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Trade Openness and Economic Growth: Evidence from Countries in Asia and the South Pacific

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Abstract

This study examines the relationship between trade openness and economic growth across selected Asian and South Pacific countries from 2000 to 2021. Key indicators on Gross Domestic Product (GDP) growth rate, foreign debt, export values, and inflation are analyzed for insights into economic dynamics. Positive correlations between foreign debt and export values suggest export utilization to alleviate debt. Conversely, negative correlations between inflation and export values underscore challenges during inflationary periods, emphasizing need for effective inflation management. Fixed Effects Model analysis unveils coefficients for independent variables, highlighting their impact on GDP. The study's explanatory power, measured by the R-squared value, underscores the collective influence of these variables on GDP variation. Policy implications stress the importance of export promotion strategies to bolster revenue amidst high foreign debt levels. Effective inflation management is vital to maintain export competitiveness. Prudent debt management emerges as crucial for economic stability. Future research should explore nuanced mechanisms linking trade openness and economic growth, tailored to each country's economic context. This approach can inform targeted policy recommendations, acknowledging diversity among nations. Globally, the study emphasizes interconnectedness among countries and the significance of collaborative efforts to navigate shared challenges and capitalize on mutual opportunities in the global economy.

Keywords: Trade openness, Economic growth, Gross domestic product, Foreign debt, Fixed effects model.

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1. Introduction

Early literature indicating a consensus that increasing trade openness is associated with positive economic growth (Tahir & Ali, 2014). Researchers often use different terms to describe these concepts, and some studies may focus not only on overall economic growth but also on specific financial aspects. The citation provided can be explored to access the specific study or studies that elaborate on these relationships.

Economic growth is characterized as a nation's long-term capacity to continually expand its ability to provide a diverse array of economic goods to its population (Kuznets, 1973). This definition moves beyond short-term economic fluctuations, emphasizing sustained and enduring progress in a country's capability to meet the diverse needs and wants of its citizens through the production of an expanding range of goods and services. In practical terms, economic growth is frequently measured using the growth rate of Gross Domestic Product (GDP), a widely accepted and utilized indicator in economic analyses. The GDP growth rate quantifies the percentage increase or decrease in the total value of all goods and services produced within a country over a specific period. A positive GDP growth rate indicates economic expansion, while a negative rate signals contraction. The widespread adoption of the GDP growth rate as a fundamental metric for assessing economic growth (Bergheim, 2008).

Trade openness is quantified by the ratio of a country's total exports plus imports to its GDP. This metric provides insight into the degree to which a nation participates in international trade relative to the size of its economy. Two key concepts offer a nuanced understanding of how trade openness can be conceptualized and measured. The first concept, "revealed openness," is frequently utilized in empirical studies and calculates the ratio of total foreign trade (exports plus imports) to GDP. This approach offers a tangible and observable measure of a country's actual involvement in international trade by considering both its exports and imports. The second concept, "policy openness," introduces the idea that the level of trade openness is not solely determined by economic factors but is also influenced by deliberate policy decisions made by governments. Trade policies, such as tariffs, quotas, and regulatory measures, can significantly impact a country's openness to international trade. This recognition highlights the importance of considering not only the empirical trade activities but also the intentional policy choices that shape a nation's engagement in the global economy (Dowrick & Golley, 2004).

Various literature in the next section identified different variables to determine trade openness. These variables include, but are not limited to, foreign direct investments (FDI), imports, exports, foreign debt, inflation, domestic investment, global financial crisis, financial depth, financial efficiency, literacy rate, exchange rate, interest rate, foreign exchange reserves, foreign institutional investors, sensitivity index (Sensex), balance of payments, fiscal deficit, growth rate, unemployment, merchandise exports, merchandise imports, services export and services import.

This study endeavors to explore the intricate relationships between several key

economic variables and the GDP of eight (8) distinct countries spanning two regions, namely Asia and the South Pacific. The selected countries for analysis include Cambodia, China, Mongolia, the Philippines, Thailand, and Vietnam in Asia, and Fiji and Vanuatu in the South Pacific. By focusing on a diverse set of nations, the study aims to capture a comprehensive understanding of the economic dynamics prevalent across different geographical and developmental contexts.

The temporal scope of the study is extensive, covering the period from 2000 to 2021. This long-term perspective facilitates the identification of trends, patterns, and shifts in economic variables over more than two decades. The chosen time frame is instrumental in revealing the impacts of various economic phenomena on the overall economic performance of the selected countries.

The study places a spotlight on four (4) key economic variables, each of which is expected to play a role in influencing the GDP of the analyzed nations. These variables include foreign debt, exports of goods and services, export value index, and inflation. Foreign debt is crucial in understanding the economic burden posed by external financial obligations, while exports of goods and services, along with the export value index, shed light on the role of international trade in economic growth. Additionally, the examination of inflation rates provides insights into the potential effects of rising prices on overall economic output.

The analytical approach employed in the research is likely to leverage statistical and econometric methods. Panel data regression analysis utilized to quantify the relationships between the selected economic variables and GDP, offering a nuanced understanding of how changes in one variable correlate with changes in the overall economic output of the countries under scrutiny.

Understanding the nuanced relationships between foreign debt, exports, export value, inflation, and GDP can provide policymakers with valuable insights for crafting effective strategies aimed at promoting economic growth and stability. This study, therefore, holds both academic and practical significance, contributing to a deeper comprehension of economic dynamics in the specified regions and offering insights that may inform strategic decision-making at the national and regional levels.

2. Preliminary Notes

2.1 Literature Review

The previous study conducts a comprehensive examination of five (5) Association of Southeast Asian (ASEAN) countries - Indonesia, Malaysia, the Philippines, Singapore, and Thailand - with the aim of elucidating causal relationships among four (4) pivotal economic variables: FDI, imports, exports, and GDP. This study is motivated by the desire to understand how these interconnected factors influence the economic dynamics of the selected nations. The result implies that changes in FDI, imports, and exports have direct and discernible effects on the fluctuations observed in the overall economic output, as measured by GDP (Vogiatzoglou & Nguyen, 2016).

The previous study focusing on five ASEAN countries - Cambodia, Indonesia, the Philippines, Thailand, and Vietnam - provides a detailed examination of the relationship between key economic variables and GDP. The findings of this research offer nuanced insights into how foreign debt, exports, and inflation individually impact the economic growth of these nations. The study reveals a notable negative and significant effect of foreign debt on GDP. This implies that as the level of foreign debt increases, there is a corresponding decrease in the overall economic output. In contrast, the positive and significant effect of exports on GDP highlights the crucial role of international trade in stimulating economic growth. The study underscores the positive contribution of a robust export sector to economic activity, emphasizing how increased exports may lead to enhanced revenue, job creation, and competitiveness in the global market. This aligns with the broader economic principle that a thriving export industry can serve as a catalyst for overall economic development. Furthermore, the study brings attention to the negative and significant effect of inflation on economic growth. Inflation, characterized by a general rise in prices, is identified as a factor that hinders economic growth. High inflation rates can erode purchasing power, create uncertainties in the business environment, and influence investment decisions negatively. The study highlights the importance of managing inflationary pressures as a critical aspect of sustaining economic growth in these ASEAN nations (Oktavia & Soelistyo, 2020).

The previous study examining six (6) ASEAN countries - Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam - offers insights into the correlations between key economic variables and GDP. The findings of this research shed light on the relationships between domestic investment, inflation, and the impact of the global financial crisis from 2008 to 2009 on GDP. The study identifies a positive correlation between domestic investment and GDP. This implies that as domestic investment increases, there is a corresponding positive impact on the overall economic output of the countries under investigation. Additionally, the positive correlation between inflation and GDP suggests that, in the context of these ASEAN nations, inflation is associated with increased economic activity. While high inflation rates can be detrimental in certain circumstances, the findings indicate that, in this specific study, rising inflation is linked to higher GDP. This may reflect a scenario where moderate inflation levels coexist with a growing economy, highlighting the complex interplay between these economic variables. Furthermore, the study reveals a negative correlation between the global financial crisis of 2008-2009 and GDP. This finding indicates that the impact of the financial crisis, characterized by a severe global economic downturn, had adverse effects on the GDP of the ASEAN countries under consideration. The negative correlation underscores the interconnectedness of the global economy and how external shocks, such as a financial crisis, can reverberate across borders, influencing economic performance on a regional scale (Nguyen & Bui, 2021).

The paper conducted an extensive analysis of the relationship between financial development, trade openness, and economic growth in 21 African countries over a

considerable time span, ranging from 1965 to 2008. The study employed several key economic indicators: GDP served as the measure for economic growth, variables related to exports and imports were used to gauge trade openness, and various data on financial depth and financial efficiency were utilized to assess financial development. One of the central findings of the study is the observation that there is no significant impact of financial development and trade openness on economic growth within the context of the studied African countries. This implies that, according to the data and methodologies employed in the research, variations in financial development and trade openness did not demonstrably contribute to or hinder economic growth during the specified period in these African nations (Menyah, et al. 2014).

The study conducted in Pakistan aimed to dissect the intricate web of factors influencing economic growth within the country. Utilizing GDP as a proxy for economic growth, the study investigated the relationships between five key variables and the nation's overall economic performance. These variables included the inflation rate, Foreign Direct Investment (FDI), literacy rate, exchange rate, and interest rate. The findings of the study unveiled significant positive relationships between the inflation rate, FDI, and interest rate with GDP. The positive correlation with the inflation rate suggests that moderate inflation levels may be indicative of a growing economy where rising prices align with increased economic activity. Similarly, the positive relationship between FDI and GDP underscores the potential positive impact of foreign investments on economic growth. The identification of a significant positive relationship between the interest rate and GDP indicates that higher interest rates might coincide with positive economic growth. Contrastingly, the study revealed that the exchange rate had an insignificant positive relationship with GDP, implying that fluctuations in the exchange rate did not exert a statistically significant influence on economic growth during the studied period. Additionally, the literacy rate was found to have an insignificant positive relationship with GDP, suggesting that changes in literacy rates did not exhibit a statistically significant impact on economic growth within the examined context (Nawaz, et al. 2014)

The 2014 study in India conducted a thorough examination of the factors influencing the country's Gross Domestic Product (GDP). The investigation encompassed a diverse set of economic indicators, including inflation, exchange rate, foreign exchange reserves, foreign institutional investors (FIIs), Sensex (a stock market index), balance of payments, and fiscal deficit. Each of these indicators was scrutinized for its potential impact on India's economic growth. The study revealed a noteworthy correlation between inflation and GDP, indicating a strong association between rising prices and economic output. However, despite the high correlation, the study found that inflation did not exert a statistically significant influence on GDP. The study also showed that the exchange rate and Sensex variables influenced GDP. Fluctuations in the exchange rate, impacting international trade and investment, along with movements in the Sensex, reflecting the health of the stock market, were identified as factors contributing to India's economic growth. A notable correlation was observed between the exchange rate

and foreign exchange reserves, with the study highlighting that this correlation influenced GDP. The significance of foreign exchange reserves in maintaining currency stability and facilitating international trade emphasizes the interconnectedness of these variables and their collective impact on economic output. Furthermore, the study unearthed a negative relationship between GDP and the balance of payments. A negative correlation implies that as the balance of payments deteriorates, GDP tends to decrease (Divya & Devi, 2014) .

The study unravels the intricate web of factors influencing the nation's GDP. The study examined a comprehensive set of variables, including FDI, import and export activities, growth rate, unemployment, and inflation, aiming to quantify their collective impact on the country's economic output. The remarkable finding of the study was that a substantial 93.2% of the variation in GDP could be explained by these selected factors (Stanić & Račić, 2019).

The case study focusing on the BRICS nations - Brazil, Russia, India, China, and South Africa - provides a detailed examination of the causal relationship between trade openness and economic growth in these diverse emerging economies. The study goes beyond a broad analysis, considering the structural composition of GDP and various aspects of trade openness, including merchandise exports, merchandise imports, services exports, and services imports. The findings highlight unique patterns of causality, shedding light on how these BRICS countries navigate the intersection of international trade and economic development. In the case of India, the study identifies a growth-led trade in services. China, on the other hand, exhibits a dual dynamic with growth-led export and growth-led import. South Africa, according to the study, experiences an export- and import-led growth scenario. In contrast, Brazil and Russia exhibit no causal relationship between trade openness and economic growth (Burange, et al. 2019).

2.2 Methods

2.2.1 Data

This paper uses the data of six (6) countries in Asia (Cambodia, China, Mongolia Philippines, Thailand, Vietnam) and two (2) countries in the South Pacific region (Fiji and Vanuatu). The research data were collected from the World Bank. Selected countries must have complete data for the period from 2000 to 2021.

2.2.2 Model

The following general equation is used in this paper as a research model:

$$GDP_{it} = \beta_1 FD_{it} + \beta_2 EXP_{it} + \beta_3 EVI_{it} + \beta_4 INF_{it} + \varepsilon_{it} \quad (1)$$

Where: Dependent variable: Gross Domestic Product (GDP); Independent variables: Foreign Debt (FD); Exports of Goods and Services (EXP); Export Value Index (EVI); and Inflation (INF). β1, β2, β3, β4 are the estimated coefficients of the independent variables. i is the cross-section term (1, 2, …8). t is the time series term (1, 2, …, 22). ε is the error term.

Table 1 describes the variables used in the research model.

Table 1: Variables Used

Variable	Abb	Definition	Source
Gross Domestic Product	GDP	GDP growth (annual %)	World Bank
Foreign Debt	FD	External debt stocks (% of Gross National Income)	World Bank
Exports of Goods and Services	EXP	Exports of goods and services (% of GDP)	World Bank
Export Value Index	EVI	EVI (2000 = 100)	World Bank
Inflation	INF	Inflation, consumer prices (annual %)	World Bank

Source: Processed Data

2.2.3 Model Selection

The Chow Test and Hausman Test were used to select which model will be used in this paper. The former determines which between Common Effect Model (CEM) and Fixed Effect Model (FEM) is better suited to estimate the panel data, while the latter determines which between Random Effect Model (REM) and FEM is better suited to estimate the panel data.

3. Main Results

Table 2 in this study, encompassing the period from 2000 to 2021 and involving eight (8) countries, offers valuable descriptive statistics for key economic variables. Among these variables, the focus is placed on GDP growth and inflation. These indicators provide crucial insights into the economic performance and stability of the selected nations over the examined timeframe.

Table 2: Descriptive Statistics

Variable	GDP	FD	EXP	EVI	INF
Mean	4.970399	46.89348	49.95454	85.96046	3.945823
Median	5.688252	35.37268	52.29164	90.15663	2.940960
Maximum	17.29078	283.2539	93.25239	207.3937	27.95567
Minimum	-17.03987	8.358885	9.161432	8.936557	-2.595243
Std. Dev.	4.242215	48.70583	16.36594	45.32800	4.162075
Observations	176	176	176	176	176

Source: Processed Data Using E-Views (2024)

The average GDP growth rate of 4.97% signifies the mean annual expansion in GDP across the eight (8) countries. This figure encapsulates the overall economic growth experience during the specified period. The inclusion of a minimum GDP growth

of -17.04% suggests instances of economic contraction, potentially reflective of economic downturns or crises. Conversely, the maximum GDP growth of 17.29% indicates periods of robust economic expansion, showcasing the diversity in growth trajectories among the countries under consideration.

With regard to inflation, the descriptive statistics reveal a mean inflation rate of 3.95% across the eight (8) countries. This average serves as an indicator of the general price level increase during the given period. The minimum inflation of -2.60% suggests episodes of deflation, where prices decrease, potentially impacting consumer spending and economic dynamics. On the other end, the maximum inflation of 27.96% points to periods of inflationary pressures, which can pose challenges to economic stability by eroding purchasing power and influencing investment decisions.

Table 3 presents the correlation matrix for a set of independent variables, namely foreign debt, export on goods and services, export value index, and inflation. Correlation coefficients quantify the degree and direction of the linear relationship between pairs of variables. The values range from -1 to 1, where 1 indicates a perfect positive correlation, -1 indicates a perfect negative correlation, and 0 implies no correlation.

Table 3: Results of Correlation Analysis

Variable	FD	EXP	EVI	INF
FD	1.000000	0.173763	0.212077	0.182691
EXP	0.173763	1.000000	0.059907	0.177126
EVI	0.212077	0.059907	1.000000	-0.150857
INF	0.182691	0.177126	-0.150857	1.000000

Source: Processed Data Using E-Views (2024)

The focus is on the correlation between foreign debt and export value index, which shows the highest positive correlation at 0.21. A positive correlation suggests that as one variable increases, the other tends to increase as well. In this case, as foreign debt increases, there is a tendency for the export value index to increase. This relationship might be indicative of a scenario where countries with higher foreign debt are also experiencing increased export values, possibly as a strategy to generate revenue and manage debt obligations.

Additionally, the correlation between inflation and export value index is noted to be 0.15, indicating a negative correlation. This implies that, as inflation increases, there is a tendency for the export value index to decrease. This negative relationship may reflect the challenges associated with exporting goods and services during periods of inflation, such as increased production costs and potential decreases in competitiveness on the global market.

The correlation coefficients are less than 0.7 emphasizing that there is no multicollinearity between the independent variables. Multicollinearity occurs when independent variables in a regression model are highly correlated, making it

difficult to isolate the individual effects of each variable on the dependent variable. A correlation coefficient less than 0.7 is generally considered indicative of low to moderate correlation, suggesting that the independent variables in this analysis are not excessively interrelated. This is crucial in regression analysis, as it allows for more accurate and reliable estimates of the individual impact of each independent variable on the dependent variable.

3.1 Model Selection

This paper employs statistical tests, specifically the Chow Test and Hausman Test, to determine the most suitable model for estimating panel data. These tests help assess whether the Fixed Effects Model (FEM) or the Random Effects Model (REM) is more appropriate for the data at hand.

Table 4: Chow Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	**Statistic**	**d.f.**	**Prob.**
Cross-section F	12.701410	(7,164)	0.0000
Cross-section Chi-square	76.237350	7	0.0000

Source: Processed Data Using E-Views (2024)

Table 4 reports a Chi-square statistic of 76.237350 with a probability value of 0.0000. The probability value is less than the significance level (α) of 0.05. The Chow Test is commonly used to examine whether the coefficients in a regression model differ across different subgroups or time periods. In this context, the result suggests that there is a significant difference in the coefficients between the subgroups or time periods, and, consequently, the FEM is deemed to be the more suitable model for estimating the panel data.

Table 5: Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test cross-section random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	11.549398	4	0.0210

Source: Processed Data Using E-Views (2024)

Table 5 presents a Chi-square statistic of 11.549398 with a probability value of 0.0210. Similar to the Chow Test, the probability value is less than the significance level (α) of 0.05. The Hausman Test is often used to assess whether the individual

effects in a fixed effects model are correlated with the independent variables, which helps determine whether the FEM or the REM is more appropriate. In this case, the result indicates that the individual effects are indeed correlated with the independent variables, supporting the conclusion that the FEM is the more suitable model for estimating the panel data, as opposed to the REM.

3.2 Fixed Effect Model (FEM)

Based on the Chow Test and Hausman Test, the FEM is the more suitable model for estimating the panel data in this study.

Table 6: Fixed Effect Model (FEM)

Dependent Variable: GDP				
Method: Panel Least Squares				
Date: 01/13/24 Time: 15:11				
Sample: 2000 2021				
Periods included: 22				
Cross-sections included: 8				
Total panel (balanced) observations: 176				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.042173	1.690793	-0.024943	0.9801
FD	-0.012743	0.008961	-1.422008	0.1569
EXP	0.128174	0.033434	3.833682	0.0002
EVI	-0.014550	0.006532	-2.227669	0.0273
INF	0.116071	0.073046	1.589006	0.1140
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.423629	Mean dependent var		4.970399
Adjusted R-squared	0.384970	S.D. dependent var		4.242215
S.E. of regression	3.326909	Akaike info criterion		5.307711
Sum squared resid	1815.205	Schwarz criterion		5.523880
Log likelihood	-455.0785	Hannan-Quinn criter.		5.395388
F-statistic	10.95807	Durbin-Watson stat		1.484621
Prob(F-statistic)	0.000000			

Source: Processed Data Using E-Views (2024)

The results of the regression analysis reveal important insights into the relationship between various independent variables and the dependent variable, GDP. Firstly, the positive coefficient of 0.128174 for exports on goods and services suggests a significant and positive impact on GDP. This implies that an increase in the exports

of goods and services is associated with a corresponding positive effect on the country's GDP. The low probability value of 0.0002, which is less than the significance level of 0.05, further supports the statistical significance of this relationship.

Conversely, the export value index demonstrates a negative coefficient of -0.014550, indicating a negative relationship with GDP. A lower export value index is associated with a significant negative impact on the country's economic output. The probability value of 0.0273, less than the significance level of 0.05, reinforces the statistical significance of this finding.

Moving on to foreign debt, despite its negative coefficient of -0.012743, the probability value of 0.1569 is greater than the significance level of 0.05. This suggests that, in this analysis, foreign debt does not have a statistically significant effect on GDP. In practical terms, changes in foreign debt may not be reliable indicators of variations in GDP based on the provided model.

Similarly, inflation, with a positive coefficient of 0.116071, shows a positive relationship with GDP. However, the probability value of 0.1140 is greater than the significance level of 0.05, indicating that inflation does not have a statistically significant impact on GDP in this analysis.

The overall model's performance is reflected in the R-squared value of 0.423629. This value suggests that approximately 42.4% of the variability in GDP can be explained by the included independent variables-foreign debt, export on goods and services, export value index, and inflation. The remaining 57.6% of the variation is unaccounted for and may be influenced by other factors not considered in the model.

The joint effect of the independent variables on GDP, as indicated by the probability (f-statistic) value of 0.000000, is statistically significant. This underscores the collective impact of foreign debt, exports, export value index, and inflation on explaining the observed variation in GDP.

4. Conclusion and Implications

4.1 Conclusion

The study provides valuable insights into the relationship between trade openness and economic growth in the selected countries in Asia (Cambodia, China, Mongolia, Philippines, Thailand, Vietnam) and the South Pacific region (Fiji and Vanuatu) over the period from 2000 to 2021.

Firstly, the GDP growth rate of 4.97% is highlighted, providing an overview of the overall economic expansion across the studied countries during the analyzed period. This metric serves as a baseline for understanding the general economic performance and sets the context for the subsequent examination of factors influencing economic growth.

The positive correlations identified between foreign debt and the export value index suggest a simultaneous increase in both variables. This could imply that countries experiencing higher levels of foreign debt are also witnessing increased export values, potentially as a strategy to generate revenue and manage debt obligations.

Conversely, the negative correlations between inflation and the export value index suggest that periods of inflation may coincide with a decrease in the export value index. This negative relationship indicates potential challenges associated with exporting goods and services during inflationary periods, such as increased production costs and reduced competitiveness on the global market.

The Fixed Effects Model (FEM) analysis reveals specific coefficients for the independent variables. Notably, export on goods and services and inflation exhibit positive coefficients, indicating a positive impact on GDP. In contrast, foreign debt and export value index, along with inflation, display negative coefficients, suggesting a negative effect on GDP. Additionally, the findings indicate that foreign debt and inflation have no significant effect on GDP, emphasizing the nuanced nature of their impact within the studied context.

The model's explanatory power is quantified by the R-squared value of 42.4%, signifying that the included independent variables - foreign debt, export on goods and services, export value index, and inflation - account for this percentage of the variability in GDP across the studied countries. The joint effect of these variables, as indicated by the probability (f-statistic) value, is positive and significant, emphasizing the collective impact of these factors on explaining the observed variation in GDP.

4.2 Implications

In terms of policy implications, the positive correlation between foreign debt and the export value index suggests that countries grappling with elevated foreign debt levels may be strategically leveraging exports to generate revenue and potentially alleviate the impact of their debt burden. Policymakers could consider devising and implementing export promotion strategies to further support industries contributing to foreign exchange earnings, thereby fostering economic stability.

The negative correlation between inflation and the export value index underscores the challenges associated with exporting goods and services during periods of inflation. Policymakers face the task of implementing effective inflation management strategies to maintain the competitiveness of their countries' exports on the global stage. This underscores the importance of adopting policies that ensure stable price levels and support the sustainability of the export sector.

Moreover, the finding that foreign debt has no statistically significant effect on GDP prompts policymakers to reassess the sustainability of their debt levels. Prudent debt management becomes crucial to maintaining economic stability, and policymakers should focus on investments that yield positive contributions to economic growth while managing debt accumulation.

From a research standpoint, the study paves the way for future investigations to delve deeper into the intricate mechanisms through which foreign debt, exports, inflation, and the export value index interact to influence economic growth. A nuanced understanding of these dynamics can inform more targeted policy recommendations, ensuring that strategies are tailored to the specific economic

structures and challenges of each country.

The emphasis on context-specific analyses in future research acknowledges the diversity among the studied countries. Each nation possesses unique economic characteristics, and research efforts should aim to uncover country-specific nuances and variations in the relationship between trade openness and economic growth. This approach allows for the development of tailored policy recommendations that consider the specific challenges and opportunities within each country.

In the global economic context, the positive and significant joint effect of the independent variables on GDP highlights the interconnectedness of these countries with the global economy. Changes in trade openness, whether influenced by global economic conditions or regional factors, can have substantial impacts on the economic growth trajectories of these nations. Consequently, policymakers may need to engage in collaborative efforts such as trade agreements and coordinated policy measures to navigate shared challenges and capitalize on mutual opportunities.

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