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An Economic Impact of Political Instability and Corruption on Economic Development: Evidence from Pakistan

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ABSTRACT

Objective: The present study intended to explore the consequences of political instability and corruption on economic development for the case of Pakistan.

Research Gap: The vacant literature on the topic analyzed the corruption and political instability impacts on economic development separately. However, the present study captures the impacts of both variables simultaneously for the case of Pakistan economy by using time series data and ARDL technique.

Design/Methodology/Approach: Objective is fulfilled by taking time series data from 1984-2020 fir Pakistan economy. The principal variables were corruption and political instability, other control variables include total investment to GDP ratio and gross fixed capital formation. GDP growth is used as proxy for economic development. Data is obtained from transparency international and international country risk guide. For empirical investigation Autoregressive Distributed Lag (ARDL) model is used. An index is developed for political instability.

The Main Findings: The results demonstrated that political instability and corruption can deteriorate the economic development since the negative impact is found of the principal variables on economic development. Investment to GDP ratio and GFCF have positive impact on economic development. Based on the findings of the present research it is suggested that steps should be taken for the control of corruption and for political stability.

Theoretical / Practical Implications of the Findings: The results indicate that economic development is hindered by political instability and corruption. To enhance economic progress in the case of Pakistan, it is essential to implement policies that promote political stability and eliminate corruption, as these factors act as significant obstacles to economic growth.

Originality/Value: The research employed Transparency International's CPI index to assess the influence of corruption on economic development. Additionally, a self-created index of political instability was utilized to gauge the effects of political instability on economic growth. These measures are likely being employed for the first time to evaluate the long-term impacts of the study variables on the economy of Pakistan, utilizing the latest available data.

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1. Introduction

Corruption, political instability and economic development are strongly interrelated. Likewise, other countries corruption is a prevailing phenomenon in Pakistan that is regarded as harmful for economic development because corruption creates hurdle in economic growth, weakens a state's tax capacity, causes political instability, lowers public investment quantity, reduces spending programs and increases the cost of doing business. It increases poverty and income inequality and creates distortions in tax system. According to the OECD and World Bank corruption is the biggest hurdle in social and economic development (Kaplan & Akcoraoglu, 2017). Political instability is also a serious threat to the economic development of the country. The situation of political stability in Pakistan is worse, since the Pakistan came into being it is suffering the problem of political instability. Week democratic system in Pakistan creates uncertainty which not only affect our economy but also have its social implication. Society of poor political system, unbalanced governments and power political among parties, leads to a corrupt system (Shabbir et al., 2016). Electoral process in Pakistan has built in corruption and coalition Govt. always cause political unrest and instability. So, the major concern in this research is to explore the impacts of corruption and political instability on economic development.

Corruption is not simply monetary theft or procuring cash through pay off or extortion however it implies moral weakening and the utilization of degenerate practices. Acts which are equivalent to give undue support, maltreatment of open office and patronization additionally go under defilement. This is deviation of the conventional open obligations for private additions. Because of materialistic and pioneer lifestyle, debasement or degenerate practices become an essential piece of those individuals who are neither contrite nor embarrass about their degenerate conduct. The issue has become more serious over the last four decades in Pakistan, the point of view has changed concerning dismissal and loveliness of corruption. Four decades sooner, corruption was viewed as a terrible thing and a readiness which was ousted by the colossal piece of society of Pakistan yet now, degradation has changed into a lifestyle similarly as has gotten a sort of validity too. The individuals who are not break down are totally in a minority when showed up contrast in connection to the individuals who are occupied with corruption by plan and as is typically done. With the separating of morals, attributes and extraordinary conventions, corruption has submerged far and wide in Pakistani society to the degree that it is considered as a standard practice and need (Andrew, 2018).

Corruption has been the major area of concern for the researchers over the span of the last three decades. Corruption is defined as use of public office for personal benefit. It is also considered as petty cash that is given to any public office holder to get any undue benefit. Corruption is in itself a many-faceted ponder and the possibility of corruption contains such countless to be diagnostically helpful without a closer definition. The kinds of corruption are varying the extent that who are the entertainers, initiators and profiteers, how it is done, and to what degree it is drilled. In like manner the causes and the results of corruption are awesome and varying, and have been searched for both individual ethics and community cultures, in history and custom, in the economic framework, in the institutional game-plans, and in the political framework (Mauro, 1995). Through organizational map, socio economic and political system of any nation can be destroyed by the corruption. It hits the performance of public holders, damage public policies and makes difficult the law & order to be executed. Resources are misallocated and so speed of socioeconomic development slowed down. Judiciary structure damages and basic human rights are violated in many countries due to corruption (Nurudeen et al., 2013).

According to research, there are two opinions about corruption, the first one is that it greases the wheels of bureaucracy and second is that it sands the wheels of bureaucracy. One hypothesis argues that petty amount of money to public officials may be able to foster the economic activity (Leys, 1970). However, according to other hypothesis, it is clear that it sands the wheels of the bureaucracy. It not only becomes the cause of mutation of public rights as well as it hampers the economic activity and securing investment (Mauro, 1995). Corruption is the main impediment in the way of attracting investment and accelerating economic activity and it is fatal to economic growth. When the public office holders have decisions to implement in the patterns of resource allocation. They can be bribed and the money that has to be spent on human development goes invested on wrongly used. For example, spending on military is not so useful activity as compared to human development. Ultimately the whole country has to suffer from economic loss due to misallocation.

On the other hand, Political instability creates a risky environment where investors hesitate to invest their money in business. Furthermore, it reduces consumption level of masses due to low income. The circulation of money lesser down with further aggravate unrest among the people that leads to violence, strikes and finally in anarchy. The business actuaries may hamper in a risky environment. Political instability is not only due to the change of regimes, but also violence, absence of rule of law and strikes are the measurement of it. Though political conflicts are quite common and usual in any form of governments, democracy, marshal law or social economic system. However, such conflicts can be highlighted due to the dismayed people or masses who are financially pressurized. Soon they start thinking against the government policies and even petty matters bring into lime light that may create political instability. Weak governments cannot control the unrest. So, the unhappiness of masses towards the government can be the main cause of unstable political system. The government tries to address the issues highlighted by the population or due to the public pressure. The government succumbs to alter their policies. It is not necessary that political instability means to change the whole system of government or overthrow the entire system. Only change in fundamental policies is also a kind of political instability (Tabassam et al., 2016).

Political instability is a serious threat to the economic development of the country. Policy makers have to alter their policies from long term to short term in order to address the issues raised by the masses to save their regimes. Meditate the selection and macroeconomic based on short term objective deteriorating economic growth and result into low economy. When the government loses its balance, integrity and compromises with smaller parties and groups in order to maintain their power, they have to undergone a policy of appeasement to make them sin the form of coalition government. Such government has to agree upon unpopular decision which results in weakening the power of it as well as directly weaken the economy. In such scenario, smaller and ethnic groups upraise their power game in politics and play with the emotions of people through religious ethnic and sectarian issues in order to strengthen their political power. It creates unrest among the people and they start their political activities under uncontentious politics of religion and ethnicity (Murad & Alshyab, 2019).

Political instability can impact the economic development of a country in so many ways. For example uncertainty caused by unstable political regime can reduces the human capital and physical capital accumulation. Due to uncertain situation domestic and foreign investor avoid starting new projects and reducing the reinvestment in ongoing projects. It eventually results in reduces the investment, and reduction in overall economic development (Dollar & Kraay, 2002).

As far as political stability in Pakistan, it suffers a lot and it effects not only our economy but also society and politics in the same sphere, in spite of abundant resources, important location in the world geography, youth power, minerals and all the prerequisites for a modern developed country. It could not establish itself into one nation state and the main cause is political instability. The main benefit of political stability is its outcomes reach to every section of the society and it accommodates all and sundry in the shape of for reaching economic benefit. The people become loyal to nation and a sense of patriotism prevails among them. They take care of the rule of law and participate in the process of nation building and fulfill the responsibilities as a citizen of the country (Hussain, & Malik, 2014).

Political instability is the fundamental requirement of economic development of any country. Unfortunately, Pakistan is facing a miserable economic situation because Pakistanis facing the severe political instability issue. From its freedom, Pakistan never saw a stable political system. Almost all types of political systems like democratic to presidential and parliamentarian to repeated military governments which Pakistan has experienced along with different economic systems like socialism, capitalism and mix of both. The initial nine years of Pakistan's political life were without any specific political system, while for 38 years Pakistan experienced different types of political system i.e. democratic, presidential and parliamentarian and almost 33 years it has practiced military government.

Fluctuations in the political environment create uncertainty in the political environment which creates uncertainty in the economy and this is what which is actually happening now a day in our economy. Agitations, strikes, political war of government and opposition parties all are weakening our institutions and becoming the cause of down going of economy. These circumstances are deviating the institutional performance. Almost all government institutions are getting prey of corruption due to lack of check & balance and negligence of higher authorities. Due to the corrupt acts of the government nation's socioeconomic and political structure badly impacted directly or indirectly through institutional setup. They had misused the public funds and wasted the resources which decreased the speed of socioeconomic development (Aisen & Veiga, 2011). All religions including Islam dislike corruption and do not permit the misuse of public office for personal benefits. It is the need of time to investigate the impacts of corruption and political instability on economic development of Pakistan. The research is intended to address the question, do political instability and corruption hamper the economic development of Pakistan?

Pakistan has grappled with persistent political instability since its inception, with multifaceted causative factors such as military intervention, political polarization, extremism, terrorism, and ethno-religious tensions. Concurrently, the nation contends with a heightened prevalence of corruption. The intertwined dynamics of political instability and corruption exert substantial influence on the trajectory of economic development. Political instability can act as a deterrent to both domestic and foreign investments, while corruption introduces uncertainty by undermining institutional integrity. The amalgamation of these factors may consequently lead to suboptimal economic development. Hence, it is imperative to scrutinize the contributory roles of political instability and corruption in shaping the economic landscape of Pakistan. Formulated as a research question, the inquiry seeks to discern the impacts of corruption and political instability on the economic development of Pakistan. The specific objective of the research is to systematically investigate and delineate the ramifications of corruption and political instability on the economic development of Pakistan. Consequently, the research hypothesis posits that there exists a statistically significant impact of corruption and political instability on the economic development of the Pakistani economy during the sample period.

Over the past 30 years, extensive theoretical and exploratory research on corruption has sparked a substantial discourse. On one front, restraining role of the corruption has been explored by (Krueger, 1974), Myrdal, 1989), (Alesina et al., 1996), (Murphy et al., 1993), and (Mauro, 1995). It is emphasized in these studies that corruption is proved to be diverting for governments' objectives, misallocating for governments' resources and leading towards a deadweight loss for the whole society. In such a scenario cost to private sector for public utilities is increased and private investment is negatively affected on account of unrest in society and instability in political sphere. Consequently, the environment for economic development of the country is degraded.

Conversely, Leff (1964) and Friedrich (1972) have suggested that corruption might also be conducive to economic development. In their point of view if public sector has imposed a burdensome, restrictive, and deterring regulations which results in inefficiencies, then prevailing corruptive practices in the country may be able to provide ease to private sector and lower their costs. In this case, corruption could potentially enhance system efficiency and actually contribute to economic growth.

The empirical literature in this field consistently demonstrates adverse effects of the corruption on the economic growth of the country. In a cross-sectional study of countries (Mauro, 1995) concludes that an inverse relationship is existed among corruption and economic growth when controlling for social, economic and political factors. Similar evidence may also be observed in (Knack & Keefer, 1995). Tanzi & Davoodi (1998) also affirmed in their research that maladministration and corruptive practices occurred in governmental offices reduces the resource base of government treasury and leads towards distortions in the just allocation of resources.

Ehrlich & Lui (1999) expressed that in accomplishing different stages across the road of economic development, there exists negative connection between corruption and GDP per capita. Cartier-Bresson

(1999) proposed five money related conditions that urge corruption to flourish in an overall population. Finally, economies moving are most likely going to experience explicit issues that reason contamination as they grasp privatization and develop the pertinent genuine structure of corporate and agreement law, etc. Other Approaches based on the human rights claimed that corruption has many distortions including negative impact on national sovereignty; threaten human security, human development, fundamental rights and freedoms of people (Kumar, 2005).

Seldadyo & Haan (2006) estimated 70 economic and non-economic factors of corruption. Using Extreme Bound Analysis, they examined the robustness of the determinants as well as the new indices. The other robust determinants were population density, participation of female in labor force have negative effect on corruption. While corruption was positively affected by traditional strain, share of population with no religion and government wages.

Amin et al. (2013) have built a link between corruption and economic growth. Results showed that corruption badly affected the economic growth which puts burden on poor and declines the investment level. Nwankwo (2014) proved negative relationship between corruption and economic growth through their empirical examination of the impacts of corruption on economic growth of Nigeria. Results of the study showed negative impact of corruption on economic growth. (Brianzoni et al., 2018) presents a model in which they examined the link between public procurement corruption and economic growth. They showed the presence of steady state generated by average level of corruption and capital per capita. Study of (Mbaku, 2019) also showed negative impact of corruption on economic development of Africa.

By using the data on United Kingdom, a research study estimated the negative impacts of political instability on economic growth (Asteriou & Price, 2001). Fosu (2001) also analyzed the negative relationship between political instability and economic growth in the Sub-Saharan Africa. Haider et al. (2011) examined the relationship between inflation, economic growth, instability in political sphere, and issues related to governance and found the negative effects of instability in politics and governance over there. Quantitative study showed that political instability highly influenced the economic growth level, negative relationship was found. Study revealed that weak governance and corruption both created instable political environment which increased inflation level and lowers economic growth.

Jong-A-Pin (2008) estimated the dimensionality of political instability. For analysis four dimensions of political instability were utilized. The dimensions were civil protest, instability within the regime, politically motivated aggression and political instability of regime. It had been checked in the study that dimensions used for political instability measurement are how much different from the dimensions utilized in previous studies. Estimations showed that four political instability dimensions put different impacts on long run economic growth. Political regime instability and civil protest showed significant relevance to the long run economic growth. Results emphasized that by taking political instability as one dimension phenomenon misleads the results in empirical applications.

Campos & Karanasos (2008) examined the highly negative effects of political unrest on the economy of Argentina. They found that economic growth was hampered by political instability. Political instability index was built to measure political instability. Political instability index was the sum of all the strikes, total number of observed demonstrations, length governments, riots, government alterations, military takeovers, and warfare, and command type.

Paudyal & Abraham (2010) explained the various types of economic programs that had been launched in Nepal during 1990-2010. In the study they showed that how the effectiveness of these economic programs were being effected by political unrest and corruption and how the life of poor society get effected due to the lack of effectiveness of these welfare projects. Qualitative type of data analysis was used. Results were quite interesting. Results showed that the programs which were introduced without the intervention of government were much effective for social and economic sustainability of poor people life. While programs which were introduced with the help of government were unable to obtain the desired results due to the political unrest. Another study analyzed the negative impacts of political instability on economic development of Pakistan (Qureshi et al., 2010). Kanushi (2012) analyzed strong influence of political stability on Corruption.

Nurudeen et al. (2013) have explored causal link among corruption, political instability and economic development for the region of economic community of West African states. Time series data from 1996-2012 was used for analysis and Granger Causality was employed to get the results. Then findings demonstrated a uni-directional causality indicating that political instability granger cause economic development, however, political instability and economic development granger cause corruption for the sample period.

Radu (2015) observed economic trends in terms of changes in political determinants. Results showed weak but negative relationship between the political determinants and growth. Results also showed that all political determinants keep positive effect on the GDP level in CEE countries which was very different from the other empirical research. In another study the researcher showed the role of political stability on Romanian's economic development. Results showed that in case of Romania political stability had a positive impact on economic development of Romania. Another study examined the effects of political unrest on economic growth of ECOWAS member countries. Results showed that terrorism, social disturbance, weak governance, unemployment, death rate and natural resources rent have negative relationship with economic growth (Okafor, 2017).

Rani & Batool (2016) empirically examined the impacts of political instability on economic growth of Pakistan in comparison with China and India and the impacts of economic variables political instability and FDI on economic development of Pakistan. Study revealed that high rate of political unrest leads to lower rate of GDP per capita and democracy had negative impact. Furthermore, the study explored that political instability decreased economic development due to the negative relationship while FDI and economic development had positive relationship. Tabassum et al. (2016) analyzed the relationship between political instability and economic growth by using ARCH and GARCH model. Results showed that terrorism puts negative impact on GDP growth rate while regime change and election gave positive results on the volatility of growth. Chawdhry (2016) also estimated the negative link between political unrest and growth rate of Bangladesh.

Kaplan & Akcoraoglu (2017) examined the empirical link between economic growth, political instability and corruption. Results showed that political instability, corruption, external and internal conflicts had worse implication on economic growth. MengYun et al. (2018) empirically estimated the effects of terrorism and political instability on equity premium of Pakistan. Results showed that firm equity premium in Pakistan was negatively influenced by terrorism. Equity premium also improved by Govt. stability and democratic system in the state. Furthermore, results showed that equity premium of the firm badly affected by the global financial crisis. To know the causal effects of regime change in Myanmar. Myanmar taken as the host/treated country while group of other countries of East and South Asia, Sub Sahara Africa and the pacific are taken as control group. Results showed that regime change through referendum in Myanmar had a positive and significant effects on GDP per capita but had negative impact on per capita foreign direct investment (New et al., 2018).

A different perspective of corruption and political instability is explored by Shumetie & Watabaji (2019). The study investigated the impact of corruption and political instability on the innovativeness of enterprises. The study used the panel of 848 enterprises covering the time period 2011-2015 for Ethiopia and structural equation model was used for empirical investigation. The findings of the research endorsed the grease the wheel hypothesis of corruption indicating that corruption had enhanced the innovativeness of enterprises by providing formal training to permanent employees and excess to foreign markets. On the contrary political instability was found deterrence for political instability. In contrast with the above cited literature, Khan & Farooq (2019) explored nexus among the three variables (political instability, corruption and sustainable development) using 3 stage least square method. For the panel of 28 developing economies study used the data range from 2000-2014. The findings suggested sand the wheel role of corruption and indicated that corruption had bad impact on sustainable development and political stability. While sustainable development had positive impact on political stability and negative impact on corruption. On the contrary political instability had negative impact on corruption and sustainable development.

In a separate investigation, Shehzadi et al. (2019) delved into various facets of political instability. Employing panel data from 103 countries, the study assessed the direct and indirect effects of political instability on economic growth. The study considered three indicators of political stability: formal political instability, informal political instability, and military coups d'état. Two distinct indices were utilized to gauge formal and informal political instability across different dimensions. The estimation technique employed was heteroscedasticity-consistent Ordinary Least Squares (OLS) to derive the estimates. The findings revealed that both formal and informal political instability exerted a positive impact on poverty and income inequality, signifying an indirect adverse influence on economic development. Additionally, these variables demonstrated a direct negative impact on the economic growth of the countries in the sample. Conversely, military coups d'état exhibited an insignificant direct impact on poverty and income inequality. However, this variable did have a significant negative effect on economic growth. The study ultimately concluded that political instability, in general, has detrimental consequences on economic growth.

Through the above literature review this fact comes in sight that different studies used the different proxies to measure the political instability and corruption impacts on economic growth. And previous studies on this area in Pakistan analyzed the corruption and political instability impacts separately. But this study captures the impacts of both variables simultaneously. Here we have used built in CPI index of Transparency International to measure the impacts of corruption and self-generated index of political instability to measure the impacts of political instability on economic growth which are probably being used for the very first time to measure the long run impacts of the study variables on economy of Pakistan by using the most recent data. Other researches done in Pakistan on this issue have not measured the impacts of corruption and political instability on economic development simultaneously by using time series data and ARDL technique which we have used in our work.

There are a lot of explanatory variables which can be used to measure political instability like dharma’s, strikes, political war of different parties but in this work we have used only built in indexes of political instability and corruption available on Transparency international (TI) and International Country Risk Guide (ICRG) website. And due to the lack of resources and unavailability of data, recent issues of low economic development caused by corruption and political instability situation of Pakistan could not be captured.

2. Data & Methodology

For empirical investigation of the study variables functional and econometric form of the study variables can be formed as under.

$$\mathrm{GDP} = \mathrm{f}\,(\mathrm{PI}, \mathrm{COR}, \mathrm{INVST}, \mathrm{GFCF}) \tag{1}$$

$$\mathrm{GDP} = \alpha + \beta_1(\mathrm{PI}) + \beta_2(\mathrm{Corr}) + \beta_3(\mathrm{Invst}) + \beta_4(\mathrm{GFCF}) \ldots . + \epsilon t \tag{2}$$

Table 1: Variable Description

Code	Variables	Measurement of Variable	Data sources
		Dependent Variable	
GDP	Gross Domestic Product	GDP %	WDI
		Principal Variables	
PI	Political instability	Political risk rating	ICRG
COR	Corruption	CPI (Corruption Perception Index)	TI
		Control Variables	
INVST	Investment	Total investment % of GDP	Economy watch

GFCF	Gross Fixed Capital Formation	% of GDP	WDI

Source: Authors' Description

2.1 Data

In order to examine the impacts of principle variables on economic development, a time series data for Pakistan economy is taken from 1984 to 2020. Data has been taken from different data sources (WDI, TI & ICRG). Although corruption data set available on Transparency international was from the year 1995 and onwards.

Political Instability Index

Political instability index is being generated for the measurement of political instability in the country by utilizing the twelve components of political risk rating defined by ICRG. For this purpose, we have used multivariate technique of index construction to convert multiple values into single value for estimation of our required results. Variables of political risk rating are used to develop a political instability index. The objective of the political risk rating is to build a platform for the measurement of political stability on logical and comparable basis. For this purpose, preset group of factors is assigned with risk points. These factors of preset group are called as political risk components. Zero is the smallest number of points that can be given to each factor, while the highest number of points relies on the fixed weightage that is assign to that factor in the overall political risk evaluation. In every case if the total of risk point is lower than the risk will be higher, and if the total of risk points is higher than risk will be low. To assure persistency, both between states and over time, points are allocated by ICRG on the behalf of a series of pre-defined queries for each risk factor.

Corruption

Data for corruption is taken from the corruption perception index constructed by transparency international. CPI ranked the countries according to their score of corruption. The CPI at present ranks 176 nations on a scale from 100 (extremely spotless) to 0 (extreme corrupt). For the present study country score is taken a measure of corruption. One major issue faced was the data availability of corruption perception index from 1984 onward. Data is available from Transparency International was starting from 1995. However missing data was justified by utilizing the multiple imputation technique.

Economic Development

National income in shape of gross domestic product (GDP) is taken as a measure of economic development in this study. Since the GDP is taken as the market value of all the final productions in the markets for goods and services within a year in a country, so it can be used as total size of the economy and the measure of economic development. Data of the GDP is taken in percentage form.

Investment Capital

We have utilized investment data represented as a percentage of the Gross Domestic Product (GDP) to gauge investment capital. This calculation is based on market prices. Investment as a percentage of GDP is specifically identified as the proportion of gross capital formation to GDP. Gross capital formation is a component of the expenditure approach within the framework of the National Account.

Gross Fixed Capital Formation

Gross Fixed Capital Formation, commonly abbreviated as GFCF, encompasses the investments made by resident producers in fixed assets over a specific timeframe. This calculation involves subtracting proposals from these investments. Additionally, GFCF accounts for specific increments to the value of non-produced assets achieved by producers or investors.

2.2 Estimation Technique

Major objective of this study is to estimate the impacts of corruption and political instability on economic growth of Pakistan. To evaluate this impact in the perspective of short run and long run scenarios of the country, the ARDL technique was the best selection.

$$\Delta GDP = \alpha_0 + \alpha_{1i}\sum_{j=i}^{k}\Delta GDP_{t-j} + \alpha_{2i}\sum_{j=0}^{k}\Delta Corr_{t-j} + \alpha_{3i}\sum_{j=0}^{k}\Delta PI_{t-j} + \alpha_{4i}\sum_{j=0}^{k}\Delta Invest_{t-j} + \alpha_{5i}\sum_{j=0}^{k}\Delta GFCF_{t-j} + \alpha_6 GDP_{t-1} + \alpha_7 Corr_{t-1} + \alpha_8 PI_{t-1} + \alpha_9 Invest_{t-1} + \alpha_{10} GFCF_{t-1} + \varepsilon_t \quad (3)$$

In the first step, we check the cointegration by using the bounds test method. The null hypothesis is, there is no cointegration among the study variables. The null hypothesis of no cointegration is checked by using ARDL VECM without the difference of previous variables. The null hypothesis is against the alternate as. H0: Ƙ1=Ƙ2=Ƙ3=Ƙ4=0 that means no long run relationship exists. Where the H1 is Ƙ1=Ƙ2=Ƙ3=Ƙ4≠0 an means the existence of long run relationship. The calculated F-statistic is then compared with the critical values tabulated by (Pesaran, 1997).

When co integration is found among the study variables, the next step is to find the long-term coefficients and short run dynamics. The long-term coefficients are measured from the model.

$$GDP = \alpha_0 + \alpha_1\sum_{j=1}^{k} GDP_{t-j} + \alpha_2\sum_{j=0}^{k} Corr_{t-j} + \alpha_2\sum_{j=0}^{k} PI_{t-j} + \alpha_2\sum_{j=0}^{k} Invest_{t-j} + \alpha_2\sum_{j=0}^{k} GFCF_{t-j} + \varepsilon_{it} \quad (4)$$

Following equation is used to get the short run estimates. For short run analysis the error correction term is the main part of estimation outcomes. According to ARDL technique the coefficient of lagged error term should be less than one and negative that indicates the convergence towards long run path if any error occurs in short run.

$$\Delta GDP = \beta_0 + \beta_{1ij} = ik\Delta GDP_{t-j} + \beta_{2i}\sum_{j=0}^{k}\Delta Corr_{t-j} + \beta_{3i}\sum_{j=0}^{k}\Delta PI_{t-j} + \beta_{4i}\sum_{j=0}^{k}\Delta Invest_{t-j} + \alpha_2\sum_{j=0}^{k}\Delta GFCF_{t-j} + \beta_5\, ECM_{t-1} + u_{it} \quad (5)$$

3. Results and Discussion

The results of ADF test are shown in Table 2. Here we have checked the stationarity level of each variable one by one. First, we have applied unit root test at level and then applied the test at 1st difference if the stationarity was not being found in the data of the variable at level. Results show the political instability, gross fixed capital formation and investment capital have stationarity at 1st difference so their order of cointegration is I(1). The GDP series and corruption shows stationarity at level so their order of cointegration is I(0). As results show different order of cointegration for different variables so we applied ARDL technique for further estimation of results.

Table 2: Results of ADF for Stationarity

Variables	**At level**		**At 1st difference**		**Order of Cointegration**
	t-value	**p-value**	**t-value**	**p-value**	
Political instability	-1.650	0.44	-4.300	0.0020	I (1)
GDP	-3.6	0.01	-7.16	0.00	I (0)
GFCF	-1.47	0.5	-4.9	0.004	I (1)
Investment capital	-1.41	0.56	-5.54	0.0001	I (1)
Corruption	-5.11	0.0002	-9.8	0.000	I (0)

Source: Authors' Estimations

Bond test results (Wald test) are shown in Table 3. Here we applied Bond test for cointegration.

The value of calculated F-statistics is 7.32 which are greater than upper bond value 2.86. So, we reject the null hypothesis of no cointegration and it is suggested that cointegration relationship is present in our data.

After checking the cointegration association, the next is to measure the long run relationship among variables.

Table 3: Results of Bond Testing

Test	Statistic
Calculated F-statistics	7.32
Critical value of upper bound at 5%	2.86
Critical value of lower bound at 5%	4.01

Source: Authors' Estimations

Results of table 4 shows a unit increase in corruption perception index leads an average -0.223 unit decrease in GDP growth rate. Thus, the effect of corruption index on GDP growth rate is negative which is consistent with the results of previous studies (Krueger,1974; Myrdal, 1989; Tanzi & Davoodi, 1998; Mauro, 1995; Amin et al., 2013) and inconsistent with the results of Leff (1964) and Friedrich (1972).

Table 4: Summary of Estimated Long Run Coefficients

Variable	Coefficients	Standard Error	T-Ratio	Prob.
CPI	-0.223762	0.077026	-2.905025	0.0272
PI	-0.220623	0.033768	-6.533541	0.0006
INVST	0.223723	0.735839	0.304038	0.0771
GFCF	-0.346826	0.763568	-0.454218	0.6656
C	20.119452	4.324336	4.652611	0.0035

Source: Authors' Estimations

In the same way the estimations show that every one unit increase in political instability creates -0.220623 unit decrease in GDP growth rate. Consequently, the impact of Political instability on GDP growth rate is negative which validates the pervious literature. Results are consistent with the findings of Alesina et al. (1996), Asteriou & Price (2001), Haider et al. (2011), Qureshi et al. (2010), Nurudeen et al. (2013), Tabassum et al. (2016), and Nwe et al. (2018). Our next control variable Gross Fixed Capital Formation also shows the negative impact on GDP growth rate but this result is insignificant. While investment shows positive and significant impacts on GDP growth rate.

In Table 5, Short run error correction term is shown which is important and valuable. In our study, the error correction term is -0.265783 which less than 1 and it is significant. The error correction term points out that almost 26.5 % correction is done after one year for long term stability. The probability value of the error correction term is 0.0032 which is less than 5% level which shows the existence of long-term relationship.

Table 5: Summary of Estimated Short Run Coefficients

Variables	Coefficient	Standard error	T-Ratio	Prob.
D(CPI)	-0.298355	0.126198	-2.364176	0.0560
D(PI)	-1.064248	0.252205	-4.219766	0.0056
D(INVST)	1.608225	0.580729	2.769319	0.0325
D(GFCF)	6.085145	2.947811	2.064293	0.0846
ECT (-1)	-0.265783	0.899789	-4.740870	0.0032

Source: Authors' Estimations

4. Conclusion and Policy Recommendations

The primary objective of the present research was to explore the potential impacts of corruption and political instability on economic development of the Pakistan economy for the period 1984-2020. For empirical investigation ARDL model was employed to get the results. Bound test analysis indicated cointegration exist among study variable. The long run and short run estimates are found among study variables using ARDL model. It is concluded by the estimated results that independent variables corruption and political instability have adverse impacts on GDP growth rate of Pakistan. Investment capital showed positive relationship with GDP growth rate while GFCF shows negative impact in short run while it has positive relationship with economic development in long run. As we have empirically analyzed the consequences of political instability and corruption on our economy. Results clearly show that political instability and corruption negatively effects the pace of economic development. So, it is needed to adopt such policies which could stabilize the political system and eradicate the corruption which are the big hurdles in boosting the economic development for the case of Pakistan economy.

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