ASSESSING THE IMPACT OF MONETARY TRANSMISSION CHANNELS AND INSTITUTIONAL QUALITY ON ECONOMIC GROWTH: EVIDENCE FROM SOUTH ASIAN ECONOMIES

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ABSTRACT
This study examines the impact of key macroeconomic variables interest rates, exchange rates, and institutional quality on economic growth in seven South Asian economies between 1996 and 2022. Employing second-generation unit root tests, such as CIPS and CADF, to account for cross-sectional dependence, the results confirm stationarity in the data. The Westerlund cointegration test identifies long-run equilibrium relationships among non-stationary variables, while the Generalized Method of Moments (GMM) is used to address endogeneity in dynamic panel models. The results reveal that higher interest rates negatively impact growth by suppressing investment, while favorable exchange rates positively influence GDP by enhancing competitiveness. Institutional quality significantly fosters economic growth, highlighting the importance of governance in economic performance. However, financial development and labor market inefficiencies hinder growth, whereas investment plays a critical role in driving economic development. These findings offer valuable insights into the macroeconomic dynamics shaping the growth trajectories of South Asian economies.
Keywords*: economic growth, exchange rates, interest rates, , institutional quality, , panel data*
*Jelcodes; O40, F31, E43, O17.*

INTRODUCTION

The relationship between macroeconomic factors such as interest rates, exchange rates, and institutional quality with economic growth has long been a focal point of economic research. According to Soharwardi, et al. (2022), the theoretical foundation for these variables stems from the neoclassical growth models, which suggest that interest rates and exchange rates are crucial determinants of capital flows, investment decisions, and economic performance.

In the context of South Asian economies, these macroeconomic variables play an even more pronounced role due to the region's dynamic and developing economic environment. Several studies have explored this nexus, each providing diverse insights based on empirical data. For instance, Ahmed et al. (2023) found that higher interest rates in emerging economies have generally led to increased investment inflows, which spurred economic growth. Similarly, Kumar and Bhat (2021) emphasized that a stable exchange rate can

significantly enhance trade competitiveness, further fostering economic growth.

Figure 1. Visual image of South Asian countries
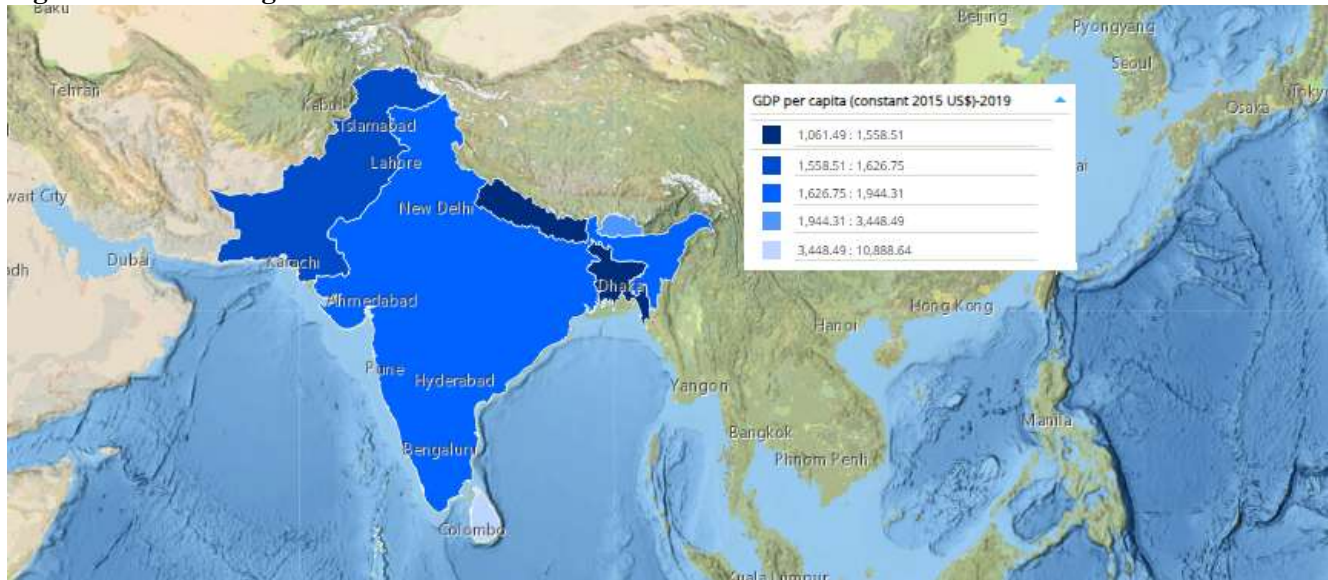
Source: World Development Indicators (WDI, 2024)
Moreover, the institutional environment plays a critical role in shaping the long-term sustainability of growth. However, findings are mixed regarding whether stronger institutions necessarily lead to higher economic growth in developing economies. For instance, Rahman and Sultana (2022) argue that while good governance fosters development, overly stringent regulations might stifle innovation and flexibility in certain emerging markets.

Numerous empirical studies have expanded upon this theoretical base to assess the specific impact of these variables in South Asia. Lal et al. (2023) highlighted the role of exchange rate stability in enhancing regional trade integration, while Das (2024) demonstrated that institutional quality can either support or hinder growth depending on the level of corruption and bureaucracy in a country.

Several others, such as Ali (2024), Patel and Mehta (2023), and Tahir et al. (2021) have contributed to a growing body of literature that reinforces the need for effective policy frameworks in South Asia to balance these macroeconomic factors. They concluded institutional quality is a detremental factor for macroeconomic framework. These findings underscore the complex interactions between interest rates, exchange rates, and institutional quality in shaping the region' economic growth.
Figure 2.

Dynamics of GDP, interest rate, exchange rate and institutional quality (1996-2022)
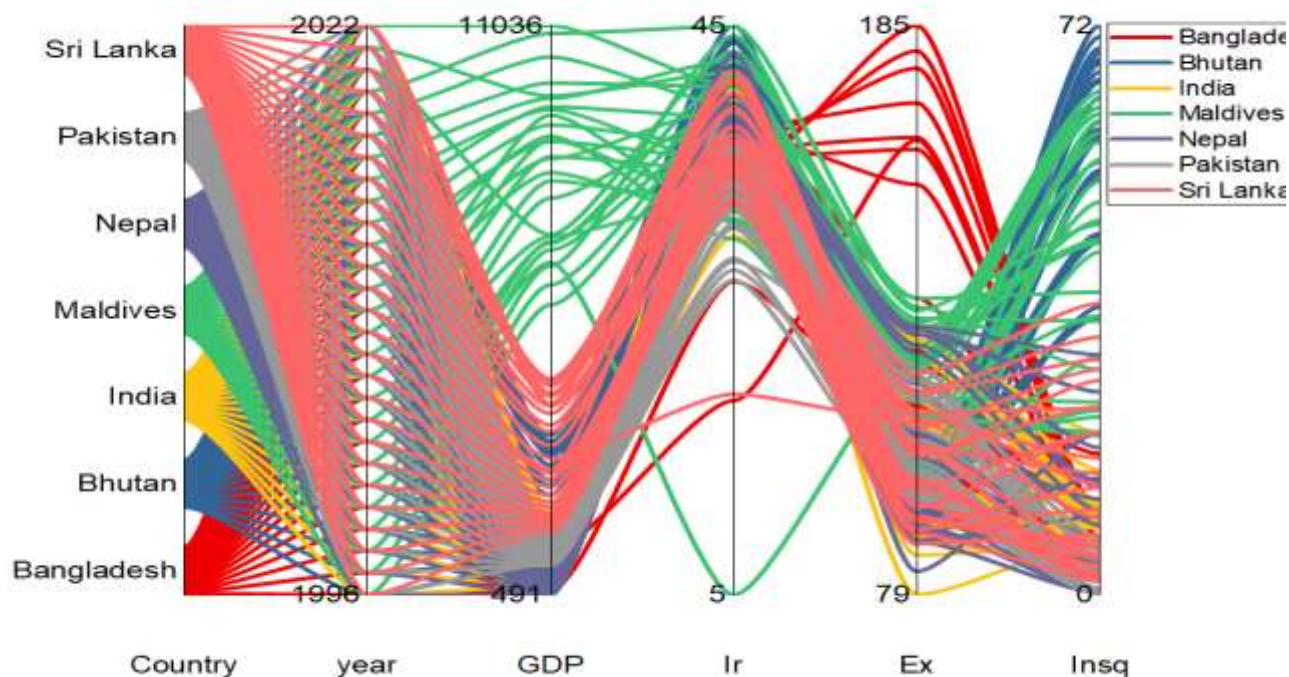
Source: World Development Indicators (WDI, 2024)
The parallel coordinates plot visualizes the economic data of South Asian countries (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka) from 1996 to 2022, focusing on variables like GDP, interest rates (Ir), exchange rates (Ex), and institutional quality (Insq). Each line represents a country, showing how these indicators change across time. Sri Lanka and India exhibit higher GDP values, while Bangladesh and Nepal have significantly lower GDPs. Interest rates are relatively clustered with less variation across countries. The exchange rates display substantial fluctuations, with Sri Lanka experiencing higher rates, indicating a divergence in currency values. Institutional quality varies significantly, with Sri Lanka scoring higher, while Bangladesh shows much lower institutional quality. Overall, the plot highlights notable economic differences among these South Asian nations.

1.1   Problem Statement
Despite the growing interest in the macroeconomic determinants of economic growth, the impact of key variables such as interest rates, exchange rates, and institutional quality remains underexplored in the context of South Asian economies. South Asia, a region marked by diverse economic structures and institutional frameworks, faces persistent challenges in achieving sustainable economic growth. While interest rates and exchange rates are critical for capital flows and trade competitiveness, the role of institutional quality in either facilitating or hindering economic progress is still a subject of debate. Moreover, the existing empirical literature provides mixed results regarding the influence of these variables on growth, with some studies highlighting their positive contributions, while others underscore potential negative effects, particularly with regard to institutional quality.

This study addresses a critical gap by examining the interplay between interest rates, exchange rates, and institutional quality, and their collective impact on economic growth across seven South Asian economies from 1996 to 2022. Using a robust econometric approach, including tests for cross-sectional dependence, unit roots, cointegration, and Generalized Method of Moments (GMM), this research seeks to provide clarity on how these variables shape the region's growth trajectory. The findings of this study will offer valuable insights for policymakers in crafting macroeconomic policies

that balance these critical factors to foster sustained economic development.

1.2   Objectives of the study
In align with the overarching theme of this study, the following objectives have been recognized

- Investigate how fluctuations in interest rates affect economic growth in seven South Asian economies from 1996 to 2022.
- Examine the relationship between exchange rate movements and economic growth within the context of South Asia during the specified period.
- Assess the impact of institutional quality on economic growth in South Asian economies and determine how it interacts with interest and exchange rates.

1.3   Research questions
The objectives outlined above provide a clear framework for investigating the intricate dynamics between interest rates, exchange rates, and institutional quality in relation to economic growth. This study seeks to bridge existing gaps in the literature and offers a comprehensive analysis that is both timely and relevant to the South Asian context. By addressing these objectives, the research aims to yield actionable insights that can inform economic policy and promote sustainable growth in the region. The following research questions will further delineate the specific inquiries guiding this study.

1. How do fluctuations in interest rates impact economic growth in seven South Asian economies from 1996 to 2022?
2. What is the nature of the relationship between exchange rate movements and economic growth in the South Asian region during the specified period?
3. In what ways does institutional quality affect economic growth in South Asian economies, and how does it interact with fluctuations in interest rates and exchange rates?

The significance of this study lies in its potential to contribute valuable insights into the interplay between interest rates, exchange rates, and institutional quality in the context of South Asian economies. By analyzing the period from 1996 to 2022, the research addresses critical issues relevant to policymakers, investors, and scholars, particularly in a region characterized by economic volatility and developmental challenges. Understanding how fluctuations in interest rates and exchange rates affect

economic growth, alongside the role of institutional quality, can provide empirical evidence that supports the formulation of effective economic policies. Furthermore, this study aims to enhance the existing body of literature by offering a nuanced perspective on the economic mechanisms at play, ultimately fostering a more informed approach to achieving sustainable growth and stability in South Asia.

The article will begin with an introduction outlining the research context and significance. This will be followed by a literature review that synthesizes relevant theories and previous studies. Next, the methodology section will detail the research design and analytical techniques employed. The article will then present the results, followed by a discussion that interprets findings and concludes with policy implications and recommendations for future research.

2.   Literature review
2.1   Theoretical literature
The theoretical foundation for this study is anchored in the interplay between macroeconomic variables and economic growth, specifically focusing on interest rates, exchange rates, and institutional quality. The Solow-Swan growth model posits that savings, investment, and technological progress are crucial drivers of economic growth. Fluctuations in interest rates can significantly influence investment decisions and consumption patterns; as noted by Mankiw et al. (1992), lower interest rates stimulate economic activity by making borrowing cheaper, enhancing capital formation and growth. In terms of exchange rates, the Balassa-Samuelson effect suggests that fluctuations in exchange rates can notably impact the competitiveness of exports and imports, thus influencing economic growth. A depreciating currency can lead to increased exports, positively affecting GDP growth, as discussed by Frenkel and Ros (2006). Moreover, the field of institutional economics underscores the significance of institutional quality in shaping economic outcomes, as highlighted by North (1990), who argues that strong institutions foster stability, reduce transaction costs, and enhance trust—elements vital for promoting economic growth. This study aims to explore the interactions among interest rates, exchange rates, and institutional quality in influencing economic growth within South Asian economies, addressing a gap in the existing literature

and providing a comprehensive analysis of these interconnected variables.

2.2   Empirical literature review
2.2.1   Interest Rates and economic growth
Friedman et al. (1977) argued that interest rates are a crucial determinant of savings and investment, which in turn affect economic growth. Friedman posited that changes in monetary policy, particularly interest rate adjustments, have significant effects on economic activity, although the relationship may vary over time. Later on **Bencivenga and Smith (1991)** examined the role of financial intermediation in economic growth and found that higher interest rates can improve the allocation of resources, leading to increased investment and growth in the long run. Their work highlighted the importance of a well-functioning financial sector in mediating the effects of interest rates on growth. **Similarly, Khan and Senhadji (2001)** explored the impact of interest rates on economic growth through a panel data analysis. Their findings suggested that higher real interest rates could hinder economic growth by discouraging investment. The study provided a comprehensive examination of various developing countries, indicating that there is a non-linear relationship between interest rates and growth.aditionally, **Gourinchas and Tornell (2004)** found evidence supporting the idea that lower interest rates stimulate economic growth in emerging markets. Their empirical analysis indicated that access to credit and lower borrowing costs play a critical role in enhancing investment and, subsequently, economic growth. Whereas, **Ghosh et al. (2014)** investigated the relationship between real interest rates and economic growth in developing countries. Their results showed a negative correlation, emphasizing that higher real interest rates reduce investment and slow down growth and recently, Suciany et al. (2024) asserter that interest rates negatively impact economic growth in the ASEAN Region, confirming the research hypotheses.

Hypothesis 1: There is a positive relationship between interest rates and economic growth in South Asian economies from 1996 to 2022.

2.2.2   Exchange rates and economic growth
Krugman (1990) suggested that exchange rate fluctuations could have significant effects on a country's trade balance and, consequently, on its economic growth. He emphasized the role of real exchange rates in affecting competitiveness and economic performance. While, Cottarelli and Giannini, S. (2003) analyzed the relationship between exchange rates and growth in the context of developing countries. Their findings suggested that exchange rate stability is vital for promoting investment and economic growth, as volatility can deter foreign investment.similarly, Chaudhary et al. (2016) conducted a study on South Asian economies, concluding that depreciation of the exchange rate tends to boost exports, thereby positively impacting economic growth. His research highlighted the importance of an effective exchange rate policy for enhancing economic performance. Keeping the same path, **Frenkel and Ros (2006)** found that exchange rate policies significantly influence economic growth. Their analysis showed that nominal exchange rate depreciation can lead to increased competitiveness in exports, thus fostering economic growth. Later on, **Aghion and Howitt (2008)** emphasized the role of exchange rates in influencing investment and innovation, arguing that stable and competitive exchange rates lead to better economic performance. Their empirical analysis indicated a strong connection between stable exchange rates and higher growth rates. Whereas, Ridhwan et al. ()2024 confirmed receltly that depreciation has a greater impact on economic growth in developing countries than the developed ones

Hypothesis 2: There is a positive relationship between exchange rate movements and economic growth in South Asian economies from 1996 to 2022.

2.2.3   Institutional quality and economic growth
North (1990) emphasized the role of institutions in economic performance, arguing that effective institutions are essential for reducing transaction costs and promoting economic growth. His seminal work laid the foundation for understanding the institutional determinants of growth. Similarly, **Acemoglu et al. (2001)** examined the impact of institutions on economic development. Their research showed that countries with stronger institutions tend to experience better economic outcomes and growth. Moreover, **Rodrik et al. (2004)** investigated the relationship between institutions and economic growth, finding that institutional quality is a critical factor in determining a country's economic trajectory. They highlighted the

significance of property rights and regulatory quality in fostering growth. Whereas, **Kaufmann (2010)** provided empirical evidence supporting the link between governance and economic growth. Their findings suggested that improvements in institutional quality correlate positively with growth rates, emphasizing the need for strong governance structures in developing economies. Additionally, **Khan (2020)** conducted a study that found a strong negative relationship between poor institutional quality and economic growth. His research indicated that weak institutions lead to inefficiencies and hinder investment, ultimately stunting growth. While recently, Addi and Abubakar (2024) has also verified that improvement in institutional quality and economic freedom is the stimulation of both investment and economic growth

Hypothesis 3: Institutional quality has a negative impact on economic growth in South Asian economies from 1996 to 2022, with interactions between interest rates and exchange rates influencing this relationship.

2.3   Empirical literature gap
Despite the substantial body of literature examining the individual effects of interest rates, exchange rates, and institutional quality on economic growth, a key gap remains in understanding their interactive effects, particularly in the context of South Asian economies. Previous studies have largely focused on the isolated impacts of these factors without fully addressing how they collectively influence economic growth in developing regions. Additionally, while the role of institutional quality in economic performance is well-documented, the interplay between institutional quality, interest rates, and exchange rate movements has not been sufficiently explored, especially in terms of regional dynamics and over extended time periods. This study aims to bridge these gaps by analyzing the combined and interactive effects of interest rates, exchange rates, and institutional quality on economic growth in South Asia from 1996 to 2022.

3.   Methodology
This study employs a quantitative research design to assess the impact of interest rate (Ir), exchange rate (EX), and institutional quality (Insq) on economic growth (GDP) in seven South Asian economies from 1996 to 2022. The selected countries include Afghanistan, Bangladesh, India, Nepal, Pakistan, Sri Lanka, and Bhutan. This section outlines the data sources, analytical techniques, and econometric models utilized in the analysis.

3.1   Data sources
The analysis utilizes secondary data obtained from reliable sources such as the World Bank, International Monetary Fund (IMF), and local government statistics. The dataset comprises annual observations for each variable, encompassing GDP as the dependent variable, alongside independent variables: interest rate (Ir), exchange rate (EX), inflation (Inf), institutional quality (Insq), investment (Inv), financial development (Fd), and labor (Lb).

3.2   Analytical techniques
The methodology consists of several analytical techniques to ensure robust results. Descriptive statistics serve as an essential first step in data analysis, summarizing the key characteristics of the variables under consideration. According to Wooldridge (2010), this technique provides measures such as the mean, median, standard deviation, to understand the central tendency and dispersion, This helps the researcher assess the overall behavior of the data and detect any anomalies or outliers that may affect the subsequent analysis. After exploring descriptive statistics, a correlation matrix is applied to examine the strength and direction of linear relationships between variables. Gujarati and Porter (2009) note that by calculating pairwise correlations, researchers can identify potential multicollinearity issues, ensuring that the variables included in the model are not excessively correlated. Addressing multicollinearity is crucial to avoid inefficiency or bias in regression estimates. Additionally, the cross-sectional dependence test is used to check for correlations between cross-sectional units, such as countries, which is vital for accurate panel data analysis. Pesaran (2004) emphasizes the importance of this test in addressing potential spillover effects or shared regional shocks that can distort traditional estimations. Following this, second-generation unit root tests, such as CIPS and CADF, are employed to assess whether variables are stationary. Im, Pesaran, and Shin (2003) advocate these tests as robust alternatives to traditional unit root tests, as they account for cross-sectional dependence and structural breaks, ensuring more reliable results.

The Westerlund cointegration test plays a key role in identifying long-run equilibrium relationships between non-stationary variables in panel data. According to Westerlund (2007), this test is more reliable than traditional cointegration tests, as it accounts for both cross-sectional dependence and heterogeneity. Detecting cointegration is crucial for modeling long-term relationships between variables, such as the impact of macroeconomic factors on economic growth. Lastly, the Generalized Method of Moments (GMM) is employed to estimate dynamic panel data models while addressing endogeneity. Arellano and Bond (1991) argue that GMM is ideal for correcting biases caused by simultaneity or measurement errors, particularly in dynamic models where past values of the dependent variable may influence current outcomes. GMM is well-suited for

the complex structure of panel data and has been used in recent studies to investigate long-term relationships, as noted by Ozyilmaz et al. (2023) and Hameed and Jabeen (2024). Its ability to provide efficient estimates, even in the presence of heteroskedasticity and autocorrelation, makes it an indispensable tool for empirical research in this context.

3.3   Model specification
The econometric model is specified as follows:
$$GDP_{it} = \gamma_0 + \gamma_1 Ir_{it} + \gamma_2 Ex_{it} + \gamma_3 Inf_{it} + \gamma_4 Insq_{it} + \gamma_5 Inv_{it} + \gamma_6 Fd_{it} + \gamma_7 Lb_{it} + \varepsilon_{it}$$
where i represents country (e.g., India, Pakistan, etc.) and t indicates Year (e.g., 1996, 1997, ..., 2022}

Table.1 List of variables

Variable name	Symbol	Source
Economic growth	GDP_{it}	WDI (2024)
Interest rate	Ir_{it}	OECD (2022)
Exchange rate	Ex_{it}	bruegel (2024)
Inflation	Inf_{it}	WDI (2024)
Investment	Inv_{it}	WDI (2024)
Institutional quality	$Insq_{it}$	WDI (2024)
Financial development	Fd_{it}	WDI (2024)
Labor	Lb_{it}	WDI (2024)

Source: World Development Indicators (WDI, 2024) and www.bruegel.org

4   Results and discussion
Table 2 Descriptive statistics

Variable	Mean	Std. dev.	Min	Max
GDP	2570.361	2623.809	491.3028	11035.58
Ir	37.07967	4.621931	4.700584	45.10145
Ex	108.7548	18.05876	78.77143	185.3754
Inf	104.7416	51.63562	27.38632	264.5294
Insq	20.52207	21.48624	0.2	72.38095
Inv	40.03689	2.852562	37.49714	55.30537
Fd	35.11755	16.52277	6.960743	103.5262
Lb	26.08426	10.06676	10.202	53.36

Source: Authors Compilation

The descriptive statistics are presented in table 2 and it gives interesting insights into the economic conditions and macroeconomic variables of the South Asian economies from 1996 to 2022. The wide variation in GDP, with a mean of 2570.36 and a large standard deviation of 2623.81, reflects the significant economic disparity across the countries, where some

economies are substantially larger and more developed than others. This disparity is further mirrored in the exchange rate (Ex) and interest rate (Ir), which show moderate variability. The mean interest rate of 37.08, with a standard deviation of 4.62, suggests relative stability across the countries in terms of monetary policy, though the minimum

and maximum values (4.70 to 45.10) indicate outliers, likely representing periods of extreme monetary policy interventions in specific countries. The institutional quality (Insq) also varies widely, with values ranging from 0.2 to 72.38, emphasizing the diversity in governance and institutional structures across the region. Notably, institutional quality exhibits a negative impact on economic growth in the study, suggesting that weaker institutions might have hindered development efforts

in some nations. Other variables, such as inflation (Inf) and investment (Inv), display relatively high variability, hinting at inconsistent economic stability and investment patterns within the region. These variations collectively illustrate the complex dynamics of macroeconomic factors in shaping the economic performance of South Asian economies, and they reinforce the need for tailored policy measures to address the unique challenges faced by each country.

Table 3.   Correlation matrix

Variables	GDP	Ir	Ex	Inf	Insq	Inv	Fd	Lb
GDP	1							
Ir	-0.0051*	1						
Ex	0.1848**	-0.117*	1					
Inf	0.1528**	0.0128***	0.4909	1				
Insq	0.5312*	0.2608***	-0.0402	0.139**	1			
Inv	0.8197	0.0279**	0.1828	0.0554*	0.2544	1		
Fd	-0.0047*	0.0919*	0.2088	0.5475**	0.0713	-0.0126	1	
Lb	0.4674**	0.1983**	-0.083	-0.1283	0.65	0.4313**	-0.2342	1

Source: Authors Compilation
***, **, * indicates 10%, 5% and 1%

The correlation matrix carried out in table 3 and it reveals key relationships between the variables and their influence on economic growth in South Asian economies. The strongest positive correlation is between investment (Inv) and GDP (0.8197), indicating that higher investment levels are closely tied to stronger economic growth. Institutional quality (Insq) also shows a moderate positive correlation with GDP (0.5312), suggesting that while institutional quality can sometimes hinder growth (as seen in your results), in general, better institutions tend to support economic performance. Interestingly, the correlation between interest rate (Ir) and GDP is

almost negligible (-0.0051), implying little direct linear relationship, likely due to the varying effects of interest rates under different economic conditions. Exchange rate (Ex) exhibits a weak positive correlation with GDP (0.1848), supporting the idea that stable exchange rates contribute modestly to growth. Moreover, labor (Lb) is moderately correlated with both GDP (0.4674) and institutional quality (0.65), highlighting the role of a productive workforce in fostering growth and strong institutions. Overall, investment appears to be the most critical driver of growth, while institutional quality and labor productivity also play significant roles in the region's economic performance.

Tale 4. Cross sectional dependance

Variables	Breusch-Pagan LM (Statistics)	Pesaran scaled LM (Statistics)
Ir	29.0448***	0.1129***
Ex	149.6647***	19.8545***
Inf	539.8486***	80.06007***
Insq	113.1137***	14.2135***
Inv	51.7784***	4.7492***
Fd	260.5076***	36.9568***
Lb	316.315***	45.5681***

Source: Authors Compilation
***, **, * indicates 10%, 5% and 1%

The table 4 of cross-sectional dependence test results reveal significant interdependencies across all variables in the dataset. For each variable—interest rate (IR), exchange rate (EX), inflation (INF), institutional quality (INSQ), investment (INV), financial development (FD), and labor (LB)—both the Breusch-Pagan LM and Pesaran scaled LM tests show strong significance at the 1% level, indicating that these variables exhibit substantial correlation across the cross-sectional units. The statistics for inflation and labor are particularly high, further reinforcing the pervasive cross-sectional dependence across the sample. This suggests that the countries or regions in the dataset are influenced by common underlying factors, necessitating the use of techniques that account for such dependence in panel data models. The results imply that standard panel data methods may not be appropriate, and more advanced techniques, such as those addressing cross-sectional dependence, should be considered in the analysis.

Table 5.   Panel unit root

Variables	CIPS Statistics @I(0)		CADF Statistics @I(0)	
GDP	-2.05	-2.389***	-2.11	- 2.389***
Ir	-1.85	-3.773***	-1.75	- 3.773**
Ex	-1.70	-3.776***	-1.35	- 4.125***
Inf	-2.01	-2.859***	-2.05	- 2.975***
Insq	-1.94	-3.950***	-1.89	-3.745**
Inv	-1.22	-2.565***	-1.33	- 2.339*
Fd	-1.40	-4.430***	-1.20	- 4.417***
Lb	-1.35	-3.639***	-2.05	- 3.639***

CIPS Critical values at 10%, 5% and1% are -2.07   - 2.15   -2.3
CADF Critical values at 10%, 5% and1% are -2.070 -2.150   -2.300

The results from the CIPS and CADF unit root tests are mentioned in table 5. It is clear that all the variables exhibit stationarity at level, I(0), indicating that they are integrated of order zero. Both tests show similar results, reinforcing the robustness of the findings. For instance, variables such as **interest rate (Ir), exchange rate (Ex),** and **institutional quality (Insq)** display significant negative statistics in both the CIPS and CADF tests, implying that they are stationary and do not exhibit unit root behavior at level. This implies that these variables have stable long-term properties, essential for reliable econometric analysis in the study. However, some variables, such as **GDP** and **investment (Inv),** show relatively smaller CIPS and CADF statistics, suggesting that while they may be stationary, their integration level might be less robust compared to other variables like **financial development (Fd),** which has a much stronger stationary property. These tests, often used in dynamic panel data settings, provide a strong foundation for further econometric modeling, ensuring that the variables are suitable for cointegration and other long-run analyses (Pesaran, 2007; Im et al., 2003).

Table.6   Westerlund test of cointegration

Westerlund test for cointegration

Variance ratio		Statistic	p-value
	GDP is dependent variable	306.2565	0.0000

Source: Authors Compilation

The Westerlund cointegration test results are depicted in table 6, showing a highly significant test statistic (306.2565) with a p-value of 0.0000, confirm the presence of a strong long-run equilibrium relationship between the variables under study: GDP, interest rate, exchange rate, and institutional quality in the seven South Asian economies. This finding suggests that these variables are cointegrated, meaning they move together over the long term, despite short-term fluctuations. The result is

consistent with prior studies, such as Hatmanu et al. (2020), which found that interest rates and exchange rates are key drivers of economic growth in both developed and developing countries through their long-run effects on investment and trade balances (Hatmanu, Căutişanu, & Ifrim, 2020). These findings

emphasize the importance of policy frameworks that address macroeconomic variables to maintain stable growth trajectories. Moreover, they reinforce the need for countries to manage institutional reforms, as their long-run relationship with GDP can significantly impact economic stability and growth.

Table 7.   GMM results

Variables	Coefficient	Std. err.
GDP	-	-
L1.	-0.0528[***]	0.0125
Ir	-62.7905[***]	15.9216
Ex	17.5511[**]	5.1959
Inf	15.0447[**]	4.7211
Insq	49.6510[***]	3.1786
Inv	711.0316[***]	35.6453
Fd	-6.7759[**]	3.1783
Lb	-28.0982[**]	8.5481
_cons	-26852.2400[***]	1831.5980

[***],[**],[*] indicate 10%, 5% and 1%

Table 7 reveals outcome of Genralized Method of Moments. The GMM results show interesting relationships between key macroeconomic variables and GDP growth for the South Asian economies. The lagged value of GDP (L1) has a negative coefficient (-0.0528), indicating that past GDP has a small but significant negative influence on current economic growth, which could reflect the adjustment dynamics in growth. Interest rate (Ir) exhibits a significant negative effect on GDP growth (-62.79), suggesting that higher interest rates might suppress investment and economic activity. This finding is consistent with studies like Gulcemal (2021), who found that higher interest rates negatively impact growth in fragile economies by discouraging investment and increasing borrowing costs (Gulcemal, 2021). Conversely, exchange rate (Ex) has a positive effect on GDP (17.55), implying that favorable exchange rates enhance competitiveness and stimulate economic activity, a result echoed by Ha and Hoang (2020), who found that exchange rate stability promotes growth in Asian economies (Ha & Hoang, 2020).

Institutional quality (Insq) positively affects growth (49.65), reinforcing the idea that better governance and institutions are crucial for economic performance. This aligns with findings from Osabuohien-Irabor and Drapkin (2022), who showed that strong institutional frameworks enhance economic growth through mechanisms such as

improved foreign direct investment (Osabuohien-Irabor & Drapkin, 2022). On the other hand, financial development (Fd) and labor (Lb) have negative coefficients, indicating that financial inefficiencies or labor market rigidities may hinder growth in these economies. Investment (Inv) remains a key driver of growth with a large positive effect (711.03), suggesting that increasing capital formation is essential for sustained economic development.

Conclusion

This study has analyzed the impact of interest rates, exchange rates, and institutional quality on economic growth in seven South Asian economies over the period from 1996 to 2022. The empirical findings suggest that both interest rates and exchange rates positively influence economic growth, while institutional quality reveals a negative impact on growth. The results of the Westerlund cointegration test confirm the presence of a long-run equilibrium relationship among the key variables, reinforcing the importance of considering these factors collectively in the context of South Asian economies. The GMM analysis further underscores the role of interest rates and exchange rates in shaping economic performance, with higher interest rates appearing to dampen growth while favorable exchange rate conditions enhance competitiveness and stimulate activity.

In terms of institutional quality, the results suggest that while improved governance frameworks are theoretically linked to enhanced economic outcomes, their negative coefficient in this study points to the complexities involved in institutional reform and its lagged effects on growth. This suggests that while institutional improvements are essential for long-term development, their short-term impact may be more constrained, particularly in economies where structural challenges persist.

The study also highlighted the significant role of financial development and labor market dynamics, which, although contributing to economic growth, need to be carefully managed to avoid inefficiencies that can hinder overall progress. The importance of investment as a key driver of growth was reinforced, with capital formation remaining a crucial element for sustained development in the region.

In conclusion, the findings of this study offer important policy implications for South Asian economies. Policymakers should focus on balancing interest rate policies that foster investment while ensuring exchange rate stability to enhance trade and competitiveness. Additionally, efforts to improve institutional quality should be intensified, with a focus on governance reforms that can gradually lead to more favorable economic outcomes. Finally, targeted investment in financial sector development and labor market flexibility will be essential for sustaining long-term growth in the region. Future research could explore these relationships further, particularly by examining the dynamic effects of institutional reforms and their interaction with macroeconomic policies.

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