

Dynamic linkages between corruption, economic growth, and income inequality in Pakistan: Say 'No' to corruption

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Abstract. *The objective of the study is to examine the dynamic linkages between corruption, economic growth and income inequality in the context of Pakistan by using an annual time series data from 1992-2016. The study used conventional cointegration techniques including unit root test and cointegration tests for analyzing the stationary properties of the candidate variables and long-run relationship between the variables, while robust least square regression technique is used to minimize the possible outliers from the given models and estimate robust parameter estimates for conclusive findings. The statistics show that the mean value of corruption index is less than the value of 3 out of 6 (1 - low corruption index and 6 - high corruption index), hence we classified that the country has a minimal level of corruption, which somehow support to country's economic growth via the channel of increase in government saving and consumption, hence the identity matrix of saving and consumption in total income function empirically valid in a given country context. In another regression model, the results confirm that poverty decreases income inequality through the channel of increase gross saving in a country. The impact of corruption on income inequality is largely invisible during the study time period. The study conclude with the fact that high mass level of corruption not only break the country's economic vision and strategic objectives, while it effects political stability and good governance reforms that ultimately damages the country's image. The policies should be made in a way to reduce corruption by empowering judiciary, intelligence department, and National Accountability Bureau (NAB) that responsible for creating and presenting healthy image of the country with say 'No' to corruption.*

Keywords: corruption; income inequality; poverty; economic growth; robust least square regression; Pakistan.

JEL Classification: C32; D73; I32.

1. Introduction

Defilement distinguish as abuse of depended be in charge of for classified benefit is unluckily common in developing countries like Pakistan. No arrangement, no stage and no place of work of unlock element is safe from it. Its results spread are marvelous. It has accomplish each limb of condition – past executive it has put its hooks on officially permitted and leading remains even. It would be no decoration to define that the whole stiff of the land of Pakistan is practice this disquietude and weeping beneath its dead burden, so its incidence that Pakistan is located at 139th in the comity of countries on the dimension of debasement free management. This location isn't at all fortunate or sufficient.

While market forecaster distinguishes the part of defilement in monetary implementation, most actions in the characters has determined on the reason for debasement and the collision on monetary growth. As of late, a couple of studies have endeavored to attach debasement to income stealing in an example of homelands. None of the assessment on debasement has investigated either the reason or conclusion of defilement in Asian countries. As showed above, even though low prospect for daily basis relieve, earnings is similarly extremely unequally appropriated in Asian homelands. In addition, defilement in Asian nations is initial and takes in uncharacteristic condition political power. This belief attached with the view of unlimited defilement in Asian nations weep for an assessment regarding the relationship among financial implementation and debasement in Asian nations.

Debasement demonstrates itself in poles apart composition in Pakistan, as well as wide budgetary and political defilement, preferential treatment, and ill-treatment of power. Both insignificant and magnificent defilements are familiar in the state (Chene, 2008). Defilement steams all stage of government; it is all obvious and overpoweringly established in. The rank of debasement in the wide-ranging community at most recent relies in the lead of the character and morals of that social order (Vittal and Mahalingam, 2004). Over the era sufficiency of defilement has rather long-drawn-out in the wide-ranging public and at hand is modest evidence that persons experience regretful concerning their own exacting element in debasement. The dimension of defilement is the majority remarkable life form urbanized happenings and acquirement (counting barrier and open area enterprises) and the bank go forward to benefits. Although magnificent debasement is mostly being urbanized behavior, bank move forward and obtainments which shake the organization of the financial system, the standard gentleman is extra enthusiastic on the insignificant and middle stage defilement that he/she practices in the day by day transactions in the management workplaces

Destitution, reasonable financial expansion, and not the same pay and riches dissemination are widespread in Asian country. In realism, Pakistan has increase negligible position in ornamental expectations on daily basis calm in the middle of the generate districts of the world. Dincer and Gunalp (2008) look at that development in defilement at the appointed time addition in income inequality and destitution.

Furthermore sky-scraping inequality is connected with more remarkable debasement (Barreto, 2001). An enormous contract of observational job has been completed to stop working the association of defilement, inequality and financial expansion for panel type examination. On the other hand, no examination has been led yet to look at such kind of relationship for Pakistan. The present audit fills this gap and explores the relationship among defilement, imbalance and financial development in Pakistan.

In Pakistan, defilement is seen as endemic on the grounds that among many creating nations, Pakistan is constantly included as the most astounding in the rankings that are delivered by worldwide associations (Kaufman et al., 2005) This is additionally apparent from a current discernment study of Transparency International (2012) which positioned Pakistan as 139th in the comity of countries on the size of defilement free-administration. Almost certainly, the observation introduced by Transparency International can be challenged, however inside Pakistan, the same has picked up energy increasing the thought that open organization of Pakistan is tormented with defilement. Despite the fact that hard confirmation of debasement's rate is hard to get, yet unique reviews, news reports, chronicled records and contextual investigations demonstrate that defilement is inescapable in Pakistan at all levels (Pellegrini 2011). Debasement has turned into a lifestyle in Pakistan (Islam, 2004), which therefore made establishments in Pakistan to a great degree wasteful (Abbasi, 2011). This has prompted a general impression that routine with regards to defilement has expanded in volume after some time and there is less confirmation that individuals feel regretful about it (Javaid et al., 2010). The predominance of debasement on such a wide scale can be expressed through Ehtisham's (2009) articulation, i.e. from policemen to most astounding positions, from legitimate agents to judges, from minor income authorities to senior heads, from vendors to high-positioning designers, all legislature and private organizations are associated with defilement. Thus a normal Pakistani national witnesses defilement each time he/she experiences administration – from paying bills, enrolling births, announcing a wrongdoing, getting a power association, endeavoring to get youngsters admitted to a school, to recording the offer of a house; the grasping of defilement at such huge scale talks about extreme ramifications for open on the loose.

A land continue living to provide its area under discussion with opportunity from want, elasticity from repression and a personal approval wherever they able to live devoid of fear of awful appearance and domination. Not anything harm these objectives more than debasement in the organs of the state. The principal victim is only the upgrading process as disparity acquire established in and fairness break up. Debasement in such a nation does not hang about incomplete to one separation; it oversupplies the whole civilization. Pakistan has been, disgracefully, a scamper of the mill case. In the last fifty-five years we are the eye witnesses of an exponential increase in the scourge of debasement with perhaps the steepest ascent coming in the period 1985-1999. It was in the nineties that the interest for responsibility turned out to be more vociferous than any other time in recent memory. The consequence of such broad defilement has been lost authenticity of state foundations (NACS, 2002).

In Pakistan defilement is distant attainment, more than ever in the parliament and inferior stage of police authority. Nowadays, the situation is dreadful, the dropped guardian angel of debasement is reining each ground of national act, and the crooked sharpen up is out of control to the point that a typical man experience mystified. People groups scream that debasement is an insult and it has stolen the true stillness. These dimensions reveal that in Pakistan defilement is superior to all further SAARC part country with the exemption of Bangladesh. In spite of the information that Pakistan has observe transform on the world defilement judgment box file in 2013 from 27 to 28 and location from 139 to 127 out of 177 homelands which is a civilized symbol for our country yet it is superior to all further SAARC country sideways from Bangladesh. So there is rising need to transform liability and hostile to debasement policy at more prominent quantity within the state government. Debasement does not pressure just monetary growth of a country but somewhat similarly develop salary disproportion. Wage inconsistency can be set apart as the irregular transportation of collective national income in the middle of families. Little pay persons are for the most element unfair by debasement as it engaged in unlock expenditure from the undertakings which are precious for deprived persons like teaching and comfort to those everyday jobs which are enormous for lofty income gather. This therefore prompts rise in pay inequality and deprived finish up obviously not as good as more to the point that disparity convey about monetary extravagance, common flimsiness and unfairness in the country. Disparity pressure financial growth and in addition destitution, it pressure defiantly the monetary growth speed (Bagchi and Svejnar, 2015), and as well, able of superior road bad behavior (Shrivastava and Ivanova, 2015).

The inequality in Pakistan has long-drawn-out absolutely in excess of the most current eight years and the outline continues unabated regardless of all cases of poverty reduction. The primary feature that supervise human being's income broadcasting slot in spreading of advantages helpful pay movement; relations from dissimilar relative's element management and rest of the humankind and estimation and use arrangement of the management. It might similarly be addition for the reason that of addition in defilement. As a variety of examinations has exposed the encouraging and remarkable relationship between inequality and debasement, thus, this study initiate to explore the impact of corruption on economic growth and income inequality under the premises of number of socio-economic factors that derive the road of justice to say 'no' to corruption in country like Pakistan.

2. Literature review

Debasement implies distinctive things to various individuals relying upon the person's train, social foundation, and political inclining. Along these lines debasement can happen in any exchange that includes an open official as characterize here. Characterized thusly, defilement is viewed as an uncommon instance of the primary specialist issue, with the overall population as the main, and people in general official as the operator.

According to the Li et al. (2000), the blow of debasement on earnings and income disparity delivered exploit knowledge from Asian, OECD, and Latin American states. They uncover that corruption enlarge income inequality quadratically, as income inequality coefficient is superior for states with central point of corruption level at the same time, it is near to the ground for states with elevated or small levels of defilement. They moreover discover that corruption manipulate inequality coefficient from side to side government utilization. Jain (2001) spotted three classes of corruption – impressive linking political cream of the crop, bureaucratic concerning dishonest performance by selected bureaucrats, and legislative corruption linking how legislative take part in a ballot are influenced by the personal attention of the legislator. The three category of corruption fluctuate only in conditions of the judgment that are influenced by dishonest practice. The decisive consequence of corruption in each case is the similar – the misallocation of possessions and inefficiency. This examination just focuses on how debasement could convey causes to financial expansion from beginning to end of few broadcast canal while neglect the switch causes of monetary growth to defilement. The two-route causality in the middle of debasement and monetary growth may be remarkable in such a way, the rotate collision from GDP to defilement may insert to a variety of consequence for more widespread range of assessment (Dzhumashev, 2014)

Peev and Mueller (2012) investigate the association between defilement and monetary growth for 24 development state from 1990 to 2007. Make the most of extra financial incentives (EFI) as a mediator for defilement, they originate that more monetary issues easy to get to in a state, the superior the financial growth is knowledgeable. Peev and Mueller similarly bring into being that, far above the ground the extra financial incentives in a state is an after effect of fine association. The observational conclusions, furthermore, reveal that the majority necessary division of financial growth pressure is occasion from debasement. An expansion in defilement by one unit is related with a diminution in monetary growth by 2.76 for every coinage. The understanding of this finding is that monetary flexibility empowers interest in a nation, which, thus, prompts more development. An existing dissertation by Bertrand and Morse (2016) discover that up to a fourth of the diminishing in the cautious rate in the path of the most current three decades could be attributed to these utilization sprays.

Corruption mainly troubles small state, for instance, Malaysia. In Malaysia, unfasten that defilement stage is far above the ground and the monetary growth is reverse off by debasement. A concrete relationship surrounded by debasement and powerless community management is revealed (Caron et al., 2012). The dissatisfaction for mutually government transform agenda and financial transform agenda are originated by weak government in the state. Debasement wreck citizens is universal belief in government association and injury the social resources and also human resources. As point toward by an examination completed by Ray (2012) on financial collision of foreign direct investment in India from 1991 to 2011, foreign direct investments optimistically have a consequence on monetary growth. The study nominates that this optimistic affiliation is that foreign direct investment improves human resources and underpinning, generate

locality business venture, and makes a well-mannered state of affairs for money-making venture. Alemu (2012) attempt the correlation surrounded by defilement and foreign direct investment for 16 Asian countries from 1995 to 2009. Make the most of the extra financial incentives as a measure of debasement, the study establish that debasement unfavorably manipulate financial growth. The precise conclusions demonstrate that an expansion in the rank of defilement by 1 for each coinage at the appointed time abatement in Foreign direct investment by 9.1 for every coinage. As point toward by him, the unenthusiastic relationship surrounded by debasement and Foreign direct investment for the reason that of the financial helplessness that come out from defilement and, from now on, influence the belief of speculators in the marketplace, which in the end influences monetary growth.

In 2004-2005 movement expanded once more, now to a great extent in view of a deluge from new European Union part states, yet they touched base to an economy that was always recuperating. For the foreigners who came amid the 1990s, the down-hand over the economy was hindering for their monetary reconciliation – they thought that it was hard to get a balance in the work advertise, and many wound up with low pay and with high and continuing neediness and social help rates (Jonsson et al., 2010; Mood, 2011). The improvement amid the principal years of the 1990s implied that the spending deficiency expanded and as a reaction the administration looked to diminish welfare state uses by limiting the levels, terms, and additionally qualification states of different advantages, for example, ailment, parental and joblessness benefits, and the all-inclusive youngster advantage (Regnér, 2000, Palme et al., 2002). Normally, these progressions added to the officially expanding dangers of destitution. Duvanova (2014) spoken that requirement is a fountain of managerial heaviness and without delay disintegrate practices. Requirement is an impending origin of rents. In a situation wherever political and legitimate organization don't propose adequate preclusion beside debasement, civil servants might advantage from manufacture unrestricted impediment to administrative consistence.

Defilement may show the way superintendent to channel government utilize into unproductive segments, for illustration, confrontation, that propose open doors for charter run after (Gupta et al., 2001). Debasement might similarly moderate the competence of possessions in view of the fact that it crooked the nature of such possessions. For case in point, debasement can punctual diminishment in the natural world of tutoring and therapeutic services afterward weaken human capital. At long last, debasement increments the cost of generation as well as vulnerability, particularly on account of decentralized defilement, henceforth diminishing interest in both physical and human capital. Defilement weakens confidential attention in substantial assets and in adding together weaken in human capital, benevolent one more channel all the way through which debasement manipulate monetary growth (Wei, 2000; Mauro, 1995; Gupta et al., 2002). Reasonable growth and defilement work in partnership to get bigger wage imbalance. Debasement, speculation, and different regressors could not be exclusively exogenous in the progress and shell out transportation situation.

3. Data source and methodology

The literature suggested that the impact of corruption is harmful on economic growth with the help of two main channels which are as: by specially diminishing the profitability of existing assets through lower beneficial exertion, non-ideal info blend, neediness of the nature of assets, or through a general misallocation of existing assets, and in a roundabout way, through decreases in interest in both physical and human capital and also corruption of organizations (Wei, 2000; Gupta et al., 2002; Mauro, 1997; Tanzi and Davoodi, 1998). Corruption creates impact on economic growth by its on impetus. Dishonesty creates in the society due to the decreases in the corruption which allows more corrupt activities in the society. This paper used statistical model to see the relationship between the corruption and the economic growth in Pakistan's context by using reasonable time series data for conclusive results.

Different variable used in this study, which is described as follows, i.e.:

CPI: Consumer price index.

CPIA: Accountability, and corruption in the public sector rating (1 = low to 6 = high).

GCE: Government consumption expenditure.

GDPPC: Growth domestic product per capita.

GINI: Income inequality coefficient.

GS: Gross saving.

POV: Poverty.

CPI: The Consumer Price Index (CPI) is a measure of the normal change after some time in the costs paid by urban purchasers for a market load of customer products and business enterprise.

CPIA: CPIA is the transparency index which is used to make sure the corruption and even do accountability in the society.

GCE: General government last utilization use incorporates all administration current uses for buys of merchandise and ventures. It additionally incorporates most consumptions on national protection and security, however avoids government military uses that are a piece of government capital arrangement.

GDPPC: Per capita GDP is a measure of the aggregate yield of a nation that takes GDP by total population.

GINI: The Gini coefficient measures the degree to which the appropriation of pay among people or family units inside an economy veers off from a consummately rise to circulation. The Gini coefficient measures the region between the Lorenz curve and the theoretical line of outright balance, communicated as a level of the most extreme zone under the line.

GS: National reserve funds meet a country's wage less utilization and government uses, and

POV: Poverty is about not having enough cash to address essential issues including food, clothing, and house. In any case, destitution is all the more, substantially more than just not having enough cash.

3.1. Model

The study used the following equations to analyze the impact of corruption on economic growth and income inequality, i.e.

MODEL I: Impact of corruption (CPIA) on economic growth (GDPPC)

$$\ln(GDPPC) = \alpha_0 + \alpha_1 CPI + \alpha_2 GS + \alpha_3 POV + \alpha_4 GCE + \alpha_5 CPIA + \varepsilon$$

Where ε is the stochastic error term and α 's the coefficient which is to be estimated and all the other are the variables which is explained above briefly.

MODEL II: Impact of corruption (CPIA), poverty (POV) and government saving (GS) on income inequality (GINI)

$$\ln(GINI) = \alpha_0 + \alpha_1 CPI + \alpha_2 GS + \alpha_3 POV + \alpha_4 GCE + \alpha_5 CPIA + \varepsilon$$

Where ε is the stochastic error term and α 's are the coefficient which, in this study to be estimated all the other variables are mentioned above in detailed.

Both the model is estimated with the time series cointegration technique by using a data set from 1992 to 2016. The data is collected from the source of World Development Indicator published by World Bank (2016). The Robust Least Square (RLS) technique is used to estimate parameter coefficients for conclusive findings. First, the unit root estimation is implemented on the selected variables to assess stationary properties of the variable series, while in order to find the long-run co-integrated relationship between the variables, the study used cointegration technique that shows the long-run relationship between the variables at 5% significant level. Finally, the study used robust least square method for parameter estimates that is less sensitive to the outliers in the response variables and the regressors. These techniques endeavor to rinse the impact of distant cases so as to give a superior fit to most of the information. Estimates based on levels, first difference, or on robust least square method.

4. Results

Table 1 shows the descriptive statistics of the variable. The statistics shows that the mean value of CPI is 8.506% with maximum value of 20.286% and minimum value of 2.539% with standard deviation value of 4.298%. The statistics shows positively skewed distribution with considerable peak of distribution. The mean value of CPIA is 2.286 with the maximum value of 3 and minimum value of 2 with the standard deviation of 0.325 and shows the positive skewed distribution. Whenever we saw the statistics of GCE, the statistics shows the mean value of 1.41E+10 with the maximum value of 2.73E+10 and the minimum value of 8.03E+10 and have a standard deviation of 5.77E+10 which is positively skewed and have a considerable peak of the distribution. GDPPC has the mean value of US\$ 945.373 having the maximum value of US\$1181.598 and the minimum value of US\$787.794, and the standard deviation of US\$125.885 with the skewness of 0.253. The mean value of income inequality is

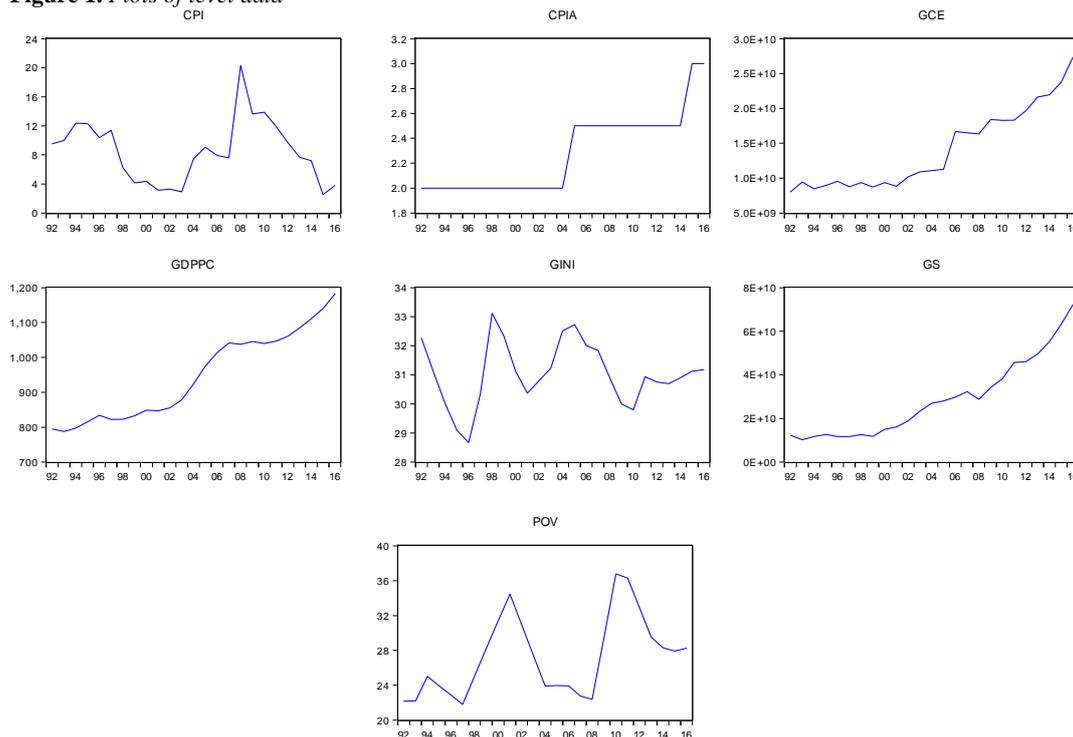
31.032% have a maximum value of 33.120% and minimum value of 28.670% with the standard deviation of 1.089%. GS has the mean value of 2.87E+10 with the maximum value of 7.21E+10 and the minimum value of 1.02E+10 and have standard deviation of 1.79E+10, which shows the positively distribution with considerable peak of distribution. According to poverty statistics, the mean value of poverty headcount is about 27.268% with the maximum value of 36.800% and the minimum value of 21.8000% which have the standard deviation value of 4.563%.

Table 1. Descriptive statistics

Variables/Methods	CPI	CPIA	GCE	GDPPC	GINI	GS	POV
Mean	8.506	2.280	1.41E+10	945.373	31.032	2.87E+10	27.268
Maximum	20.286	3	2.73E+10	1181.598	33.120	7.21E+10	36.800
Minimum	2.539	2	8.03E+09	787.794	28.670	1.02E+10	21.800
Standard Deviations	4.298	0.325	5.77E+09	125.885	1.089	1.79E+10	4.563
Skewness	0.618	0.701	0.686	0.253	-0.082	0.867804	0.626
Kurtosis	3.365	2.483	2.217	1.601	2.729	2.769	2.326
Observations	25	25	25	25	25	25	25

Figure 1 shows the plots of level data for ready reference.

Figure 1. Plots of level data



Source: World Bank (2016).

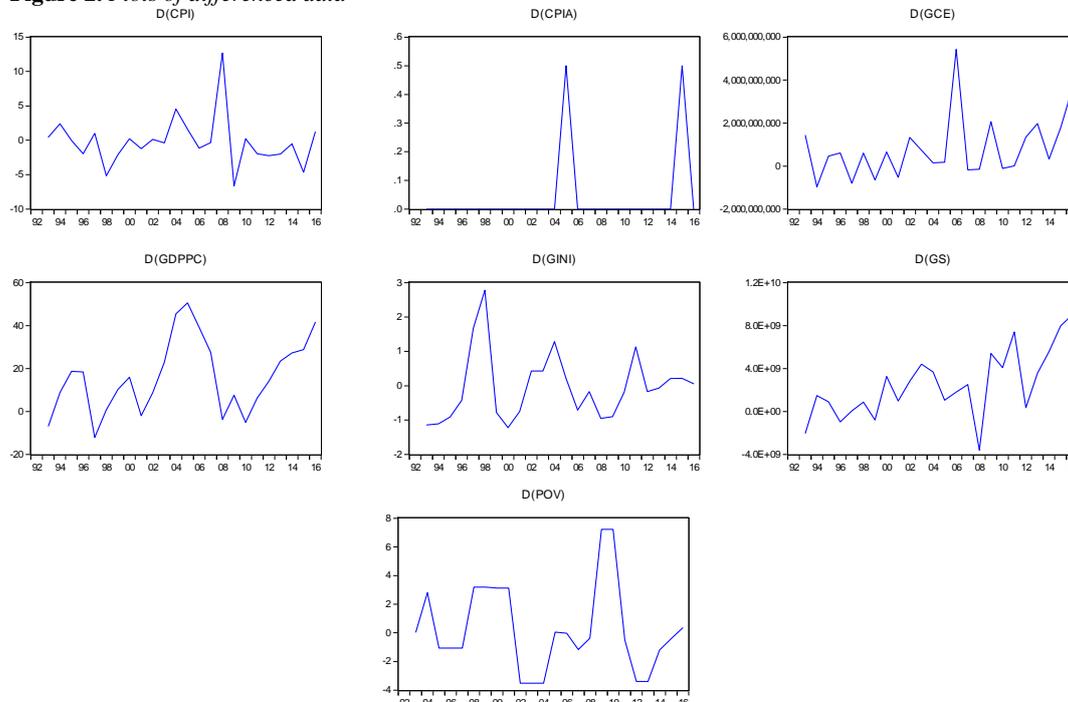
Table 2 shows the estimates of unit root test. The results show that CPI is insignificant at level, while it is significant at first difference, which means that the CPI is non-stationary variable at level, while it is stationary at their first difference. The CPIA variables is insignificant at level, while like CPI, it is significant at first difference it means that CPIA is differenced stationary variable. According to the unit rule estimation, at level, the GCE show insignificant values but at first difference it shows significant value which means that GCE is non-stationary at level and stationary at first difference. Result also shows the trend level of GDPPC that is insignificant at both the level and first difference. So at both, the level and first difference shows non-stationary series. As far as income inequality and poverty estimates, it shows the significant series at both the level and first difference. The result shows that GS is insignificant at level but it is significant at first difference which means that it in non-stationary at level while it is stationary at first difference. The order of mixture of cointegration implies that the response variable and their regressors are highly volatile data, hence it is imperative to use sophisticated econometric technique that minimizes the possible outliers both from endogenous and exogenous variables series, therefore robust least square –MM estimator is employed to serve this purpose.

Table 2. Unit root estimates

Variables	Level		First Difference		Remarks
	Constant	Constant+Trend	Constant	Constant+Trend	
CPI	-2.027 (0.273)	-1.989 (0.5775)	-5.927 (0.0001)	-5.829 (0.0005)	First differenced stationary
CPIA	8.08E-16 (0.9497)	-2.157 (0.4899)	-5.041 (0.0005)	-5.260 (0.0016)	First differenced stationary
GCE	1.374 (0.9982)	-1.091 (0.9096)	-4.827 (0.0009)	-5.973 (0.0004)	First differenced stationary
GDPPC	0.177 (0.9648)	-2.415 (0.3626)	-2.135 (0.2337)	-2.242 (0.4460)	Insignificant at both the level and their first difference
GINI	-4.428 (0.0022)	-4.335 (0.0118)	-4.414 (0.0024)	-4.277 (0.0140)	Level stationary series
GS	3.910 (1.0000)	0.249 (0.9970)	-2.920 (0.0583)	-4.523 (0.0080)	First differenced stationary
POV	-3.543 (0.0159)	-4.097 (0.0194)	-3.846 (0.0084)	-3.725 (0.0419)	Level stationary series

Figure 2 shows the plots of first differenced data for ready reference.

Figure 2. Plots of differenced data



Source: World Bank (2016). ‘D’ shows first difference.

Table 3 shows the cointegration estimates for per capita GDP model. The results show that there are three co-integration equations for poverty model, which implies that the given variable exhibit a long-run cointegrated relationship between the variables. The trace statistics confirmed the 3 cointegration equations, therefore, we safely conclude that the poverty model accompanied with the significant correlated factors, which is deem desirable for policy inferences.

Table 3. Johansen cointegration estimates for poverty model

Unrestricted Co integration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.923668	161.8323	95.75366	0.0000
At most 1 *	0.882390	102.6611	69.81889	0.0000
At most 2 *	0.651025	53.43233	47.85613	0.0137
At most 3	0.610404	29.21895	29.79707	0.0582
At most 4	0.270398	7.538115	15.49471	0.5160
At most 5	0.012411	0.287234	3.841466	0.5920

Note: Trace test indicates 3 cointegrating equations at the 0.05 level.

Table 4 shows the estimates of cointegration for income inequality model. The results show four cointegration equations exist, which implies that the given variables exhibit a long-run association between them. Both the eigenvalue and trace statistics confirmed the four co-integration equations, therefore, we safely conclude that inequality model accompanied with the significant correlated factors, which can be seem desirable for policy inferences.

Table 4. Johansen cointegration estimates for income inequality model

Unrestricted Co integration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.886935	170.4564	95.75366	0.0000
At most 1 *	0.864818	120.3211	69.81889	0.0000
At most 2 *	0.784615	74.29509	47.85613	0.0000
At most 3 *	0.668975	38.98256	29.79707	0.0033
At most 4	0.278751	13.55463	15.49471	0.0960
At most 5 *	0.230920	6.038891	3.841466	0.0140
Unrestricted Co integration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.886935	50.13533	40.07757	0.0027
At most 1 *	0.864818	46.02601	33.87687	0.0011
At most 2 *	0.784615	35.31253	27.58434	0.0042
At most 3 *	0.668975	25.42793	21.13162	0.0117
At most 4	0.278751	7.515735	14.26460	0.4301
At most 5 *	0.230920	6.038891	3.841466	0.0140

Trace test and Max-eigenvalue test indicates 4 co integrating eqn(s) at the 0.05 level

By using the robust least square regression (see Table 5) we found the positive relationship between per capita income and corruption index value, i.e., if there is 1% increase in corruption index, country's per capita income increases by 0.205 percentage points, it does not mean that corruption is good for developing countries like Pakistan, while it is evident that low level of corruption might be gain some low insights economic objectives that should not be encourage in the long-run. The previous studies also documented the positive relationship between corruption and per capita income, for example Acemoglu and Verdier (1998) concluded that corruption bring some low positive effect on the country's economic growth through the channel of increase domestic investment, which create some employment opportunities in a country. The impact of gross saving on country's economic growth is positive, as if there is 1% increase in gross saving, economic growth increases by 0.116%. The result is consistent with the previous study of Misztal (2011), which confirmed the positivity of saving in national income accounting. A positive relationship exists between government consumption expenditures and per capita income and found that if there is 1% increase in government consumption expenditures, per capita increases by 0.086%, thus according to Keynesian theory an increase in government consumption expenditures lead to increase in the employment and investment, which ultimately increases country's economic growth through multiplier effect that support the Keynesian notion of consumption function.

Table 5. Estimates of robust least square regression for Model I

Dependent Variable: LOG(GDPPC)				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
LOG(CPI)	0.010226	0.008094	1.263309	0.2065
LOG(GS)	0.116975	0.026210	4.462986	0.0000
LOG(POV)	-0.020888	0.030968	-0.674524	0.5000
LOG(GCE)	0.086457	0.046094	1.875677	0.0607
LOG(CPIA)	0.205952	0.089212	2.308580	0.0210
C	1.914672	0.671218	2.852536	0.0043
Robust Statistics				
R-squared	0.872988	Adjusted R-squared		0.839563
Rw-squared	0.985292	Adjust Rw-squared		0.985292

Table 6 shows the estimates of robust least square regression for Model II and found the negative relationship between poverty headcount and income inequality, as if there is 1% increase in poverty headcounts, income inequality decreases by 0.09%, this result does not infer that high poverty incidence is good for reducing income disparity between rich and poor, while it illustrates that government should have to focus on pro-growth and pro-poor growth policies to reduce poverty and income inequality in a country. Jonsson et al. (2013) indicated the negative cross sectional relationship between poverty and income inequality and argued that poverty is anti-cyclical and income inequality as pro-cyclical association, which may emerged the indirect relationship exists between them. There is a positive relationship between income inequality and the government saving which means that if the government increases saving by 1% than there will ultimately be increase income inequality by 0.075%, hence, we need pro-poor saving reforms in a country for judicious income distribution.

Table 6. Estimates of robust least square regression for Model II

Dependent Variable: LOG(GINI)				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
LOG(CPI)	-0.011136	0.013322	-0.835920	0.4032
LOG(GS)	0.075690	0.043138	1.754589	0.0793
LOG(POV)	-0.094282	0.050968	-1.849813	0.0643
LOG(GCE)	-0.125630	0.075864	-1.655980	0.0977
LOG(CPIA)	0.065082	0.146831	0.443247	0.6576
C	4.831714	1.104735	4.373641	0.0000
Robust Statistics				
R-squared	0.293042	Adjusted R-squared		0.107000
Rw-squared	0.410458	Adjust Rw-squared		0.410458

5. Conclusions

The objective of the study is to examine the relationship between corruption, income inequality, poverty, and economic growth in the context of Pakistan by using a time series data from 1992-2016 and found that corruption mediates in the process of economic development through the channel of government saving and consumption function, while poverty changes income inequality under the premises of corruption and gross saving. Hence, it is imperative to device strong policies to reduce corruption, income inequality and poverty by macroeconomic policies and pro-equality growth arguments in a country. The World Bank Group works at the nation, territorial and worldwide level to construct skilled, straightforward, and responsible establishments and outline and execute anticorruption programs. Our work spins around changing results by helping both state and non-state on-screen characters set up the capabilities expected to execute arrangements and practices that enhance results and assemble open uprightness. Following the Anti-Corruption Summit in May 2016, the Bank Group reaffirmed its responsibility regarding defy defilement as a center improvement issue wherever it exists and to help respectability in broad daylight part foundations. The Bank Group likewise consented to:

- manufacture the limit of nation customers to convey on their duties regarding upgrade straightforwardness and diminish defilement,
- upgrade its help for usage of hostile to tax evasion prerequisites and for the recuperation of stolen resources, and

- broaden its work on assess change, illegal money related streams (IFFs), acquisition change, and keeping degenerate organizations from winning state contracts.

Over numerous existences anti-corruption policy makers have well thought-out it to be a purpose of enforcement only. The consequence has been a sequence of commandment and groups approaching up over the years that concerted on strict act only. Community demand has also promoter an enforcement support which come near, hence the motto of Ehtesab (answerability). on the other hand, our skill and that of comparable states across the globe has exposed that unless the reason of corruption are speak to, the society give power to stand up for its human rights, and the political determination to take disgusting judgment is produced, corruption will carry on unabated. Unless a wide-ranging approach is worn, hard work to bring back to life that support of nationwide honesty method will be unsuccessful. National Anti-corruption Strategy proposes precisely this approach.

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