Asian Journal of Empirical Research
Volume 13, Issue 1 (2023): 1-13.
http://www.aessweb.com/journals/5004

Is the effect of disaggregated public spending on unemployment reinforced by governance in Cameroon?

Dzou Pierre Patrick[a] [f]
Noula Armand Gilbert[b]
Tchouassi Gerard[c]
Chouafi Nguekam Orfe[d]
Ngnemadon Ahmed Ali Salim[e]

[a,b,c,d,e] *University of Dschang, Cameroon.*

[f] ✉ *dzoupierrepatrick@yahoo.fr (Corresponding author)*

Article History
Received: 3 October 2022
Revised: 6 January 2023
Accepted: 23 January 2023
Published: 13 March 2023

Keywords
Disaggregated public spending
Governance
Unemployment.

JEL Classification:
E62; H72.

ABSTRACT
In this article, we sought to examine the effect of Cameroon's public expenditure, with a focus on governance, on the reduction of unemployment from 1988 to 2020. By implementing a multiple linear regression model and applying the OLS method, we found that only military spending significantly contributed to the decrease in youth unemployment. Nonetheless, the efficacy of all types of public expenditure is heavily contingent upon socio-economic conditions. It is apparent that corruption and economic crises contribute greatly to the unemployment rate, hence why public entities must make greater efforts to form a strict institutional framework governing the labor market and invest in anti-exogenous shock programs. This would ensure that unemployment rates can be decreased systematically and substantially.

Contribution/Originality: The study extends the limited research on the understanding how the effect of the componend of public spending on unemployment is reinforced by quality of governance. Our study is among the first to consider governance as an important mediator to take under consideration if public authorities need to improve employment.

DOI: 10.55493/5004.v13i1.4746
ISSN(P): 2306-983X/ ISSN(E): 2224-4425
How to cite: Patrick, D. P., Gilbert, N. A., Gerard, T., Orfe, C. N., & Salim, N. A. A. (2023). Is the effect of disaggregated public spending on unemployment reinforced by governance in Cameroon? *Asian Journal of Empirical Research*, *13*(1), 1–13. 10.55493/5004.v13i1.4746

1. INTRODUCTION
The effects of the components of public spending on unemployment have been the subject of much debate among economists. Most of them believe that the government provides employment opportunities through their spending related to the establishment of socio-economic and cultural infrastructure within the economy. According to Jhingan (2008), the dual purpose of providing infrastructure through public funds is to directly generate employment opportunities while using this equipment to foster and enhance production enterprises to create and offer employment avenues. Employment to the labor force (Araga, 2016). The macroeconomic problem of unemployment is not only the prerogative of developed countries, but also of developing countries in general and Africa in particular. For Nwosa (2014), the role of government through increasing public spending stimulates economic activity as a whole or a given field within the economy. Despite increasing public expenditures, the challenges associated with creating jobs and reducing poverty in African countries remain, due to the need for structural transformations in order to promote investments in agriculture and development of agricultural value chains to drive new production and services. According to African Economic Outlook (2018), the growth rate of public spending in African countries did not match a corresponding increase in the rate of employment. On average, between 2000 and 2008, the rate of employment growth increased by 2.8% each year, which is roughly half the rate of economic growth. Although some African countries experienced greater than 4% increases in employment, they still remained behind in terms of job creation. From 2009 to 2014, the average employment growth rate experienced a slight rise to 3.1%, although it was still 1.4

points behind the average economic growth. Unfortunately, it is mostly women and youths aged between 10 and 24 who have felt the repercussions of slow employment growth. By 2015, an estimated 226 million youths were in Africa, and this number is predicted to jump to 321 million (42%) by 2030. With the growing unemployment rate in many African countries, this means an increase in poverty levels, despite the number of the poor in Africa decreasing from 56% in 1990 to 43% in 2012. At the same time, the Gini coefficient - which is a measure of income inequality - increased from 0.52 in 1993 to 0.56 in 2008, signifying a rise in inequality.

The scarcity of job opportunities in Africa has worsened the situation, as some individuals who possess the required qualifications and skills still remain unemployed (Adawo, Essien, & Ekpo, 2012). There are many workers willing to work at the current wage rate, but cannot find work (Jhingan, 2008). Employment rate (Nwosa, 2014), which measures the proportion of labor force that is employed, also contributes to the high unemployment rates in African countries. The issue of public spending and job creation has generated a range of debates among researchers, with their theoretical and empirical perspectives being quite varied and not always consistent. In light of this, policymakers have argued for the utilization of public sector spending as a way of resolving certain economic issues, such as decreasing poverty, increasing full employment and economic growth, and decreasing the unemployment rate. Nevertheless, the role of public spending in job creation is still debatable.

The verifiable works by Estache, Ianchovichina, Bacon, and Salamon (2016); Holden and Sparrman (2013), Faramarzi, Avazalipour, Khaleghi, and Hakimipour (2014); Carmignani (2014) show that public spending can improve job opportunities thereby reducing unemployment in advanced and third world countries. Nevertheless, despite huge public spending on production zones like infrastructure, public advocacy, sanitation and education in Africa, unemployment rate has continued to rise on the continent. For classical economists, the economy still operates in full employment of labor. Unemployment is non-existent. In fact, any deviation from the equilibrium is automatically corrected by the mechanism of price and formal wage flexibility. Even if there were periods of unemployment, it would not last long, self-adjustment mechanism which works intrinsically to reinstate balance (Onodugo, Obi, Anowor, Nwonye, & Ofoegbu, 2017). Therefore, state intervention in the economy via budget deficit in order to gain full employment is not necessary because full employment is contrary to classical theory, Keynesians argue that the economy is considered intrinsically unsteady because it requires energetic government budget deficit to be able to achieve obtain optimum employment. They argues that government expenditure would influence a positive contribution to the growth of the economy thereby augmenting public utilization via increased opportunities. According to the classical theory, the mobile participation of the government in the market via public spending remained the sole method to achieve maximum employment; thereby safeguarding the full capacity of resource attribution and market maintenance (Sangkuhl, 2015).

Abu and Abdullahi (2010) adding their voices to this theoretical frame work hold that, increased public spending generates increased employment Gross National Product in the classical theoretical frame work. Therefore, the taxation system is a method for achieving while maintaining the rate of maximum opportunities by controlling government spending; revenues in a manner that maintains a balance between forces of demand and supply of goods and services. In the same way, Dewett and Navalur (2012) say the event during a depression, taxation would assist in boosting demand leads to a hyper increase in the final product.

From a critical observation of OECD nations within 1984 and 1993, Abrams (1999) showed that government size was a fairly good predictor of the unemployment rate. These results show that a larger size of taxation can increase the unemployment rate in three ways: First, higher public spending means increase salary wage rate, may impact the opportunity cost of recreation, professionals while creating a period for jobs to be available. Subsequently, large taxation could subsidies sanitation, lower the rate of expenditures on jobless citizens. Finally, large fiscal policy could be endowed with enough measures that could decrease the speedy evolution of the job market. So they can decrease contract the level of private institutions. Using data from an example of 10 European nations, Christopoulos and Tsionas (2002) hypothesize that government size does not directly have an effect towards unemployment levels in most of the nations. However, counter hypothesis was rejected in all countries except Italy. In another field, Feldman and Kelley (2006) exploits records from about 19 advanced nations' countries within 1985 and 2002, and notes the level of the government is likely to positively increase long-term unemployment, especially for women and the low-skilled. Depending on this analysis, seventeen OECD nations (1990-2007), Aysu and Dokmen (2011) suggest that countries with important governments should consider reducing it if they want to lower the average unemployment rate. Ndjié, Ondoa, and Tabi (2019) point out state markers which contribute to reducing unemployment in developing countries like Africa between the years 2002-2016. The General Method of Moments (GMM) estimate shows that corruption control and political stability have a tremendous drawbacks on unemployment in Africa. However, other indicators such as government efficiency, quality of regulation, rule and law, responsibility and voice, did not have the expected effects in African countries.

During the pre-recession period, 1977-2006, Mahdavi and Alanis (2013) find in a survey of 50 state and local governments in the United States that the expended government size has degrading impact on long-term unemployment, with the social insurance spending as a standout factor. The study of Seitaridis and Koulakiotis (2013) confirms these results. Using data from 52 developing countries, Feldmann (2010) noted that a larger size of government significantly increases the total unemployment rate. Similarly, Nwosa (2014) study of the Nigerian economy shows that rising public spending increases unemployment and has a negative but no significant impact on poverty reduction. In fact, he points out that it is higher spending in higher education institutions that produces more job seekers. From a comparative analysis on 32 developed and 51 developing countries between 1996 and 2006, Yongjin (2011) concludes the expanded government size contributes to the decline unemployment rate with a much greater impact in advanced economies than advanced ones. Abouelfarag and Qutb (2020) opine that high public spending on

employee wages and subsidies increased the rate of unemployment in Egypt, despite the fact the country witnessed relatively low level of investment. Cases of civil service in crisis affected countries, Continents like Africa and South Asia, became highly affected by the civil servants' crisis (Lindauer, 1994). In India, due to the periodic review of wages, there has been major pressure on state finances and limited hiring (World Bank, 2015). Several studies have shown that job vacancies established in the public sector are lower as compared to those in the private enterprise. Consequently, inadequate job opportunities are rising (Algan, Cahuc, & Zylberberg, 2002; Behar & Mok, 2013; Craigwell & Jackman, 2014; Malley & Moutos, 1996; Ncube, 2001). According to World Bank (2020), youth unemployment, aged 15 to 24 over the period 1991-2020, illustrates that 8.66% was the normal value for Cameroon, while in 2007, it registered a minimum of 4.55% and a maximum of 12.93% in 1996. Unemployment rate was close to 6.65% in the year 2020, as shown in Figure 1 opposite.

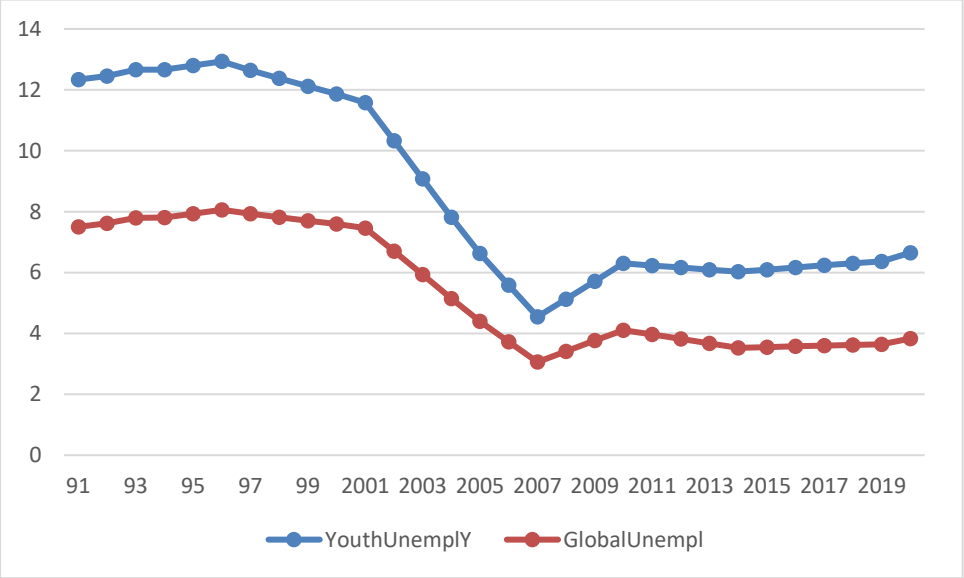

Figure 1. Evolution of youth unemployment and global unemployment in Cameroon.

It can be seen that the value of youth unemployment, although stabilized between 2010 and 2013, has changed slightly since 2020, despite efforts to increase public spending, especially in structuring projects. Two categories of studies emerge from the literature: some highlight the link between public spending and unemployment, and others highlight the effect of governance on unemployment. We stand out from these two categories. Indeed, we seek to identify whether socio-economic conditions and corruption could increase the effectiveness of disaggregated public spending to reduce unemployment in Cameroon. The rest of this paper is as follows: Section 2 is devoted to the literature review, Section 3 is the data and methodology of the study, Section 4 is the results and discussions, and finally Section 5 is the conclusion and economic policy measures.

2. LITERATURE REVIEW

The authors 'work is of two kinds: the link between public spending and unemployment on one hand, and the effects of governance indicators on unemployment on the other .

2.1. Empirical Investigations of the Link Between Public Spending and Unemployment

Holden and Sparrman (2013) evidently analyse the impact of current public spending on unemployment in 20 OECD countries between 1980 and 2007. The use of the factor method used to suggest that when there is a high rate in government expenses, the level of unemployment drops to about 0.3% in the same year. In addition, the result became more significant during periods of slowdown than expansion periods; in a governance of constant exchange rate than in a floating system. Faramarzi et al. (2014) assessed the long-term effects of public spending and liquidity and employment taxes on the Iranian spending using chronological information covering the period 1976-2009. The model estimate Vector Auto-Regression (VAR) and Vector Error Correction Model (VECM) shows that, unlike taxation, public spending has a positive significance on employment and liquidity. Applying VAR strategy in USA, Monacelli and Perotti (2010) have shown that fiscal policy has a great influence on the labor market. In fact, the augmented public expenditure has a multiplier by 1% of Gross Domestic Product (GDP) in output and employment of about 0.6 and 1.3, respectively.

Kasau, Rahmatiah, Madris, and Suhab (2015) assess the direct and indirect impacts of government expenditures on job opportunities in the East and the Kemahiran-Berbahasa-Indonesia (KBI), and the overall influence in the two regions from 2007 to 2013. This platform estimate at the assistance from the SEM (Structural Equation Modeling) found that there were tremendous positive impacts on investment and employment by public spending, whether directly, indirectly or in general. Aziz and Leruth (1997) examine the influence of the compositional change of public expenses on consumer and investment goods on the U.S. budgetary system both on long-term and short fluctuations. The use of the quantitative research method led them to conclude that current consumption expenditures can significantly affect the

short-term efficiency and fragility of macroeconomic entries as output and employment. Employing the Structural Vector Auto-Regression (SVAR) method, Anthanasios (2013) shows that unemployment in Greece has negative influence on government procurement as opposed to taxes. Similarly, Tagkalakis (2013) study in the same country from 2000 to 2012 realised that unemployment decreased relatively to increase in public procurement, payroll, and public investment, but increased in otherwise.

Utilizing the two-step inflation factor and regression factor analysis of Engle and Granger, the studies of Mahmood et al. (2014) in Pakistan illustrate that the expansion of taxation produced increases in production, individual expenditure, and personal investment, while concurrently lowering unemployment. Battaglini and Coate (2011) scrutinize the interaction between fiscal policy and unemployment in OECD countries with panel data ranging from 2006 to 2010. Their technique for estimating public spending had a notable positive effect on the rate of unemployment. With the help of the multiple regression method, Tagkalakis (2013) evaluated the effect of taxation policies on employment in the service sector in Thailand and found that tax policy had little effect on the employment rate. In Umut (2015) study of the effects of taxation in the Netherlands, adopting the VAR estimation technique, the results suggest that tax shocks have a dominant influence on GDP, unemployment rate, consumption, and investment. The consequence of this is that unemployment rises when taxes decrease and decreases when taxes rise. Samira and Khalil (2015) scrutinize the effect of civilian spending on unemployment in Iran between 1997 to 2013 by utilizing the Johansen Co-integration test and the (VAR) and VECM techniques; results implying a long-term correlation and a negative impact of civilian spending on the rate of unemployment.

Nwosa (2014) conducted experiments with the OLS technique of estimation to gauge the effects of public spending on poverty and unemployment rates in Nigeria between 1981 and 2011, finding that public spending directly and substantially affects the rate of unemployment, but have no consequential effect on the poverty rate. Using the Vector Error Correction Model (VECM) and the causality test by Okoye, Evbuomwan, Modebe, and Ezeji (2016) uncovered a substantial negative and causal relationship between public spending and the rate of unemployment in Nigeria. Additionally, Araga (2016) assessed the implications of the structure of public spending, particularly in the sector of road construction, agriculture, and education, on the rate of employment in Nigeria from 1980 to 2014; integrating the VECM and Co-integration. Their findings showed that while road construction, agricultural expenditures, and transportation had an intense negative effect on employment, education expenditures had a substantial positive effect on the employment rate. Moreover, Emeka (2018) studied the link between budget deficit and unemployment in Nigeria using a time series from 1997 to 2017. By implementing linear regression and the Vector Error Correction Mechanism (VECM), the results highlighted that the yearly government deficit has a noteworthy positive impact on unemployment rate in Nigeria.

Murwirapachena, Choga, Maredza, and Mavetera (2013) assessed the impact of tax policy on unemployment in South Africa from 1980 to 2010 by applying the indicator model for error correction and co-integration techniques. The results revealed that recurrent spending government and taxes have a positive relationship with unemployment, whereas total spending has a negative effect. Chimeziri (2016) investigated the effects of federal government spending on unemployment in Nigeria from 1981 to 2014 using the OLS method; the results showing that the components of federal government spending (government spending, economic services, community and social services, and remittances) positively and significantly affect unemployment in Nigeria. With a focus on public spending, it was noted that it strongly affects unemployment in the economic sector. Additionally, Ubi and Inyang (2018) explored Nigeria's economic development from 1980 to 2016 stimulated by its effect on fiscal deficit. Using the quantitative method of analysis, they found that the unemployment rate had no connection with fiscal deficit. Furthermore, Egbulonu and Amadi (2016) examined the binary between unemployment rate and fiscal policy in Nigeria between 1970 and 2013 by deploying the co-integration test and an Error Correction Model (ECM). Their findings imply a long-term correlation between the unemployment rate and the tools of fiscal policy, in addition to a negative association between public spending, public debt, and the unemployment rate in Nigeria; however, income tax has a significantly positive association with the unemployment rate. Additionally, Granger discovered that there was no causality between public spending and unemployment in his causality test. Ultimately, Wosowei (2013) studied the association that exists between public expenditure and the unemployment rate in Nigeria with the help of chronological data spanning the period 1980-2010. Through ordinary least squares (OLS) regression and co-integration technique, it has been revealed that there exists a two-way causal relationship between unemployment and the fiscal deficit.

Egbulonu and Amadi (2016) investigated the link between fiscal policy and the unemployment rate in Nigeria between 1970 and 2013, finding that there was a negative relationship between such policies and long-term fiscal performance. Onodugo et al. (2017) conducted a linear regression model to assess the effects of government expenditure and Private Sector Investment (PSINV) on unemployment in Nigeria between 1980 and 2013. Results demonstrated that spending and investment in the private sector had a negative impact on unemployment both in the short-term and long-term. Abubakar (2016) utilized a Keynesian framework and Structural Vector Auto-Regression (SVAR) technique to analyse the influence of fiscal policy shocks on production and unemployment in Nigeria from 1981 to 2015. Results indicated that public spending shocks on output had a lasting positive effect, with public revenue decreasing short-term unemployment and public spending having no influence on unemployment. Lastly, Fagbohun (2017) and Ayogueze and Anidiobu (2017) both concluded that there is a long-term equilibrium between the variables examined, with government budget deficit having a positive, albeit not statistically significant, effect on the unemployment rate in Nigeria between 1986 and 2015.

2.2. Highlighting Between Governance on Unemployment

Although many studies have examined the link between that exists between public governance and labor market performance, few studies have received empirical facts to justify this link. The link between good public governance and labor market performance has been adequately studied in previous studies. The work of Khraief, Shahbaz, Heshmati, and Azam (2020) note that state intervention policies are needed because they greatly influence labor market training and employment program development. The latter add that state intervention remains actively important even in a liberalized economy, where there are the impact of certain factors like capital mobility, capital-labor substitution and the influence of capital technology on the relocation of production (Khraief et al., 2020).

According to Lel and Miller (2019), the theory of Levit and Malenko (2016) postulate that when indicators of the country's overall administration are low, and leaders gain substantial private benefits by holding the board captive. The labor market is inefficient because governance mechanisms are not respected in countries with low investor protection. For Doidge, Karolyi, and Stulz (2007); Aggarwal, Erel, Ferreira, and Matos (2011), governance plays an insufficient role at the national level in ensuring the proper functioning of the labor market in countries with weak institutions (Aggarwal et al., 2011; Doidge et al., 2007). In developed countries, Hibbs (1986) points out that the left-wing governments favor a correspondingly inadequate unemployment rate and tolerate high inflation rates, while right-wing governments support the idea of moderately low inflation at the expense of a high unemployment rate. Right-wing ideological governments promote property rights and legal quality, while left-wing governments support government intervention in the economy (Bjørnskov, 2005; Fraj, Hamdaoui, & Maktouf, 2018). Leal Filho et al. (2016) argue that for economies characterized by a high level of indicators of good governance, the level of confidence is more receptive to social needs.

The latter noted that some countries, such as Germany, despite a good level of governance at the national level and an average level of confidence, have a high unemployment rate. On the other hand, their results also concluded that former socialist countries with reduced quality of governance at the country level have higher unemployment rates, negatively influencing social cohesion (Leal Filho et al., 2016; Tabellini, 2010). Liew, Ricky, and Chin-Hong (2012) point out that the stabilization of government policies and the efficiency of labor market institutions have played a central role in maintaining sustainable unemployment rates in the countries of the Organization for Economic Co-operation and Development (OECD). Khraief et al. (2020) show that macroeconomic policies are unlikely to have a lasting long-term effect on OECD unemployment rates. Also, they also argue that the labor market is heavily regulated, and training and employment programs are pillars of state intervention policies.

The relevance of government efforts to address the adverse effects of unemployment and to implement various policies to support reintegration into the labor market was emphasized by Bauer (2018), while the fight against the adverse effects of unemployment is the one of the most important goals of governments. Based on a survey of 27 EU countries and using Eurobarometer data, Roth, Felicitas, and Thomas (2011) found that an increase in the unemployment rate is linked to a decline in confidence in government institutions. In addition, they have shown that in the countries of the European Union of 15 (EU-15) in particular, the decline in confidence in the effectiveness of government is linked to an increase in unemployment for all periods, and not only in times of crisis. Battaglini. and Stephen (2016) show that the ineffectiveness of government policies can be one of the causes of rising unemployment. The same authors also stated that the adoption of adequate and effective policies enables the government to completely alleviate long-term unemployment.

3. DATA AND METHODOLOGY

3.1. Data

In order to verify whether empirically, governance stimulates the components of disaggregated spending in the process of reducing unemployment in Cameroon, we essentially use secondary source data from the World Data Indicator (WDI) database. In addition, governance indicators, such as corruption and socio-economic conditions, come from the International Country Risk Guide (ICRG) database and data on public spending in road infrastructure is coming from National Institute of Statistic (NIS). In addition, the data used are time series and cover the period 1988-2020.

3.2. Methodology of Study

A multitude of models assess the effects on unemployment of the macroeconomic variables used in the empirical literature, but the one that is best suited to our case is based on the work of Emeka (2018) and Khraief et al. (2020). Hence the following function:

$$\text{Unempl} = f(\text{DPuExp, PopGowth, Enrol, RGDP, Gov, EcoCrisis}) \quad (1)$$

From this functional relation, we have the Equation 1:

$$Unempl_t = \alpha_0 + \alpha_1 DPuExp_t + \alpha_2 (DPuExp_t * Gov_t) + \sum_i \alpha_i Z_t + \varepsilon_t \quad (2)$$

In Equation 2 represents the unemployment rate of young people aged 15-24. DPuExp is the variable that includes disaggregated public expenditures such as public health expenditures (HealhExp), public expenditures on education (EducExp), military public expenditures (MilExp), and public expenditures on road infrastructure. InfraExp). All these expenditures are determined in proportion to the total public expenditures. The Gov variable represents the quality of governance as measured by corruption (Corrup) and socio-economic conditions (SocioEco). The effect of disaggregated government spending interaction with governance is represented by the variable (DPuExp*Gov). The variable Zt is considered to integrate the PopGrowth population growth rate, the secondary and higher education rate respectively (EnrolSec and EnrolTer), the per capita income measured by (RealGDP) and the economic crises as well as the

exogenous shocks affecting the economy measured by (EcoCrisis). This variable is binary because it takes the value 1 in crisis year and 0 otherwise.

In order to avoid fallacious regression, the unit root test is to the different variables raised in the selected model to identify their order of stationarity. This is necessary for the verification of the existence of a long-term relationship between the variables by the integration test. In fact, the Bounds integration test offers a definite advantage when the variables tested are both I (0) and I (1), in contrast to the Engle and Granger (1987) or the Johansen (1988) which require all variables to be stationary in prime difference.

4. RESULTS AND INTERPRETATIONS

4.1. Preliminary Analysis of Results

Table 1 shows that all variables raised in the analysis are stationary at the level except for the real GDP variable.

Table 1. Summary of stationarity tests.

Variables	Augmented Dickey-Fuller (ADF)		Decision	Philips-Perron (PP)		Decision
	Probability			Probability		
	I(0)	I(1)		I(0)	I(1)	
HealhExp	0.037**	/	I(0)	0.028**	/	I(0)
EducExp	0.047**	/	I(0)	0.036**	/	I(0)
MilExp	0.039**	/	I(0)	0.029**	/	I(0)
RoadExp	0.050*	/	I(0)	0.049**	/	I(0)
PopGrowth	0.045**	/	I(0)	0.037**	/	I(0)
EnrolSec	0.049**	/	I(0)	0.039**	/	I(0)
EnrolTer	0.049**	/	I(0)	0.047**	/	I(0)
Corrup	0.052*	/	I(0)	0.044**	/	I(0)
RealGDP	0.124	0.0000***	I(1)	0.124	0.000***	I(1)

Note: *,**,***représentent respectivement les significativité à 10%, 5% et 1%.

Table 2 shows that Fisher's statistics are below the critical values of Bounds terminals at the 5% threshold. Therefore, there is a lack of co-integration.

Table 2. Bounds integration test.

Country	Cameroon					
Fisher statistic	2.0590					
Level of significance	10%		5%		1%	
	I(0)	I(0)	I(0)	I(1)	I(0)	I(1)
Bounds critical values	2.260	3.350	2.620	3.790	3.410	4.680

This lack of co-integration assumes that we can just make a short-term estimate by the Ordinary Least Square (OLS) method. Table 3 shows the descriptive analysis of the variables. It turns out that outside of real GDP so the characteristics (average, standard deviation) are high, all other variables have low values. Indeed, this result is not surprising, as disaggregated public spending is considered a proportion of total public spending.

Table 3. Descriptive statistic

Variable	Obs.	Mean	Std. dev.	Min.	Max.
Unempl	33	8.792	2.972	4.548	12.933
healhExp	33	1.590	1.193	1.121	1.952
EducExp	33	2.877	0.453	1.779	4.388
MilExp	33	5.176	3.154	1.225	9.835
InfraExp	33	9.179	19.723	5.92	12.541
PopGrowth	33	2.745	0.150	2.554	3.159
EnrolSec	33	36.866	12.758	23.561	60.058
EnrolTer	33	7.843	4.747	2.560	16.962
Corrup	33	3.785	1.116	2	5.244
SocioEco	33	8.514	2.495	4	12.411
PIBr	33	1141.901	312.126	672.8487	1604.214

Table 4 opposite shows that in addition to public spending on health, education, secondary schooling and population growth, which is weakly correlated with the youth unemployment rate, all other variables are in the model are strongly linked to changes in the unemployment rate. These results are necessary but not sufficient evidence to draw conclusions. By ricochet, estimating a model that takes all of these variables into account is necessary.

Table 4. Correlation matrix.

Variables	1	2	3	4	5	6	7	8	9	10	11
Unempl (1)	1.0000										
healhEx (2)	0.369	1.000									
EducEx (3)	-0.218	-0.062	1.000								
MilEx (4)	-0.714	0.107	-0.011	1.000							
InfraEx (5)	-0.746	-0.338	0.238	0.663	1.000						
PopGrow (6)	0.253	-0.017	0.031	-0.463	-0.279	1.000					
EnrolSec (7)	-0.655	-0.481	0.206	0.301	0.550	-0.330	1.000				
EnrolTer (8)	-0.752	-0.473	0.214	0.398	0.635	-0.489	0.811	1.000			
Corrup (9)	-0.736	-0.211	0.007	0.685	0.666	-0.737	0.717	0.842	1.000		
SocioEco (10)	-0.787	-0.085	0.358	0.801	0.695	-0.374	0.533	0.618	0.699	1.000	
PIBr (11)	-0.745	-0.539	0.321	0.367	0.751	-0.124	0.825	0.821	0.615	0.643	1.000

Table 5. Effect of disaggregated public expenditure interaction with corruption on youth unemployment.

Dependent variable: Youth unempl					
Independent variables	**1**	**2**	**3**	**4**	**5**
HealhExp	1.854 (1.67)	1.419 (1.64)	1.302 (1.06)	1.976 (1.81)	1.816 (1.56)
EducExp	-0.823 (-1.62)	-0.538 (-1.00)	-2.479 (-1.52)	-1.016 (-1.96)	-0.794 (-1.43)
MilExp	-0.504*** (-3.79)	-0.508*** (-3.91)	-0.482** (-2.84)	-0.527** (-2.92)	-0.506** (-3.70)
InfraExp	0.00052 (0.29)	0.00058 (0.33)	-0.00029 (-0.15)	0.00068 (0.39)	0.0013 (0.22)
PopGrowth	-4.887** (-2.91)	-3.036** (-3.25)	-4.634** (-3.19)	-6.665** (-3.13)	-4.988** (-3.02)
EnrolSec	0.059 (2.05)	0.056 (1.95)	0.063 (1.16)	0.033 (0.97)	0.061 (1.95)
EnrolTer	0.154** (2.985)	0.085** (2.972)	0.074** (3.16)	0.089** (2.97)	0.059** (3.15)
Corrup	1.237** (2.85)	1.644** (3.11)	2.569** (2.942)	2.177** (2.92)	1.061** (2.829)
SocioEco	0.218 (1.27)	0.172 (1.01)	0.167 (0.94)	0.166 (0.96)	0.224 (1.24)
PIBr	-0.0061*** (-4.13)	-0.0062*** (-4.29)	-0.0062*** (-4.15)	-0.0056*** (-3.68)	-0.0061*** (-4.04)
EcoCrisis	-0.001*** (-2.963)	-0.100*** (-3.23)	-0.008*** (-4.15)	-0.009*** (-4.61)	-0.009*** (-4.16)
CorrHealh		-2.710 (-1.44)			
CorrEduc			0.441 (1.07)		
CorrMil				0.276 (1.37)	
CorrInfra					-0.231 (-0.14)
_cons	3.324*** (4.95)	1.949*** (4.68)	3.854*** (4.62)	4.202*** (4.57)	3.277*** (4.31)
Number of obs.	33	33	33	33	33
F (10, 22)	37.34	35.36	33.91	35.08	32.17
Prob > F	0.000	0.000	0.000	0.000	0.000
R-squared	0.936	0.941	0.939	0.941	0.936
Adj R-squared	0.911	0.915	0.911	0.914	0.907
Correlation LM tests (p)	0.100	0.152	0.182	0.132	0.187
Heteroskedasticity tests (p)	0.102	0.121	0.110	0.193	0.169
Normality tests (p)	0.114	0.104	0.148	0.165	0.155

Note: (p) is probability, t statistics in parentheses, ** p<0.05, *** p<0.001.

4.2. Estimation of the Model Itself

In all estimates, therefore, the results are summarized in Tables 5 and 6 the values of the coefficients of corrected determination are greater than 0.75. Therefore, the estimates are generally well adjusted. In addition, the results are

significantly overall, as the probabilities of Fisher's statistics are all below the 1% threshold. Examination of the residue shows that our model does not violate any of the assumptions of the error term. In other words, there is no autocorrelation and heteroskedasticity, as the probability values obtained are all above the 5% significant threshold.

Table 6. Effect of the interaction of disaggregated public spending with socio-economic conditions on youth unemployment.

Dependent variable: Youth unempl				
Independent variables	**6**	**7**	**8**	**9**
HealhExp	13.21 (1.74)	1.563 (1.34)	1.858 (1.63)	0.758 (0.93)
EducExp	-0.461 (-0.84)	-1.807 (-1.43)	-0.825 (-1.58)	-0.621 (-1.12)
MilExp	-0.472** (-3.37)	-0.463** (-3.25)	-0.498** (-3.28)	-0.503** (-3.38)
InfraExp	0.000452 (0.26)	0.000196 (0.11)	0.00000549 (0.00)	0.00000442 (0.06)
PopGrowth	-2.925* (-2.20)	-4.628* (-2.15)	-4.773* (-2.29)	-3.172* (-2.32)
EnrolSec	0.0743 (1.48)	0.0629 (1.13)	0.0609 (1.93)	0.0518 (1.64)
EnrolTer	0.0943** (3.18)	0.1601** (3.13)	0.0866** (2.93)	0.0991** (3.04)
Corrup	1.026** (2.981)	1.311** (2.86)	1.231** (2.94)	1.132** (2.91)
SocioEco	0.784 (1.91)	-0.133 (-0.30)	0.165 (0.28)	0.165 (0.28)
PIBr	-0.00661*** (-4.47)	-0.00614*** (-4.11)	-0.00617*** (-3.99)	-0.00508*** (-4.28)
EcoCrisis	-0.0001*** (-5.181)	-0.00113*** (-4.91)	-0.00200*** (-3.85)	-0.00130*** (-5.09)
SocioHeal	-1.056*** (-3.67)			
SocioEduc		-0.118** (2.88)		
SocioMil			-0.0553** (-3.09)	
SocioInfra				-0.0621** (-2.87)
_cons	1.956** (2.75)	3.584*** (4.83)	3.333*** (4.80)	2.321*** (5.09)
Number of obs.	33	33	33	33
F (10, 22)	47.31	45.68	43.92	48.18
Prob > F	0.0000	0.0000	0.0000	0.0000
R-squared	0.8359	0.8419	0.8913	0.8410
Adj R-squared	0.8109	0.8143	0.8514	0.8240
Correlation LM Tests (p)	0.1104	0.1123	0.1715	0.1819
Heteroskedasticity Tests (p)	0.2191	0.1273	0.1198	0.1992
Normality Tests (p)	0.5140	0.1048	0.1575	0.1649

Note: (p) is probability, t statistics in parentheses; * p<0.05, ** p<0.01, *** p<0.001

Specifically, it can be seen from Tables 5 and 6 that only military public spending contributes significantly to reducing youth unemployment in Cameroon. In other words, a 1% increase in military spending stimulates a 0.5% drop in corruption on average. These results are similar with that of Chimeziri (2016) on the Nigerian economy. In fact, for the latter, public spending on social and community services systematically reduces the evolution of unemployment. In addition, the increase in real GDP would reduce the unemployment rate. This study differs from the previous ones in that it also shows that the improvement in the purchasing power of economic agents could lead to a decrease in the unemployment rate in Cameroon. On the other hand, rising corruption rates amplify the evolution of youth unemployment and even the overall unemployment rate. A 1% increase in the corruption rate increases the average unemployment rate by 1.56%. These results corroborate those of Charron, Lapuente, and Rothstein (2010); Salami (2013), in their article on youth unemployment in Nigeria. Indeed, they show the indirect effect of corruption and government efficiency which, by discouraging foreign direct investment (FDI) due to the additional cost of doing business, increases the unemployment rate. Going in the same direction, Djankov and Ramalho (2009) point out that

labor regulation has no effect in countries where the rule of law is weak. If labor regulation is not effective, government action will have the desired effect only in resolving the issue of youth unemployment.

In addition, our analyzes highlight that consideration of socioeconomic conditions enhances the efficiency of disaggregated government spending in Table 6. As indicated by the interactive variables socioHeal, socioEduc, socioMil, and socioInfra. Thus, the significant impact of public spending on unemployment can only be made in consideration of this (socio-economic) variable. This result is in line with that of Lu Tran (2014) who suggests that governments are essential in the fight against youth unemployment because they provide an environment conducive to youth development. If economic environment is unregulated by government, youth unemployment could suffer. It is also clear from the estimates in Tables 5 and 6 that an increase in the level of tertiary education increases unemployment in Cameroon. In fact, a 1% increase in the level of higher education increases unemployment by an average of 0.1%. It is also important to note that the various economic crises due to exogenous shocks to the Cameroonian economy have a negative and significant effect on the unemployment rate. These findings are in line with the analysis of Peace Child International (2015), which highlights the effects of the financial crisis, skills mismatch, lack of entrepreneurship and life skills education, disproportionate access to technology and the Internet in the world as key factors in raising youth unemployment. These results are also in agreement with those of Roaf, Atoyan, Joshi, and Krogulski (2014). In a report in the International Monetary Fund (IMF) report on 25 years of post-communist Europe transitions, the transition from central planning to market economies was accompanied by rigidity in the labor market. In addition, they point out that rising emigration, trade union groups are the main direct drivers of youth unemployment in the former communist countries.

Table 7. Effect of the interaction of disaggregated public expenditure with corruption on global unemployment.

Dependant variable: Global unempl				
Independent variables	**1'**	**2'**	**3'**	**4'**
healhExp	12.66 (1.55)	1.821 (1.55)	1.741 (1.76)	1.908 (1.80)
EducExp	-0.0431 (-0.09)	0.405 (0.26)	-0.543 (-1.16)	-0.535 (-1.06)
MilExp	-0.00468** (-2.74)	-0.0335** (-2.93)	-1.299** (-2.89)	0.0196** (2.96)
InfraExp	-0.00279 (-1.71)	-0.00249 (-1.35)	-0.00262 (-1.66)	-0.00967 (-1.77)
PopGrowth	-9.118*** (-3.97)	-10.89*** (-5.35)	-13.03*** (-5.88)	-9.951*** (-4.84)
EnrolSec	0.0406 (1.50)	0.0428 (1.52)	0.0108 (0.34)	0.0321 (1.12)
EnrolTer	0.0561** (3.150)	0.0629** (2.985)	0.0518** (3.14)	0.0490** (3.12)
Corrup	0.203** (2.95)	0.920** (2.97)	2.678** (3.56)	2.942** (2.87)
SocioEco	-0.0982 (-0.61)	-0.0351 (-0.21)	-0.124 (-0.79)	-0.102 (-0.63)
PIBr	-0.00162** (-3.18)	-0.00153** (-3.08)	-0.000819** (-3.06)	-0.00160** (-3.16)
EcoCrisis	-0.00101** (-3.01)	-0.00211** (-2.892)	-0.00108** (-2.964)	-0.00246** (-2.968)
CorrHealh	-2.433 (-1.37)			
CorrEduc		-0.187 (-0.47)		
CorrMil			0.351 (1.92)	
CorrInfra				0.191 (1.31)
_cons	3.118** (2.84)	4.127*** (5.16)	5.466*** (6.56)	4.742*** (6.88)
Number of Obs	33	33	33	33
F (10, 22)	16.87	15.56	18.32	16.76
Prob > F	0.0000	0.0000	0.0000	0.0000
R-squared	0.8847	0.8761	0.8928	0.8840
Adj R-squared	0.8322	0.8198	0.8441	0.8313
Correlation LM Tests (p)	0.1604	0.2531	0.2816	0.2814
Heteroskedasticity Tests (p)	0.2090	0.2272	0.2195	0.2992
Normality Tests (p)	0.2141	0.2042	0.2471	0.2648

Note: (p) is probability, t statistics in parentheses; ** p<0.01, *** p<0.001.

4.3. Robustness Analysis

In Tables 7 and 8 we summarize the estimates by substituting the variable youth unemployment for the overall unemployment rate in the economy. We obtain results similar to previous estimates. That is to say, our results are robust.

Table 8. Effect of the interaction of disaggregated public expenditure on socio-economic conditions on global unemployment.

Dependent variable: Global unempl				
Independent variables	**5'**	**6'**	**7'**	**8'**
HealhExp	13.78 (1.96)	1.766 (1.59)	1.264 (1.18)	1.644 (1.64)
EducExp	0.0901 (0.18)	0.310 (0.26)	-0.466 (-0.94)	-0.333 (-0.72)
MilExp	-0.0549** (-2.84)	-0.0266** (-2.89)	-0.410** (-2.90)	-0.100** (-2.95)
InfraExp	-0.00291 (-1.82)	-0.00264 (-1.53)	-0.00289 (-1.75)	-0.0110* (-2.17)
PopGrowth	-8.674*** (-3.85)	-10.94*** (-5.37)	-10.84*** (-5.50)	-8.932*** (-4.07)
EnrolSec	0.0597 (1.15)	0.0424 (1.51)	0.0612 (1.98)	0.0595 (1.14)
EnrolTer	0.0907** (2.994)	0.0620** (3.15)	0.0582** (2.98)	0.0496** (2.946)
Corrup	1.259** (2.88)	1.440** (3.10)	1.610** (3.51)	1.387** (3.18)
SocioEco	0.551 (1.45)	0.160 (0.38)	-0.293 (-1.13)	-0.906 (-1.73)
PIBr	-0.00204** (-2.97)	-0.00154** (-3.08)	-0.00172** (-3.11)	-0.00197** (-3.0)
EcoCrisis	-0.004** (-3.07)	-0.0014** (-2.879)	-0.0011** (-3.0)	-0.0031** (-2.98)
SocioHeal	-1.134** (-2.95)			
SocioEduc		-0.0728** (-3.05)		
SocioMil			-0.0526** (3.01)	
SocioInfra				-0.0890** (2.89)
_cons	2.884* (2.79)	4.192*** (5.96)	4.595*** (6.96)	4.506*** (7.34)
Number of obs.	33	33	33	33
F (10, 22)	17.84	15.63	16.47	17.69
Prob > F	0.0000	0.0000	0.0000	0.0000
R-squared	0.8902	0.8766	0.8821	0.8894
Adj R-squared	0.8403	0.8205	0.8286	0.8391
Correlation LM tests (p)	0.4624	0.2735	0.4813	0.3815
Heteroskedasticity tests (p)	0.3193	0.1272	0.1120	0.2791
Normality tests (p)	0.2541	0.2842	0.2572	0.3659

Note: (p) is probability, t statistics in parentheses; * p<0.05, ** p<0.01, *** p<0.001.

5. CONCLUSIONS AND ECONOMIC POLICY RECOMMENDATIONS

Ultimately, we were talking about assessing the effects of disaggregated public spending on youth unemployment in Cameroon over the period 1988-2020. Of the four categories of public spending, only military public spending contributes significantly to reducing unemployment. However, the effectiveness of other types of public spending (health, education and road infrastructure spending) is linked to taking into account the prevailing socio-economic conditions in the economy. In addition, the number of economic crises and exogenous shocks are other reasons added to the lack of entrepreneurship and life education in entrepreneurship are factors that explain the rise in the youth unemployment rate in Cameroon. . These results are close to those of Peace Child International (2015); Roaf et al. (2014); Bauer (2018); Khraief et al. (2020). It is without a doubt that the government is making a great effort in this direction with the professionalization of teaching, the support of large-scale micro-projects. However, the definition of an institutional and regulatory framework that rigorously governs the labor market is a guarantee of a significant positive impact on each component of government spending. There is also an urgent need for a budget line that will

allow the state to fight the many crises that are weakening the economy and frustrating the government's efforts to combat this scourge.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study.

REFERENCES

Abouelfarag, H. A., & Qutb, R. (2020). Does government expenditure reduce unemployment in Egypt? *Journal of Economic and Administrative Sciences, 37*(3), 355-374. https://doi.org/10.1108/JEAS-01-2020-0011

Abrams, B. A. (1999). The effect of government size on the unemployment rate. *Public Choice, 99*(3), 395-401.

Abu, N., & Abdullahi, U. (2010). Government expenditure and economic growth in Nigeria: A disaggregated analysis. *Business and Economics Journal, 4*, 1-11.

Abubakar, A. (2016). Dynamic effects of fiscal policy on output and unemployment in Nigeria: An econometric investigation. *CBN, Journal of Applied Statistics, 7*(2), 101-122.

Adawo, M., Essien, E., & Ekpo, N. (2012). Is Nigeria's unemployment problem unsolvable. *Current Research Journal of Social Sciences, 4*(6), 389-395.

African Economic Outlook. (2018). *The dynamics of productivity and unemployment nexus: Implications for employment generation in Nigeria, African development bank.* Retrieved from www.afdb.org

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics, 100*(1), 154-181. https://doi.org/10.1016/j.jfineco.2010.10.018

Algan, Y., Cahuc, P., & Zylberberg, A. (2002). Public employment: Does it increase unemployment? *Economic Policy, 17*(34), 7-66. https://doi.org/10.1111/1468-0327.00083

Anthanasios, O. (2013). The unemployment effects of fiscal policy: Recent evidence from Greece. *Iza Journal of European Labour Studies, 2*(11), 234-253. https://doi.org/10.1186/2193-9012-2-11

Araga, A. (2016). Impact of government expenditure on employment generation: Evidence from Nigeria. *Extracted from Academia. edu.*

Ayogueze, N. F., & Anidiobu, G. A. (2017). Assessment of impact of government budget deficits on unemployment rate in Nigeria. *Journal of Economics and Finance, 8*(6), 18-26.

Aysu, A., & Dokmen, G. (2011). An investigation on the relationship between government size and unemployment rate: Evidence from OECD countries. *Sosyoekonomi, 16*(6), 179–190.

Aziz, J., & Leruth, L. (1997). *Cyclical effects of government purchases.* Retrieved from International Monetary Fund Working Paper No. WP/97/19, IMF.

Battaglini, M., & Coate, S. (2011). *Fiscal policy and unemployment.* Retrieved from National Bureau of Economic Research, (No. w17562).

Battaglini., M., & Stephen, C. (2016). A political economy theory of fiscal policy and unemployment. *Journal of the European Economic Association, 14*(2), 303-337. https://doi.org/10.1111/jeea.12136

Bauer, P. C. (2018). Unemployment, trust in government, and satisfaction with democracy: An empirical investigation. *Socius, 4*, 2378023117750533. https://doi.org/10.1177/2378023120946768

Behar, A., & Mok, J. (2013). *Does public-sector employment fully crowd out private-sector employment?* Retrieved from IMF Working Paper No. WP/13/146.

Bjørnskov, C. (2005). Does political ideology affect economic growth? *Public Choice, 123*(1), 133-146. https://doi.org/10.1007/s11127-005-0263-3

Carmignani, F. (2014). *Does Government expenditure multiply output and employment in Australia?* Retrieved from Griffith Business School Discussion Paper in Economics, No. 2014-08, Griffith University, Brisbane; 2011.

Charron, N., Lapuente, V., & Rothstein, B. (2010). *Measuring quality of government and Sub-national variation.* Gothenburg: University of Gothenburg.

Chimeziri, A. O. (2016). *Effect of federal government expenditure on unemployment in Nigeria: An empirical study. A thesis submitted to the department of financial management technology.* Nigeria: School of Management Technology, Federal University of Technology Owerri.

Christopoulos, D. K., & Tsionas, E. G. (2002). Unemployment and government size: Is there any credible causality? *Applied Economics Letters, 9*(12), 797-800. https://doi.org/10.1080/13504850210129432

Craigwell, R., & Jackman, M. (2014). Does government employment crowd out private sector employment in sids? The case of Barbados. *The Journal of Developing Areas, 48*(4), 309-326. https://doi.org/10.1353/jda.2014.0068

Dewett, K. K., & Navalur, M. H. (2012). *Modern economic theory.* New Delhi: S. Chand & company LTD.

Djankov, S., & Ramalho, R. (2009). Employment laws in developing countries. *Journal of Comparative Economics, 37*(1), 3-13. https://doi.org/10.1016/j.jce.2008.10.003

Doidge, C., Karolyi, G. A., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics, 86*(1), 1-39. https://doi.org/10.1016/j.jfineco.2006.09.002

Egbulonu, K., & Amadi, K. (2016). Effect of fiscal policy on unemployment in the Nigerian economy. *International Journal of Innovative Finance and Economics Research, 4*(3), 1-7.

Emeka, E. E. (2018). An empirical analysis of the budget deficit and unemployment nexus in Nigeria. *International Journal of Contemporary Applied Researches, 5*(9), 23-45.

Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: Representation, estimation and testing. *Econometrica, 55*(2), 251-276. https://doi.org/10.2307/1913236

Estache, A., Ianchovichina, E., Bacon, R., & Salamon, I. (2016). Infrastructure and employment creation in the Middle East and North Africa, World Bank Report on Direction in Development of Infrastructure; Retrieved from: https://openknowledge.worldbank.org/bitstream/handle/10986/12237/NonAsciiFileName0.pdf?se.

Fagbohun, A. (2017). The economic performance of budget deficit in Nigeria. *Research Journal of Finance and Accounting*, *8*(8), 128-135.

Faramarzi, A., Avazalipour, M. S., Khaleghi, F., & Hakimipour, N. (2014). Long run impact of government expenditure and tax on liquidity and employment in Iran economy. *International Journal of Research and Reviews in Applied Sciences*, *18*(1), 65-72.

Feldman, M. P., & Kelley, M. R. (2006). The ex ante assessment of knowledge spillovers: Government R&D policy, economic incentives and private firm behavior. *Research Policy*, *35*(10), 1509-1521. https://doi.org/10.1016/j.respol.2006.09.019

Feldmann, H. (2010). Government size and unemployment in developing countries. *Applied Economic Letters*, *17*(3), 289–292. https://doi.org/10.1080/13504850701720221

Fraj, S. H., Hamdaoui, M., & Maktouf, S. (2018). Governance and economic growth: The role of the exchange rate regime. *International Economics*, *156*, 326-364. https://doi.org/10.1016/j.inteco.2018.05.003

Hibbs, D. A. (1986). Political parties and macroeconomic policies and outcomes in the United States. *The American Economic Review*, *76*(2), 66-70.

Holden, S., & Sparrman, V. (2013). *Do government purchases affect unemployment?* Retrieved from http://folk.uio.no/sholden/wp/fiscal-U.pdf

Jhingan, M. (2008). *Monetary economics*. Delhi: Vrinda Publications Ltd.

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control*, *12*(2-3), 231-254. https://doi.org/10.1016/0165-1889(88)90041-3

Kasau, M., Rahmatiah, H., Madris, H., & Suhab, S. (2015). Effect of government spending on employment through investment and its impact on the Eastern and Western Indonesia. *International Journal of Research in Social Sciences*, *5*(5), 55-64.

Khraief, N., Shahbaz, M., Heshmati, A., & Azam, M. (2020). *Are unemployment rates in oecd countries stationary? Evidence from univariate and panel unit root tests*. Retrieved from IZA Discussion Papers, No. 9571, Institute for the Study of Labor (IZA), Bonn: http://hdl.handle.net/10419/126669

Leal Filho, W., Platje, J., Gerstlberger, W., Ciegis, R., Kääriä, J., Klavins, M., & Kliucininkas, L. (2016). The role of governance in realising the transition towards sustainable societies. *Journal of Cleaner Production*, *113*, 755-766. https://doi.org/10.1016/j.jclepro.2015.11.060

Lel, U., & Miller, D. (2019). The labor market for directors and externalities in corporate governance: Evidence from the international labor market. *Journal of Accounting and Economics*, *68*(1), 101222. https://doi.org/10.1016/j.jacceco.2018.12.001

Levit, D., & Malenko, N. (2016). The labor market for directors and externalities in corporate governance. *The Journal of Finance*, *71*(2), 775-808. https://doi.org/10.1111/jofi.12287

Liew, V. K.-S., Ricky, C.-J. C., & Chin-Hong, P. (2012). *Does hysteresis unemployment occur in OECD countries? Evidence from parametric and nonparametric panel unit root tests*. Retrieved from MPRA Paper No. 9915: https://mpra.ub.uni-muenchen.de/9915/

Lindauer, D. L. (1994). Government pay and employment policies and economic performance. In D. L. Lindauer & B. Nunberg (Eds). Rehabilitating Government: Pay and Employment in Africa. In (pp. 17–32). H Street, N. W. Washington D. C.: The World Bank Regional and Sectoral Studies 1818.

Lu Tran, D. (2014). The importance of good governments for youth employment.

Mahdavi, S., & Alanis, E. (2013). Public expenditures and the unemployment rate in the American states: Panel evidence. *Applied Economics*, *45*(20), 2926-2937. https://doi.org/10.1080/00036846.2012.690849

Mahmood, T., Ali, A., Akhtar, N., Iqbal, M., Qamar, S., Nazir, H., . . . Sana, I. (2014). Determinants of unemployment in Pakistan: A statistical study. *International Journal of Asian Social Science*, *4*(12), 1163-1175.

Malley, J., & Moutos, T. (1996). Does government employment "crowd out" private employment? Evidence from Sweden. *Scandinavian Journal of Economics*, *98*(2), 289–302.

Monacelli, T., & Perotti, R. (2010). Fiscal policy, the real exchange rate and traded goods. *The Economic Journal*, *120*(544), 437-461. https://doi.org/10.1111/j.1468-0297.2010.02362.x

Murwirapachena, G., Choga, I., Maredza, A., & Mavetera, N. (2013). Fiscal policy and unemployment in South Africa: 1980–2010. *Mediterranean Journal of Social Sciences*, *4*(6), 579-579.

Ncube, M. (2001). The crowding out effect in a developing country's labour market: Evidence from Zimbabwe. *The South African Journal of Economics*, *69*(3), 474–500. https://doi.org/10.1111/j.1813-6982.2001.tb00022.x

Ndjié, A. A., Ondoa, A. H., & Tabi, N. H. (2019). Governance and youth unemployment in Africa: Labor history. *Taylor & Francis Online: Peer-Reviewed Journals*, *60*(6), 869-882. https://doi.org/10.1080/0023656X.2019.1645320

Nwosa, P. (2014). Government expenditure, unemployment and poverty rates in Nigeria. *Journal Research in National Development*, *12*(1), 77-84.

Okoye, L., Evbuomwan, G., Modebe, N., & Ezeji, F. (2016). Macroeconomic performance and government fiscal deficits-Evidence from Nigeria. *Nigerian Journal of Management Technology & Development*, *7*(2), 1-8.

Onodugo, V. A., Obi, K. O., Anowor, O. F., Nwonye, N. G., & Ofoegbu, G. N. (2017). Does public spending affect unemployment in an emerging market. *Risk Governance & Control: Financial Markets & Institutions*, *7*(1), 32-40. https://doi.org/10.22495/rgcv7i1art4

Peace Child International. (2015). Youth unemployment causes and solutions, peace child International. Retrieved from: http://peacechild.org/youth-unemployment-causes-and-solutions/ [Accessed 31 May 2016].

Roaf, J., Atoyan, R., Joshi, B., & Krogulski, K. (2014). *25 years of transition post-communist Europe and the IMF*. Washington, D. C: International Monetary Fund.

Roth, F., Felicitas, N.-L. D., & Thomas, O. (2011). *Has the financial crisis shattered citizens' trust in national and European governmental institutions? Evidence from the E.U. Member States, 1999–2010*. Retrieved from Centre for European Policy Studies Papers, No. 343. Brussels: Centre for European Policy Studies.

Salami, C. (2013). Youth unemployment in Nigeria: A time for creative intervention. *International Journal of Business and Marketing Management*, *1*(2), 18-26.

Samira, R., & Khalil, S. (2015). The effect of government expenditure on unemployment rate for Iran. *International Journal of Review in Life Science*, *5*(7), 109-116.

Sangkuhl, E. (2015). How the macroeconomic theories of Keynes influenced the development of Government Economic Finance Policy after the great depression of the 1930's: Using Australia as the Example. *Athens Journal of Law*, *1*(1), 32-52.

Seitaridis, M., & Koulakiotis, A. (2013). Unemployment and government expenditure in the Eurozone: A panel data analysis. *Public Municipal Finance*, *2*(2), 35-46.

Tabellini, G. (2010). Culture and institutions: Economic development in the regions of Europe. *Journal of the European Economic Association*, *8*(4), 677-716. https://doi.org/10.1111/j.1542-4774.2010.tb00537.x

Tagkalakis, A. O. (2013). The unemployment effects of fiscal policy: Recent evidence from Greece. *IZA J Labor Stud*, *2*(2013), 11. https://doi.org/10.1186/2193-9012-2-11

Ubi, P., & Inyang, J. (2018). Fiscal deficit and Nigeria's economic development. *International Journal of Economics, Commerce and Management*, *6*(5), 137–150.

Umut, U. (2015). The unemployment effects of fiscal policy in Netherland. *The Journal of Faculty of Economics and Administrative Sciences*, *20*(1), 143-153.

World Bank. (2015). *Financial inclusion, growth and poverty reduction*. Paper presented at the CEMAC Regional Conference.

World Bank. (2020). *World economy report*. NW Washington, USA: The World Bank.

Wosowei, E. (2013). Fiscal deficits and macroeconomic aggregates in Nigeria. *Kuwait Chapter of Arabian Journal of Business and Management Review*, *33*(858), 1-11.

Yongjin, S. (2011). Government size, economic growth and unemployment: Evidence from advanced and developing economy countries (A Time Series Analysis, 1996–2006). *International Review of Public Administration*, *16*(2), 95–116.