

# THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION

## THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION

Giyoh Gideon Nginyu\*

University of Bamenda, Bamenda, Cameroon

### Abstract

*While the effect and determinants of corruption is well discussed in the literature, less attention has been given to how public sector employment affect corruption. The purpose of this paper is investigate the effect of public sector employment on corruption. Using data from 45 countries covering from 2002 through 2007, we employed Ordinary List Square (OLS) estimation technique to estimate the baseline model where we included both the linear and quadratic term of public sector employment to take of the non-linear relationship while adding a set of control variables. Our results suggest that public sector employment has a positive effect to control of corruption and beyond a particular threshold it turns to be a source of corruption. The results are robust even when we correct for endogeneity by using a static system-GMM technique of estimation. This means that governments should only employ a limited number of people which can permit her to render the basic functions of the state and make its economy more private sector oriented so as to scare away from corrupt practices.*

**Keywords:** *public sector employment and corruption*

### 1. INTRODUCTION

In recent years the presence of corruption all over the world has attracted the attention of economists and public opinion. The deleterious effect of corruption has raised the concern of the general public, researchers and policy makers. Though the effect of corruption has been proven to have a positive effect ((Nye, 1967; Mauro, 1995; Mo, 2001; Saha and Gounder, 2013; Gruñdler and Potrafke, 2019) in some developed countries, the effect of corruption remains detrimental to all developing countries (McMullan, 1961; Krueger 1974; Shleifer and Vishny, 1993; Tanzi and Davoodi, 1998; Mauro 1995; Salman et al., 2022; Agwu et al., 2023) and Mauro,1996). Overall, previous studies produced contradictory findings regarding the effect of corruption. The awareness of the dramatic effects of corruption on an economy leads to investigation of why corruption exists and what makes it so differently and widespread among countries. A number of studies have recently pointed out the correlation between a large set of variables and corruption (Ali and Isse, 2002; Park, 2003; Sosa, 2004; Serra, 2006; Khan, 2006; Del Monte and Papagni, 2007; Shabbir and Anwar, 2007; Ghaniy and Hastiadi, 2017; Mathur and Meyer, 2017; Maguire, 2018; Nurudeen and Waldemar Staniewski, 2019; Saleem *et al.*, 2019), Borlea *et al.*, 2019; Fungacova *et al.*, 2019; Park and Kim, 2019; Hunady, 2019 and Nurudeen and Staniewski, 2019; Fonchamnyo and Nginyu, 2023). However, all these studies have suggested several factors that affect corruption but the public sector employment have not yet been taken into consideration. These studies typically focus on individual incentives for engaging in corrupt practices and do not explicitly consider the role of public sector employment in encouraging this behaviour (corruption). The objective of this paper is to empirically investigate the effects of public employment on corruption. In particular, we are responding to the question; *does public sector employment increase or decrease corruption, in which case and why?*

Full employment can be considered to be one of the intrinsic objective of every economy but the orientation of employment in an economy may have it consequences. Employment in an economy maybe private sector oriented or public sector oriented. When the

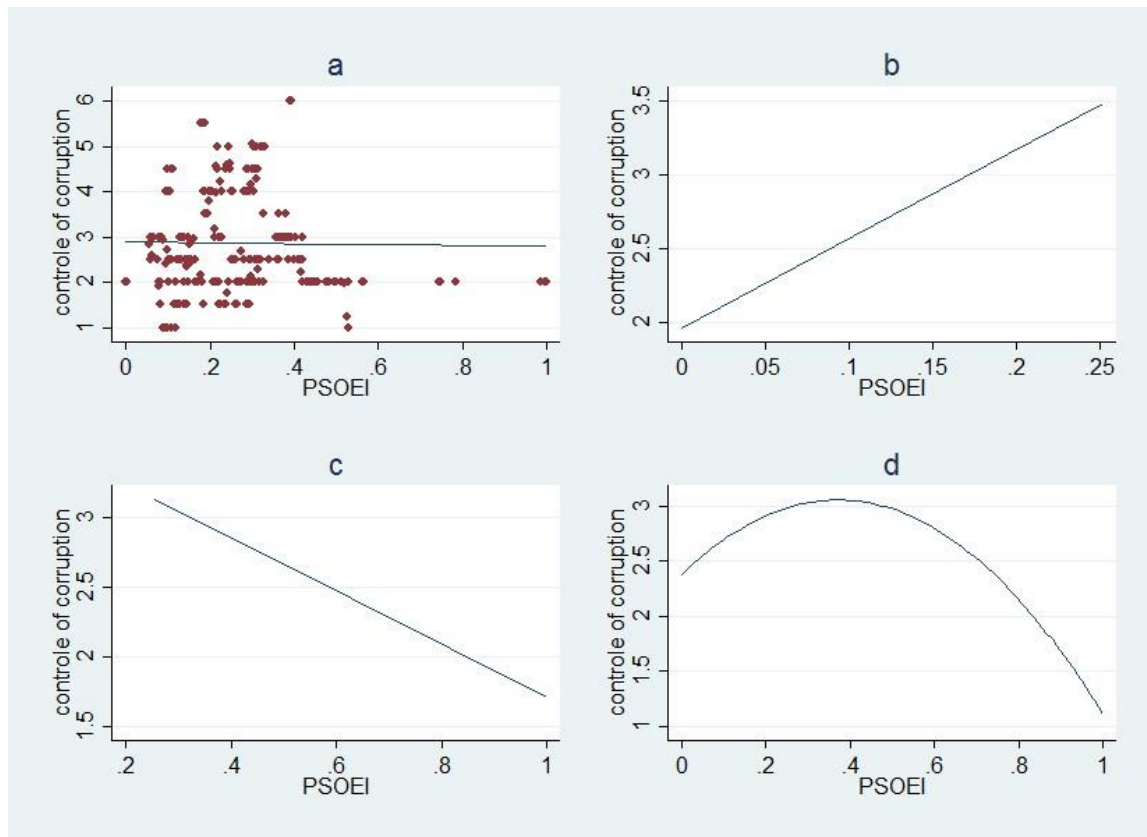
\*Coressponding author. Email address: [g2nginyu@gmail.com](mailto:g2nginyu@gmail.com)

public sector employs a greater number of people in an economy, we can term it public sector oriented employment on the other hand when the private sector employs a greater number of people in an economy it can be termed private sector oriented employment. Surplus labour in the public sector is a characteristic of most if not all developing countries. Governments do intervene in the provision of valuable goods and services which are deemed necessary in an economy. However, the public sector differs from the private sector in the extent to which it is subject to political pressures for employment and the pressure to work when they are employed since they are not motivated by profit.

On the other hand, private sector employment appears comparatively more efficient than public sector employment since there is apparently no room for rent seeking activities. Private sector employment is more productive since employees are hard working with the pressure mounted by their employers. Revenue is also provided from the private sector to the public sector through taxes which can still ensure the smooth functioning of an economy. The debate between public sector employment is not to choose between public sector employment nor private sector employment but deciding on the proportion to be employed in each of the sectors. The debate therefore should be at choosing an optimum level of employment orientation where resources can be well allocated. Figure 1 demonstrates the relationship between public sector employment and control of corruption. Based on data from Governance Glance, WGI and WDI, figure 1a demonstrates the scatter plot of the general relationship between public sector employment and control of corruption. Here the relationship seems not to be clear. In figure 1b and 1c we demonstrate this relationship in a line plot by dividing the sample into two those above the mean observation with respect to public sector employment/population based on data from Government at a Glance 2015 (GG), and International Country Risk Guide (ICRG). This therefore shows that countries below the mean observation may have a positive relationship between public sector employment and control of corruption while countries above the mean observation may have a negative relationship between public sector employment and control of corruption respectively. This therefore gives us the intuition that this relationship is likely non-linear. The non-linear relationship was therefore plotted on figure 1d.

This therefore shows that below a certain threshold, public sector employment may have a positive effect on control of corruption and above this level the effect becomes negative. This is because when many people are interested in working in the public sector, public officials will turn to ration this job by asking for bribes. Inefficiency is therefore achieved since recruitment is done according to how much the employee pays. On another hand inefficiency exists here because of the public sector employment turns to overcrowd the population which they are employed to serve. The marginal effect of public employment therefore turns to diminish above a certain level. When a country tries to resolve economic problems through public employment, it may turn to be detrimental. This therefore means that, above a particular threshold, the more people try to enter into the public service, the more corrupt the country turns to be. The incidence of corrupt activity by public officials varies greatly among individual countries. Similar variation can be observed in the size of the public sector employment among countries as shown on figure 1.

# THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION



Source: computed by author using Stata 14

Figure 1: The relationship between public sector employment and corruption

This study extends the literature by investigating effect public sector employment on corruption which has not be fully exploited by pass researchers. The purpose of this paper will therefore be to investigate the effect the effect of public sector employment on corruption. The remainder of this work will be organized as follows; in section 3, we are going to explain the empirical model and the data to be employed in the study, section 4 will be focused on the empirical results of the findings and section 5 will dual on conclusion and recommendations.

## 2. LITTERATURE STUDY

Based on the Henderson theory of rent seeking (2008), they are mostly motivated by rent seeking activities. Rent seeking and rent behaviour can give rise to a wasteful diversion of resources into the public sector over and above the derived demand for resources. The cost of public sector surplus labour appears to be much more important than the static social cost normally attributed to unemployment. Fiscal resources are needed to support the public sector employment and investment, thereby diverting resources from productive investment to non-productive investment (Gelb et al., 1991). In line with the marginal efficiency theory of (Keynes, 1936), the creation of further sheltered public sector employment encourages further rent seeking activities and migration of employment from the private sector to the public sector in search of rent seeking activities and laxity.

Corruption has attracted the attention of researchers not only in economics, but also in sociology, political science and many other related domains for its consequences are detrimental to almost all sectors of an economy. In other to combat corruption, we must be able to identify its determinants. There have been a series of research to investigate the determinants of corruption. Nevertheless, no consensus on the exact determinants of corruption have been reached, each author considers the factors he considers most import. The attempts to fight

against corruption has brought limited results to many societies so the investigation of the determinants of corruption has not yet been terminated. In the literature, many researchers have shown that various factors determine corruption.

Among this factors, economic development is one of the most consistent factor; higher income corruption is plausible relationship. Although high income reduces corruption, there also exist a possibility of reverse causality as corruption reduces economic growth (Treisman, 2007). Mills (1986) also argued that, government size has positive relationship with corruption since government size increases the opportunity for rent-seeking activities but found that Montinola and Jackman (2002) the effect of government size on corruption is insignificant. Larraín and Tavares (2000) also examine the relationship between openness and corruption and found that high level of openness led to low corruption. Bliss and Tella (1997) investigated if competition Kill corruption and found that, high competition is associated with low level of corruption. Braun and Di Tella (2004) argued that inflation variability increases corruption. Corruption is associated with a series of political factors. According to Montinola and Jackman (2002), democracy hinders corruption. Adsera et al. (2003) also argued that, political accountability reduce corruption. Brunetti and Weder (2003) and Adsera et al. (2003) also found that, corruption is low in countries with free circulation of daily newspapers. Fisman and Gatti (2002) examined the relationship between decentralisation and corruption and found that, fiscal decentralisation in government expenditure is strongly and significantly associated with lower corruption. Alsaad (2022) found that e-government will has a strong effect on corruption only when it first affect the enforcement of the law. Treisman (2000) argues that the share of the Protestant population in a country is negatively associated with high level of corruption. Swamy et al. (2001) and Jha and Sarangi (2018) argued that women empowerment reduces corruption. Rahmanian (2022) in a micro study in Jahrom argued that organizational culture, social class, work conscience, income and organizational culture integration are strongest determinants of corruption.

The purpose of this paper is to empirically investigate the effect of public sector oriented employment on corruption. Among this works, there is yet no work considering the public sector employment. The goal of this piece of work therefore to investigate the effect of public sector employment so as to narrow this gap in the literature.

### **3. RESEARCH METHODOLOGY**

#### **Empirical Model**

The main interest of this paper is to explain the effect public sector employment on corruption. In other words, the purpose of this estimation is to control for convergence effect as suggested by many theoretical models. We want to demonstrate that beyond a certain threshold, when the public sector employment increases, it turns to increase corruption. To do this, we are going to employ the following baseline model adapted from the model of Shabbir and Anwar, 2007; Elbahnasawy and Revier, 2012 and Gnimassoun et al., 2019

$$CCit = \alpha'_{it}PSOEIit + \gamma'_{it}X_{it} + \epsilon_{it} \quad (1)$$

Where CC is control of corruption, PSOEI is the indicator of public sector employment, X a vector of control variables and  $\epsilon_{it}$  is a noise term. To investigate non-monotonic relationships, it is standard to include some polynomials (typically quadratic terms) in the vector of covariates within a linear regression framework. Since we are interested in the trend of public sector employment relative to to population (PSOEI). We therefore include  $PSOEI^2$  as well as it quadratic terms in our vector of control variables. Thus, the basic econometric framework can be described by;

## THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION

$$CC_{it} = \alpha'_{it}PSOE_{it} + \beta'_{it}PSOE_{it}^2 + \gamma'_{it}X_{it} + \epsilon_{it} \quad (2)$$

To test the hypothesis outlined in the previous section, we argue that the above model (equation 2) is particularly well suited to capture the presence of contingency effects and to offer a rich way of modeling the influence of public sector employment on corruption. There are a number of econometric challenges to investigating whether public sector employment follows an inverted U-shape. The first challenge concerns the appropriate approach for testing for the presence of an inverted U-shaped relationship. The most common approach in the literature is to specify a regression equation such as equation 2 and conclude based on the sign and statistical significance of the coefficients estimates of  $\beta$  and  $\alpha$ . If both coefficients are statistically significant and  $\alpha > 0$  and  $\beta < 0$  we can conclude that an inverted U-shape relationship exists (provided the estimated extremum is within the data range). However, Lind and Mehlum (2010) argues that the aforementioned procedure is a weak and deeply flawed test for U-shaped or inverted U-shaped relationships because sometimes the estimated optimum turns to be out of the range. We are therefore going to estimate equation 1 by dividing the sample into two; those below and above the mean of PSOEI.

We are going to employ Ordinary Least Square (OLS) estimation technique in estimating the above equations. OLS was employed since it provides a consistent theory underpinning, applicability and simplicity in its analysis. Due to the fact that it is too sensitive to outliers, we will run a number of regression. We will also apply a static System-GMM technique (GMM) to solve the problem of endogeneity between public sector employment and economic growth as well as to ensure the stability of our results.

### Data

Our article uses a large data set composed of different variables from different data sources; public sector employment was gotten from Government at a Glance (GG), Total population, Unemployment, Proportion of seats held by women in parliament, Military expenditures and Inflation was gotten from World Development Indicators (WDI) and Corruption, Government stability, Internal conflict, External conflict, Political stability and Religious tension was gotten from International Country Risk Guide (ICRG). Our study covers 45 countries across the world (Armenia, Australia, Bahamas, Belarus, Botswana, Bulgaria, Burkina Faso, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Egypt, Estonia, Finland, Germany, Greece, Hong Kong SAR, China, Jordan, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Moldova, Morocco, New Zealand, Panama, Paraguay, Peru, Philippines, Poland, Romania, Russian Federation, Slovak Republic, Slovenia, Spain, Sri Lanka, Syrian Arab Republic, Thailand, Turkey, Uganda and United Kingdom) from 2002 to 2007 because of lack of insufficient data over time and across other countries. This sample was based on data availability. PSOEI is an indicator constructed to reflect the proportion of people employed in in the public sector. It was calculated as follows,

$$PSOE_{it} = \frac{\text{Total number of people employed in the public sector}_{it}}{\text{Total population}_{it}} \quad (3)$$

$$PSOEI_{it} = \frac{PSOE_{it} - PSOE_{min}}{PSOE_{max} - PSOE_{min}} \quad (4)$$

Where  $PSOE_{min}$  and  $PSOE_{max}$  are the minimum and maximum value of PSOE,  $PSOE_{it}$  is the public sector employment to population ratio of a country  $i$  at time  $t$  and  $PSOEI_{it}$  which we called public sector orientation of employment index  $0 \leq PSOEI_{it} \leq 1$ .

Table 1: Descriptive Statistics from 2002 to 2007

Variable	Obs	Mean	Std. Dev.	Min	Max	Source
Corruption	270	2.868827	1.177202	1	6	ICRG
Total public sector employment	270	1955.487	3597.521	26.32	24192	GG
PSOEI	270	0.253086	0.154498	0	1.	computed
Total population	270	2.56E+07	3.21E+07	307660	1.45E+08	WDI
Government stability	270	8.737809	1.475236	5.041667	11.5	ICRG
Internal conflict	270	9.857253	1.563926	3.416667	12	ICRG
External conflict	270	10.25725	1.174663	7	12	ICRG
Religious tension	270	4.942284	0.999387	2	6	ICRG
Political stability	270	0.198072	0.875195	-2.37447	1.755193	WGI
Unemployment	270	8.150041	4.184867	1.18	23.8	WDI
Proportion of seats held by women in parliament	261	17.04444	8.920996	1.3	41.5	WDI
Military expenditures	258	1.943073	1.16411	0	6.248324	WDI
Inflation	270	4.948511	5.324685	-2.98314	44.96412	WDI
Old age dependency ratio	270	15.35733	7.21572	3.982777	29.71566	WDI

Source: computed by author using Stata 14

#### 4. RESULT AND DISCUSSION

The statistics in Table 1 show that the variables are more or less distributed around the mean. The mean and standard deviation of corruption was 2.9 respectively 1.18 and public sector employment index while that of 0.3 and .0.2 respectively. The other variables; Total public sector employment, Total population, Total population, Government stability, Internal conflict, External conflict, Religious tension, Political stability, Unemployment, Proportion of seats held by women in parliament, Military expenditures, Inflation and dependency ratio has mean and standard deviation respectively as 1955.5, 2.56E+07, 8.7, 9.9, 10.3, 4.9, 0.2, 8.2, 17.0, 1.9, 4.9, 15.4 and 3597.5, 3.21E+07, 1.5, 1.6, 1.2, 0.9, 0.9, 4.2, 8.9, 1.2, 5.3 and 7.2 and therefore the standard deviation is below the mean.

Table 2: Effect of Public Sector Employment on corruption (OLS)

Variable	6	6	6	6	6	6	6
PSOEI	3.632***	1.798*	1.852*	1.176	4.688***	5.526***	2.548*
	(1.151)	(1.065)	(1.054)	(0.992)	(1.264)	(1.193)	(1.504)

**THE EFFECT OF PUBLIC SECTOR EMPLOYMENT  
ON CORRUPTION**

Table 2: Effect of Public Sector Employment on corruption (OLS)

Variable	6	6	6	6	6	6	6
PSOEI2	- 4.898*** (1.396)	-2.933** (1.287)	-3.023** (1.274)	- 3.354*** (1.166)	- 9.323*** (1.778)	- 9.497*** (1.666)	- 6.789*** (1.847)
Government Stability		0.128*** (0.044)	0.153*** (0.044)	0.253*** (0.043)	0.233*** (0.043)	0.192*** (0.041)	0.202*** (0.041)
External Conflict		0.175*** (0.055)	0.120** (0.059)	0.074 (0.053)	0.128** (0.057)	0.172*** (0.054)	0.194*** (0.054)
Religious Tensions		0.445*** (0.064)	0.426*** (0.064)	0.236*** (0.062)	0.306*** (0.063)	0.350*** (0.060)	0.248*** (0.067)
Total natural resources rents			-0.032** (0.012)	-0.029** (0.011)	- 0.052*** (0.012)	- 0.048*** (0.012)	-0.026* (0.013)
Unemployment				-0.007 (0.014)	-0.038** (0.016)	- 0.049*** (0.015)	- 0.044*** (0.015)
Proportion of seats held by women in parliament				0.062*** (0.008)	0.072*** (0.008)	0.062*** (0.008)	0.059*** (0.008)
Military expenditures					0.092*** (0.021)	0.117*** (0.020)	0.106*** (0.020)
Inflation						- 0.063*** (0.011)	- 0.060*** (0.011)
Old Age dependency ratio							0.041*** (0.013)
Constant	2.380*** 2.448***	-	-1.903**	- 2.200***	- 3.730***	- 3.787***	- 3.738***

Table 2: Effect of Public Sector Employment on corruption (OLS)

Variable	6	6	6	6	6	6	6
	(0.198)	(0.732)	(0.755)	(0.696)	(0.829)	(0.777)	(0.763)
Observations	270	270	270	261	253	253	253
R-squared	0.044	0.239	0.258	0.413	0.440	0.510	0.530

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: computed by author using Stata 14

## Discussion

This section presents the regression results based on equation 2. We are going to first of all present the results of the baseline model using Ordinary Least Square (OLS) estimation technique. We will in present in the second subsection present the result using a static System Generalised Method of Moments (GMM).

### Baseline Model

Table 2 above show the coefficient estimate as well as the estimated average marginal effects of PSOEI and other control variables.

The awaited signs of  $\alpha > 0$  and  $\beta < 0$  have been demonstrated though the coefficients appear to be high. This therefore demonstrate the U-shaped relationship as presumed above. This therefore means that when the government tries to employ people in the public sector, it yields positive effects of control of corruption and above a particular threshold level the marginal effect of public sector employment turns to diminish. This therefore means that the public sector is likely to be a major source of corruption when people increase their desires to be employed in the public sector beyond a particular threshold of public sector employment to population ratio. This is because the public sector is characterized by laxity and rent seeking activities. This therefore mean that the public sector need just a certain optimal level of employment necessary for the functioning of the economy and beyond this optimal level, any increase in public sector employment will led to corruption as people bribe to even gate jobs that they are not competent for. This is contrary to the private sector where employment is mainly based n competence and not your ability to bribe. Therefore, an economy's orientation of employment should in a way that a small proportion of the economy should be employed in the public sector contrary to the private sector (the counterpart sector) which should employ a greater share of the population.

### Robustness and Other Considerations

Our main finding so far is that we do not yet found robust evidence since the results significance changes as we change our control variables. We therefore check for the stability of our results by using a static system-GMM which will help to control for any possible endogeneity problem between public sector employment and; as presented in table 3 below.

The results in the table demonstrate that bellow the mean observation of PSOEI, public sector employment has a positive effect on control of corruption. On the other hand, above the mean of PSOEI the effect of public sector employment is negative on control of corruption. This results therefore demonstrate that when we employ people in the public sector, it yields positive effect as the marginal effect of control of corruption is positive until a certain threshold where public sector employment turns to yield negative effect as its marginal effect turn to be negative. This therefore revile that public sector employment is probably a source of corruption



## THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION

as people try to enter the public sector where they find laxity and rent seeking activities. This means that when the employment of an economy is oriented toward the public sector (high demand for public sector jobs), individuals will get jobs not according to their competence but will be employed based on their ability to bribe the administrators in charge of the recruitment. This results are in accordance to our baseline results which make us to claim that public sector employment is a source of corruption for countries that employ a large proportion of their population relative to their total population in the public sector.

Table 3: Effect of Public Sector Employment on Corruption (GMM)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1	2	3	6	8	8	8	8
PSOEI	4.198*** (1.046)	5.934*** (1.691)	5.749*** (1.556)	8.266** (4.108)	5.419** (2.157)	6.682*** (2.098)	6.672*** (2.064)	4.083** (1.634)
PSOEI2	-2.299** (1.146)	- 5.977*** (1.562)	-5.619*** (1.469)	- 11.309** (5.146)	- 6.929*** (2.551)	-5.974*** (1.786)	- 5.473*** (1.812)	-2.243* (1.302)
Government Stability	0.204 (0.178)	0.059 (0.294)	0.138 (0.279)	0.354** (0.167)	0.101 (0.062)	0.075 (0.336)	0.190 (0.346)	0.224 (0.277)
Internal Conflict	0.429*** (0.102)	0.072 (0.158)	0.054 (0.145)	-0.683 (0.487)	-0.256 (0.640)	0.553 (0.554)	0.688 (0.558)	0.387 (0.472)
Religious Tensions	1.131*** (0.146)	0.121 (0.441)	-0.058 (0.439)	0.586*** (0.208)	0.662** (0.292)	0.619 (0.740)	0.533 (0.732)	1.117*** (0.214)
Total natural resources rents	0.005 (0.020)	0.149** (0.059)	0.153*** (0.054)	0.103* (0.057)	0.116*** (0.034)	0.106 (0.083)	0.097 (0.082)	0.004 (0.021)
Unemployment	-0.197** (0.080)	-0.003 (0.104)	-0.007 (0.095)	0.032*** (0.012)		-0.103 (0.161)	-0.141 (0.162)	-0.195** (0.082)
Proportion of seats held by women in parliament	-0.224*** (0.047)	- 0.172*** (0.042)	-0.142*** (0.048)	0.093*** (0.027)		-0.210*** (0.063)	- 0.181*** (0.067)	- 0.224*** (0.048)
Military expenditure		-1.639* (0.982)	-1.503* (0.907)			-1.452 (1.142)	-1.200 (1.145)	
Inflation			-0.080 (0.077)	0.007 (0.164)	-0.000 (0.254)		-0.111 (0.099)	
Political Stability					0.048 (0.975)	-0.773 (0.842)	-1.030 (0.859)	0.088 (0.949)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1	2	3	6	8	8	8	8
Constant	-4.093** (1.678)	5.612 (3.525)	5.646* (3.221)	0.217 (2.268)	0.069 (7.842)	-0.541 (7.818)	-2.538 (7.893)	-3.780 (3.785)
Observations	176	214	214	219	225	214	214	176
Number of Countries	44	43	43	44	45	43	43	44
AR(1)	0.0433	0.349	0.797	0.193	0.554	0.508	0.968	0.0438
AR(1)	0.112	0.879	0.923	0.653	0.818	0.805	0.839	0.126
Sargan test	0.226	0.144	0.0624	0.545	0.0637	0.278	0.263	0.161

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: computed by author using Stata 14

## 5. CONCLUSION

The purpose of this paper is investigate the effect of public sector employment on corruption. Using data from 45 countries covering from 2002 through 2007, we employed Ordinary List Square (OLS) estimation technique to estimate the baseline model where we included both the linear and quadratic term of public sector employment to take of the non-linear relationship while adding a set of control variables. Our results suggest that public sector employment has a positive effect to control of corruption and beyond a particular threshold it turns to be a source of corruption. the results have the same policy implications even when we correct some major econometric issues by using a static system-GMM

Our recommendation to this finding is that public sector employment is not an optimal solution to unemployment in an economy especially when the economy has already attained a certain level of public sector employment relative to its population. A better solution to create a conducive environment for the creation of private enterprises which will in turn be a source of opportunity to employment.

## Reference

- Adsera, A., Boix, C., and Payne, M. (2003). Are you being served? political accountability and quality of government. *The Journal of Law, Economics, and Organization*, 19(2):445–490.
- Ali, A. M. and Isse, H. S. (2002). Determinants of economic corruption: a cross-country comparison. *Cato J.*, 22:449.
- Alsaad, A. (2022). E-government and corruption control: the mediating effect of law enforcement. *Electronic Government*, 18(1), 1-8.
- Bliss, C. and Tella, R. D. (1997). Does competition kill corruption? *Journal of political economy*, 105(5):1001–1023.
- Borlea, S. N., Achim, M. V., and Rus, A. I. D. (2019). Behavioral determinants of corruption. a cross-country survey. *Studia Universitatis Au`Vasile Goldi,s` Au` Arad, Seria S,tiin,te Economice`* 29(1):21–39.
- Braun, M. and Di Tella, R. (2004). Inflation, inflation variability, and corruption. *Economics & Politics*, 16(1):77–100.
- Brunetti, A. and Weder, B. (2003). A free press is bad news for corruption. *Journal of Public*

## THE EFFECT OF PUBLIC SECTOR EMPLOYMENT ON CORRUPTION

- economics*, 87(7-8):1801–1824.
- Del Monte, A. and Papagni, E. (2007). The determinants of corruption in Italy: Regional panel data analysis. *European Journal of Political Economy*, 23(2):379–396.
- Elbahnasawy, N. G. and Revier, C. F. (2012). The determinants of corruption: Cross-country-panel data analysis. *The Developing Economies*, 50(4):311–333.
- Fisman, R. and Gatti, R. (2002). Decentralization and corruption: evidence across countries. *Journal of public economics*, 83(3):325–345.
- Fonchamnyo, D. C., & Nginyu, G. G. (2023). Does Environmental Sustainability Mediate the Effect of Institutional Quality on Inclusive Development in Sub-Saharan Africa. *Studies in Social Science & Humanities*, 2(1), 8-16.
- Fungacova, Z., M'a'att'a, I., and Weill, L. (2019). Corruption in China: What shapes social attitudes toward it? *Comparative Economic Studies*, pages 1–26.
- Gelb, A., Knight, J. B., Sabot, R. H., et al. (1991). Public sector employment, rent seeking and economic growth. *Economic Journal*, 101(408):1186–99.
- Ghaniy, N. and Hastiadi, F. F. (2017). Political, social and economic determinants of corruption. *International Journal of Economics and Financial Issues*, 7(4):144–149.
- Gnimassoun, B., Massil, J. K., et al. (2019). Determinants of corruption: can we put all countries in the same basket? *European Journal of Comparative Economics*, 16(2):239–276.
- Gru'ndler, K. and Potrafke, N. (2019). Corruption and economic growth: New empirical evidence. *European Journal of Political Economy*, 60:101810.
- Henderson, D. R. (2008). Rent seeking. The Library of Economics and Liberty. <https://www.econlib.org/library/Enc/RentSeeking.html>.
- Hunady, J. (2019). The effect of the internet on corruption awareness and corruption incidence in the EU. *Information Polity*, (Preprint):1–15.
- Jha, C. K. and Sarangi, S. (2018). Women and corruption: What positions must they hold to make a difference? *Journal of Economic Behavior & Organization*, 151:219–233.
- Keynes, J. M. (1936). *The General Theory of Employment, Interest, and Money*. 135.
- Khan, M. (2006). Determinants of corruption in developing countries: the limits of conventional economic analysis. *International handbook on the economics of corruption*, pages 216–244.
- Krueger, A. O. (1974). The political economy of the rent-seeking society. *The American economic review*, 64(3):291–303.
- Larra'ın, F. and Tavares, J. (2000). Can openness deter corruption? *Unpublished working paper, Harvard University. Available online at [http://www.iseg.utl.pt/departamentos/economia/ecosemin/00\\_01/t2000-08.Pdf](http://www.iseg.utl.pt/departamentos/economia/ecosemin/00_01/t2000-08.Pdf), Eri, sim Tarihi*, 30:2017.
- Lind, J. T. and Mehlum, H. (2010). With or without U? the appropriate test for a U-shaped relationship. *Oxford bulletin of economics and statistics*, 72(1):109–118.
- Maguire, D. (2018). Determinants of corruption. *EDPACS*, 58(3):1–23.
- Mathur, N. and Meyer, J. (2017). An empirical analysis of the financial, economic and political determinants of corruption in China. *Economic and Political Determinants of Corruption in China (December 16, 2017)*.
- Mauro, M. P. (1996). *The Effects of Corruption on Growth, Investment, and Government Expenditure*. Number 96-98. International Monetary Fund.
- Mauro, P. (1995). Corruption and growth. *The quarterly journal of economics*, 110(3):681–712.
- McMullan, M. (1961). A theory of corruption. *The Sociological Review*, 9(2):181–201.
- Mills, E. S. (1986). *Burden of Government*. Hoover Press.

- Mo, P. H. (2001). Corruption and economic growth. *Journal of comparative economics*, 29(1):66–79.
- Montinola, G. R. and Jackman, R. W. (2002). Sources of corruption: A cross-country study. *British Journal of Political Science*, 32(1):147–170.
- Nurudeen, A. and Waldemar Staniewski, M. (2019). Determinants of corruption in nigeria: evidence from various estimation techniques. *Economic research-Ekonomska istraživanja*, 32(1):3052–3076.
- Nye, J. S. (1967). Corruption and political development: A cost-benefit analysis. *American political science review*, 61(2):417–427.
- Park, C. H. and Kim, K. (2019). E-government as an anti-corruption tool: panel data analysis across countries. *International Review of Administrative Sciences*, page 0020852318822055.
- Park, H. (2003). Determinants of corruption: A cross-national analysis. *Multinational Business Review*, 11(2):29–48.
- Rahmanian, S., Karimi, M., & Rasekh, K. (2022). Social determinants of tendency to administrative and financial corruption among government employees in JAHROM. *Sociological studies*.
- Saha, S. and Gounder, R. (2013). Corruption and economic development nexus: Variations across income levels in a non-linear framework. *Economic Modelling*, 31:70–79.
- Saleem, H., Jiandong, W., and Khan, M. B. (2019). Determinants of corruption in china: a policy perspective. *Journal of Chinese Governance*, pages 1–25.
- Serra, D. (2006). Empirical determinants of corruption: A sensitivity analysis. *Public Choice*, 126(12):225–256.
- Shabbir, G. and Anwar, M. (2007). Determinants of corruption in developing countries. *The Pakistan Development Review*, pages 751–764.
- Shleifer, A. and Vishny, R. W. (1993). Corruption. *The quarterly journal of economics*, 108(3):599–617.
- Sosa, L. A. (2004). Wages and other determinants of corruption. *Review of Development Economics*, 8(4):597–605.
- Swamy, A., Knack, S., Lee, Y., and Azfar, O. (2001). Gender and corruption. *Journal of development economics*, 64(1):25–55.
- Tanzi, V. and Davoodi, H. (1998). Corruption, public investment, and growth. In *The welfare state, public investment, and growth*, pages 41–60. Springer.
- Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of public economics*, 76(3):399–457.
- Treisman, D. (2007). What have we learned about the causes of corruption from ten years of crossnational empirical research? *Annu. Rev. Polit. Sci.*, 10:211–244.