

10.2478/nispa-2025-0009



Does the Parliament Ideology Affect Corporate Taxation? Evidence of EU countries

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Abstract:

The article aims to analyse whether corporate income taxation is influenced by the prevailing ideology of parliaments (left-wing vs right-wing). The primary research method used is econometric analysis: three different estimation techniques were used on three dependent variables connected with corporate taxation. Nine models were developed to discover whether a political explanatory variable, “Centre of Political Gravity”, drives corporate taxation decisions. Additionally, variables were employed as controls: Gross Operating Surplus, 10-Year Government Bond Yield, Debt/GDP ratio and the Rule of Law index. The overall dataset is in panel format, consisting of 27 EEA countries covering 2004 to 2019. The results suggest that a parliament’s majoritarian ideology can influence the effective corporate income tax rate. It is found that left-wing parliaments tend to increase this rate.

Keywords:

corporate income tax, effective tax rate, ideology of parliament, tax policy

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1. Introduction

Since the 2008-2009 financial crisis, public budgets of most developed economies have faced persistent deficits and growing debt. According to the OECD's newest global review (OECD, 2024a), the long-term fiscal imbalance further deepened as a result of the COVID-19 crisis and subsequent price turbulence.

The situation in Europe mirrors the global one. However, seven countries maintain their public debt below 40 % of GDP, and countries with high percentages around 100 % are not lacking either (six countries of the EU). In nearly all countries, the fiscal imbalance further worsened after 2019, when in reaction to the outbreak of COVID-19, governments increased expenditure and introduced ad-hoc tax relief programmes to mitigate the effect on respective economies. The energy crisis driven by the war in Ukraine from 2022 facilitated further continuation of the worsening of public finances.

In reaction to the worsened state of public finances, OECD countries and later other countries have commenced debates since 2011 regarding possibilities to limit tax evasion. Since 2013, the debates have expanded to global reforms of corporate taxation of the digital sector and large supranational corporations—the BEPS project (OECD, 2013).

The research gap in this topic identified in the study of literature is as follows: it is not clear from the available data whether the cabinet type (right-wing vs left-wing or liberal vs redistributive respectively) systematically influences a country's position in international negotiations about reforms of global taxation; It can still be tested whether it influences their share in the tax mix and the effective tax rate. The above is significant, amongst other reasons, because the ideological changes can be studied in connection with the macroeconomic consequences of the corporate taxation policy (Ferré & Manzano, 2022). The research's originality stems from using a new set of testing techniques and models (new data for EU countries) that have not been used before. The modelling approach is based on the Stackelberg leadership model. The effects of coalitions that include right-wing parties on macroeconomic indicators are studied.

Therefore, this research aims to test whether the type of parliament majority influences the size of corporate taxation. Corporate taxation is measured by CIT/GDP, the share of corporate taxation in total tax revenue (CIT/TR) and the effective tax rate (ETR). At the same time, it is tested whether the Gross operating surplus as a percentage of GDP, price of debt (via 10-Year Bond Yield) or overall institutional stability (Rule of Law) influence these targets.

The data is obtained from Eurostat, Comparative Manifesto Project, The World Governance Indicators, OECD, UN and Oxford Economics databases. The analysis is model-based, and within, first difference and mixed effects estimators are used to arrive at the models. The specifics of their advantages and disadvantages are discussed.

The rest of the article is structured as follows: a literature review of the research on this topic is provided after this introduction. The third part contains a methodology of the research (data and methods). The following section presents the results and their discussion. The last part of the article presents the conclusions.

2. Literature review

The tax burden, measured by the tax-to-GDP ratio, has increased slightly but consistently. Data from 38 OECD countries show a rise of 9 percentage points over the past 60 years, reaching 34%. Overall taxation is significantly higher in developed countries (34% vs. 20%), with one of the main reasons being the lower extent of social security systems in non-OECD countries. Corporate taxation presents a different picture. The difference in corporate tax revenue as a share of GDP between developed and emerging economies is not particularly large. However, given the overall lower level of taxation, the share of corporate taxes in total tax revenues is nearly twice as high in non-OECD countries.

Corporate tax revenue across countries has responded to several significant shocks in recent decades. First, during the 1980s and 1990s, it was influenced by tax-cutting policies associated with supply-side economics. Then, the financial and economic crisis of 2009–2010 led to a substantial decline in corporate tax revenue in OECD countries, whereas in non-OECD countries, revenue increased. The crisis linked to the COVID-19 pandemic had no significant impact on corporate tax revenue despite unprecedented government interventions in the economy. In contrast, the period of inflation and the energy crisis in Europe led to a considerable increase in corporate tax revenue, partly due to the introduction of windfall taxes in some countries (OECD, 2019; OECD, 2024a).

The latest available OECD data (OECD, 2025) for 38 OECD and 104 non-OECD economies show that declining central CIT rates in OECD countries continue faster than in other observed countries. However, a better insight into the actual intensity of corporate taxation is provided by effective tax rates, which reflect the average tax burden on standardised firms. The OECD dataset includes data for all OECD countries and 54 non-OECD economies, showing that CEATR during the last five years is more or less stable and reached for both developed and developing countries around 20%.

The literature analysing factors influencing the size and structure of corporate taxation is not very extensive. In our analysis, we searched for all available articles in the Web of Science database as of early 2025, emphasising articles focused on the link between government type and corporate taxation. On a sample of OECD countries from 1965 to 1992, Volkerink and Haan (1999) conclude that the political ideology does not

affect the tax structure. Along with studying the whole period at once, they also split the panel into three datasets to reflect the economic environments under which the policymaking processes took place – (i) pre-first oil crisis period (up to 1973), (ii) global recession and the second oil crisis period (up until 1983) and (iii) “the period of fiscal consolidation”. They utilise Woldendorp et al. (1993) and later updates for constructing the categorical political variables. Using a fixed effects WLS estimator, they find that partisanship significantly influenced the tax structure during the period before the first oil crisis and the last period (1984-1995). Given that the ideology variable coefficients are insignificant over substantial parts of the analysed panel, Volkerink and Haan (1999) reject that partisanship drives tax policies.

Tavares’s (2004) finding is that the left-wing cabinets tend to decrease the budget deficit by increasing tax revenue. On the other hand, right-wing cabinets favour spending cuts in such situations. In this research, he mainly focuses on the persistence of governments in fiscal adjustments and the determinants of successful fiscal adjustments. Tavares (2004) constructs an ideology measure that builds on the work of Woldendorp et al. (1993) by extending it to cover more countries. Another three measures of ideology are used to support the results. Other than ideology, the explanatory variables used are the change in public spending, lagged public debt, and its first difference, the majority government variable, the coalition government variable, GDP growth, and the unemployment rate growth.

Beramendi and Rueda (2007) focus on the political determinants of indirect taxation. They focus on the notion of a corporatist environment under which the left-wing governments are pushed to a situation where they have to rely on indirect taxation in order to support the welfare state. Analysing a panel of 16 OECD member states from 1965 to 1995, Beramendi and Rueda (2007) use the percentage of cabinet seats held by social-democratic politicians to construct a continuous political variable. They also control for corporatism, welfare spending, institutional veto points, financial openness, total tax revenue, economic growth and deficits. The regressions are run on data transformed into 5-year averages using the FGLS and PCSE estimation approaches.

Osterloh and Debus (2009) specify a model in which a continuous measure of the political ideology of a government is used as an explanatory variable. They use the Comparative Manifesto Project database, which they argue provides a more sophisticated measure of ideology than the Database of Political Institutions. They use a set of socioeconomic and political variables covering the number of political parties, globalisation, the education of the head of government, public consumption, the share of elderly and young in the population and the PIT rate. In a fixed effects and a first difference specification with all explanatory variables held lagged by one year, they find that the effective CIT rates are higher when left-wing legislatures are the policymakers.

Angelopoulos et al. (2009) research the role of government ideology and the election cycle in the makeup of the tax structure by focusing on the effective tax rates.

They investigate an OECD panel of 21 states from 1970 through 2000. They find that left-wing governments prefer to tax capital more heavily (relative to taxation of labour) and that they also increase consumption taxes. The authors also point out that the finding regarding consumption taxes is puzzling. Furthermore, it is argued that effective tax rates are opportunistically decreased during the pre-election periods. To test hypotheses empirically, Angelopoulos et al. (2009) use the fixed effects estimator and the Arellano and Bond GMM estimator. The latter is used for panels shortened by introducing 5-year averages of all the variables. They use four different ideological measures based on identifying the left-right spectrum. Regarding non-political explanatory variables, they rely on Wagner's law when including the GDP per capita measure. Further, they include the size of government spending, the economically dependent population, the urbanisation rate and the openness towards capital mobility.

Timmons (2010) argues that when partisan turnover in a country is low, cabinets will tax their supporters, meaning right-wing governments increase corporate taxes. In contrast, left-wing governments push for higher consumption taxes. In contrast, when the turnover is high, cabinets, according to Timmons (2010), do not increase the taxation of their supporters. As the governments tax their supporters, they are also expected to implement policies that cater to their expectations the most. Political dummy variables, share of cabinet seats, and their 10-year moving average are considered explanatory variables. Economic, demographic, institutional, labour influence and globalisation controls are introduced.

Lierse (2012) studies the tax policy adjustments introduced by European countries during the 2010-2012 crisis period. She argues that there is no evidence that the adjustments made during this period have an ideological explanation under considerable fiscal stress. She focuses on the direction of different government tax changes by introducing a categorical dependent variable. She constructs a left-right dummy variable based on the European Election Database. In determining whether the government should be considered left or right, she follows the Party Manifesto Group. She further includes the interest rates on bonds, a veto index, an election dummy and a time dummy.

Hansson et al. (2015) focus on CIT covering a panel of 19 developed countries over the 1979-2005 period. Effective average, marginal, and statutory tax rates are dependent variables. They argue that governments react to neighbouring countries' tax policies and models using a spatial variable. They also control various economic variables such as unemployment, interest rates, and the debt-to-GDP ratio. Hansson et al. (2015) argue that the government party is not a significant factor shaping the corporate tax policy, but rather the institutional structure of a country.

Högström and Lidén (2023) examine the interesting case of varying taxation across Swedish municipalities. Since each municipality can influence the personal

income tax rate locally, a sizeable panel dataset was constructed to analyse the right-left context of these decisions. They use demographic variables as controls and provide arguments regarding their expected impact along with political indicators. These are (1) an indication of whether a municipality is rural, (2) municipal size in terms of population, and (3) the average age. Whilst the 1st and third drivers were expected to push tax rates upwards, Högström and Lidén (2023) argue that the municipal size negatively affects the tax rate. The result of their research is that right-wing governments decrease the tax rates. In addition, it was found that tax rate hikes/drops take place during a period that comes immediately after the majoritarian political wing switches in a municipality.

Kölling et al. (2023) focus on Spanish autonomous communities. They find that left-wing and coalition administrations tend to introduce tax innovations at the local level. Whether a tax reform takes place is coded as a binary dependent variable. Several classification models were used to answer the question. It is noted that a tax policy change is accounted for as such, without figuring in the direction of the change (increase/decrease).

Garritzmann and Seng (2023) criticised previous research using the time-series data component so that each year is taken separately. Instead, they form their observation units, which can be nested for several years under one cabinet. They argue that the mixed effects model should be the new standard for these studies. They test whether the prevailing political ideology has an impact on liberalisation. The liberalisation itself is measured using inputs from a database that tracks several relevant indicators. It is found that partisan politics do matter in the case of liberalisation.

3. Methodology

The research examines the scientific question of whether the type of government or parliamentary majority influences the setting of corporate taxes in European countries. We used a dataset of 27 EEA countries covering 2004 to 2019. The analysis is performed using three different econometric techniques (within, difference and mixed effects) on a set of three dependent variables connected with corporate taxation (Corporate taxation revenue/GDP, Corporate taxation revenue/Total tax revenue, and Effective tax rate on corporation) to answer whether corporate income taxation is influenced by prevailing ideology of parliaments. We built nine models and used the explanatory variable “Centre of Political Gravity” and the control variables: Gross Operating Surplus, 10-Year Government Bond Yield, Debt/GDP ratio and the Rule of Law index.

Based on the study of literature outlined in the Literature review, the following two basic hypotheses were verified:

- a) *In line with the general economic literature, it can be expected that left-wing parliamentary majorities will tend to increase corporate taxation. This is mainly due to their redistributive goals (increased taxes on corporations should fall on their owners, who are predominantly wealthy taxpayers).*
- b) *Other factors, such as corporate profitability, government indebtedness, government credibility in the debt market, and government quality, will also have a statistically significant impact on the structure and scope of corporate taxation.*

3.1. Data

The initial dataset forms a balanced panel of 27 EEA countries from 2004 to 2019. The data is pulled from various publicly accessible databases with macroeconomic data. For the research, we assume that different databases are mutually consistent when considering a single data point. For example, a deviation in CIT revenue-to-GDP is expected to be the same or at least statistically not different across two sources (e.g. OECD and Eurostat). Considering that a wide scope of European countries is selected, this sample primarily represents the case of Europe, which is the focus of this study. The sample starts later than what could be observed in previous research, due to the inclusion of Central and Eastern European countries into the study. As such, this study is more representative of the continent as a whole than a study focused only on Western Europe would be. As for the timeliness of the data concerning the moment of the finalisation of the research, the data from the early 20s of 21st century was not included. Here, a structural break occurred due to the COVID-19 pandemic; therefore, modelling these years to extract political conclusions would require additional research. Several interpolations were done at the places where missing observations were present. These do not significantly alter the initial dataset. The target variable takes on three forms:

1. CIT revenue/GDP;
2. CIT revenue/Total tax revenue, and;
3. CIT ETR.

Since tax income depends on the previous years' earnings, and tax policy decisions do not take effect immediately, the explanatory variables are lagged by one year, which takes away one year from the dataset. We do not make any effort to replace it with an artificial observation. Since this research aims to address the political context of tax policy decisions, we find that a much better representation of the data would be to work at the level of parliamentary mandates. For example, if a parliament mandate lasts four years, those four years are taken as one observation, and the dataset variables are averaged for that group. Conversely, if a parliament mandate lasted only two years in another case, those two years are averaged and packed into one observation. Averaging data per parliament mandate is much more sensitive to the specificities of different

countries. For example, if 4-year averages starting with 2004 were used for each country, different parliaments would be mixed in these periods. Averaging and having one observation per mandate is helpful since it removes yearly noise in the data. Garritzmann and Seng (2023) have developed an approach where the number of years within a single cabinet is considered through nesting. Countries as different cross-sectional units are now observed and aggregated at different points – the data becomes unbalanced. The points in time and their frequency depend on the political cycle in each country.

Table 1:

Summary statistics

Variable	count	mean	std	min	25%	50%	75%	max
CIT ETR	137	18.58	8.33	4.48	12.70	18.49	21.99	48.25
CIT-to-Tax revenue	137	7.63	3.75	0.50	5.54	6.68	8.38	26.33
CIT-to-GDP	137	2.76	1.47	0.20	2.04	2.53	3.00	11.08
lag CPG	137	0.36	0.12	0.03	0.28	0.38	0.44	0.61
lag GOS-to-GDP	137	23.39	5.55	13.76	18.97	22.73	26.22	49.95
lag Bond Yield	137	4.09	2.58	0.42	2.61	4.16	4.86	19.37
lag Debt-to-GDP	137	59.67	33.55	5.00	37.53	50.90	79.07	177.95
lag Rule of Law	137	1.11	0.63	-0.23	0.59	1.06	1.74	2.07

Source: Eurostat gov_10a_taxag, CMP database, Eurostat naidsa_10_nf_tr, OECD, UN data, Oxford Economics, World Governance Indicators and own calculations

3.2. Variables

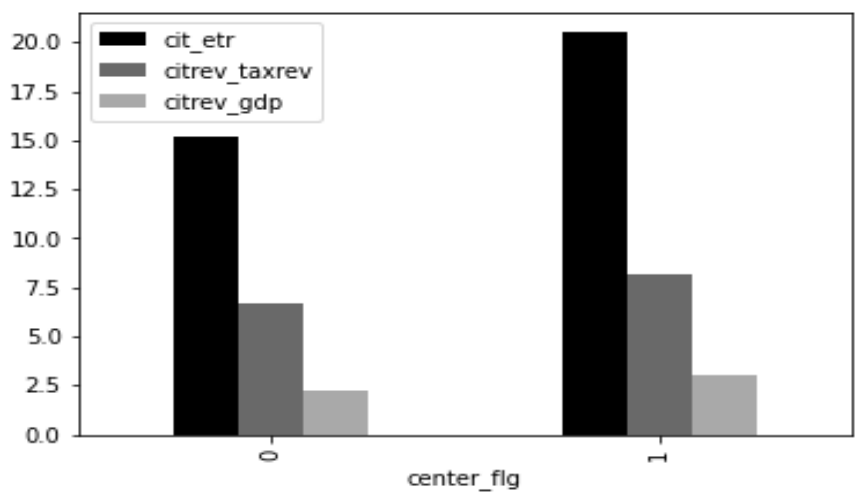
Centre of Political Gravity (CPG). The political explanatory variable under consideration is a continuous variable between 0 and 1. It captures the ideological gravitation of a parliament, where values close to 1 indicate the left-leaning parliaments and the opposite holds for the right-oriented legislations. The variable is constructed using the data made available by the Comparative Manifesto Project (CMP database) and is based on the *Centre of Political Gravity* (CPG) idea. We follow Gross and Sigelman (1984), who define the political gravity as a weighted average of the ideologies of political parties:

$$\sum_{i=1}^n S_i I_i \quad (1)$$

where S stands for the percentage share of seats a party holds in a parliament, and I denotes the ideological background of the party. It can be seen from the following plot that parliaments were either right-wing or centre. No parliaments over the analysed period were strongly on the left side of the political spectrum. However, this raises questions about how the used data source defines a leftist government. It is important

to note that the CMP database is global, and our study is European. One may consider rescaling the variable towards the European context. However, what is important for this research is to correctly differentiate between parliaments, not to place them on the most reader-friendly scale.

Figure 1:
Levels of CIT taxation split by political wing of parliament, 1 stands for centre, 0 stands for right-wing

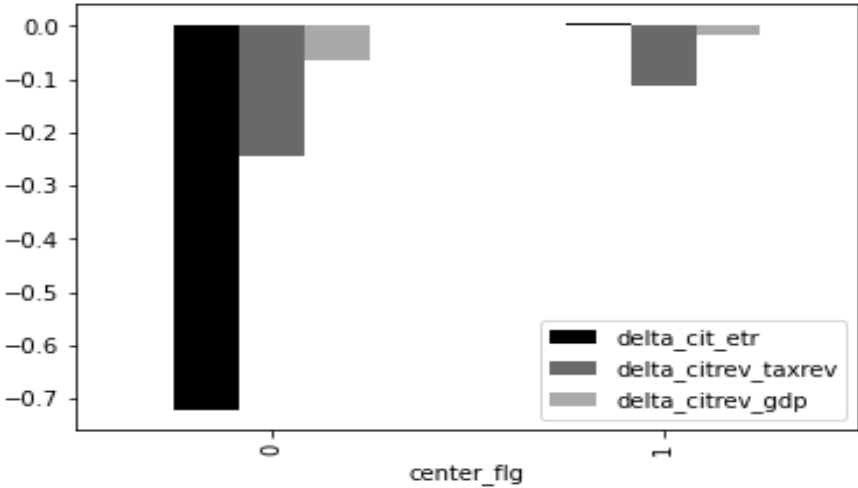


Source: Authors’ own calculations, 2025

Over the observed period, no legislature in the analysed countries was entirely left-wing. The CPG values go up to ~0.66. Such parliaments are rather centre-positioned according to that scale. It could also be interpreted that the value of 0.66 is left-wing in the European context, but we stick to the globalised scale throughout this work. For the plot above, parliaments are grouped into right-wing and centre, depending on whether their CPG value exceeds the 0.33 threshold. It is observed that all three dependent variables attain higher values in the case of social-democratic mandates. The plot above is not based on any form of fixed effects transformation that would guarantee that countries are comparable. In that regard, we also look at the first differences in taxation as presented in the figure below. It can be seen that over the last 20 years, there has been a general trend of lowering the taxation of corporations. However, the pace appears to have been noticeably steeper in the case of right-wing-majority parliaments.

Figure 2:

Changes in target variables split by political wing of parliament, 1 stands for centre, 0 stands for right-wing



Source: Authors' own calculations, 2025

Global overviews of changes in tax policies are provided, for example, by OECD (2024a) and European Commission (2024). The discussion of available data was performed by Amaglobeli et al. (2018). The following control variables are used in the models:

- *Gross operating surplus of non-financial corporations as a per cent of GDP (GOS/GDP).* GOS/GDP is used to capture the effect of (i) the share of non-financial corporations in respective economies and (ii) the profitability of the corporate sector. The data was collected by combining the Eurostat, OECD (for Estonia and the UK) and UN (for Bulgaria³ and Romania) databases. We expect that a unit growth in GOS/GDP positively influences the development of the explained variable.
- *10-Year Government Bond Yield.* Since a government can practically have only two major sources of financing—either debt or taxation—it makes sense to

³ The observations for Bulgaria were available from 2002 through 2017 in the UN database. The Bulgarian Statistical Office also published the GOS of non-financial corporations up until 2017. As the Eurostat database has data about the total economy GOS that covers the 2002-2019 period, the non-financial corporations GOS for 2018 and 2019 were approximated by applying the 2014-2017 non-financial corporations GOS/total economy ratio.

expect that tax policy decisions are made regarding public debt policy. As the 10-year government bond yield captures information about a country's debt price, we expect it to be positively correlated with corporate taxation. Governments would have to turn to more taxation if debt servicing is more expensive. The government bond yield data was collected from the Oxford Economics database.

- *Debt-to-GDP.* With a similar motive on our mind as with the 10Y yield on government bonds. We expect the countries with higher debt relative to their economy to resort towards increasing taxes. Ultimately, we consider both the bond yield and the level of debt because it cannot be claimed that politicians prefer one to the other when it comes to debt policy. It can be argued that the indebtedness ratio is much more visible to the general public.
- *Rule of Law.* The previous variables do not capture the attractiveness of an economy from the standpoint of the reliability of its legal system, level of corruption, political stability, regulatory quality, government effectiveness and the business environment. We expect that the countries that are better off in this field can impose higher taxes on corporations. Conversely, countries in the opposite situation must attempt to retain the current and attract new investments by offering a lower tax burden. Therefore, the *Rule of Law* index is expected to answer the question of why post-socialist countries, on average, tax corporations less. The World Governance Indicators database, maintained by the World Bank, traces several other indices. These indices tend to be highly correlated with each other. Therefore, the *Rule of Law* is the best proxy for this issue. It is defined as an average of the following indicators:
 - Corruption,
 - Government effectiveness,
 - Political stability, and
 - Regulatory quality.

The indicators are continuous. Higher values indicate better performance in the given field than lower values.

3.3. Model

In socioeconomic work, data is often treated with fixed effects estimators such as first differences or the within estimator. In our research, the nature of varying political cycles does not allow us to fixate the dataset from the time perspective. Ultimately the data view becomes imbalanced. The number of exchanged parliaments per country varies between 4 and 6 over the observed period. The switches between parliaments happen at different times. Some parliaments “survive” full 4-year terms and in some cases switches happen as often as on a 2-year basis.

We develop models to test whether left-wing legislatures increase CIT taxation as

opposed to conservative parliaments. The first one is the within fixed effects estimation. The debate is whether the within estimate makes sense when compared to first differencing. In the first case, a clear pitfall stands out in the case of long time series. There the overall average of a time series does not make much sense to start with. Hence, the deviations themselves are less reliable with growing T . The first differences transformation itself does not suffer from this specific issue. However, here the first differences transformation appears as problematic because the data itself aggregates parliaments of different period-lengths. Hence, the differences taken between t and $t-1$ are not the same as between $t-1$ and $t-2$.

The issue also has an interpretation from the angle of the decision-making process. When policymakers propose a change in the tax policy, at what levels do they think? If they want to bring about a significant change to the current level of taxation, then one can expect that first differencing suits the issue best. However, as soon as they think in terms of some larger period and refer to points in time that date back more than one term, this thinking more resembles the within estimator. Finally, policymakers can also think in terms of taxation levels. For example, how much do they tax compared to neighbouring countries? For this reason, we construct models that would take account of these different views on the dependent variable: (1) fixed effects with within transformation, (2) fixed effects with first differencing and (3) mixed effects with the random effect being allowed at the country level.

To start with the formulation of the model, recall that the effective tax rate on corporations follows from a simple calculation:

$$ETR_{it} = \frac{CIT\ revenue_{it}}{EBT_{it}} \quad (2)$$

where i and t are country and time indices, and the *CIT revenue* is revenue from the state's point of view. Note that this calculation can also be performed on the level of a single enterprise, however, the data with which we work is aggregated. Now, the model construction can be focused on the *CIT revenue* component, or it can be extended towards the effective tax rate by adequately accounting for the Earnings Before Tax (*EBT*) component.

Firstly, we formulate models focusing only on the *CIT revenue* expressed as a percentage of (i) GDP and (ii) total tax revenue.

$$\textit{cit ratio} = \alpha + \beta * \textit{cpg} + \gamma * \frac{\textit{gos}}{\textit{gdp}} + \delta * \textit{rule of law} + \vartheta * \textit{yield} + u, \quad (3)$$

where lowercase bolds are vectors and their divisions are element-wise (i.e. X_{it}/Y_{it}),

note that EBT is approximated via the *GOS/GDP ratio*. Also, the additive decomposition of the *CIT revenue* component shows that the profitability of enterprises is in both the numerator and the denominator of the ETR calculation. However, it can be seen in formulation (6) that this term gets cancelled out due to division.

Model (3) now estimates CIT ratios to GDP and total taxation, respectively. Therefore, when reaching the *ETR* in formulation (2), *GOS/GDP* is used to approximate the *EBT*, which helps preserve the *ETR* calculation since both the numerator and the denominator are taken as ratios towards GDP. To summarise, the following three models are estimated:

For CIT revenue as a percentage of GDP:

$$\frac{cit}{gdp} = \alpha + \beta * cpg + \gamma * \frac{gos}{gdp} + \delta * rule\ of\ law + \partial * yield + u. \quad (4)$$

For CIT revenue as a percentage of total tax revenue:

$$\frac{cit}{tax} = \alpha + \beta * cpg + \gamma * \frac{gos}{gdp} + \delta * rule\ of\ law + \partial * yield + u. \quad (5)$$

And for the effective tax rate we estimate the following model:

$$etr = \frac{\alpha + \beta * cpg + \gamma * \frac{gos}{gdp} + \delta * rule\ of\ law + \partial * yield + u}{gos/gdp}. \quad (6.1)$$

Note that the *GOS/GDP-to-GOS/GDP* gets lost and what is left is γ . γ therefore is interpreted as a constant term. Finally, model (6.1) becomes:

$$etr = \gamma + \frac{\alpha + \beta * cpg + \delta * rule\ of\ law + \partial * yield}{gos/gdp} + \tau. \quad (6.2)$$

The estimations of models (4), (5) and (6.2) take upon different formulations, depending on the estimator that is being employed (within, FE, mixed).

4. Results and discussion

4.1. Results

We start with the summary table of the models holding the CIT revenue-to-GDP as the dependent variable. Although the coefficient signs usually attain the expected values, the results are far from statistically significant. One may, therefore, conclude that the features listed below do not sufficiently strongly explain the relationship between CIT revenue and the GDP. In the context of our research, the most important thing here is that CPG is also insignificant.

Table 2:

CIT revenue-to-GDP ratio models

Model type	(1) Within	(2) First difference	(3) Mixed
CPG _{t-1}	0.38 (0.51)	-2.22 (2.06)	0.68 (0.77)
GOS of non-financial corporations _{t-1}	0.03 (0.05)	0.01 (0.05)	0.04 (0.02)
10-Year Yield _{t-1}	0.02 (0.04)	0.02 (0.05)	0.03 (0.03)
Debt-to-GDP _{t-1}	-0.01 (0.003)	-0.01 (0.00)*	-0.005 (0.004)
Rule of Law _{t-1}	-0.51 (0.28)**	-0.51 (0.48)	0.32 (0.34)
N*T	137	110	137
N	27	27	27
T	4-6	3-5	

Note: * - significant at 10 %, ** - significant at 5 %, *** - significant at 1 %, standard errors are in the brackets.

Source: Authors' own calculations, 2025

A point of attention here is the behaviour of the debt-to-GDP and the Rule of Law measures. In the case of debt, the negative coefficient sign signals that the decrease in its proportion to GDP will be followed by an increase in the proportion of CIT to GDP. It can, therefore, be said that they are mutually replacing sources of financing. However, this relationship is not significant.

The result is more complex in the case of the Rule of Law; the only statistically significant model is the one using the within estimator. We focus on that one. The coefficient sign implies that countries with better composite governance indicators tax corporations less relative to their GDP. The question here is, what other sources of financing are then used? These countries typically have access to more plausible debt

financing and have higher debt-to-GDP ratios overall. Therefore, we argue that the taxation level might be unchanged, but that debt takes on a higher proportion in the overall economy.

The results for the CIT revenue-to-Tax revenue ratio are essentially the same as those of the previous set of models. Now, the interpretation of the debt and the price of debt here is, however, different. The negative coefficient of the Debt-to-GDP ratio can no longer be explained by the shares of tax vs. debt financing in the overall economy, since the target variable isolates the issue only to overall tax revenue. Interestingly, higher debt-to-GDP is suggested to lead to a lower CIT share in the tax mix. A possible explanation might be that such countries are trying to kickstart economic growth by attracting foreign capital. Lowering the income tax rates or capital taxation is a way to attract FDI; in turn, this would become visible through increased indebtedness of such countries, provided that an increase in some other tax does not fully compensate for lowering these taxes. Furthermore, governments might aim to lower taxation despite the high debt to maintain or boost companies already doing business in their jurisdiction.

Table 3:
CIT revenue-to-Tax revenue models

Model type	(1) Within	(2) First difference	(3) Mixed
CPG _{t-1}	1.77 (1.33)	-2.93 (4.64)	2.42 (1.82)
GOS of non-financial corporations _{t-1}	0.17 (0.12)	0.12 (0.13)	0.17 (0.06)***
10-Year Yield _{t-1}	0.06 (0.09)	0.05 (0.12)	0.06 (0.07)
Debt-to-GDP _{t-1}	-0.03 (0.01)***	-0.03 (0.01)***	-0.03 (0.01)***
Rule of Law _{t-1}	-1.40 (0.79)*	-1.48 (1.27)	-0.02 (0.86)
N*T	137	110	137
N	27	27	27
T	4-6	3-5	

Note: * - significant at 10 %, ** - significant at 5 %, *** - significant at 1 %, standard errors are in the brackets.

Source: Authors’ own calculations, 2025

The models taking CIT ETR as the dependent variable have the main explanatory

feature, which is significant and positively influences the size of the effective tax rate. The above is in line with our expectations. The focus is now on why CPG is a significant factor in explaining the ETR but not the revenue streams. We argue that the CIT revenue streams, as taken relative to GDP or total taxation, do not sufficiently isolate the issue of tax policymaking itself. When revenue is taken in relative terms, the denominator itself can be pretty variable, and the ultimate resulting value may differ from the tax policy decision. Also, the tax revenue collection does not depend only on the tax rate and base. For example, for smaller European countries, it suffices for a key industry to face issues that affect revenue collection ratios. Hence, in line with Osterloh and Debus (2009), we instead base our conclusions on the relationship between CPG and the ETR.

Table 4:
CIT ETR models

Model type	(1) Within	(2) FE	(3) Mixed
CPG _{t-1} -to-GOS	198.36 (96.53)**	388.43 (279.14)*	234.37 (89.60)**
10-Year Yield _{t-1} -to-GOS	4.69 (3.22)	3.30 (4.22)	4.73 (3.52)
Debt-to-GDP _{t-1} -to-GOS	-0.22 (0.64)	-0.16 (0.61)	0.06 (0.36)
Rule of Law _{t-1} -to-GOS	69.31 (88.01)	91.25 (113.03)	85.29 (35.68)**
N*T	137	110	137
N	27	27	27
T	4-6	3-5	

Note: * - significant at 10 %, ** - significant at 5 %, *** - significant at 1 %, standard errors are in the brackets.

Source: Authors' own calculations, 2025

Although the 10-year yield and the debt ratio suggest increased taxation, this suggestion is statistically insignificant. It can be assumed that a country's government and legislature consider the relationship between tax revenue and debt financing. However, the model result suggests no clear direction in this regard, raising the question of whether these two variables are appropriate measures of a country's financial pressures.

The Rule of Law indicator, which considers the overall stability and reliability of a country's institutional framework, has a positive coefficient. However, the impact is

significant only in the mixed effects model. Therefore, we may only say that there is an indication that countries that are better off in this area leverage their ability to tax corporations more.

Evaluation of hypotheses:

a) Left-wing parliamentary majorities will tend to increase corporate taxation.

Our study's results show that a parliamentary majority's position on the political spectrum can influence the effective tax rate of corporate income. This conclusion cannot be translated to the share of corporate tax income in GDP and total tax revenue, respectively. The results of the last three models suggest that left-wing parliaments increase the ETR of corporate income. These results are also supported by statistical testing. This approach is consistent with Osterloh and Debus's (2009), who argue in favour of the use of this variable.

b) Other factors, such as corporate profitability, government indebtedness, government credibility in the debt market, and government quality, will also have a statistically significant impact on the structure and scope of corporate taxation.

We did not confirm that the countries with higher bond yields and government debt change their tax policies towards higher corporate taxation. The analysis also did not confirm that a parliamentary majority influences the share of corporate tax income in GDP and total tax revenue, respectively. Our study also did not confirm that better government (measured through the Rule of Law index) influences the size or structure of corporate taxation.

4.2. Discussion and implications for corporate taxation policies

Developed and developing countries have been struggling with persistent fiscal imbalances recently, including sustained public budget deficits and rising public debt. If the governing majority (type of government) influenced the level of tax revenues (CIT/GDP) or their structure (CIT/TR), providing voters with relevant information could help explain which types of political parties and governments contribute to reducing public deficits and debt through corporate taxation. However, our analysis shows no statistically significant relationship between the type of government and CIT/GDP or CIT/TR. The above contradicts the widely held assumption that more redistributive political majorities tend to increase the importance of corporate taxation. It also prevents using the aforementioned strategy to improve voter awareness and enhance fiscal responsibility during elections.

Neither the descriptive statistics nor the econometric analysis indicates a

relationship between corporate tax revenue and the type of government (right-wing vs. left-wing). The above means that despite the declared redistributive priorities of left-wing parties, they do not actually increase the fiscal significance of corporate taxation. Therefore, *ceteris paribus* does not enhance redistribution through the tax system. On the other hand, our analysis revealed a significant relationship between government type and effective tax rates, suggesting a potential link between government type and tax policies related to tax base broadening/reduction or between government type and the size of the corporate sector. However, further research is required to support or reject these hypotheses.

The findings of this study are also relevant for Central and Eastern European countries and, more broadly, for post-transition economies. Less developed countries rely more heavily on corporate tax revenues than advanced economies (OECD). The primary reasons for this include differences in tax revenue structures—less developed countries depend less on social security contributions due to smaller social welfare systems. Additionally, these economies rely more on the primary and secondary sectors (resource extraction and manufacturing), often dominated by multinational corporations, making it politically and administratively easier for governments to impose higher taxes on these firms while maintaining lower taxes on individual incomes and consumption. Consequently, as post-transition economies continue to develop, the importance of CIT in their tax structure is expected to decline. The ability to change the structure of tax revenues and administer tax collection also depends on the overall administrative capacity of governments and the willingness to implement possible administrative reforms (De Vries and Nemec, 2013).

The econometric analysis also found no evidence that more indebted or fiscally risky countries (those with higher bond yields) increase corporate taxation to mitigate fiscal risk. Potential explanations include low bond market liquidity in less developed countries, a tendency to borrow outside financial markets, or government policies prioritising higher taxation of other income types, consumption, or wealth. Another possible explanation is governments' overall fiscal irresponsibility and general reluctance to address fiscal imbalances.

5. Conclusions

The main findings of the research are the following: two out of three estimations in the first batch of models indicate that left-wing parliaments might increase the share of CIT revenue in the total GDP. Nonetheless, these suggested statistical tests do not support causality. The following three models use the same explanatory variables. The only change is the replacement of the CIT/GDP with the CIT/TR ratio. The results regarding the Centre of Political Gravity are similar to the ones outlined above – there might be a

causal relationship, and CIT revenue, which is not statistically supported.

The last three models with effective tax rate suggest that left-wing parliaments increase the ETR of corporate income. These results are also supported by statistical testing. This approach is consistent with Osterloh and Debus's (2009), who argue in favour of the use of this variable.

We expected that countries with higher bond yields would change their tax policies toward higher corporate taxation. Nonetheless, this has not been true. The reason behind this might be the low liquidity of such countries' bonds and their tendency to obtain debt financing outside of the bond market.

We keep track of the following limitations of this research: We used three estimation methods and many different dependent variables. The within estimator transforms data by calculating deviations from the average of each defined group – countries in our case. The first difference estimator transforms the data using time-sorted differences of t and $(t-1)$. The mixed estimator combines the fixed and random effects, thus allowing for stochastic deviations per country. All three models have a shared potential pitfall because they are conceptually based on deviation from the average of differentials on level data, which can lead to a loss of information about relative differences versus the level of the data. The above is a standard econometric practice because non-transformed panel data typically results in spurious regressions.

The data is sourced from the following European and global databases: Comparative Manifesto Project (CMP), Eurostat, OECD, OSN, Oxford Economics, and World Bank – World Government Indicators. To complete the whole dataset, the selected period is 2004-2019, even though some data entries were available prior to 2004. Complications regarding how to treat a year in which a parliamentary change was treated with a convention of always assigning it to the outgoing assembly. The weighted average of ideologies of political parties was based on observation weights, which means that behind it, there is an arithmetic assignment of equal weight to each parliament member. It is reasonable to assume that not every parliament member is equally influential. This aspect was, however, not considered.

Outlying observations, such as those from Norway and Cyprus, were kept in the data because once they are used on transformed data points, they deviate only from their averages, and differences are calculated within their levels. Nonetheless, a question always exists regarding the role of outliers. In some cases, one can economically argue that outliers are the most informative observations. In any case, they are not as impactful in this study, given the employed transformations. The Rule of Law is a composite indicator comprising five indicators from the World Government Indicators.

The results of this research can be beneficial for tax policymakers, who can indicate the impacts of changes in government majorities on corporate effective tax rates. For tax administration, the results are helpful as they indicate that a change in government

majority may not lead to a change in the scope of corporate tax revenues, but rather to a change in effective taxation of companies, which may include, for example, changes in the tax base. However, such changes are administratively quite complicated for both tax administrations and taxpayers.

Researchers in taxation (factors influencing the structural development of tax systems), redistribution (the influence of government majorities on strengthening or weakening the redistributive elements of tax systems) and political science (differences between election proclamations and the actual behaviour of government majorities in the field of taxation).

Further research would help investigate why the link between the type of government majority and corporate tax revenue cannot be confirmed. If the usual assumption that left-wing government majorities prefer corporate taxation does not hold in developed or developing countries, it will be necessary to investigate what tax redistributive instruments left-wing majorities prefer.

Another usual question for future research remains whether other econometric tools and the choice of other models would yield different results. It would be helpful to consider, for example, a game theory model as was done by Ferré and Manzano (2022). Another consideration would be to model spatial dependency between cross-sectional units (countries) using a spatial matrix. This approach could be particularly interesting for policy studies on lower levels of administration, as was the case with the Swedish taxation study of Högström and Lidén (2023).

In further research, it will be helpful to focus more on the methodology for classifying government majorities. As mentioned in the previous discussion, one can consider not only majorities in parliament, but also government majorities or the strengths of these majorities. The classification of political parties and members of parliament on the right-left spectrum also remains a research challenge for some political entities.

Acknowledgment

The paper was prepared as one of the outputs of the research project “Challenges for Public Finances During a Polycrisis” of the Faculty of Finance and Accounting at Prague University of Economics and Business, registered by the Internal Grant Agency of Prague University of Economics and Business under the registration number F1/4/2025 and institutional support IP100040.

References

- Angelopoulos, K., Economides, G., & Kamas, P. (2009). Do Political Incentives Matter for Tax Policies? Ideology, Opportunism and the Tax Structure. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1369309>
- Amaglobeli, D., Crispolti, V., Dabla-Norris, E., Karnane, P., & Misch, F. (2018). Tax Policy Measures in Advanced and Emerging Economies: A Novel Database. *IMF Working Papers*, 18(110), 1. <https://doi.org/10.2139/ssrn.3221131>
- Beramendi, P., & Rueda, D. (2007). Social Democracy Constrained: Indirect Taxation in Industrialized Democracies. *British Journal of Political Science*, 37(4), 619–641. <https://doi.org/10.1017/s0007123407000348>
- De Vries, M., & Nemec, J. (2013). Public Sector Reform: An Overview of Recent Literature and Research on NPM and Alternative Paths. *International Journal of Public Sector Management*, 26(1), 4–16. <https://doi.org/10.1108/09513551311293408>
- European Commission. (2024). *Tax Reforms in the EU*. https://taxation-customs.ec.europa.eu/taxation/economic-analysis/tax-reforms-eu_en
- Ferré, M., & Manzano, C. (2022). The Macroeconomic Impact of Radical Right Populist Parties in Government. *Journal of Macroeconomics*, 74, 103471. <https://doi.org/10.1016/j.jmacro.2022.103471>
- Garritzmann, J. L., & Seng, K. (2023). The Politics of (de)liberalization: Studying Partisan Effects Using Mixed-effects Models. *Political Science Research and Methods*, 12(4), 750–766. <https://doi.org/10.1017/psrm.2023.35>
- Gross, D. A., & Sigelman, L. (1984). Comparing Party Systems: A Multidimensional Approach. *Comparative Politics*, 16(4), 463. <https://doi.org/10.2307/421950>
- Hansson, Å., Porter, S., & Williams, S. P. (2015). The Importance of the Political Process on Corporate Tax Policy. *Constitutional Political Economy*, 26(3), 281–306. <https://doi.org/10.1007/s10602-014-9185-8>
- Högström, J., & Lidén, G. (2023). Do Party Politics Still Matter? Examining the Effect of Parties, Governments and Government Changes on the Local Tax Rate in Sweden. *European Political Science Review*, 15(2), 235–253. <https://doi.org/10.1017/s1755773922000388>
- Kölling, M., Toubeau, S., & Godoy, D. Z. (2023). The Determinants of Taxation Innovation Policy in Spain's Common Regime Autonomous Communities (1986–

- 2018). *Publius the Journal of Federalism*, 54(1), 88–120. <https://doi.org/10.1093/publius/pjad027>
- Lierse, H. (2012). European Taxation During the Crisis: Does Politics Matter? *Journal of Public Policy*, 32(3), 207–230. <https://doi.org/10.1017/s0143814x12000116>
- OECD. (2013). *Action Plan on Base Erosion and Profit Shifting*. OECD Publishing, Paris. <https://doi.org/10.1787/9789264202719-en>.
- OECD. (2019). *Corporate Tax Statistics*. OECD Web Archive. <https://webarchive.oecd.org/2020-07-07/504046-corporate-tax-statistics-database-first-edition.pdf>
- OECD. (2024a). *Global Debt Report 2024: Bond Markets in a High-Debt environment*. <https://doi.org/10.1787/91844ea2-en>
- OECD. (2024b). *Tax Policy Reforms 2024: OECD and Selected Partner Economies*. <https://doi.org/10.1787/c3686f5e-en>
- OECD. (2025). *Statutory Corporate Income Tax Rates*. OECD Data Explorer - Archive. https://stats.oecd.org/Index.aspx?DataSetCode=CTS_CIT
- Osterloh, S., & Debus, M. (2009). Partisan Politics in Corporate Tax Competition. Discussion Paper No. 09-078. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1547052>
- Tavares, J. (2004). Does Right or Left Matter? Cabinets, Credibility and Fiscal Adjustments. *Journal of Public Economics*, 88(12), 2447–2468. <https://doi.org/10.1016/j.jpubeco.2003.11.001>
- Timmons, J. F. (2010). Taxation and Credible Commitment: Left, Right, and Partisan Turnover. *Comparative Politics*, 42(2), 207–227. <https://doi.org/10.5129/001041510x12911363509558>
- Volkerink, B., & De Haan, J. (1999). Political and Institutional Determinants of the Tax Mix: An Empirical Investigation for OECD Countries. *University of Groningen*, 126. <https://research.rug.nl/en/publications/political-and-institutional-determinants-of-the-tax-mix-an-empiri>
- Woldendorp, J., Keman, H., & Budge, I. (1993). *Handbook of Democratic Government: Party Government in 20 Democracies, 1945-1990*. Kluwer Academic Publishers.