

Impact of Governance on Economic growth: The case of an emerging economy namely Nepal

Bijayata Gurung

20275011

A thesis submitted to the Department of Economics and Social Sciences in partial fulfillment of
the requirements for the degree of M.Sc. in Applied Economics

Department of Economics and Social Sciences

BRAC University

Summer, 2025

©2025. Bijayata Gurung

All rights reserved.

Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at BRAC University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

Student's Full Name & Signature:



Bijayata Gurung

20275011

Approval

The thesis titled “Impact of Governance on Economic growth: The case of an emerging economy namely Nepal” submitted by

Bijayata Gurung (20275011)

Of Summer, 2025 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of M.Sc. in Applied Economics on 28th September 2025.

Examining Committee:

Supervisor:
(Member)



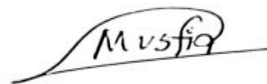
Dr. Syed A. Mamun, PhD, FCMA
Professor, Department of Science and Economics
Brac University

Program Coordinator:
(Member)



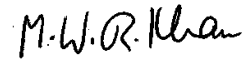
Dr. Wasiquir Rahman Khan
Professor and Chairperson, Department of Economics and
Social Sciences
Brac University

External Expert Examiner:
(Member)



Dr. Musfiqu Rahman, FCMA
Professor, Dept. of Accounting and Information Systems
University of Dhaka

Departmental Head:
(Chair)



Dr. Wasiquir Rahman Khan
Professor and Chairperson, Department of Economics and
Social Sciences
Brac University

Abstract

This thesis examines the influence of governance indicators on Nepal's economic growth from 1996 to 2023 along with assessment of the moderating role of macroeconomic variables such as Foreign Direct Investment (FDI), Gross Capital Formation (GCF) and Inflation, using the Auto Regressive Distribution Lag (ARDL) approach and qualitative semi-structured open-ended interview responses from five governance and economic expert participants. The econometric analysis reveals a long run cointegration relationship between the explanatory variables, Comp variable (aggregate of World Governance Indicators), Foreign Direct Investment (FDI), Gross Capital Formation (GCF), Inflation and dependent variable, GDP growth. It also highlights the short-term dynamics and volatility of economic growth of Nepal to political and external shocks. FDI is the only variable which shows a positive and significant relationship with GDP growth in the long run ARDL while, GCF shows negative and marginally significant at 10%. Further, Comp variable and Inflation show positive influence on GDP growth in the long run but is not statistically significant. Complementary qualitative expert insights underline governance challenges such as corruption, weak government effectiveness and political instability as major impediments and suggest governance reforms paired with strategies to mobilize domestical capital, attract and monitor foreign investments and channelize them into high return as vital if Nepal is to achieve inclusive and sustainable economic growth. The study contributes by integrating both empirical and qualitative evidences offering wide-ranging vision and policy direction to strengthen governance and sustain economic growth in Nepal.

Keywords: GDP growth; governance; Foreign Direct Investment (FDI); Gross Capital Formation (GCF); Inflation; World Governance Indicators (WGI); corruption; government effectiveness; political instability

Acknowledgement

I would like to express my deepest gratitude to my supervisor, Syed A. Mamun, PhD, FCMA, for his invaluable guidance, encouragement, and continuous support throughout the completion of this thesis. His insightful feedback, patience, and expertise have been instrumental in shaping this research and enhancing my academic growth.

I am also sincerely thankful to the faculty members and administrative staff of the Department of Economics and Social Sciences, who have provided academic inspiration, resources, and a supportive learning environment during my study period. My heartfelt appreciation extends to all the participants and experts who contributed their valuable time and perspectives to my research.

I owe special thanks to my family and friends for their unconditional love, motivation, and understanding throughout this journey. Their constant encouragement has been my greatest source of strength and perseverance.

Finally, I would like to express my gratitude to everyone at Brac University who, directly or indirectly, contributed to making this work possible.

Table of Contents

Declaration.....	ii
Approval	iii
Abstract	v
Acknowledgement	vi
List of Acronyms.....	xi
List of Tables	xii
List of Figures	xiii
Chapter 1 Introduction	1
1.1. Context of the Study	1
1.2. Governance Conceptual Framework	1
1.2.1. Concept and Criteria of Good Governance	2
1.2.2. Role of Governance in Economy: Governance and Growth.....	5
1.2.3. World Governance Indicators (WGI).....	6
1.3. Problem Statement and Research Questions	7
1.4. Objectives	8
1.5. Analytical Framework and Data.....	8
1.6. Structure of Thesis.....	9
1.7. Limitations of the Study	9
Chapter 2 Literature Review.....	10
2.1. Governance: Nepal's Scenario	13
2.1.1. Gross Domestic Product growth: Nepal	15
2.1.2. Six World Governance Indicators: Nepal's Position	17
2.1.2.1. Freedom of Voice and Accountability	17
2.1.2.2. Political Stability and Absence of Violence	18

2.1.2.3. Government Effectiveness.....	19
2.1.2.4. Regulatory Quality.....	20
2.1.2.5. Rule of Law	20
2.1.2.6. Control of Corruption.....	21
2.1.3. Other Explanatory Variables: Nepal's Scenario	22
2.1.3.1. Gross Capital Formation (GCF)	22
2.1.3.2. Inflation (INF)	23
2.1.3.3. Foreign Direct Investment (FDI)	24
2.2. Study Hypotheses	25
Chapter 3 Methodology.....	28
3.1. Empirical Design: Methodology and Data	28
3.1.1. Construction of Variables (Visual Representation of normality using Histograms)....	28
3.1.1.1. Dependent Variable	28
GDP Growth.....	28
3.1.1.2. Independent Variables	29
Composite Variable of World Governance Indicators (WGI)	29
Inflation (INF)	30
Gross Capital Formation (GCF)	31
Foreign Direct Investment (FDI).....	33
3.1.2. Augmented Dickey Fuller Test (Unit Root Test)	34
3.1.3. Descriptive Statistics.....	34
3.1.4. Comparison of Dependent and Independent Variables (Visual Representation by using ggplots)	37
3.2. Qualitative Empirical Design: Open Ended Interview	42
3.2.1. Research Design and Methodology	42

3.2.2. Sampling and Participants	42
Chapter 4 Findings	44
4.1. Empirical Results	44
4.1.1. Correlation Analysis: Ordinary Least Square (OLS) (Restricted and Unrestricted) ...	44
4.1.2. Auto-Correlation Test.....	46
Auto Correlation Test 1 (durbinWatsonTest)	47
Auto Correlation Test 2 (dwtest)	47
4.1.3. Auto Regressive Distribution Lag (ARDL)	47
4.1.3.1. ARDL (without optimal lag).....	47
4.1.3.2. ARDL (with optimal lag).....	50
4.1.3.3. Cointegration Test	52
4.1.3.4. One step ECM Model (Error Correction Model).....	53
4.1.3.5. Two Step ECM (Restricted ECM)	56
4.1.4. Scrutinizing Cointegration throughout Models for justification of Model Specification (ARDL, One-step ECM and Two Step ECM)	58
4.1.5. Long Run Results of Restricted ARDL	59
4.1.6. Diagnostic Tests.....	60
4.1.6.1. Breusch-Godfrey Test for Serial Correlation.....	60
4.1.6.2. Heteroskedasticity Test (studentized Breusch-Pagan Test).....	60
4.1.6.3. Jarque-Bera Test for Normality	60
4.1.6.4. CUSUM Test for Structural Stability	61
4.2. Empirical Econometric Implications	62
4.3. Empirical Qualitative Implications: Discussion and Findings	64
Chapter 5 Conclusion and Policy Recommendations	69
Work Citation.....	71

Appendices	75
------------------	----

List of Acronyms

ARDL: Auto Regressive Distribution Lag

CBS: Central Bureau of Statistics, Nepal

CC: Control of Corruption

COMP: Composite Variable

ECM: Error Correction Model

FDI: Foreign Direct Investment

GCF: Gross Capital Formation

GE: Government Effectiveness

GDP: Gross Domestic Product

GDPG: Gross Domestic Product Growth

INF: Inflation

OECD: Organization for Economic Co-operation and Development

OLS: Ordinary Least Squares

PV: Political Stability and Absence of Violence

RL: Rule of Law

RQ: Regulatory Quality

UCM: Unobserved Components Model

UNDP: United Nation Development Program

VA: Voice and Accountability

WGI: Worldwide Governance Indicators

List of Tables

Table 1: Summary Table of Key Points from Literature Reviews	13
Table 2: Possible Relation between Dependent Variable and Explanatory Variables	27
Table 3: Unit Root Test Results	34
Table 4: Summary Statistics of Raw Data	35
Table 5: Summary Statistics after taking logarithmic form of Inflation and GCF and Comp Variable of 6 governance indicators.....	36
Table 6: Background of Participants of Qualitative Analysis.....	43
Table 7: Background of Participants of Qualitative Analysis.....	45
Table 8: Auto correlation, Durbin Watson Test 1	47
Table 9: Auto correlation, Durbin Watson Test 2.....	47
Table 10: ARDL without optimal lag	48
Table 11: Model Fitness Statistics for ARDL without optimal lag	49
Table 12: ARDL with optimal lag	50
Table 13: Model Fitness Statistics for ARDL with optimal lag	51
Table 14: Bound Tests of Cointegration (t-test and f-test) results	52
Table 15: Results of Cointegration equation for ARDL with optimal lag.....	53
Table 16: Results of One step ECM model	54
Table 17: Model Fitness Statistics of One Step ECM Model.....	54
Table 18: Results of Cointegration equation for One step ECM	56
Table 19: Results of Two step ECM model.....	57
Table 20: Model Fitness Statistics of Two Step ECM Model	57
Table 21: Long Run Results of Restricted ARDL	59
Table 22: Breusch-Godfrey Test for Serial Correlation	60
Table 23: Heteroskedasticity Test (studentized Breusch-Pagan Test).....	60
Table 24: Jarque-Bera Test for Normality	61
Table 25: CUSUM Test for Structural Stability.....	61

List of Figures

Figure 1: Criteria of Good Governance.....	4
Figure 2: Governance Indicators of Nepal from 1996-2023	14
Figure 3: GDP Growth Nepal (1996-2023).....	16
Figure 4: Freedom of Voice and Accountability (VA)	17
Figure 5: Political Stability and Absence of Violence (PV)	18
Figure 6: Government Effectiveness (GE)	19
Figure 7: Regulatory Quality (RQ)	20
Figure 8: Rule of Law (RL)	21
Figure 9: Control of Corruption (CC)	21
Figure 10: GCF of Nepal (% of GDP) (1996-2023)	22
Figure 11: Inflation in Nepal (%) (1996-2023).....	23
Figure 12: FDI in Nepal (% of GDP) (1996-2023).....	24
Figure 13: Histogram of GDP growth.....	29
Figure 14: Histogram of Composite Variable of WGI	30
Figure 15: Histogram of lnINF (Inflation)	31
Figure 16: Histogram of lnGCF (Gross Capital Formation)	32
Figure 17: Histogram of FDI (Foreign Direct Investment)	33
Figure 18: Comparison of GDP_growth and Comp Variable.....	37
Figure 19: Comparison of GDP_growth and lnGCF	39
Figure 20: Comparison of GDP_growth and lnINF	40
Figure 21: Comparison of GDP_growth and FDI	41
Figure 22: Recursive CUSUM Test	62

Chapter 1 Introduction

1.1.Context of the Study

Nepal is one of the developing countries whose economy is largely dependent on agriculture and remittance. Recently, Nepal's economy has shown significant growth in terms of economic and human development. Between 1996-2023, the economy grew at an average real annual rate of 4.2 percent, respectable given the challenges of domestic conflict and multiple external shocks (World Bank, 2025). Despite such a significant growth rate, Nepal's growth rate ranks sixth out of eight South Asian countries. This shows that Nepal's developing economy is highly wedged by its internal institutional and macroeconomic conditions. The major deterrent in Nepal's economic growth is its political instability and corruption. Other major barriers are the weak government effectiveness, lack of accountability and vague rule of law leading the nation towards poor governance.

It is widely believed that sustained economic growth is highly dependent on good governance of any country. A good governance encompasses the optimum and effective use of resources in the provision of public services along with creating and maintaining a stable environment for private sectors to operate and prosper. The World Bank defines good governance as "the manner in which power is exercised in the administration of a country's economic and social resources for development" (World Bank, 1992). A strong relationship between good governance and significant economic growth has been identified in developing countries like Nepal. However, Nepal has experienced government change of over two dozen over the past three decades, which has greatly delayed economic growth in Nepal. Central to this concept, Worldwide Governance Indicators (WGI) which incorporates six dimensions: freedom of voice and accountability, political stability and absence of violence, regulatory quality, government effectiveness, rule of law and control of corruption, serves as a crucial measure of institutional quality.

1.2.Governance Conceptual Framework

The conceptual framework of governance is multi layered exercise of addressing the fundamental ways of operating societies, exercising power, and regulating rules and values. From World Bank's (1992) definition we can see that governance is situated at the intersection of political authority, institutional arrangements, and administrative capacity. Further, the concept of governance carries several meanings distinguished from "government" including various social functions, both formal and informal. Governance encompasses inclusion of international cooperation through non

sovereign bodies outside the state system, serves as a synonym for public administration referring to an effective implementation of state policy and a regulation of social behaviors through networks and other nonhierarchical mechanisms (Fukuyama, 2016). Thus, governance does not only emphasize on the structures through which decisions are made, but also the processes that ensure effective, transparent, and accountable use of public resources. From this, we can say that governance is the system of the nation where governments are selected, monitored, changed when required and the center of developing and implementing effective policies.

1.2.1. Concept and Criteria of Good Governance

The concept of good governance has been a central pillar for sustainable social and economic development which not only depends on sound policies but the quality of governance system that implements those policies. The World Bank coined the term “good governance” in 1992 which specifically embeds the standards such as political accountability, freedom of participation and expression, established legal framework based on rule of law and a sound administrative system leading to government effectiveness and efficiency. Similarly, United Nations Development Programme (UNDP, 1997) defines governance as the exercise of political, economic, and administrative authority in the management of a country’s affairs at all levels comprising of the complex mechanisms, processes, and institutions through which citizens articulate their interests, mediate their differences, and exercise their legal rights and obligations. Organization for Economic Cooperation and Development, (OECD,1989) also contributes to the definition of good governance where an objective of ‘participatory development’ is put forward referring to the promotion of democratic and accountable political systems, respect for human rights and effective and accessible legal systems. Moreover, OECD has further developed the participatory development/ good governance towards sound public governance. These include cross-government coordination to design, implement and monitor the performance of national strategies, strategies including anti-corruption, effective use of resources, performance evidences, effective decision making and engagement with citizens and civil society stakeholders at all points of policy cycle (OECD, 1994). Similarly, International Monetary Fund (IMF) has adopted various governance policies (IMF 1997, 2018), to address and further strengthen the economic governance which aim to promote more systematic, effective, candid, and evenhanded engagement with member countries to regarding governance vulnerabilities, including corruption, that are critical to macroeconomic performances. The IMF policy focuses on state functions that are most relevant to

economic activity such as fiscal governance, financial sector oversight, central bank governance and operations, market regulation, rule of law and Anti-Money Laundering and Combatting the Financing of Terrorism (IMF, 2023).

While, “good governance” refers to the governance with attributes such as participatory, accountable, transparent, effective, equitable and follows the rules of law, different national and international organizations talk about the concept of “good governance” from different point of views. Across such major institutions such as the UN, OECD and IMF, frequently highlighted core principles of good governance are listed below:

1. Political Accountability: Good governance requires accountability from major sectors such as governmental institutions, private sector, and civil society organizations. It is a very important quality of good governance and it cannot be exercised without transparent rule of law.
2. Participation: Good governance emphasizes on active involvement of people in decision making processes. Participation through direct involvement or a representative of legitimate institution requires freedom of association and expression. An organized civil society is responsible to ensure that the participation is informed and organized particularly for the vulnerable group of people. A good governance comprises of equitable and inclusive participation as a society’s wellbeing highly depends on ensuring equal opportunities for the most vulnerable to improve.
3. Freedom of expression: This is directly linked to the participation. Participation alone is not enough for fruitful outcome thus, an informed participation followed by freedom of expression is ideal. Good governance takes views of minorities and vulnerable voices into account assuring their voices are heard in decision making.
4. Established Legal Framework based on Rule of Law: A fair legal framework is very essential to enforce and ensure full protection of human rights especially those of minorities. In the absence of fair legal framework, the society will move independently causing a disorder. One major disorder would be corruption which is a major impediment to development. Thus, good governance should establish effective legal framework to minimize corruption.

5. **Sound Administrative System:** A good governance with an efficient and effective approach produces results that meet the needs of the society while making the best use of available resources. This also extends to the sustainable use of natural resources and human capital.
6. **Transparency:** Transparency is crucial for enforcing accountability as the decisions taken and their enforcement must follow strict rules and regulations. Information regarding such decisions should be accessible to those affected in understandable forms and media.
7. **Responsiveness:** Good governance also means institutions being responsive to the present and future needs of the society aiming to serve all the stakeholders.
8. **Consensus Oriented:** Good governance requires facilitating different societal interests to reach broad consensus on what serves the entire community's best interest. It also includes long term perspective on how to achieve sustainable human development informed by cultural, social, and historical contexts.

The above highlighted principles collectively ensures that governance mechanisms not only efficiently deliver public goods but also foster trust between the nation and its citizens, protects rights and upholds democratic values. While good governance is a difficult superlative to fully achieve, working towards these criteria is essential for sustainable outcome.



Figure 1: Criteria of Good Governance
Source: What is good governance? UNEscap (2009)

1.2.2. Role of Governance in Economy: Governance and Growth

Governance and growth have been a matter of long history of research and discussion and a long list of philosophers and economists, over centuries, including Adam Smith, David Ricardo, Karl Marx, Maynard Keynes have left their mark on these subjects. It is widely believed that sustained economic growth is highly dependent on good governance of any country. Governance has been a central theme in development economics since the above international organizations such as UN, OECD, IMF, and the World Bank itself have begun linking governance to a long-term economic growth. Ellahi et al. (2021) highlight that governance is an important and crucial driver of financial sector development and stock market development, a key channel for broader economic development. Kauffman et al (1999) have empirically demonstrated that better governance is associated with faster growth and stronger development outcomes. Despite this consensus, scholars also argue that the governance-growth relationship is far more complex than just institutional. Chibba (2009) provides a critical examination providing two keys but overlapping dimensions of governance. First, a structural construct referring to all the aspects of the way a nation is governed- institutions, policies, laws, regulations, processes, and oversight mechanisms. Second, cultural and ideological setting- for governance is perceived and shaped by values, culture, traditions, and ideology. This is reinforced by Grindle (2011), where the author narrates that institutions are crucial for economic development, as accountable and inclusive structures incentivize investment and innovation. However, effective reform requires context-sensitive strategies that align formal rules with local norms and political realities, rather than importing models in wholesale. From this, we can see that political processes and institutional design are important as economic condition of any nation reflect the existing political power play. Thus, sustainable development depends not only on designing the right formal structures but also on fostering political context and informal social norms.

Highlighting and identifying different interpretations and influencing factors and ways to achieve ‘good governance’ from the discussions among various scholars and economists, Stoker (1998) proposed five key propositions for governance in his influential article. According to him, firstly, governance refers to a set of institutions and actors that are drawn from but also beyond government, meaning that governance is not limited to a formal government but also includes networks of public, private and civil societies. Secondly, governance identifies the blurring

boundaries and responsibilities for tackling social and economic issues, indicating that government is not solely responsible for policy making but an interdependent and shared duties of citizen. Third, governance identifies the power dependence involved in the relationships between institutions involved in collective action, referring to the need of cooperation and interdependence in decision making. Fourth, governance is not autonomous self-governing network of actors, emphasizing that the networks and partnerships of organizations can often manage without the central government control within the framework. Last but not the least, governance recognizes the capacity to get things done which does not rest on the power of government to command or use its authority. Instead, governance depends on the ability to innovate, adapt to new technologies and coordination among the networks emphasizing on persuasion, negotiation, and collaboration.

1.2.3. World Governance Indicators (WGI)

The Worldwide Governance Indicators (WGI) is the framework and research dataset developed by Kaufmann, Kraay and Mastruzzi since 1996 to measure the nature and governance quality provided by many organizations, experts and national statistic bureaus covering over 200 countries. The framework also explicitly reports margin of error for each governance estimate by using a statistical methodology known as Unobserved Components Model (UCM). WGI is structured around six key dimensions listed below and their explanation according to Kauffman et al. (2010):

1. Voice and Accountability: This indicator reflects the citizen participation in government selection and associates strongly with the freedoms of expression and media.
2. Political Stability and Absence of Violence/Terrorism: It measures the likelihood of political instability and violence motivated by it that may discourage social and economic stability.
3. Government Effectiveness: This indicator evaluates the quality of the public services. It mainly analyses and reports the bureaucratic competency and government's credibility and accountability in implementing policies.
4. Regulatory Quality: This indicator captures the ability of the government to design and implement sound policies that encourages and promote country's private sectors.

5. Rule of Law: It assesses the extent to which people have confidence in legal institutions. It includes the enforcement of contracts, property rights and functioning of police and judicial courts.
6. Control of Corruption: Control of corruption measures the degree to which public power is exercised for private gain by the power possessed individuals/organizations.

The six aggregate indicators are reported in two ways: first, in their standard normal units, ranging from approximately -2.5 to 2.5, and second in percentile rank terms from 0 to 100, with higher values corresponding to better outcomes (WGI, 2024). Together, these six indicators provide a bigger picture of governance performance assisting the empirical study to examine link between governance, institutional quality, and economic growth as we are doing in this paper. The WGI indicators is taken as a variable of interest in this paper, closely analyzing its relationship with economic growth.

1.3.Problem Statement and Research Questions

Nepal's governance and growth challenges are particularly marked due to its political transformations, global and domestic disruptions, and natural disasters. To unlock Nepal's growth opportunities, policies enhancing high-promise sector and private sector development attracting domestic and foreign investments should be formulated. The aim of this research is to assess the combined effect of governance indicators alongside key macroeconomic variables by addressing the critical aspect of Nepal's development where strengthening governance institutions help foster sustainable and inclusive economic growth. Therefore, this study investigates combined effect of World Governance Indicators along with major macroeconomic variables such as Foreign Direct Investment (FDI), Gross Capital Formation (GCF) and Inflation on economic growth of Nepal. The study envisions the assessment on only Nepal's economy.

Building on the objectives of this study and understanding the problem statement, the following research questions shall guide the analysis further:

Primary Research Question:

How do governance indicators impact on economic growth of Nepal?

Sub Questions:

4. How do macroeconomic variables such as Foreign Direct Investment (FDI), Gross Capital Formation (GCF) and Inflation (Inf) moderate the relationship between governance indicators and economic growth?
5. What are the perceptions of economics and governance experts in Nepal regarding the governance quality and its strengths, challenges, and future possibilities in fostering economic growth of Nepal?

1.4. Objectives

The main objective of this research is to examine the impact of governance indicators on economic growth and assess the moderating role of major macroeconomic variables such as Foreign Direct Investment (FDI), Gross Capital Formation (GCF) and Inflation (Inf) on the governance-growth relationship.

1.5. Analytical Framework and Data

This research employs mixed method design incorporating quantitative econometric analyses and qualitative interviews to investigate the combined effect of governance and macroeconomic variables on the economic growth of Nepal. The econometric analysis examines the statistical relationship between governance, macroeconomic variables, and economic growth in Nepal while qualitative interviews provide deeper insights regarding governance practices and institutional dynamics that cannot be captured by numbers alone.

To capture the human perceptions on governance challenges and strengths, semi structured open-ended interview questions were designed. The study incorporates the responses from five participants who were purposively selected from economics and governance backgrounds to ensure informed perspectives on governance mechanism and Nepal's economic growth trajectory. Further for quantitative econometric analysis, this study uses a time series dataset to assess the relationship between GDP growth and numerous factors. The analysis is based on the data collected from the secondary source such as World Bank for the span of 1996-2023. To explain the influence on GDP growth, this research uses econometric models including the interest of variable, Worldwide Governance Indicators (WGI) and macroeconomic variables, Foreign Direct Investment (FDI), Gross Capital Formation (GCF), and Inflation (Inf). The data is logarithmically transformed for some macroeconomic variables (GCF and Inf) for analysis and econometric approaches such as Autoregressive Distributed Lag (ARDL) model are run using R Studio. To

ensure the strength and reliability of the research, the study has done descriptive statistics, quantitative techniques, and econometric tools such as unit root test and cointegration tests. Ordinary Least Square (OLS) regression and restricted OLS are used to test the correlation among variables by omitting each variable to understand the unique contribution of the explanatory variable in the model. Further, ARDL approach is conducted to capture the short run dynamics to adjust long run equilibrium and long run relationship among the variables.

This research contributes to a better understanding of both long run and short-term impact of explanatory variables on GDP growth. The research's empirical design thoroughly investigates the factors of economic growth and the interview narratives are used to interpret and contextualize the econometric results.

1.6. Structure of Thesis

This thesis is organized in 5 chapters. First chapter, Chapter 1 is the introductory chapter which contains the context of the study, research objectives, problem statement and research questions and analytical framework of the paper. It also explains the conceptual framework of governance, idea of good governance and its criteria, role of governance in economy and Worldwide Governance Indicators (WGI). The second chapter, Chapter 2 provides a brief literature review on governance, relationship between governance indicators, macroeconomic conditions and economic growth including a detailed information on Nepal's position in GDP growth, WGI governance indicators and other macroeconomic explanatory variables such FDI, GCF and Inflation leading towards the study hypotheses. Further, Chapter 3 presents research design and methodology for both quantitative and qualitative analysis of the study which incorporates extensive econometric analysis from empirical design, methodology, visual representation of construction of variables to sampling and participation of qualitative open-ended interview. Chapter 4 includes both qualitative discussion and econometrics empirical findings and implications. Chapter 5 concludes the paper with conclusion, implications, and policy recommendations from both qualitative and quantitative analyses.

1.7. Limitations of the Study

The data for World Governance Indicators (WGI) are only available from 1996 to 2023, only 27 years of data, due to which the major limitation of the study is the data limitation itself. If the sample size was larger, better significant results could be expected. Further, due to the limited time of the study, more participants could not be accommodated in the qualitative open-ended interview.

Chapter 2 Literature Review

The World Bank (1992) defines governance as “the manner in which power is exercised in the administration of a country’s economic and social resources for development”. Additionally, good governance, for the World Bank, is considered synonymous with sound development management, aiming to establish a predictable and transparent essential policy framework. It is a central to create and sustain an environment where outcome of political processes is reflected, and necessary improvement to prevail political equilibrium is done to foster a strong and equitable development (World Bank, 1992). In literatures, various indicators are taken as intermediary factors for governance, however, many recent studies have used Worldwide Governance Indicators (WGI) as one of the most inclusive and credible variables. WGI consists of six dimensions of governance such as voice and accountability, political stability and absence of violence, regulatory quality, government effectiveness, and control of corruption and the rule of law. This section of the paper discusses the importance of these indicators to determine governance and its impact on economic growth.

From a theoretical standpoint, governance is heavily related to institutional economics (North,1990) which suggests that the quality of a country’s institution shapes economic activity. He claims that good governance lowers uncertainty, fosters investor confidence, and facilitates efficient allocation of resources promoting sustainable growth. Similarly, Acemoglu and Robinson (2008) reclaims this, stating inclusive economic institutions promote economic growth by protecting property rights and encouraging innovation, investment and human capital which should be supported by political institutions that enforce laws and provide political stability. Overall, the sustainable development relies on creating and maintaining inclusive political and economic institutions. Adams and Mengistu (2008) detect that whenever governance is malfunctioned, economic development loses its balance and vice versa. Further, Mahran (2023), Samarasinghe (2018), Rodrick and Subramanian (2003) and North and Thomas (1973) argue that there is a strong relationship between governance (institutional quality) and the economic growth and the governing components incorporate well defined property rights, unbiased implementations, low information gap and other steady macroeconomic conditions.

The impact of governance as a whole and governance indicators individually is still a complex study. Thus, narrowing down the examination of governance indicators, Mo (2001) points out that voice and accountability and regulatory quality play a vital role in controlling corruption as

increase in corruption level deteriorates financial development. Similarly, Gani (2011) in her paper empirically captures the negative and noteworthy relationship between corruption and economic growth suggesting that failing to control corruption in developing countries deteriorate economic growth drastically. In her findings, she also mentioned that government effectiveness and political stability show positive and significant relationship with economic growth signifying the need of institutional strength for productive outcome in developing countries. In addition, Samarasinghe (2018) finds that corruption control is the expository aspect for economic growth providing statistics of per unit increase in corruption control resulting in 6.9% increase in economic growth. Nevertheless, she emphasizes that it is essential to manage political stability and absence of violence along with control of corruption to attain higher economic growth. From this, we can see that all the governance indicators more or less play a significant role in economic growth and adoption of these indicators in the study will lead to better and wider understanding of economic development and growth.

Magar (2025) in his recent study reveals that there is a significant fluctuation in governance indicators in Nepal linking it to the impact of political events, natural disaster, and the global pandemic. His Granger causality test reveals that control of corruption and regulatory quality of Nepal significantly affect Nepal's GDP growth thus, prioritizing anti-corruption efforts and improved regulatory framework is vital for enhancing political stability in Nepal. Similarly, Duwal (2023) confirms through his empirical results that Nepal's institutional structure is ineffective due to narrow economic freedom, deficient regulations, limited reliability of contracts, poor bureaucracy and weak social structure costing businesses and discouraging domestic investments depriving Nepal's economy to grow as a whole. In addition, Sharma (2011) highlights that Nepal's weak governance, lack of commitment to institutional and policy reform has greatly affected the foreign aid ineffectiveness which has failed to accelerate growth despite being a significant aid recipient for over half a century. This shows that governance quality directly indirectly affects the other macroeconomic conditions of Nepal such as Foreign investments and domestic investments which are one of the crucial drivers of economic growth in Nepal.

Most of the literature has investigated the relationship between governance and economic growth using the governance indicators both independently and combined. Some of the literatures suggest the impact of these indicators influence macroeconomic conditions vital for economic growth in Nepal and vice versa. Mainly, the studies suggest that the improvement in these governance

indicators assure investor's confidence and enforces proper utilization of resources indicating the impact of governance on macroeconomic indicators such as foreign investments, price fluctuations, domestic investment, and capital formation. Even though there are numerous studies suggesting the nexus between governance and economic growth in the presence of steady macroeconomic conditions, there is not much studies in the context of incorporating such macroeconomic variables while analyzing the relationship between governance and economic growth. Therefore, this study will further continue to investigate combined effect of WGIs incorporating the vital macroeconomic conditions such as Foreign Direct Investment (FDI), Gross Capital Formation (GCF), and Inflation on economic growth of Nepal. In this paper, I am further going to examine the impact of governance indicators considering macroeconomic conditions in an attempt to fill up the gap in the empirical literature of governance, macroeconomic conditions, and growth in Nepal.

Author(s) & Year	Focus/Objectives	Key Findings	Implications of the Study
North (1990), Acemoglu and Robinson (2008)	Institutional theory of economic development	Strong Institutions are essential for long term economic growth	Governance Quality forms the foundation for sustained economy
Kaufmann, Kraay & Mastruzzi (1999, 2010)	Development of Worldwide Governance Indicators (WGI)	Better governance correlates with faster growth; six dimensions of governance identified	Provides the empirical framework for measuring governance in this study
Grindle (2011)	Governance and institutional accountability	Accountable, inclusive institutions encourage investment and innovation	Supports the argument that governance reforms promote productivity
Chibba (2009)	Governance as structural and cultural construct	Governance effectiveness depends on institutional structure and ideological setting	Encourages consideration of both political and economic dimensions of governance
Gani (2011)	Governance and growth in developing countries	Political stability & government effectiveness significantly improve growth	Highlights need for institutional strength in developing economies like Nepal

Mo (2001)	Governance, corruption control, and financial development	Voice & accountability and regulatory quality help reduce corruption	Supports inclusion of Political Stability/ Absence of Violence and Regulatory Quality in governance–growth analysis
Samarasinghe (2018)	Corruption and economic growth nexus	1% improvement in corruption control leads to ~6.9% rise in growth	Justifies the inclusion of corruption control as a major governance variable
Sharma (2011)	Governance and aid effectiveness in Nepal	Governance weaknesses undermine aid impact	Demonstrates governance gap in Nepal’s development efforts
Bhandari (2024)	Determinants of economic growth in Nepal	Transition from agriculture to non-agriculture influenced by capital formation	Justifies inclusion of GCF as a moderating variable
Duwal (2023); Magar (2025)	Institutional weakness and growth limitations	Poor governance structures hinder long-term development	Confirms relevance of institutional strength in Nepal’s growth performance
Ghimire et al. (2020)	Macroeconomic variables and GDP growth in Nepal	Growth linked to FDI, GCF, and exchange rates; governance underexplored	Identifies empirical gap—need to integrate governance with macroeconomics

Table 1: Summary Table of Key Points from Literature Reviews

2.1. Governance: Nepal’s Scenario

A strong relationship between good governance and significant economic growth has been identified in developing countries like Nepal. However, Nepal, a low-middle-income country in South Asia, geographically land-locked between two great nations like India and China faces great challenge to incorporate the optimum and effective use of resources in the provision of public services. This is primarily because Nepal has experienced significant political and economic transformation over the past three decades which has greatly affected the nation’s growth. The nation transitioned from monarchy to federal democratic system two decades back reshaping the governance structures at the federal, provincial, and local levels (World Bank, 2025). It has been

widely recognized that governance quality encompassing government effectiveness, rule of law, political stability and control of corruption is a critical determinant of economic growth in Nepal (Poudel et al. 2025). World Bank (2025) identifies external risks such as geopolitical uncertainties, rising trade restrictions increasing higher commodity prices, further deterioration in domestic financial sector and frequent bureaucratic reshuffles undermining policy consistency as hinderances to Nepal's economic growth. Thus, understanding the interplay between the governance and macroeconomic factors and conditions is therefore, very essential for designing and implementing policies that foster economic growth in Nepal.

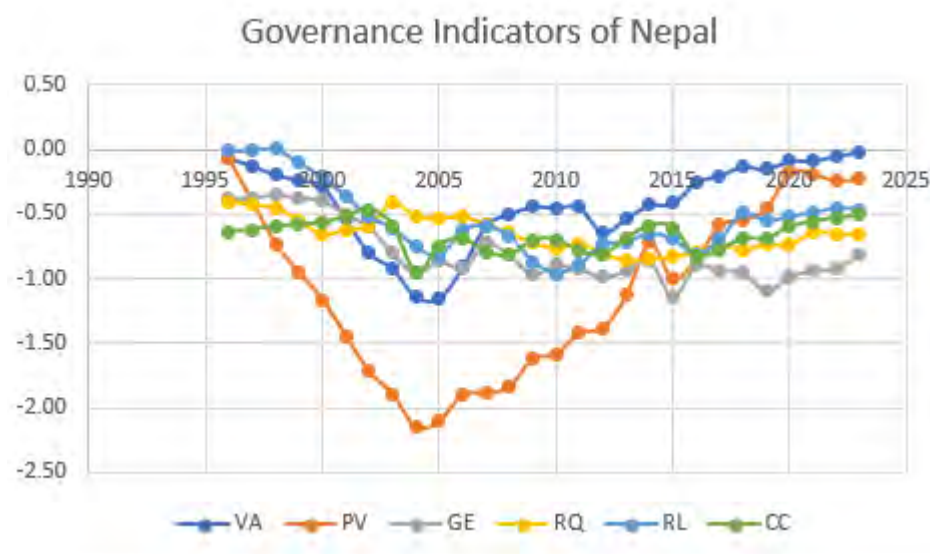


Figure 2: Governance Indicators of Nepal from 1996-2023

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

The above figure presents the combined trend of WGI of Nepal from 1996-2023. The color representations of indicators are:

Blue: Voice and Accountability

Orange: Political Stability and Absence of Violence

Grey: Government Effectiveness

Yellow: Regulatory Quality

Light Blue: Rule of Law

Green: Control of Corruption

From the figure we can see that the Nepal's most of the scores for governance indicators fall in the negative zone as WGI indicators range from -2.5 indicating weak governance to + 2.5 indicating strong governance. This shows a persistent governance challenges and weak status of Nepal over the time. Voice and Accountability (VA) relatively is higher in the late 1990s but has a dip sharply at around 2005 possibly due to civil conflict during that time. Post conflict, VA gradually improves highlighting the democratic reform encouraging people to exercise their right to freedom of expression. Political Stability and Absence of Violence (PV) scores lowest among all the WGIs, plunging below -2 during a decade long civil conflict and Maoist insurgency before 2006. PV shows partial recovery after 2006 but still remains highly volatile and mostly under negative area reflecting political volatility while the Nepal's government transitioned to federalism causing frequent government changes. Further, Government Effectiveness (GE) and Rule of Law (RL) show fairly stable pattern but consistently negative indicating weak public service delivery and limited capacity to implement policies, highlighting challenges in judicial independence, property rights and enforcement respectively. Similarly, Regulatory Quality (RQ) and Control of Corruption (CC) show similar pattern fluctuating between -0.8 to -1.20 reflecting policy inconsistency, frail business and investment climate and persistent corruption issues respectively.

Overall, Nepal shows Political Stability (PV) as the weakest governance dimension and on the contrary, Voice and Accountability (VA) has visibly improved reflecting the benefit of the democratic reform. Other indicators remain stagnant and negative throughout underlining the weak institutional structure. Even though Nepal has shown modest improvement, governance in Nepal remains fragile.

2.1.1. Gross Domestic Product growth: Nepal

World Bank defines GDP as the total income earned through the production of goods and services in an economic territory during an accounting period (usually a year). And GDP growth is the annual percentage growth rate of GDP. Moreover, OECD and IMF define GDP growth as the most important indicator to capture the economic performances and living standards as it measures how fast the economy is growing. In theoretical world, scholars use GDP growth as the primary determinant of economic growth. Nepal, being a low-income country, agriculture has been the biggest contributor to Nepal's GDP since very long but, the sector's contribution to GDP has been declining in recent years. Various budding private and public sectors including other

macroeconomic conditions could be the reason of this. In the economic research paper by Ghimire et al. (2020), researchers have tried to understand the relationship between various macroeconomic variables and their impact on economic growth of Nepal. In their empirical result, it shows that exchange rate, Gross Fixed Capital Formation and import have significant impact on economic growth of Nepal while, export, FDI and inflation do not show significant impact. In addition, Bhandari (2024) provides a detailed examined research paper on Nepal's economy emphasizing the transition from agriculture to non-agriculture businesses, adoption of policies to boost capital formation and the macroeconomic challenges surrounding the Nepal's economy. He stresses that infrastructure development, human capital investment, political stability, macroeconomic stability, trade and investment, agricultural productivity, industrial development, natural resource management, financial inclusion, technological advancements, institutional quality, and global economic conditions are all important factors influencing Nepal's economic development (Bhandari, 2024).

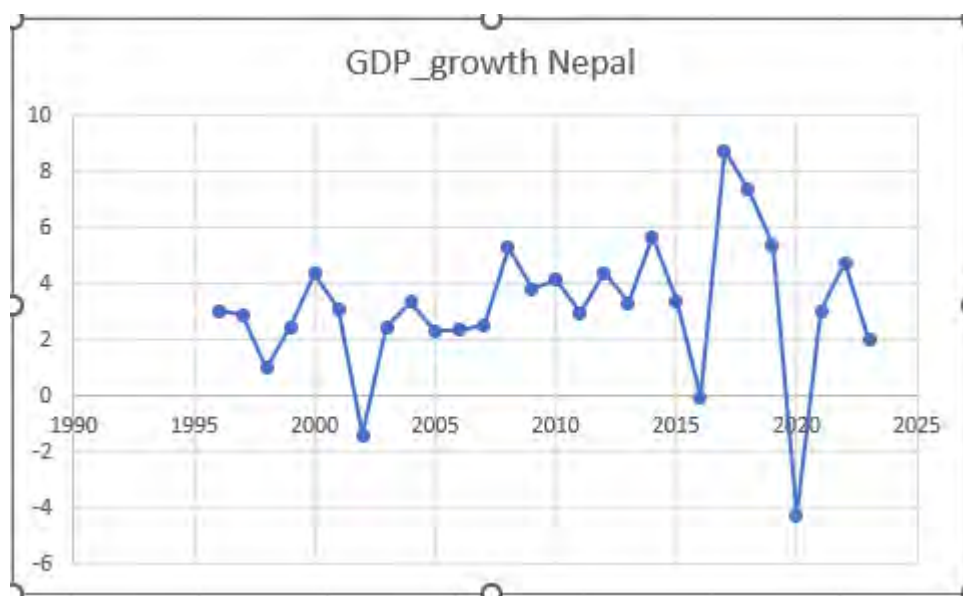


Figure 3: GDP Growth Nepal (1996-2023)

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

In the figure above, the chart shows that Nepal had two major dips in GDP growth before 2006 indicating the influence of a decade long civil conflict. Particularly around 2000-2001, there is a sharp decline which can be linked to the Maoist insurgency which destabilized Nepal politically and economically. The chart shows gradual improvement in GDP growth after 2006, until Nepal

was hit by massive earthquake in 2015 followed by unofficial economic blockade by India which greatly affected Nepal's economy. After the drastic downfall in 2015, Nepal's economy rebounded sharply supported by reconstruction projects, foreign aids, and other inflows. But not long after, when a global pandemic hit the global economy in 2019, Nepal's economy crashed with lockdowns halting all economic activities. Post-pandemic, GDP growth of Nepal has bounced back though as not as high as pre-pandemic boom.

Overall, we can understand that Nepal's economy is dynamic and the transitioning from least developed nation to developing nation has been evident by Nepal's adaptation to other economic sectors than only agriculture. While GDP growth of Nepal is highly volatile, it is influenced by many internal and external factors. Thus, requires both internal and external reforms accompanied by strategies to stabilize economy against temporary shocks and encourage domestic productivity.

2.1.2. Six World Governance Indicators: Nepal's Position

The World Bank has identified 6 key dimensions to understand governance. The World Governance Indicators for Nepal over the study period of 1996 – 2023 has been explained below:

2.1.2.1. Freedom of Voice and Accountability

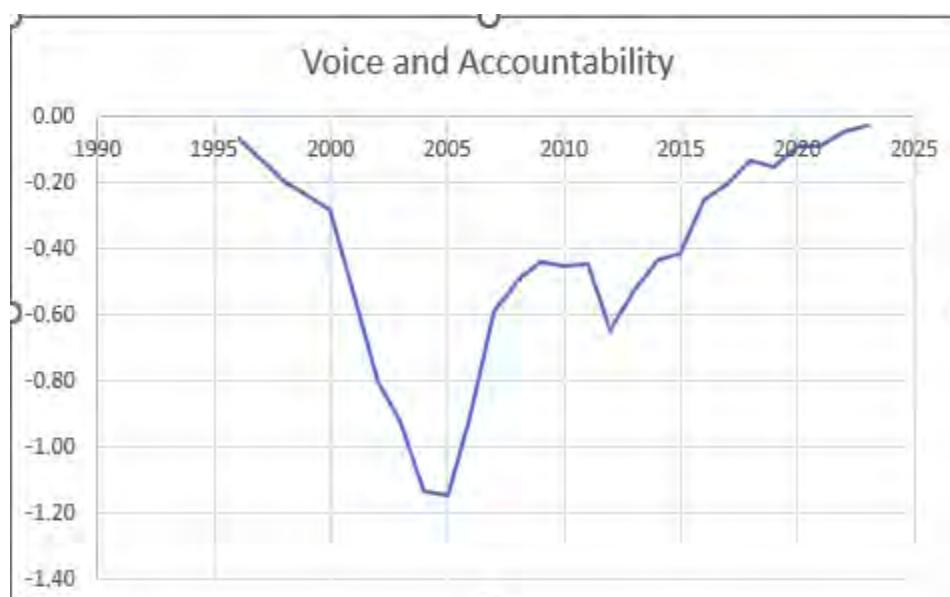


Figure 4: Freedom of Voice and Accountability (VA)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

The above figure represents the Freedom of Voice and Accountability (VA) in Nepal from 1996-2023. The chart shows that VA is relatively higher but decreasing since 1996 and has a sharp downfall at 2005 indicating the limited freedom of express, media and information in Nepal during the Maoist insurgency leading to civil conflict for a decade. After the Peace Accord 2006, VA shows gradual improvement reflecting democratic reform in Nepal. Further, VA shows slight dip during after 2010 till 2015, indicating the political dominance during the process of drafting new constitution in Nepal. A sharp downfall is seen at around 2012, when the first constituent assembly was dissolved failing to meet the deadline of producing a new constitution of Nepal after federalism. In 2015, the chart shows a significant growth confirming the freedom of voice in Nepal after the new constitution was introduced.

2.1.2.2. Political Stability and Absence of Violence

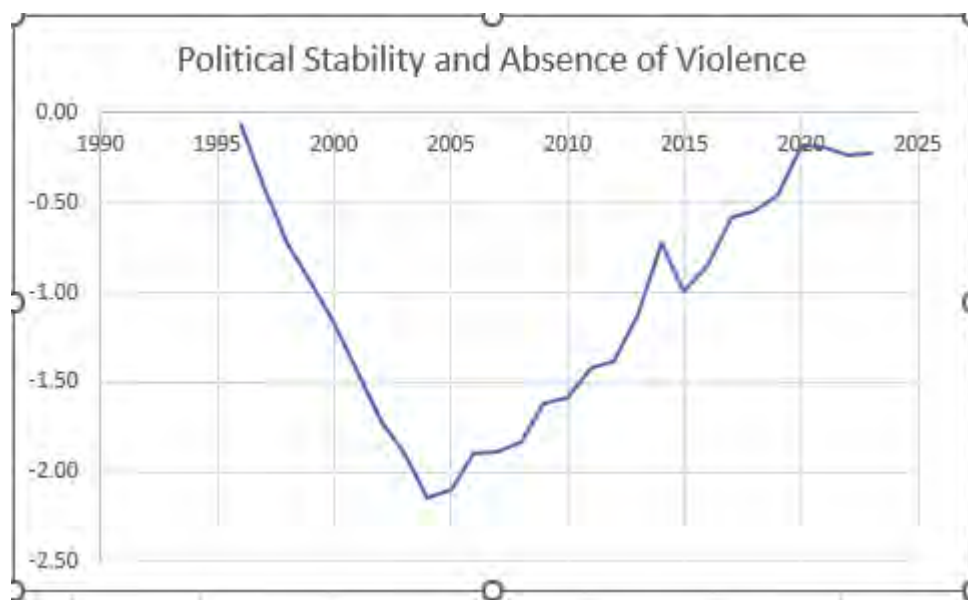


Figure 5: Political Stability and Absence of Violence (PV)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

The above chart shows the Political Stability and Absence of Violence in Nepal (PV) in Nepal from 1996-2023. In the figure, we see that PV has been consistently negative over the study period suggesting a weak institutional capacity to maintain the political stability. PV shows a huge fall before 2005 reflecting a volatile political situation in Nepal during a decade long civil conflict and Maoist insurgency in 2005. PV shows gradual increment post conflict but remains inconsistent due

to internal divisions among political parties and emergence of new political parties during the procedure of drafting a new constitution for Nepal. It shows a downfall in 2015, when the new constitution was introduced indicating the conflict between political parties causing frequent change of government. Nepal has shown modest increment in maintaining political stability post 2015, while it still remains negative in the WGI standard.

2.1.2.3. Government Effectiveness

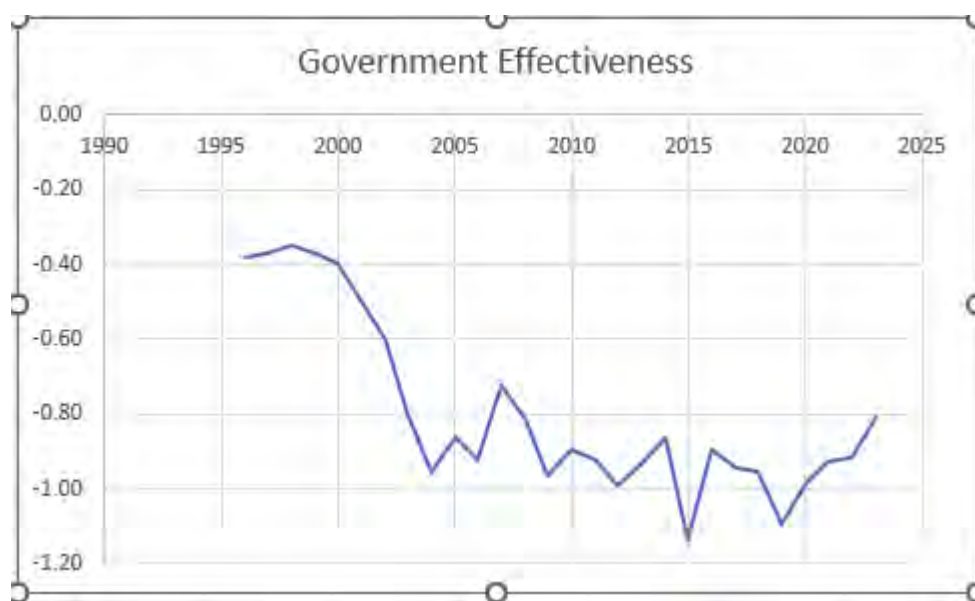


Figure 6: Government Effectiveness (GE)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

An effective government play a vital role in a developing country's economy like Nepal. The chart above indicates that the government effectiveness (GE) during 1996-2023 in Nepal is gradually declining and is mostly negative. Despite of several political changes, transition from monarchy to federalism and introduction of new constitution, Nepal shows lack of effectiveness in government concerning the country both economically and politically.

2.1.2.4. Regulatory Quality

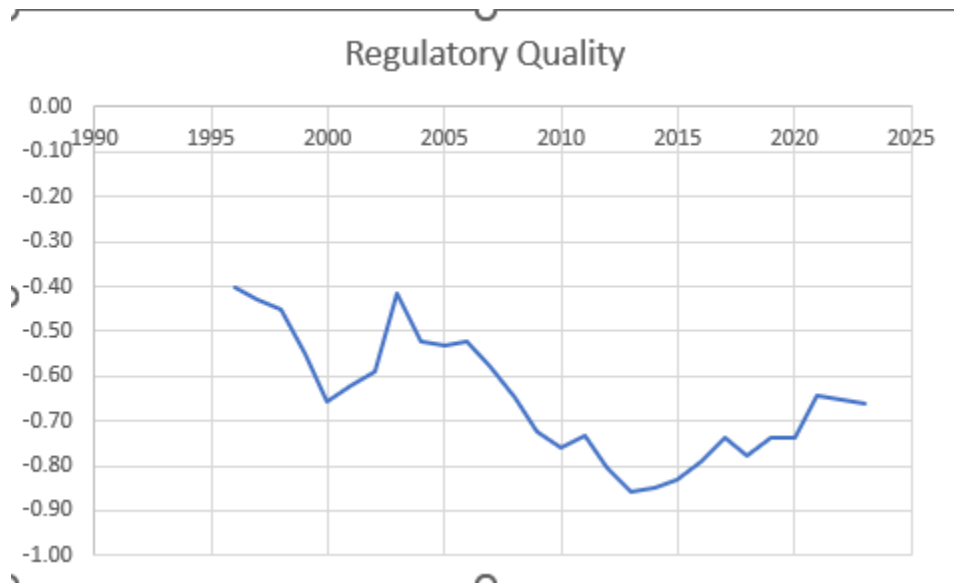


Figure 7: Regulatory Quality (RQ)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

Regulatory Quality (RQ) of the country is the core for economic development as it is vital to design sound policies and implement them to enhance the economy. The above chart reflects the weak government effectiveness in Nepal from 1996-2023, by consistently marking negative values according to WGI standard. In the chart, RQ shows a significant downfall during 2006 to 2017 speculating the procedure of drafting new constitution in Nepal.

2.1.2.5. Rule of Law



Figure 8: Rule of Law (RL)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

Figure 8 illustrates the frail confidence of citizen of Nepal in the legal institutions as the above chart shows a sharp fall in Rule of Law (RL) post Peace Accord, during civil conflict and it remains consistently negative over two decades. Significant drops in RL is seen in the period of 2010 to 2015, first when a constituent assembly was dissolved failing to draft a constitution in the deadline and second when a new constitution was introduced signaling a vulnerability among people of Nepal to fully trust the new constitution.

2.1.2.6. Control of Corruption



Figure 9: Control of Corruption (CC)

Source: <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

The above figure is very evident to say that corruption has been a very big issue in Nepalese economy. A consistent negative value over the decades suggest that control of corruption (CC) is the biggest challenge in Nepal as the political power is seen being used for personal gain over the study period. The chart shows high corruption before Peace Accord in around 2004, during process of drafting new constitution from 2010-2013, right after the new constitution was introduced in 2015, conveyed by the massive earthquake and unofficial economic blockade by India. From this, we can see that when a county is having a crisis, the power authorities above are getting personal benefits hindering Nepal's economy and overall wellbeing.

2.1.3. Other Explanatory Variables: Nepal's Scenario

In this paper, the relationship between GDP growth and governance along with other important macroeconomic conditions in the period of 1996-2023 is studied. The macroeconomic conditions of Nepalese economy included in this paper for the study over the study period are explained below:

2.1.3.1. Gross Capital Formation (GCF)

Gross Capital Formation (GCF) is essentially the investment in country's fixed assets such as machineries, buildings, infrastructures, and inventories. It is a key driver of production capacity of an economy. The CBS (Central Bureau of Statistics) of Nepal uses the production (output) approach while calculating the GDP of Nepal where the production from different economic sectors such as agriculture, industry and services are summed up and value added. Thus, GCF is a very important macroeconomic driver of Nepal's economy.

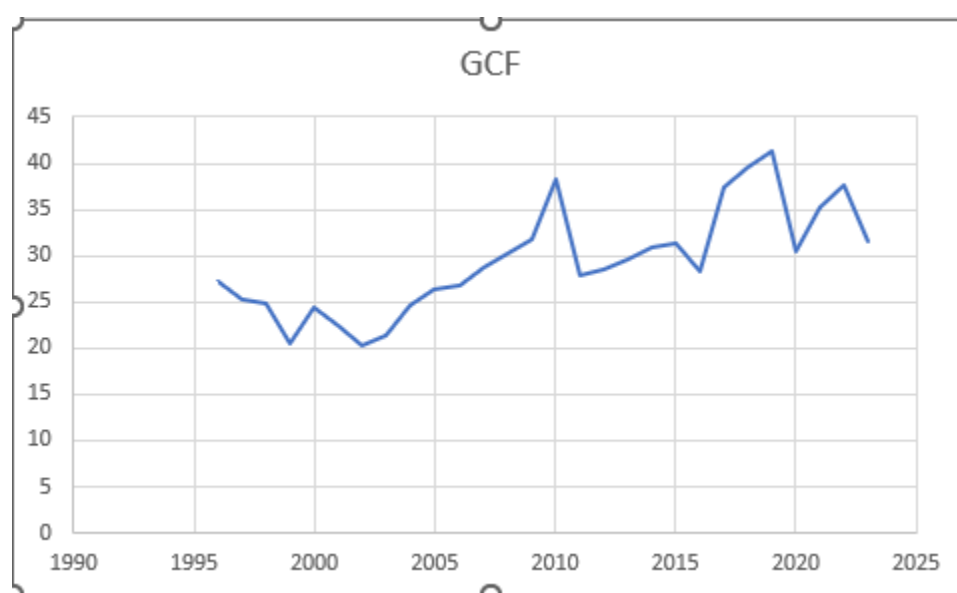


Figure 10: GCF of Nepal (% of GDP) (1996-2023)

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

The chart shows the Gross Capital Formation (GCF) as a percentage of GDP in Nepal from 1996 to 2023. It illustrates the share of investment in fixed assets of Nepal over the study period. Here, we can see that GCF is comparatively lower in the beginning of the period indicating lower confidence of public and private investments during a decade long civil conflict from 1996-2006. The graph shows upward trending post conflict suggesting the return of investor's confidence in Nepalese economy. GCF peaked in 2010 when the constituent assembly was formed to draft the

new constitution but it declined afterwards possibly due to the threat of political instability in Nepal. GCF shows a significant growth after 2015 earthquake reaching the highest peak over the study period, indicating the inflow through reconstruction projects and foreign aids. Global pandemic in 2019 has caused GCF to shrink in 2020 but is bouncing back in recent years even though it has not reached the pre pandemic peak. The sharp ups and downs of GCF reveals that Nepalese economy is volatile to various political, disasters, and economic shocks underlining the need for more stable institutionalized investment mechanisms.

2.1.3.2. Inflation (INF)

Inflation measures the rise in the prices of goods and services. While moderate inflation signals growth indicating the betterment of lifestyle, higher inflation erodes purchasing power, deteriorates investments causing economic growth to erupt. Nepal being a developing country, a disciplined financial condition and stable monetary policies play a vital role in keeping inflation under control for household welfare and real economic growth.

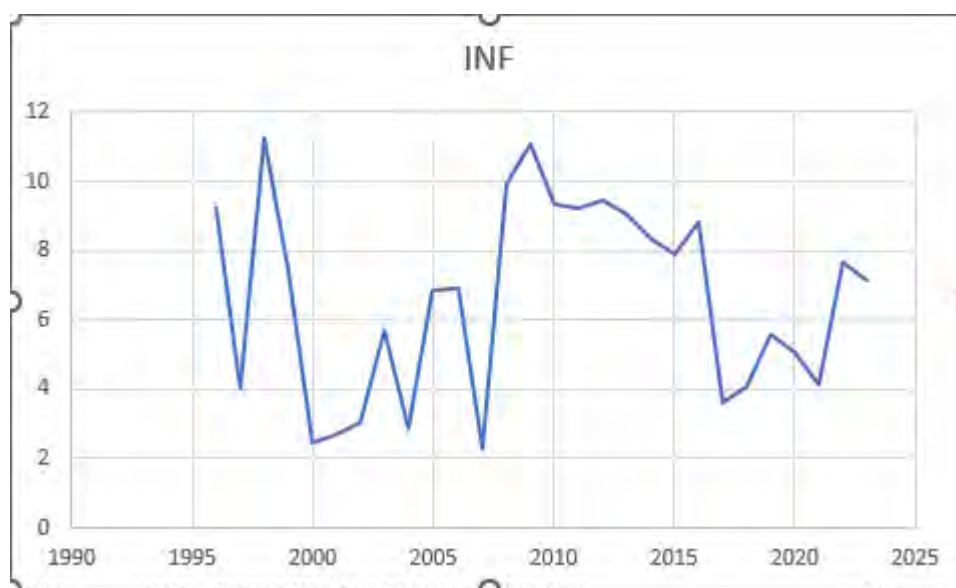


Figure 11: Inflation in Nepal (%) (1996-2023)

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

The above figure shows a volatile inflation during conflict period (1996-2006) indicating a weak monetary control in Nepalese economy. A sharp dip is seen post conflict reflecting improvement in monetary policies. But this remains short aged and inflation spikes around 2008 possibly due to global food and oil price crisis of 2008 affecting Nepal due to its import dependency. In 2015, a rise in inflation is seen after the massive earthquake and the unofficial economic blockade by India

causing shortage of food and fuel leading to the price hike. In 2019, a downfall is demonstrated in inflation during the global pandemic due to suppressed demand because of lockdown and minimal economic activities. Post pandemic, in the recent years, inflation seems to be rising but is in controllable manner unlike the period of political unrest.

2.1.3.3. Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) is investments from foreign organizations in Nepal's domestic businesses or infrastructures often in the monetary, technology and expertise form. The political status, governance quality and stable institutional condition play a vital role in attracting foreign investments in Nepal's economy. As Nepal is a developing country with great growth potential, foreign organizations highly invest in Nepal's economy making Nepal one of the significant aid recipients over decades.

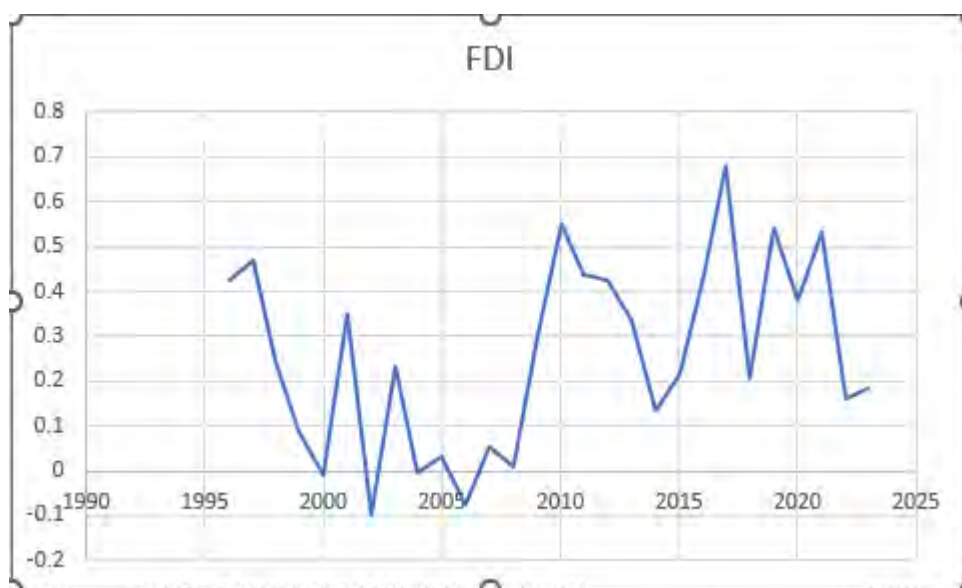


Figure 12: FDI in Nepal (% of GDP) (1996-2023)

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

The above figure illustrates Foreign Direct Investment (FDI) in Nepal in percent of GDP from 1996 to 2023. The chart shows a dip in 2000 and inconsistent fluctuation till around 2003 coinciding with Nepal's internal political unrest which discouraged foreign investors. Post conflict, in 2006, FDI shows moderate increment till 2008 signaling the return of investors confidence. There is a spike in 2010 when constituent assembly was formed giving a promising investment environment. Alas, the increment was short lived and FDI shows declination after 2010, when the new constitution could not be drafted even after years of assembly formation causing political

instability among the political parties in Nepal. FDI is seen rising in 2015 after the massive earthquake, where foreign aids for reconstruction inflowed in Nepalese economy. Also, Nepal got its first constitution after the political transition in 2015 encouraging investments. It shows moderate increment yet inconsistent flow of investment possibly due to internal and relationship with neighboring country, India, bottlenecks regarding the new constitution. FDI shows a downfall post pandemic after 2019 likely due to global economic slowdown. This suggests that Nepal needs to tackle political and economic uncertainties locally to sustain foreign investments.

2.2. Study Hypotheses

The prior literature reviews examine the impact of governance indicators (World Governance Indicators) on GDP growth and moderating role of key macroeconomic indicators such as Gross Capital Formation (GCF), Inflation (INF) and Foreign Direct Investment (FDI) on the relationship of governance indicators with dependent variable, GDP growth. Similarly, based on the objective of the study, addressing the research questions, considering Nepal's position in each of the variable and ideas from prior theories and literature reviews, the following hypotheses are developed. The selection of variables in this study is grounded in both theoretical foundation and empirical studies.

Hypothesis 1: Governance and Economic Growth

Governance plays a vital role in shaping economic growth and institutional outcomes. Its is expected to have a direct and positive impact on economic growth. Theoretically, numerous studies conducted suggest that better governance fosters economic growth as well as encourages both domestic and foreign investments. Empirical studies such as Grindle (2011), Gani (2011) and Samarasinghe (2018) support this relationship by demonstrating that the countries with good governance quality, stronger institutions and better corruption control achieve better growth performance. A sound governance is expected to promote efficient allocation of resources, encourages innovation and enhances investor confidence, all of which contribute to higher GDP growth.

In this study, Comp variable is constructed by aggregating the six Worldwide Governance Indicators (WGI):

- a) Political Stability
- b) Freedom of Voice and Accountability
- c) Government Effectiveness
- d) Regulatory Quality

- e) Control of Corruption
- f) Rule of Law

Null Hypothesis (H_{01}): Governance has no significant relationship with economic growth in Nepal

Alternative Hypothesis (H_{11}): Governance quality has positive and significant relationship with economic growth in Nepal

Hypothesis 2: Moderating Role of Gross Capital Formation (GCF) on governance growth relationship

Gross Capital Formation (GCF) reflects the domestic investment and accumulation of physical assets which stimulates the production and infrastructure development escalating economic growth. Its role in moderating the governance growth relationship is grounded in the idea that the efficient capital formation amplifies productivity which is derived from quality governance. Studies by Bhandari (2024) and Adams and Mengistu (2008) support this in their paper arguing that the productive investment supported by institutional strength accelerates growth by improving capital efficiency and utilization. Therefore, this study tests whether the capital formation strengthens the positive relationship between governance and economic growth.

Null Hypothesis (H_{02}): Gross Capital Formation does not moderate the relationship between governance quality and economic growth

Alternative Hypothesis (H_{12}): Gross Capital Formation positively moderates the relationship between governance quality and economic growth

Hypothesis 3: Moderating Role of Foreign Direct Investment (FDI) on governance-growth relationship

Foreign Direct Investment (FDI) is the fundamental source of external capital and technology advancement. It is widely recognized as a channel for technology transfer, managerial expertise, and global market integration; however, its effectiveness depends on the governance quality and environment of the host country. Previous literatures such as Sharma (2011), Ghimire (2020) and Poudel et al. (2025) demonstrates the need of governance reforms to amplify the investments and foreign aids 'positive effectiveness in Nepal to contribute the national economic growth. In this study, FDI is expected to enhance the positive effect of governance on economic growth by strengthening institutional credibility and investor confidence.

Null Hypothesis (H₀₃): Foreign Direct Investment does not moderate the relationship between governance quality and economic growth.

Alternative Hypothesis (H₁₃): Foreign Direct Investment positively moderates the relationship between governance quality and economic growth in Nepal.

Optional Control Hypothesis 4: Moderating Role of Inflation on governance-growth relationship

Although not a central focus, inflation is incorporated as a control variable in this study due to its macroeconomic relevance. Excessive inflation often erodes purchasing power and distorts investment decisions and weakens growth performance.

Null Hypothesis (H₀₄): Inflation has no significant effect on economic growth in Nepal.

Alternative Hypothesis (H₁₄): Inflation has a negative and significant effect on economic growth in Nepal.

Hypothesis code	Explanatory Variables	Statement	Expected Relationship with GDP Growth (GDPG)
H ₁	Governance	Governance quality has positive relationship with growth	Positive
H ₂	GCF (Gross Capital Formation)	GCF positively moderates governance-growth relationship	Positive
H ₃	FDI (Foreign Direct Investment)	FDI positively moderates governance-growth relationship	Positive
H ₄ (Control)	Inflation (INF)	Inflation affects GDP growth	Neutral or Negative

Table 2: Possible Relation between Dependent Variable and Explanatory Variables

Chapter 3 Methodology

3.1. Empirical Design: Methodology and Data

This thesis employs a range of statistical techniques and uses the secondary data on World Governance Indicators (WGI) and macroeconomic variables: Foreign Direct Investment (FDI), Gross Capital Formation (GCF) and Inflation (Inf) from the World Bank for the period of 1996-2023. In the model, GDP growth is taken as the dependent variable. The interest of variable, governance indicators (WGI) is taken as one, the composite variable (Comp), to avoid the issues of overfitting and severe multicollinearity in the macroeconomic data in time series. Along with Comp variable, log of Inflation (lnINF), log of Gross Capital Formation (lnGCF) and Foreign Direct Investment (FDI) are taken as independent variables. In this study, to avoid the issue of heteroscedasticity and reduce the skewness and variance, the logarithmic form for Inflation (INF) and Gross Capital Formation (GCF) is taken. The period for the study is from 1996 to 2023, due to the limited data availability of WGIs in the mentioned time period only.

The details of the dataset and estimations are provided in the appendices section.

3.1.1. Construction of Variables (Visual Representation of normality using Histograms)

3.1.1.1. Dependent Variable

GDP Growth

The dependent variable in this study is GDP (Gross Domestic Product) growth. GDP growth reflects the annual percentage change in Gross Domestic Products, all the products and services that are produced within the country. In this paper, the GDP growth from 1996 to 2023 is extracted from the World Bank dataset where data are used from the national sources like Central Bureau of Statistics (CBS) of Nepal. The World Bank dataset is adjusted and verified by different organizations of international standards such as International Monetary Fund (IMF), Asian Development Bank (ADB), and United Nations (UN).

The CBS of Nepal uses the production (output) approach while calculating the GDP of Nepal where the production from different economic sectors such as agriculture, industry and services are summed up and value added. This is later cross verified or adjusted using expenditure approach if needed. Expenditure Approach: $GDP = Consumption + Investment + Government Expenses + Net Exports (Export-Import)$. The income approach is rarely used as there is limited information and accuracy in Nepal's income evidence. The visual representation of Nepal's GDP growth from 1996-2023 is presented below:

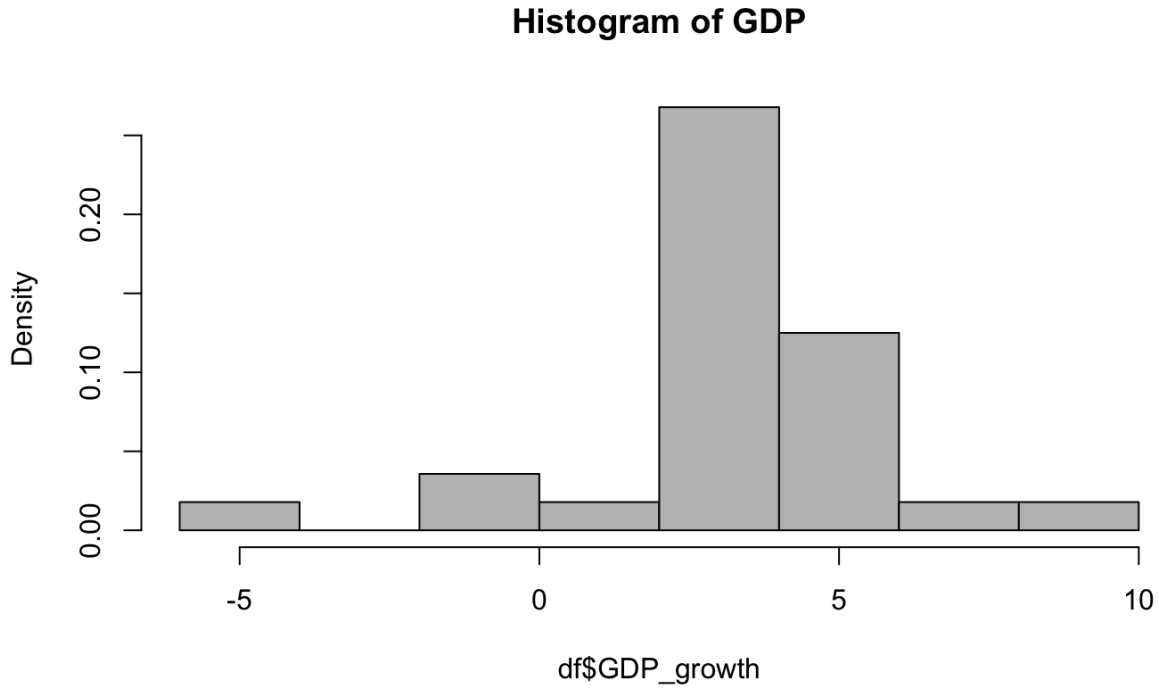


Figure 13: Histogram of GDP growth

The above histogram of GDP growth presents the values ranging from -6% to 10% over the period of 1996-2023 which indicates both economic expansion and contraction of Nepalese economy over the above-mentioned study period. The highest density ranges from 2% to 4% indicating a moderate growth in GDP. The above figure represents a slightly right skewed distribution of the data thus to formally confirm the normal distribution of the data, a Shapiro-Wilk test (appendix 1) is conducted with the following result:

W=0.92724, p-value=0.0526

Here, the p-value is more than 0.05 thus, we fail to reject the null hypothesis of the Shapiro-Wilk test. This indicates that GDP growth is approximately closer to the normal distribution.

3.1.1.2. Independent Variables

Composite Variable of World Governance Indicators (WGI)

The composite variable of World Governance Indicators (WGI) is constructed taking the average of six indicators of WGI: Political Stability, Freedom of Voice and Accountability, Government Effectiveness, Regulatory Quality, Control of Corruption and Rule of Law. To avoid the issues of overfitting and severe multicollinearity in the macroeconomic data in time series, a composite

variable of WGIs is calculated and taken as one independent variable i.e. Comp (composite variable of WGIs). The visual representation of Comp variables, governance indicators is presented below:

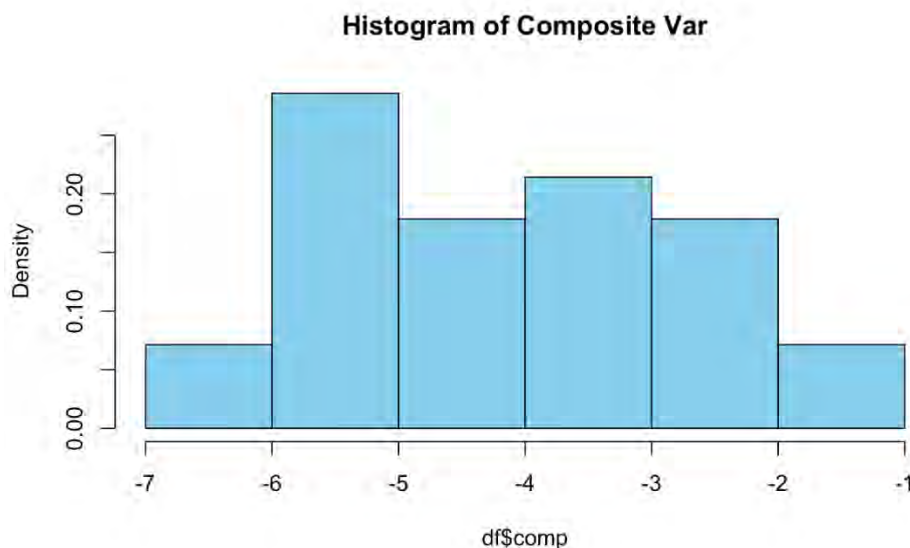


Figure 14: Histogram of Composite Variable of WGI

The above histogram figure of the composite variable serves as a summary measure reflecting the governance quality in Nepal over the period of 1996-2023. It shows that the majority of governance indicators lie between -6 to -2, which indicates a consistent weak performance in governance indicators. The figure shows no extreme skewness and appears relatively symmetric, thus, to correctly assess the normality of composite variable, the Shapiro-Wilk test (appendix 1) is conducted with the following result:

$$W = 0.96311, p\text{-value} = 0.412$$

Since, the p-value is more than 0.05, we fail to reject the null hypothesis of normality and accept the Comp variable to be approximately normally distributed.

Inflation (INF)

Inflation is principally associated with price stability and monetary policy effectiveness of a nation and is a critical macroeconomic variable. Inflation data of Nepal is calculated using Consumer Price Index (CPI) by the World Bank sourced from Nepal Rastra Bank (NRB) and Central Bureau of Statistics, Nepal. In this study, the inflation data has been log-transformed (lnINF) to normalize the distribution and reduce the skewness of the dataset. The visual representation of logged inflation over the study period is as follow:

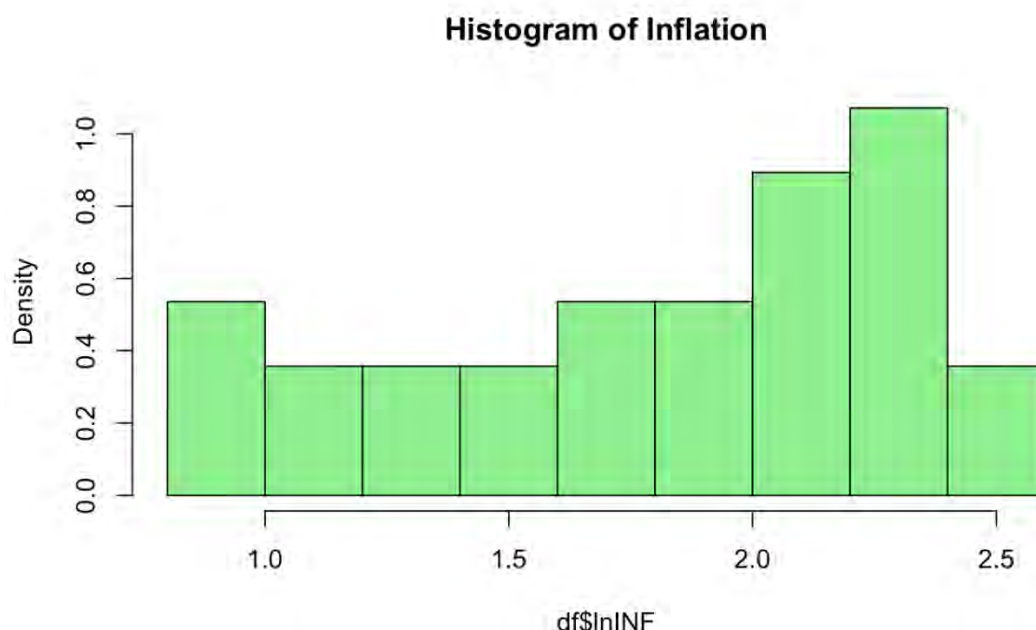


Figure 15: Histogram of $\ln INF$ (Inflation)

The histogram above illustrates distribution of $\ln INF$ over the period of 1996-2023 for Nepal. It indicates the log-inflation values predominantly lie between 1.5 and 2.5 with the topmost being around 2.2. In the figure, the distribution appears slightly right-skewed with the concentration of data in the upper range. Thus, to formally assess the normality test of $\ln INF$, Shapiro-Wilk test (Appendix 1) is conducted producing the following result:

$W = 0.90515$, $p\text{-value} = 0.01513$

Here, since the p -value is less than 0.05, we reject the null hypothesis of normality. This suggests that $\ln INF$ does not follow the normal distribution.

Gross Capital Formation (GCF)

In this study, Gross Capital Formation (GCF) has been derived from the World Bank over the period of 1996-2023 which primarily uses the data from Nepal Rastra Bank (NRB) and Central Bureau of Statistics (CBS). GCF is derived using the expenditure approach of calculating GDP where the I denoting Investment refers to the total value of Nepal's investment in fixed assets plus the net changes in the inventories. This shows a strong relationship between GCF and GDP growth. The GCF in the expenditure approach of calculating GDP basically measures the invested new value added in the economy rather than the expenditure. In the dataset, Gross Capital Formation

is log transformed (lnGCF) to reduce the skewness for the study. A visual representation of distribution of lnGCF over the study period is as follow:

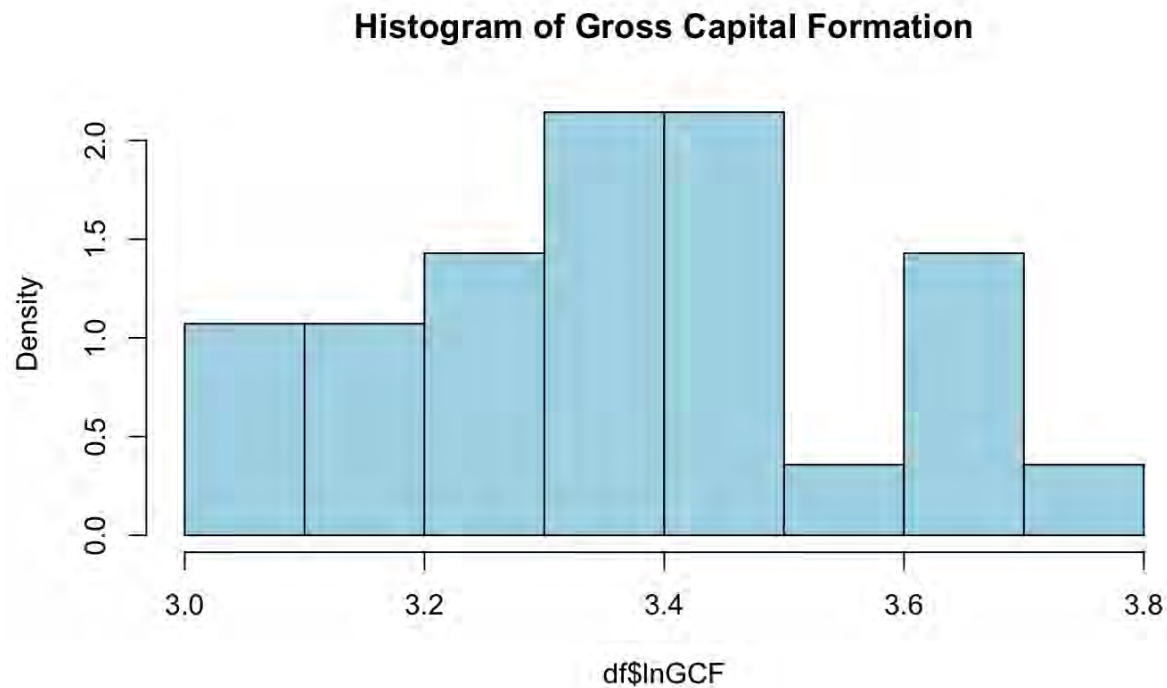


Figure 16: Histogram of lnGCF (Gross Capital Formation)

The histogram above presents the distribution of natural logarithm of Gross Capital Formation (lnGCF) over the period of 1996-2023. It shows that most of the observations are clustered between approximately 3.2 and 3.5, resulting in moderately symmetric but slightly left-skewed visual representation of the data. The higher density in the central range indicates that during the time-period, Nepal's GCF values were relatively stable without any extreme fluctuations. This pattern provides a preliminary signal of the normality of lnGCF, thus, to formally confirm the distributional characteristics, Shapiro-Wilk test (Appendix1) is conducted with the following result:

W=0.97247, p-value=0.648

Here, since the p-value is more than 0.05, we fail to reject the null hypothesis of Shapiro-Wilk normality test. This confirms that the distribution for lnGCF does not deviate from normal distribution.

Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) is the net inflows of inward direct investment by non-residents of the economy which is the sum of equity capital, reinvested earning, and other capitals, mainly intercompany debts. The World Bank data on FDI is collected from Nepal Rastra Bank (NRB) and CBS (Central Bureau of Statistics) of Nepal and harmonized in accordance with the international standard of Balance of Payment Manual of International Monetary Fund (IMF). In this study, FDI data is drawn from the World Bank for the period of 1996-2023. It is expressed as percentage of GDP to reflect its scale in terms of the economy. The visual representation of distribution of FDI over the study period is below:

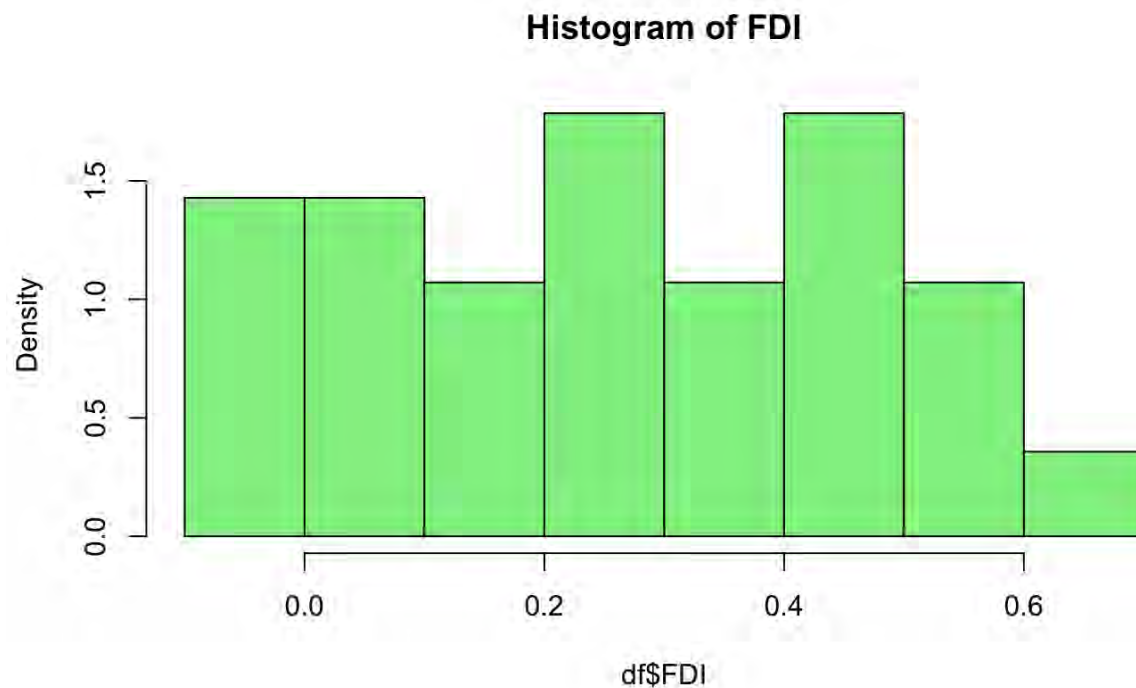


Figure 17: Histogram of FDI (Foreign Direct Investment)

The histogram above presents fairly the uniform spread of Foreign Direct Investment (FDI) in Nepal for the period of 1996-2023. It shows that there is no dominant concentration in any specific interval over the range of approximately 0 to 0.65. Deviating from the normal distribution, the figure suggests relatively balanced spread in FDI among the observations potentially due to economic diversity or short time-period of the sample. Despite the uniform appearance, to assess the normality of the FDI data, a Shapiro-Wilk test (APPENDIX 1) was formally conducted producing the following results:

W= 0.96907, p-value=0.5558

Since, the p-value is higher than 0.05, we fail to reject the null hypothesis of normality test at 5% significance level. Thus, despite the histogram's visual representation suggesting otherwise, the FDI data can be considered approximately normally distributed.

3.1.2. Augmented Dickey Fuller Test (Unit Root Test)

Variable	ADF Test	ADF (1 st Difference)	ADF (2 nd Difference)
GDP_growth	0.9386429	0.01000 *	0.0100000 *
Comp	0.3204508	0.36094936	0.0172244 *
lnGCF	0.5963312	0.02133121 *	0.0100000 *
lnINF	0.4977978	0.09136248	0.0100000 *
FDI	0.4916220	0.06275031	0.0100000 *

Table 3: Unit Root Test Results
Note: * significance level at 0.05

Null Hypothesis: The series has unit root test

The above table shows the results of Unit Root Test (Augmented Dickey Fuller Test) conducted on the dependent variable, GDP growth, explanatory variables, comp (composite variable of WGI), lnGCF (log of Gross Capital Formation), lnInf (log of Inflation) and FDI (Foreign Direct Investment) to check the stationarity of the data at 0.05 significance level. The statistic detail of ADF test with first and second difference is mentioned in Appendix 2.

From the above table, the raw ADF test result shows that all the variables have p-value more than 0.05, thus, we fail to reject the null hypothesis concluding that the variables are non-stationary. Furthermore, from the results of first difference unit root test, we can see that only two out of all the variables are significant. The dependent variable, GDP_growth and an explanatory variable, lnGCF are less than 0.05, with p-value 0.01 and 0.0213 respectively, rejecting the null hypothesis. Thus, only GDP_growth and lnGCF shows the stationarity while other explanatory variables are non-stationary in the first difference stationarity test.

From the second difference ADF test results above, it shows that the p-value of all the explanatory variables are statistically significant with the p-value less than 0.05 (GDP growth=0.01, Comp=0.0172, lnGCF=0.01, lnINF=0.0 and FDI=0.01). Since, we failed to reject the null hypothesis, we can clearly say that the series is stationary.

3.1.3. Descriptive Statistics

Variable	Mean	Std Dev	Minimum	Maximum	Observations
----------	------	---------	---------	---------	--------------

GDP_growth (in %)	3.17	0.469	-4.23	8.76	28
Voice and Accountability (VA)	-0.46	0.35	-1.15	-0.02	28
Political Stability (PV)	-1.08	0.62	-2.15	-0.07	28
Government Effectiveness (GE)	-0.82	0.25	-1.14	-0.35	28
Regulatory Quality (RQ)	-0.67	0.12	-0.86	-0.40	28
Rule of Law (RL)	-0.65	0.23	-0.96	-0.01	28
Control of Corruption (CC)	-0.67	0.12	-0.95	-0.46	28
Inflation (Inf) (in %)	7.14	2.57	2.48	11.24	28
Foreign Direct Investment (FDI) (% of GDP)	0.26	0.039	-0.10	0.68	28
Gross Capital Formation (GCF) (% of GDP)	29.888	6.04	20.25	41.38	28

Table 4: Summary Statistics of Raw Data

Table 4 presents the descriptive statistics of all the variables used in the analysis for the period of 1996 to 2023. In the table, we can see that the average annual GDP growth rate of Nepal is 3.17 percent which indicates that the Nepalese economic performance has been modest during the study period with a minimum of -4.23 and a maximum of 8.76. All six key dimension of governance indicators exhibit negative mean values reflecting a persistent institutional weaknesses and very limited improvements. Gross Capital Formation (GCF) shows consistent but modest domestic investment with mean of 29.88 percent of GDP, while Foreign Direct Investment (FDI) remains low with mean of 0.26 percent of GDP implying that the foreign investment has been limited over the study period. The average inflation rate is 7.14 percent suggesting moderate price instability. Overall, the summary statistics depict a scenario of weak governance capacity and moderate macroeconomic performance justifying the need to examine how governance quality interacts with macroeconomic factors to influence economic growth in Nepal.

Variables	Mean	Median	Maximum (Max)	Minimum (Min)	Standard Deviation (SD)
GDP_growth	3.1713710	3.0741151	8.7602061	-4.2318278	0.4693859
Comp	-4.1587062	-4.2629689	-1.5629543	-6.4667450	0.2474975
lnGCF	3.36201713	3.35494219	3.72276724	3.00796767	0.03692263
lnINF	1.78274262	1.94831786	2.41987625	0.8194583	0.09345038
FDI	0.25763181	0.24052770	0.67743988	-0.09837487	0.03994086

Table 5: Summary Statistics after taking logarithmic form of Inflation and GCF and Comp Variable of 6 governance indicators

The above table demonstrates the descriptive statistical summary (Mean, Median, Maximum, Minimum and Standard Deviation) of the sample data collected over the period of 1996-2023 from the World Bank after the log transformation of Inflation and Gross Capital Formation is taken along with the Comp variable taken by aggregating 6 key dimensions of Worldwide Governance Indicators. The statistical details of descriptive statistics are in the Appendix 3.

The table shows increase in GDP growth by 3.17 on an average annually. The values range from a maximum of 8.76 to a minimum of -4.23 reflecting that the Nepal has experienced economic volatility over the study period. The results indicate that there was a year of significant contraction in GDP growth as the min value is -4.23. Further, 0.47 Standard Deviation (SD) illustrates that there was relatively low fluctuation year by year. Overall, the GDP growth varies over the time-period but mostly remains positive over the years as the median is 3.07 (slightly lower than mean at 3.17).

The Composite variable (Comp) consisting the aggregate of World Governance Indicators (WGI) establishes an image of weak governance performance of Nepal relatively in the global standard as the comp variable has a mean of -4.16. The value ranges from the maximum of -1.56 to -6.47 suggesting a wide variation in the governance indicators (Political Stability, Freedom of Voice and Accountability, Government Effectiveness, Regulatory Quality, Control of Corruption and Rule of Law). The standardized scores for WGIs range from -2.5 to +2.5 across the countries, therefore, the min and max values both being negative, show that Nepal scores lower across all the six indicators. With the median of -4.26 which is slightly lower than mean at -4.16, it shows that the comp variable is more inclined towards negative value i.e. the WGI indicators show poor governance over the period than positive results. The standard deviation of 0.25 presents the moderate variability in governance conditions over 1996-2023.

The variable, log of Gross Capital Formation (lnGCF) indicates stability relatively over the period of 1996-2023 with the mean of 3.36. The SD of lnGCF at 0.037 shows that the lnGCF did not vary much over the time. Similarly, another explanatory variable, FDI does not show dramatic change over the time with the mean of 0.26. The negative minimum value of -0.098 of FDI shows the possibility of net outflow in certain years. The standard deviation of 0.04 confirms low fluctuation in FDI over the study period. Additionally, mean of the log of Inflation is 1.78 with the minimum value of 0.82 and maximum value of 2.42 suggesting that the inflation varies positively over the time. The SD of 0.093 shows a low variability indicating the inflation to be within a controlled range.

3.1.4. Comparison of Dependent and Independent Variables (Visual Representation by using ggplots)

GDP growth and Comp Variable

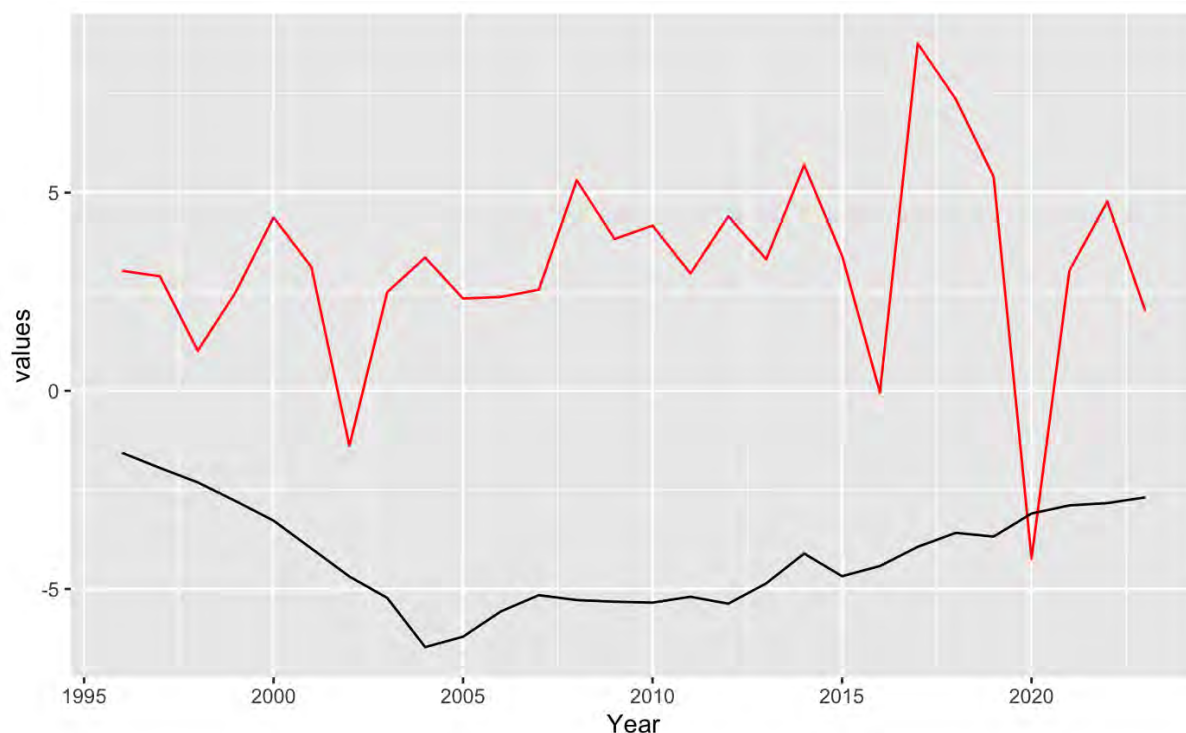


Figure 18: Comparison of GDP_growth and Comp Variable
Note: Red line- GDP_growth and Black Line- Comp Variable

The above chart represents the comparison of annual GDP growth alongside the composite variable of WGI, World Governance Indicators: Political Stability, Freedom of Voice and Accountability,

Government Effectiveness, Regulatory Quality, Control of Corruption and Rule of Law. The figure demonstrates various socio-economic shocks inflecting the graphs over the period of 1996 -2023. One of the major events affecting both graphs is seen to be around 2006, when Nepal's decade long civil conflict formally ended in the late 2006 with Comprehensive Peace Accord. We can clearly see the downfall of both GDP growth and Comp variable before 2006. The composite variable, governance is seen downward sloping during the civil conflict before 2006 and GDP growth remained sluggish. Post 2006 after the Peace Accord, a modest recovery of GDP growth is seen along with the improvement in the governance quality.

Further, the graphs show a significant downfall in GDP growth in 2015 when a massive earthquake of 7.8 magnitude hit Nepal resulting in the loss of lives, damage of infrastructures and economic disruption. When the natural disasters' emergency was not even addressed well, Nepal faced unofficial economic blockade from India, unhappy with the country's new constitution (neighboring 3 sides of Nepal and high economic trade off country). The economic blockade added more socio-economic burden to Nepal with the ban on import of essential goods such as fuel, medicines and materials while still recovering from the massive earthquake in 2015, affecting the reconstruction and rebuilding of the nation's economy. The Comp variable, governance index shows modest growth during the period, possibly indicating the compensation response within the nation while GDP growth is seen to have massive fall.

In 2020, the graph demonstrates that when the Covid-19 Pandemic hit the global economy, Nepal's GDP had a sharp fall to nearly zero or negative value. The nation-wide lockdown halted almost all economic activity severely affecting the major economic sectors such as tourism. The remittances declined with the shattered global economy while informal employment of daily workers without the social security and government assistances was devastated. The Comp, governance index exhibits a sluggish projection reflecting the policy volatility and uncertain administrative tension during the lockdown and economic stress.

Overall, the drops in the Comp (governance indicators) are often seen to be coincided with the downturns in GDP growth which suggests the proportional relationship between quality of governance with economic resilience and recovery over the period of the study.

GDP growth and lnGCF

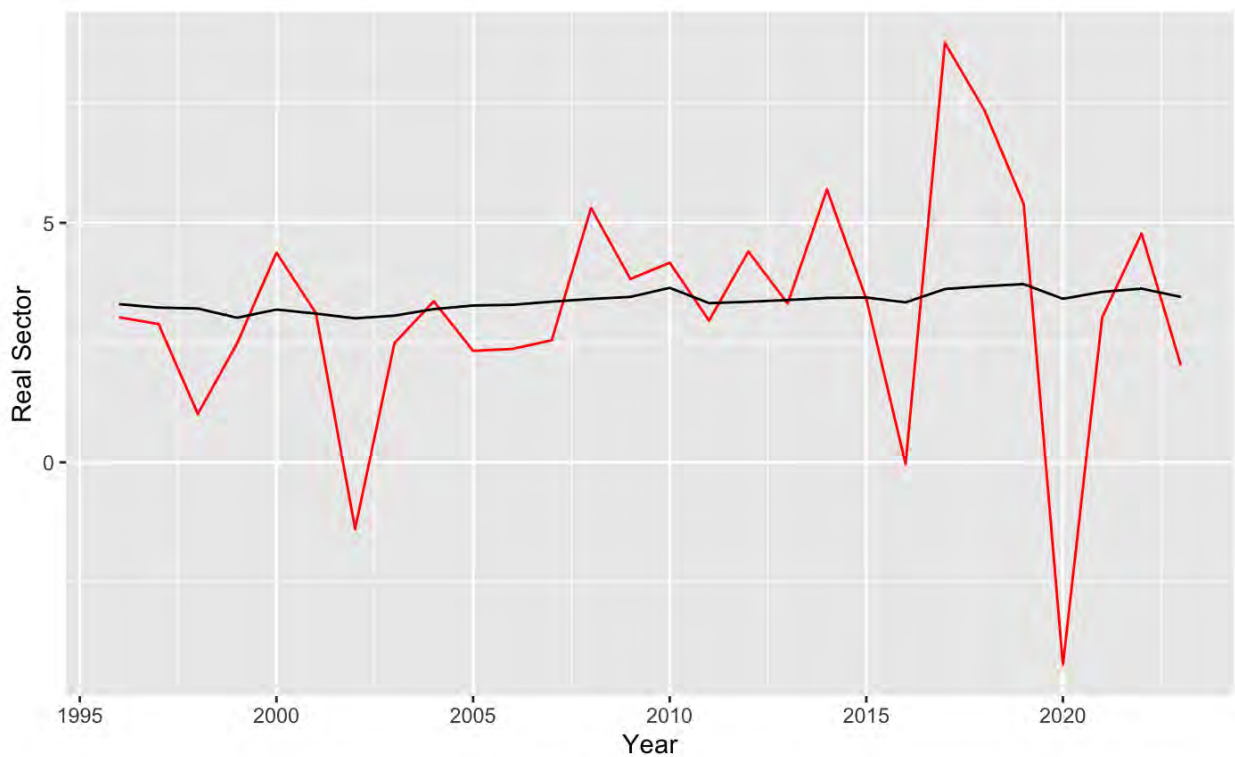


Figure 19: Comparison of GDP_growth and lnGCF

Note: Red line- GDP_growth and Black Line- lnGCF

The chart above illustrates the trends in Nepal's GDP growth along the log of Gross Capital formation (lnGCF) from 1996 to 2023. The graphs show that GDP growth was severely volatile in the decade long civil conflict which ended in 2006, while the investment activity (lnGCF) remained remarkably stable possibly due to insensitivity towards the short-term political shocks. Regardless, post 2006, the lnGCF, investment activity and GDP growth remain consistent indicating the return of investment confidence inside the nation due to political solidity. Further, GDP growth has a sharp fall after a massive earthquake followed by economic blockade by a neighboring country, India, in 2015, while interestingly, lnGCF does not show significant fall possibly due to capital resilience and public effort for reconstruction after the natural disaster. Similarly, in 2020, when the Covid-19 pandemic hit the global economy, the graph shows that Nepal's GDP collapsed, on the other hand, lnGCF, investment activity shows minimal decline. This suggests that investment activity remained intact even when the consumption and services plummeted indicating self-reliance of Nepalese economy.

Overall, the divergence between the two lines above during crisis indicates that the investment activity (lnGCF) does not drive GDP growth in the short-run but is more significant for the long run stability. GDP growth is highly volatile to political shocks and external factors while investment, lnGCF remains quite insensitive towards them. We can also conclude that investment, lnGCF, is more structural and policy driven than short term cash flow.

GDP growth and lnINF

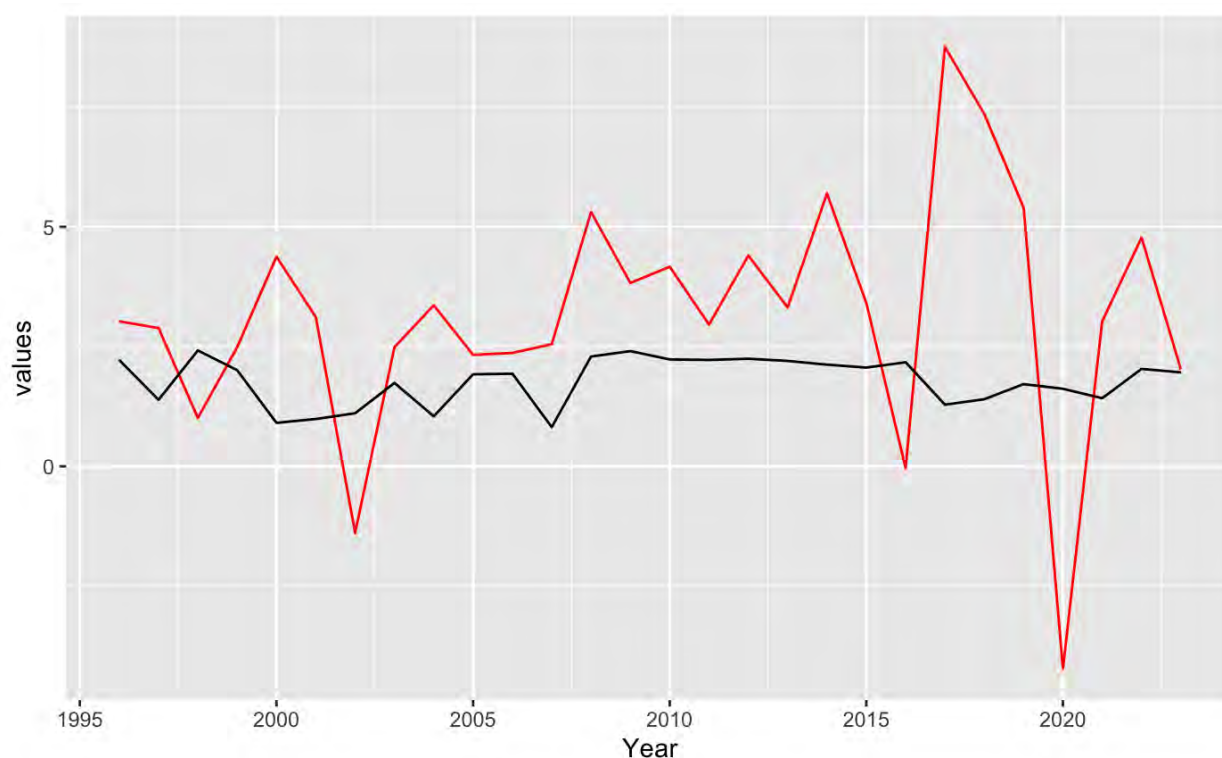


Figure 20: Comparison of GDP_growth and lnINF
Note: Red line- GDP_growth and Black Line- lnINF

The above plot shows the comparison of Nepal's annual GDP growth alongside the log form of inflation (lnINF) over the period of 1996-2023. It aids the visual illustration of inflationary pressure during the expansion and contraction of economy during the key events.

During a decade long civil conflict in Nepal, which ended in 2006 after a Peace Accord, GDP growth shows severe instability along with the volatility in inflation. Post 2006, GDP growth exhibits a consistent growth with inflation being in a controlled range. In 2015, after the massive earthquake followed by economic blockade, GDP growth shows a sharp downfall, on the other hand, a visible rise is seen in inflation perhaps caused by the price spikes when an unofficial trade blockade was imposed by India in the late 2015 causing shortages of fuel and goods. The

divergence on the two lines clearly captures the plummeting GDP growth and surging inflation during the blockade post-earthquake. Additionally, in 2020, GDP growth records a major fall while inflation is seen relatively stable possibly due to suppressed demand, when the pandemic, Covid 19 hit the global economy.

In summary, the above plot evidently captures distinct supply driven and demand driven inflation alongside GDP growth. The contrasting pattern during 2015 indicates the supply driven inflation during the blockade while the stagnant inflation even when GDP growth collapse is caused possibly due to reduced aggregate demand during the pandemic.

GDP growth and FDI

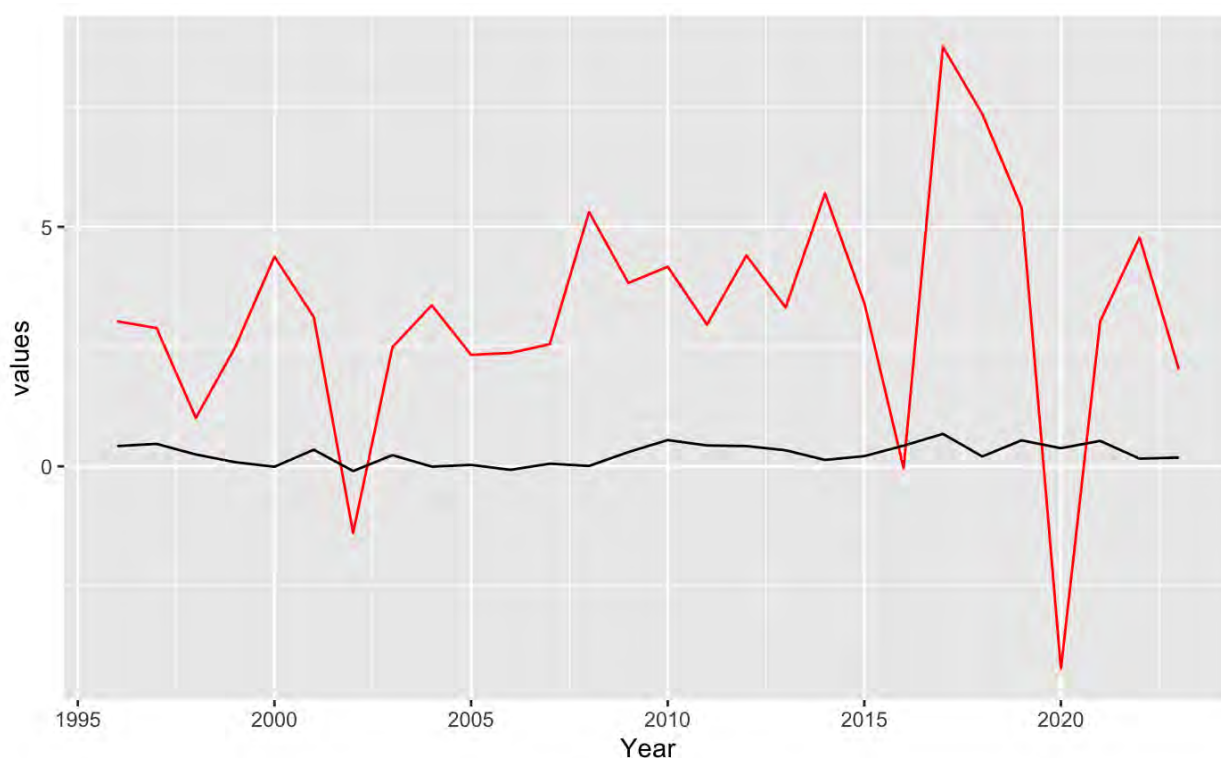


Figure Number 21

Figure 21: Comparison of GDP_growth and FDI

Note: Red line- GDP_growth and Black Line- FDI

In the figure above, the graphs give the visual overview of GDP growth and Foreign Direct Investment (FDI) during the study period of 1996-2023. We can see that during a decade long civil conflict till 2006, both GDP growth and FDI show inconsistent development with several expansions and contractions. Whereas post 2006, both GDP growth and FDI is seen to be recovering due to the Peace Accord reflecting the enhanced stability and increase in investment confidence. In addition, the graph shows a significant change in 2015 when a massive earthquake

hit Nepal followed by the informal economic blockade from India, we can see declining GDP growth and a noticeable upward sloping FDI. The downfall of GDP growth is possibly due to the economic halt during economic blockade and infrastructure losses in the earthquake while conversely, a muted decline in FDI is because of the inflow of aids and reconstruction investments in the economy. Furthermore, the graph shows that the global pandemic, Covid-19 severely disrupted Nepal's economy also causing the fall of FDI along with GDP growth due to global uncertainty and vulnerabilities.

In summary, the above graph shows the noticeable fluctuation in GDP growth and marginal change in FDI during the major shocks in Nepal. This suggests that there is no strong correlation between GDP growth and FDI. We can assume that investment decisions (FDI) are more driven by the structural and institutional components than the growth performance alone.

3.2. Qualitative Empirical Design: Open Ended Interview

3.2.1. Research Design and Methodology

This study incorporates the qualitative component captured through the perspectives and contextual insights on the role of governance in economic growth of Nepal. The main purpose of this qualitative study is to capture the insights on key governance issues in Nepal such as policy implementation capacity, institutional transparency and stakeholder engagement that could not be obtained from numerical data alone. The interview questions are presented in Appendix 14.

3.2.2. Sampling and Participants

To achieve the desired objective, five individuals from diverse economic background including university lecturers, economics graduates, policy analysts and economic planning practitioners were interviewed. All participants possess both academic and practical knowledge in Nepal's economy, policy processes and governance structure. The responses are documented in the written format as all the interviewees sent a written response to the semi structured, open ended interview questions enabling them the flexibility to elaborate their perspectives, sharing their experiences and evidences of their understandings. The interview questions were structured on governance related themes (Appendix 14) allowing emergent topics, big events of Nepal and economic shocks during the study period (1996 -2023) to enhance the analytical depth of the study. Their diverse professional backgrounds ensured balanced representation of perspectives on how Nepal's economy is influenced by governance quality. In this study, to protect the participants' identities, pseudonyms are assigned based on the role type. Their names are assigned as P1 for the economic

development specialist, P2 for local governance specialist/ lecturer of Economics, P3 for policy researcher, P4 for Economics Graduate and finally P5 for policy analyst/economics graduate. The background of the participants of the study are presented below:

Participant	Background
P1	Economist at UNOHCHR PhD: Environmental and Resource Economics, Public Economics Masters: MSc, Development and Resource Economic
P2	Visiting Faculty at Kathmandu University, Department of Economics Former Policy Researcher at Ministry of Finance, GoN
P3	Project Coordinator at Invest and Infra Economics Graduate, Kathmandu University
P4	Student, MSc Economics for Development University of Oxford
P5	Graduate Researcher at Central Department of Economics, Tribhuvan University

Table 6: Background of Participants of Qualitative Analysis

Chapter 4 Findings

4.1. Empirical Results

4.1.1. Correlation Analysis: Ordinary Least Square (OLS) (Restricted and Unrestricted)

This section presents the results of a basic Ordinary Least Square (OLS) regression along with the restricted set of OLS models to analyze the influence of governance indicators, Comp variable of six WGI indicators: Political Stability, Freedom of Voice and Accountability, Government Effectiveness, Regulatory Quality, Control of Corruption and Rule of Law and other macroeconomic explanatory variables such as log of Gross Capital Formation (lnGCF), log of Inflation (lnINF) and Foreign Direct Investment (FDI) on the dependent variable, GDP growth. Each of the restricted model is constructed by omitting one explanatory variable to evaluate the unique contribution of the variable to the model. The estimation is presented in the Appendix 4 and the results are tabulated below:

Variables	Basic OLS	Restricted OLS (excluding Comp)	Restricted OLS (excluding lnGCF)	Restricted OLS (excluding lnINF)	Restricted OLS (excluding FDI)
Intercept	-19.45 (8.49) t= -2.29 p= 0.031*	-18.95 (8.32) t= -2.28 p= 0.0321*	1.70 (2.15) t= 0.68 p= 0.505	-19.66 (8.37) t= -2.35 p= 0.0273*	-19.27 (7.70) t= -2.50 p= 0.0195*
Comp	-0.20 (0.36) t=-0.59 p=0.56	—	-0.282 (0.395) t= -0.71 p= 0.48	-0.193 (0.351) t= -0.55 p= 0.587	-0.214 (0.332) t= -0.65 p= 0.525
lnGCF	6.78 (2.62) t=2.59 p=0.016*	6.89 (2.58) t=2.68 p= 0.0131*	—	6.58 (2.56) t= 2.57 p= 0.0170*	6.71 (2.27) t= 2.96 p= 0.0069*
lnINF	-0.56 (0.92) t= -0.60 p=0.55	-0.52 (0.91) t= -0.57 p=0.57	-0.25 (1.016) t= -0.25 p= 0.81	—	-0.56 (0.895) t= -0.63 p= 0.5365
FDI	-0.14 (2.53) t= -0.55 p=0.96	-0.597 (2.37) t= -0.25 p= 0.80	2.90 (2.49) t= 1.17 p= 0.26	-0.32 (2.48) t= -0.13 p= 0.899	—

Median	0.11	0.29	-0.12	-0.04	0.095
Multiple R²	0.2709	0.26	0.059	0.26	0.271
Adjusted R²	0.14	0.17	-0.059	0.17	0.1796
Residual Standard Error	2.298	2.27	2.56	2.27	2.25
F stats	2.136	2.81	0.499	2.80	2.97
F stat p-value	0.1088	0.060933	0.6862	0.06185	0.05195

Table 7: Background of Participants of Qualitative Analysis

Note: Residual Standard Errors in parentheses “()”

P < 0.05 denoted by *

Variable excluded in restricted model denoted by “—”

The first column of the table above illustrates the result of basic OLS regression where the median of the residuals is 0.11 which is very close to zero but not exactly zero. Here, lnGCF is the only variable which is statistically significant with p-value 0.016. This shows that the capital formation (lnGCF) has strong association with GDP growth in the study period of 1996-2023. In contrast, Comp Variable of governance indicators, log of Inflation (lnINF) and Foreign Direct Investment (FDI) display statistically insignificant results with p-value more than 0.05 in all cases indicating no significant effect on GDP growth over the study period. The $R^2=0.2709$ and Adjusted $R^2=0.14$ values are very low challenging the explanatory power of the model to capture the variation in GDP growth caused by the explanatory variables. Likewise, F stats= 2.136 is statistically insignificant at p-value 0.1088 evident that the model cannot explain the variation of the observations within the dataset. Nevertheless, the low t values of the variables show that the correlation is not spurious and the direction of the correlation is reliable.

The second column of the table demonstrates the results of the restricted OLS regression where the composite variable (Comp) of governance indicators is omitted to understand the contribution of the Comp variable on GDP growth. Omitting the Comp variable, the model slightly improves with Adjusted $R^2=0.17$, F-stats=2.81 and F stat is still insignificant with p-value=0.6093. Only

lnGCF remains statistically significant with p-value 0.0131, leaving other explanatory variables lnINF and FDI insignificant with p-value more than 0.05. Comp variable being the variable of interest in this study, we can say that excluding Comp variable does not bring significant change in the model thus, plays a vital role to add explanatory power of the variables.

Furthermore, the third column shows the results of the restricted OLS regression where the log of Gross Capital Formation (lnGCF) is omitted to comprehend the contribution of lnGCF, investment activity on GDP growth. From the table, we can see that the omission of lnGCF causes a drastic change in the model performance. The adjusted R^2 value drops down to negative at -0.059 while all the other explanatory variable remains insignificant. Likewise, F stats value also has a severe drop to 0.499 becoming highly insignificant with p-value=0.686. This shows that lnGCF, plays a vital role in driving Nepal's GDP growth.

Similarly, the fourth column of the table represents the results of the restricted OLS regression omitting log of Inflation (lnINF). It is seen that the omission of lnINF does not notably change the model performance with Adjusted $R^2 = 0.17$. The F stats value shows minimal at 2.80 with the p-value= 0.06185, still statistically insignificant. Only lnGCF continues to be statistically significant (p value=0.0170). This confirms that the lnINF has weak direct association with the GDP growth. Last but not the least, the fifth column exhibits the results of the restricted OLS regression omitting Foreign Direct Investment (FDI). The tables shows that the restricted model excluding FDI has the highest Adjusted $R^2 = 0.1796$. The f statistic is the strongest and marginally significant ($F=2.97$ with p-value=0.0519) suggesting that FDI does not have a strong explanatory role in Nepal's GDP growth for the study period.

Overall, even though the model excluding FDI seemingly shows the best fit among the unrestricted model and other restricted models excluding each explanatory variable, fit statistics do not have a significant improvement to evident that any of the restricted models is better well fitted than the unrestricted model. As the explanatory variables have shown identical importance in the development narratives and GDP growth, we can confirm in the study that Unrestricted OLS suits better than the restricted OLS models.

4.1.2. Auto-Correlation Test

In the study, auto correlation test was done using two Durbin Watson tests (DW) to ensure that the regression results are not spurious. The two methods, durbinWatsonTest and dwtest, were applied using the package in R (Appendix 5). The results are presented in the tables below:

Auto Correlation Test 1 (durbinWatson test)

Lag	Auto Correlation	DW statistics	p-value
1	0.05784433	1.856922	0.514

Table 8: Auto correlation, Durbin Watson Test 1

Here,

Null Hypothesis: Auto Correlation = 0

Alternate Hypothesis: Auto Correlation $\neq$ 0

In the table above, DW statistics is 1.856922 which is very close to 2, this indicates that there is no significant auto correlation in the regression model. Additionally, the p-value is 0.514 which is not statistically significant thus, we fail to reject the above-mentioned null hypothesis confirming that the regression estimates are not spurious and the model is free from auto correlation.

Auto Correlation Test 2 (dwtest)

Lag	Auto Correlation	DW statistics	p-value
1	-	1.8569	0.2521

Table 9: Auto correlation, Durbin Watson Test 2

Here,

Null Hypothesis: Auto Correlation = 0

Alternate Hypothesis: Auto Correlation $>$ 0

The second Durbin Watson test (dwtest) is performed to confirm the absence of positive auto correlation in the model. The above table shows the DW statistics= 1.8569 which is also very close to 2 indicating that the residuals are approximately not correlated. In addition, the p-value is 0.2521 indicating statistical insignificance thus, we fail to reject the null hypothesis. Therefore, we can confirm that the model does not exhibit significant positive auto correlation and the regression results are statistically reliable not spurious.

4.1.3. Auto Regressive Distribution Lag (ARDL)

4.1.3.1. ARDL (without optimal lag)

An initial ARDL (Auto Regressive Distribution Lag) model is estimated without applying the optimal lag to examine the potential dynamic short-run and long run equilibrium relationships between the dependent variable GDP growth and the explanatory variables, Composite Variable (Comp), aggregate of World Governance Indicators, log form of Gross Capital Formation (lnGCF),

log form of Inflation (lnINF) and Foreign Direct Investment (FDI). This approach is an exploratory step to observe the lagged effects of explanatory variables on the dependent variable. It is done to understand the preliminary insights of which variable or lag may exert the influence on GDP growth before performing optimal lag selection based on BIC (Bayesian Information Criterion) table. The order for the random lag selection is c (1,2,2,2,2) and the regression results for the ARDL model without optimal lag are presented in the below table. The estimates include both the current and lagged effects of the explanatory variables on the dependent variable. The estimates are presented in Appendix 6.

Variable	Estimate	Standard Error	t- value	p-value
Intercept	14.10491	17.98538	0.784	0.4481
L(GDP_growth,1)	-0.06681	0.22922	-0.291	0.7757
Comp	-0.81896	1.12984	-0.725	0.4824
L (Comp, 1)	2.68311	1.41628	1.894	0.0825*
L (Comp, 2)	-2.08545	1.16144	-1.796	0.0978*
lnGCF	11.51846	3.45952	3.329	0.0060***
L (lnGCF, 1)	-5.30791	5.15698	-1.029	0.3237
L (lnGCF, 2)	-10.89733	4.22192	-2.581	0.0240**
lnINF	0.20917	0.85800	0.244	0.8115
L (lnINF, 1)	0.47328	0.84392	0.561	0.5852
L (lnINF, 2)	0.46743	0.86579	0.540	0.5992
FDI	2.04002	2.75453	0.741	0.4732
L (FDI, 1)	0.79283	2.15163	0.368	0.7189
L (FDI, 2)	4.57782	2.30575	1.985	0.0704*

Table 10: ARDL without optimal lag

Note: * denotes the significance at 0.10, ** at 0.05 and * at 0.01**

Model Fitness Statistics

Statistics	Value
------------	-------

Residual Standard Error	1.771
Median	0.01232
R²	0.7739
Adjusted R²	0.5289
F Statistics	3.159
F stat p-value	0.0274

Table 11: Model Fitness Statistics for ARDL without optimal lag

From the table above, we can see that the model is statistically significant with F stats value 3.159 and its p-value=0.0274 which indicates that the lagged explanatory variables collectively have significant effect on the dependent variable. The multiple R² value is 0.7739 meaning the model explains 77.39% of the variation in the dependent variable and after adjusting for the number of predictors, Adjusted R² is 0.5289, indicating 52.89% moderate explanatory power of the variables on the dependent variable. Here, the median is very close to zero which suggests that the model does not display systematic biasness towards the over or under estimation of GDP growth.

Furthermore, lnGCF is positive and significant at 1% with p value= 0.0060, which suggests that it has a strong short-run effect on the GDP growth. Similarly, lagged lnGCF (2nd lag) is negative and significant (p-value=0.0240) which indicates a delayed negative impact on GDP growth. The Comp variable is seen non-significant in the current period but it shows marginal significance at 10% in both first and second lags which implies that there is a delayed effect of governance indicators on GDP growth. Likewise, FDI does not show any significance in the current period and the first lag but shows a marginal significance (p value= 0.704) at 10% significance suggesting a lagged impact on GDP growth. On the other hand, lagged GDP growth, inflation (lnINF and both lags) and the first lags of FDI and lnGCF are statistically insignificant, indicating that there is minimal immediate effect of them on the dependent variable.

Overall, the above results from ARDL model highlights the importance of capital formation, lagged effects of Comp variable of WGI indicators and FDI on the dependent variable in short run, while inflation and current GDP growth have limited effect. Moreover, the model fit based on the above table is statistically acceptable confirming that the regression results are not spurious and is reliable.

4.1.3.2. ARDL (with optimal lag)

After estimating the ARDL model without the optimal lag, to improve the model efficiency and eliminate unnecessary lags, the ARDL model is re-estimated using the optimal lag structure selected based on Bayesian Information Criterion (BIC) table (Appendix 7). The minimum value from BIC table is taken with the order= c (1,3,3,0,2). The estimates include both the current and lagged effects of the explanatory variables on the dependent variable same as in ARDL without optimal lag. The results of the estimates are presented below:

Variable	Estimate	Standard Error	t- value	p-value
Intercept	52.0806	23.2562	2.239	0.04675**
L(GDP_growth,1)	-0.0453	0.2230	-0.203	0.84275
Comp	0.2727	1.0360	0.236	0.79720
L (Comp, 1)	3.0008	1.2820	2.341	0.03913**
L (Comp, 2)	-2.1728	1.4974	-1.451	0.17467
L (Comp, 3)	-0.6046	1.1999	-0.504	0.62426
lnGCF	11.5198	3.0579	3.767	0.00312***
L (lnGCF, 1)	-9.6093	4.5655	-2.105	0.05911
L (lnGCF, 2)	-11.2284	3.8152	-2.943	0.01337**
L (lnGCF, 3)	-6.3524	4.3580	-1.458	0.17289
lnINF	1.5311	0.9129	1.677	0.12167
FDI	4.8098	2.4306	1.979	0.07341*
L (FDI, 1)	4.2501	2.5380	1.675	0.12218
L (FDI, 2)	4.0771	2.1484	1.898	0.08426

Table 12: ARDL with optimal lag

*Note: * denotes the significance at 0.10, ** at 0.05 and *** at 0.01*

Model Fitness Statistics

Statistics	Value
Residual Standard Error	1.569

Median	-0.1140
R²	0.8323
Adjusted R²	0.6341
F Statistics	4.2
F stat p-value	0.01137

Table 13: Model Fitness Statistics for ARDL with optimal lag

From the table above, we can see that the model is statistically significant with F stat= 4.2 and p-value= 0.01137. This suggests that in the model, the independent variables jointly influence the dependent variable. The multiple R² is 0.8323 which indicates that the model explains the variation of approximately 83.23% in the dependent variable. In addition, Adjusted R² accounts for 0.6341 demonstrating the reasonably good fit.

In the table above, the intercept is statistically significant indicating a positive baseline effect when all the explanatory variables are zero. Further, lagged GDP growth is negative (-0.0453) and insignificant signifying that the past GDP growth does not significantly affect the current GDP growth in this model. As for the explanatory variables, Comp variable is significant at 5% at lag 1 with p value 0.03913 while, the current Comp and Lag 2 and 3 are insignificant. The Comp lag 2 and 3 are negative but insignificant signals that the effect of the governance indicators diminishes over time on GDP growth. Another explanatory variable, lnGCF is highly significant with p value 0.00312 at 1% significance at current period suggesting that higher capital formation strongly affects GDP growth. Lag 1 and lag 2 of lnGCF are negative and marginally significant at 10% with p value 0.05911 and significant at 5% with p value 0.0133 respectively suggesting that the capital formation has short term reversal after initial gains. The lag 3 of lnGCF is also negative but not significant suggesting that lnGCF has less impact on long-run. Furthermore, lnINF does not have any lags and is positive but not significant at current period with p value 0.1217. This shows that inflation does not have meaningful positive or negative effect on GDP growth statistically in the current state and its effect is insignificant in lagged terms. Lastly, Foreign Direct Investment, at current level is positive and marginally significant at 10% signaling that FDI has some positive effect on GDP growth. Lags of FDI both 1 and 2 are also positive but not significant which suggests that FDI takes longer to affect GDP growth and is apparently weak in the short run.

From the above estimation results, we can see that ARDL with optimal lag explains more variation in the dependent variable, GDP growth than ARDL without optimal lag as R^2 and Adjusted R^2 are higher indicating a better fit. ARDL with optimal lag is also more statistically significant with lower p-value of F statistics and lower residual error confirming that it is more statistically robust and identifies stronger relationships among variables. Among the explanatory variables, lnGCF remains the strongest driver in both the models showing immediate positive impact and short-term negative adjustments. The variable of interest, Comp variable of governance indicators only shows a significant delayed effect in the optimized model at 5% suggesting that optimal lag selection was important to detect this while ARDL without optimal lag showed the delayed effect with marginal significance at 10%. FDI remains weak in both the models, yet marginally significant. Overall, the redefined optimal model identified a clearer short-run and lagged effects mainly for Comp variable and lnGCF while reducing the residual error indicating a better fitting model.

4.1.3.3. Cointegration Test

In the study, Bounds Testing approach to cointegration is done to determine whether there is a long-term and short-term relationship among the variables. Here, a t-test is done to understand the significance of the lagged level of GDP growth and f-test is done to examine the significance of lagged level variables. Both t-test and f-test check the null hypothesis that there is no cointegration among variables against the alternative hypothesis that there is a cointegration (in short-run or in long-run or both). The tests are presented in Appendix 8 and the results are shown below:

Statistics	t-test	f-test
Value	-4.6873	5.8187
p-value	0.007214*	0.002776*

Table 14: Bound Tests of Cointegration (t-test and f-test) results

Note: * denotes significance at 1%

In the table above, we can see that the t-statistic of -4.6873 is statistically significant with a p-value of 0.007214 which indicates that the lagged dependent variable, GDP growth has long-run relationship with the other explanatory variables. Additionally, the f-statistic of 5.8187 with the p value 0.002776 also strongly rejects the null hypothesis confirming that there is a joint cointegration among all lagged level variables. Both the tests being statistically significant at 1%,

it provides strong evidence that in the model, all the variables have cointegration among them validating their relationship in the long-run equilibrium.

Further, the above tests confirm the relationship among the variables in the long run equilibrium. Following the ARDL model with optimal lag, cointegration equation is generated to understand the long-run relationship enforced by the external factors within the dataset. Here, the external factor is a lagged variable but also an intercept. The summary statistics (Appendix 8) of the residuals from the cointegration equation in the long run are shown below:

Statistics	Value
Minimum	-52.19
1 st Quartile	-48.68
Median	-46.97
Mean	-46.53
3 ^{rs} Quartile	-43.58
Maximum	-41.46

Table 15: Results of Cointegration equation for ARDL with optimal lag

In the table above, the relatively consistent residuals suggest that deviations from the long run equilibrium are moderate and symmetrically distributed allowing for the decomposition of short run dynamics and long run equilibrium. It provides the evidence that the variables in the model are cointegrated and move together in the long run despite the fluctuations in short run.

4.1.3.4. One step ECM Model (Error Correction Model)

Following the estimation of ARDL model with optimal lag determined through BIC table, cointegrations tests were conducted to which the tests confirmed the existence of stable long-run relationship among the variables. Given the evidences, in this study, one step Error Correction Model (ECM) which is derived from ARDL model is further run to understand the short-term dynamics and adjust the long-run equilibrium process simultaneously by incorporating the error correction term (ECT). The one step ECM is presented in Appendix 9 and its results are presented below:

Variable	Coefficient	p-value
Intercept	52.0806	0.046748**

L(GDP_growth,1)	-1.0453	0.000664 .
L(comp,1)	0.4960	0.336309
L(lnGCF,1)	-15.6703	0.047122**
lnINF	1.5311	0.121671
L(FDI, 1)	13.1371	0.014002**
d(comp)	0.2727	0.797204
d(L(comp, 1))	2.7775	0.014825**
d(L(comp, 2))	0.6046	0.24258
d(lnGCF)	11.5198	0.003116 ***
d(L(lnGCF, 1))	17.5808	0.016142**
d(L(lnGCF, 2))	6.3524	0.172891
d(FDI)	4.8098	0.073412*
d(L(FDI, 1))	-4.0071	0.084264*

Table 16: Results of One step ECM model

Note: * denotes the significance at 0.10, ** at 0.05 and *** at 0.01 and (.) at 0

Model Fitness Statistics

Statistics	Value
Residual Standard Error	1.569
Median	-0.1140
R²	0.9157
Adjusted R²	0.8161
F Statistics	9.194
F stat p-value	0.0003964

Table 17: Model Fitness Statistics of One Step ECM Model

In the above Model Fitness Statistics table, the value of R² is 0.9157 and adjusted R² is 0.8161 which shows a strong explanatory power of the variables in this model. The residual standard error accounts 1.569 predicting relatively lower error. Additionally, F statistics value is 9.194 and highly

statistically significant with p-value 0.0003964 confirming the reliability of the model. Further coefficient of the lagged dependent variable GDP growth, which is the error correction term (ECT) in this model is -1.0453 implying that any deviation from the long run equilibrium is adjusted faster. The coefficient of lagged GDP growth is negative and significant signaling the significant speed of adjustment towards long-run equilibrium.

From the results of ECM table above, the lagged terms of the variables capture the long run equilibrium effects of the variables on the dependent variable. The value of lagged Comp variable and lnINF are not significant suggesting that they do not have clear long-run impact on GDP growth. On the other hand, lnGCF (-1.67) is significant but negative with p-value 0.047 implying that investment in the long run has negative impact on GDP growth. Following with FDI, it is positive and statistically significant with p-value 0.014 supporting GDP growth in the long-run.

In addition to the above explanation, in the table we have the first differences of the variables which capture the short run dynamics. Even if the variables have relationship in the long run, they tend to respond to shocks and move independently in the short run affecting the dependent variable, GDP growth. Here, the first difference in the Comp variable is positive but statistically insignificant with p-value 0.797 suggesting that sudden improvement in the governance quality does not immediately impact on GDP growth. But, the first difference of the first lag of Comp variable is positive and significant with p value 0.0148 which indicates that the improvement in the governance quality from the previous year has meaningful contribution to the current GDP growth. Further, the difference of the second lag of Comp variable is also positive but not significant at p value 0.24258 implying that the impact of governance quality on GDP growth scatters after the first lag. As for the second variable, lnGCF, the first difference of current lnGCF is positive and significant with p-value 0.003116 showing a strong impact on GDP growth. It indicates that increase in capital formation immediately affects GDP growth. The first lag is also positive and significant with p-value 0.0161 supporting the positive impact of capital formation on GDP growth in the following year likely due to the ongoing phases of capital projects (e.g. construction of infrastructures, installation of set ups). However, the second lag is positive but not significant with p-value 0.1729 suggesting the positive impact of investment on GDP growth remains but becomes weaker after the first lag. Moreover, the first difference of current FDI is positive and marginally significant with p-value 0.0734 indicating that the increase in FDI yield weak short run effect on GDP growth. The first lag is negative and marginally significant with p

value 0.084 suggesting that the surge in FDI in previous year is disruptive in the current GDP growth possibly due to crowding out effect on domestic investments.

The above one step ECM model provides evidences of both short run and long run relationship among the variables in the dataset. Further, cointegration equation is applied on ECM to better understand the long run equilibrium relationship enforced by external factors within the dataset. The equation is unrestricted intercept and with no trend. The below values help to create ECT in the following Two Step ECM. The summary statistics (Appendix 9) of the residuals from the cointegration equation in the long run are shown below:

Statistics	Value
Minimum	-52.19
1st Quartile	-48.68
Median	-46.97
Mean	-46.53
3rs Quartile	-43.58
Maximum	-41.46

Table 18: Results of Cointegration equation for One step ECM

4.1.3.5. Two Step ECM (Restricted ECM)

After estimating and getting the results of one step ECM, we further proceed the analysis two step ECM framework also known as Restricted ECM. The two step ECM is done to understand the short run dynamics in this study isolated from the long run equilibrium. While the one step ECM integrated both short term adjustments and long run equilibrium, two step ECM aims to incorporate short run adjustment in the model after obtain residuals from the long run cointegration equation above. This is done to allow more precise interpretation of the adjustment toward equilibrium which is captured by Error Correction Term (ECT). The estimation is mentioned in Appendix 10 and the results are presented in the tables below:

Variable	Coefficient	p-value
Intercept	52.0806	1.14e-05 .
d(comp)	0.2727	0.661213
d(L(comp, 1))	2.7775	0.001097***

d(L(comp, 2))	0.6046	0.459213
d(lnGCF)	11.5198	0.000132 .
d(L(lnGCF, 1))	17.5808	0.001686 ***
d(L(lnGCF, 2))	6.3524	0.066129
d(FDI)	4.8098	0.005278***
d(L(FDI, 1))	-4.0071	0.010292*
ect	-1.0453	1.43e-05 .

Table 19: Results of Two step ECM model

Note: * denotes the significance at 0.10, ** at 0.05 and * at 0.01 and (.) at 0**

Model Fitness Statistics

Statistics	Value
Residual Standard Error	1.344
Median	-0.1140
R²	0.9157
Adjusted R²	0.8652
F Statistics	18.11
F stat p-value	1.636e-06

Table 20: Model Fitness Statistics of Two Step ECM Model

From the above Model Fitness Statistics table of two step ECM, the model demonstrates a strong fit with the value of R² 0.9157 and adjusted R² 0.8652, which suggests that the variables in the model have strong explanatory power on GDP growth after adjusting. The F statistics is 18.11 with highly significant p-value 1.636e-06 confirming the joint significance of explanatory variables in the study. This confirms that the variables can explain variation in GDP growth in the short run.

In the above table, error correction term (ECT) is -1.0453 and highly significant with p-value 1.43e-05 which indicates that in this two-step ECM, there is a rapid return to the long run equilibrium after the short-term shocks. The coefficient of -1.0453 implies high level of convergence to the long run equilibrium which means that the short-term disturbances in the explanatory variables are quickly transmitted back to the equilibrium for GDP growth.

Furthermore, the first difference of current Comp variable is positive but insignificant with p value 0.661213 followed by the first lag being positive and strongly significant with p -value 0.001097. This pattern remains consistent signifying that the improvement in governance takes time to affect GDP growth. In addition, lnGCF shows persistent and immediate short run effect on GDP growth with the coefficient large and highly significant with p value 0.00013. The first lag of lnGCF is also large and significant with p- value 0.00177 while the second lag is marginally significant with p-value 0.066. These results align with the classic growth frameworks which claim that the capital formation is a primary driver of the short run economic growth. Another explanatory variable of the study, FDI shows a mixed pattern of short run effect on GDP growth which the first difference of current FDI having positive value of 4.8098 and significant with p-value 0.0053 indicating immediate effect of FDI on GDP growth. However, the first lag of FDI is negative and significant at -4.0771 and p-value 0.0103 suggesting that the surges in FDI in the past year can cause negative impact on current GDP growth. This must be due to the short-term adjustment costs created by the FDI by crowding out in the economy.

The distribution of cointegration factors for the two-step ECM is presented in the Appendix 10.

4.1.4. Scrutinizing Cointegration throughout Models for justification of Model

Specification (ARDL, One-step ECM and Two Step ECM)

Further to the study, to check the stability of the cointegration in the long run among the variables, a comparison of coefficients and residuals across the three model specifications, ARDL, One Step ECM (Unrestricted ECM) and Two Step ECM (Restricted ECM), is conducted in this study. This diagnostic is done to test whether the coefficients and residuals of distribution of cointegration of each model change, over the study period while transitioning from ARDL to One Step ECM to Two Step ECM. The rationale behind this procedure is rooted in the theory of cointegration which is a condition where consistent cointegration relationship exists among the variables in the long run equilibrium regardless the model is expressed in restricted or unrestricted form. When cointegration exists, all models ARDL, UECM and RECM should yield consistent long run coefficients and their stability serves as empirical evidence of cointegration (Pearsan, et al. 2001; Banerjee et al. 1998).

In our study, the test result is [FALSE], presented in Appendix 11, which indicates that the coefficients and the residuals of distribution of cointegration factors across the models did not meaningfully change. Thus, this finding implies that the estimated long run equilibrium is robust

and confirms the reparameterization of the ARDL to ECM helps to capture both short term dynamics and adjustment towards long run equilibrium. Conversely, in the absence of cointegration, during the transformation among the models, the coefficients and residuals would be different signaling that the model specifications are spurious (Engle and Granger,1987). Since, we saw that the cointegration results are identical and all the models are statistically significant, we can conclude that our model specification is accurate

4.1.5. Long Run Results of Restricted ARDL

Variable	Estimate	Standard Error	p-value
Intercept	49.824	23.5793	0.0582*
Comp	0.4746	0.4940	0.357
lnGCF	-14.991	7.1454	0.0598*
lnInf	1.4648	0.9592	0.1549
FDI	12.568	4.368	0.0151**

Table 21: Long Run Results of Restricted ARDL

Note: * denotes significance at 0.10, ** at 0.05

The above table shows the estimated long run results of Restricted ARDL model which discloses that out of four explanatory variables in the study, only FDI exerts positive (coefficient=12.568) and statistically significant (p-value= 0.0151) impact in the long run on GDP growth. This finding highlights the importance of foreign investment in Nepalese economy as a primary driver of growth through capital inflow, technological advancement, and employment generation. The intercept is positive and insignificant at 5% but marginally significant at 10% significance level which represents the baseline of GDP growth when all explanatory variables are zero. It suggests a positive underlying growth constant despite it not being meaningful in macroeconomics. Conversely, GCF shows negative relationship with GDP growth with coefficient estimate= -14.991, marginally significant at 10% significance and insignificant at 5% level (p-value=0.357). This shows that surprisingly, in the long run capital accumulation and investment in the fixed assets of Nepal have negative impact on GDP growth. This shows a concerning situation of Nepalese economy where investments are not giving productive output. In addition, Comp variable and inflation have positive coefficients but statistically insignificant with p-value, 0.357 and 0.1549 respectively suggesting that governance quality and inflation may influence GDP growth positively but their long run impacts are not robust in the context of Nepal. From this we can see that in the Nepalese economy, improvement in the governance quality is associated positively with GDP growth, but in the long run governance reforms alone is not statistically significant and may

not yield significant growth unless combined with other macroeconomic conditions. Also, even though inflation does not have significant long run effect on GDP growth, the surprising positive relationship show that the moderate inflation stimulate growth in Nepalese economy possibly due to demand-pull growth theory concerning monetary policy and government spending of Nepal. The estimation for the above is in Appendix 12.

4.1.6. Diagnostic Tests

4.1.6.1. Breusch-Godfrey Test for Serial Correlation

Order	LM test	df	p-value
1	1.0323	1	0.3096
2	5.5524	2	0.06228

Table 22: Breusch-Godfrey Test for Serial Correlation

Null Hypothesis: Auto Correlation = 0

Alternative Hypothesis: Auto Correlation $\neq 0$

In the above table, the results of serial correlation test in the residuals of ARDL model, Breusch-Godfrey test is presented at order 1 and 2 respectively. In the order 1, the test yields an LM statistic of 1.0323 with p-value 0.3096 which is statistically insignificant implying that there is no serial correlation at first order. Similarly, the test yields an LM statistic of 5.524 with p-value 0.06228, which is also not statistically significant which confirms that there is no serial correlation in the ARDL model at both order 1 and 2. The estimates for the above tests are in Appendix 13.

4.1.6.2. Heteroskedasticity Test (studentized Breusch-Pagan Test)

BP (Test Statistic)	df	p-value
9.6003	13	0.7262

Table 23: Heteroskedasticity Test (studentized Breusch-Pagan Test)

Null Hypothesis: Heteroscedasticity = 0

Alternative Hypothesis: Heteroscedasticity $\neq 0$

To test for heteroskedasticity in the ARDL model, Breusch-Pagan test is applied presented in Appendix 13. From the above table we can see that the test statistic, BP= 9.6003 and is highly statistically insignificant with p-value 0.7262, therefore, we fail to reject the null hypothesis. This indicates that the residuals exhibit constant variance implying that the model does not suffer from heteroskedasticity.

4.1.6.3. Jarque-Bera Test for Normality

X-Squared	df	p-value
0.8794	2	0.6442

Table 24: Jarque-Bera Test for Normality
Null Hypothesis: Residuals are normally distributed

Alternative Hypothesis: Residuals are not normally distributed

The above table presents the result of Jarque-Bera test conducted to check the normality of the residuals of the ARDL model. The X-squared is 0.8794 with p-value 0.6442 which is statistically insignificant. Since we fail to reject the null hypothesis, we accept that the residuals of the model are normally distributed and does not have any skewness. The estimation is presented in Appendix 13.

4.1.6.4. CUSUM Test for Structural Stability

S (Test Statistic)	p-value
00.67944	0.2783

Table 25: CUSUM Test for Structural Stability

To test the structural stability of the data in the ARDL model, CUSUM test was employed (Appendix 13). The null hypothesis for the test is that the model parameters are stable meaning there is no structural break in the data. In the above result table, we see that the S statistic is 0.67944 which is statistically insignificant with p-value 0.2783 thus the null hypothesis of stable parameters cannot be rejected. This indicates that the model is structurally stable and there is absence of abnormal fluctuations over the study period suggesting the robustness of the estimated long run and short-term relationships.

Additionally, the figure below, Recursive CUSUM Test ensures the consistency of the model suggesting that during the study period, the rate of economic expansion is stable and does not fluctuate. Since, the CUSUM plot is inside the 5% critical limit, we cannot reject the null hypothesis of structural stability.

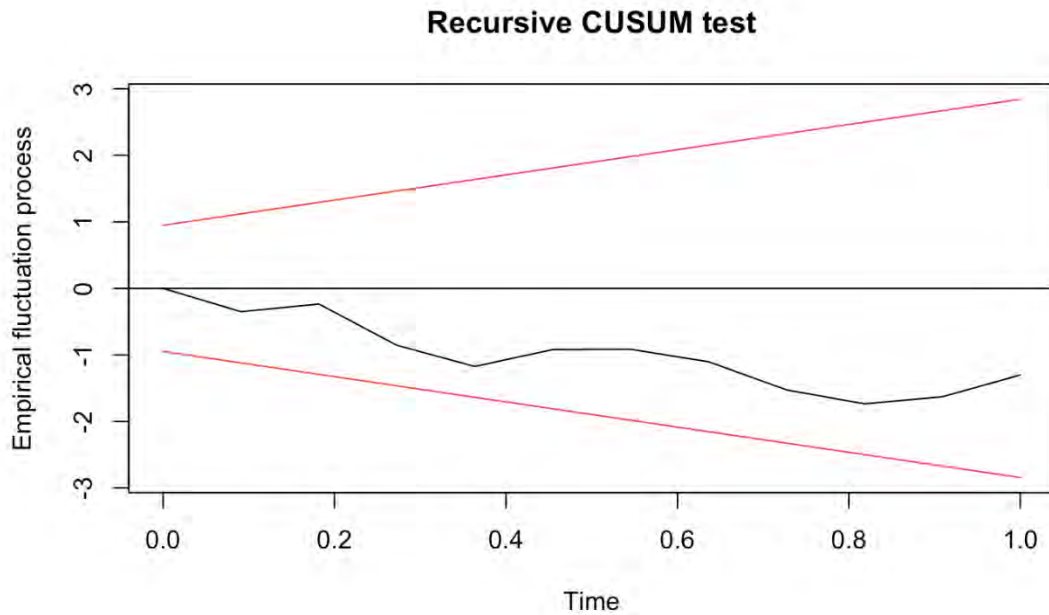


Figure 22: Recursive CUSUM Test

4.2. Empirical Econometric Implications

The empirical study of this thesis provides mixed alignments with the previous studies and literatures on the determinants of economic growth in Nepal. The restricted ARDL long run results stresses on the FDI positively and significantly contributing to Nepal's GDP growth is constant with the neoclassical theory such as Solow-Swan model which explains that the country's long term economic growth depends on the capital accumulation, labor force growth and the technological advancement. Borensztein et al. (1998) suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. In addition, in the empirical research by Ausloos et al. (2019), the researchers claim that the developing countries predominantly have positive correlation with GDP growth when time lag is increased as FDI is used to increase the productive outcome of the developing nation. Also, Carkovic and Levine (2005) reinforce this claim by stating that the growth benefits of FDI are more pronounced in the medium to long run. This result suggests that policies fostering a favorable environment for foreign investments such as improvement in governance quality through political stability, transparent regulatory framework and strong rule of law will further accelerate the Nepal's economic growth in the long run.

In the contrast, the negative relationship between GCF and GDP growth result in the long run is counterintuitive to the study's hypothesis, but in Nepal's context earlier national and international researches have highlighted that inefficiency in investment utilization and delay in project implementation due to institutional limitations hinder the productive outcomes of the investments (Bhandari, 2024; World Bank 2025). On the other hand, in the results of One Step ECM model, $\ln GCF$ shows positive and significant relationship with GDP growth in the current and first lag estimation while is insignificant in the second lag. This result is consistent with the Keynesian and Harrod-Domar perspectives which see investment as a direct driver of output in the short run but in the long run, the output diminishes. Therefore, the results suggest that the mere accumulation of the capital is not enough for growth in Nepal's context unless accompanied by institutional efficiency to pave better trajectory of Nepal's economic growth.

Moreover, the positive and insignificant effect of governance, $Comp$ variable in the long run result reflects the challenges of governance reforms into tangible growth in Nepal. Kaufmann and Kraay (2002) report similar finding which state that governance is vital for economic growth but its impact often is significant in the long run if the governance reforms are sustained. From this, we can say that institutional improvement and improvement in governance quality play important role in creating the environment where macroeconomic conditions such as foreign and domestic investments can flourish and prosper than directly contribute in Nepal's economic growth.

Further, the insignificant result of inflation in the long run echoes the literature findings where moderate inflation does not directly constrain or encourage growth but may support a short-term supply driven of demand driven economic activities.

Overall, from the above empirical results, we can see that in Nepal's context, FDI is the key driver of growth of economy in the long run whereas, gross capital formation and governance quality improvement require extra support from the nation to achieve sustainable economic growth. Therefore, to attain GDP growth, policies should have combined measures of attracting FDI along with strengthening domestic absorptive capacity through sustained governance reforms and accelerate gross capital formation since it yields strong, immediate short-term gain. Together these measures combined policies, a consistent short run and fast reconvergence towards long run growth in Nepal's economic growth trajectory is achievable.

4.3. Empirical Qualitative Implications: Discussion and Findings

The semi structured open ended interview questions aimed to incorporate the insights of participants on role of governance indicators in positive outcome, challenges faced to translate good governance into measurable economic growth, apparent paradoxes of rise in economic growth despite poor governance and their recommendations on rendering governance to actionable plans through collaboration between civil societies, academia, and international organizations. This paper has highlighted the distinct yet overlapping perceptions of the five participants from diverse economic backgrounds.

Governance, in the views of all the participants, is the foundation in building Nepal's long term economic growth. P1 claims that governance plays a critical role in creating an environment for development, stability, and equitable resources distribution by addressing Nepal's geographical and political challenges. He highlights the historic political transition of Nepal from monarch to federalism in 2008 post a decade long civil conflict in Nepal where, governance is the key to open opportunities for localized decision making through capacity building and a hazard of governance failure would constrain economic potential, perpetuating poverty, and inequality, hindering consistent policy implementation, negatively impacting economic growth. P3 reinforces this by stressing that in the current nascent state of federalism of Nepal, a good governance is not just about policy making but a consistent policy implementation through effective public service delivery, improving strengths and credibility of institutions, federal coordination, local ownership and accountability, and policy coherence for sustainable growth. In addition, P2 situates governance within the broader academic consensus drawing attention to the recent Nobel Prize in Economics in 2024 where winners have developed a theoretical tool to explain a relationship between institutions and prosperity. Conversely, P4 suggests the idea of governance not existing in a vacuum but an endogenous result from the current state of economy and society. She questions the ideal impression of governance correcting market failures and rectifying economic policies to shape economic growth, rather, she considers the reverse effect to what extent economic realities and other economic factors shape governance to channelize the good governance into shaping economic growth. Similarly, P5 labels governance-growth paradigm as a chicken-egg problem, suggesting that the governance has multiple definition where some of them may mislead the actual context of economic growth. He referred to a book by Yuen Yuen Ang, "How China Escaped the Poverty Trap" where the author challenges the traditional development economics and redefines

the relationship between institutions and economic growth. Further, P5 makes a bold statement “the key to escaping a poverty trap is not waiting for perfect conditions but building on what exists and making it work”. He adds that Nepal’s challenge is not the absence of strong institutions but lack of clear vision through which Nepal can break free from its own constraints and carve a path toward sustainable growth.

When asked which governance indicators matter the most out of six WGI indicators in the low-income countries like Nepal, the respondents converge on control of corruption, government effectiveness, and political stability, albeit with different inferences. P1 views these as the most immediate levers stating that corruption is a major barrier in Nepal where resources are limited for development and poor government effectiveness will erode trust, divert funds from critical sectors, infrastructures and discourages foreign investments. He claims that effective governance ensures transparent institutions, rule of law and accountability, which are essentials for attracting investment, fostering entrepreneurship, and reducing corruption. P3 supports the claims made by P1 by adding that in the absence of government effectiveness, no matter how sound the policy is, well intentioned development programs fail due to weak institutional capacity, poor coordination, and slow implementation and that to be added by corruption where resources are already limited is immensely damaging. She believes, government effectiveness backed up by regulatory quality and rule of law is essential for capital generation and long-term investment (both foreign and domestic) as they create an environment where economy along with the people of the nation can thrive. P2 endorses this by stating that government effectiveness includes rule of law, regulatory quality and voice and accountability as the government effectiveness drives these indicators alongside accountability as she considers people with accountability is more important than people with responsibilities. In addition, P1 and P4 highlight the importance of political stability to maintain the above-mentioned indicators for sustaining economic reforms and attracting investments as it directly addresses Nepal’s core challenges, enabling trust and capacity needed for economic development. P5 has made similar claims regarding the choice of most important governance indicators.

In exploring why good governance does not always translate into measurable economic outcomes, the participants point to a persistent policy-implementation gap, political instability, and weak institutional capacity. P1 holds political instability liable for inconsistent policy changes because of frequent government changes, as Nepal has had over 29 prime ministers since 1990. He says

Nepal's transition to federalism has decentralized governance and strained local institutions due to lack of expertise, inefficient bureaucracy, and coordination between federal, provincial, and local level, hindering effective service delivery and capital development. P4 reinforces this by stating that political instability and frequent leadership changes disrupt continuity in governance and long-term planning. In addition, P5 suggests that key to good governance is to have tailored policy than copying a successful policy based on Nepal's political, social, economic, and geographical nature and structure. He says good governance is a long process and is achieved through repeated hits and trials. Likewise, P4 suggests the need of experimental studies on how well a policy works on a small-scale landscape before implementing in a larger scale. Further, P2 adds that while conducting such activities, monitoring and documenting such studies play a vital role as lack of evidences invite another major challenge of accountability when policies fail. Moreover, P5 claims that good governance itself does not promise economic growth but facilitates and increases trust among agencies of economy. Hence, in Nepal, where there is no clear distinction between rules vs discretion, economic agents deviate from being a rational representative agent, so it is a major challenge for Nepal to translate good governance into measurable economic outcomes. P1 points out a limitation of governance in the economic growth by stating that the rapid governance shifts may not be immediately captured due to data aggregation causing lag in visible outcome.

On the paradox of rising economic growth despite of declining governance scores, all the respondents highlight the external or other macroeconomic drivers at play. P1 identifies other sectors such as tourism, remittances, agriculture as important economic reliance of Nepal while donations, foreign aids and investments also play a vital role in economy of developing country like Nepal. P2 talks about a post 2015 earthquake in Nepal which halted economic activities followed by an unofficial economic blockade, but foreign aids and funds pushed economic growth despite poor governance. Additionally, P3 points out major external drivers of economic growth in Nepal such as foreign investment or donor-funded infrastructure projects which boost the economic growth regardless of the state's governance and effectiveness. She adds other reasons could be the strength of domestic private sectors especially in informal or less regulated segments of the economy where businesses find ways to grow and operate despite inefficient or corrupt government systems. But she claims that such growth can be illusion of progress and governance plays a critical role in creating an environment for such economic activities to thrive. She reminds

the delayed nature of governance as it takes long time to impact the economic growth and poor governance certainly affects the reducing private sector/ foreign investment confidence and such impacts of policy uncertainty and weak service deliveries will surface over time. P4 and P5 also talks about the political and social structure contributing towards economic growth despite the governance effectiveness.

The recommendations for translating governance growth researches into actionable policies from five of the participants reveal overlapping. The priority areas of all the respondents are corruption control, government effectiveness and political stability. P2 emphasizes on empowering well performing local governments while enabling human capital formation, providing domestic and foreign funds and finally government delivering different forms of evidences and creating an environment to plan and implement such policies. P1 points out similar recommendations such as controlling corruption to increase investors' confidence, leveraging sector specific opportunities with governance support, enhancing government effectiveness through capacity buildings, improving regulatory quality for business and trades, and promoting political stability through consensus building. He claims that these can be achieved through prioritizing, financing, monitoring, and engaging stakeholders. P5 adds similar explanation where he says the governance growth models can identify the bottleneck of growth and provide evidence-based information to policymakers while it is also very important to engage civil society for public awareness, academic institutions for policy impact evaluations, researches and policy simulations and finally international organizations to provide financial and technical assistance including monitoring and evaluation. P3 and P4 also provide similar overlapping recommendations.

From all the five interviews, there is an agreement that while good governance is crucial for economic growth, it is not self-sufficient to sustain or accelerate the economic growth of Nepal alone. Across all five responses, they have consistently stressed and emphasized that strong governance structures can create favorable environment for economic activities but the actual economic growth highly depends on tangible macroeconomic drivers such as domestic capital formation, sectoral productivity, and foreign investments. P2 specifically mentions the post-earthquake economic trend where economic growth was not very seriously affected possibly due to foreign aids and reconstruction projects. P1 and P3 also noted that even with governance shortcomings, inflows of foreign capital have historically boosted Nepal's economy. P4 and P5 have noted that improving governance should go hand in hand with expanding physical and human

capital for sustainable economic growth. Collectively, the findings suggest that governance reforms paired with strategies to mobilize domestical capital, attract and monitor foreign investments and channelize them into high return is vital if Nepal is to achieve inclusive and sustainable economic growth.

Chapter 5 Conclusion and Policy Recommendations

This thesis examines the influence of governance indicators and macroeconomic indicators on Nepal's GDP growth from 1996 to 2023 using the Auto Regressive Distribution Lag (ARDL) empirical approach and qualitative semi-structured open-ended interview responses from five governance and economic expert participants. The independent variables are Comp variable (aggregate of WGI), Foreign Direct Investment (FDI), Gross Capital Formation (GCF), Inflation while, the dependent variable is GDP growth. The dataset has been derived from a secondary source, the World Bank and two of the independent variables, Inflation and GCF has been log transformed.

The empirical study of this thesis provides mixed alignments with the previous studies and literatures on the determinants of economic growth in Nepal. It strongly establishes a long run cointegration relationship between the explanatory variables and the dependent variable. The restricted ARDL long run results stress on the FDI positively and significantly contributing to Nepal's GDP is constant with the neoclassical theory such as Solow-Swan model which explains that the country's long term economic growth depends on the capital accumulation, labor force growth and the technological advancement. The negative relationship between GCF and GDP growth result in the long run is counterintuitive but in Nepal's context earlier national and international researches have highlighted that inefficiency in investment utilization and delay in project implementation due to institutional limitations hinder the productive outcomes of the investments. The positive and insignificant effect of governance, Comp variable in the long run result reflects the challenges of governance reforms into tangible growth in Nepal. Lastly, the insignificant result of inflation in the long run echoes the literature findings where moderate inflation does not directly constrain or encourage growth but may support a short-term supply driven of demand driven economic activities. The short run adjustments results reveal Nepal's vulnerability to shocks such as political instability, natural disasters, and external shocks. From this empirical study, we see that FDI is the key driver of growth of economy in the long run whereas, gross capital formation and governance quality improvement require extra support from the nation to achieve sustainable economic growth. Therefore, to attain sustainable economic growth, policies should have combined measures of attracting FDI along with strengthening domestic absorptive capacity through sustained governance reforms. The policy measures should concentrate more on accelerating gross capital formation since it yields strong, immediate short-

term gain. Overall, together these measures combined policies, a consistent short run and fast reconvergence towards long run growth in Nepal's economic growth trajectory is achievable.

The qualitative findings of this thesis demonstrates that governance exerts a positive influence to stabilize institutions and increase government effectiveness. The participants consistently identify corruption, weak government effectiveness and political instability as major constraints to translate investments and capital formation into sustainable economic growth. They collectively emphasized that governance sets the foundation for investments, domestic capital utilization and sectoral productivity leading to tangible economic growth in Nepal. The qualitative evidences provide policy implications to prioritize anti-corruption measure, enhance government effectiveness, ensure political stability, and improve institutional accountability. The findings suggest that governance reforms paired with strategies to mobilize domestical capital, attract and monitor foreign investments and channelize them into high return is vital if Nepal is to achieve inclusive and sustainable economic growth.

The sample size of the empirical study of this thesis is small from 1996 to 2023 due to the unavailability of WGI dataset. A larger dataset would enhance robustness of economic results thus; future studies could benefit from extended datasets as new governance indicators become available allowing to detect longer historical trends. This study used a Comp variable as an aggregate of six WGIs to avoid multicollinearity issue, while this does improve estimation reliability, it prevents analyzing a unique contribution of each governance indicators on growth. Further researches can accommodate all the six dimensions of WGI to capture their distinct roles and can also examine governance impacts on sectoral level. Also, there is a scope of further expanded qualitative component in this study to have larger and more diverse sample to strengthen the perspectives on governance and economics in Nepal. In addition, cross country or regional panel data studies can be conducted to compare Nepal's governance-growth relation with other countries.

Work Citation

- Acemoglu, D., & Robinson, J. (2008). *The role of institutions in growth and development* (Vol. 10). Washington, DC: World Bank.
- Adams, S., & Mengistu, B. (2008). The Political Economy of Privatization in Sub Saharan Africa*. *Social Science Quarterly*, 89(1), 78–94
- Ausloos, M., Eskandary, A., Kaur, P., & Dhesi, G. (2019). Evidence for Gross Domestic Product growth time delay dependence over Foreign Direct Investment. A time-lag dependent correlation study. *Physica A: Statistical Mechanics and Its Applications*, 527, 121181.
- Banerjee, A., Dolado, J. and Mestre, R. (1998), Error-correction Mechanism Tests for Cointegration in a Single-equation Framework. *Journal of Time Series Analysis*, 19: 267-283. <https://doi.org/10.1111/1467-9892.00091>
- Bhandari, K. (2024). Analyzing the Determinants of Economic Growth in Nepal. *Resunga Journal रेसुङ्गा जर्नल*, 3(1), 78-102.
- Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth?. *Journal of international Economics*, 45(1), 115-135.
- Carkovic, M., & Levine, R. (2005). Does foreign direct investment accelerate economic growth. *Does foreign direct investment promote development*, 195, 220.
- Chibba, M. (2009). Governance and development. *World Economics*, 10(2), 79-108.
- Duwal, N. (2023). Relationship between Institutional Structure and Economic Growth in Nepal. *Khwopa Journal*, 5(2), 174-186.
- Ellahi, N., Kiani, A., Malik, Q., Raza, A., & Gul, R. (2021). Institutional governance and financial sector development: Panel evidence from Asian economies. *Cogent Economics & Finance*, 9(1), 1890367.
- Engle, R. F., & Granger, C. W. J. (1987). Co-Integration and Error Correction: Representation, Estimation, and Testing. *Econometrica*, 55(2), 251–276. <https://doi.org/10.2307/1913236>
- Fukuyama, F. (2016). Governance: What do we know, and how do we know it?. *Annual Review of Political Science*, 19(1), 89-105.
- Gani, A. (2011). Governance and growth in developing countries. *Journal of Economic Issues*, 45(1), 19-40.

- Ghimire, L., Shah, A. K., & Phuyal, R. K. (2020). Economic growth in Nepal: macroeconomic determinants, trends and cross-country evidences. *Journal of World Economic Research*, 9(1), 76-82.
- Grindle, M. S. (2011). Good enough governance revisited. *Development policy review*, 29, s199-s221.
- International Monetary Fund. (1997). Western Hemisphere Department: *Good governance: the IMF's Role*. Internat. Monetary Fund.
- International Monetary Fund. (2018, April 22). *Review of 1997 Guidance Note on Governance – A proposed framework for enhanced Fund engagement* [Policy Paper]. IMF. Retrieved August 16, 2025, from <https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/04/20/pp030918-review-of-1997-guidance-note-on-governance>
- International Monetary Fund. (2023, June). *The IMF and good governance* [Factsheet]. IMF. Retrieved August 16, 2025, from <https://www.imf.org/en/About/Factsheets/Sheets/2023/The-IMF-and-Good-Governance>
- Kaufmann, D., Kraay, A., Lora, E., & Pritchett, L. (2002). Growth without governance [with comments]. *Economia*, 3(1), 169-229.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). *The worldwide governance indicators: Methodology and analytical issues* (Policy Research Working Paper No. 5430). World Bank.
- Kaufmann, D., Kraay, A., & Zoido-Lobaton, P. (1999). *Aggregating governance indicators* (Vol. 2195). world Bank publications.
- MAGAR, U. R. (2025). Navigating Success: How Good Governance Fuels Economic Development in Nepal.
- Mahran, H. A. (2023). The impact of governance on economic growth: spatial econometric approach. *Review of Economics and Political Science*, 8(1), 37-53.
- Mo, P. H. (2001). Corruption and economic growth. *Journal of comparative economics*, 29(1), 66-79.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge university press.
- North, D. C. (1986). The New Institutional Economics. *Journal of Institutional and Theoretical Economics (JITE) / Zeitschrift Für Die Gesamte Staatswissenschaft*, 142(1), 230–237.

North, D. C., & Thomas, R. P. (1973). *The rise of the western world: A new economic history*. Cambridge university press.

Organization For Economic Cooperation and Development (OECD). (1989). Development Assistance Committee. *Development Cooperation in the 1990s: 1989 Report*.

Organization for Economic Co-operation and Development. (1994). *DAC Orientations on Participatory Development on Good Governance*. OECD.

OECD (2023), *G20/OECD Principles of Corporate Governance 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/ed750b30-en>.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics*, 16(3), 289–326.
https://onlinelibrary.wiley.com/doi/full/10.1002/jae.616?saml_referrer

Poudel, O., Khatri, B. B., & Acharya, P. (2025). The Impact of governance, corruption control, and political stability on economic growth in Nepal: An econometric analysis. *Journal of Political Science*, 25, 46-66.

Rodrik, D., & Subramanian, A. (2003). The primacy of institutions. *Finance and development*, 40(2), 31-34.

Samarasinghe, T. (2018). Impact of governance on economic growth.

Sharma, K. (2011). Foreign aid, governance and economic development in Nepal. *Asia Pacific Journal of Public Administration*, 33(2), 95-115.

Stoker, G. (1998). Governance as theory: five propositions. *International social science journal*, 50(155), 17-28.

United Nations Development Programme. (1997). *Governance for sustainable human development: A UNDP policy document* (UN Digital Library Record No. 492551). Retrieved August 16, 2025, from <https://digitallibrary.un.org/record/492551>

United Nations Economic and Social Commission for Asia and the Pacific. (n.d.). *What is good governance?* Retrieved August 16, 2025, from <https://repository.unescap.org/server/api/core/bitstreams/7ac82496-f2f7-4b14-bce1-b1ba22e53dbd/content>

World Bank (1992). *World Development Report 1992: Governance and Development*. New York:OxfordUniversity Press. © World Bank.

World Bank. (2024). *Worldwide Governance Indicators (WGI), interactive data access*. World Bank. Retrieved August 22, 2025, from <https://www.worldbank.org/en/publication/worldwide-governance-indicators/interactive-data-access>

World Bank. (2025). Nepal Country Economic Memorandum: Unlocking Nepal's Growth Potential. [Washington, D.C.: World Bank Group](#).

World Bank. (2025, June 18). *Nepal Overview: Development news, research, data*. The World Bank. <https://www.worldbank.org/en/country/nepal/overview>

Worldwide Governance Indicators, 2024 Update, World Bank (www.govindicators.org)

Appendices

Appendix number 1: Shapiro-Wilk Tests

Shapiro-Wilk normality test

data: df\$GDP_growth

W = 0.92724, p-value = 0.05256

Shapiro-Wilk normality test

data: df\$comp

W = 0.96311, p-value = 0.412

Shapiro-Wilk normality test

data: df\$lnINF

W = 0.90515, p-value = 0.01513

Shapiro-Wilk normality test

data: df\$lnGCF

W = 0.97247, p-value = 0.648

Shapiro-Wilk normality test

data: df\$FDI

W = 0.96907, p-value = 0.5558

Appendix number 2: ADF tests

ADF test

```
Warning: essentially perfect fit: summary may be unreliable
0.6750379 0.9386429 0.3204508 0.5963312 0.4977978 0.4916220
Year GDP_growth comp lnGCF lnINF FDI
```

First Difference ADF Test

```
> apply(nepal_diff, 2, function(x) adf.test(na.omit(x))$p.value)
Warning: p-value smaller than printed p-value
NaN 0.01000000 0.36094936 0.02133121 0.09136248 0.06275031
Year GDP_growth comp lnGCF lnINF FDI
```

Second Difference ADF Test

```
> nepal_diff2 <- diff(nepal_diff)
> apply(nepal_diff2, 2, function(x) adf.test(na.omit(x))$p.value)
Warning: p-value smaller than printed p-valueWarning: p-value smaller than printed p-valueWarning:
lue smaller than printed p-value
NaN 0.01000000 0.0172244 0.01000000 0.01000000 0.01000000
Year GDP_growth comp lnGCF lnINF FDI
```

Appendix Number 3: Descriptive Statistics

Description: df [14 x 6]						
	Year <dbl>	GDP_growth <dbl>	comp <dbl>	lnGCF <dbl>	lnINF <dbl>	FDI <dbl>
nbr.val	2.800000e+01	28.00000000	28.00000000	28.00000000	28.00000000	28.00000000
nbr.null	0.000000e+00	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
nbr.na	0.000000e+00	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
min	1.996000e+03	-4.2318278	-6.4667450	3.00796767	0.81943583	-0.09837487
max	2.023000e+03	8.7602061	-1.5629543	3.72276724	2.41987625	0.67743988
range	2.700000e+01	12.9920338	4.9037907	0.71479957	1.60044043	0.77581475
sum	5.626600e+04	88.7983890	-116.4437743	94.13647959	49.91679334	7.21369080
median	2.009500e+03	3.0741151	-4.2629689	3.35494219	1.94831786	0.24052770
mean	2.009500e+03	3.1713710	-4.1587062	3.36201713	1.78274262	0.25763181
SE.mean	1.554563e+00	0.4693859	0.2474975	0.03692263	0.09345038	0.03994086

Appendix number 4: OLS (Unrestricted and Restricted)

Unrestricted OLS

```

Call:
lm(formula = GDP_growth ~ comp + lnGCF + lnINF + FDI, data = df)

Residuals:
    Min       1Q   Median       3Q      Max
-7.6198 -0.6957  0.1122  1.2949  3.6736

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -19.4498     8.4847  -2.292   0.0314 *
comp         -0.2081     0.3562  -0.584   0.5647
lnGCF         6.7762     2.6197   2.587   0.0165 *
lnINF        -0.5553     0.9204  -0.603   0.5522
FDI          -0.1398     2.5287  -0.055   0.9564
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.298 on 23 degrees of freedom
Multiple R-squared:  0.2709,    Adjusted R-squared:  0.1441
F-statistic: 2.136 on 4 and 23 DF,  p-value: 0.1088

```

Restricted OLS (excluding Comp)

```

Call:
lm(formula = GDP_growth ~ +lnGCF + lnINF + FDI, data = df)

Residuals:
    Min       1Q   Median       3Q      Max
-7.7860 -0.6106  0.2870  1.4214  3.8061

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -18.9445     8.3239  -2.276   0.0321 *
lnGCF         6.8984     2.5752   2.679   0.0131 *
lnINF        -0.5177     0.9055  -0.572   0.5728
FDI          -0.5968     2.3714  -0.252   0.8034
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.266 on 24 degrees of freedom
Multiple R-squared:  0.26,    Adjusted R-squared:  0.1675
F-statistic: 2.811 on 3 and 24 DF,  p-value: 0.06093

```

Restricted OLS (excluding lnGCF)

Call:
lm(formula = GDP_growth ~ comp + lnINF + FDI, data = df)

Residuals:

Min	1Q	Median	3Q	Max
-7.4968	-0.6847	-0.1169	0.7743	4.4034

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	1.7038	2.5145	0.678	0.505
comp	-0.2817	0.3949	-0.713	0.483
lnINF	-0.2535	1.0155	-0.250	0.805
FDI	2.9034	2.4896	1.166	0.255

Residual standard error: 2.556 on 24 degrees of freedom
Multiple R-squared: 0.05876, Adjusted R-squared: -0.0589
F-statistic: 0.4994 on 3 and 24 DF, p-value: 0.6862

Restricted OLS (excluding FDI)

Call:
lm(formula = GDP_growth ~ comp + lnGCF + lnINF, data = df)

Residuals:

Min	1Q	Median	3Q	Max
-7.6276	-0.6915	0.0953	1.2628	3.6307

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-19.2741	7.7013	-2.503	0.0195 *
comp	-0.2142	0.3316	-0.646	0.5245
lnGCF	6.7088	2.2702	2.955	0.0069 **
lnINF	-0.5613	0.8949	-0.627	0.5365

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.25 on 24 degrees of freedom
Multiple R-squared: 0.2708, Adjusted R-squared: 0.1796
F-statistic: 2.97 on 3 and 24 DF, p-value: 0.05195

Restricted OLS (excluding lnINF)

Call:

```
lm(formula = GDP_growth ~ comp + lnGCF + FDI, data = df)
```

Residuals:

Min	1Q	Median	3Q	Max
-7.5130	-0.8274	-0.0360	1.2091	4.0712

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-19.6577	8.3646	-2.350	0.0273 *
comp	-0.1931	0.3506	-0.551	0.5869
lnGCF	6.5758	2.5639	2.565	0.0170 *
FDI	-0.3180	2.4779	-0.128	0.8989

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.267 on 24 degrees of freedom

Multiple R-squared: 0.2593, Adjusted R-squared: 0.1667

F-statistic: 2.801 on 3 and 24 DF, p-value: 0.06158

Appendix Number 5: Auto Correlation Test

Durbin Watson Test 1

```
##Autocorrelation test -1
durbinWatsonTest(fit)
## D-W is close to "2"
## Autocorrelation value should be "0" but
## p-value is not significant, therefore, it means that autocorrelation value is "0". So, no autocorrelation. So, result is not spurious.

##Autocorrelation test -2
dwtest(fit)
##True autocorrelation is = 0
```

```
lag Autocorrelation D-W Statistic p-value
1 0.05784433 1.856922 0.514
Alternative hypothesis: rho != 0
```

Durbin Watson Test 2

```
##Autocorrelation test -2
dwtest(fit)
##True autocorrelation is = 0
```

Durbin-Watson test

```
data: fit
DW = 1.8569, p-value = 0.2521
alternative hypothesis: true autocorrelation is greater than 0
```

Appendix Number 6: ARDL without optimal lag

Time series regression with "ts" data:
Start = 3, End = 28

Call:

```
dynlm::dynlm(formula = full_formula, data = data, start = start,
end = end)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-2.28629	-1.02844	0.01232	1.03192	2.16035

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	14.10491	17.98538	0.784	0.4481
L(GDP_growth, 1)	-0.06681	0.22922	-0.291	0.7757
comp	-0.81896	1.12984	-0.725	0.4824
L(comp, 1)	2.68311	1.41628	1.894	0.0825 .
L(comp, 2)	-2.08545	1.16144	-1.796	0.0978 .
lnGCF	11.51846	3.45952	3.329	0.0060 **
L(lnGCF, 1)	-5.30791	5.15698	-1.029	0.3237
L(lnGCF, 2)	-10.89733	4.22192	-2.581	0.0240 *
lnINF	0.20917	0.85800	0.244	0.8115
L(lnINF, 1)	0.47328	0.84392	0.561	0.5852
L(lnINF, 2)	0.46743	0.86579	0.540	0.5992
FDI	2.04002	2.75453	0.741	0.4732
L(FDI, 1)	0.79283	2.15163	0.368	0.7189
L(FDI, 2)	4.57782	2.30575	1.985	0.0704 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.771 on 12 degrees of freedom
Multiple R-squared: 0.7739, Adjusted R-squared: 0.5289
F-statistic: 3.159 on 13 and 12 DF, p-value: 0.0274

Appendix number 7: ARDL with optimal lag

Time series regression with "ts" data:

Start = 4, End = 28

Call:

```
dynlm::dynlm(formula = full_formula, data = data, start = start,
  end = end)
```

Residuals:

Min	1Q	Median	3Q	Max
-2.0332	-0.7488	-0.1140	0.9046	1.9142

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	52.0806	23.2562	2.239	0.04675	*
L(GDP_growth, 1)	-0.0453	0.2230	-0.203	0.84275	
comp	0.2727	1.0360	0.263	0.79720	
L(comp, 1)	3.0008	1.2820	2.341	0.03913	*
L(comp, 2)	-2.1728	1.4974	-1.451	0.17467	
L(comp, 3)	-0.6046	1.1999	-0.504	0.62426	
lnGCF	11.5198	3.0579	3.767	0.00312	**
L(lnGCF, 1)	-9.6093	4.5655	-2.105	0.05911	.
L(lnGCF, 2)	-11.2284	3.8152	-2.943	0.01337	*
L(lnGCF, 3)	-6.3524	4.3580	-1.458	0.17289	
lnINF	1.5311	0.9129	1.677	0.12167	
FDI	4.8098	2.4306	1.979	0.07341	.
L(FDI, 1)	4.2501	2.5380	1.675	0.12218	
L(FDI, 2)	4.0771	2.1484	1.898	0.08426	.

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.569 on 11 degrees of freedom

Multiple R-squared: 0.8323, Adjusted R-squared: 0.6341

F-statistic: 4.2 on 13 and 11 DF, p-value: 0.01137

BIC optimal selection table

Description df [8 × 6]						
	GDP_growth <dbl>	comp <dbl>	lnGCF <dbl>	lnINF <dbl>	FDI <dbl>	BIC <dbl>
	1	3	3	0	2	121.2347
	1	3	3	0	3	121.3981
	1	3	2	0	2	122.4309
	1	2	2	0	2	127.1237
	1	2	2	0	1	130.7136
	1	2	2	1	1	133.6484
	1	2	1	1	1	137.1076
	1	1	1	1	1	140.6821
8 rows						

Appendix number 8: Cointegration Test

t-test

```
Bounds t-test for no cointegration

data: d(GDP_growth) ~ L(GDP_growth, 1) + L(comp, 1) + L(lnGCF, 1) + lnINF + L(FDI, 1) + d(comp) + d(L(comp, 1)) + d(L(comp, 2)) + d(L(lnGCF, 1)) + d(L(lnGCF, 2)) + d(FDI) + d(L(FDI, 1))
t = -4.6873, p-value = 0.007214
alternative hypothesis: Possible cointegration
null values:
      k      T
      4 1000
```

f-test

```
Bounds F-test (Wald) for no cointegration

data: d(GDP_growth) ~ L(GDP_growth, 1) + L(comp, 1) + L(lnGCF, 1) + lnINF + L(FDI, 1) + d(comp) + d(L(comp, 1)) + d(L(comp, 2)) + d(L(lnGCF, 1)) + d(L(lnGCF, 2)) + d(FDI) + d(L(FDI, 1))
F = 5.8187, p-value = 0.002776
alternative hypothesis: Possible cointegration
null values:
      k      T
      4 1000
```

Cointegration in the long run enforced by external factors

```
> ## Restricted ARDL eqn to generate long-run & short-run Case=3 means there's LAG & Intercept that is unrestricted in the eqn.
> ce2_ardl2 <- coint_eq(ardl2, case =3)
> summary(ce2_ardl2)
      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
-52.19  -48.68   -46.97   -46.53   -43.58   -41.46
```

Appendix number 9: One Step Error Correction Model (ECM)

```
> ## One-step ECM
> uecm <- uecm(ardl2)
> summary(uecm)
```

Time series regression with "ts" data:
Start = 4, End = 28

Call:
dynlm::dynlm(formula = full_formula, data = data, start = start,
end = end)

Residuals:

Min	1Q	Median	3Q	Max
-2.0332	-0.7488	-0.1140	0.9046	1.9142

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	52.0806	23.2562	2.239	0.046748 *
L(GDP_growth, 1)	-1.0453	0.2230	-4.687	0.000664 ***
L(comp, 1)	0.4960	0.4934	1.005	0.336309
L(lnGCF, 1)	-15.6703	7.0117	-2.235	0.047122 *
lnINF	1.5311	0.9129	1.677	0.121671
L(FDI, 1)	13.1371	4.5030	2.917	0.014002 *
d(comp)	0.2727	1.0360	0.263	0.797204
d(L(comp, 1))	2.7775	0.9626	2.885	0.014825 *
d(L(comp, 2))	0.6046	1.1999	0.504	0.624258
d(lnGCF)	11.5198	3.0579	3.767	0.003116 **
d(L(lnGCF, 1))	17.5808	6.1949	2.838	0.016142 *
d(L(lnGCF, 2))	6.3524	4.3580	1.458	0.172891
d(FDI)	4.8098	2.4306	1.979	0.073412 .
d(L(FDI, 1))	-4.0771	2.1484	-1.898	0.084264 .

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.569 on 11 degrees of freedom
Multiple R-squared: 0.9157, Adjusted R-squared: 0.8161
F-statistic: 9.194 on 13 and 11 DF, p-value: 0.0003964

Distribution of the cointegration factor for One step ECM model

```
> ce3_uecm <- coint_eq(uecm, case = 3)
> summary(ce3_uecm)
```

Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
-52.19	-48.68	-46.97	-46.53	-43.58	-41.46

```
>
```

Appendix Number 10: Two Step ECM


```
> ## Two-step ECM:- To see long-run results (where long-run result
eqn.)
> recm <- recm(uecm, case=3)
> summary(recm)
```

Time series regression with "zooreg" data:

Start = 4, End = 28

Call:

```
dynlm::dynlm(formula = full_formula, data = data, start = start,
  end = end)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-2.0332	-0.7488	-0.1140	0.9046	1.9142

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	52.0806	8.2582	6.307	1.41e-05 ***
d(comp)	0.2727	0.6101	0.447	0.661213
d(L(comp, 1))	2.7775	0.6897	4.027	0.001097 **
d(L(comp, 2))	0.6046	0.7959	0.760	0.459213
d(lnGCF)	11.5198	2.2605	5.096	0.000132 ***
d(L(lnGCF, 1))	17.5808	4.6068	3.816	0.001686 **
d(L(lnGCF, 2))	6.3524	3.2053	1.982	0.066129 .
d(FDI)	4.8098	1.4756	3.260	0.005278 **
d(L(FDI, 1))	-4.0771	1.3903	-2.933	0.010292 *
ect	-1.0453	0.1660	-6.299	1.43e-05 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 1.344 on 15 degrees of freedom

(0 observations deleted due to missingness)

Multiple R-squared: 0.9157, Adjusted R-squared: 0.8652

F-statistic: 18.11 on 9 and 15 DF, p-value: 1.636e-06

Distribution of Cointegration factor for Two Step ECM

```
> summary(ce4_recm)
```

Index	ce4_recm
Min. : 1.00	Min. :-51.73
1st Qu.: 7.75	1st Qu.: -48.53
Median :14.50	Median : -46.00
Mean :14.50	Mean : -46.49
3rd Qu.:21.25	3rd Qu.: -44.22
Max. :28.00	Max. : -39.95
	NA's :1

Appendix number 11: Scrutinizing Cointegration for justification for Model Specification

```
identical(ce2_ardl2, ce3_uecm, ce4_recm)
## to see whether coefficients & residuals change while moving from ARDL to Unrestricted ECM to Restricted ECM. It says that they are not changing that
means results are stable that is the transformation applied with an assumption that there's cointegration. If cointegration doesn't exist there would
have been different results that means [FALSE]
```

Appendix Number 12: Long Run Restricted ARDL model

Description: df [5 x 5]					
	Term <chr>	Estimate <dbl>	Std. Error <dbl>	t value <dbl>	Pr(> t) <dbl>
1	(Intercept)	49.8237522	23.5793003	2.1130293	0.05827010
2	comp	0.4745497	0.4940060	0.9606152	0.35738582
3	lnGCF	-14.9912269	7.1454027	-2.0980241	0.05980454
4	lnINF	1.4647737	0.9591631	1.5271372	0.15495507
5	FDI	12.5678529	4.3683890	2.8769995	0.01505186

Appendix Number 13: Diagnostic Tests

Serial Correlation Test (Order 1)

Breusch-Godfrey test for serial correlation of order up to 1

data: uecm

LM test = 1.0323, df = 1, p-value = 0.3096

Serial Correlation Test (Order 2)

```
> bgtest(uecm, order = 2)
```

Breusch-Godfrey test for serial correlation of order up to 2

data: uecm

LM test = 5.5524, df = 2, p-value = 0.06228

Heteroskedasticity Test

studentized Breusch-Pagan test

data: uecm

BP = 9.6003, df = 13, p-value = 0.7262

Jarque-Bera Test

```
> ###jarque-bera test (to check the normality of the residuals)
> jarque.bera.test(residuals(uecm))
```

Jarque Bera Test

data: residuals(uecm)

X-squared = 0.8794, df = 2, p-value = 0.6442

Recursive CUSUM Test

Recursive CUSUM test

data: fluctuation

S = 0.67944, p-value = 0.2783

Appendix 14: Semi Structured Open Ended Interview Questions for Qualitative Analysis

1. How do you perceive the role of governance in shaping long-term economic growth in countries like Nepal? (general economic insights)
2. In your opinion, which governance indicators (e.g., control of corruption, rule of law, political stability and absence of violence, government effectiveness, regulatory quality and voice and accountability) have the most direct impact on economic development in low-income countries? Why? (general economic insights)
3. What challenges does a country like Nepal face in translating good governance into measurable economic outcomes? How reliable do you consider the Worldwide Governance Indicators (WGI) in reflecting actual governance performance, especially in countries with

limited institutional transparency like Nepal? (general economic insights plus data accountability)

4. How would you interpret a scenario where economic growth increases despite a decline in governance scores? What possible factors might explain this? (expert economic insights plus economic students 'fresh approach')
5. Based on your understanding, how can findings from governance-growth models be translated into actionable policy recommendations in Nepal? (policy and practical implications)
6. What role can civil society, academic institutions, and international organizations play in improving governance for the sake of economic development in the context of Nepal? (inclusion in policy recommendations and practical implications)