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TÁC ĐỘNG PHI TUYẾN CỦA BẤT BÌNH ĐẲNG THU NHẬP ĐẾN TĂNG TRƯỞNG KINH TẾ: VAI TRÒ CỦA PHÁT TRIỂN TÀI CHÍNH

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TỪ KHÓA

Bất bình đẳng thu nhập;
Tăng trưởng kinh tế;
Phát triển tài chính;
Mô hình Bayesian;
Xác suất Bayes.

TÓM TẮT

Bài viết này nghiên cứu tác động phi tuyến của bất bình đẳng thu nhập đến phát triển kinh tế tại 16 quốc gia có mức phát triển tài chính thấp và 14 quốc gia phát triển tài chính cao trong giai đoạn 2005-2022. Sử dụng phương pháp Bayesian, kết quả cho thấy bất bình đẳng thu nhập có tác động tích cực đến GDP ở cả hai nhóm quốc gia. Khi xem xét ngưỡng tác động của bất bình đẳng thu nhập đến tăng trưởng kinh tế, tại các quốc gia phát triển tài chính thấp, biến bất bình đẳng thu nhập có tác động tiêu cực đến GDP với xác suất 63,76%; trong khi tại các quốc gia phát triển tài chính cao, tác động tiêu cực này ở mức xác suất 73,16%. Qua đó cho thấy, tồn tại ngưỡng "U ngược" trong tác động của bất bình đẳng thu nhập đến phát triển kinh tế ở cả hai nhóm quốc gia. Cụ thể, tại các quốc gia phát triển tài chính thấp, bất bình đẳng thu nhập thúc đẩy tăng trưởng kinh tế đến mức ngưỡng 40,35, nhưng khi vượt qua ngưỡng này, bất bình đẳng sẽ làm giảm tăng trưởng kinh tế. Dựa trên những kết quả này, tác giả đề xuất các hàm ý chính sách phù hợp cho từng nhóm quốc gia.

NONLINEAR IMPACT OF INCOME INEQUALITY ON ECONOMIC GROWTH: THE ROLE OF FINANCIAL DEVELOPMENT

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ABSTRACT

This paper examines the nonlinear impact of income inequality (II) on economic growth (EG) across 16 low financial development countries (LFD) and 14 high financial development countries (HFD) during the period 2005-2022. Utilizing a Bayesian approach, the results reveal that II positively influences EG in both groups of countries, with average coefficients of 0.066 for LFD countries and 0.1031 for HFD countries. The probability of a positive impact in LFD countries is 93.34%, whereas it is 99.47% in HFD countries. When considering the threshold effect of II on EG, II exhibits a negative impact on EG with a probability of 63.76% in LFD countries and 73.16% in HFD countries. An inverted U-shaped relationship between II and EG is evident in both groups. Specifically, in LFD countries, this threshold is at a II level of 40.35; II stimulates EG up to this threshold, beyond which further inequality hinders EG. Based on these findings, the author proposes appropriate policy implications for both groups of countries.

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1. INTRODUCTION

The impact of income inequality (II) on economic growth (EG) has been a topic of debate among economists and policymakers. Some previous studies, such as [1-3] suggest that inequality serves as a driver of EG. However, other research provides evidence that II hinders EG [4,5]. More recent studies have revealed that II has a nonlinear impact on EG [6-8]. Therefore, policymakers must aim to identify the threshold of II that maximizes its positive impact on EG, which can be achieved by considering a nation's level of financial development.

Financial development (FD) remains a core objective for many countries worldwide, with numerous studies highlighting its significance for EG and its role in reducing II. Furthermore, as more individuals gain access to financial services, they can save, invest, and access credit, leading to a more equitable distribution of income within society [9,10]. However, after a certain period, FD can lead to overheating in the production and service sectors, driving up inflation, affecting input costs, and disrupting cash flows in and out of financial markets. This instability can cause prolonged economic recessions. Consequently, the impact of II on EG will vary depending on the level of FD [10,11]

Studies on the impact of II on EG have been conducted across various scopes, ranging from individual countries and regional groups of countries to international comparisons. However, no research has yet been identified that focuses on countries with high financial development (HFD) and those with low financial development (LFD), despite the fact that nations at different levels of FD exhibit varying degrees of II. Examining these two groups of countries can assist policymakers in determining which factors to emphasize in order to promote EG. Furthermore, a review of the literature reveals that previous studies have employed inconsistent methodologies, often relying on frequentist econometric approaches. However, hypothesis testing with this approach often relies on assumptions that may not hold true, leading to potential inaccuracies in inference and prediction. Although many studies have explored the strengths and limitations of the Bayesian method, its key advantage lies in its robustness to sample size. Additionally, the Bayesian method effectively addresses issues like autocorrelation, heteroscedasticity, and endogeneity [10]. In this study, the author applies the Bayesian approach to investigate the nonlinear impact of II on EG in countries with varying levels of FD, identifying the relevant thresholds for each group.

2. LITERATURE REVIEW

2.1 The linkage between income inequality and economic growth

[12] was among the first to explore the relationship between EG and II, asserting that inequality rises during a nation's early development phases and declines as development progresses. This occurs as countries transition from agricultural to industrial economies, where income distribution becomes less equal. Similarly, Lewis' (1954) [13] surplus model argues that inequality both fuels and results from growth, as surplus agricultural labor shifts to the industrial sector, earning only minimal wages. This allows capitalists to accumulate and reinvest until labor becomes scarce, wages rise, and inequality diminishes. [14] notes that redistributive policies, while promoting social justice, can reduce incentives to work, ultimately lowering total income and per capita income in society. [15] presented a contrasting viewpoint, suggesting that II can impede EG due to the pressures for redistribution. In democratic societies, tax rates are influenced by the preferences of the majority voting bloc, typically the middle class. Tax rates tend to increase with income, while the benefits of public spending are shared across the population. The wealthy tend to support lower tax rates to minimize their contributions, whereas the less affluent advocate for higher taxes to gain more from public expenditures. As inequality intensifies, so does the pressure to raise taxes, since government policies are shaped by the preferences of the majority, predominantly the middle class. Consequently, II can drive tax rates higher, leading to policies that may hinder growth. On the other hand, when income distribution is more equitable, there is greater support for lower taxes, which can foster a more growth-friendly environment.

2.2 Studies on the correlation between economic growth and income inequality

[16] utilized a model combining FEM and GMM methods to examine the relationship between II and EG in the United States during the 1940s, finding that income disparity had a negative impact on growth. Similarly, [5] explored both short- and long-term connections between inequality and growth, revealing a non-linear and negative relationship in China through OLS model findings. More recently, [17] employed an ARDL estimation technique to analyze the effects of income disparity on growth in Italy, demonstrating that inequality influences growth in both the short and long term. [18] conducted cross-country studies using comparative and OLS data from 1960 to 1990 across 40 nations, identifying a consistent negative correlation between EG and inequality. In a study by [19] involving 60 developed and developing economies, the OLS method indicated a negative relationship between economic progress and income distribution, with a long-term link between income disparity and slower growth in developed nations. [20] focused on OECD countries and, using GMM, found that II negatively affected EG in these nations. [21] investigated the impact of II on growth across various stages of FD, using aggregated, dynamic panel, and IV OLS estimations across 150 countries. They concluded that higher income disparity is linked to slower economic development, though this effect diminishes as FD advances. Finally, [22] studied the relationship between growth and II in 15 OECD nations and over 200 regions between 2003 and 2013, finding a negative correlation similar to previous studies. In contrast, several studies provide evidence suggesting that II has a negative impact on EG. [1] examined whether inequality benefits or hinders growth in the United States from 1960 to 1990 using an OLS model. The results

indicated a positive relationship between inequality and EG during the study period. In another single-country study, [23] focused on growth and II by investigating the linear correlation and the inverted U-shaped hypothesis in Brazil from 1991–2000. The results revealed that II and growth tended to move together and affirmed the existence of an inverted U-shaped relationship between II and EG.

Contrastingly, some studies have provided evidence that II positively affects EG. For instance, In South Africa, [2] examined the interplay between economic development, poverty, and inequality from 1995 to 2005. They found that II tends to rise with EG due to shifts in income and resource distribution during growth phases. In Pakistan, [24] used ARDL methodologies to study the relationship between income disparity and EG. Covering the periods 1971–2005 and 1975–2013 respectively, both studies found a positive association between II and EG. [25] also examined growth and inequality across both wealthy and developing nations from 1947 to 1994, discovering that higher II fosters EG, based on extended data using FE and RE methodologies. [26] later reevaluated the connection between inequality and growth across 45 countries from 1966 to 1995, finding that EG tends to increase with rising income levels in the short and medium term using Arrelano and Bond's FE, RE, and GMM methods. [27] focused on the impact of transitional (post-Soviet) economies, sampling 122 nations from 1961 to 2012. They found a significant positive correlation between growth and inequality, particularly driven by transition economies, using FE, GMM, and IV estimation techniques.

2.3 Research gaps

Research on the impact of II on EG is currently quite prevalent. However, due to various theoretical approaches and models, the effects of II on EG have yielded diverse results. Through a review of existing studies, the author identifies the following research gaps:

Firstly, in terms of research scope, studies on the impact of II on EG have been conducted across various levels, including within countries, regional groups, and internationally. However, there is a lack of research specifically focusing on the comparison between HFD countries and LFD countries. Given that countries with different levels of FD exhibit varying degrees of II, examining these two groups can assist policymakers in developing strategies to enhance EG by targeting the most influential factors.

Secondly, regarding research methodology, previous studies have employed a variety of methods, often relying on frequentist econometric techniques. However, hypothesis testing using these approaches often depends on several assumptions that may not align with real-world conditions, leading to potential inaccuracies in inference and forecasting. Several studies have analyzed the strengths and challenges of Bayesian methods. Notably, Bayesian methods offer significant advantages, including model accuracy that is less dependent on sample size and the ability to address model flaws such as autocorrelation, heteroscedasticity, and endogeneity [10,28]. In this study, the author utilizes Bayesian methods to examine the nonlinear impact of II on economic development across HFD and LFD countries, thereby determining the necessary thresholds for each group.

Based on these two research gaps, the author undertakes a study to investigate the impact of II on EG in HFD and LFD countries.

3. DESCRIPTION OF RESEARCH VARIABLES AND DATA

3.1 Research Variables

Based on the theoretical and empirical literature reviewed, the variables used to assess the impact of II on EG are identified as follows:

Economic Growth Variable (GDP): According to the studies by [10,11] EG is measured by the Gross Domestic Product (GDP) of a country divided by the average population of that country for the corresponding year. This measurement provides a per capita GDP figure that reflects the economic output and growth of a country.

Income Inequality Variable (GINI Index): In accordance with the research [7,29], the GINI index is used as the measure of II across countries. The GINI index quantifies income distribution inequality, ranging from 0 (perfect equality) to 100 (perfect inequality).

The research model employed in this study incorporates the following variables:

$$GDP_{i,t} = \beta_o + \beta_1 GINI_{i,t} + \beta_x X_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$GDP_{i,t} = \beta_o + \beta_1 GINI_{i,t} + \beta_2 GINI^2 + \beta_x X_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where X (i, t): is a vector of control variables for country i at time t, where i = 1, 2, …, N and t = 1, 2, …, T with i indicating countries and t t indicating time periods.

3.2 Methodology and data

In Bayesian perspective, we construct a Bayesian linear regression using the probability distribution as follows:

$$P(\beta|y,X) = P(y|\beta,X)(P(\beta|X) \qquad (*)$$

Where P (β|y, X) represents the posterior probability of the model parameters given the inputs and outputs; P (y|β, X) is the likelihood of the data; P(β|X) is the prior probability of the parameters; and P(y|X) is a normalizing constant that can be omitted.

When examining the assumed relationship between EG and explanatory variables, Bayesian regression is conducted in three steps. First, we assume a normal prior distribution with a mean of 0 for all coefficients, suggesting that Bayesian analysis will more likely yield coefficients close to 0. This approach avoids any bias in the results of the analysis. Second, for the likelihood functions of the coefficients, we

assume normal distributions with parameters derived from equation (1). Finally, we use the Markov Chain Monte Carlo (MCMC) technique and Gibbs Sampler to derive the posterior distributions of the coefficients, estimating and simulating 12,500 draws from the posterior distribution, with the first 2,500 draws discarded as a burn-in period. MCMC is commonly employed to refine complex models across various fields [28].

In this study, the analysis covers the period from 2004 to 2022, including 16 low-financial-development countries and 14 high-financial-development countries [30]. Given the small sample size, the Bayesian method is appropriate as it addresses model deficiencies such as autocorrelation, heteroscedasticity, and endogeneity.

Table 1: *Description of Variables in the Model*

Variables	Symbol	Measurement	Source
Economic Growth	GDP	Economic growth measured by GDP per capita. (%)	World Bank
Income Inequality	GINI	The GINI index value, ranging from 0 (perfect equality) to 100 (perfect inequality).	World Bank
Inflation rate	INF	Annual percentage change in the Consumer Price Index (CPI). (%)	World Bank
Urbanization rate	UR	Ratio of urban population to total population (%)	World Bank
Population growth rate	POP	Annual growth rate of the population (%)	World Bank
Trade openness	OPEN	Ratio of total trade to GDP (%)	World Bank
Unemployment rate	UNE	Number of unemployed individuals divided by the labor force of a country (%)	World Bank

(Source: Compiled by the author)

4. RESEARCH RESULTS AND DISCUSSION

4.1 Descriptive statistics results

The descriptive statistics show that the mean GINI index for LFD countries is 21.72 and 38.39, which is lower than the mean GINI index for HFD countries at 36.40 and 39.17. This indicates that II is slightly higher in HFD countries compared to LFD countries. Regarding GDP per capita growth, LFD countries exhibit a higher average growth rate of 3.10%, compared to 2.77% in HFD countries (Table 2). Notably, when countries are grouped based on financial development, the GINI index shows less pronounced differences compared to grouping by income levels.

4.2 Bayesian Regression Results and Discussion

Table 2*: Descriptive Statistics of Variables (2004-2022)*

Variables	LFD Countries			
	Mean	Std. Dev.	Minimum	Maximum
GDP	3.1000	4.9083	-14.7590	33.0305
GINI	38.3902	9.1654	24.0000	59.5000
INF	5.9418	7.1232	-1.5841	59.2197
UR	61.8634	13.3135	35.2840	95.5150
POP	0.4697	1.0364	-1.8543	2.4893
OPEN	84.3801	24.8941	38.5213	157.9743
UNE	9.9556	7.7280	0.5000	37.3200
HFD Countries				
	Mean	Std. Dev.	Minimum	Maximum
GDP	2.7723	3.6642	-12.2358	13.6358
GINI	39.1710	7.7927	24.9000	56.5000
INF	3.9670	3.2484	-1.4182	16.3325
UR	70.2717	14.1818	36.1690	93.8980
POP	0.6671	0.7856	-1.2006	2.3902
OPEN	74.3855	41.6974	22.1060	168.3946
UNE	6.9314	3.4942	0.2500	17.2900

(Source: Author's Calculations)

Table 3*: Bayesian regression results for the period 2004-2022*

	LFD Countries		HFD Countries	
Variable	(1)	(2)	(1)	(2)
	Mean (MCSE)	Mean (MCSE	Mean (MCSE)	Mean (MCSE
Cons	0.2114 (0.0001)	0.1260 (0.0011)	1.3445 (0.0173)	1.1359 (0.0141)

INF	-0.0411	-0.0405	-0.1651	-0.1903
	(0.0003)	(0.0005)	(0.0005)	(0.0007)
UR	-0.0045	-0.0027	-0.0478	-0.0557
	(0.0004)	(0.0003)	(0.0001)	(0.0001)
POP	-1.2637	-1.1374	-0.4163	-0.3615
	(0.0005)	(0.0040)	(0.0011)	(0.0065)
OPEN	0.0427	0.0432	0.0063	0.0304
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
UNE	-0.0732	-0.0284	-0.1422	-0.2658
	(0.0002)	(0.0003)	(0.0003)	(0.0014)
GINI	0.0660	0.16949	0.1031	0.1393
	(0.0003)	(0.0003)	(0.0005)	(0.0028)
GINI2		-0.0021		-0.0018
		(0.0000)		(0.0001)
Avg acceptance rate	0.9136	0.9342	0.9134	0.9345
Avg efficiency min	0.2254	0.2506	0.2207	0.2707
Max Gelman-Rubin Rc	1.0000	1.0000	1.0000	1.0000

(Source: Author's Calculations)

For Equation 1: When not considering the threshold, the effect of the GINI coefficient on GDP is positive for both groups of countries. For Equation 2: When examining the threshold effect of II on EG:

LFD Countries: The GINI2 coefficient negatively affects GDP with a probability of 63.76%. This suggests the existence of a "U-shaped" threshold effect for II on EG. Specifically, the threshold level is $\alpha_1 = 0.16949 / (2 \times 0.0021) = 40.35$ (Table 3). Below this threshold, II promotes EG, but exceeding this level leads to a decrease in growth. The probability of the threshold occurring at 40.35 is 71.26% (refer to Table 4). HFD Countries: The GINI coefficient negatively impacts GDP with a probability of 73.16%. The threshold level here is higher, $\alpha_2 = 0.1393 / (2 \times 0.0018) = 38.69$, with a probability of 81.31% for this threshold. This indicates that the threshold for HFD countries is lower than for LFD countries. The results align with prior studies, such as [31], which identified a similar threshold of 40.78 in developing countries. These findings highlight the complex relationship between income inequality and economic growth, where moderate inequality may stimulate growth, but excessive inequality undermines economic performance. This nuanced understanding underscores the importance of targeting income inequality within optimal ranges to sustain growth, especially in countries at different stages of FD.

Table 4: *Probability of Independent Variables' Impact on the Dependent Variable*

	(1)		(2)	
	Mean (Std. Dev)	MCSE	Mean (Std. Dev)	MCSE
LFD Countries				
Prob (GDP: GINI) > 0	0.9334 (0.251)	0.000	0.9163 (0.451)	0.004
Prob (GDP: GINI2) < 0			0.6376 (0.481)	0.004
Prob (GDP: INF) < 0	0.8000 (0.399)	0.002	0.8003 (0.397)	0.004
Prob (GDP: UR) < 0	0.5707 (0.494)	0.002	0.5433 (0.498)	0.003
Prob (GDP: POP) < 0	0.999 (0.043)	0.000	0.991 (0.063)	0.000
Prob (GDP: OPEN) >0	0.9973 (0.050)	0.000	0.9978 (0.046)	0.000
Prob (GDP: UNE) <0	0.928 (0.257)	0.001	0.8885 (0.3144)	0.003
HFD Countries				
Prob (GDP: GINI)>0	0.9947 (0.073)	0.000	0.8409 (0.093)	0.000
Prob (GDP: GINI2)<0			0.7316 (0.441)	0.004
Prob (GDP: INF) <0	0.9830 (0.133)	0.000	0.9954 (0.06)	0.000
Prob (GDP: UR) <0	0.9919 (0.089)	0.000	0.9991 (0.068)	0.000
Prob (GDP: POP) <0	0.8531 (0.351)	0.002	0.7446 (0.431)	0.004

Prob (GDP: OPEN) >0	0.7661 (0.431)	0.000	0.9906 (0.369)	0.001
Prob (GDP: UNE) <0	0.9707 (0.168)	0.001	0.8313 (0.381)	0.003

(Source: Author's Calculations)

Figure 1 depicts the relationship between EG and II, segmented by the GINI coefficient thresholds. For low-financial-development countries, the threshold is set at a GINI coefficient of 40.35, while for high-financial-development countries, it is set at 38.69. The figure divides the data into two groups: below the threshold and above the threshold, as detailed in Table 5. This segmentation helps to illustrate how II impacts EG differently depending on whether the GINI coefficient is below or above the specified thresholds.

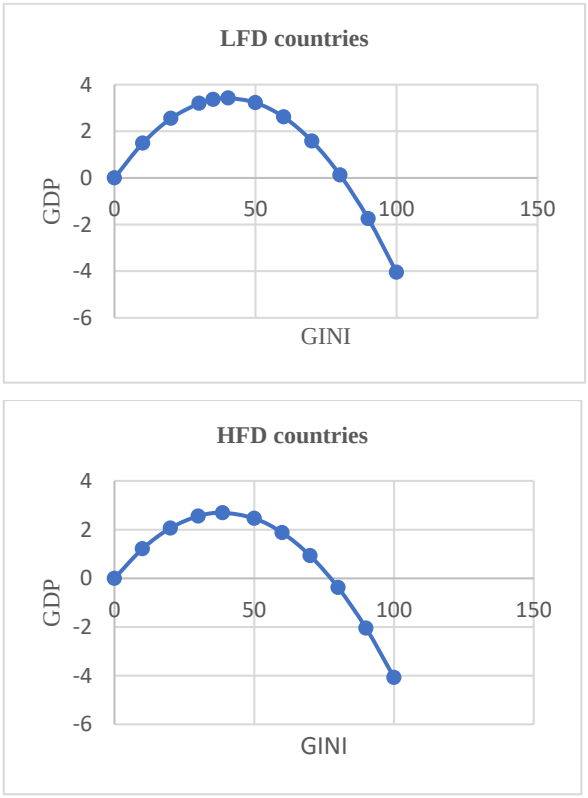

Figure 1: *The Relationship Between EG and II*

Table 5*: Countries Above and Below the II Threshold*

LFD countries			
Countries Below GINI Threshold (40.35)		**Countries Above GINI Threshold (40.35)**	
Albania	31.01	Bolivia	48.52
Armenia	31.21	Costa Rica	48.68
Azerbaijan	27.88	Dominican Republic	46.55
Bosnia and Herzegovina	32.29	Ecuador	48.10
Belarus	26.75	Honduras	52.39
Georgia	37.49	Paraguay	49.30
Kyrgyz Republic	37.65	Uruguay	41.13
Romania	36.49		
Ukraine	26.12		
	Mean	Std. Dev	MCSE
Prob 0 < Prob (GDP: GINI) < 40.5	71.26	0.4537	0.0004

HFD countries			
Countries Below GINI Threshold (39.68)		**Countries Above GINI Threshold (39.68)**	
Australia	34.60	Brazil	53.51
Bulgaria	36.54	China	40.56
Czech Republic	26.06	Colombia	53.07
Croatia	31.64	Israel	40.59
Hungary	29.89	Peru	45.58
Indonesia	37.84	Turkey	40.76
Russian Federation	39.40		
Thailand	38.34		
	Mean	Std. Dev	MCSE
Prob 0<Prob (GDP: GINI) < 38.69	81.36	0.3616	0.0008

(Source: Author's Calculations)

The analysis highlights a "U-shaped" threshold effect of II on EC, with distinct patterns observed below and above the identified thresholds. For LFD countries, the threshold level is 40.35, while for HFD countries, it is slightly lower at 38.69. Below these thresholds, income inequality positively impacts economic growth, suggesting that moderate inequality may serve as a driver for economic expansion by incentivizing productivity and innovation. However, once these thresholds are exceeded, the effect reverses, and income inequality begins to negatively affect growth. This indicates that excessive inequality undermines economic performance, likely by exacerbating poverty, restricting access to opportunities, and eroding social cohesion.

Notably, HFD countries exhibit greater sensitivity to inequality, with the negative effects manifesting at a lower threshold compared to LFD countries. These findings underscore the importance of maintaining inequality within an optimal range to balance the potential growth-enhancing benefits of moderate inequality with the adverse consequences of excessive disparity.

For both groups of countries, the variables inflation rate (INF), urbanization rate (UR), and unemployment rate (UNE) have a negative impact on EG. The probability of a negative effect from INF and UNE is over 80%, while the probability for UR is above 54% in low-financial-development countries. Trade openness positively affects EG in both groups, with a probability exceeding 90%. Bayesian regression testing shows that the average acceptance rate of the two models for both low and HFD countries is above 0.8. The minimum efficiency of both models in both groups exceeds the acceptable threshold of 0.01, indicating that all models meet the required standards. As detailed in Section 3.2, the posterior distribution is generated using the MCMC technique, which necessitates that the MCMC algorithm accurately estimates the target distribution [10]. Therefore, MCMC diagnostic tools are essential for assessing the convergence of Markov chains and determining when to stop sampling. In this study, the author uses the Gelman-Rubin statistic, also known as the Rc statistic, to evaluate the convergence of Markov chains and the efficiency index to assess the adequacy of MCMC sampling. Table 4 shows that the Rc statistic for all parameters is below 1.1. According to [32-35], an Rc value less than 1.1 indicates that the MCMC algorithm has produced representative samples, meaning that the Markov chains have converged. Additionally, the efficiency index of all Markov chains exceeds 0.01, suggesting that the MCMC estimates are accurate and stable with respect to the characteristics of the posterior distribution. Therefore, MCMC diagnostics using the Rc statistic and efficiency index confirm that the samples generated by the MCMC algorithm provide accurate estimates of the posterior distribution.

5. CONCLUSION AND POLICY IMPLICATIONS

5.1 Conclusion

This study examines the nonlinear impact of II on EG in 16 LFD countries and 14 HFD countries. Bayesian regression results reveal that: The GINI coefficient positively affects GDP in both groups, with average β coefficients of 0.066 for LFD countries and 0.1031 for HFD countries. The probability of a positive effect is 93.34% for LFD countries and 99.47% for HFD countries. When considering the threshold effect of II on EG, GINI negatively impacts GDP with a probability of 63.76% in LFD countries and 73.16% in HFD countries. An "inverted U" threshold effect exists in both groups. Specifically, for LFD, the threshold is 40.35; beyond this threshold, increasing inequality reduces EG. This study highlights the crucial role of FD in evaluating macroeconomic variables, demonstrating that financial development is an indispensable factor in guiding a country toward sustainable development [36-38]. Based on these findings, the study proposes suitable policy implications for both groups of countries.

5.2 Policy Implications

For LFD Countries:

Countries Below the Inequality Threshold (e.g., Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, Georgia, Kyrgyz Republic, Romania, Ukraine): These countries should promote market integration and openness. Economic integration and market opening will facilitate businesses' access to resources, international markets, and technology, thereby boosting EG.

Countries Above the Inequality Threshold (e.g., Bolivia, Costa Rica, Dominican Republic, Ecuador, Honduras, Paraguay, Uruguay): These countries should focus on reducing barriers to labor market entry, such as discrimination and lack of access to capital. Ensuring equal access to economic opportunities can be achieved through policies that promote workplace diversity and inclusion, as well as initiatives supporting small businesses and entrepreneurs. Investments in infrastructure and rural development can help redistribute economic opportunities more evenly across regions. Tax reforms, such as progressive taxation, can ensure equitable resource distribution without stifling incentives for investment and innovation.

For HDF Countries:

Countries Below the Inequality Threshold (e.g., Australia, Bulgaria, Czech Republic, Croatia, Hungary, Indonesia, Russian Federation, Thailand): These countries should focus on technological innovation and enhancing labor productivity. Investing in research and development, and encouraging businesses, especially small and medium-sized enterprises, to adopt advanced technologies will improve labor productivity and competitiveness.

Countries Above the Inequality Threshold (e.g., Brazil, China, Colombia, Israel, Peru, Turkey): These countries should work on developing and implementing a fair and effective tax and fee system to reduce II. This might include higher taxes on high incomes, wealth, or financial transactions, while offering lower taxes or exemptions on labor income to increase earnings for low-income workers. Additionally, fair wage policies and labor laws should be emphasized to ensure equitable wages and adjust wages according to productivity. Supportive policies for workers, such as limiting working hours, ensuring safe working conditions, and providing access to social benefits, can also contribute to increasing income for low-wage workers.

Encouraging inclusive economic policies, such as equal pay initiatives and access to affordable housing, can help reduce inequality while sustaining economic growth. Efforts to enhance digital and financial inclusion can ensure broader

access to opportunities, particularly in marginalized communities

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