LINKS BETWEEN TAX REGIMES AND POLITICAL REGIMES IN EUROPEAN UNION COUNTRIES IN THE PERIOD 2000-2019

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Abstract:

Focusing on the countries of the European Union, the article aims to track the behavior of fiscal variables (e.g. revenues, expenditures, budget deficit, public debt) and the variation of tax regimes in terms of personal income (flat rate vs. progressive rate) depending on the form of government of each country and more precisely of the political position of the governments in power in the EU28 countries for the period 2000-2019. The results can be useful for a better understanding of the links between political and fiscal governance in the European Union countries and can provide answers for the most appropriate fiscal-budgetary conduct of the general government.

Keywords: *taxation, politics, connections, European Union countries*

JEL classification: *C58, D72, E62, H21*

Introduction

Although seemingly torn from the real world, like in an ivory tower, politics is not considered to influence people's daily lives. However, politics plays an important role at least in institutional decisions, including in the way public budgets are financed. Debates about what is more appropriate single or progressive quota, with analysis of tests and evaluations abound in the literature, but the link with the form of government or the political position of world governments is more difficult to follow by studies. Therefore, the article tries to shed some light on what the form of government means as an impact on taxation.

The objective of the study is to conduct an assessment on possible links between tax regimes regarding personal income tax (including some fiscal variables) and political position and form of government in European Union countries for the period 2000-2019. The particular objectives are: - to identify the characteristics of governmental institutional form from every country in the EU28, - to identify the political position of governmental institution from every country in the EU28 for the period 2000-2019, - to identify possible correlations between fiscal variables (Total general government revenue (%GDP), Total general government expenditure (%GDP), Net lending (+) /net borrowing (-)(%GDP), Government consolidated gross debt (%GDP)) and tax type, government position and government form for distinctive groups of countries of EU28 and for EU28 as a whole, - to construct a regression equation linking the Tax type from government position and government form. The research hypotheses are formulated according to the objectives, and they are accepted or rejected based on p-values (Kothir, 2004), R2 and adjusted R2 for regression equation (Schroeder et al., 1996; Kennedy, 2008), although these methods, like any other, have limitations (King, 1986, for interpreting R2 etc.).

The main contribution of the study could be considered the increasing knowledge regarding the links between political position of EU28 governments between the years 2000-2019 and the fiscal type systems, adding to the classical beneficiary such as researchers, also the tax institutions and political and policy makers. The results could be the base for conducting studies with other, more suited explanatory variables, for different periods (for example, in the future, including data from COVID19 burst) and different countries.

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Description of the Problem and literature review

Since 50 years ago, some empirical studies explain how re-election motives, orientation of governments, policies, the timing of elections and political business cycles influence the macroeconomic results in industrial democracies (Alesina et al., 1997 etc.). In the paper of Ebeke and Ölçer (2013), focusing on LIC (Low Income Countries) it was investigated the behavior of fiscal variables after and during the elections. In the election years the deficits were higher on the grounds of the increase of government consumption, after the elections the government investment decreased, but no cuts in government consumption and it increased the revenues from trade taxes. The conclusion of these authors was that elections trigger a painful fiscal adjustment, besides an important macroeconomic cost. Other studies have shown that the economic cycles are driven by politics in developing countries especially on current expenditures of government, budget deficits, monetary aggregates and indirect tax revenues (Shi and Svensson, 2006; Vergne, 2009; Block, 2002, Ehrhart, 2012). In Baer & Coes (2006) paper it is investigated for Brazil the proposition that a government which faces an election will find it difficult to resist increasing expenditures or to raise taxes, thus resulting fiscal deficits. The fiscal deficits are then either financed by the central bank or by domestic and/or foreign borrowing, increasing the government's foreign or domestic debt, on grounds of the fact that the government had the confidence of the international financial community. The paper of Baer & Coes (2006) considers that much of the variation in Brazilian macroeconomic policy over the past half-century reflects the changing political pressures on the government, the result being confirmed by a formal test.

Thus, we can conclude that the literature brings many arguments in favor of a political influence on taxation. However, for the EU28 and especially for the countries that has experienced the single quota, such an analysis: fiscal-political has not yet been carried out, in the form of present paper.

Methodology and Data

The methodology is mainly empirical, using correlation and Ordinary Least Square (OLS) regression model, with theoretical and descriptive insertions. It has been used correlations in order to explain a bivariate relationship between the selected variables. Given that the spheres of which the dependent and independent variables are part are extremely different, we will consider that the correlations below 0.40 are relatively modest and that above this value the correlations can be considered as medium to high values. The methodology of the research describes also the source of data. For example, it has been used governmental sites, political party internet files, media sites, reports etc. and also Eurostat, for macroeconomic variables, international economical and political studies. The sample size uses a panel dataset covering EU28 countries over the period 2000-2019, the regression equation model having 560 observations. The instrument used was Excel data analysis. For future more sophisticated studies it could be considered the use of EViews10 software. The government position if it is centre left was considered as left, and centre right as right, and where it was inconclusive for the politics position or it is an independent government was considered of centre. Thus, Gov. position represents govern position, more precise left – L or -1 or right –R or 1 or central C or 0. The tax type is progressivity noted 1 and flat tax as 0. The form of government or FG is considered: Federal parliamentary (2), Unitary presidential (1), Unitary semi-presidential (0), and Unitary parliamentary (-1). The TGGR(%GDP) represents Total general government revenue (%GDP); TGGE(%GDP) represents Total general government expenditure (%GDP), the NL/NB(%GDP) is Net lending (+) /net borrowing (-)(%GDP), and GCGD(%GDP) is the notation for Government consolidated gross debt (%GDP).

Results

The adequacy of tax regimes to economic realities and the need to find the best solution for tax regimes to encourage investment, business development, production, consumption, employment and growth has been one of the dominant concerns of economists. Single-quota regimes have been implemented mainly in the Baltic countries (Estonia, Latvia, and Lithuania in 1994-1995-1996) and Russia (2001) (Greenberg, 2009), but have gradually expanded to Central and Eastern

Europe, hoping to bring economic prosperity with them. This system, which is somewhat close to fiscal dumping (especially the tax regimes with extremely low single quotas), did not bring the expected results in all the countries that implemented it, but at least it managed to simplify the relationship with the tax administrations in those countries. Some of these countries have given up single-quota or flat tax regimes because their economic and social role has been considered exhausted (see Table 1).

Table 1

Implementation or cessation period of the single quota or flat tax regarding personal income tax in some EU countries in the period 2000-2019

Countries with flat tax	Beginning	Giving up
Latvia	**1995**	**2018**
Lithuania	**1996**	**2019**
Slovakia	**2004**	**2013**
Czech Republic	**2008**	**2013**
Romania	**2005**	**No**
Estonia	**1994**	**No**
Bulgaria	**2008**	**No**
Hungary	**2011**	**No**

Source: conform Greenberg (2009) and Lazea (2020)

Turning to the political aspect, if we take into account all EU countries for the period 2000-2019 we notice that the parties with the orientation of the right (inclusive center right) political position represent a dominance of government at EU level except for a few countries such as: Czech Republic, Greece, Lithuania, Austria, Portugal, Romania, Slovenia, Slovakia, Sweden.

Table 2

Evidence of the number of times of the government's position on countries - right or left - in EU countries in the period 2000-2019, on countries

European Union Country	Right government (how often)	Left government (how often)	Centre or independent government (how often)
Belgium	17	3	0
Bulgaria	15	5	0
Czechia	7	13	0
Denmark	14	6	0
Germany	14	6	0
Estonia	17	0	3
Ireland	20	0	0
Greece	6	14	0
Spain	10	10	0
France	13	7	0
Croatia	12	8	0
Italy	9	8	3
Cyprus	10	5	5
Latvia	20	0	0
Lithuania	9	11	0
Luxembourg	20	0	0
Hungary	12	5	3
Malta	13	7	0
Netherlands	17	3	0
Austria	9	11	0
Poland	16	4	0
Portugal	7	13	0
Romania	8	11	1
Slovenia	6	10	4
Slovakia	5	15	0
Finland	3	4	13
Sweden	8	12	0
United Kingdom	10	10	0

Source: official sites of European Union governments, online and press data. For colors code – for position of right of the governments including up to 5 times – red, between 5 and 10 times – orange; over 10 to 15 including - yellow, blue over 15 times. For left governments up to 5 times including – blue, over 5 to 10

yellow, over 10 to 15 times orange, over 15 times red; central or independent governments, or even indefinite dominant position with green

Table 3

Evidence of the number of times of the government's position - right or left – at the level of the whole EU in the period 2000-2019, on every year

Year	Right government (how often)	Left government (how often)	Centre or independent government (how often)
2000	15	13	0
2001	14	13	1
2002	14	12	2
2003	15	9	4
2004	16	8	4
2005	17	9	2
2006	17	9	2
2007	17	9	2
2008	18	9	1
2009	17	10	1
2010	20	7	1
2011	21	6	1
2012	18	9	1
2013	14	14	0
2014	15	13	0
2015	14	13	1
2016	15	11	2
2017	16	10	2
2018	17	8	3
2019	17	9	2

Source: official sites of European Union governments, online and press data, same data as above but on every year. For colors code – for position of right of the governments including up to 5 times – red, between 5 and 10 times – orange; over 10 to 15 including - yellow, blue over 15 times. For left governments up to 5 times including – blue, over 5 to 10 yellow, over 10 to 15 times orange, over 15 times red; central or independent governments, or even indefinite dominant position with green

Thus, we notice that the right-wing governments represent at the level of each year of the analysis period an absolute dominance in relation to the left-wing ones, except the year 2013 where they (right-left) stood at parity. This could indicate that, although the global crisis of 2008-2009 could not change the right choice of EU citizens, it is probably perceived as a crisis that started outside the EU (United States), the sovereign debt crisis, with strong development in the EU, did said its word, tilting in 2013 slightly the balance to the left governments.

For Central and Eastern Countries, this is also highlighted by figure 1 in which the combination of the single quota and the right regime is highlighted as significant in countries such as: Bulgaria, Estonia, Latvia, and the combination of progressivity and left governments as dominants is observed in: Czech Republic and Slovakia. Hungary presents, considered on the entire period of analysis, a combination of progressivity with right regimes and Romania registered flat tax regimes with left number of governments, although a right-wing regime initiated the flat quota in Romania.

For Western European countries, the single quota is non-existent; therefore fiscal progressivity is associated in almost all EU countries with right-wing political regimes except countries such as

Greece, Austria, Portugal, Slovenia and Sweden where fiscal progressivity is mostly coupled with left-wing regimes.

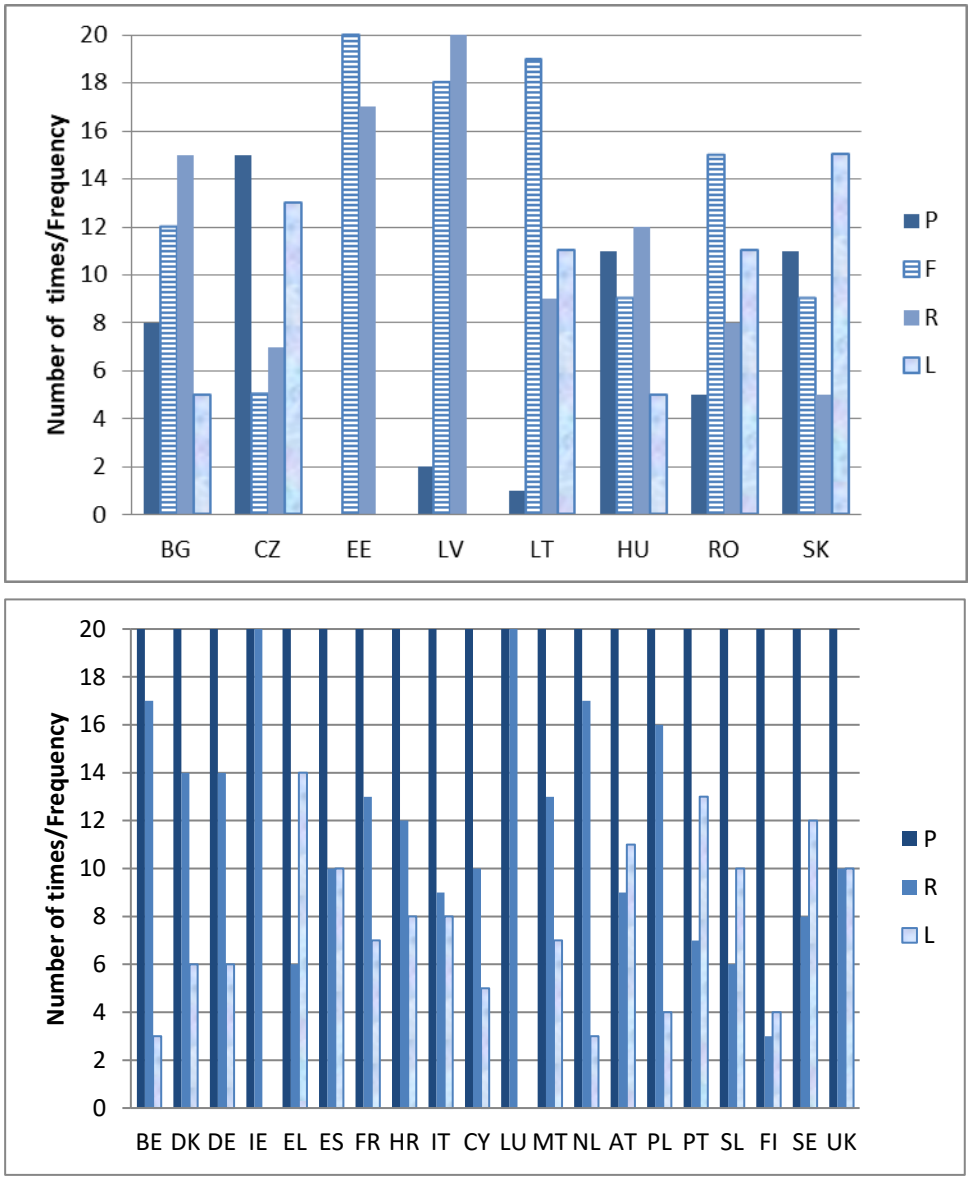

Figure 1 – Evidence of the number of times of the tax type – progressive or flat – and the government's position - right or left – and of at the level EU countries

in the period 2000-2019

Source: author's processing, Eurostat and official sites of European Union governments, online and press data. Notes: P is tax progressivity regime, F – flat tax regime, R – governments with right political position, L - governments with left political position.

If we go further, analyzing through a correlation matrix the relationship between the tax type, the government position, the government form, the total general government revenue (%GDP), the total general government expenditure (%GDP), the net lending (+) /net borrowing (-)(%GDP) and the government consolidated gross debt (%GDP), we may, therefore, notice that the tax type display relative medium positive correlations with the total general government expenditure (%GDP), with the total general government revenue (%GDP) and the government consolidated gross debt (%GDP) (see Table 4). At the same time, the correlation of tax type with government position (left or right) is negative and rather week, but well above government form. Thus, to develop the regression equation for tax type determinants, we considered first only the indicators

related to politics government position and government form although the correlations are not quite fitted.

If we take into consideration the same matrix indicators but only for EU countries which experienced (also) flat tax in the period 2000-2019 (Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Romania and Slovakia), we may notice that: - the tax type and government position has a rather medium to strong negative correlation, well above all the fiscal indicators (public revenues, expenses, deficit/surplus and debt); - the government form is very strong negatively correlated with total general government revenue (%GDP), and rather medium negatively correlated with total general government expenditure (%GDP) (see Table 5). This suggests that the form of government and political parties should reconsider their options for a better fit to the tax type.

Table 4

Correlation matrix between the Tax type, Government position, Government form, Total general government revenue (%GDP), Total general government expenditure (%GDP), Net lending (+) /net borrowing (-)(%GDP), Government consolidated gross debt (%GDP) at the level of all EU countries in the period 2000-2019

	Tax type	*Gov. position*	*GF*	*TGGR (%GDP)*	*TGGE (%GDP)*	*NL/NB (%GDP)*	*GCGD (%GDP)*
Tax type	1						
Gov.position	-0.208	1					
GF	0.126	0.028	1				
TGGR(%GDP)	0.447	-0.141	0.168	1			
TGGE(%GDP)	0.454	-0.186	0.165	0.850	1		
NL/NB(%GDP)	-0.035	0.089	-0.003	0.230	-0.316	1	
GCGD(%GDP)	0.427	-0.152	0.249	0.298	0.479	-0.347	1

Source: Author's calculation. Data source Eurostat and official sites of European Union governments, online and press data.

Table 5

Correlation matrix between the Tax type, Government position, Government form, Total general government revenue (%GDP), Total general government expenditure (%GDP), Net lending (+) /net borrowing (-)(%GDP), Government consolidated gross debt (%GDP) at the level EU countries which experienced (also) flat tax in the period 2000-2019

	Tax type	*Gov. position*	*GF*	*TGGR (%GDP)*	*TGGE (%GDP)*	*NL/NB (%GDP)*	*GCGD (%GDP)*
Tax type	1						
Gov.position	-0.496	1					
GF	-0.222	0.051	1				
TGGR(%GDP)	0.398	-0.096	-0.603	1			
TGGE(%GDP)	0.381	-0.215	-0.425	0.815	1		
NL/NB(%GDP)	-0.118	0.241	-0.084	-0.051	-0.620	1	
GCGD(%GDP)	0.349	-0.174	-0.148	0.634	0.711	-0.368	1

Source: Author's calculation. Data source Eurostat and official sites of European Union governments, online and press data.

If we consider only the EU28 countries with progressive fiscal regimes regarding personal income tax (PIT), the position of government (left, centre or right) is correlated positively but extremely week with government form and public deficit or surplus, and negatively and a little bit stronger with expenditure, income and debt of the government.

Table 6

Correlation matrix between the Government position, Government form, Total general government revenue (%GDP), Total general government expenditure (%GDP), Net lending (+) /net borrowing (-)(%GDP), Government consolidated gross debt (%GDP) at the level EU countries which experienced only progressive tax regimes in the period 2000-2019

	Gov. position	*GF*	*TGGR (%GDP)*	*TGGE (%GDP)*	*NL/NB (%GDP)*	*GCGD (%GDP)*
Gov.position	1					
GF	0.041	1				
TGGR(%GDP)	-0.143	0.150	1			
TGGE(%GDP)	-0.172	0.147	0.812	1		
NL/NB(%GDP)	0.044	0.007	0.324	-0.289	1	
GCGD(%GDP)	-0.140	0.207	0.021	0.266	-0.397	1

Source: Author's calculation. Data source Eurostat and official sites of European Union governments, online and press data.

Based on the first correlation matrix (Table 4) we construct a regression equation to be able to observe the coefficients and p-values. The regression function is formulated as: Tax type= f (Gov. position, GF) more exactly: Tax type=Λ+β*Gov.position+Γ*GF+ε……(1). Where the coefficients β, Γ are the estimated values of each variable, Λ is the constant values; ε is the error term, randomly.

Table 7

Regression equation results linking the Tax type from Government position and Government form, at the level of all EU countries in the period 2000-2019

Regression Statistics	
Multiple R	0.246
R Square	0.060
Adjusted R Square	0.057
Standard Error	0.382
Observations	560

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	5.2363828	2.6181914	17.933485	2.832E-08
Residual	557	81.318974	0.1459946		
Total	559	86.555357			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.855	0.018	46.835	0.000	0.819	0.891	0.819	0.891
Gov.position	-0.089	0.017	-5.145	0.000	-0.123	-0.055	-0.123	-0.055
GF	0.053	0.016	3.209	0.001	0.021	0.085	0.021	0.085

Source: Author's calculation. Data source Eurostat and official sites of European Union governments, online and press data.

The estimated model with adjusted R2 of 0.057 suggest that all the explanatory variables are together explain for about 5.7 percent of the variations level of factors that affect the fiscal or tax type. The values of degree of freedom df (2) with the F value of 17.933 with a significant level of p < 0.000 (2.832E-08) implies all independent variables were jointly significant in explaining the variation in factors that affect tax type. Although the p value is appropriate, we cannot say that the adjusted R2 can satisfy us, therefore, the model will have to be revised in the future with other explanatory variables. Thus the regression equation will include other independent variables such as public expenditures and public revenues as well as public debt to explain the type of taxation: progressivity or single rate. Thus, the equation becomes a function like: Tax type= f (Gov. position, TGGR (%GDP), GCGD (%GDP)).

More exactly: Tax type=Λ+β*Gov.position+Γ*TGGR(%GDP)+δ*GCGD(%GDP)+ε……(2).

Table 8

Regression equation results linking the Tax type from Government position, Total general government revenue (%GDP), Government consolidated gross debt (%GDP), at the level of all EU countries in the period 2000-2019

Regression Statistics	
Multiple R	0.553
R Square	0.306
Adjusted R Square	0.303
Standard Error	0.329
Observations	560

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	26.51314384	8.8377146	81.8385775	7.2969E-44
Residual	556	60.04221331	0.1079896		
Total	559	86.55535714			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-0.278	0.096	-2.910	0.004	-0.466	-0.090	-0.466	-0.090
Gov. position	-0.048	0.015	-3.147	0.002	-0.077	-0.018	-0.077	-0.018
TGGR(%GDP)	0.021	0.002	9.101	0.000	0.017	0.026	0.017	0.026
GCGD(%GDP)	0.004	0.000	8.281	0.000	0.003	0.004	0.003	0.004

Source: Author's calculation. Data source Eurostat and official sites of European Union governments, online and press data.

The estimated model with adjusted R2 of 0.303 suggest that all the explanatory variables are together explain for about 30.3 percent of the variations level of factors that affect the tax type. The significant level of p < 0.000 (7.2969E-44) implies all independent variables were jointly significant in explaining the variation in factors that affect tax type.

The regression equation estimated was explained with the help of all explanatory variable included in the regression model as follows:

Tax type = -0.278-0.048*Gov.position+0.021*TGGR(%GDP)+0.004*GCGD(%GDP)……(3).

The significance F and p values for independent variables are appropriate, but the adjusted R2 should be a little bit higher for a favorable explanation for the tax type.

Conclusions

The paper seeks to investigate whether and to what extent progressiveness or the flat tax regimes are related to the political position of the governing parties or of the form of government of the state. For the period 2000-2019, right-wing governments appear to dominate the EU28 political scene. From a fiscal point of view, we note that Central and Eastern European countries of EU28 are oriented (also) towards flat tax regimes, although lately some of these countries have returned to progressive taxation. The Western European countries of the EU28 keep a tradition of progressive taxation, many of which have a strong right-wing political dominance.

The econometric results are not as relevant as we would like, but we note that Central and Eastern European countries of EU28 have more intense correlations, even in relation to the chosen fiscal variables, although negative between the type of taxation and the political position of governments. This shows that European Union's advanced democracies have a weaker influence of the political position of governments on taxation than economies with relatively young democracies such as Central and Eastern European countries.

Future Directions

The study is rather an empirical one, the limitation of the paper is that asses a narrow area of investigation and cannot be extended to other states, other parts of the world and time tables. Therefore, other researchers have a wide range of opportunities to investigate these directions.

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