International Journal of Economics, Commerce and Management
United Kingdom ISSN 2348 0386 Vol. 14, Issue 6, June 2026

https://ijecm.co.uk/

TREND OF WAGE SPENDING IN PUBLIC SECTOR DURING ELECTORAL CYCLES: CASE OF ALBANIA

Arjan Tushaj

Department of Economics, University of Tirana, Albania

arjantushaj@feut.edu.al; arjan.tushaj@unitir.edu.al

Desantila Muja

Department of Economics, University of Tirana / Ministry of Finance, Albania

desantila.muja@unitir.edu.al; desantila.muja@yahoo.com

Valentina Sinaj

Department of Statistics and Applied Informatics, University of Tirana, Albania

valentina.sinaj@unitir.edu.al; sinajv@yahoo.com

Abstract

This article examines the propensities of wage spending in the public sector during the electoral cycles in Albania during 1993 – 2024. The government behaviour was affected by the reality of a political budget cycle through the distortions of diverse fiscal instruments, particularly the public wage expenditure, in developing countries, likewise Albania. The empirical results of linear modelling demonstrate the countercyclicality of wage expenditures in public sector to the business cycles through the negative relationship amongst the economic growth rate and public wage spending. Meanwhile the political cyclicality throughout the electoral cycles is proven through the positive effect of the economic growth rate on the wage expenses during the election years. However, the empirical outcomes illustrate that the personnel expenditures are pro-cyclical to the business cycles throughout demonstrating the positive effect of the economic growth rate on the personnel expenditures. Otherwise, the political pro-cyclicality of personnel expenditures is evidenced through the higher sensitivity and significant statistically to the economic growth ratio during *the election years converging to the political budget cycles. Meanwhile, the empirical estimations evidence the countercyclical reaction of the public sector through the personnel spending towards the unemployment rate.*

Keywords: Public Wage Spending, Political budget cycle, Electoral cycle, Albania

INTRODUCTION

Opportunistic behaviours of governments towards the use of fiscal policy instruments, particularly in developing countries, are inevitable. In the context of rational and non-opportunistic behaviour, the effectiveness of using appropriate institutional mechanisms has been proven to limit the discretionary spending policies and to strengthen fiscal control, in order to avoid the design and implementation of opportunistic fiscal policies on the eve of political elections. The implementation of increased public spending instead of tax cuts, and the public investment cycles before the political elections have been identified as the most prominent tools for expansionary fiscal policies in order to influence the results of political elections, especially in developing countries (Schuknecht (2000)).

Empirical evidence suggests that fiscal rules can limit the political budget cycle by taking into account the capital spending at the local level. The increase of real capital spending is significant during pre-election years in municipalities where fiscal rules are not applied. (Bonfatti and Forni (2019)).

Analysis of models of political budget cycles reveals the efforts of incumbents to affect the voter choice through the variations related to the structure of government expenditure compare to the total government spending or total revenues. The outcomes of these models demonstrated both an increase to the targeted pre-election government spending associated with the shrinkage of further categories of government spending, and the rejoinder of targeted voters. The results of the corresponding model provide a classification of voter-targeted and non-voter-oriented spending taking into consideration to indicators of local public finances. However, the coherent voters oriented to support an official through the targeted pre-election spending, despite of these spending contribute to the opportunistic manipulation, meanwhile they might demonstrate the incumbent's right preference related to the expenditure sorts favoring voters (Drazen and Eslava (2005)).

Meanwhile, it was examined the impact of political business cycles related to the local employment in Portugal. The outcomes proved the substantial evidence towards the propensity of local employment during the electoral cycles in municipalities. Furthermore, it was found the higher local hiring level throughout the local pre-election times by the local leaders and deputies governing municipalities during the re-election process of them (Coelco et al. (2006)).

Nevertheless, it was explored the dynamics of wage spending focusing to several developing and developed countries during 1979–2009. The empirical evidences demonstrated the decisive sustain decreasing of public wage expenditure in order to endure the fiscal consolidation before and after diverse shocks. It was highlighted that the wage policies associated with structural actions taking into the consideration of crucial societal discourse (Forni and Novta (2014)).

According to the similar dynamics of developing countries, Albanian government demonstrated the opportunistic behaviour throughout the altering capital spending before the political elections without considering the fiscal discipline. These expenditures in Albania were increased by 10 percentage points and 11.3 percentage points to GDP during the electoral years, 2017 and 2021, correspondingly (Ministry of Finance, Albania, 2025).

The article continues to the following section to examine the theoretical and empirical literature related to the opportunistic behaviour of the governments through the distortions of spending composition during electoral periods. Furthermore, the methodology section provides the methodological approach and empirical results. The final section demonstrates the concluding remarks related to the governments' behaviours during electoral cycles.

LITERATURE REVIEW

Theoretical and empirical literature has explored the diverse dimensions of political budget cycles by diagnosing the influence of incumbent governments to ensure their political re-election through voter-motivated fiscal policy instruments.

de Haan et al. (2023) investigated the effects of elections towards the corrosions of fiscal results in numerous developing countries. They highlighted that the primary deficits increased pointedly throughout elections. The authors emphasized the growth of primary expenditure, particularly the governmental wage spending, but they concluded the declining of revenues by indirect taxes knowingly. Nevertheless, they confirmed that the weakening primary deficits was not relaxed post elections, but the distortions of primary expenditure post elections were moderately slow – down mostly related to wounds of capital expenditure. Authors found that robust fiscal rules contributed to ease the elections effects towards the fiscal circumstances in order to provide the sustainable public finances.

Dahlberg and Mörk (2011) examined the elections effect towards the local public employment in Sweden and Finland. Their outcomes demonstrated the substantial impact of election year related to employment by municipalities in two countries through rising it around 1%.

Vergne (2011) examined the structure of government expenditure during the electoral cycles in emerging countries. She provided the effect of election year related to the distribution of public spending. Her outcomes demonstrated the convergence of public expenditure composition towards the current spending, particularly towards the wages and subsidies spending, diverging from the capital spending throughout the electoral time. Author highlighted that the duration of electoral pressure towards the distribution of governmental expenditure would occur probably despite of future maturity of electoral politics in the developing countries.

Lane (2003) investigated the cyclicality of fiscal policy in OECD countries through using expenditure types. He highlighted that procyclical fiscal policies implemented in countries with unstable output and discrete political control. Meanwhile, he provided the fiscal cyclicality the wage government consumption.

Eckardt and Mills (2014) examined the cyclical effect of governmental expenditure related to the wages of public sector during the global financial crisis of 2008 and pre-time and post-time of it in European countries and Central Asia countries. Their results demonstrated the substantial gap amongst countries, but public sector wage expenses provided the pro-cyclical behaviour particularly in emerging countries during economic expansions and recessions. Meanwhile, the authors emphasized that the pro-cyclicality of them inclined more sensitive during the economic recession and pre-election years. The empirical results of authors highlighted the running of public wage spending in order to provide the robust fiscal consolidation taking into consideration the effects of countercyclicality.

Cahuc and Carcillo (2012) investigated the correlation amongst the public-sector wage expenditure and fiscal deficit across OECD countries during 1995 to 2009. They found that the increased ratio of public-sector wage spending over Gross Domestic Product and fiscal deficits associated with fiscal distortions in these countries during the economic expansions and election times, excepting the consideration of severe downturn in 2009. Meanwhile, the occurrences of fiscal shrinking associated with cuts of GDP ratio over public-sector wage expenditures and budget deficits were more habitually during downturns compare to economic growths.

Otherwise, Lamo et al. (2007) investigated the propensity of public consumption, public wage spending and intermediate consumption in the countries of euro zone and several selected OECD countries out of euro zone during 1960-2005. They provide the significant outcomes related to the pro-cyclical behaviour of public consumption, wages and employment towards business cycle. Their results demonstrated the correlated trend with the cyclical changes and the crucial role of pro-cyclicality of fiscal policies.

The diverse backgrounds of literature provide the propensity of opportunistic behaviour by incumbent governments through several instruments of fiscal policy during the electoral periods.

METHODOLOGY

This article investigated the behaviour of the wage spending in public sector during the central elections' circumstances, particularly during the pre-election, election and post-election periods. The analysis includes the data sourced through the Ministry of Finance of Albania and the Central Election Commission of Albania, to examine precisely the data of fiscal spending and the electoral periods. The article takes into consideration the period during 1993 to 2024, particularly it was held the eight centrale elections respectively in electoral years: 1996, 1997, 2001, 2005, 2009, 2013, 2017, and 2021.

The evaluation of the results is specified according to the following model (Endegnanew et al. (2017))

$Y_{it} = \alpha + \beta X_{it} + \gamma_1 pre\_elec_t + \gamma_2 elec_t + \gamma_3 post\_elec_t + \varepsilon_{it}$

Where, Y_{it} demonstrate the depended variable related to the public wage expenditure (Wag_exp) or share of personnel expenditure to GDP (Per_exp), meanwhile X_{it} is a vector of control variables including the economic growth ratio (EG_rat), the unemployment ratio (UN_rat). Also, it specifies the electoral cycle dummy variables, where it equals 1 for the year before the pre-election year, election year, and post-election year (Pre-elect, Elect, Post-elect); and 0 otherwise.

The following table 1 demonstrates the descriptive statistics related to the variables of model taking into the consideration.

Table 1. Descriptive statistics

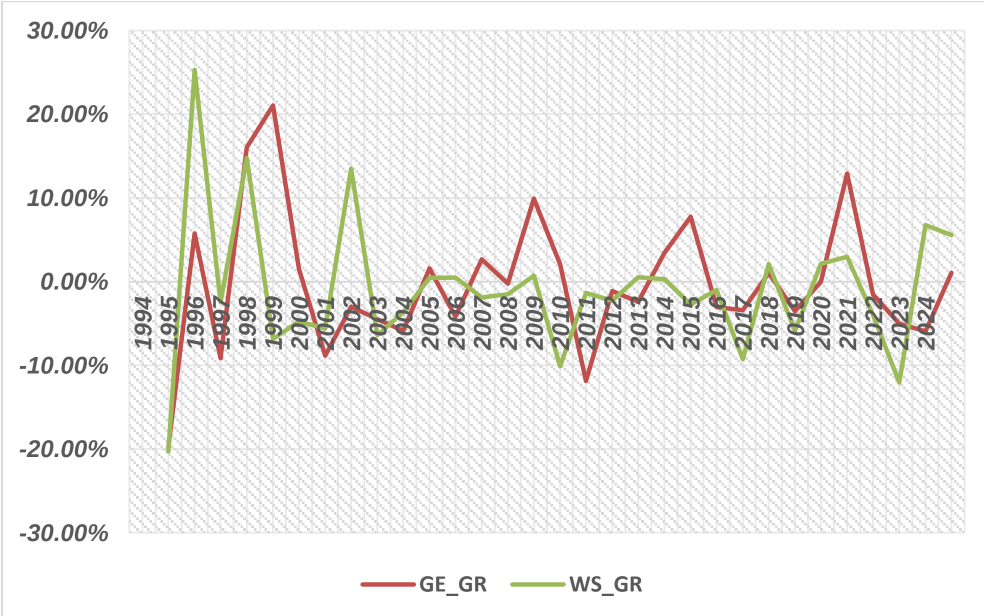
Variables	Description	Mean	St.Dev	Max	Min
Wag_exp	Public wage expenditure	47872	22198	96235	8210
EG_rat	Economic growth ratio	4.690	4.523	13.322	-11.712
Per_exp	Share of Personnel expenditure to GDP	5.783	1.097	7.709	3.961
UN_rat	Unemployment ratio	14.30	3.10	22.30	6.60
Pre-elect	The dummy variable which equals 1 for the year before an election and 0 otherwise			1	0
Elect	The dummy variable which equals 1 for election years and 0 otherwise			1	0
Post-elect	The dummy variable which equals 1 for the year after an election and 0 otherwise			1.00	0.00

EMPIRICAL CONTEXT

According to figure 1, it is found that the trend of the growth rate of government spending and the trend of the growth rate of wage spending in public sector have almost the same convergence except for some specific cases, but their volatility is not the same. It is illustrated in figure 1 that the growth rate of wage expenditures in public sector is highest in 1995, the pre-election year, during the period 1994 - 2024. Meanwhile the growth ratio of government spending reveals the highest value in 1998, the post-election year, during the period taking into consideration. According to the data in figure 1, it demonstrates that the growth rate of wage expenditures in the public sector has been positive throughout the electoral years during 1994-2024, except of the electoral years specifically 1996, 2009, 2021. These divergent propensities are explained by internal and external determinants factors that have had an impact on these electoral years, which specifically demonstrate (i) the internal political crisis and the financial Pyramids crisis in Albania; (ii) the global financial crisis of 2008; and (iii) the global Covid-19 crisis. Also, it is observed by figure 1 that the growth ratio of wage expenses in the public sector is negative during the post-electoral years, evidencing only the restrictive behaviour of governments throughout the post-electoral years. Meanwhile, the growth rate of wage spending in the public sector is positive in the pre-electoral years throughout the regular electoral cycles during 1994 - 2024, except of the pre-electoral years 2000 and 2016.

Nevertheless, the growth rate of government spending has not demonstrated the similar convergence during the regular election years taking into consideration. The regular election years, specifically, 1996, 2001, 2005 and 2021 confirm the negative growth ratio of government expenditure, whereas the regular election years 2009, 2013 and 2017 illustrate the positive growth ratio of government expenses. Meanwhile, it is observed the positive growth rate of government spending in the pre-electoral years, except of 2012 and 2016. However, it is demonstrated the negative growth rate of government spending through the post-electoral years, except of the specific years 1997, 2006, 2014. Referring to the trend of wage spending in public sector and the government expenditures provided in figure 1, the opportunistic propensities of the diverse incumbent governments in Albania are detected during the period taking into consideration. Also, these tendencies are confirmed through the pre-electoral and post-electoral years despite of missing during the regular electoral years. But it should be noted that the convergence or divergence of these propensities has been intensified in several specific years due to the internal and external economic determinants.

Figure 1. Trends of growth ratio related to governmental expenditure and wage spending share to GDP during 1994-2024



EMPIRICAL RESULTS AND DISCUSSION

Taking into consideration the empirical results demonstrated in table 2, the positive and significant relationship is evidenced between the electoral cycle and personnel spending in public sector, proving a higher sensitivity to the economic growth rate during the election years. The value of the coefficient, 0.171, in the election year against the value of the coefficient, 0.146, in the year after the elections confirms that the government tends to be more expansionary during the electoral process. This result supports the hypothesis of the occurrence of political budgetary cycle, throughout the effect of political elections on the personnel expenditures in public sector. Also, the empirical results provide that the personnel spending in public sector are pro-cyclical and react positively to the macroeconomic performance, demonstrating through the economic growth rate (EG_rat). All values of the coefficients of variable, log (EG_rat), are positive and significant statistically at the level of 1% or 5%, indicating that the personnel expenses follow the trend of GDP growth. Furthermore, these results support the hypothesis of the procyclicality of personnel spending in public sector towards the business cycles, throughout the positive effect of the economic growth ratio.

Meanwhile, the coefficient value for the unemployment rate variable (UN_rat), 0.020, reveals the positive linkage, which it means that the personnel spending increase slightly during the labor market shocks. This result indicates that the increasing of the unemployment ratio stimulates the government to increase the personnel expenditures in public sector. It supports the hypothesis of the countercyclical reaction of the public sector through the personnel spending taking into consideration this case.

Table 2. Empirical results (R Studio (2025) output)

Variables	Dependent variable		
	log_PE (1)	log_PE (2)	log_PE (3)
log(EG_rat)	0.176*** (0.047)		
UN_rat			0.020** (0.009)
log(EG_rat):Pre-elect		0.177*** (0.056)	0.155*** (0.054)
log(EG_rat):elect		0.183*** (0.061)	0.171*** (0.057)
log(EG_rat):Post-elect		0.167*** (0.058)	0.146** (0.056)
log(EG_rat):No_elect		0.180*** (0.061)	0.149** (0.059)
Constant	1.464*** (0.077)	1.462*** (0.082)	1.208*** (0.143)
Observations	32	32	32
R^2	0.334	0.437	0.541
Adjusted R^2	0.310	0.231	0.325
Residual Std. Error	0.157 (df=28)	0.166 (df=25)	0.155 (df=24)
F Statistic p-value	14.058*** (df=1;28)	3.176** (df=4;25)	3.791** (df=5; 24)
Note:	**p<0.1;*	***p<0.05;*	****p<0.01*

Referring to the validity assessment of the above empirical results, it is demonstrated that the most valid model is the third model (3). As a result, the standard diagnostic tests of linear regression were applied into the third model (3), including the Breusch–Pagan test for heteroskedasticity, the Durbin–Watson test for autocorrelation, the Shapiro–Wilk test for normality of residuals and the Ramsey RESET test for model specification, according to the indorsed practices in the econometric literature (Wooldridge (2013)). The validity results are presented in Table 3.

Table 3. Results of validity (R Studio (2025) output)

Test	Statistics	p-value	Decision	Interpretation
Breusch–Pagan	16.0400	0.0067	Reject H0	There is heteroscedasticity.
Durbin–Watson	0.5840	0.0000	Reject H0	There is positive autocorrelation.
Shapiro–Wilk	0.9776	0.7579	Not reject H0	The statistical residuals have a normal distribution.
Ramsey RESET	2.7297	0.0873	Not reject H0 (5%)	The model is specified correctly.

The results of the diagnostic tests demonstrate that model (3) confirms the problems of heteroscedasticity according to the Breusch–Pagan test (p=0.0067) and the positive autocorrelation of the residuals according to the Durbin–Watson test (DW=0.5840, p<0.001). On the other hand, the Shapiro–Wilk test (p=0.7579) shows that the residuals follow the normal distribution, while the Ramsey RESET test (p=0.0873) suggests that model (3) is specified acceptably at the 5% level of statistical significance. Although the model is detailed correctly, but these results show that, it suffers due to the violations of the assumptions of homoscedasticity and the independence of errors. The diagnostic tests reveal the existence of heteroscedasticity and autocorrelation in the third model. Due to this reason, the robust standard errors of the Newey–West type were used to assess the statistical significance of the coefficients, which correct simultaneously for the heteroscedasticity and autocorrelation.

Table 4. Corrected results due to heteroscedasticity and autocorrelation (R Studio (2025) output)

Variables	Coefficients	Gab. Std.	t-stat	p-value
Constant	1.208	0.188	6.415	0.000
UN_rat	0.020	0.011	1.786	0.090
log(EG_rat):Pre-elect	0.155	0.039	3.967	0.001
log(EG_rat):elect	0.171	0.043	3.991	0.001
log(EG_rat):Post-elect	0.146	0.069	2.118	0.045
log(EG_rat):No_elect	0.149	0.057	2.606	0.016

According to the empirical outcomes illustrated in table 5, the negative and significant linkage is demonstrated amongst the economic growth rate and the wage spending in the public sector. This result supports the hypothesis of the countercyclicality of public wage expenditures to the business cycles, through the negative effect of the economic growth ratio. This behavior is justified by the avoidance of inflationary pressures during periods of economic expansion, as a result of wage growth, but also due to the source of economic expansion by the demand side, aggregate demand, and not by the supply side, aggregate supply, as a result of increasing productivity in the economy.

Meanwhile, it proves in table 5 that the economic growth rate reveals the positive and statistically significant effect on the wage expenditures in the public sector through the election years. Also, it provides the higher sensitivity to the economic growth, where the coefficient value, 0.084, during the election year, compared to the coefficient value, 0.024, in the post-election year, confirming that the government carries out a more expansionary behavior during the electoral times. This result supports the hypothesis of the existence of political budgetary cycle, through the effect of political elections on the wage spending in the public sector.

Table 5: Empirical results (R Studio (2025) output)

Variables	Dependent variable	
	Wag_exp (1)	Wag_exp (2)
EG_rat	-0.050** (0.023)	-0.095** (0.038)
EG_rat:Pre-elec		-0.001 (0.038)
EG_rat:elect		0.084** (0.036)
EG_rat:Post-elec		0.024 (0.038)
Constant	10.862*** (0.150)	10.986*** (0.154)
Observations	32	32
R^2	0.133	0.299
Adjusted R^2	0.104	0.195
Residual Std. Error	0.583 (df=30)	0.553 (df=27)
F Statistic p-value	4.598** (df=1;30)	2.882** (df=4;27)
Note:	**p<0.1; **p<0.05;*	****p<0.01*

According to the validity assessment of the above empirical results, it is verified that the most valid model is the second model (2). The standard diagnostic tests of linear regression were applied, including the Breusch–Pagan test for heteroskedasticity, the Durbin–Watson test for autocorrelation, the Shapiro–Wilk test for normality of residuals and the Ramsey RESET test for model specification related to the second model (2), converging towards the endorsed practices in the econometric literature (Wooldridge (2013)). The validity results are illustrated in the table 6.

Table 6. Results of validity (R Studio (2025) output)

Test	Statistics	p-value	Decision	Interpretation
Breusch–Pagan	4.1317	0.5306	Not reject H0	There is no heteroscedasticity.
Durbin–Watson	2.4257	0.8283	Not reject H0	There is no autocorrelation.
Shapiro–Wilk	0.9746	0.6536	Not reject H0	The statistical residuals have a normal distribution.
Ramsey RESET	4.5324	0.1459	Not reject H0	The model is specified correctly.

CONCLUSIONS AND RECOMMENDATIONS

Fiscal data related to the wage spending in public sector in Albania provide the volatile trend during 1993 – 2024 illustrating through the growth ratio of public wage spending, particularly during the electoral years. Taking into consideration the empirical results related to the effect of political elections on the personnel expenditures in public sector is confirmed the occurrence of political budgetary cycle and the procyclicality of them towards the business cycles due to the positive impact of economic growth ratio. Also, it confirms the government propensity to increase the public personnel expenditures through the countercyclical reaction of public sector during the higher unemployment. Furthermore, the empirical outcomes prove the existence of political budgetary cycle through the positive effect of political elections on the wage spending in the public sector.

The opportunistic behavior of the various incumbent governments in Albania are observed through the electoral years during the regular and irregular election despite of fiscal discipline implementation. However, it should be highlighted that the convergence of propensities related to the wage spending and the personnel expenditures in public sector in Albania has been affected throughout the internal and external determinants of economic occurrences.

However, it should be taken into consideration the restriction of results due to the short time series that it will take into consideration to the further research through panel data of

Western Balkan countries. The forthcoming researches will examine the propensity of wage spending in the public sector of Western Balkan countries throughout the long run effects during the electoral cycles.

REFERENCES

Bonfatti, A., & Forni, L. (2019). Fiscal rules to tame the political budget cycle: Evidence from Italian municipalities. European Journal of Political Economy, 60. Retrieved from https://doi.org/10.1016/j.ejpoleco.2019.06.001

Cahuc, P., Carcillo, S. (2012). Can Public Sector Wage Bills Be Reduced? NBER Working Paper 17881 (2012). https://doi.org/10.3386/w17881.

Central Election Commission (2025). Parliamentary Elections. https://kqz.gov.al/rezultate-zgjedhore

Coelho, C., Veiga, F. J., Veiga, L. G. (2006). Political business cycles in local employment: Evidence from Portugal. Economics Letters, Volume 93, Issue 1, October 2006, Pages 82-87. https://doi.org/10.1016/j.econlet.2006.03.048

Drazen, A., & Eslava, M. (2005). Electoral Manipulation via Expenditure Composition: Theory and Evidence. NBER Working Paper 11085 (2005). https://doi.org/10.3386/w11085.

Eckardt, S., Mills, Z. (2014). What Goes Up Must Come Down? Cyclicality In Public Wage Bill Spending. Policy Research Working Paper Series 6760, The World Bank.

Endegnanew, Y., Soto, M., Verdier, G. (2017). Do elections affect the wage bill? In V. Gaspar, S. Gupta, and C. Mulas-Granados (eds.), Fiscal Politics. International Monetary Fund, Washington DC. DOI: https://doi.org/10.5089/9781475547900.071

Forni, L., Novta, N. (2014). Public Employment and Compensation Reform During Times of Fiscal Consolidation, IMF Working Papers 2014/192, International Monetary Fund.

Dahlberg, M., Mörk, E. (2011). Is There an Election Cycle in Public Employment? Separating Time Effects from Election Year Effects. CESifo Economic Studies, Volume 57, Issue 3, September 2011, Pages 480–498. https://doi.org/10.1093/cesifo/ifr003

de Haan, J., Ohnsorge, F., Yu, S. (2023). Election-Induced Fiscal Policy Cycles in Emerging Market and Developing Economies, CESifo Working Paper, No. 10868, Center for Economic Studies and ifo Institute (CESifo), Munich.

Lamo, A., Pérez, J. J, Schuknecht, L. (2007). The cyclicality of consumption, wages and employment of the public sector in the euro area, ECB Working Paper, No. 757, European Central Bank (ECB).

Lane, P. R. (2003). The cyclical behaviour of fiscal policy: evidence from the OECD, Journal of Public Economics, Elsevier, vol. 87(12), pages 2661-2675, December. https://doi.org/10.1016/S0047-2727(02)00075-0

Ministry of Finance and Economy (2025). https://financa.gov.al/buxheti-6/

Schuknecht, L. (2000). Fiscal policy cycles and public expenditure in developing countries. Public Choice, 102(1-2), pp. 115-130. Retrieved from https://doi.org/10.1023/A:1005026806998

Vergne, C. (2011). Democracy, Elections and Allocation of Public Expenditure in Developing Countries. 2006.08. 2011.

Wooldridge, J. M. (2013). Introductory Econometrics: A Modern Approach (5th ed.). Boston, MA: South-Western Cengage Learning.

