0,3749***	0,3788**	0,3803**	0,3836**
	(0,1417)	(0,0719)	(0,1653)	(0,1566)	(0,1501)	(0,1428)	(0,1416)	(0,1454)	(0,1596)	(0,1676)	(0,1877)
GCF	-0,0173**	-0,0015	-0,0153	-0,0156	-0,0159*	-0.0166*	-0,0173**	-0,0178**	-0,0186*	-0,0189*	-0,0196*
	(0,0087)	(0,0044)	(0,0101)	(0,0096)	(0,0092)	(0,0088)	(0,0087)	(0,0089)	(0,0098)	(0,0103)	(0,0115)
LTRADE	0,3600**	0,2194***	0,0602	0,1154	0,1670	0,2556*	0,3565***	0,4292***	0,5496***	0,5985***	0,6997 ***
	(0,1324)	(0,0673)	(0,1572)	(0,1449)	(0,1410)	(0,1369)	(0,1378)	(0,1396)	(0,1499)	(0,1563)	(0,1770)
POP	-0,6565***	-0,2174***	-0,3594**	-0,4141**	-0,4652***	-0,5531***	-0,6530***	-0,7250***	-0,8444 ***	-0,8928 ***	-0,9931***
	(0,1481)	(0,0752)	(0,1752)	(0,1624)	(0,1575)	(0,1522)	(0,1528)	(0,1552)	(0,1675)	(0,1749)	(0,1976)
Constant	8,0127***	0,3452	7,15410***	7,6279***	7,7090***	7,8484***	8,0071***	8,3109***	8,3109***	8,3878***	8,5471***
	(0,4794)	(0,2435)	(0,5607)	(0,5301)	(0,5082)	(0,4843)	(0,4808)	(0,5403)	(0,5403)	(0,5675)	(0,6360)

*Note: *, **, *** are significant of 10%, 5% và 1% respectively and standard error in ( )*

Sources: Author's calculation on Stata

4.1.6. Discussion

4.1.6.1. Impact of independent variables

(1) Financial Inclusion (FI)

Empirical results from the baseline model affirm that Financial Inclusion has a positive and statistically significant impact on economic growth (supporting hypothesis H3), demonstrating the macroeconomic role of FI in unlocking capital flows and stimulating production. However, the crux of the study lies in confirming the heterogeneity of this impact along the growth quantiles (supporting hypothesis H4). Specifically, the marginal effect of FI follows the law of diminishing returns. At the lower quantiles (Q10-Q30), representing stages of slow economic growth or capital starvation, FI maximizes its power by alleviating financial constraints, helping small and medium-sized enterprises (SMEs) and households integrate into the formal economic sector. As the economy transitions to a stable trajectory at the medium quantiles (Q40-Q60), the impact of FI slightly decreases but remains positive, reflecting a shift in its role from mere capital provision to credit screening and allocation. However, at the upper quantiles (Q70-Q90), the impact of FI weakens noticeably and gradually loses statistical significance. At this development threshold, growth necessitates complex financial services and profound technological innovation rather than relying solely on expanding basic account coverage. Furthermore, FI exhibits a macroeconomic stabilizing role through a statistically significant negative Scale coefficient, indicating that financial expansion helps mitigate the dispersion and volatility of the economy against external shocks.

Nevertheless, when examining FI within the interaction model with FDI, the coefficient of independent FI loses its statistical significance across all quantiles. This result reflects a structural issue in the EAGLEs during the 2008-2023 period: financial expansion skewed towards quantity rather than quality. The substantial gap between accessibility and actual usage levels prevents cash flows from genuinely circulating into production. Additionally, risk aversion and information asymmetry cause credit flows to deviate away from the SME sector—which needs capital to absorb technology—and redirect toward consumer lending. This evidence indicates that, although FI is a crucial driver in low-growth stages, to optimize foreign capital absorptive capacity and sustain long-term growth, the EAGLEs must shift their policy focus from expanding coverage scale to improving the substantive depth of the financial system.

(2) Foreign Direct Investment (FDI)

Contrary to the expectations of traditional development economics theory, empirical results from the MMQR model for the EAGLEs group indicate that FDI is not an unconditional driver of economic growth. When examined independently, the impact of FDI is not statistically significant at the low and medium quantiles (Q10-Q50). This phenomenon stems from the absence of a sufficiently broad and deep financial foundation and the weak linkage capacity of domestic enterprises, causing foreign entities to tend to establish isolated and enclosed economic enclaves. The vast disparity in technological levels fractures the spillover effect, leaving the value-added retained for the host country exceptionally modest. Notably, at the upper quantiles (Q60-Q90), representing overheating economies, the impact of FDI officially shifts to a negative and statistically significant state (rejecting hypothesis H1 and supporting H2). This reversal clearly demonstrates the crowding-out effect; with overwhelming advantages in scale and reputation, multinational corporations squeeze out domestic enterprises in accessing limited credit resources and high-quality human capital. Besides, the pressure of profit repatriation and the tendency of speculative capital flows into non-tradable sectors erode reinvestment resources, causing macroeconomic instability. Although the economic volatility risk analysis (Scale effect) shows that FDI can reduce volatility amplitude thanks to the strong financial capacity of foreign entities, this is a trade-off for maintaining stability at a low level.

In summary, the reality in the EAGLEs group affirms that, lacking an internal absorptive capacity filter, at the core of which is a robust Financial Inclusion (FI) system to connect the SME sector with the global supply chain, FDI can entirely become a trap stifling domestic capital accumulation, transforming from a spillover driver into a barrier hindering sustainable growth.

4.1.6.2. The moderating role of Financial Inclusion and the marginal impact of FDI on economic growth

In contrast to the independent impact of FDI, which reveals numerous limitations, the interaction variable (FDI*FI) records a positive and highly statistically significant coefficient across all quantiles (supporting hypotheses H5 and H6). This affirms that Financial Inclusion (FI) is the core moderating system that helps transform foreign capital flows into a genuine growth driver. At the low quantiles (Q10-Q30), FI provides credit that helps domestic enterprises (SMEs) maintain operations and supply raw materials to foreign entities, thereby activating backward spillover effects and breaking the isolated economic structure of FDI enterprises. At the medium quantiles (Q40-Q60), the role of FI becomes increasingly evident as capital financing helps SMEs upgrade technology, meeting stringent standards to join the global supply chain. Particularly, at the high quantiles (Q70-Q90), the intervention of FI reaches its peak, helping to unlock long-term capital for research and development (R&D) activities, thereby neutralizing the crowding-out effect of FDI and creating a powerful technological synergy.

Table 4.2. Marginal effects of FDI on LGDP at different levels of FI

Quantile	β_{FDI}	$\beta_{(FDI*FI)}$	FDI's Margin effect		
			FI_{min} = 0,0003	FI_{TB} = 0,5002	FI_{max} = 0,9608
Q10	0,0128	0,3629	0,0129	0,1943	0,3615
Q50	-0,0885	0,3725	-0,0884	0,0978	0,2694
Q90	-0,2059	0,3836	-0,2058	-0,0140	0,1627

Source: Author's calculations based on MMQR result

To further elucidate the nature of this moderating mechanism, an analysis of the marginal impact of FDI on growth under the variation of FI thresholds has provided decisive evidence:

- ***At the mean FI threshold***: The marginal impact of FDI follows the law of diminishing returns, starting from 0.194 (at Q10), decreasing to 0.098 (at Q50), and officially reversing to negative at -0.014 (at Q90). This data warns that: a financial infrastructure stalling at a medium level will become a macroeconomic "bottleneck". As the economy advances to higher growth ladders, this system lacks the capacity to help domestic enterprises materialize spillover effects, leading to resource competition and reverse crowding-out.
- ***At the minimum FI threshold (FI min***): The marginal impact of FDI rapidly turns negative right from the Q50 quantile (-0.088) and widens its negative magnitude at Q90 (-0.206). This is sharp empirical evidence consolidating the financial threshold theory (Hermes & Lensink, 2003); when barriers to capital access are too high, domestic enterprises completely lose the ability to connect with the FDI sector. Lacking a financial safety net, FDI inflows will directly crowd out and deplete the indigenous economic sector.
- ***At the maximum FI threshold (FI max):*** The marginal impact of FDI is strongly amplified and maintains a positive state across the entire distribution spectrum (reaching 0.361 at Q10; 0.269 at Q50; and 0.163 at Q90). In this optimal scenario, the inclusiveness of financial services has eliminated barrier costs, enabling domestic enterprises to easily adopt new technologies. Consequently, benefits from FDI spread widely, helping the economy avoid the negative reversal during the overheating growth phase.

In conclusion, the relationship between FDI and growth is non-linear and completely governed by the development level of the domestic financial system. To transform FDI inflows into a long-term endogenous growth

driver, the EAGLEs should prioritize building a robust inclusive financial system, rather than solely focusing on traditional investment-attracting incentive policies.

4.1.6.3. Impact of control variables

(1) Gross Capital Formation (GCF)

Contrary to traditional growth theory, the MMQR results indicate that GCF has a negative impact on economic growth, clearly reflecting the investment paradox in emerging markets. The increase in the proportion of GCF does not create momentum but becomes a burden due to poor capital allocation quality. At low growth quantiles, investment capital flows are almost neutralized by administrative bottlenecks and transmission mechanism fractures. Notably, as the economy enters the medium and high quantiles, the negative impact of GCF peaks. This phenomenon originates from the consequences of overinvestment by the public sector or state-owned conglomerates, directly pushing interest rates higher and squeezing the credit space of the private enterprise sector (SMEs).

(2) Trade Openness (LTRADE)

Estimation results confirm that international trade is a long-term growth driver, but this effect is non-linear and dependent on the development level. At the lower quantiles, deficiencies in logistics infrastructure and weak domestic capacity nullify the benefits of opening up, causing the trade impact to lose statistical significance, and even pushing the economy into trade deficit risks that hinder nascent production. However, from the medium to high quantiles, as domestic production capacity improves, trade maximizes its role as a technology transmission channel and creates synergy effects, fostering supporting value chains. Nevertheless, the positive Scale coefficient warns of an inevitable trade-off: the deeper the trade integration, the greater the macroeconomic volatility amplitude the economy must face against external shocks.

(3) Population Growth (POP)

Empirical results provide consistent evidence affirming that population growth is currently a structural barrier, stifling growth rather than generating a demographic dividend. This negative impact is present across the entire distribution spectrum and exacerbates in severity as the economy grows faster. At the lower quantiles, the addition of unskilled labor only reduces average income and depletes savings sources. At the upper quantiles, the population boom causes a capital dilution effect and infrastructure overload; national resources, instead of being concentrated on R&D activities, are dispersed to meet basic consumption and welfare needs. Risk analysis also indicates that demographic pressure is creating a limiting ceiling, dragging down potential growth and trapping the economy in an inefficient equilibrium.

4.2. Robustness check

The estimation results from the two-step System Generalized Method of Moments (SGMM) model have consolidated the robustness of the findings from the MMQR analytical framework. The first confirmation comes from the lagged variable of economic growth ($LGDP_{t-1}$) with a positive coefficient at the 1% significance level ($\beta = 0{,}8149$), evidencing the dynamic persistence and path dependence of the economy. This strong persistence implies that the impacts of sound macroeconomic policies will be sustained and their effectiveness prolonged across multiple cycles. However, when analyzing the independent impacts at the mean level, FDI reveals a negative coefficient at the 10% significance level. This finding reflects the risk of crowding out domestic investment and the danger of foreign capital dependency if the host country lacks foundational conditions. Similarly, the Financial Inclusion (FI) variable, when standing independently, lacks statistical significance, reaffirming that financial easing or scaling up, in itself, is insufficient to become a direct growth driver.

The most crucial highlight of the SGMM estimation lies in the interaction variable (FDI*FI) with a positive coefficient (0.1338) and statistical significance, confirming the core moderating role of the domestic financial system.

This finding further corroborates the core conclusion from the baseline MMQR model regarding the moderating role of the domestic financial system. This result demonstrates that financial inclusion acts as an essential transmission channel, providing counterpart capital that enables domestic enterprises to link with and absorb technology from multinational corporations. Particularly, the marginal impact analysis indicates the existence of a threshold value: only when the FI index surpasses the critical mark of approximately 0.2638 does the impact of FDI on economic growth officially reverse from negative to positive. Combined with the AR(2) diagnostic test (p = 0,295) which confirms the absence of second-order autocorrelation, the SGMM results firmly assert that FDI is not an automatic growth driver; the actual effectiveness of this capital inflow is entirely governed by the inclusiveness of the host country's financial environment.

4.3. Case study of Vietnam

To establish a system of specific macroeconomic solutions, the study positions Vietnam's growth coordinates within the EAGLEs bloc using the median value of economic scale rather than the mean value. Comparative data indicates that Vietnam's median reaches 7.88, located in the transitional range from the 30th to the 40th quantile (Q30 - Q40) of the entire sample. These coordinates reveal that the economy is still in the phase of accumulating macroeconomic absorptive capacity, and provides an empirical basis that perfectly aligns with the estimation results regarding the model's transmission mechanism.

Specifically, at the Q30 - Q40 quantile range, independent FDI inflows lack statistical significance, exposing the reality that foreign entities are forming enclosed economic enclaves, primarily exploiting cheap labor and fracturing the spillover effect. Conversely, Financial Inclusion (FI) continues to exert a profoundly strong leveraging role in unlocking stagnant resources and assisting small and medium-sized enterprises (SMEs) in joining the formal economy. Most notably, the increase in both the magnitude and statistical significance of the interaction variable (FDI*FI) at this quantile region affirms that FI is the decisive catalyst. Only when the domestic financial system possesses sufficient capital-supplying capacity can SMEs upgrade their technology to step into the supply chains of multinational corporations, thereby breaking the isolated structure of foreign entities and officially transforming FDI into a genuine growth driver for Vietnam.

CHAPTER 5: CONCLUSION AND POLICY IMPLICATIONS

5.1. Conclusion

By employing the MMQR method combined with a robustness check via the SGMM model, the study has evaluated the direct impacts of FDI and FI on economic growth, while examining the moderating role of FI in the relationship between FDI and economic growth across 12 EAGLEs during 2008–2023. The findings indicate that macroeconomic effects on growth are heterogeneous and depend on each economy's position in the growth distribution. The conclusions are organized around the research questions introduced in Chapter 1.

First, the standalone effect of FDI differs across the growth distribution. The FDI coefficient is negative and statistically significant from Q60 to Q90 at the 1% level. This indicates that higher FDI inflows do not necessarily improve growth, particularly at the upper quantiles. The evidence is consistent with crowding out: in the faster-growing economies within the group, foreign capital may displace domestic producers when domestic absorptive capacity is insufficient.

Second, the dissertation's FI measure captures the breadth and coverage of traditional banking through branches, ATMs and access to formal deposit and credit services. The findings indicate a positive effect of FI on growth at all quantiles. The positive location coefficient, significant at the 5% level, identifies broader formal financial coverage as an important endogenous source of growth.

Third, the FDI × FI interaction coefficient is positive and statistically significant across the growth distribution. Together with the scale-coefficient test, this indicates a stable and consistent moderating effect. This is the dissertation's central finding: FI helps offset and reverse the negative effect of FDI, converting it into a source of growth. The result is consistent with the absorptive capacity approach discussed by Hermes and Lensink (2003) and Alfaro et al. (2004).

Marginal-effect analysis under different FI conditions further supports this finding. At minimum FI, the marginal effect is negative, whereas at maximum FI it remains positive at all quantiles considered. These results suggest that greater FI can facilitate the realization of FDI benefits and that its moderating role varies across the conditional growth distribution. FDI spillovers therefore depend on host-country conditions.

Furthermore, the control variables also exhibit distinctly heterogeneous impact trends in both models, delineating urgent structural bottlenecks that require dismantling. First, the study identifies the systemic inefficiency of Gross Capital Formation (GCF). Contrary to traditional expectations, physical capital accumulation is acting as a burden on growth, with an increasingly negative impact in countries experiencing high growth rates. This warns of an investment paradox, where capital flows are misallocated into inefficient or speculative projects, squeezing the development space of the dynamic private sector. Second, Trade Openness (LTRADE) proves to be a vital growth driver, particularly amplified in economies on a strong growth momentum. However, this profound integration entails a trade-off as it significantly elevates the risk of macroeconomic volatility against exogenous shocks, necessitating the concomitant presence of robust strategic defense and buffering mechanisms. Third, Population Growth (POP) is confirmed as a structural barrier rather than a demographic dividend. Demographic pressure becomes more severe at high growth quantiles, reflecting infrastructure overload and the capital dilution phenomenon. This reiterates that while maintaining macroeconomic stability is necessary, long-term policies aimed at enhancing the intrinsic capacity of the economy are the key to fostering sustainable growth for the EAGLEs.

In summary, the empirical evidence from this study conveys a strategic policy message for the EAGLEs: While maintaining macroeconomic stability is necessary, long-term policies aimed at enhancing the intrinsic capacity of the economy are the core keys to promoting sustainable growth. To escape the middle-income trap and maintain the

position of leading global aggregate demand, relying merely on the surface of attracting foreign capital or expanding trade is insufficient. The ability to synchronize the development orientations of the FI ecosystem, restructure public investment capital flows, and accumulate human capital will determine whether the EAGLEs can sustain a high-growth trajectory or will stagnate before the inevitable limits of an extensive development model.

Tab 5.1. Comparison of research hypotheses and results

Variables	Empirical Findings		Research Hypothesis	Conclusion
	Model (1)	Model (2)		
FDI	Not statistically significant	Negative, heterogeneous effect	H1: FDI has a positive effect on economic growth.	Reject ed H_1, Accepted H_2
FI	Positive, heterogeneous effect	Not statistically significant	H2: The effect of FDI on economic growth differs across growth quantiles.	Accepted H_3, H_4
FDI*FI		FI moderates, offsets and reverses the negative effect of FDI; the effect is heterogeneous.	H3: FI has a positive effect on economic growth.	Accepted H_5, H_6

Sources: Authors

5.2. Policy implications to enhance the effective impact of FDI on economic growth in the EAGLEs

5.2.1. Developing financial inclusion through banking networks and credit for domestic enterprises

The financial system is identified as the principal channel through which FDI benefits are realized and transmitted. To support a dynamic business environment and strengthen national absorptive capacity, the dissertation proposes four groups of measures:

Prioritize bank branches and transaction offices in industrial centers, industrial parks, export processing zones and areas with concentrations of SMEs linked to the FDI sector. Expansion should respond to demand and service gaps. Where networks are already adequate, attention should shift to service quality and credit access.

Expand bank lending to SMEs with viable business plans, production-upgrading needs or supply contracts with FDI firms. Loans should match production cycles and financing purposes and be combined with partial credit guarantees and supplier development programs, while maintaining credit appraisal and risk management requirements.

Differentiate policy priorities by growth quantile and FI level. At lower quantiles, prioritize essential financial services and production credit; at middle quantiles, finance SME upgrading and supplier development; and at upper quantiles, focus on credit quality, project selection and the conditions required to benefit from FDI.

Improve credit information, collateral arrangements, cost transparency, financial management capacity and consumer protection. Central banks or supervisory authorities should provide guidance and oversight; local governments and industrial and investment agencies should coordinate demand assessment; and commercial banks should provide finance and make lending decisions. Initial efforts should identify service gaps and remove access barriers, with credit and enterprise-upgrading programs expanded according to evaluation results.

5.2.2. Improving FDI allocation to strengthen linkages with domestic firms

Once the domestic financial foundation is robust, the macroeconomic strategy of the EAGLEs needs to shift from a "passive reception" stance to "proactively optimizing" FDI inflows. The objective is no longer to maximize quantity, but rather to optimize the spillover effects of FDI through three groups of strategic solutions:

(1) *Shifting FDI attraction from quantity to quality:* Empirical results warn that attracting FDI at all costs (via tax incentives or cheap labor) typically only attracts projects lacking commitment and is prone to generating negative impacts. Instead, countries must forge competitive advantages through high-quality human capital and robust infrastructure to attract long-term investment capital flows. High-quality FDI acts as a driver for generating sustainable spillover values, characterized by a readiness to transfer technology and establish backward linkages with domestic enterprises (Moran et al., 2016; UNCTAD, 2014).

(2) *Forging linkages through "Supplier Development Programs":* This is a direct intervention tool that helps mend the disconnect between multinational corporations (MNCs) and domestic SMEs. This program operates synchronously on three pillars:
   - Proactively screening and matching supply and demand between MNCs and potential SMEs (UNCTAD, 2024).
   - Providing intensive support to upgrade managerial capacity and optimize production for SMEs (OECD, 2023).
   - Providing financial leverage (guarantees, preferential credit limits) so that SMEs possess the resources to upgrade technologies, meeting the stringent standards of foreign partners (Moran et al., 2016).

(3) *Upgrading positions within the global value chain:* The long-term objective is to propel domestic enterprises to transition from basic assembly and processing to higher value-added stages such as R&D and design (Humphrey, 2004; Pietrobelli et al., 2021). This process necessitates the coordination of synchronous macroeconomic policies: investing heavily in human capital and innovation centers (Marcato & Baltar, 2020), developing concentrated industrial clusters to disseminate knowledge, and applying strategic trade policies to optimize input costs (Pietrobelli et al., 2021).

The ultimate goal of this strategic chain is to build a self-reliant domestic industrial ecosystem, capable of capturing the majority of surplus value rather than merely participating in the global supply chain passively (Dutta, 2024).

5.3. Policy implications for domestic capital flows, trade integration, and population to promote economic growth in the EAGLEs

5.3.1. Domestic capital flows

Empirical results indicate a paradox: the scale of capital increases, but its efficiency remains precarious, even causing a crowding-out effect. To address this, the thesis proposes:

- *Reforming Public Investment Management (PIM):* Implementing e-procurement to enhance transparency, reduce transaction costs, and prevent capital loss and leakage due to corruption (Pritchett, 2000). Investment decisions must be based on economic-technical efficiency rather than political objectives.
- *Eliminating the crowding-out effect:* Terminating implicit guarantee privileges for state-owned enterprises to create a level playing field for credit. Developing a multi-tiered capital market (e.g., corporate bonds) to unlock resources for the dynamic private SME sector.
- *Controlling overheating growth risks*: Proactively channeling capital flows away from speculative sectors (real estate) toward high value-added industries such as R&D and human resource development, preventing the risk of asset bubbles.

5.3.2. Trade integration

Trade openness only exerts its effectiveness when the economy surpasses critical development thresholds. Therefore, integration policies need to focus on three primary solutions:

- *Enhancing endogenous absorptive capacity*: Instead of merely signing free trade agreements (FTAs) to increase the scale of exports and imports, the government must heavily invest in logistics infrastructure and technology to reduce trade costs.
- *Upgrading positions in the global value chain*: Providing technical assistance to help SMEs meet international standards (ISO, ESG) and transition from exporting raw resources to technology-intensive, deeply processed products.
- *Establishing macroeconomic buffers*: High trade openness is accompanied by the risk of supply chain disruptions; therefore, the governments of the EAGLEs must proactively diversify export markets, consolidate foreign exchange reserves, and maintain exchange rate flexibility to create robust defense mechanisms against exogenous shocks.

5.3.3. Turning the demographic challenge into a competitive advantage

Rapid population growth causes a capital dilution effect, overloads the public service system, and diminishes labor productivity. However, if guided by appropriate human capital investment policies, a country can successfully harness the demographic dividend, transforming demographic pressure into a powerful macroeconomic leverage to accelerate growth (UNFPA, 2016; Mason & Kinugasa, 2008; World Bank, 2021). Learning from the East Asian model, the EAGLEs need to:

- *Invest strategically in human capital:* Universalize comprehensive education (especially financial education) and develop digital and high-tech skills. This is a crucial factor for attracting high-quality FDI (Gu et al., 2026).
- *Create a flexible labor market:* Simplify startup procedures and unlock capital for SMEs to generate sufficient quality jobs to absorb the young labor force.
- *Accelerate the demographic structural transition***:** Invest in healthcare and family planning to reduce the birth rate, thereby alleviating the burden of educational and caregiving costs. Shrinking the size of the dependent population group will officially usher in a golden demographic period, enabling the economy to maximize productivity and convert saved welfare resources into FDI inflowsInvesting in human capital is not merely a solitary policy but the core foundation. A knowledgeable, healthy, and financially literate labor force will act as a catalyst amplifying the effectiveness of both the financial inclusion network and FDI inflows, driving the economy toward continuous development.

5.4. Policy implications for Vietnam

Based on its growth coordinates within the Q30 - Q40 quantile range, Vietnam's macroeconomic policy design must rely on the synergy between new-generation Free Trade Agreements (FTAs) and the traditional Financial Inclusion (FI) network. To enhance absorptive capacity and optimize the spillover effects of FDI, the thesis proposes three central groups of solutions:

(1) *Synchronizing selective FDI attraction with counterpart credit*: Utilizing FTAs as a filter to prioritize high-tech FDI. Particularly, FDI licensing must be accompanied by the establishment of medium- and long-term credit packages, ensuring that the domestic sector possesses sufficient counterpart capital to participate in joint ventures, thereby breaking the "isolated enclave" status of FDI (Moran et al., 2016; Gallagher & Zarsky, 2007).

(2) *Utilizing traditional FI as leverage for supporting industries*: Employing tools such as guarantee funds or preferential credit limits to unlock physical credit flows directly into supporting SMEs (World Bank, 2024).

This is a vital resource for SMEs to upgrade machinery, meet rules of origin requirements, and establish backward linkages with foreign entities (UNCTAD, 2024).

(3) *Integrating financial infrastructure with core industrial zones*: Planning clusters of bank branches adjacent to industrial parks and export processing zones for direct appraisal and rapid disbursement. These concentrated capital flows will assist SMEs in technological innovation and labor skill enhancement, creating a synchronized "Finance – Technology – Human Resources" ecosystem to gradually ascend the global value chain (Marcato & Baltar, 2020).

5.5. Limitations and directions for future research

Limitations: The dissertation has limitations relating to data and estimation. Because of time-series constraints, the FI measure focuses on traditional banking and does not capture the expansion of digital financial services. The small sample also limits the inclusion of controls such as human capital and institutional quality in the baseline model and reduces the effectiveness of MMQR and SGMM in addressing endogeneity and cross-sectional dependence.

Future research: A broader FI index could incorporate digital finance while distinguishing traditional from digital FI to assess whether they complement or substitute for one another in the post-COVID-19 setting. Including institutional quality and human capital as absorptive conditions would also help identify transmission mechanisms and clarify the moderating role of financial inclusion in the FDI–growth relationship.

LIST OF THE AUTHOR'S RESEARCH WORKS RELATED THESIS

1. **Domestic Journals**

- Nguyễn Xuân Bảo Châu. (2023). Đầu tư trực tiếp nước ngoài và tăng trưởng kinh tế tại các quốc gia ASEAN: vai trò và chất lượng thể chế. *Tạp chí Quản lý nhà nước*. https://www.quanlynhanuoc.vn/2023/03/03/dau-tu-truc-tiep-nuoc-ngoai-va-tang-truong-kinh-te-tai-cac-quoc-gia-asean-vai-tro-va-chat-luong-the-che/
- Nguyễn Xuân Bảo Châu, Nguyễn Thị Mỹ Linh (2026). Tác động phi tuyến của Tài chính toàn diện đến tăng trưởng kinh tế tại các nền kinh tế mới nổi và dẫn dắt tăng trưởng (EAGLEs). *Tạp chí Kinh tế & Phát triển*.

2. **International Journal**

Nguyen, B. C. X., & Ho, T. L. (2025). Growth Effect of Foreign Direct Investment in Asean Economies: Does Institutional Quality Matter?. *Organizations and Markets in Emerging Economies, 16*(1 (32)), 217-238.

3. **Research Projects**

Research title: The Impact of Foreign Direct Investment on Economic Growth: A Study Under the Institutional Quality of ASEAN

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