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Governance and Economic Growth: Evidence from 14 Latin America and Caribbean Countries

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Abstract

This article empirically explores the impact of governance indicators (corruption, government effectiveness, and political stability) along with some other macroeconomic variables (inflation, trade openness, worker remittances, direct foreign investment, and population growth rate) on economic growth of 14 countries located in Latin American and Caribbean(LAC) region between $2002Q_1$ and $2018Q_4$. The panel autoregressive distributed lag (ARDL)/pooled mean group (P.M.G.) estimation techniques are used for empirical investigation. The P.M.G. results disclose that corruption has a significantly inverse effect on growth, while both political stability and government effectiveness have positive impacts in the long run. These results indicate that increasing corruption discourages growth, while political stability and government effectiveness encourage the process of economic growth. Empirical findings demonstrate the need of good governance, where corruption needs to be miniaturized, while government effectiveness and political stability be strengthened to boost economic growth and thereby improve social welfare. The present study is different from the erstwhile studies in three folds: (i) it focuses on 14 countries from LAC region (highest number of LAC countries investigated so far in a single study), (ii) the data covers a long time span of 16 years, and (iii) it employs relatively holistic panel data and empirical techniques for estimation purpose. Therefore, the outcomes of this study will not only contribute to the literature on LAC region but can also be extended globally with the objective to understand the significance of governance for national economic development.

Keywords Governance · Economic growth · ARDL/PMG · LAC

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Introduction

Achieving higher and sustainable economic growth and development in order to improve social welfare is among the foremost socioeconomic goals of every nation. It is evident that during the 1990s, the Latin America and Caribbean (LAC) region encountered a historic problem. The governmental, intellectual, and political leadership of the LAC region came to realize at the end of the 1980s that introduction of fundamental changes in these countries' economies was required (UNDP, 1998). Due to frequent international crises and macroeconomic mismanagement, many countries in LAC were undergoing stern economic decline at the beginning of the new millennium. For instance, in the case of the Tequila crisis, market-oriented reforms were called into question, and people from politicians to researchers suggested a considerable adjustment of economic policy other than the "Washington Consensus" (Loayza et al., 2003). Thus, the main focus of this article is to evaluate the linkage between institutional factors and economic growth of 14 countries from LAC.

Historically speaking, traditional economists have considered the influence of physical and human capital formation, technological invention, the process of knowledge formation and transmission, and global economic integration on economic growth (Dellepiane-Avellaneda, 2010; Helpman, 2004). Nonetheless, experts have also come to acknowledge that governance, institutions, and politics are *sine-quo-non* to economic growth and development as they influence the incentives to accrue, innovate, and trigger change (Dellepiane-Avellaneda, 2010; Eregha, 2014; Kaufmann & Kraay, 2003). The significance of improved level of economic growth for economic, social, and political development is crystal clear. Those nations which are capable of continuous growth and which can sustain economic growth and development are also capable of several beneficial factors like drastically diminishing poverty levels, supporting political and democratic stability, enhancing the quality of their environment and ecosystem, fostering the living standards of their citizens, and reducing the frequency of violence and crimes (Loayza et al., 2003). Moreover, the role of institutions in promoting growth is critical for all economies in general and developing countries in specific where such institutions are often nascent and development problems are relatively discouraging (Fosu, 2013).

As stated above, the aim of this article is to examine the correlation between governance indicators[1] (corruption, political stability, and Govt. effectiveness) and economic growth for 14 countries from LAC. This study used a panel data set covering the period $2002Q_1$ to $2018Q_4$. Empirical research studies on the subject are scarce

[1] According to the WB, WGI there are six broad dimensions of governance, however, this study uses only three indicators out of six which can satisfy broad objectives of the study

with the exception of the work by Kaufmann and Kraay (2003) who used data from 175 countries in 2000 to 2001 and employed ordinary least squares (OLS) method for empirical investigation. In this study, our set of countries includes "low income, lower middle, and upper middle income" countries from LAC region[2]. It is assumed that all these countries have almost similar characteristics. This study is different from the erstwhile studies in three folds: (i) it focuses on 14 countries from LAC region, largest number of countries so far, (ii) the data covers relatively for a long period time, and finally (iii) it employs relatively holistic panel data and empirical techniques for estimation purpose. Therefore, the outcomes of this study will not only contribute to the literature on LAC region but can also be extended globally with the objective to understand the significance of governance for economic development.

Governance and Economic Growth

The role of good governance in enhancing the level of economic growth and development is widely accepted. First, let us shed some light on the variances in the meaning of government and governance. Conventionally, the term 'governance' is viewed as identical to government (Jabeen, 2007). The study of Jabeen (2007) further maintains that government is a group of individuals that runs the entire administration of a country. However, the term governance refers to new practices, methods, or modes of governing a society. In a study, Keefer (2009) opines that there is no consensus regarding the definition of "governance". Kaufmann and Kraay (2008) expound that the concept of governance is very old and can be traced back to at least 400 BCE. The World Bank (WB) (1992, p.1) believes that "governance is the manner in which power is exercised in the management of a country's economic and social resources for development" whereas the word governance signifies for the OECD "the use of political authority and exercise of control in a society in relation to the management of its resources for social and economic development". While the UNDP (1997, pp. 2–3) describes governance as "the exercise of economic, political and administrative authority to manage a country's affair at all levels. It comprises mechanisms, processes and institutions, through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences".

In a similar manner, Kaufmann et al. (1999, p. 1) and Kaufmann and Kraay (2008, p.4) explain the term governance as "the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them". Jabeen (2007) cites that good governance according to the Human Development Reports means good humane governance, which stimulates human development. In the

[2] Upper middle income countries [Colombia, Dominica, Dominican Republic, Ecuador, Jamaica, Nicaragua, and Peru], lower middle income [Belize, Bolivia, El Salvador, Guatemala, Guyana, Honduras], and low income [Haiti].

broad sense, all these definitions reveal that governance refers to the way in which the power is used in the administration and managing of state's economic and societal resources for the national economic development (Manasan et al., 1999).

In terms of enhanced level of economic development, good governance is desirable because in good governance, the individual assumed to be sound in terms of living standard and consequently many of less-developed economies would be much better off. Where public life were administered and managed within fair and impartial institutions, accountable, judicious, and transparent, the World Bank is also of the view that the attractive characteristics of good governance include accountability and transparency, effectiveness in how the public sector works, rule of law, and systematic connections in politics. Now, it is obvious from the definitions and understanding of good governance that bad governance is the opposite of it. Grindle (2010) shows that good governance is an encouraging feature of political systems, while crummy governance is a problem and weakness that countries shall to overcome. The UN Secretary–General asserts that good governance is "ensuring respect for human rights and the rule of law; strengthening democracy; promoting transparency and capacity in public administration." (Dellepiane-Avellaneda, 2010; Weiss, 2000). Similarly, the other important elements of good governance are political and bureaucratic accountability, efficient public institutions, nonexistence of corruption, economic management, and social advancement (Huther & Shah, 1998; Manasan et al., 1999). Furthermore, alongside, due to the pursuance of these principles into practice, the fair free and regular elections need to be held and an independent judiciary needs to be established to translate those laws factually. The utmost threats to good governance can occur from corruption, violence, poverty, factors which weaken fundamental freedoms, participation security, and transparency. It is believed that democracies have not usually the most effective governments, because even effective governments have been observed in non-democratic states. It is also noted by Levi (2006) that some economically established and enduring democracies find it difficult to maintain and sustain effective governments. Good governance is mandatory for continued upsurges in living standards (Kaufmann et al., 1999; Knack, 2003). Apparently, a general harmony has been found among various investigators and policymakers that governance does matter and undeniably good governance is vital for encouragement of progress and poverty alleviation (Hussain, 2004; Shepherd, 2000).

This study understands governance as the manner in which power is executed in the administration and how the country's scarce resources are managed for national economic development. Therefore, to our understanding, good governance means how such practices are exercised by the government in order to assure maximal social welfare. It is, however, also argued that corrupt bureaucrats and politicians in badly governed countries cause sluggishness in all kinds of development efforts by pocketing the financial aid and contributions by misallocating them into inefficient activities. Moreover, there are incompetent bureaucracies and weak institutions that are reluctant or incapable of devising and implementing pro-growth and pro-poor policies. The former United Nation Secretary–General Kofi Annan disclosed that "good governance is perhaps the single most important factor in eradicating poverty and promoting development" (see UN, 1998; Resnick & Birner, 2005; Gisselquist, 2012). The crucial influence of the quality of governance on economic growth is open to discussion (Kurtz & Schrank, 2007; Gisselquist, 2012). It is also revealed by Hyman (2012) that democracy can perform a better role in stimulating sustainable

development. Conceivably, various principles, such as accountable government, free and fair elections, free media, as well as other fundamental democratic principles, are all crucial components of an environment favorable to economic growth and development. Bhupatiraju and Verspagen (2013) note that the preeminence of institutions as an element of economic expansion and advancement is not a new theory.

Corruption is a broad term and a multifaceted phenomenon which exists in every country and it is one of the indicators of weak governance. The nature, magnitude, degree, and the effect of corruption vary prominently across the world. The WB (1997) describes word corruption as "the abuse of public office for private gain". Corruption happens where public representatives are directly engaged to use state services for their own benefits (Rose-Ackerman, 1997). In a study, Shepherd (1998) indicates that developing and transition economies record more corruption compared with OECD countries. Corruption in Latin American economies has typically been higher in East Asian countries in comparison with other developing and transitional countries. Several Latin American countries are suffering from higher level of corruption. Corruption is detrimental to economic growth and development because it weakens the rule of law, spoils resources, dampens investment, and increases the cost of doing business. Usually, corruption levies substantial costs on countries and ordinary people, but unluckily, the encumbrance of corruption on the poor is relatively high. The study of Shepherd (1998) concludes that mitigating the destructive effect of corruption on LAC's society is a big challenge, and the one which is difficult to resolve in a short period. Furthermore, the study adds that progress is going on to mitigate corruption, where not only economic and political changes that governments have been commencing in Latin America, but also the civil society and the WB are making efforts to mitigate endemic corruption in these countries.

In a similar study, Alesina (1998) has also shown that in Argentina, the extremely sluggish growth during 1960–1990 was mainly due to bad governance. Weak institutional quality, replicated in corruption, poor standards of bureaucratic efficiency, and the rule of law property rights protection were the fundamental variables determining the county's poor growth. The study of Vargas-Hernandez (2003) reveals a similar situation in Latin America where the low level of governance has its backgrounds in limitations of economic, social, cultural, and educational policies which occurred in spite of the preceding strong presence of the authoritarian state and its governing institutions. In the case of Mexico, studies have highlighted problems like official and private corruption, the corruption and incompetence of judicial organs, the domination of drug cartels, and insufficiencies in interior security in the form of guerilla groups functioning in rural neighborhoods and vehemence in the large cities (Glen & Sumlinski, 1998; Vargas-Hernandez, 2003).

Parker et al. (2004) reveal corruption in Latin America as widely prevalent; however, its frequency differs from one country to another country, ranging from "normal" to "widespread" to "systemic". In the case when it is normal, it may be fairly easy to detect the problem and control it, while on the other hand, if it is widespread and becomes systemic, it is difficult to prevent and control it and it can be vastly detrimental to the stability of democratic institutions, harmful to the rule of law, and destructive to economic growth. The study further enumerates factors in Latin America that have caused corruption including low levels of accountability, transparency and efficiency,

inconvenient legislation, and legal confusion. In addition, institutions have remained weak as there is an absence of effective judicial system, weak social controls, lack of political will, and mixed attitudes about corruption. According to Seligson (2006, p. 381), "Widespread corruption is increasingly seen as one of the most significant threats to deepening democratization in Latin America (and indeed much of the democratizing Third World)". The study of Penailillo (2012) highlights that in Latin America, various factors such as crime, terrorism, drug trade, and government weakness are obstructions to economic and political growth. Along with the general aspects, corruption is one of the more visible factors, which create environments and inducements for the diversion and misuse of power in the many of economies in the region.

According to the World Bank (2013) report, Kim says that corruption is a 'public enemy number one' in less-developed countries. Kim further explains the destructive effects of corruption as "Every dollar that a corrupt official or a corrupt business person puts in their pocket is a dollar stolen from a pregnant woman who needs health care; or from a girl or a boy who deserves an education; or from communities that need water, roads, and schools. Every dollar is critical if we are to reach our goals to end extreme poverty by 2030 and to boost shared prosperity".

Some Facts and Figures on Latin America and Caribbean

The geographical area of LAC is equivalent to Oceania and Europe combined and there are almost thirty-two countries, while the total population is estimated almost 600 million. Poverty figures in LAC shown by the UN Economic Commission for LAC (ECLAC) (2012) are 29.4% of the inhabitants were poor and 11.5% were needy or extremely poor in 2011 (United Nations, 2013). The World Bank Institute's Good Governance Index (WB, 2009) documented that Ecuador, Argentina, Dominican Rep., Bolivia, Honduras, Peru, and Guatemala exhibit an indicator of government effectiveness under 50%, whereas, Venezuela, Nicaragua, and Paraguay indicate an index below 20% and Haiti below 2.8%. The data statistics demonstrates that the rule of law index in Peru, Paraguay, Nicaragua, Mexico, Trinidad and Tobago, Jamaica, El Salvador, Dominican Rep.,, and Argentina that fall under 50%, and Venezuela, Guatemala, Ecuador Honduras, Haiti, and Bolivia reveal indexes below 20%. While just six countries in LAC indicate rule of law indexes of above 50% namely Puerto Rico, Chile, Brazil, Uruguay, Panama, and Costa Rica. It has been observed that insecurity due to crime and violence also severely exists in the region. The LAC is the second highest vehement region globally with high rates of relational violence and crime (Penailillo, 2012). The WB (2011) has also shown that both crime and violence are crucial problems in the development of Central American economies. The crime rate in three countries Honduras, Guatemala, and El Salvador are among the top five in Latin America though it is considerably lower at other places. It is upsurge and causing heightened concern in three other countries of the region—Costa Rica, Nicaragua, and Panama. In a study, Vargas-Hernandez (2003) has shown that during the last decades of the 20th century, it has been perceived that in Latin American countries, the institutions of governance are influenced by minute macroeconomic successes and sluggish economic

expansion, and the development of an exceptionally instable democracy. ECLAC (2018) reports that the year 2019 seems to be a year in which world economic uncertainties, far from waning, will deepen and will rise from different faces. Indeed, it would have unfavorable effect on overall economy performance of LAC, whereas less dynamic growth is anticipated, both for advanced and emerging economies, along with more volatility of international financial markets. The economic growth rate is expected for LAC in 2019 to be 1.7%, marginally below what ECLAC projected last October (1.8%).

The study is structured as follows: "Literature Review" deals with the existinglitterature. "Data,Model Specification, and Estimation Techniques" outlines the data description, model specification, andempirical methodology. "Regression Results and Interpretation" explains the empirical results. "Concluding Remarks" concludes the study with important findings.

Literature Review

The role of governance and institutions for economic development is now generally acknowledged in the economic studies. Many economists will agree that governance is a vital factor determining the growth performance of countries. Government competences given that good governance are now claimed to be crucial for sustaining efficient markets and limiting the activities of Governments to the delivery of essential public goods so as to reduce rent seeking and government failure (Khan, 2004, 2007). Rivera-Batiz (2002) expounds that resilient democratic institutions effect governance by limiting the actions of corrupt officials. Mitigating corruption would encourage technological change and bolster economic growth. In a study by Abdelbary (2018), it is noted that there are many theories of governance and development, but on the effect of governance in the process of economic development, there are three main economic schools of thought along with some sub-schools of thought within each school. These are (a) the "successful society"; (b) the governance for growth school, which has newly appeared as the "cautionary school of governance for growth"; and (c) the "social order" school."[3] Nevertheless, the communal notability in these three schools of thought is that institutions play central role in determining growth performance.

The study of Fosu et al. (2006) recommends two things: first appropriate and right policies to bolster the process of economic growth and second primitive institutional framework for encouraging appropriate policies. The existing literature reveals that institutional quality is playing a decisive role for economic and social development. For example, some empirical studies demonstrate that institutional qualities measured by nonexistence of corruption, bureaucratic efficiency, protection of property rights, and the rule of law are closely related with better growth and income levels (Alesina, 1998; La Porta et al., 1998; Lee & Kim, 2009; Barro, 1999). The studies of Aron (2000) and Rodrik et al. (2004) indicate

[3] See for detail the study of (Chibba, 2009), and on the "successful society" (Abdelbary , 2018), the "governance for growth school-"cautionary school of governance for growth" (Rodrik, 2008), and the "social order" school." (North et al., 2009).

that governance has an uninterrupted influence on growth and income, through its contribution in reducing the transaction costs. Similarly, governance is affecting economic growth and income indirectly, through its influence on some other influential factors of growth including investments, infrastructure, geography, and trade. In the same way, De (2010) study exhibits that undeniably, there is a positive association in good governance and growth, and long-run economic growth is affected by the institutional quality and policies.

Using data for up to 97 countries during 1974–1989, the study of Knack and Keefer (1997) observes that the quality of institutions is vital to growth and investment. Similarly, Mauro (1995) observes that subjective indexes of corruption are inversely related with investment and growth using data for 58 countries from 1960 to 1985. Kaufmann and Kraay (2003) imply that there is encouraging link between income and the quality of governance across countries. For empirical verification, the study used a newly updated set of global governance indicators for 175 countries during 2000–2001. The method of OLS has been employed for parameter estimation. The results are used to interpret the linkage between per capita GDP and governance in the LAC region. The study finds the first result that governance matters drastically for economic growth in long run that is not new and it validates previous such empirical results. Bhupatiraju and Verspagen (2013) finds that institutions supersede other factors, i.e., geography and trade, when GDP per capita is used as an explanatory variable for the period of period 2000–2009. After expanding the response variable to incorporate other aspects of progress, such as growth hand investment, the study finds that institutions, growth, and geography are all noteworthy variables. Whereas institutions no longer supersede the other variables, the same institution variables are inversely correlated with the more dynamic development variable.

Some studies validate that good governance which is vital for sustainable development and, which is measured by level of per capita income, enjoys more foreign direct investment inflows and faster economic growth rates as compared with those with weak governance. The causal correlation between good governance and the fall in absolute poverty levels along with some other variables has been confirmed empirically by several studies (Sundaram & Chowdhury, 2013). The study extends that findings of previous empirical studies are clear indications regarding the causal perception that good governance does play an imperative role in attaining constructive and encouraging development outcomes. In a study, Eregha (2014) examines the effect of institution and governance variables on real per capita GDP growth for ECOWAS region during 2000–2010 and panel data analysis approach was employed for the estimation. The finding reveals that both institution and governance are important factors determining per capita income growth in the region. Azam and Emirullah (2014) observe that two weak governance elements namely endemic corruption and inflation are adversely connected to economic growth of nine economies in Asia during 1985–2012. Zogjani and Kelmendi (2015) suggested that all 13 countries of SEE need to make struggle and control corruption because it is very pensive problem for sustainable economic, political, and institutional consolidation. Empirical findings of Lisciandra and Millemaci (2015) reveal a significant negative effect of corruption on growth in Italian region during 1968–2011. On the other hand, the

Table 1 Selected former empirical studies on the governance indicators and economic growth

Author(s)	Data, country(s)	Method (s)	Response variables	Regressors	Findings
Uzelac et al. (2020)	1999–2016 19 CEE economies Foxed-, and Random-effects		GDP	Corruption, democracy index, political stability, quality of regulation, rule of law, economic freedom, and financial development	Corruption and political stability have significant impacts on growth
Azam et al. (2020)	1908-2018 India ARDL		Real GDP	Population growth, investment, life expectancy and inflation rate	Population, life expectancy and investment have positive, while inflation has negative impact on growth
Elbargathi and Al-Assaf (2019)	1996–2016 Arab 4 countries	VECM	GDP per capita growth rate	Human capital, gross capital formation, political stability, rule of law, regulatory quality, and corruption	Corruption, rule of law, and regulatory quality have negative impact on growth
Abdelbary (2018)	1996–2016 Egypt	VECM	GDP Growth rate	Corruption voice & accountability, political stability & absence of violence/terrorism, Govt. effectiveness, regulatory quality and rule of law	Found causality among governance indicators and economic growth except corruption and voice and accountability factor.
Awan et al. (2018)	1996–2014 Five SAARC	Fixed-effect, and Random-effect	GDP per capita	Corruption, education index, political stability, and Govt. effectiveness	-Corruption has adverse impact on Economic growth - Govt. effectiveness and political stability have significantly positive impact on Economic growth.

Table 1 (continued)

Author(s)	Data, country(s)	Method (s)	Response variables	Regressors	Findings
Tomola & Akinpelumi, (2018)	1999–2015 Nigeria	OLS	GDP	Corruption, FDI, Govt. spending, and debt service payments	Corruption does have an adverse impact effect on the economic growth
Lahouij (2016)	2002–2013 Six MENA countries	Fixed-effect, and Random-effect	Per capita GDP growth rate	Average of governance indicators, Govt. final consumption spending, gross capital formation, net FDI inflows, and economic freedom index	Average of governance indicators have significantly positive effect on economic growth
Pere (2015)	1996–2012 Eight Western Balkan countries	Random-effect	GDP per capita growth	Corruption, voice & accountability, political stability, govt. effectiveness, regulatory quality, and rule of law	Corruption and Govt. effectiveness have negative effect, while political stability has negative effect on economic growth
Omoteso & Mobolaji (2014)	2002–2009 47 Sub-Sahara African countries	Fixed-effect, Random-effect and Maximum likelihood	GDP growth rate	Corruption, political stability, regulatory quality, and Govt. effectiveness	Impact of corruption on growth is unclear, political stability and regulatory quality variables have positive impacts, while Govt. effectiveness has negative effect on growth
Adenike (2013)	1980–2009 Nigeria	ECM Granger Causality test, OLS	GDP	Government Capital Expenditure, Total labor force, private foreign investment, education, bribery and corruption	Corruption exerts an adverse influence on output directly and indirectly through private foreign investment, and spending on education

Table 1 (continued)

Author(s)	Data, country(s)	Method (s)	Response variables	Regressors	Findings
Pulok (2010)	1984–2008 Bangladesh	ARDL	Real GDP per capita	Gross fixed capital formation, population, Govt. final consumption outlay, education, total factor productivity	corruption has direct adverse impact on GDP per capita
Mo (2001)	1970–1985 54 countries	OLS, 2SLS	GDP growth rate	Corruption, investment, initial per capita income, average schooling years, political instability, and rate of population growth.	Increase in corruption dampen economic growth
Mauro (1995)	1960–1985 68 Countries	OLS, 2SLS	Real GDP per capita growth	Corruption, terrorism, bureaucratic efficiency index, judiciary, red tape, investment, population, institutional efficiency index Govt. spending, political stability index, institutional change (some other variables)	Corruption is found to reduce investment, thus depressing economic growth.

VECM vector error correction model, *OLS* ordinary least squares, *ARDL* auto-regressive distributed lag, *CEE* Central and Eastern Europe

study of Brunetti et al. (1998) fails to observe any substantial association between endemic corruption and growth.

Some more selected former empirical studies on the governance indicators and growth are given in Table 1.

Data, Model Specification, and Estimation Techniques

Data and Its Sources

For empirical exercise, quarterly (Q) data over the period ranging from $2002Q_1$ to $2018Q_4$ are used. Data on GDP per capita (constant 2010 US$), net FDI inflows (million US$), exports of goods and services (% of GDP), inflation, consumer prices (annual %), personal remittances (million US$), and population growth rate are gleaned from the World Development Indicators (2020), while data on absence of violence/terrorism, political stability, corruption, and government effectiveness are gleaned from the WGI (2019)[4], the WB database. A brief summary of the descriptive statistics and correlation matrix of all included variables are reported in Table 2. Data on variables in US$ have been converted into log form in order to overcome nonlinearity problem and standardize the data uniformly. A study by Feng et al. (2014, p. 105) claims that "The log transformation is, arguably, the most popular among the different types of transformations used to transform skewed data to approximately conform to normality."

Model Specification

The empirical approach implemented in this study starts with a simple modified specification of the growth equation, in which the level of a country's output measured by real per capita GDP represents economic growth that depends on the institutional factors (i.e., corruption, political stability, and Govt. effectiveness), macroeconomic variables (i.e., net FDI inflows, migrant remittances, trade openness, population growth rate, and inflation). The following general growth equation[5] is to be used and can be written as follows:

$$Y_{it} = \alpha_i + \alpha_1 CP_{it} + \alpha_2 PS_{it} + \alpha_3 GE_{it} + \alpha_4 IN_{it} + \alpha_5 N_{it} + \alpha_6 MR_{it} + \alpha_7 INF_{it} + \alpha_8 X_{it} + \varepsilon_{it} \quad (1)$$

[4] The World Governance Indicators (WGI) "Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)" (see for details WGI 2019; Kaufmann et al., 2010). The WGI are based on over 30 fundamental data sources reporting the insights of governance of a large number of survey respondents and expert judgments globally. Details on the fundamental data sources, the accumulation method, and the explanation of the indicators are available in the WGI.

[5] The model of this study is the modified improved version of the empirical model used by erstwhile studies including Mauro (1995), Mo (2001), Barro (2013), Azam and Emirullah (2014), Omoteso and Mobolaji (2014), Lahouij (2016), Awan et al. (2018), and Uzelac et al. (2020).

Table 2 Descriptive statistics and correlation matrix

Statistics/variables	Y_{it}	CP_{it}	PS_{it}	GE_{it}	MR_{it}	X_{it}	IN_{it}	INF_t	N_{it}
Mean	3635.983	−0.5171	−0.3574	−0.4478	2.0609	31.5378	1.2954	5.6970	1.2745
Median	3339.453	−0.5850	−0.3400	−0.4700	1.8637	28.9719	0.4916	4.4639	1.3437
Maximum	7696.344	0.7300	1.1400	0.7100	8.4569	92.7821	16.5193	51.4608	2.7929
Minimum	662.2795	−1.7200	−2.3700	−2.0600	0.0147	12.1167	−1.0169	−1.1043	−0.2313
Std. Dev.	1836.116	0.4490	0.6390	0.5135	1.7274	13.8538	2.9039	5.8422	0.7137
Skewness	0.2521	0.8151	−0.3230	−0.5180	0.7330	0.8419	3.7886	3.8311	−0.0615
Y_{it}	1.0000								
CP_{it}	0.6813	1.0000							
PS_{it}	0.3196	0.5501	1.0000						
GE_{it}	0.7052	0.8190	0.4503	1.0000					
MR_{it}	0.1829	−0.2406	−0.3212	−0.0715	1.0000				
X_{it}	−0.0064	0.2439	0.4315	0.1408	−0.3588	1.0000			
IN_{it}	0.4528	0.0638	−0.4015	0.1832	0.4568	−0.2796	1.0000		
INF_t	−0.2673	−0.3598	−0.3124	−0.3014	−0.0120	−0.0756	−0.0491	1.0000	
N_{it}	−0.2921	−0.4043	−0.2618	−0.4952	0.0999	0.3311	−0.0579	0.0638	1.0000

In Eq. (1), $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6, \alpha_7and\alpha_8$ are the coefficients, and i and t are the *ith* country and *tth* time period, respectively ($i = 1, 2, \ldots, N = 14; t = 1, 2, \ldots, T = 72$). Y is the economic growth measured by real GDP per capita, IN is the net FDI inflows, CP is the control of corruption, X is the trade openness, PS is the political stability and absence of violence/terrorism, GE is the Govt. effectiveness, MR is the workers' remittances, INF is the inflation rate, and N is the population growth rate, and εit is the error term. The term α_i in Eq. (1) shows the constant parameter that varies across countries but not over time. Each individual constant controls country-specific differences, though the error terms (ε_{it}) are assumed to be independent, with the mean zero (0) and constant variance (σ_ε^2) for all included countries and through the time period under study.

It is hypothesized in the Eq. (1) that the effect of governance (institutional) factor corruption would be negative, while other two governance factors namely political stability and Govt. effectiveness effects would be positive on economic growth. The impact of FDI inflows, migrant remittance, and trade openness are postulated to be positive, while the effect of inflation is hypothesized to be negative on growth. Likewise, the effect of population growth rate on growth may be positive/negative.

Estimation Strategy

Our empirical contains on cross-sectional dependence (CD) tests; panel unit root tests (1st and 2nd generation); panel autoregressive distributed lag (ARDL)/pooled mean group (P.M.G.) approach; and panel Granger causality test.

Cross-sectional Dependence Tests and Panel Unit Root Tests Results

Prior to the empirical investigation of the panel data series, I implement the widely used CD tests, namely, the CDLM (Breusch & Pagan, 1980), CD-Pesaran scaled LM (Pesaran, 2004), CD-bias-corrected scaled LM (Pesaran, 2004), and CD-LMadj (Pesaran et al., 2008). It is also required for the lengthier period data to check the stationarity properties of the data. Thus, I employed both the first- and second-generation panel unit root tests. The first-generation panel unit root tests namely Levin and Lin-Chu (LLC) (2002), Im et al. (IPS) (2003), and Phillips–Perron (PP) tests by Maddala-Wu (1999) and Choi (2001), whereas the second-generation panel unit root test, namely, cross-sectionally augmented IPS (CIPS) (Pesaran, 2007) are employed in this study.

P.M.G. Estimator

Keeping in view the order of integration of the series, I supposed to implement the dynamic panel heterogeneity exploration-based methods namely ARDL introduced by Pesaran et al. (1999, 2004) and employed the P.M.G. estimator to explore both the long- and short-run effects of governance indicators (corruption, government effectiveness, and political stability) along with some other variables (inflation,

trade openness, workers' remittances, FDI, and population growth rate) on economic growth measured by real GDP per capita for 14 countries LAC region. Pesaran et al. (2001: 313) "Note that the ARDL approach advanced in Pesaran and Shin (1999) is applicable irrespective of whether the regressors are purely $I(0)$, purely $I(1)$ or mutually cointegrated." The ARDL approach, explicitly, the P.M.G. method, provides consistent coefficients despite the possible presence of endogeneity, because it encompasses response variable lags and independent variables (Pesaran et al., 1999).[6] Following Pesaran et al. (1999), the unrestricted error correction model for the ARDL approach for the dependent variable (Y_{it}) is written below (see Eq. (1)). The panel ARDL $(p, q, q, \ldots\ldots, q)$ approach proposed by Pesaran et al. (1999: 623–24) is used in the present study and can be expressed as follows:

$$Y_{i,t} = \sum_{j=1}^{p} \lambda_{i,} Y_{i,t-J} + \sum_{j=0}^{q} \delta_{ij} X_{i,t} + \mu_i + \varepsilon_{it} \tag{2}$$

In Eq. (1), the subscripts i and t denote group (country) and time period, respectively. In this study, the time periods $t = 1, 2, \ldots\ldots T$ (i.e., $2002Q_1$ to $2018Q_4$.) and the groups (countries) $i = 1,2,\ldots,N$ (in this case, $N = 14$). $Y_{i,t}$ is real GDP per capita (response variable); $X_{it}(k \times 1)$ is the vector of regressors (independent variables), μ_i shows the fixed effects; λ_{ij} represents the coefficient of the lagged dependent variable; δ_{ij} are $k \times 1$ coefficient vectors (representing the coefficient of the lagged independent variables); and ε is an stochastic term.

Equation (1) in reparameterized form can be used to accomplish the set of objectives of the study and can be written symbolically as follows[7]:

$$\Delta Y_{it} = \phi_i Y_{i,t-1} + \beta_i X_{i,t} + \sum_{j=1}^{p-1} \lambda_{i,j} \Delta Y_{i,t-1} + \sum_{j=0}^{q=1} \delta_{ij} \Delta X_{i,t-j} + \mu_i + \varepsilon_{i,t} \tag{3}$$

Where $\phi_i = -\left(1 - \sum_{j=1}^{p} \lambda_{i,j}\right), \beta_i + \sum_{j=0}^{q} \delta_{i,j}$.

$$\lambda_{it} = -\sum_{m=j+1}^{p} \lambda_{im}, j = 1, 2, \ldots, p-1, \tag{4}$$

and

$\delta_{it} = -\sum_{m=j+1}^{q} \delta_{im}, j = 1,2, \ldots, q-1$. In Eq. (2), ϕ is the coefficient of the speed of adjustment in the long-run equilibrium

Regression Results and Interpretation

It is mandatory, prior to examining unit root properties of the series (i.e., real GDP per capita, net FDI inflows, control of corruption, trade openness, political stability and absence of violence/terrorism, government effectiveness, workers' remittances, inflation rate, and population growth rate). Thus, I first employ the CD tests, namely (Breusch & Pagan, 1980), CD (Pesaran, 2004) and CD (Pesaran et al., 2008), to know concerning the issue of CD in our panel data set. The results of CD test are

[6] Samargandi et al. (2014).

[7] See Azam (2020)

Table 3 Results of CD tests

Tests/variables	Y_{it}	CP_{it}	PS_{it}	GE_{it}	MR_{it}	X_{it}	IN_{it}	INF_{it}	N_{it}
CD_{LM} (Breusch & Pagan, 1980)	2837.478* (0.0000)	984.4333* (0.0000)	1556.337* (0.0000)	789.006* (0.0000)	3441.828* (0.0000)	1152.097* (0.0000)	973.4315* (0.0000)	1525.532* (0.0000)	3587.533* (0.0000)
CD-Pesaran scaled LM (Pesaran, 2004)	219.8942* (0.0000)	71.5319* (0.0000)	117.3209* (0.0000)	55.8852* (0.0000)	268.2810* (0.0000)	84.9557* (0.0000)	70.6510* (0.0000)	114.8545* (0.0000)	279.9467* (0.0000)
CD-bias-corrected scaled LM (Pesaran, 2004)	219.7910* (0.0000)	71.4287* (0.0000)	117.2177* (0.0000)	55.7820* (0.0000)	268.1778* (0.0000)	84.8525* (0.0000)	70.5478* (0.0000)	114.7513* (0.0000)	279.8435* (0.0000)
$CD\text{-}LM_{adj}$ (Pesaran et al., 2008)	41.02077* (0.0000)	-0.2392* (0.0000)	23.2849* (0.0000)	0.3066 (0.7591)	57.3560* (0.0000)	1.0656 (0.2866)	18.9467* (0.0000)	34.2627* (0.0000)	26.1253* (0.0000)

Null hypothesis: no cross-section dependence (correlation). $df = 78$, P values are in ()

*Significance at the 1% level

Table 4 Panel unit root tests analysis (1st generation)

At level				1st difference			Order of integration
Variables/tests	LLC	IPS	PP	LLC	IPS	PP	
Y_{it}	− 4.1466* (0.0000)	− 1.8801*** (0.0300)	44.3235* (0.0139)	-	-	-	I(0)
CP_{it}	− 2.1752** (0.0148)	− 2.6122 (0.0045)	43.3468** (0.0178)	-	-	-	I(0)
PS_{it}	− 1.0244 (0.1528)	− 2.7825* (0.0027)	45.0353** (0.0117)	-	-	-	I(0)
IN_{it}	− 1.9676** (0.0246)	− 1.2946 (0.0977)	39.9861*** (0.0391)	-	-	-	I(0)
INF_{it}	− 1.8351*** (0.0332)	1.7995*** (0.0360)	54.4082* (0.0009)	-	-	-	I(0)
N_{it}	0.6312 (0.7361)	− 5.2815* (0.0000)	93.1905* (0.0000)	-	-	-	I(0)
GE_{it}	0.5793 (0.7188)	0.8229 (0.7947)	19.6907 (0.8060)	− 29.0622* (0.0000)	− 25.6555* (0.0000)	453.317* (0.0000)	I(1)
MR_{it}	− 1.6661*** (0.0478)	0.3057 (0.6201)	21.4801 (0.7168)	− 7.6791* (0.0000)	− 8.7150* (0.0000)	530.223* (0.0000)	I(1)
X_{it}	0.27396 (0.6079)	0.87104 (0.8081)	21.7937 (0.6999)	− 28.9077* (0.0000)	− 25.6495* (0.0000)	450.463* (0.0000)*	I(1)

LLC Levin-Lin-Chu, *IPS* Im-Pesaran-Shin, *PP* Phillips–Perron (1988). Values in ( ) denotes probability value. Schwartz Bayesian criterion is used for lag length. Individual effects, individual linear trends, Newey-West automatic bandwidth selection and Bartlett kernel are used

*, **, and ***Significance at the 1%, 5%, and 10% levels, respectively

reported in Table 3 and demonstrate robust indication that the null of "no CD" is rejected at the 1% level of significance (p value 0.000). As a result, I can carry on with tests and estimation approaches that can take in account of CD.

The first-generation PURT results of LLC, IPS, and PP tests are reported in Table 4. Results of PURTs given in Table 4 reveal that almost all tests indicate that real GDP per capita, corruption, political stability, net FDI inflows, inflation rate, and growth rate of population variables are stationary at the level $I(0)$, while government effectiveness, trade openness, and workers' remittance variables are stationary at the first difference $I(1)$. The second-generation PURTs of CIPS result are given in Table 5 which shows that political stability, inward FDI inflows, and growth rate of population are stationary at the level $I(0)$, while the rest of variables became stationary at the first difference $I(1)$. Thus, these panel unit root results indicate that the series is mixed in order of integration (i.e., $I(0)$ and $I(1)$), and thereby allows us the possibility to evaluate the long-run equilibrium association between variables in this study using a Panel ARDL/PMG approach.

The growth equation is estimated for 14 LAC countries over the period $2002Q_1$–$2018Q_4$. These 14 countries were selected because they have consistent balanced data series for most of the variables incorporated in the growth equations. Empirical results of both the long- and short-run parameters that link corruption, political stability, government effectiveness, net FDI inflows, inflation rate, population growth, trade openness, workers' remittance, and real GDP per capita by implementing the P.M.G. technique are given in Table 6. Results given in Table 6 exhibit that all empirically estimated regressors have substantial impacts on the real GDP per capita (economic growth) of the 14 countries from LAC region. The P.M.G. results also suggest that almost all regressors are statistically significant individually, where all the explanatory variables carry the expected coefficient signs, therefore, endorsing and signifying that the estimated model is theoretically and statistically desirable.

It is evident from Table 6 that corruption has a negative influence on real GDP per capita that represents economic growth in the long run, indicating in this case that excessive level of corruption deters economic growth. The estimated coefficient

Table 5 Results of CIPS test (2nd generation)

Variables/tests	At level	1st difference	Order of integration
Y_{it}	− 1.624	− 2.999**	$I(1)$
CP_{it}	− 2.538	− 4.085*	$I(1)$
PS_{it}	− 2.811**	-	I(0)
IN_{it}	− 3.052*	-	I(0)
INF_{it}	− 2.517	− 4.375*	I(1)
N_{it}	− 3.666*	–	I(0)
GE_{it}	− 2.177	− 3.801*	I(1)
MR_{it}	− 1.576	− 3.305*	I(1)
X_{it}	− 2.173	− 3.709*	I(1)

*,**Significant at 1% and 5% level, respectively, with constant and trend included as suggested by Pesaran (2007). Critical values for CIPS test are at 5% = − 2.78, at 1% = − 3.01

Table 6 P.M.G. estimates

Variable	Coefficient	Std. error	*t* ratio	*p* value
Regress and: *Log real per capita GDP*				
Long run equation				
CP_{it}	− 0.0969*	0.0223	4.3568	0.0000
GE_{it}	0.0501*	0.0154	3.2460	0.0013
INF_{it}	− 0.0015**	0.0005	2.5399	0.0114
IN_{it}	0.0453*	0.0144	3.1427	0.0023
MR_{it}	0.0675*	0.0072	9.3563	0.0000
N_{it}	− 0.6126*	0.0912	6.7130	0.0000
PS_{it}	0.0359**	0.0139	2.5738	0.0104
X_{it}	0.0069*	0.0008	7.8018	0.0000
Short run equation				
ECT	− 0.1187*	0.0328	3.6244	0.0003
$\Delta(Y_{it-1})$	− 0.0785*	0.0255	3.0823	0.0022
$\Delta\, CP_{it}$	0.0423***	0.0191	2.2108	0.0275
$\Delta(CP_{it-1})$	− 0.0135***	0.0071	1.8917	0.0591
$\Delta(GE_{it})$	0.0062	0.0134	0.4636	0.6431
$\Delta(GE_{it-1})$	0.0017	0.0045	0.3838	0.7013
$\Delta(INF_{it})$	− 0.0006***	0.0003	1.9312	0.0541
$\Delta(INF_{it-1})$	− 0.0003**	0.0001	2.5822	0.0101
$\Delta(IN_{it})$	0.1146	0.1150	0.9955	0.3200
$\Delta(IN_{it-1})$	0.0061	0.0113	0.5464	0.5850
$\Delta(MR_{it})$	0.2498	0.2103	1.1879	0.2355
$\Delta(MR_{it-1})$	0.0577	0.0464	1.2430	0.2145
$\Delta(N_{it})$	0.1834	0.1135	1.6160	0.1068
$\Delta(N_{it-1})$	0.0242***	0.0126	1.9073	0.0571
$\Delta(PS_{it})$	0.0343	0.0095	3.5934	0.0004
$\Delta(PS_{it-1})$	0.0029	0.0023	1.2089	0.2273
$\Delta(X_{it})$	0.0006	0.0005	1.1561	0.2482
$\Delta(X_{it-1})$	0.0005*	0.0001	3.0443	0.0025
Linear trend	− 0.0001	0.0001	− 1.1715	0.2420
Constant	1.0217*	0.2741	3.7266	0.0002

*, **, and ***Significance at the 1%, 5%, and 10% levels, respectively

is found to be statistically significant at 1% level of significance. The estimated coefficient size of − 0.0969 found for corruption variable indicates that one unit increase in the corruption will bring in the range of − 0.0969 units decrease in the economic growth of LAC. Empirical result on the other governance indicator's political stability is positively related to the growth in the long run, meaning that in this case that strong political stability encourages growth. The coefficient of the political stability variable correctly reflects theoretical expectations. The estimated coefficient of 0.0359 is found for the political stability variable to be significant statistically at 5% level. The results reveal that one unit change in the political stability will bring 0.0359 units change in the growth of LAC during the period under the study. The

P.M.G. estimates also indicate that another governance indicator namely Govt. effectiveness is positively associated to the growth, implying in this case that Govt. effectiveness boosts growth. The estimated coefficient of 0.0501 is found for the Govt. effectiveness variable to be significant statistically at 1% level. This empirical result reveals that one unit change in the Govt. effectiveness will bring about 0.0501 units change in the economic growth. Thus, the empirical result of this study regarding the impact of institutional factors on economic growth measured by real GDP per capita is in accordance with the findings by Mauro (1995), Fayissa and Nsiah (2013), Azam and Emirullah (2014), and Lisciandra and Millemaci (2015), Azam (2016), and Awan et al. (2018), while contradictory with finding of Uzelac et al. (2020) found corruption has significantly positive impact on economic growth.

Indeed, international trade is the key factor that contributes largely to economic growth. Results on the trade openness given in Table 6 show that the estimated coefficient of 0.0069 is obtained for the trade openness variable and statistically significant at the 1% level in the long run, a result that follows to the usual consensus. An upsurge of one percentage point in trade leads to rise in economic growth by 0.0069 percentage for each specific country. Workers' remittances incorporated in the model because it is one of the imperative contributors to economic growth. The empirical results given in Table 6 strongly favor the positive link between workers' remittances and growth of LAC countries in the long run. The coefficients of 0.0675 are obtained for the migrant remittance variable and found that it is statistically significant at the 1% level. This estimated coefficient implies that one unit change in the migrant remittance variable will bring 0.0675 percentage change in the growth for 14 LAC countries. The impact of net FDI inflows on economic growth has been found positive in the long run and statistically significant at the 1% level. The estimated coefficient of inward FDI demonstrates that one unit change in the net FDI inflow variable will bring about 0.0453 percentage change in the real GDP per capita (economic growth). The P.M.G. estimates reveal that the impact of inflation rate on economic growth is negative in the long run and statistically significant at 5% level. The estimated coefficient of inflation variable found is − 0.0015. Results on inflation rate and growth relationship reveal that high inflation dampen economic growth. Likewise, the estimated coefficient of the growth rate of population variable found is − 0.6126, and significant at the 1% level. These results indicating that population growth rate and economic growth have inverse correlation in the long run, indicating that high growth rate of population detrimental to economic growth in LAC region. Therefore, these results regarding the impact of selected macroeconomic variables on economic growth are in accordance with the findings by Fayissa and Nsiah (2013), Azam (2016), and Tomola and Akinpelumi (2018), and Azam et al. (2020).

It is evident from Table 6 that the impact of one period lag of corruption and inflation rate variables are negative on economic growth at 10% levels in the short run, whereas the impact of one period lag of growth rate of population and trade openness has positive impacts on economic growth at 1% and 10% levels respectively. The error correction coefficient (ECT), which represents the speed of adjustment, is negative and statistically significant at 1% level of significance. The P.M.G. estimates reveal an average speed of adjustment of around 12% over $2002Q_1$ to $2018Q_4$.

Table 7 Results panel Granger causality test

Statistics/variables	Y_{it}	CP_{it}	PS_{it}	GE_{it}	MR_{it}	X_{it}	IN_{it}	INF_{it}	N_{it}
Y_{it}	–	0.972 (0.378)	3.0006*** (0.0503)	1.1747 (0.3094)	2.6877 (0.0686)	0.0554 (0.9461)	0.8199 (0.4408)	0.0753 (0.9275)	0.7275 (0.4834)
CP_{it}	5.322* (0.0036)	-	4.0976** (0.0170)	0.0006 (0.9994)	0.7984 (0.4504)	0.5427 (0.5814)	0.0513 (0.9500)	4.4732* (0.0117)	0.0066 (0.9933)
PS_{it}	4.5872** (0.0105)	0.2623 (0.7693)	-	0.5720 (0.5646)	0.6903 (0.5017)	4.3838** (0.0128)	3.5680** (0.0287)	2.0176 (0.1336)	0.0405 (0.9603)
GE_{it}	0.3521 (0.7033)	2.0342 (0.1315)	2.1366 0.1187	-	1.5979 (0.2030)	0.1065 (0.8989)	0.1647 (0.8481)	2.8793*** (0.0568)	0.0699 (0.9325)
MR_{it}	2.9158*** (0.0547)	0.8601 (0.4235)	0.2154 (0.8062)	1.1741 (0.3096)	-	0.0398 (0.9609)	1.2649 (0.2828)	0.1176 (0.8890)	2.9942*** (0.0506)
X_{it}	3.0047*** (0.0501)	0.1508 (0.8600)	0.1109 (0.8950)	0.0993 (0.9055)	2.5308 (0.0802)	-	0.5699 (0.5658)	0.4226 (0.6555)	0.6134 (0.5417)
IN_{it}	3.5238** (0.0299)	0.2502 (0.7787)	0.1759 (0.8387)	0.1456 (0.8645)	0.1669 (0.8462)	1.5024 (0.2232)	-	0.1713 (0.8426)	2.5671 (0.0774)
INF_{it}	2.9102*** (0.0514)	0.1541 (0.8572)	1.0173 (0.3620)	0.06248 (0.9394)	0.1669 (0.8462)	3.3038*** (0.0372)	0.0394 (0.9614)	-	0.3931 (0.6750)
N_{it}	0.4753 (0.6219)	0.2173 (0.8047)	1.5637 (0.2100)	1.5239 (0.2185)	3.7196** (0.0247)	5.2316* (0.0055)	0.0553 (0.9462)	0.1859 (0.8304)	-

*, **, and ***Significance at the 1%, 5%, and 10% levels, respectively

In addition, panel Granger (1969) causality test has implemented to know about the direction of causality between variables. Results given in Table 7 reveal that there exists unidirectional causality running from corruption to economic growth, from political stability to economic growth, from trade openness to economic growth, from investment to economic growth, inflation rate to economic growth, while bidirectional causality between corruption and inflation rate, political stability and investment, political stability and trade openness, and workers' remittances and growth rate of population.

Concluding Remarks

This study examines the impact of three governance indicators (Govt. effectiveness, corruption, and political stability) along with some other selected control variables, namely, inflation rate, trade openness, workers' remittances, population growth rate, and inward FDI on growth for 14 countries from Latin America and Caribbean over the period $2002Q_1$–$2018Q_4$. The empirical analysis exposes that the main causes of sluggish economic growth in LAC region are weak governance and weak institutional framework. The results of P.M.G. confirm prior studies that weak governance dampens economic growth. As to the effect of selected control variables, they are also ancillary both of theoretical outlook and erstwhile empirical outcomes.

The findings of this study also reveal that weak governance has unfavorable impact on macroeconomic performance of LAC, indicating that good governance is critical for enviable level of economic growth and development. The LAC region required to strengthen its institutions and maintain good governance in order to enhance the level of economic growth and consequently fight against poverty. All this is possible only when sovereignty of the law is ensured and everyone is made accountable to the law because such an adherence to law and its sovereignty positively influences the other institutional and governance indicators. Policy falsifications can be curtailed by implementing essential reforms including in fiscal and monetary policies. Simultaneously, weak states institutions can be reconstructed by restructuring the bureaucracy, i.e., expanding their capacity, raising their pay, espousing performance indicators, reforming public service procedures, augmenting accountability and transparency, as well as imposing ethics, laws, and regulations for all civil officials.

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