Who spends more? Party Ideology and Public Spending in 16 Post-Socialist Countries

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Abstract: *The article is revisiting a never-concluded debate about the partisan effect on public spending. It explores the impact of the ruling parties' ideological orientation, operationalised in a single-dimensional left-right scale, on budget expenditures in Central and Eastern Europe. The research is conducted within an expanded time series covering the complete period since the fall of one-party regimes in sixteen former socialist countries, where the issue has remained under-studied, especially in comparison with a number of similar studies focusing mostly on developed Western democracies. The findings moderately support the main hypothesis demonstrating that, although an ideology matters, there are also other more significant predictors of the spending among political, economic or other contextual variables related to a specific transitional framework of the countries in question. The same conclusion applies to the total consumption, as well as to the examined budget segments of social transfers and education, while the environmental spending seems to be completely unrelated to the partisan variable.*

Keywords: *party ideology, public spending, left-right scale, economic policy, Central and Eastern Europe*

Introduction

With the breakdown of socialism in Central and Eastern Europe (CEE), the paradigm of an omnipresent state providing its citizens with a widespread access to various aspects of welfare, from heavily subsidised education and healthcare to housing and employment, ended abruptly. The whole socialist concept of the society changed rapidly, with a significant withdrawal of the state from economic

affairs. Political changes ran in parallel with the economic transition. They included the dissolution of the authoritarian single-party regimes and their transition to democracy, primarily through a formation of a multiparty system and, within this process, subsequent positioning of newly formed parties along the ideological spectrum.

Similar to Western democracies, a most common denominator of these new party systems was manifested in the left-right cleavage. The genesis of the left--right dichotomy famously dates back to the times of the French Revolution. Although the concepts of left and right have evolved since, the basic logic of their distinction has persisted: the left is concerned with the idea of equality; while the right is dedicated to the principles of hierarchy and social continuity (Bobio 1996: 29–45). Translated to a field of economy, left-wing parties are addressing social inequalities, advocating an active interventionist state in ensuring full employment along with a network of social services. The right, on the other hand, promotes reducing regulation and restricting redistributive policies in favour of a free market. A socioeconomic line of cleavage is the basis for ideological profiling of the parties in Western democracies. Budge and Robertson (1987) analysed electoral manifestos in twenty democracies, identifying an evident divide between left and right in the area of economic policies. It manifested itself as a conflict between state regulation and free market. Some authors believe this division has become a 'super-issue', summarising all political positions and attitudes, even though its socioeconomic aspect might have been expanded in order to include certain post-materialist values (Dalton 2014: 124–127). Moreover, several authors have identified the development of a left--right socioeconomic divide in early stages of the formation of post-socialist party systems (Kitschelt 1995; Markus 1996).

Our study is operationalising the left-right divide in former socialist countries, utilising it to examine the impact of party ideology on public spending. We consider public spending to be the main indicator of the conflicting socioeconomic policies of left and right. Moreover, it is arguably a most indicative area for exploring different effects of party ideology, since the size and composition of the government expenditures clearly indicate the effects of state intervention, presumably depending on programmatic preferences of left or right governments. Namely, because of their pursuit towards social equality, we assume that the left governments would strive for a higher level of intervention in the economy, increasing social transfers and other services – which would ultimately be manifested in expanded public expenditure. The opposite is expected from the right parties in power: programmatic commitment towards deregulation, privatisation, marketisation and fiscal conservatism, suggesting that these parties would strive towards lower spending. Our aim is to establish whether the assumed ideological positions of ruling parties in CEE would translate to expected policy outcomes.

Theoretical Framework and the Ongoing Debate

The relationship between party ideology and public spending has been often examined, albeit mostly in countries with longer democratic traditions. One of the pioneering studies was the work of David Cameron (1978), who analysed trends of the government expenditure in 18 developed Western democracies, from 1960 to 1975. Cameron noted a positive correlation between participation of left parties in the government and increases in total spending. Later that year, Bruno Frey (1978) came up with similar findings in two cases he had examined: the UK and the West Germany. In a comparative study covering the OECD countries between 1970 and 1980, Murrell (1985) employed a similar dependent variable: instead of public spending, he analysed the number of public employees, identifying a strong positive correlation between the strength of socialist parties and the size of the public sector.

Hicks and Swank (1984) examined spending patterns in 18 developed democracies, finding a strong link between ideological variables and a level of social transfers. Their results underline the importance of segmenting the individual budget components in order to further explore the correlation. Almost two decades later, similar research was conducted by Kittel and Obinger (2003), who explored the effects on social transfers in European countries. The findings indicated a strong effect of ideology on expenditure patterns in Western Europe during the 1980s, with a weakening tendency in the last decade of the 20th century. The study also identified a strong influence of other economic predictors, such as openness of the economy, GDP growth and unemployment rates, asserting their importance in explaining the expenditure levels. Contrary to Kittel and Obinger, Potrafke (2011) found a significant effect of the leftist parties on spending surges even in the period after 1990.

Several authors examined the impact of ideology in the USA. Berry and Lowery (1987) analysed spending fluctuations over four decades after the Second World War, identifying increased transfers when Democrats were in power and budget cuts when Republicans ruled. Similar findings were published by Lewis-Beck and Rice (1985), who investigated the period from 1930–1980, while Golden and Poterba (1980) calculated a 10 percent cutback in government spending during Republican administrations.

In one of the first studies that differentiated centre parties from both left and right, Duane Swank (1988) examined the levels of public spending in 18 liberal democracies. The results confirmed presumed hypotheses on the party impact. Similar was found by Comiskey (1993), who identified furthermore strong effects of the electoral budget cycle and of the age structure, concluding that older populations put pressure on governments to spend more on social transfers.

Devising further previous findings, three authors directly tested the effect of the right and left-wing on public spending in 15 Western countries, find-

ing significant increases in expenditure when the left parties exercised power (Blais et al. 1993). They also found a strong positive impact of rising unemployment rates on spending growth, indicating that higher unemployment leads to an expansion of social safety net. A slightly more complex model was provided by Pickering and Rockey (2011), who tested the impact of ideology on the budget spending in 17 developed democracies. They concluded that correlation demonstrates a strong positive coefficient. Finally, a 2013 research examined the effect of ruling party ideology on different components of spending in 22 countries between 1988 and 2008, once again confirming a significant increase in social transfers over the periods of leftist governments (Bove – Efthyvoulou 2013).

There is also conflicting evidence. Imbeau et al. (2001) famously conducted a meta-analysis of the studies dealing with the left-right government composition and its policy outputs, identifying a significant partisan effect in only 37% of the studies testing either total spending or the size of the state. Naturally, analysing hundreds of papers, they did not specify the context of every individual research, classifying them only in several basic categories. For example, they cited Solano (1983), who had tested an impact of the left-wing governments on spending in 16 democracies, as one of the authors who very early in the debate disproved the importance of the partisan effect. However, it should be noted that Solano's study was limited to only a single year of analysis – 1968, indicating a need to conduct a longitudinal research in order to prove continuous partisan influence.

In contrast to the number of researchers examining the correlation in Western democracies, similar studies focused on Central and Eastern Europe have remained scarce. One of the few was the work of Careja and Emmenegger (2009), who tested not just total government spending, but also specific areas of budgetary expenditure in 12 countries over the first decade of the transition. Their findings imply that the impact of the government composition is statistically the most significant factor in explaining spending levels, along with a strong positive correlation between participation of the left-wing parties in the government and increases in not only total spending, but also in social transfers. Tavits and Letki (2009) argued the opposite, surprisingly claiming that the leftist parties had stronger incentives and better opportunities to cut spending during transition because of a more cohesive electorate, the need to demonstrate distancing from socialist policies and objective demands stemming from supranational economic and political integration. The rightist parties, they also asserted, were subjected to populist pressure to provide expanded social spending. This was illustrated with case studies from Hungary and Poland, particularly emphasising the neoliberal reforms conducted by the nominally leftist Hungarian Socialist Party (MSZP), especially over the 1994–1998 term. Aware that MSZP could be an isolated case with no broader implications for the

rest of the transitional countries, the authors further corroborated the claim by testing the partisan influence on spending in 13 post-socialist countries, for the period from 1989 to 2004. However, their work was heavily criticised by Coman (2019), who stated that the manifesto-based measure of ideology employed by Tavits and Letki was not suitable for this kind of analysis, primarily because of the time-bias – explaining that ideological positions being mapped in this way might not be mutually comparable in a time series. Moreover, Coman claimed that spending levels were mostly the result of external constraints CEE countries faced during the transition and EU integration, and not of the party ideology. In a recent study, Pavlović and Bešić (2019) examined the impact of various political variables on fiscal policies in 15 former socialist European countries, concluding that ideology is not a significant predictor. It should be noted that the formation of partisan variable in this research could be subjected to the same criticism Coman had stated earlier. Namely, the two authors also used the Manifesto Project, and moreover, determined the positions of coalitions on a left-right scale employing only the manifesto-based position of cabinet's median agent.

There is clearly conflicting evidence regarding variables affecting spending in CEE countries. Expanding on the work of the cited authors, our study investigates if there is a significant correlation between party ideology and the level of public spending with a more comprehensive model of variables, sampling every parliamentary democracy from Central and Eastern Europe over the complete period since the fall of socialism.

Research Design

This study covers a period of 28 years (1990 to 2017) in 16 former socialist states of Central and Eastern Europe, selected mainly according to the criteria of democracy (Marshall 2013) and parliamentary or premier-presidential systems (Shugart 2005: 333–341). The institutional outline of these systems allows us to determine the direct influence of parliamentary-elected cabinets on spending policies. The 16 countries are: Poland, Hungary, Czech Republic, Slovakia, Estonia, Latvia, Lithuania, Romania, Bulgaria, Moldova, Slovenia, Croatia, North Macedonia, Montenegro, Serbia and Albania. Several observations for these countries are excluded from the sample for two reasons: 1) the period of participation in larger federations (Czechoslovakia, former Yugoslav countries, former Soviet countries), mainly because of the complexity of division of budgetary competences between the federal and republic levels; as well as 2) the duration of active armed conflicts, due to a changed cost structure during the wartime. The hypotheses are tested in a regression statistical model with the ideological position of ruling parties serving as the main independent variable.

Hypotheses

To construct a suitable framework for the analysis, several groups of hypotheses are formed. The first group is dedicated to determining the impact of party ideology and other alternative explanators on public spending. The second group refers to the specific impact of left, right or centre parties and coalitions on spending fluctuations. Finally, the third group concerns the manifestation of ideology effect within the expenditure structure, specifying several components of the budget in which the effect of ideology is expected to be demonstrated.

> Hypothesis 1a: *The ideology of ruling parties has the strongest effect on the level of public spending in former socialist countries.*

This claim places the ideology on one side of the explanation, with all other possible factors on the other, in the form of alternative explanatory variables. The complex nature of public spending, its formation and trends, can be objectively influenced by a number of factors. Through alternative hypotheses, we assume the impact of four additional groups of variables:

> Hypothesis 1b: *Economic factors have the strongest effect on the level of public spending in former socialist countries.*

> Hypothesis 1c: *A design of the political system has the strongest effect on the level of public spending in former socialist countries.*

> Hypothesis 1d: *Demographic factors have the strongest effect on the level of public spending in former socialist countries.*

> Hypothesis 1e: *Contextual factors of the transitional period have the strongest effect on the level of public spending in former socialist countries.*

Contextual factors, as it will be explained later in more detail, include the level of transformation, a history of armed conflicts during the transition, and the achieved level of EU accession.

The following group of hypotheses aims to establish the trends in spending in relation to the party ideology. The hypothesis relating to the centre parties does not presume that these governments will maintain expenditures at the same levels as their leftist or rightist predecessors, nor will they try to balance the budgets between the left and right governments. Rather, the position of the centre is derivative, assuming that they will not produce statistically significant expenditure trends, and meaning that the centre does not have a systematic position on the issue. This claim is consistent with the composition of the

centre field in CEE countries, which can include Christian democratic parties; former left-wing parties which adopted a third-way approach and compromised with free market liberalism; a number of catch-all populist parties with no firm ideological roots; but also different regionalist or minority interest parties.

> Hypothesis 2a. *There is an increase in public spending when left-wing governments are in power in former socialist countries.*

> Hypothesis 2b. *There is a decrease in public spending when right-wing governments are in power in former socialist countries.*

> Hypothesis 2c. *There is no statistically significant change in public spending when centre governments are in power in former socialist countries.*

Finally, the third group of hypotheses assumes the manifestation of the partisan effect along specific budget components. These expectations are based on the traditional leftist interest in elimination of social injustices; hence, the increase in spending during their governments can be expected in segments affecting the amelioration of inequality. Some of these proposals have already been tested in the aforementioned studies of Western democracies. The budget components in question include social transfers (Hicks – Swank 1984; Comiskey 1993; Blais et al. 1993; Kittel – Obinger 2003; Potrafke 2011; Bove – Efthyvoulou 2013); environmental protection, not only because of the green parties' traditional left-wing orientation (Bahro 1984), but also due to the right-wing tendency to deregulate this area; as well as education (Careja – Emmenegger 2009; Potrafke 2011; Jungblut 2014).

> Hypothesis 3a. *There is an increase in social transfers when left-wing governments are in power in former socialist countries.*

> Hypothesis 3b. *There is an increase in spending in the budget component of environmental protection when left-wing governments are in power in former socialist countries.*

> Hypothesis 3c. *There is an increase in spending in the budget component of education when left-wing governments are in power in former socialist countries.*

Variables

The main dependent variable is the annual level of public spending, regarded as a sum of value of all goods and services, including compensation of employees, purchased from the state budget (Careja – Emmenegger 2009: 173), and

expressed as a percentage of GDP (World Bank 2018). Other dependent variables relate to selected segments of public spending: the annual expenditure on social transfers, which include pensions, unemployment benefits, family benefits, health benefits, education and housing subsidies, and the social assistance (Eurostat 2018); the consumption for the entire environmental protection component (Eurostat 2018); and the expenditure on education, which includes all the expenses for all levels from pre-school to higher education (World Bank 2018). These variables have also been expressed as a percentage of GDP.

The main independent variable is the ideological position of the government, expressed in three distinctive categories: left, right and centre. A number of the authors examining the relationship between ideologies and spending used a one-dimensional spatial model, that is, the left-right scale (Cameron 1978; Frey 1978; Hicks – Swank 1984; Swank 1988; Comiskey 1993; Blais et al. 1993; Crepaz 1996; Tavits – Letki 2009; Pickering – Rockey 2011). Reduction of usually complex spaces of ideological competition to a single dimension is sometimes recognised as a problem, especially in the CEE context, which includes less programmatic political parties, a confusing structure of cleavages, and socio-cultural dimensions of ideology influencing the general left-right position of parties. While arguing in favour of a one-dimensional scale, Ian Budge (2013) claims that, despite a wide variety of values constituting party ideology, the constructs of these values are by no means accidental – but derived from common development and further embedded in categories of left and right. Several authors have tested the positions of parties on various dimensions, concluding their tendency to be interrelated to a general context of the dominant left-right divide (Kitschelt 1994; Hooghe et al. 2002; Marks et al. 2006). As one of the conclusions of their extensive study, Benoit and Laver (2006: 157–159) stated that it was possible to predict precisely the position of the parties on a one-dimensional scale in relation to their position on individual policy dimensions, implying that the left-right scale contains the sum of all ideological divisions of a party system. In addition, the findings of our study could also contribute to the debate, providing new evidence on policy outcomes of left and right.

The independent variable was derived from an expert survey of the ruling parties and coalitions in the countries of Central and Eastern Europe (Bursać 2018). The surveys such as Manifesto Project or Chapel Hill have not been used primarily because of the missing data on the number of years for the sample countries, but also, in the case of the Manifesto Project, due to the salience theory. Namely, the Manifesto Research Group treats election manifestos as isolated documents without any analysis of other party features relevant to measuring the ideology. Some critics believe that electoral programmes should be understood more as indicators of the current affairs in the society or as signals to the electorate, rather than a relatively permanent ideological position of the party (Franzmann – Kaiser 2006: 165). The employed dataset has been

retrieved from an expert survey which included a multinational panel of 273 experts for CEE party systems, asking the respondents to locate each party on a single ordinal left-right scale, ranging from the value 0 (extreme left) to the value 10 (extreme right). The dataset also includes average ideology of every government, calculated as a weighted mean of member parties, in relation to their parliamentary strength. On that basis, we have extrapolated three positions: left (the values ranging from 0 to 4), centre (from 4.01 to 5.99) and right (6 to 10). Ultimately, this gave us a total of 373 observations, with the unit of analysis being a single fiscal year for every of the 16 countries sampled. In 79 of these cases the leftist governments were in power, 129 cases belonged to the centre governments, and 165 to the right-wing cabinets.

Since investigation of the public spending determinants is one of the most prominent questions of both economics and political sciences, a number of studies have been produced to tackle the issue. The partisan approach we accepted stipulates that ideological preferences determine fluctuations of public spending. However, government expenditure includes different functions of the state and could be influenced by a variety of factors, prompting us to consider an inclusion of other potential determinants in the model. Not all of the surveyed studies include the same set of controls and alternatives, but there are certain variables that are traditionally a part of the model. They most notably include economic factors and demographic data, but also several variables that are connected with political institutions. These factors can also cause spending levels to change, so we must evaluate their effect to ensure a proper estimation of the party impact. Moreover, due to the specific framework of the sampled countries, we have constructed three additional variables that can alter the spending levels, with regard to a conflict history, EU accession and a level of transformation of former socialist societies. Bearing in mind the limitations of the previous studies, it is important to assemble a comprehensive model, as well as a large data set. Following a common practice, we estimate the models using ordinary least squares regression with panel corrected standard errors and controls for autocorrelation and multicollinearity.

As stated earlier, we also employ four groups of alternative predictors in the model. The economic group includes variables such as unemployment rate (World Bank 2018). Based on several studies (Rice 1986; Kittel – Obinger 2003), we expect to find a positive relationship between high unemployment and an increase in expenditure, especially social transfers (Blais et al. 1993; Careja – Emmenegger 2009), assuming that governments tend to spend more in order to strengthen the social safety net when high unemployment occurs. We also assume that the rate of GDP growth (World Bank 2018) would have a positive effect on spending, with governments pursuing expansionary policies in the years of economic growth (Crepaz 1996; Kittel – Obinger 2003; Holzner 2010). Moreover, we predict a similar positive coefficient with respect to the

level of the public debt (IMF 2018), assuming that governments would borrow partially to finance a higher spending (Battaglini – Coate 2008). On the other hand, GDP per capita (World Bank 2018) is used as an indicator of a general standard (Easterlin 2000: 7–10), with expectation to demonstrate the differences in spending preferences in the countries with a higher standard of living, especially when it comes to education and environment. The final economic variable is constructed as binary and refers to the existence of arrangement with the International Monetary Fund in a given year (IMF 2018). We expect a negative coefficient of this relation, because such arrangements usually require structural adjustments that almost always involve certain cuts in consumption (Nooruddin – Simmons 2006).

The political variable group includes several characteristics of the party system and institutional design. The electoral year variable indicates the government in the last year of their terms, with the expectation of more expansive fiscal policies from those cabinets, in accordance with the political budget cycle theory (Klomp – de Haan 2013; Aaskoven – Lassen 2017). The electoral system as predictor is reduced to examination of the effect of a closed-list proportional system. In this way, we have set a distinction between closed systems on one side, and all other more personalised variations of electoral systems in use in CEE countries over the last three decades (which include different variants of open list, mixed member or majority voting). We are expecting that the use of closed lists results in lower spending, because of the limited number of funding requests made by the autonomous political actors chosen relatively independently from the centralised party bodies. In more open versions of the seat allocation, we presume there is a motivation for members of parliaments to fight for a share in budgetary allocation in order to satisfy their electorate, causing an increase in spending. Similar logic is employed in construction of coalition size variable, presuming that more veto players cause raises in spending (Pavlović – Bešić 2014). Furthermore, we expect a positive coefficient for bicameral systems in which the upper houses have budgetary competences, because of an additional veto player in the budget process. We also test the effect of minority governments, bearing in mind that previous findings on the issue have been conflicting (Edin – Ohlsson 1991; Towliat 2014).

We expect a positive coefficient from demographic variables, a third group of alternative predictors. We test the effect of the share of the people under 15 and over 65 in the general population (World Bank 2018). In both cases, we assume that a larger share of these groups would cause an increase in spending, especially in social transfers (Rice 1986; Pampel – Williamson 1988; Comiskey 1993); but also in the segment of education, in relation to the younger population.

The final group of contextual variables is constructed to include three potential predictors. Bearing in mind that most indicators related to the level of openness of the economy, democratic transformation, the rule of law or the success

of transition are mutually collinear, we created a new variable: the transformation level. This composite variable includes the Corruption Perceptions Index, (Transparency International 2018), the Bertelsmann Foundation's Transformation Index (Bertelsmann Stiftung 2018), as well as the indicators of the openness of the economy: a share of foreign trade in GDP, foreign direct investment and a share of tertiary sector in GDP (World Bank 2018). However, due to the missing data in individual databases, the application of the new variable narrowed the initial sample to only 180 observations. Although this figure alone could be sufficient to draw conclusions about the effects on public spending, we nevertheless employ two different regression models. One of them, with a smaller number of observations, includes the new variable; the other does not. We expect a positive coefficient from the transformation level, with several authors arguing that integration of a country into the global economy is accompanied by the expansion of social programs in order to compensate the risks of global competition in the labour market (Cameron 1978; Ruggie 1983). Other contextual variables include a binary variable of conflict legacy, assuming rise in spending in countries where armed conflicts have occurred lately; and the binary variable of EU negotiations, believing that candidate countries allocate more financial resources in the process of adaptation to EU regulations and standards, especially in areas such as the environment (Sciberras 2002).

Findings

Hypotheses regarding the fluctuations in the levels of general spending were tested in four similar models (see: Table 1). Models 1 and 2 differ only in the ideological category of right and left whereas the results of the coefficients of other predictors remain identical in both. Models 3 and 4 include an additional variable: the transformation level. As mentioned earlier, the inclusion of this predictor significantly increases the percentage of explained variance, but to the detriment of the number of observations.

The correlation between party ideology and the level of spending is expected and statistically significant, but it is important to notice that ideology is not the main predictor. The impact of particular political, demographic and contextual variables proves to be more robust. Nevertheless, the partisan variable is following the presumed logic: the left-wing governments have a positive effect, and vice versa, the right-wing cabinets cause lower levels of government consumption. Regarding the ideological centre, the results suggest that these governments, when significant, also tend to cut spending – sometimes even in a greater scope than rightist parties and coalitions. The qualitative analysis of centre governments' composition in CEE implies that many centre parties that were cutting spending came from the leftist tradition, as former left-wing parties which, after the first period of 1990s transition, ideologically moved

Table 1: Impact of party ideology (and other predictors) on general public spending

	model 1	model 2	model 3	model 4
(constant)	23.012** (.547)	23.824** (.620)	20.825** (.454)	22.115** (.558)
Left government	.812+ (.417)		1.289** (.417)	
Centre government	-.101 (.331)	-.913* (.461)	.308 (.294)	-.981* (.456)
Right government		-.812+ (.417)		-1.289** (.417)
Unemployment rate	-.031 (.026)	-.031 (.026)	-.051* (.025)	-.051* (.025)
GDP growth	-.157** (.038)	-.157** (.038)	-.116** (.030)	-.116** (.030)
Public debt	-.038** (.007)	-.038** (.007)	-.001 (.007)	-.001 (.007)
IMF	-.028 (.313)	-.028 (.313)	-.396 (.285)	-.396 (.285)
Electoral year	-.163 (.282)	-.163 (.282)	-.030 (.246)	-.030 (.246)
Closed list PR	-2.415** (.467)	-2.415** (.467)	-3.075** (.444)	-3.075** (.444)
Coalition size	-.226* (.084)	-.226* (.084)	-0.86 (.071)	-0.86 (.071)
Minority government	-1.709** (.412)	-1.709** (.412)	-1.020** (.365)	-1.020** (.365)
Upper house	-.331 (.372)	-.331 (.372)	1.024** (.352)	1.024** (.352)
Population below 15	2.100** (.549)	2.100** (.549)	2.835** (.533)	2.835** (.533)
Population above 65	-3.690** (1.138)	-3.690** (1.138)	-4.967** (1.026)	-4.967** (1.026)
EU negotiations	1.596** (.336)	1.596** (.336)	-.220 (.443)	-.220 (.443)
Post-conflict	3.343** (.514)	3.343** (.514)	4.507** (.529)	4.507** (.529)
Transformation level			.533** (.145)	.533** (.145)
R^2	.396	.396	.685	.685
CI	12.673	14.621	12.535	15.723
N	297	297	183	183

Dependent variable: public spending as percentage of GDP
$+p < 0.1$; $*p < 0.05$; $**p < 0.01$

closer to the centre, similarly to the transformation process of socialists and social democrats to third way parties in Western democracies. We can identify such spending trends with the governments of the Social Democratic Party of Croatia, the Bulgarian Socialist Party, the Socialist Party of Albania and sometimes with Fico's Smer cabinet in Slovakia and the Social Democratic Union of Macedonia's cabinets. These parties have slightly moved towards the centre over the last two decades. Moreover, some of the left-wing parties also reduced spending levels when in centrist coalitions with conservative or liberal parties, which was the case with Sobotka's cabinet (Czech Social Democratic Party), Ponta cabinet (Social Democratic Party of Romania) and some of the coalition governments led by the Social Democratic Party of Lithuania. This also stands for a part of social conservative centre governments in position to push for reform after periods of stagnation, such as Dzurinda's first cabinet in Slovakia or various centre right coalitions in Baltic countries.

The closed list system proves to be a major negative predictor. A reduced number of local or autonomous veto players inherent to this electoral system results in a significant reduction of spending in all four models. In this sense, we can argue that the centralisation of intra-party decision-making strongly affects the efficiency of fiscal allocation. Minority cabinet is also an important negative predictor according to all four models, which is in accordance with a study claiming that these governments tend to pursue restrictive fiscal policies (Towliat 2014).

Demography also demonstrates a strong relation to the dependent variable. And while the impact of the population under the age of 15 is positive and expected, the population over 65 produced a surprising result, seemingly causing the levels of spending to drop. One possible explanation for this anomaly could be the departure of state employees into retirement, in the course of the continuous shrinking of the public sectors in CEE countries over the last three decades. If this outflow could reduce spending, it implies that pension costs in the sampled countries would be notably lower than the expenditures for public sector wages (Holzmann – Guven 2009). Additionally, in some of these countries the second and third pillars of the pension system help reduce the pressure on state funded pension costs. Of course, this result could prove to be a methodological anomaly, although we tested correlations separately and received similar coefficients. Nevertheless, a more detailed exploration of these findings would require a separate study.

Some of the other variables also seem to be important predictors of spending. Post-conflict legacy yields the single strongest positive coefficient in the whole model, indicating that countries affected by armed conflicts allocate significantly higher resources, presumably to support humanitarian issues and reconstruction. It must be noted that post-conflict spending is relevant only for a limited part of our sample. Moreover, it naturally decreases over time,

taking into consideration that the last armed conflict in the sampled countries happened in North Macedonia in 2001, with programs aimed at alleviation of war consequences in these countries coming to an end. Expected positive effects regarding the transformation level and EU accession are also confirmed. However, these two variables tend to display a certain, albeit statistically unimportant level of collinearity in constructed models, which seems logical, as the EU accession process ran in parallel with transformation of these societies and their opening to the World.

Spending Structure

Similar to general spending, the hypotheses concerning three budget components – social transfers, environmental protection and education – are also tested within two models, depending on the inclusion of the transformation level variable (see: Table 2)

The party ideology demonstrates a strong impact on social transfers, and, to a lesser extent, on education budgets. On the other hand, the results suggest that ideological preferences have no effect on environmental spending, raising the issue of green politics' viability in CEE. It seems that post-materialist values in transitional countries have not been sufficiently embedded yet in party systems or in the social cleavage structure. The claim is further supported by the modest success of environmentalist parties in post-socialist countries. Over the last three decades, only a handful have managed to participate in ruling coalitions as minor partners, in the Czech Republic (2006–2010), Romania (1991–1992 and 1996–2000) and Slovenia (1992–1993). There are two notable exceptions. After being a minority partner in multiple governments in the 1990s, the Latvian Green Party merged into the agrarian Union of Greens and Farmers, participating in almost every government since 2002, and in 2004 appointing the first prime minister from a nominally green party anywhere in the World (Van Haute 2016: 118). The second are the Lithuanian Farmers and Greens Union, which emerged as a winner in the 2016 election and has been leading the ruling coalition since. However, despite their official title, these two parties are often described as populist, nationalist or conservative, marginalising the environmental aspects of their party programs (Auers 2012; Ramonaite 2020). The socially conservative values of these parties are different from the core ideology of green parties in the rest of Europe, sometimes even resulting in their mutual alienation. For example, the Latvian Union of Greens and Farmers has not been a member of either of the green groups during their stint in the European Parliament, while the Lithuanian Farmers and Greens Union became a member of Greens – European Free Alliance group only in 2014, after years of affiliation with populist Eurosceptics. Nevertheless, these exceptions do not have much impact on the correlation between ideology and environmental spending in CEE.

Table 2: Impact of party ideology (and other predictors) on selected budget components

	social transfers		environment		education	
	model 1	model 2	model 1	model 2	model 1	model 2
(constant)	11.945** (.564)	11.759** (.672)	.444** (.102)	.524** (.115)	5.530** (.355)	5.837** (.398)
Left government	.697+ (.404)	1.597** (.550)	.015 (.064)	.053 (.085)	.413* (.194)	.610* (.258)
Centre government	.344 (.297)	-.237 (.340)	.021 (.045)	-.084 (.052)	-.385* (.177)	-.297 (.197)
Unemployment rate	.059 (.038)	.027 (.048)				
GDP growth	-.141** (.035)	-.131** (.033)	-.005 (.005)	-.003 (.005)	-.035+ (.019)	-.030 (.019)
Public debt	.063** (.007)	.073** (.008)	.000 (.001)	.001 (.001)	-.016** (.004)	-.008+ (.005)
GDP per capita			-.000 (.000)	-.000* (.000)	-.000 (.000)	-.000+ (.000)
IMF	-.394 (.334)	-.760 (.485)	-.152** (.052)	-.130* (.064)	-.207 (.186)	-.611* (.261)
Electoral year	-.169 (.264)	-.092 (.295)	-.021 (.042)	-.034 (.048)	-.117 (.152)	-.062 (.171)
Closed list PR	-2.412** (.473)	-.677 (.609)			-.364 (.275)	-.803* (.340)
Coalition size	-.211 (1.019)	-1.554 (.982)	.056** (.021)	.100** (.025)		
Minority government	-.558 (.357)	.292 (.395)				
Upper house	.656* (.309)	-.086 (.382)				
Population below 15	-.774 (.644)	.050 (.823)	.293* (.127)	.331* (.157)	.043 (.391)	.339 (.464)
Population above 65	-3.008** (1.096)	-2.361+ (1.351)				
EU negotiations	-.238 (.328)	-.359 (.636)	-.011 (.053)	-.055 (.082)		
Post-conflict	1.820** (.586)	-.072 (.833)	-.433** (.065)	-.520** (.080)	1.548** (.291)	1.609** (.348)
Transformation level		-.338* (.169)		-.023 (.025)		.373** (.102)
R^2	.536	.669	.362	.468	.265	.485
CI	13.821	15.208	14.560	14.528	13.664	13.978
N	216	131	153	100	212	122

Dependent variable: public spending as percentage of GDP
+$p < 0.1$; *$p < 0.05$; **$p < 0.01$

We have hypothesised that GDP per capita variable could display differences in spending patterns in the countries with higher living standards, especially with regard to the acceptance of post-materialist values, but the expectation proves to be unfounded – the effect of this variable is virtually non-existent. On the other hand, negative coefficients of the IMF variable indicate that education and environment spending are among those to be cut during the structural adjustment arrangements.

As for the variables affecting social transfer spending, a statistically significant negative coefficient is found in relation to GDP growth. One potential explanation for this result is that the increase in transfers is governments' mechanism to combat social problems in the years of the economic crises, which are characterised by declining GDP. Namely, the average spending on social transfers in CEE countries rose to 14.34% of GDP during the Great Recession maximum (2008 to 2010), a notable increase from the average 13.17% over the previous two decades (World Bank 2018). Correspondingly, after 2010 the levels of social spending were again in decline. These changes might also be a function of fluctuations in GDP levels, bearing in mind that spending levels are operationalised as relative to GDP. This would cause social spending to rise when GDP drops during the crisis, and correspondingly, to fall due to the rebound of the economy after 2010. The separate analysis of the GDP data demonstrates that in many countries social spending in absolute numbers increased or at least remained at the similar levels during the period of the economic crisis, giving grounds for an explanation of expenditure levels that is based on policy actions of the governments, and not methodological anomaly. The share of population above 65 is repeating similar coefficients as in the previous section, exhibiting effects as a negative predictor. Closed list PR is another negative predictor, for both social and education spending. In this electoral system, the electorate demands for a higher level of distribution can be more easily declined, since the party heads have more control over MPs, while the connection between representatives and the electorate is much weaker. Finally, the transformation level variable does not corroborate the presumed theory: even though we anticipated that integration into the global economy would be accompanied by an increase in social benefits, this was not confirmed.

In regard to environmental spending, the population under 15 has a positive effect: we can conclude that a larger share of younger populations puts more pressure on governments to deal with pollution and climate issues. The result is in accordance with Inglehart (1997: 133–137), who found that a fundamental change in values of a society, especially in terms of adoption of post-materialist worldviews, occurs when the younger population starts to replace the elderly in the share of adults.

As with the general spending, post-conflict legacy seems to be the most important predictor in explaining the levels of expenditure in the analysed budget components. We found a significant increase in social and education

spending in conflict-ridden countries, presumably caused by humanitarian issues, integration and reconstruction of the infrastructure. On the contrary, environmental spending decreases in conflict areas. The post-conflict societies may be dominated by other topics and not concerned with the environment, with the budget funds being nominally allocated to other, presumably more urgent domains of spending in war-torn countries.

Robustness

Robustness of the results was ratified in several ways. Firstly, normality is demonstrated through predicted probability plots (see: Figure 1), determining a relatively normal distribution in all four cases, in relation to four outcome

Figure 1: Normality tests of four dependent variables
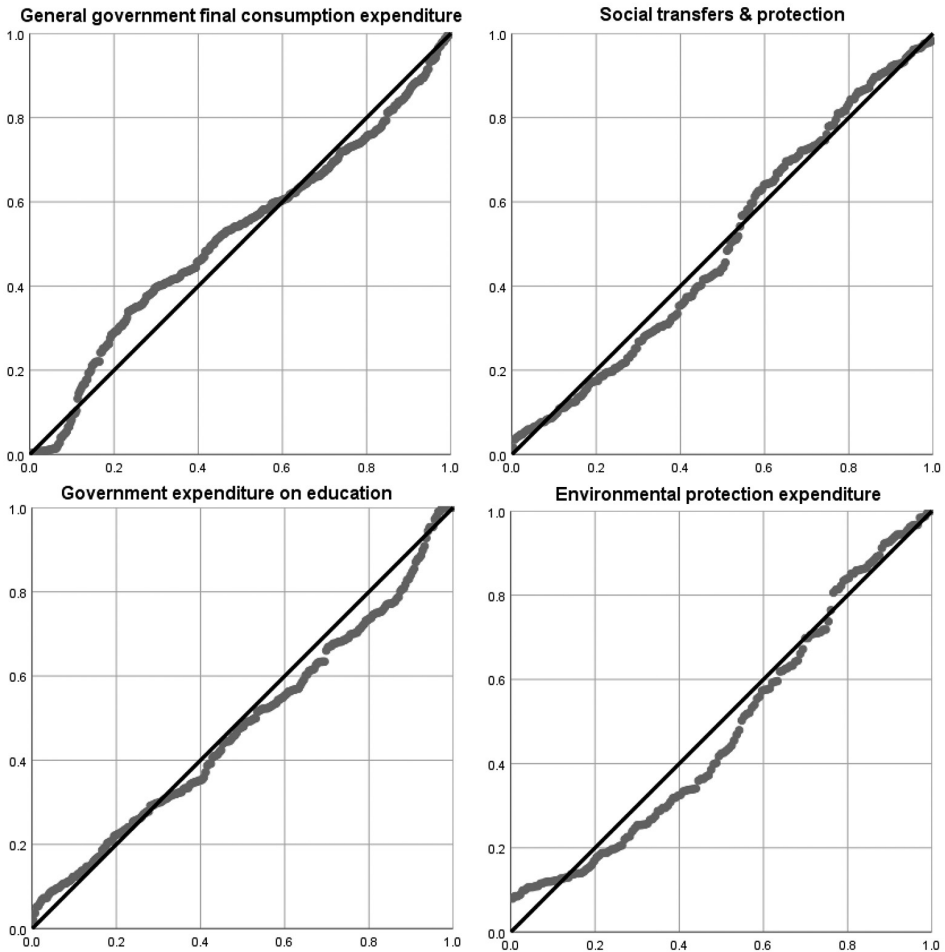
variables: general expenditure, social transfers, expenditure on education and environmental spending. In order to test whether our observations are mutually independent, we apply two methods. Namely, the condition indices (CI, see above: Table 1; Table 2) are below or slightly above the referent values, as expected with models including such a large number of variables. This suggests absent or very weak multicollinearity within the models. Because we are dealing with data in a time series, autocorrelation is further examined with the Durbin-Watson test, whose coefficients fall within the rule of thumb values for all four dependent variables (general expenditure DW=1.752; social transfers DW=1.822; education expenditure DW=2.086; environmental expenditure DW=1.968).

Furthermore, we plotted predicted values along with residuals to test the homoscedasticity of the linear regression model. Roughly rectangular patterns of four scatterplots indicate equal distribution of residuals and unbiased results. Finally, stationarity of the data was validated manually, through segmentation of the data in separate models testing the correlation in different decades. The results did not differ significantly, despite some deviations concerning alternative predictors, which could be attributed to circumstances of different periods of time.

Figure 2. Homoscedasticity tests of four dependent variables
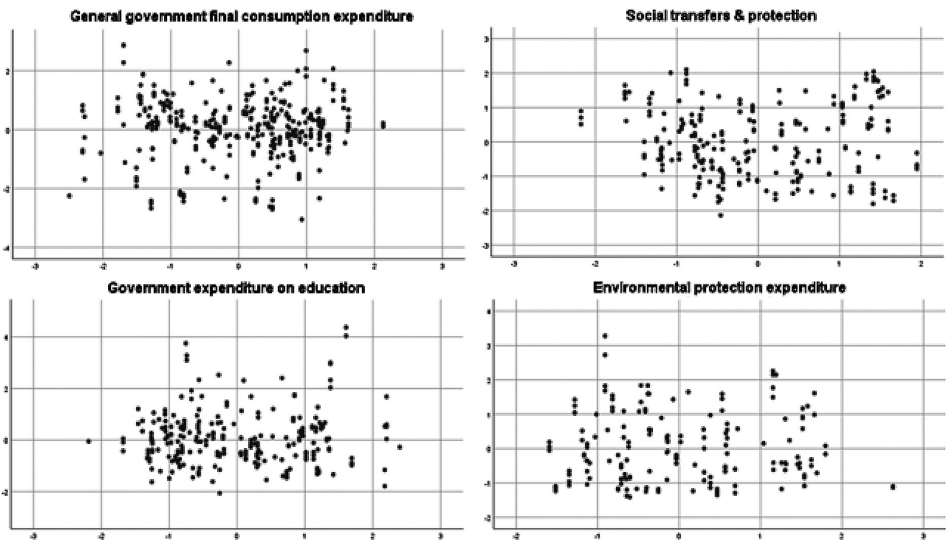
Conclusion

In this article we wonder how party ideology affects public spending in the post-socialist countries of Europe. Despite mixed evidence from previous studies, especially in the literature concerning public spending in CEE, we are able to

demonstrate that ideology influences public spending to certain extent, meaning that ideology matters, but only moderately. Several other potential determinants prove to be critical in explaining the fluctuations of government spending, resulting in stronger effects regarding both general expenditure and specific budget components. In countries that endured armed conflict during the transition, spending stands at a higher level; while those countries implementing a closed-list electoral system have lower spending levels, most likely because of elimination or at least reduction of independent actors in the budget process. Other political, demographic or contextual variables also display moderate effects on the outcome variable.

Although some results regarding alternative predictors are ambiguous, this should not warrant their dismissal, but a further research of these dimensions. Such questions stemming from our study are related to the negative effect of older demographics, which was originally presumed to put more pressure on social budgets; to spending structure in post-conflict societies; as well as to connections of GDP fluctuations with the expenditure levels, which could provide further explanations about governments' actions during and after the waves of economic crises.

General trends of spending in relation to party ideology are proving to be as expected. We identify the rise in expenditures over the periods of leftist governments, and vice versa, the drop during right cabinets, meaning that the second group of hypotheses is confirmed. The third group refers to specific budget components. While social transfers and education expenditure levels also tend to display a similar connection with the party variable, the impact on environmental spending is not identified. This result brings into question the place of green values in the framework of former socialist countries. The environmental budgets seem to be completely unrelated to ideological struggle, which is no surprise given the very modest success of green parties in CEE. With the changes in population, infusion of post-materialist values and global rise of awareness about environmental problems, this correlation should be revisited in the future.

Some data problems are inherent to these types of studies, employing pooled data across countries and decades. Possible limitations could include serial correlation and heteroscedasticity, which we try to control. The models include a large number of variables, adding to possible issues in terms of the precision of their construction and different data sources. This could be the case with the main predictor. Namely, party ideology data was taken from an expert survey, which was assessed as the best fit method for the construction of variables that could summarise party systems of 16 countries over three decades, but could imply potential bias of surveyed responders, as well as the issues of post-hoc measurement precision, especially regarding the time distance which could alter perceptions of certain parties and their policies in a historical perspective.

The expert survey database also calculated government ideological positions in relation to parliamentary strength of the member parties, while some other studies chose different methods, including the position of median agent, the prime minister's party or weighing cabinet seats. Moreover, grouping of scaled ideological positions from the survey database into three broad ideological categories suitable for our analysis certainly causes the loss of some nuances in assessing the partisan effect. Finally, as we said, the pooled data include parties from 16 countries from 1990 to 2017, which may differ significantly among themselves. Even though they share general post-socialist framework, Moldova in 1993 and Czech Republic in 2016 could potentially assign quite different meanings to the terms of right and left, although the left-right divide is estimated to be the most common denominator of these party systems.

Our findings call for further exploration of the substance and effects of left and right ideological positions, contributing to the debate on party systems of new democracies. It seems that political parties in former socialist countries tend to follow their proclaimed ideological position on the single dimensional divide, at least in the first decades of the transition and regarding the socioeconomic domain. The parties in CEE thus comply with the theoretically presupposed policy positions already seen in the studies examining Western democracies. This is expected considering the early formation of Eastern European parties. Some of them started out as reformers from the ruling parties, while others were anti-communist, evolving from different opposition groups which either tried to revive historical parties or tried to emulate party programs from Western democracies. In either case, the left-right divide was there from the beginning, and clearly manifested itself in policy outcomes.

But the question remains how this division will exhibit in the future. As we have seen, governments positioned in centre field already demonstrate effects closer to those of the right-wing, although many of them are led by parties nominally representing socialist or social democratic traditions. Along with further exploration of the meaning and outcomes of the centre position, the issue of the sustainability of the left also appeared over the course of our study. Namely, in the years after the economic crisis, the number of left-wing ruling parties in CEE plummeted, which seems to be a global trend. In many countries, these parties either lost popularity or made a compromise with other programmatic positions, moving away from the traditional leftist positions. The crisis of the left, along with the highlighted social-conservative dimension of the right and the rise of new populists, could be a sign of a permanent alteration of the left-right divide in CEE. If the competition moves permanently to other policy dimensions, this ideological division could become unimportant, making the correlation we have just examined relevant for historical perspective of these party systems and countries in general, but meaningless for future exploration and prediction.

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