

# DIFFERENT TAX PREFERENCES? OLD VS. NEW EUROPE

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### **ABSTRACT**

The aim of the article is to provide a comparative analysis of the factors behind citizens' specific tax burden preferences between New and Old EU Member States. Based on the available data from International Social Survey Programme for years 2006 and 2016, we form two groups of countries: Old Europe – Germany, Denmark, France, Spain, Finland and Sweden – and New Europe – Czech Republic, Slovenia, Latvia, Hungary and Croatia. Initial inspection of the preferences for more progressive taxation shows that in most countries, citizens would prefer the higher redistributive role of the state and there are no clear-cut differences between Old and New Europe. Analysis of factors contributing to individuals' preferences for progressive taxation provided interesting insights: older cohorts in New Europe are not disproportionally inclined to progressive taxation; political orientation and union membership are more important in Old than in New Europe; and there are no significant changes in the patterns resulting from the latest financial crisis.

### **KEY WORDS**

tax burden preferences, European economies, comparative analysis, International Social Survey Programme

### **CLASSIFICATION**

JEL: H20, H31

### INTRODUCTION

The 1990s were marked by the transition of former socialists economies. As European transition economies also declared their intentions to join the European Union, the transformation towards established market mechanisms and the ability to function on the European common market began. The initial assumption was that the role of the government would diminish and the citizens' demand for government interventions would decline. Recent studies suggest that pre-tax inequality was lower in Eastern Europe, but increasing rapidly with the transformation process [1]. Fuchs-Schündeln and Schündeln [1] argue that redistribution through taxes and transfers was lower in Eastern Europe socialist system as a consequence of price and wage restrictions that were the main redistribution mechanisms. The open question remains how the citizens have reacted to the changes and whether there are still commonalities in the perception of the role of government among post-transition economies or they converged to Old Europe.

The public goods from the perspective of citizens entail two sides of a coin: gain and loss. To yield benefits from health, education, security and other government services, citizens have to pay taxes. Extant studies confirm differences in the size of the welfare state, fiscal stance, tax burden as well as tax compliance across European economies. As the countries develop different welfare systems, their citizens develop differentiated preferences. However, along with developing differentiated preferences for the welfare system, citizens develop different preferences towards progressive taxation of incomes. Behind different preferences for taxation, numerous factors are influencing an individual's attitudes, including the socioeconomic and demographic factors as well as preferences for government intervention in different aspects (e.g. education, health and security).

There are three specific research questions that we want to address. The first research question asks if, within a group of countries, different factors predict whether a person will have preferences for more progressive taxation in the period after the 2008 crisis in comparison to the pre-crisis period. The second research question, based on the analysis between two groups of countries, aims to identify whether personal characteristics, important for predicting a certain level of taxation, are similar between Old and New Europe. We explore two different periods – 2006 and 2016. Although the period is relatively short for significant convergence in attitudes to occur, it enables discussion of the 2008 crisis effects on the possible changes in the preferences of New and Old Europe citizens, thus consisting third research question.

We aim to offer the following contributions. First, we provide more recent evidence on the evolution of tax preferences in post-transition countries, thus expanding the findings of Dallinger [2], Redmond, et al. [3] and Suhrcke [4]. Second, while previous research has documented differences between post-transition economies [5], there is a lack of comparison with developed European market economies.

The article adopts the following structure. Next section briefly reviews the literature on the preferences for income redistribution and tax burden. Data and methodology are presented in section 3, while the results of the analysis are presented in section 4. Section 5 contains discussion and implication of the results, while the last section offers conclusions and a roadmap for future research.

### LITERATURE REVIEW

World economies are faced with exacerbating economic inequalities which are, for the time being, the lowest in Europe and the highest in the Middle East [6]. Although income inequalities have increased virtually in all countries, the speed of the increase varies. On the

one hand, in the European Union, income inequality has grown moderately [7]. On the other hand, since the 1980s, the largest increase of income inequalities has been recorded in China, India, Russia and North America. The issue of income redistribution has attracted much attention from researchers, policy-makers and global public. Alesina and Rodrik [8] and Persson and Tabellini [9] noted an inverse correlation between inequality and growth. Rodrik [10] additionally argues that economic growth alone may be insufficient to solve the problem of inequality. Hence growth policy should be enhanced with redistributive measures so that the results of economic growth are more evenly distributed [11].

Alesina and Giuliano [12] find that preferences for redistribution are determined by personal characteristics such as age, gender, race and socioeconomic status. However, they are also a product of history, culture, political ideology and a perception of fairness. The authors also find that preferences for redistribution vary substantially across countries and show that these differences could be the result of differences in religion, histories of macroeconomic volatility and more generally defined culture. George [13] finds that individuals' preferences for redistribution are not easily modelled by their perceived impact on their position in the income distribution, while Charite et al. [14] find that individuals display reference-dependent preferences. Lockwood and Weinzierl [15] show how the presence of preference heterogeneity affects the optimal extent of income redistribution.

The shape of the income distribution should be crucial in the determination of policies with redistributive components (such as social security, health care, government transfers and taxation). However, Cruces et al. [16] find evidence of significant biases in individuals' evaluations of their relative position in the distribution. Eventually, misperceptions about the income distribution affect attitudes towards redistribution.

Redistribution refers to both the way the funds (taxes and social contributions) are collected (progressivity of the tax system) and the way they are allocated (social transfers). Hence, redistributive policies are influenced by a complex set of factors that determine public expenditures and revenues, while existing studies suggest that this ratio is not constant across the countries. Preferences for welfare state are not independent of attitudes towards taxation [17]. Ross [18] argues that fiscal preferences are driven by the tax burden relative to the goods and services the government provides. Barnes [19] suggests that preferences over tax levels have a greater effect on progressivity preferences in less progressive tax systems. Although social welfare is larger if the distribution of wealth and income are less concentrated, policy-makers must be aware that redistributive taxes and transfers could discourage incentives to work, save and earn income [20]. Regarding tax policy, Diamond and Saez [20] suggest that high earners should be subject to high and rising marginal tax rates on earnings while the earnings of low-income families should be subsidized. Moreover, the authors argue that capital income should be taxed, challenging arguments given by Atkinson and Stiglitz [21], Chamley [22] and Judd [23].

In the EU countries the overall tax burden, as a percentage of GDP, has been increasing and the European Commission [24] especially points out that the tax burden on labor is relatively high if compared to the other advanced economies. For example, total tax wedge between the labor costs to the employer and the corresponding net take-home pay for single workers without children at average earnings levels in the EU Member States that are also the OECD members was 41,9 % in 2019, while in the rest of the OECD countries tax wedge was 26,7 % [25]. The difference is smaller in our two subsamples – tax wedge in Old Europe was 42,6 %, while in New Europe (excluding Croatia) it was 43,7 % [25].

Taxes on labor income are the largest source of public revenue in the EU. However, the structure of taxation differs between the Member States with consumption taxes having a

markedly higher share in public revenues in new Member States such as Croatia and Bulgaria. The rising tax burden is closely connected to the expansion of public sector commitments to welfare provision [26]. Evolution of public expenditures, especially health expenditures [27]. has a strong impact on redistribution.

European Union today is a mixture of advanced western European countries and countries that until the 1990s had a socialist system, which implies that differences in tax burden preferences might have been significant before and at the beginning of the transition period. Socialist system's characteristic was proclaimed egalitarian, which implies that differences between high and low salaries were lower than in capitalist western European countries. Redmond et al. [3] report that the Gini coefficient in the 1980s was lower in CEE countries than in Western European countries. Further, the socialist system offered a wide range of programs that helped citizens in economic difficulties [28]. Hence, tastes for redistribution in these countries have been shaped by specific country experience and tradition [29]. Indeed, during the 1990s, post-socialist countries were still different from developed Western European countries in the support for income distribution. Dallinger [2], Redmond et al. [3] and Suhrcke [4] use data from 1999 International Social Survey Program (ISSP) and find that in post-socialist countries support for redistribution is significantly higher than in Western European countries which have more conservative political regimes. Lipsmeyer [28] concludes that during mid-1990's post-socialist countries still retained part of welfare preferences and attitudes of the socialist past. Okulicz-Kozaryn [30] suggests that this is related to the lack of upward mobility and relatively generous welfare systems under the previous regime, general path dependencies of public policies, and increased risk aversion due to the series of macroeconomic volatilities these societies experienced.

Still, the transition from a socialist system to market economy included extensive market-oriented reforms, accompanied by the diminishing influence of the state and opening up to foreign trade and investments [31]. Hence, it should not come as a surprise if by now New member states managed to become more similar to Old EU members in tax burden preferences, although post-transition economies are not a homogenous group [5]. The question remains whether factors behind tax burden preferences are similar in New and Old member states. Even though factors of tax burden preferences are well researched [32, 33] the differences between New and Old Europe remain relatively neglected topic in the literature. Hence, the rest of the article is devoted specifically to this issue.

### **DATA AND METHODOLOGY**

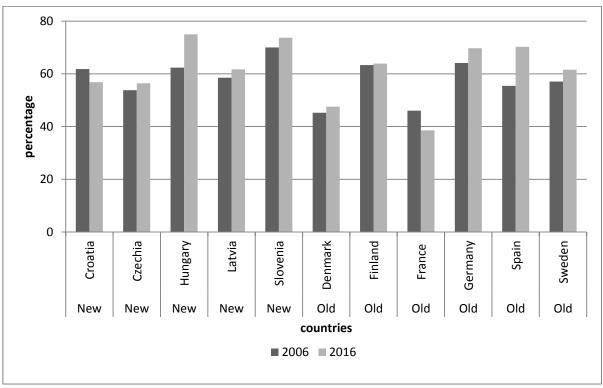
We rely on the International Social Survey Programme 2006<sup>1</sup> and 2016 data<sup>2</sup>, in which individual-level preferences for different aspects of the role of government were surveyed in 48 countries. Alesina et al. [34] recently remind about stereotypically documented views on differences between Americans and Europeans in preferences for redistribution. Our focus in the present article is on the EU countries, due to the underlying assumption that the EU integration process leads to harmonisation in different areas. This is the reason why we further distinguish between the Old European member states and New European member states. We included all EU countries for which data were available in the ISSP for both years. Among the countries of Old Europe, we include Germany, Denmark, France, Spain, Finland and Sweden. Among the New European countries, we include the Czech Republic, Slovenia, Latvia, Hungary and Croatia.

The preferences for tax burden can be quite different from the actual distribution of the taxes. Some people might find that more progressive distribution is fairer, while others could be against this. The average opinion of the population may not be reflected in the actual distribution of the taxes, depending on the overall importance the tax system has in public debates. To capture the attitudes towards progressiveness of the taxes imposed, we follow the

approach proposed by Barnes [19] based on the ISSP survey question. Specifically, respondents were asked to assess on a 5-point Likert scale (1 – much too low, ..., 5 – much too high) the tax burden for the low, median and high-income population. The respondents' assessments of the tax burden were grouped into three categories – low (much too low and low), medium and high (high and much too high). Based on the answers provided for all three income categories, respondents were grouped into those in favor of more progressive taxation and others. The procedure yields 27 different preferences profiles. Each preference profile depicts the respondent's preferences for each of the income group. Respondents were categorized as more in favour of progressive taxation if they belong to one of the following profiles: LHH (high-income households are taxed too low, middle-income households are taxed too high, low-income households are taxed too high), LRH (high-income households are taxed too low, middle-income right, low-income high), RHH (high-income households are taxed right, middle-income households are taxed high, low-income households are taxed high), RRH (high-income households are taxed right, middle-income households are taxed right, low-income households are taxed high), LRR (high-income households are taxed low, middle-income are taxed right, low-income are taxed right), LLH (high-income households are taxed low, middle-income are taxed low, low-income are taxed high) and LLR (high-income households are taxed low, middle-income households are taxed low, low-income households are taxed right).

Figure 1 shows citizens preferences for more progressive taxation in Old and New Europe. It can be noticed that in most countries (except for Denmark and France), respondents are in favor of more progressive taxation. The data clearly shows that there are no standard Old-New Europe differences in patterns. Rather, the assessments are more likely to be under the influence of general taxation policy in each country. The data for 2016 also corroborates such findings: in Old Europe, 7,3 % of respondents consider that taxes are overall too high, while this share in New Europe rises to 14,4 %.

From the data presented in Figure 1, we can also notice that support for more progressive taxation has increased in almost all the countries after the 2008 economic crisis. There are two



**Figure 1.** Preferences for more progressive taxation, in percentage of the total number of respondents [35, 36].

exceptions – Croatia and France, where the share of respondents in favor of more progressive taxation has decreased. The initial inspection of the data, thus, does not suggest that post-transition economies are still very different from the European market economies. However, we proceed with the separate empirical analysis into the factors behind the revealed preferences in two groups of countries because of the previous emphasis in the literature that post-transition economies exhibit different patterns than old EU members. The choice of factors considered to be important predictors for the preferences for higher progressive taxation is guided by the literature but limited by the variables available in the questionnaires.

We include a set of demographic variables considered as traditional predictors for the preferences – age, sex, education. Existing research shows that women are more in favor of income redistribution than men [12] so we include a dummy variable that takes value 1 if the respondent is male. Persons with higher education could, in general, have more information about public spending practices and could be more informed about the country's tax system [37]. Further, persons who are more informed about the tax system might be more comfortable with the current distribution of taxes [38, 39]. To capture this, we create a series of dummy variables referring to persons' educational attainment. We distinguish between no formal education, primary, lower secondary, upper secondary (reference value), post-secondary (non-tertiary) and tertiary education.

It is assumed that with age people are more aware of the benefits of government services, through the increased need for the security of their pension funds, availability of adequate health care and in general increased demand for social protection [19]. People who have lived in the pre-transition period might be additionally more inclined to favor a more generous welfare system [40]. We include dummy variables for the persons aged 18-25, 26-35, 36-45 (reference category), 46-55, 56-65 and older than 66.

People are influenced by their self-interest – they position themselves in a certain income group and favor taxes that are more beneficial for this income group [41-43]. In other words, if the respondent believes that she is at the lower end of the social scale, the probability that she is more sensitive to the tax burden of the lower-income population is higher. Similarly, respondents who believe that they belong to the higher income group might consider taxes to be too high for middle and high-income groups. To operationalize this issue, we include a dummy variable for each decile of self-perceived social status. The middle position in the scale is considered as a reference value.

Unemployed persons might be in favor of progressive taxation because they are aware that welfare policies rely on government revenues [44]. We additionally consider employees working in the public sector as more in favor of progressive taxation. The underlying assumption is that persons working in the public sector might be aware that their wages are dependent on government revenues, so they could have different perceptions related to the tax burden. In each case, if a person has responded to be in any of the statuses described above, the value of the variable takes value 1.

Trade unions participate in wage negotiations and frequently need to motivate their members to take some actions. In this process, they could gently persuade their members to slightly modify their original views. This is not to say that unions are in general pro or against certain models of taxation, but it could be the case that taxation policy fits into the current wage negotiations process to some extent. The members could be more informed either about the current state of the taxation system or announced reforms, than persons who are not union members. We included a dummy variable taking value 1 if a person is currently a trade union member.

Previous research has documented that political preferences are directly related to the degree of preferences for the role of government. Left-wing individuals support the stronger role of the government, while right-wing individuals believe that less government involvement is needed [34]. These aspirations are not only relevant on a general level, but political parties

very frequently address specific population subgroups they consider to be their main pool of voters. Thus, political orientation can be an indicator of additional sensitivity towards specific population subgroup and persons can be more or less sensitive towards the tax burden of a specific population subgroup. We include the following dummy variables: far left, left, center (reference value), right and far-right.

Studies have also found that people who in general have higher trust in government are more likely to be in favour of progressive taxation [45] based on the assumption that citizens trust government to perform fair redistribution. Respondents were asked to assess whether people should obey the law without exception (and we include this by incorporating the dummy variable that takes the value 1 if they responded positively to this question). The argument is that if they, in general, believe that the legal system is appropriate, they would be more in favor of progressive taxation because they can see the rationale for the use of funds. On the opposite side, if citizens believe that political corruption is widespread, they are more likely to consider that the funds collected through the taxes are misplaced. To capture political corruption perception, we include a dummy variable taking value 1 if a person believes that quite a lot or almost all politicians are involved in corruption.

Following the literature on decoupling between the desire for more redistribution and the perception of an already high tax burden [17, 19] we include a variable that captures the perceptions on the current state in the country. Tax level variable is the average of assessment (5 points Likert scale from 1 – much too low, to 5 – much too high) of the current tax burden for all income groups (low, middle and high income). Thus, the higher the average, the more a person believes that the current tax level in the country is already high.

Institutional settings differ among the countries. The existing institutional setting affects people's expectations. For example, if the education or pension system is mostly provided by the private sector, citizens will not consider the increased need for funding these systems related to the redistributive role of the government. To capture institutional differences between the countries, we include country dummy variables.

We analyze two groups of countries separately, applying the same methodology. As a first step in the analysis, we perform correlation analysis to check for multicollinearity (Table 2 in the Appendix), with the result that the correlation between independent variables is low. Since our dependent variable is binary (whether a person is in favor of more progressive taxation equals 1, otherwise equals 0), we estimate a probit model. Specifically, we estimate the following equations in two separate periods (2006 and 2016).

The equation for Old European countries is following (indexing omitted for a clearer presentation):

```
\begin{split} Pr(progressive = 1) \\ &= \varPhi(constant + \beta_1 age18 - 25 + \beta_2 age26 - 35 + \beta_3 age46 - 55 \\ &+ \beta_4 age56 - 65 + \beta_5 male + \beta_6 public - work + \beta_7 unemploy \\ &+ \beta_8 current - union + \beta_9 political - corruption + \beta_{10} obey - law \\ &+ \beta_{11} tax - level + \beta_{12} noeducation + \beta_{13} primary + \beta_{14} lower - sec \\ &+ \beta_{15} post - sec + \beta_{16} tertiary + \beta_{17} far - left + \beta_{18} left + \beta_{19} right \\ &+ \beta_{20} far - right + \beta_{21} spss1 + \beta_{22} spss2 + \beta_{23} spss3 + \beta_{24} spss4 \\ &+ \beta_{25} spss6 + \beta_{26} spss7 + \beta_{27} spss8 + \beta_{28} spss9 + \beta_{29} spss10 + \beta_{30} DK \\ &+ \beta_{31} FI + \beta_{32} ES + \beta_{33} FR + \beta_{34} SE) \end{split}
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The equation for New European countries is the following:

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\begin{split} Pr(progressive = 1) \\ &= \varPhi(constant + \beta_1 age18 - 25 + \beta_2 age26 - 35 + \beta_3 age46 - 55 \\ &+ \beta_4 age56 - 65 + \beta_5 male + \beta_6 public - work + \beta_7 unemploy \\ &+ \beta_8 current - union + \beta_9 political - corruption + \beta_{10} obey - law \\ &+ \beta_{11} tax - level + \beta_{12} noeducation + \beta_{13} primary + \beta_{14} lower - sec \\ &+ \beta_{15} post - sec + \beta_{16} tertiary + \beta_{17} far - left + \beta_{18} left + \beta_{19} right \\ &+ \beta_{20} far - right + \beta_{21} spss1 + \beta_{22} spss2 + \beta_{23} spss3 + \beta_{24} spss4 \\ &+ \beta_{25} spss6 + \beta_{26} spss7 + \beta_{27} spss8 + \beta_{28} spss9 + \beta_{29} spss10 + \beta_{30} CZ \\ &+ \beta_{31} HR + \beta_{32} LV + \beta_{33} SI \end{split}
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For ease of interpretation, the marginal effects are presented in the next section. The full set of estimated coefficients of the probit models and accompanied diagnostics are in Table 3 in the Appendix.

### **RESULTS**

Based on the methodology described above, we present the marginal effects of the estimates in Table 1. Estimated coefficients, robust standard errors and diagnostics of the underlying probit models are in Table 3 in the Appendix.

From the results presented in Table 3 in the Appendix, we can note that the numbers of observations as well as the overall fit of the estimates are higher for Old European countries than for New Europe. This would suggest that in New Europe there are additional variables not included in the present analysis that could offer additional insights on why the citizens are in favor of more progressive taxation.

**Table 1.** Revealed preferences for progressive taxation, marginal effects (continued on p.336).

V	ARIABLES	20	06	20	16
V	ANIABLES	New EU	Old EU	New EU	OLD EU
	age 18_25	-0,0140	-0,0442*	-0,0324	-0,0609**
		(0,0244)	(0,0237)	(0,0275)	(0,0277)
	age 26_35	-0,00735	-0,0216	0,0149	-0,0477**
		(0,0228)	(0,0188)	(0,0223)	(0,0227)
Ago	age 46_55	0,0400*	0,0364**	0,0799***	0,0658***
Age		(0,0213)	(0,0174)	(0,0203)	(0,0190)
	age 56_65	0,0724***	0,0836***	0,0706***	0,0955***
		(0,0216)	(0,0176)	(0,0208)	(0,0188)
	age 66	0,0575**	0,112***	0,0733***	0,137***
		(0,0237)	(0,0181)	(0,0224)	(0,0183)
Gender	Male	-0,0104	-0,0243**	-0,0270*	-0,0121
Gender		(0,0138)	(0,0113)	(0,0140)	(0,0124)
	public_worker	0,0424***	0,0314**	0,00374	0,0372***
		(0,0156)	(0,0136)	(0,0161)	(0,0139)
Work status	unemployed	-0,00638	0,0509**	-0,00788	0,0256
WOIK Status		(0,0289)	(0,0257)	(0,0273)	(0,0290)
	current_union_member	0,0216	0,0317**	-0,0228	0,0375**
		(0,0230)	(0,0152)	(0,0262)	(0,0156)
	political_corruption	0,0992***	0,0441***	0,0360**	0,0155
Trust in		(0,0144)	(0,0133)	(0,0156)	(0,0163)
government	obey_law	0,00197	-0,0125	-0,0179	0,0132
		(0,0138)	(0,0122)	(0,0143)	(0,0130)

Table 1. Revealed preferences for progressive taxation, marginal effects (continuation from

p.335). Standard errors as well as diagnostics are reported in Table 2 in the Appendix.

<u> </u>	rrors as well as diagnos				
Perceptions on	tax_level	0,201***	0,124***	0,201***	0,207***
the current tax level		(0,0156)	(0,0110)	(0,0165)	(0,0143)
	No education	-0,0377	0,00884	-0,0985	-0,0800
		(0,0474)	(0,0333)	(0,105)	(0,0517)
	primary	0,00891	0,0657***	-0,0549	0,0738***
		(0,0205)	(0,0194)	(0,0910)	(0,0284)
Education	lower_sec	0,0493***	0,0805***	0,00736	0,0534**
Education		(0,0182)	(0,0170)	(0,0170)	(0,0212)
	post_sec	-0,00608	-0,0515***	-0,0324	0,0131
		(0,0289)	(0,0196)	(0,0296)	(0,0232)
	tertiary	-0,0660***	-0,0956***	-0,0186	-0,0635***
	•	(0,0251)	(0,0203)	(0,0206)	(0,0194)
	far_left	0,0355	0,172***	0,147***	0,125***
		(0,0355)	(0,0196)	(0,0383)	(0,0206)
	left	-0,0453**	0,0919***	0,0410**	0,106***
Political		(0,0217)	(0,0133)	(0,0207)	(0,0154)
orientation	right	-0,0307	-0,128***	0,00231	-0,0962***
		(0,0191)	(0,0161)	(0,0177)	(0,0167)
	far_right	-0,0659	-0,0497	-0,0562	0,0355
		(0,0667)	(0,0376)	(0,0581)	(0,0269)
	spss1	0,0612*	0,120***	-0,0219	0,128***
	-	(0,0350)	(0,0434)	(0,0537)	(0,0415)
	spss2	0,0462	0,105***	0,0215	0,121***
	-	(0,0295)	(0,0343)	(0,0453)	(0,0396)
	spss3	0,0408*	0,0268	0,0448*	0,0784***
	•	(0,0217)	(0,0242)	(0,0257)	(0,0274)
	spss4	0,0516***	0,0254	0,0503**	0,0459**
	-	(0,0190)	(0,0198)	(0,0217)	(0,0226)
Self-perceived	spss6	0,00234	-0,0538***	-0,0152	-0,0227
social status		(0,0209)	(0,0160)	(0,0209)	(0,0183)
	spss7	-0,00963	-0,137***	-0,0359	-0,0775***
		(0,0268)	(0,0198)	(0,0230)	(0,0201)
	spss8	-0,0371	-0,171***	-0,0801**	-0,145***
	-	(0,0394)	(0,0253)	(0,0335)	(0,0246)
	spss9	-0,157*	-0,306***	-0,123*	-0,222***
	-	(0,0947)	(0,0481)	(0,0704)	(0,0481)
	spss10	-0,0623	-0,276***	-0,0451	-0,212***
	-	(0,133)	(0,0692)	(0,0816)	(0,0720)
Country	Country dummies – New Europe	Yes	No	Yes	No
dummies	Country dummies – Old Europe	No	Yes	No	Yes

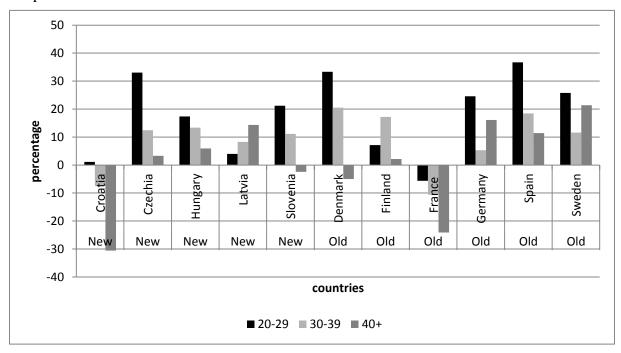
<sup>\*</sup>statistically significant at 10 %

<sup>\*\*</sup>statistically significant at 5 %

<sup>\*\*\*</sup>statistically significant at 1 %

#### AGE AND PREFERENCES FOR MORE PROGRESSIVE TAXATION

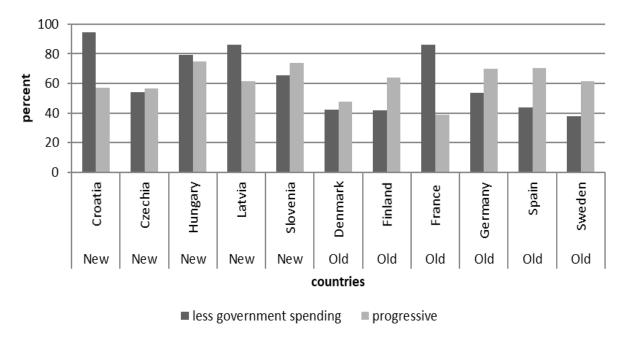
Our results confirm predictions that older citizens will be more inclined towards progressive taxation. However, the comparison of estimated marginal effects between Old and New Europe does not suggest that this is more pronounced in post-transition economies. The average results obtained through the estimation conceal the heterogeneous dynamics within the countries. Figure 2 presents cohorts according to their age in the year 1990 and depicts changes in their attitudes towards progressive taxation between 2006 and 2016. Only in the case of Latvia, we can see that the cohorts that have lived longer under the socialist system are through time (as their demand for government services increases) voicing stronger preferences for more progressive taxation. Within Old Europe, France is an interesting case where older cohorts are less likely to be in favor of more progressive taxation and this dislike increases in the period after 2008 crisis.



**Figure 2.** Changes in attitudes towards more progressive taxation between 2006 and 2016, according to the cohorts' age group in 1990 [35, 36].

# RELATIONSHIP BETWEEN PERCEPTIONS OF CURRENT TAX LEVEL AND PREFERENCE FOR PROGRESSIVE TAXATION

Another important result that we have found across the country groups and analyzed periods is that those in favor of more progressive taxation are also more likely to consider that the existing tax burden is already high. This apparently illogical result is explained in the literature with the notion that while citizens might be in favor of redistribution, they are less likely to support the same views when confronted with the specific situation [46]. Since demand for government services is often greater than the willingness to pay for them [47] when individuals are confronted to prioritize between different government expenditures, research shows that they express high levels of support for the increase in expenditures on education [48]. In our case, it could be illustrated with the desire to cut government spending. In general, the desire to reduce government spending is higher in the analyzed New European economies than in Old European economies, with the exception of France (Figure 3). However, there is no correlation with the current perceived level of taxation or with the desire for more progressive taxation.



**Figure 3.** Share of respondents in favor of more progressive taxation and less government spending [35].

# TRUST IN GOVERNMENT AND PREFERENCES FOR MORE PROGRESSIVE TAXATION

Another frequently discussed feature of post-transition societies is relatively high (perception of) corruption. In accordance with the assumptions, this factor is more important for people's attitudes towards more progressive taxation in post-transition economies than in Old European countries. Indeed, it becomes non-significant for Old member states in the period after the financial crisis. It is, however, not clear what are the mechanisms that link the perception of corruption to favoring more progressive taxation. It could be the case that due to high influence of the government in the society as well as political corruption, there is an expressed preference for the decrease of these aspects of government. This also puts in doubt the fairness of the existing redistributive system, since the desire for more progressive taxation is the result of both self-interest and fairness motives [49]. If citizens are more in favor of redistribution, but at the same time believe that the current system is not delivering due to corruption, the correlation of two variables might not capture the causation effect properly. Thus, to confirm such assumptions for this complex issue, a more detailed survey focused on the post-transition economies should be performed.

#### WORK STATUS AND PREFERENCES FOR MORE PROGRESSIVE TAXATION

Surprisingly, inability to earn for a living, as indicated by the respondent's unemployment status, was a significant predictor for more progressive taxation preferences only in the case of Old Member States prior to the 2008 crisis. The fact that it was not found important in other specifications is probably related to the fact that with the rise of unemployment as a consequence of the crisis, a certain proportion of the unemployed lost faith in the redistributive power of the government. Vanishing support of public workers for more progressive taxation in New Members after the crisis could also be attributed to the austerity measures many governments took, typical ones being decreasing (or freezing) the public sector wages and reducing or prohibiting new public sector employment.

# EDUCATION AND POLITICAL ORIENTATION IN RELATION TO PREFERENCES FOR MORE PROGRESSIVE TAXATION

While in term of education there seems to be a similarity between Old and New Europe, there are no such similarities when it comes to political parties. The preferences in Old Europe are consistent with the expectations – left-oriented voters are more in favor of progressive taxation, while right-oriented voters oppose such intentions. However, the situation is not that simple in New Europe. Although beyond the scope of this specific article, the result is probably related to the fact that political parties in Eastern Europe have still not been associated with specific economic policies and measures, but the predominate political discussion still revolves around the communist legacy.

### SELF-PERCEIVED SOCIAL STATUS AND PREFERENCES FOR PROGRESSIVE TAXATION

Finally, our results suggest that both within Old and within New Europe, those with higher self-perceived social status are usually against more taxation, while those with lower self-perceived social status are in favor of redistribution. Thus, certain social tensions exist in both groups of countries. Perhaps somewhat surprisingly, union membership is significantly associated with an inclination towards more progressive taxation in Old EU, but not in post-transition economies. This could be a direct consequence of the trade unions transformation through the transition process [50] from a virtually monopolistic role to the competition for the union membership.

According to results, it seems that differences between the Old and New Europe are rather small and that there are much more similarities than differences in factors predicting tax burden preferences. At one side, our results confirm the arguments that there is a convergence of tax burden preferences in Old and New Europe [51]. On the other side, our results also suggest that there are still important heterogeneities within Old and within New European member states.

### DISCUSSION AND THE IMPLICATIONS OF THE RESULTS

Our research results contribute to the previous literature on tax preferences of European citizens. On the aggregate level, we have confirmed previous findings on the heterogeneity of the citizens' preferences for government redistributive policies [29]. Although some studies suggest that there are important factors leading to the special position of the post-transition countries [2-4], we were not able to detect any unambiguous pattern emerging in the more recent period. This prompted a hypothesis of preferences' convergence. Although there is still a possibility of harmonizing effects stemming from the European Union, we were not able to clearly document the convergence process. We suspect that the period under analysis in the present paper is too short for convergence factors to have a dominant effect on the underlying processes.

We have explored a variety of factors contributing to the personal preferences for the redistributive role of the government. Following previous literature [12], our results confirm that personal characteristics, such as age, are important predictors of tax preferences. However, while studies that rely on earlier datasets [1] suggest that the longer a cohort lived under communism, the more it sees redistribution as an important task of the government, our results do not point in that direction. We believe that since our sample is more recent, the effects of living under a socialist regime have been worn-out.

Another important socioeconomic characteristic is the educational attainment of the respondent. The literature suggests that higher the level of education is, the more person is informed about the current tax system [37] and is more supportive of the existing redistribution

mechanisms [39]. On the other hand, higher education is frequently associated with higher income. Persons in the higher-income group favor taxes beneficial for their income group [43]. Based on these findings, we would expect that persons with the education level less than upper secondary (a reference group in our estimation) are more in favor of progressive taxation, while those with education higher than upper secondary would be more against. Our results are in line with the expectations, in particular in the case of older European Union members where the estimates are consistently significant in the period before and after 2008 crisis. For New member states, the pattern disappears after the crisis. We suspect that the labor market distortions as a consequence of crisis were more severe in New member states.

This latter finding is somewhat supported by our results related to the work status of the respondents. For New member states, we did not find any significance of unemployment or union membership. Even though the literature suggests that unemployed persons might be more in favor of progressive taxation [44] we suggest that in case of post-transition societies the restructuring process created large pools of discouraged workers. In these circumstances, the role of the government becomes illusive, because the effects of redistribution policies are not directly observed. Since unemployed persons are not actually receiving income, they might favor certain policies in general, but do not experience the effects of the policy measures directly.

This is somewhat related to the self-perceived social status, where the literature suggests that the income group a person is self-identified with would be the target group for evaluating government policy actions [41, 42] In this respect, our results are in line with the literature – those with lower income are more in favor of more progressive taxation, while those with higher income are against more progressive taxation because they expect the effect of the redistribution will be at their cost. Although general patterns are the same in both groups of countries, the significance is generally more apparent in Old EU member states. This would imply that this pattern is fully developed in market economies, but in post-transition economies, a different view of the redistributive role of the government might still linger on. Different factors can affect such result – from the specificities of the wage bargaining system to the amount of public services provided by the government sector. This issue deserves deeper inspection on a country level and cannot be assessed jointly for a group of countries.

A similar argument can be expressed for the political orientation of the individuals. Literature generally claims that left-wing oriented individuals are, in general, supporters for the stronger role of the government [34]. Our findings support the literature in the case of Old EU member states. However, in the case of post-transition countries, this pattern cannot be observed. We speculate that this is because the political spectrum, in general, is not focused on the economic issues or the role of government. For example, contrary to expectations, in Croatia, it is the right-wing oriented government that is associated with increased pressure to government budget related to the specific demands from the interest groupings such as war veterans.

Presented results can be associated with several contributions to the literature. First, we have clearly documented that heterogeneities between the countries regarding the redistributive role of the government persist even in the period after the global financial crisis [5]. Second, although post-transition countries differ between themselves, they in many aspects resemble their more market-oriented EU members. Specifically, it seems that taxation policy in each country as well as other aspects of the functioning of the economy and probably government sector, in particular, are more relevant than personal characteristics for the formation of individuals' preferences for more progressive taxation.

In general, we have documented that the factors contributing to the preference for a more redistributive role of the government are similar in post-transition and market economies. It is interesting to note that across all the country groupings and all the periods, we have confirmed that even though individuals believe that general tax level is high [39, 52] they are still supporting more progressive taxation. We suggest that this is related to the perceived quality of services provided by the government sector. It could be the case that the citizens would not oppose higher taxation, had they been convinced that the government can organize fair redistribution.

Important limitations of the results presented in this article are related to the data source used for the empirical analysis. Although comparative datasets suitable for exploring different aspects of preferences for redistribution systems are scarce, we do believe that ISSP provides a good basis for analyzing this set of research questions. Even though it can be argued that preferences are not easily changed and that factors contributing to preference formation could be more or less stable, we still strongly believe that there are some global incidences capable to cause significant disturbances in preferences for the redistributive role of government. One example has been implicitly covered by our analysis – the global financial crisis. However, even more distortive effect is expected in the aftermath of the global pandemic crisis. Thus, there is a need for a more frequent collection of data to be able to promptly capture the effects.

Another concern is directly related to our results, but also to findings from previous research. Specifically, we have confirmed important heterogeneities between the countries. Still, our analysis does not include all European Union members. In order to explore the possibilities of convergence within the European Union, it would be preferable to obtain a dataset covering all the countries.

Regardless of these constraints, we believe that our results can be associated with some practical implications. First, we believe that this is an important research question in the future discussions on the possibilities of a fiscal union within Europe. However, we acknowledge the low probability that the fiscal union issue will be determined in a nearby future. The issue of disharmonizing preferences for different types of taxations will probably arise sooner in the context of sharing the economic consequences of the global pandemic. It has been seen that such questions have been raised in the context of the issuance of COVID-19 related EU bonds. In order to provide adequate policy measures, government officials must be presented with relevant research results based on the most recent dataset covering all EU countries.

### CONCLUSIONS

The aim of the article is to analyze the perceptions of the EU citizens on the existing tax burden and preferences for more progressive taxation. In acknowledgement of the specific role that history, culture, political ideology and a perception of fairness have in determining personal attitudes towards inequalities, we separately analyze New and Old Member States. The specific contribution of the article lies in the documentation of the evolution of preferences for more progressive taxation in post-transition economies. Another contribution is related to the comparative inspection of the factors contributing to preferences in post-transition European economies relative to the established market European economies. The time dimension of the data, furthermore, enables discussion of potential convergence of preferences between Old and New European member states.

Although the period of ten years is relatively short when analyzing the formation of preferences, the specific period analyzed in this article entails a disruptive episode connected to the effects of the global financial crisis. The crisis itself was associated with austerity measures proposed by many governments. Yet, we did not find any systematic differences in the preferences or their factors, in the period before and after the crisis.

Contrary to some previous findings, we do not find the effect of the socialist legacy system in New Europe, in a way that older cohorts experiencing life in a previously presumably more generous and egalitarian system would be disproportionally more in favor of progressive taxation than the same age cohorts in Old Europe [40]. We also do not find that political orientation in New Europe supports the traditional left-orientation-more government pattern that can be found in the data for Old Europe. We also do not find the important contribution of the trade unions membership for progressive taxation and the higher redistributive role of the government in the New EU. Thus, although the overall patterns of tax preferences are predominately under the influence of a specific country redistributive policies and the scope of services the government provides, the analysis of factors behind aggregate results provided interesting insights into specific features of the post-transition societies. Our findings do corroborate the notion that there is heterogeneity between the countries [5], but there are no specific traits of post-transition societies in that respect.

The issue of rising income inequalities and the appropriate role of the government featured many recent public debates on the global level. For the European Union, the importance of these topics is additionally related to the question of potential future harmonization of fiscal policies. Results presented in this study emphasize the heterogeneity of European citizens when it comes to their preferences for more progressive taxation. It has been clearly documented that almost every country has its specificities. Thus, the path towards the common fiscal policies in a unified Europe is very likely to be a long and winding one.

Limitations of the findings are related to the dataset used. While it is the most recent ISSP study on the role of government, at the time of performing the analysis it has already been relatively outdated. Certainly, preferences for the role of government have been dramatically changed during the COVID-19 crisis in all economies. The full extent of this change is yet to be revealed.

The analysis in this article provides a glimpse into differences for tax preferences of European citizens. Certainly, additional research efforts are required. In order to provide specific policy recommendations on the European level, the comparable survey should be carried in all member states. While the desire to cut government spending is higher in the analyzed New European economies, it remains open how to incorporate the detrimental influence of corruption on the citizens' desire for more progressive taxation. This issue is left for future research endeavors.

### **APPENDIX**

**Table 2.** Correlation matrix (continued on pp.344-350).

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lower_sec	0,014	0,001	0,044	-0,024	-0,108	-0,001	-0,060	0,075	-0,062	0,086	-0,014	600'0	-0,116	-0,292	1,000	-0,250	-0,262	-0,015	0,014	-0,047	-0,026	-0,009	0,001	0,039	0,057	0,015	-0,089	-0,080	-0,042	-0,026
primary	960'0-	-0,146	-0,022	0,098	0,273	0,014	-0,136	0,012	-0,127	0,042	0,033	-0,038	-0,099	1,000	-0,292	-0,214	-0,223	-0,033	0,017	-0,042	-0,006	0,039	0,097	0,080	0,065	-0,044	-0,098	060'0-	-0,042	600'0
noeducation	0,024	-0,073	-0,062	-0,005	0,187	0,023	-0,077	-0,005	-0,104	0,038	0,058	0,046	1,000	-0,099	-0,116	-0,085	-0,089	-0,028	-0,016	-0,060	0,001	0,047	0,027	0,061	0,078	690'0-	-0,063	-0,036	-0,018	0,000
tax_level	0,018	0,043	-0,025	-0,033	-0,008	-0,007	-0,052	-0,020	-0,029	0,046	0,034	1,000	0,046	-0,038	0,009	0,000	-0,008	-0,106	-0,103	0,110	0,047	0,002	-0,023	-0,012	-0,009	-0,003	0,003	0,044	0,041	0,035
obey_law	-0,049	-0,009	-0,003	-0,014	0,047	-0,031	-0,057	0,002	-0,022	0,022	1,000	0,034	0,058	0,033	-0,014	0,000	-0,071	-0,029	-0,010	0,013	0,020	0,007	-0,025	-0,019	900'0	0,003	-0,036	-0,027	-0,010	0,003
political_ corruption	0,019	0,043	-0,004	-0,036	-0,018	0,019	-0,104	0,040	-0,217	1,000	0,022	0,046	0,038	0,042	0,086	-0,101	-0,065	0,003	0,004	-0,094	0,001	0,047	0,045	990'0	990'0	-0,052	-0,082	-0,097	-0,028	-0,024
Current _union	-0,093	000'0	0,112	0,063	-0,170	-0,021	0,260	-0,045	1,000	-0,217	-0,022	-0,029	-0,104	-0,127	-0,062	0,169	0,050	0,083	0,040	-0,008	0,035	-0,033	-0,020	-0,060	-0,057	0,031	0,080	960'0	0,034	0,044
unemploy	0,024	0,049	0,020	-0,012	-0,106	-0,012	-0,061	1,000	-0,045	0,040	0,002	-0,020	-0,005	0,012	0,075	-0,027	-0,041	0,023	-0,029	-0,050	-0,008	0,055	0,070	0,056	0,029	-0,025	-0,057	-0,050	-0,003	-0,011
public_ work	-0,073	-0,032	0,070	0,058	-0,044	-0,119	1,000	-0,061	0,260	-0,104	-0,057	-0,052	-0,077	-0,136	-0,060	0,132	0,161	0,066	0,063	-0,029	0,008	-0,012	-0,001	-0,029	-0,041	0,041	0,055	0,050	0,003	0,017
male	-0,014	-0,007	-0,018	0,000	0,053	1,000	-0,119	-0,012	-0,021	0,019	-0,031	-0,007	0,023	0,014	-0,001	-0,061	0,013	-0,002	-0,010	0,048	0,020	0,002	-0,009	-0,024	-0,006	-0,005	0,031	0,019	0,026	0,019
age66	-0,146	-0,205	-0,236	-0,228	1,000	0,053	-0,044	-0,106	-0,170	-0,018	0,047	-0,008	0,187	0,273	-0,108	-0,095	-0,088	-0,028	-0,010	0,042	0,037	0,011	0,021	0,028	0,025	-0,014	-0,046	-0,024	-0,010	-0,007
Age 56_65	-0,147	-0,207	-0,238	1,000	-0,228	0,000	0,058	-0,012	0,063	-0,036	-0,014	-0,033	-0,005	0,098	-0,024	-0,012	-0,022	0,001	0,022	0,024	0,002	0,029	0,016	-0,003	-0,015	-0,009	-0,009	0,016	0,003	-0,007
Age 46_55	-0,152	-0,214	1,000	-0,238	-0,236	-0,018	0,070	0,020	0,112	-0,004	-0,003	-0,025	-0,062	-0,022	0,044	0,017	0,020	0,062	0,030	-0,037	-0,013	600'0	0,001	900'0	0,004	-0,002	-0,004	0,007	0,018	0,025
Age 26_35	-0,132	1,000	-0,214	-0,207	-0,205	-0,007	-0,032	0,049	0,000	0,043	-0,009	0,043	-0,073	-0,146	0,001	0,068	0,104	-0,032	-0,029	-0,003	-0,022	-0,026	-0,012	-0,023	-0,008	0,016	0,027	-0,006	-0,016	-0,022
Age 18_25	1,000	-0,132	-0,152	-0,147	-0,146	-0,014	-0,073	0,024	-0,093	0,019	-0,049	0,018	0,024	960'0-	0,014	-0,024	-0,070	0,007	-0,013	-0,033	600'0	-0,017	-0,003	0,003	-0,017	0,004	-0,002	0,002	-0,021	0,002
Old European member states, year 2006	age18_25	age26_35	age46_55	age56_65	age66	male	public_work	unemploy	current_union	political_corruption	obey_law	tax_level	noeducation	primary	lower_sec	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	gssds	spss7	spss8	6ssds	spss10

**Table 2.** Correlation matrix (continuation from p.343, continued on pp.345-350).

Old European member states, year 2006	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	9ssds	Spss7	8ssds	6ssds	spss10
age18_25	-0,024	-0,070	0,007	-0,013	-0,033	600'0	-0,017	-0,003	0,003	-0,017	0,004	-0,002	0,002	-0,021	0,002
age26_35	0,068	0,104	-0,032	-0,029	-0,003	-0,022	-0,026	-0,012	-0,023	-0,008	0,016	0,027	-0,006	-0,016	-0,022
age46_55	0,017	0,020	0,062	0,030	-0,037	-0,013	0,009	0,001	900'0	0,004	-0,002	-0,004	0,007	0,018	0,025
age56_65	-0,012	-0,022	0,001	0,022	0,024	0,002	0,029	0,016	-0,003	-0,015	-0,009	-0,009	0,016	0,003	-0,007
age66	-0,095	-0,088	-0,028	-0,010	0,042	0,037	0,011	0,021	0,028	0,025	-0,014	-0,046	-0,024	-0,010	-0,007
male	-0,061	0,013	-0,002	-0,010	0,048	0,020	0,002	-0,009	-0,024	-0,006	-0,005	0,031	0,019	0,026	0,019
public_work	0,132	0,161	0,066	0,063	-0,029	0,008	-0,012	-0,001	-0,029	-0,041	0,041	0,055	0,050	0,003	0,017
unemploy	-0,027	-0,041	0,023	-0,029	-0,050	-0,008	0,055	0,070	0,056	0,029	-0,025	-0,057	-0,050	-0,003	-0,011
current_union	0,169	0,050	0,083	0,040	-0,008	0,035	-0,033	-0,020	-0,060	-0,057	0,031	0,080	960'0	0,034	0,044
political_corruption	-0,101	-0,065	0,003	0,004	-0,094	0,001	0,047	0,045	990'0	990'0	-0,052	-0,082	-0,097	-0,028	-0,024
obey_law	0,000	-0,071	-0,029	-0,010	0,013	0,020	0,007	-0,025	-0,019	900'0	0,003	-0,036	-0,027	-0,010	0,003
tax_level	0,000	-0,008	-0,106	-0,103	0,110	0,047	0,002	-0,023	-0,012	-0,009	-0,003	0,003	0,044	0,041	0,035
noeducation	-0,085	-0,089	-0,028	-0,016	-0,060	0,001	0,047	0,027	0,061	0,078	-0,069	-0,063	-0,036	-0,018	000'0
primary	-0,214	-0,223	-0,033	0,017	-0,042	-0,006	0,039	0,097	0%00	0,065	-0,044	-0,098	-0,090	-0,042	600'0
lower_sec	-0,250	-0,262	-0,015	0,014	-0,047	-0,026	-0,009	0,001	0,039	0,057	0,015	-0,089	-0,080	-0,042	-0,026
post_sec	1,000	-0,192	0,043	-0,042	0,067	0,017	-0,020	-0,035	-0,053	-0,037	0,032	0,075	0,068	0,011	-0,009
tertiary	-0,192	1,000	0,014	0,000	0,036	-0,040	-0,031	-0,049	-0,089	-0,099	0,014	0,146	0,166	0,098	0,037
far_left	0,043	0,014	1,000	-0,173	-0,133	-0,043	0,009	0,017	0,017	0,002	-0,016	0,019	-0,010	-0,019	-0,010
left	-0,042	0,000	-0,173	1,000	-0,316	-0,102	0,004	-0,001	0,007	0,044	0,028	-0,040	-0,043	-0,024	-0,018
right	0,067	0,036	-0,133	-0,316	1,000	-0,079	-0,046	-0,055	-0,066	-0,078	0,027	0,098	0,123	0,065	0,025
far_right	0,017	-0,040	-0,043	-0,102	-0,079	1,000	-0,003	0,001	0,020	-0,021	0,010	0,012	-0,018	0,022	0,007
spss1	-0,020	-0,031	0,009	0,004	-0,046	-0,003	1,000	-0,022	-0,036	-0,047	-0,077	-0,053	-0,037	-0,015	-0,010
spss2	-0,035	-0,049	0,017	-0,001	-0,055	0,001	-0,022	1,000	-0,047	-0,061	-0,100	-0,069	-0,048	-0,020	-0,014
spss3	-0,053	-0,089	0,017	0,007	-0,066	0,020	-0,036	-0,047	1,000	-0,099	-0,161	-0,112	-0,077	-0,032	-0,022
spss4	-0,037	-0,099	0,002	0,044	-0,078	-0,021	-0,047	-0,061	-0,099	1,000	-0,212	-0,147	-0,101	-0,042	-0,029
9ssds	0,032	0,014	-0,016	0,028	0,027	0,010	-0,077	-0,100	-0,161	-0,212	1,000	-0,240	-0,165	-0,068	-0,047
spss7	0,075	0,146	0,019	-0,040	0,098	0,012	-0,053	-0,069	-0,112	-0,147	-0,240	1,000	-0,115	-0,047	-0,032
spss8	0,068	0,166	-0,010	-0,043	0,123	-0,018	-0,037	-0,048	-0,077	-0,101	-0,165	-0,115	1,000	-0,033	-0,022
6ssds	0,011	0,098	-0,019	-0,024	0,065	0,022	-0,015	-0,020	-0,032	-0,042	-0,068	-0,047	-0,033	1,000	-0,009
spss10	-0,009	0,037	-0,010	-0,018	0,025	0,007	-0,010	-0,014	-0,022	-0,029	-0,047	-0,032	-0,022	600'0-	1,000

**Table 2.** Correlation matrix (continuation from pp.343-344, continued on pp.346-350).

New European member states, year 2006	Age 18_25	Age 26_35	Age 46_55	Age 56_65	Age 66	male	public_ work	unemploy	current_ union	political_ corruption	obey_ law	tax_level	noeducation	primary	lower_sec
age18_25	1,000	-0,182	-0,195	-0,182	-0,189	0,068	-0,265	0,018	-0,097	-0,017	-0,103	0,074	-0,064	-0,028	-0,080
age26_35	-0,182	1,000	-0,208	-0,194	-0,202	0,005	-0,103	0,036	600'0	0,011	-0,080	0,065	-0,066	-0,105	0,012
age46_55	-0,195	-0,208	1,000	-0,208	-0,217	-0,001	-0,014	690'0	080′0	0,011	0,015	-0,013	-0,035	0,004	0,055
age56_65	-0,182	-0,194	-0,208	1,000	-0,202	0,000	0,128	-0,033	-0,015	600'0	0,043	-0,039	0,014	0,031	0,027
age66	-0,189	-0,202	-0,217	-0,202	1,000	-0,063	0,273	-0,117	-0,105	-0,038	0,144	-0,080	0,202	0,184	-0,022
male	0,068	0,005	-0,001	000'0	-0,063	1,000	-0,120	0,008	-0,004	0,049	-0,012	-0,034	-0,032	-0,081	0,122
public_work	-0,265	-0,103	-0,014	0,128	0,273	-0,120	1,000	-0,058	0,217	-0,025	0,095	-0,065	0,043	0,010	-0,067
unemploy	0,018	0,036	0,069	-0,033	-0,117	0,008	-0,058	1,000	-0,071	0,051	-0,041	0,021	0,018	0,065	0,013
current_union	-0,097	0,009	0,080	-0,015	-0,105	-0,004	0,217	-0,071	1,000	0,027	-0,018	-0,006	-0,032	-0,049	-0,030
political_corruption	-0,017	0,011	0,011	600'0	-0,038	0,049	-0,025	0,051	0,027	1,000	-0,041	-0,046	-0,006	0,024	-0,019
obey_law	-0,103	-0,080	0,015	0,043	0,144	-0,012	0,095	-0,041	-0,018	-0,041	1,000	-0,064	0,025	0,060	0,050
tax_level	0,074	0,065	-0,013	-0,039	-0,080	-0,034	-0,065	0,021	-0,006	-0,046	-0,064	1,000	-0,026	-0,014	990'0-
noeducation	-0,064	-0,066	-0,035	0,014	0,202	-0,032	0,043	0,018	-0,032	-0,006	0,025	-0,026	1,000	-0,083	-0,091
primary	-0,028	-0,105	0,004	0,031	0,184	-0,081	0,010	0,065	-0,049	0,024	090'0	-0,014	-0,083	1,000	-0,253
lower_sec	-0,080	0,012	0,055	0,027	-0,022	0,122	-0,067	0,013	-0,030	-0,019	0,050	-0,066	-0,091	-0,253	1,000
post_sec	-0,028	0,043	-0,011	0,003	-0,006	-0,014	0,081	0,000	0,052	0,022	0,015	-0,049	-0,049	-0,136	-0,149
tertiary	-0,091	060'0	0,004	0,001	-0,052	-0,011	0,126	-0,027	0,087	-0,042	-0,020	0,069	-0,060	-0,166	-0,182
far_left	-0,035	-0,034	-0,022	0,054	0,077	0,029	0,062	-0,015	900'0	-0,002	0,040	-0,046	-0,028	-0,019	0,068
left	-0,074	-0,038	0,039	0,053	0,044	900'0	0,085	0,000	0,013	-0,021	0,093	-0,043	-0,027	-0,012	0,036
right	-0,015	0,022	-0,003	-0,020	600'0	0,043	-0,009	0,000	-0,004	0,001	0,011	0,010	0,005	0,018	0,019
far_right	-0,007	-0,002	-0,008	0,003	0,039	600'0	0,021	-0,016	-0,006	-0,021	-0,017	-0,012	0,002	0,033	0,018
spss1	-0,044	-0,035	0,004	0,015	0,061	-0,043	-0,011	0,059	-0,038	0,058	0,001	-0,063	0,022	0,118	600'0-
spss2	-0,044	-0,056	-0,005	0,026	0,072	-0,003	600,0	990'0	-0,060	0,016	0,018	0,014	0,104	0,082	0,011
spss3	-0,058	-0,035	-0,001	0,036	0,087	-0,024	0,028	0,026	-0,021	0,036	0,067	-0,013	0,049	0,078	0,102
spss4	-0,021	-0,044	0,030	0,013	0,045	-0,019	0,023	-0,017	-0,026	-0,005	0,049	-0,034	-0,005	0,016	0,052
gssds	0,029	0,053	0,003	-0,032	-0,087	0,036	0,014	-0,031	0,048	-0,014	-0,023	900'0	-0,056	980′0-	-0,062
spss7	0,085	0,058	-0,015	-0,037	-0,078	0,044	-0,058	-0,032	0,011	-0,007	-0,009	-0,002	-0,045	-0,076	-0,081
spss8	0,100	0,039	-0,022	-0,044	-0,046	0,029	-0,028	-0,020	0,010	-0,026	-0,027	0,047	-0,026	-0,030	-0,036
6ssds	0,004	0,007	-0,011	000′0	-0,024	0,014	-0,004	-0,011	0,031	-0,031	-0,037	0,028	-0,014	-0,039	-0,024
spss10	600'0	0,016	-0,017	-0,004	900'0-	0,000	600'0-	0,016	-0,008	0,015	-0,013	0,016	0,013	-0,008	-0,012

**Table 2.** Correlation matrix (continuation from pp.343-345, continued on pp.347-350).

New European member states, year	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	9ssds	2sds	8ssds	6ssds	spss10
2006															
age18_25	-0,028	-0,091	-0,035	-0,074	-0,015	-0,007	-0,044	-0,044	-0,058	-0,021	0,029	0,085	0,100	0,004	0,009
age26_35	0,043	060'0	-0,034	-0,038	0,022	-0,002	-0,035	-0,056	-0,035	-0,044	0,053	0,058	0,039	0,007	0,016
age46_55	-0,011	0,004	-0,022	0,039	-0,003	-0,008	0,004	-0,005	-0,001	0,030	0,003	-0,015	-0,022	-0,011	-0,017
age56_65	0,003	0,001	0,054	0,053	-0,020	0,003	0,015	0,026	0,036	0,013	-0,032	-0,037	-0,044	0,000	-0,004
age66	-0,006	-0,052	0,077	0,044	600'0	0,039	0,061	0,072	0,087	0,045	-0,087	-0,078	-0,046	-0,024	-0,006
male	-0,014	-0,011	0,029	900'0	0,043	0,009	-0,043	-0,003	-0,024	-0,019	0,036	0,044	0,029	0,014	0,000
public_work	0,081	0,126	0,062	0,085	-0,009	0,021	-0,011	600'0	0,028	0,023	0,014	-0,058	-0,028	-0,004	-0,009
unemploy	0,000	-0,027	-0,015	0,000	0,000	-0,016	0,059	0,066	0,026	-0,017	-0,031	-0,032	-0,020	-0,011	0,016
current_union	0,052	0,087	900'0	0,013	-0,004	-0,006	-0,038	-0,060	-0,021	-0,026	0,048	0,011	0,010	0,031	-0,008
political_corruption	0,022	-0,042	-0,002	-0,021	0,001	-0,021	0,058	0,016	0,036	-0,005	-0,014	-0,007	-0,026	-0,031	0,015
obey_law	0,015	-0,020	0,040	0,093	0,011	-0,017	0,001	0,018	0,067	0,049	-0,023	-0,009	-0,027	-0,037	-0,013
tax_level	-0,049	0,069	-0,046	-0,043	0,010	-0,012	-0,063	0,014	-0,013	-0,034	900'0	-0,002	0,047	0,028	0,016
noeducation	-0,049	-0,060	-0,028	-0,027	0,005	0,002	0,022	0,104	0,049	-0,005	-0,056	-0,045	-0,026	-0,014	0,013
primary	-0,136	-0,166	-0,019	-0,012	0,018	0,033	0,118	0,082	0,078	0,016	-0,086	-0,076	-0,030	-0,039	-0,008
lower_sec	-0,149	-0,182	890'0	980'0	0,019	0,018	600′0-	0,011	0,102	0,052	-0,062	-0,081	-0,036	-0,024	-0,012
post_sec	1,000	-0,098	-0,010	0,081	0,013	-0,012	-0,050	-0,044	-0,031	-0,021	0,046	0,039	0,010	0,007	-0,016
tertiary	-0,098	1,000	0,021	0,020	0,003	-0,017	-0,052	-0,071	-0,095	-0,044	0,075	0,131	0,123	0,092	0,029
far_left	-0,010	0,021	1,000	-0,085	-0,095	-0,024	0,021	600'0	0,031	0,018	-0,034	0,005	-0,007	-0,016	0,008
left	0,081	0,020	-0,085	1,000	-0,201	-0,050	-0,027	-0,008	0,031	0,047	0,009	-0,021	-0,021	0,009	-0,003
right	0,013	0,003	-0,095	-0,201	1,000	-0,056	-0,022	0,003	-0,008	-0,012	0,036	0,029	0,018	0,009	-0,007
far_right	-0,012	-0,017	-0,024	-0,050	-0,056	1,000	-0,013	0,014	-0,033	-0,003	-0,017	-0,013	-0,002	0,013	0,026
spss1	-0,050	-0,052	0,021	-0,027	-0,022	-0,013	1,000	-0,045	-0,072	-0,086	-0,079	-0,056	-0,036	-0,016	-0,011
spss2	-0,044	-0,071	600'0	-0,008	0,003	0,014	-0,045	1,000	-0,088	-0,105	960'0-	-0,067	-0,044	-0,019	-0,013
spss3	-0,031	-0,095	0,031	0,031	-0,008	-0,033	-0,072	-0,088	1,000	-0,167	-0,153	-0,108	-0,070	-0,031	-0,021
spss4	-0,021	-0,044	0,018	0,047	-0,012	-0,003	-0,086	-0,105	-0,167	1,000	-0,183	-0,129	-0,084	-0,037	-0,025
spsse	0,046	0,075	-0,034	600'0	0,036	-0,017	-0,079	960'0-	-0,153	-0,183	1,000	-0,118	-0,077	-0,034	-0,023
spss7	0,039	0,131	0,005	-0,021	0,029	-0,013	-0,056	-0,067	-0,108	-0,129	-0,118	1,000	-0,054	-0,024	-0,016
spss8	0,010	0,123	-0,007	-0,021	0,018	-0,002	-0,036	-0,044	-0,070	-0,084	-0,077	-0,054	1,000	-0,015	-0,011
6ssds	0,007	0,092	-0,016	600'0	600'0	0,013	-0,016	-0,019	-0,031	-0,037	-0,034	-0,024	-0,015	1,000	-0,005
spss10	-0,016	0,029	0,008	-0,003	-0,007	0,026	-0,011	-0,013	-0,021	-0,025	-0,023	-0,016	-0,011	-0,005	1,000

**Table 2.** Correlation matrix (continuation from pp.343-346, continued on pp.348-350).

000	26_35	Age 46_55	Age 56_65	Age 66	male	public_ work	unemploy	current_ union	political_ corruption	obey_law	tax_ level	noeducation	primary	lower_sec
T,000	-0,117	-0,145	-0,151	-0,162	0,015	-0,086	0,031	-0,050	600'0-	-0,040	600'0-	-0,041	-0,074	-0,015
-0,117	1,000	-0,191	-0,199	-0,214	-0,019	-0,031	0,037	-0,001	0,028	-0,026	0,002	-0,043	-0,089	-0,069
-0,145	-0,191	1,000	-0,245	-0,264	600,0	0,015	0,055	0,102	0,008	0,030	-0,009	-0,038	-0,081	0,063
-0,151	-0,199	-0,245	1,000	-0,275	-0,011	0,047	-0,007	0,056	-0,038	0,007	0,013	-0,007	0,050	0,027
-0,162	-0,214	-0,264	-0,275	1,000	0,032	0,026	-0,138	-0,158	-0,026	-0,017	600'0	0,147	0,231	-0,004
0,015	-0,019	600'0	-0,011	0,032	1,000	-0,140	-0,022	0,010	-0,013	-0,034	-0,006	-0,002	-0,002	0,025
-0,086	-0,031	0,015	0,047	0,026	-0,140	1,000	-0,078	0,201	-0,151	-0,013	0,018	-0,075	-0,086	-0,063
0,031	0,037	0,055	-0,007	-0,138	-0,022	-0,078	1,000	-0,085	0,127	0,053	0,072	600'0	800'0	0,116
-0,050	-0,001	0,102	0,056	-0,158	0,010	0,201	-0,085	1,000	-0,243	800'0	0,015	-0,087	-0,105	-0,112
political_corruption -0,009	0,028	800'0	-0,038	-0,026	-0,013	-0,151	0,127	-0,243	1,000	0,077	0,126	0,134	0,145	0,133
-0,040	-0,026	0,030	0,007	-0,017	-0,034	-0,013	0,053	800'0	0,077	1,000	-0,016	0,059	0,055	0,020
-0,009	0,002	600'0-	0,013	600'0	900'0-	0,018	0,072	0,015	0,126	-0,016	1,000	0,013	0,016	-0,001
-0,041	-0,043	860'0-	-0,007	0,147	-0,002	-0,075	600'0	-0,087	0,134	650'0	0,013	1,000	-0,041	-0,068
-0,074	-0,089	-0,081	0,050	0,231	-0,002	-0,086	800'0	-0,105	0,145	0,055	0,016	-0,041	1,000	-0,126
-0,015	690'0-	0,063	0,027	-0,004	0,025	-0,063	0,116	-0,112	0,133	0,020	-0,001	890′0-	-0,126	1,000
-0,044	-0,017	0,056	0,027	-0,034	-0,013	-0,051	0,004	0,021	-0,070	0,033	0,023	-0,073	-0,136	-0,224
-0,084	0,138	-0,007	-0,050	-0,084	-0,024	0,220	-0,083	0,159	-0,169	-0,053	-0,027	-0,117	-0,218	-0,360
0,016	0,055	000'0	-0,005	-0,058	0,014	0,051	0,039	860'0	980′0	-0,043	0,156	-0,019	-0,026	0,008
-0,081	-0,051	-0,002	0,055	0,068	-0,040	0,094	-0,036	0,042	890′0-	-0,018	0,081	0,014	0,027	0,004
-0,055	-0,060	-0,001	0,011	0,095	0,038	-0,049	-0,079	-0,034	-0,074	0,024	-0,140	-0,005	-0,020	-0,039
-0,007	-0,010	0,017	0,001	0,020	0,055	200'0	-0,015	0,082	-0,034	600′0-	-0,010	0,002	000′0	0,046
600'0-	-0,006	0,003	0,010	-0,004	-0,004	-0,016	0,078	-0,053	0,062	-0,003	-0,016	0,085	0,037	0,058
0,007	900'0	200'0	-0,018	600'0-	0,004	-0,016	0,126	-0,033	0,081	0,002	0,019	0,054	0,057	0,039
-0,004	-0,016	0,028	-0,001	-0,011	-0,012	-0,050	9/0′0	-0,055	980'0	-0,014	0,033	0,050	0,065	0,068
-0,003	0,011	0,019	-0,016	-0,017	-0,003	-0,047	0,074	-0,034	0,122	0,003	0,041	0,044	0,062	0,056
000'0	-0,016	-0,022	0,010	0,014	-0,013	0,012	-0,055	0,045	8/0'0-	-0,013	0,021	-0,054	-0,055	-0,043
-0,003	0,026	0,010	-0,001	-0,036	0,011	090'0	-0,078	0,073	-0,113	-0,028	-0,050	-0,061	-0,087	-0,097
-0,015	0,020	0,000	0,002	-0,001	0,035	0,061	-0,065	0,028	-0,144	0,015	-0,066	-0,045	-0,072	-0,112
0,019	-0,019	-0,002	0,009	-0,015	0,040	0,029	-0,032	0,032	-0,073	0,003	-0,057	-0,021	-0,031	-0,046
0,007	-0,008	0,000	-0,003	0,014	0,020	800′0-	-0,017	-0,008	800'0	-0,004	-0,056	-0,014	-0,019	-0,013

**Table 2.** Correlation matrix (continuation from pp.343-347, continued on pp.349-350).

Old European member states, year 2016	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	9ssds	spss7	8ssds	6ssds	spss10
age18_25	-0,044	-0,084	0,016	-0,081	-0,055	-0,007	-0,009	0,007	-0,004	-0,003	0,000	-0,003	-0,015	0,019	0,007
age26_35	-0,017	0,138	0,055	-0,051	-0,060	-0,010	-0,006	900'0	-0,016	0,011	-0,016	0,026	0,020	-0,019	-0,008
age46_55	0,056	-0,007	0,000	-0,002	-0,001	0,017	0,003	0,007	0,028	0,019	-0,022	0,010	0,000	-0,002	0,000
age56_65	0,027	-0,050	-0,005	0,055	0,011	0,001	0,010	-0,018	-0,001	-0,016	0,010	-0,001	0,002	600'0	-0,003
age66	-0,034	-0,084	-0,058	0,068	0,095	0,020	-0,004	600'0-	-0,011	-0,017	0,014	-0,036	-0,001	-0,015	0,014
male	-0,013	-0,024	0,014	-0,040	0,038	0,055	-0,004	0,004	-0,012	-0,003	-0,013	0,011	0,035	0,040	0,020
public_work	-0,051	0,220	0,051	0,094	-0,049	0,007	-0,016	-0,016	-0,050	-0,047	0,012	090'0	0,061	0,029	-0,008
unemploy	0,004	-0,083	0,039	-0,036	-0,079	-0,015	0,078	0,126	0,076	0,074	-0,055	-0,078	-0,065	-0,032	-0,017
current_union	0,021	0,159	0,038	0,042	-0,034	0,082	-0,053	-0,033	-0,055	-0,034	0,045	0,073	0,028	0,032	-0,008
political_corruption	-0,070	-0,169	0,086	-0,068	-0,074	-0,034	0,062	0,081	980′0	0,122	-0,078	-0,113	-0,144	-0,073	0,008
obey_law	0,033	-0,053	-0,043	-0,018	0,024	-0,009	-0,003	0,002	-0,014	0,003	-0,013	-0,028	0,015	0,003	-0,004
tax_level	0,023	-0,027	0,156	0,081	-0,140	-0,010	-0,016	0,019	0,033	0,041	0,021	-0,050	-0,066	-0,057	-0,056
noeducation	-0,073	-0,117	-0,019	0,014	-0,005	0,002	0,085	0,054	0,050	0,044	-0,054	-0,061	-0,045	-0,021	-0,014
primary	-0,136	-0,218	-0,026	0,027	-0,020	0,000	0,037	0,057	0,065	0,062	-0,055	-0,087	-0,072	-0,031	-0,019
lower_sec	-0,224	-0,360	0,008	0,004	-0,039	0,046	0,058	0,039	0,068	0,056	-0,043	-0,097	-0,112	-0,046	-0,013
post_sec	1,000	-0,387	-0,026	-0,016	0,020	-0,012	-0,022	-0,014	-0,028	-0,022	0,079	0,018	0,028	-0,019	-0,005
tertiary	-0,387	1,000	0,044	0,007	0,037	-0,035	-0,066	-0,078	-0,104	-0,085	0,013	0,155	0,159	0,089	0,032
far_left	-0,026	0,044	1,000	-0,178	-0,171	-0,074	0,004	0,005	0,023	0,034	0,000	-0,034	-0,030	-0,016	-0,013
left	-0,016	0,007	-0,178	1,000	-0,304	-0,131	-0,040	900'0-	-0,004	0,024	0,012	-0,004	-0,008	-0,016	0,015
right	0,020	0,037	-0,171	-0,304	1,000	-0,126	-0,034	-0,042	-0,028	-0,075	0,031	0,067	0,076	0,047	0,003
far_right	-0,012	-0,035	-0,074	-0,131	-0,126	1,000	0,022	0,011	0,025	0,003	-0,011	-0,026	-0,021	-0,009	0,014
spss1	-0,022	-0,066	0,004	-0,040	-0,034	0,022	1,000	-0,019	-0,032	-0,043	-0,068	-0,060	-0,045	-0,018	-0,012
spss2	-0,014	-0,078	0,005	-0,006	-0,042	0,011	-0,019	1,000	-0,037	-0,050	-0,079	-0,070	-0,052	-0,021	-0,014
spss3	-0,028	-0,104	0,023	-0,004	-0,028	0,025	-0,032	-0,037	1,000	-0,083	-0,131	-0,115	-0,086	-0,035	-0,023
spss4	-0,022	-0,085	0,034	0,024	-0,075	0,003	-0,043	-0,050	-0,083	1,000	-0,179	-0,157	-0,117	-0,048	-0,031
spss6	0,079	0,013	0,000	0,012	0,031	-0,011	-0,068	-0,079	-0,131	-0,179	1,000	-0,247	-0,184	-0,076	-0,049
spss7	0,018	0,155	-0,034	-0,004	0,067	-0,026	-0,060	-0,070	-0,115	-0,157	-0,247	1,000	-0,162	-0,066	-0,043
spss8	0,028	0,159	-0,030	-0,008	0,076	-0,021	-0,045	-0,052	-0,086	-0,117	-0,184	-0,162	1,000	-0,050	-0,032
6ssds	-0,019	0,089	-0,016	-0,016	0,047	-0,009	-0,018	-0,021	-0,035	-0,048	-0,076	-0,066	-0,050	1,000	-0,013
spss10	-0,005	0,032	-0,013	0,015	0,003	0,014	-0,012	-0,014	-0,023	-0,031	-0,049	-0,043	-0,032	-0,013	1,000

**Table 2.** Correlation matrix (continuation from pp.343-348, continued on p.350).

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lower_sec	-0,032	-0,086	-0,019	0,0648	0,1104	0,0679	-0,097	0,0198	-0,068	0,0159	0,0715	-0,001	-0,055	-0,065	1	-0,228	-0,377	0,0617	-0,014	0,0133	0,0419	0,0561	0,0698	0,1454	0,0818	-0,062	-0,135	-0,109	-0,025	-0,007
primary	-0,02	-0,02	-0,02	-0,03	0,116	0,001	0,025	900'0	-0,02	-0,01	0,011	-0,01	-0,01	1	-0,06	-0,03	-0,04	-0,01	0,012	-0,03	-0,01	0,025	0,065	0,019	-0,01	-0,02	-0,03	0,001	-0,01	0,02
noeducation	-0,00466	-0,02449	-0,03617	0,012301	0,082708	-0,00277	0,00251	0,002718	-0,00204	-0,00885	0,01368	-0,01452	1	-0,00628	-0,05496	-0,02216	-0,03671	0,01066	-0,00225	0,027765	-0,01014	0,011532	0,006461	0,020377	-0,01014	-0,01655	-0,02871	0,008056	-0,00813	-0,00692
tax_ level	-0,051	-0,057	0,025	0,044	990'0	0,044	0,053	-0,02	0,026	0,133	-0,031	1	-0,015	-0,006	-0,001	0,004	0,012	0,012	0,039	-0,021	0,019	0,031	0,02	0,029	0,02	-0,003	-0,058	-0,041	0,011	-0,008
obey_law	-0,073	-0,051	-6E-04	0,052	0,0813	-0,004	0,0795	-0,019	0,0204	-0,074	1	-0,031	0,0137	0,0115	0,0715	-0,031	-0,061	0,0182	0,0389	0,0243	-0,014	0,0034	-0,006	0,0037	0,0147	-0,008	-0,004	-0,026	0,0176	-0,024
political_ corruption	0,00463	0,01237	0,01598	-0,02773	0,00466	-0,0095	0,00713	0,06031	0,00923	1	-0,07394	0,13314	-0,00885	-0,01175	0,01586	-0,01014	-0,01123	-0,01065	-0,00255	-0,02141	0,02204	0,06289	0,03154	0,03923	-0,00255	-0,02292	-0,04774	-0,06697	-0,0138	0,02636
current_ union	-0,07685	-0,04657	0,106624	0,021591	-0,05962	0,005187	0,202152	-0,06583	1	0,009228	0,020355	0,025805	-0,00204	-0,0182	-0,06838	0,020443	0,065523	0,02915	0,007132	0,011347	-0,01	-0,0118	-0,02003	-0,00866	-0,0104	-0,01064	0,020352	-0,01241	0,020857	-0,00538
unemploy	0,1005	0,0542	0,0401	-0,042	-0,123	-0,03	-0,074	1	-0,066	0,0603	-0,019	-0,02	0,0027	0,0057	0,0198	0,0125	-0,046	-0,005	-0,007	-0,017	0,0046	0,0699	0,0153	0,0385	0,0274	-0,04	-0,018	-0,022	-0,016	0,0277
Public_ work	-0,13176	-0,08192	-0,00022	0,06585	0,16951	9060'0-	1	-0,07364	0,20215	0,00713	0,07949	0,05344	0,00251	0,02531	-0,09659	0,04245	0,13925	0,03057	0,03911	0,02735	-0,02094	-0,00084	0,01452	0,00728	-0,02122	-0,02326	0,00133	-0,0031	0,01539	-0,02894
male	0,032	0,001	0,004	0,002	-0,02	1	-0,09	-0,03	0,005	-0,01	0-	0,044	0-	0,001	0,068	0,003	-0,06	0,022	0,008	-0,01	0,021	0,005	-0,01	-0,02	0,018	0,007	0,017	-0,01	-0,02	600'0
Age 66	-0,15	-0,198	-0,219	-0,211	1	-0,018	0,1695	-0,123	-0,06	0,0047	0,0813	0,0657	0,0827	0,1164	0,1104	-0,026	620'0-	0,1364	0,1094	-0,027	-0,039	0,0231	0,0323	0,0548	0,0262	-0,033	-0,097	-0,03	-2E-04	-0,01
Age 56_65	-0,161	-0,213	-0,235	1	-0,211	0,002	990'0	-0,042	0,022	-0,028	0,052	0,044	0,012	-0,027	0,065	0,029	-0,054	-0,001	0,072	-0,002	0,005	0,023	-0,017	0,038	0,047	-0,032	-0,056	-0,01	0,004	-0,015
Age 46_55	-0,167	-0,221	1	-0,235	-0,219	0,004	-2E-04	0,04	0,107	0,016	-6E-04	0,025	-0,036	-0,016	-0,019	0,007	0,002	-0,025	-0,005	0,071	0,018	-0,01	900'0	0,016	0,008	-0,006	-0,019	-0,01	-0,019	-0,011
Age 26_35	-0,151	1	-0,221	-0,213	-0,198	0,0013	-0,082	0,0542	-0,047	0,0124	-0,051	-0,057	-0,024	-0,024	-0,086	0,0042	0,1384	-0,049	-0,083	-0,041	0,0125	-0,025	0,002	-0,048	-0,049	0,0352	0,0576	0,0224	-8E-04	0,0213
Age 18_25	1	-0,151	-0,167	-0,161	-0,15	0,0322	-0,132	0,1005	-0,077	0,0046	-0,073	-0,051	-0,005	-0,02	-0,032	-0,045	-0,055	-0,039	-0,072	-0,048	-0,02	-0,006	-0,021	-0,048	-0,018	0,0279	0,0584	0,0448	0,029	0,0225
	age18_25	age26_35	age46_55	age56_65	9998e	male	public_work	unemploy	current_union	political_corruption	obey_law	tax_level	noeducation	primary	lower_sec	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	9ssds	spss7	spss8	6ssds	spss10

**Table 2.** Correlation matrix (continuation from pp.343-349).

New European member states, year 2016	post_sec	tertiary	far_left	left	right	far_right	spss1	spss2	spss3	spss4	9ssds	Zssds	8ssds	6ssds	spss10
age18_25	-0,045	-0,055	-0,039	-0,07	-0,048	-0,02	-0,01	-0,021	-0,05	-0,02	0,028	0,058	0,045	0,029	0,023
age26_35	0,004	0,138	-0,049	-0,08	-0,041	0,013	-0,02	0,002	-0,05	-0,05	0,035	0,058	0,022	-8E-04	0,021
age46_55	0,007	0,002	-0,025	0-	0,071	0,018	-0,01	900'0	0,016	0,008	-0,006	-0,02	-0,01	-0,019	-0,01
age56_65	0,029	-0,054	-0,001	0,072	-0,002	0,005	0,023	-0,017	0,038	0,047	-0,032	-0,06	-0,01	0,004	-0,01
age66	-0,026	-0,079	0,136	0,109	-0,027	-0,039	0,023	0,032	0,055	0,026	-0,033	-0,1	-0,03	-2E-04	-0,01
male	0,003	-0,055	0,022	0,008	-0,01	0,021	0,005	-0,013	-0,02	0,018	0,007	0,017	-0,01	-0,021	600,0
public_work	0,042	0,139	0,031	0,039	0,027	-0,021	0-	0,015	0,007	-0,02	-0,023	0,001	0-	0,015	-0,03
unemploy	0,013	-0,046	-0,005	-0,01	-0,017	0,005	0,07	0,015	0,039	0,027	-0,04	-0,02	-0,02	-0,016	0,028
current_union	0,02	0,066	0,029	0,007	0,011	-0,01	-0,01	-0,02	-0,01	-0,01	-0,011	0,02	-0,01	0,021	-0,01
political_corruption	-0,01	-0,011	-0,011	0-	-0,021	0,022	0,063	0,032	0,039	0-	-0,023	-0,05	-0,07	-0,014	0,026
obey_law	-0,031	-0,061	0,018	0,039	0,024	-0,014	0,003	-0,006	0,004	0,015	-0,008	Q	-0,03	0,018	-0,02
tax_level	0,004	0,012	0,012	0,039	-0,021	0,019	0,031	0,02	0,029	0,02	-0,003	-0,06	-0,04	0,011	-0,01
noeducation	-0,022	-0,037	0,011	0-	0,028	-0,01	0,012	900'0	0,02	-0,01	-0,017	-0,03	0,008	-0,008	-0,01
primary	-0,026	-0,043	-0,013	0,012	-0,026	-0,012	0,025	0,065	0,019	-0,01	-0,025	-0,03	0,001	-0,01	0,02
lower_sec	-0,228	-0,377	0,062	-0,01	0,013	0,042	0,056	0,07	0,145	0,082	-0,062	-0,13	-0,11	-0,025	-0,01
post_sec	1	-0,152	-0,027	0,004	-0,057	-0,013	-0,01	-0,011	-0,04	O <sub></sub>	0,039	-0,01	-0,02	-0,012	o-
tertiary	-0,152	1	-0,034	-0,01	0,031	-0,013	-0,05	-0,06	-0,1	-0,08	0,04	0,128	0,142	90'0	0,035
far_left	-0,027	-0,034	1	-0,06	-0,077	-0,02	0,057	0,042	0,07	-0,01	-0,028	-0,01	-0,04	-0,016	-0,01
left	0,004	-0,01	-0,058	П	-0,209	-0,055	-0,02	0,001	0,019	0,072	-0,013	-0,05	-0,02	-0,014	-0,02
right	-0,057	0,031	-0,077	-0,21	П	-0,073	-0,05	-0,003	Q	-0,03	0,031	-0,01	0,012	0,029	0,019
far_right	-0,013	-0,013	-0,02	-0,05	-0,073	1	-0,02	0,017	0,043	0,063	-0,036	-0,02	-0,01	-5E-04	-0,01
spss1	-0,009	-0,047	0,057	-0,02	-0,048	-0,02	П	-0,024	-0,04	-0,05	-0,064	-0,06	-0,04	-0,016	-0,01
spss2	-0,011	-0,06	0,042	0,001	-0,003	0,017	-0,02	1	-0,05	-0,06	-0,075	-0,07	-0,04	-0,019	-0,02
spss3	-0,043	-0,097	0,07	0,019	-8E-04	0,043	-0,04	-0,052	1	-0,12	-0,139	-0,12	-0,08	-0,034	-0,03
spss4	-6E-04	-0,079	-0,006	0,072	-0,032	0,063	-0,05	-0,065	-0,12	П	-0,174	-0,15	-0,1	-0,043	-0,04
9ssds	0,039	0,04	-0,028	-0,01	0,031	-0,036	-0,06	-0,075	-0,14	-0,17	1	-0,18	-0,11	-0,05	-0,04
spss7	-0,006	0,128	-0,007	-0,05	-0,005	-0,021	90'0-	-0,066	-0,12	-0,15	-0,176	П	-0,1	-0,044	-0,04
spss8	-0,02	0,142	-0,036	-0,02	0,012	-0,006	-0,04	-0,041	-0,08	-0,1	-0,111	-0,1	1	-0,027	-0,02
6ssds	-0,012	90'0	-0,016	-0,01	0,029	-5E-04	-0,02	-0,019	-0,03	-0,04	-0,05	-0,04	-0,03	П	-0,01
spss10	-0,003	0,035	-0,014	-0,02	0,019	-0,013	-0,01	-0,016	-0,03	-0,04	-0,042	-0,04	-0,02	-0,011	1

**Table 3.** Probit estimates, probability to favor progressive taxation (continued on pp.352-353). Robust standard errors in parentheses.

Variables		20	06	20	16
Variables		New EU	Old EU	New EU	Old EU
	Constant	-1,250***	-0,234**	-0,846***	-0,724***
		(0,146)	(0,105)	(0,150)	(0,132)
Age	age_18_25	-0,0426	-0,117*	-0,0940	-0,166**
		(0,0734)	(0,0618)	(0,0783)	(0,0737)
	age_26_35	-0,0224	-0,0576	0,0444	-0,131**
		(0,0692)	(0,0498)	(0,0674)	(0,0613)
	age_46_55	0,126*	0,0990**	0,248***	0,191***
		(0,0688)	(0,0479)	(0,0667)	(0,0571)
	age_56_65	0,234***	0,232***	0,218***	0,281***
		(0,0744)	(0,0508)	(0,0677)	(0,0583)
	age_66	0,183**	0,317***	0,228***	0,411***
		(0,0790)	(0,0539)	(0,0734)	(0,0595)
Gender	male	-0,0318	-0,0652**	-0,0800*	-0,0341
		(0,0423)	(0,0304)	(0,0416)	(0,0349)
Work	public_worker	0,131***	0,0851**	0,0111	0,106***
status		(0,0487)	(0,0371)	(0,0477)	(0,0399)
	unemployed	-0,0194	0,141*	-0,0232	0,0731
		(0,0877)	(0,0731)	(0,0800)	(0,0844)
	current_union_member	0,0674	0,0858**	-0,0666	0,107**
		(0,0731)	(0,0413)	(0,0754)	(0,0450)
Trust in	political_corruption	0,299***	0,120***	0,106**	0,0437
government		(0,0428)	(0,0364)	(0,0455)	(0,0463)
	obey_law	0,00603	-0,0335	-0,0528	0,0371
		(0,0424)	(0,0328)	(0,0423)	(0,0367)
Perceptions	tax_level	0,615***	0,332***	0,594***	0,581***
on the current tax level		(0,0487)	(0,0296)	(0,0495)	(0,0407)
Education	noeducation	-0,112	0,0239	-0,273	-0,216
		(0,137)	(0,0903)	(0,275)	(0,135)
	primary	0,0274	0,181***	-0,156	0,219**
		(0,0635)	(0,0548)	(0,250)	(0,0890)
	lower_sec	0,156***	0,222***	0,0218	0,154**
		(0,0591)	(0,0481)	(0,0506)	(0,0630)
	post_sec	-0,0185	-0,136***	-0,0939	0,0371
		(0,0875)	(0,0512)	(0,0841)	(0,0661)
	tertiary	-0,193***	-0,251***	-0,0547	-0,177***
		(0,0709)	(0,0522)	(0,0598)	(0,0538)
Political	far_left	0,113	0,520***	0,520***	0,385***
orientation		(0,117)	(0,0694)	(0,172)	(0,0713)
	left	-0,135**	0,253***	0,125*	0.312***

**Table 3.** Probit estimates, probability to favor progressive taxation (continuation from p.351, continued on p.353). Robust standard errors in parentheses.

	p.555). Robust standa	(0,0630)	(0,0378)	(0,0651)	(0,0477)
	right	-0,0922	-0,334***	0,00685	-0,263***
	<u> </u>	(0,0564)	(0,0413)	(0,0527)	(0,0446)
	far_right	-0,191	-0,131	-0,160	0,102
		(0,185)	(0,0973)	(0,159)	(0,0793)
Self-	spss1	0,200	0,350**	-0,0637	0,406***
-	1	(0,123)	(0,140)	(0,154)	(0,153)
perceived	spss2	0,148	0,303***	0,0648	0,378***
social	1	(0,0992)	(0,107)	(0,139)	(0,142)
status	spss3	0,129*	0,0729	0,137*	0,233***
	*	(0,0711)	(0,0667)	(0,0818)	(0,0871)
	spss4	0,164***	0,0691	0,154**	0,133**
	1	(0,0627)	(0,0544)	(0,0690)	(0,0674)
	spss6	0,00718	-0,143***	-0,0445	-0,0632
	1	(0,0641)	(0,0421)	(0,0609)	(0,0508)
	spss7	-0,0293	-0,355***	-0,104	-0,212***
	*	(0,0809)	(0,0503)	(0,0654)	(0,0536)
	spss8	-0,110	-0,440***	-0,225**	-0,385***
	-	(0,114)	(0,0639)	(0,0902)	(0,0631)
	spss9	-0,434*	-0,788***	-0,336*	-0,575***
	_	(0,243)	(0,131)	(0,182)	(0,121)
	spss10	-0,181	-0,707***	-0,129	-0,549***
	_	(0,371)	(0,183)	(0,226)	(0,181)
Country	CZ	-0,364***		-0,387***	
dummies		(0,0670)		(0,0669)	
	HR	0,421***		-0,494***	
		(0,0730)		(0,0699)	
	LV	0,170**		-0,0606	
		(0,0741)		(0,0795)	
	SI	0,297***		0,183**	
		(0,0751)		(0,0744)	
	DK		-0,595***		-0,809***
			(0,0649)		(0,0673)
	FI		-0,111*		-0,237***
			(0,0633)		(0,0675)
	ES		-0,244***		-0,101
			(0,0542)		(0,0751)
	FR		-0,579***		-1,130***
			(0,0545)		(0,0664)
	SE		-0,301***		-0,459***
			(0,0609)		(0,0690)
	Observations	4,577	8,144	4,509	6,781
	LogLikelihood	-2465	-4707	-2499	-3596

**Table 3.** Probit estimates, probability to favor progressive taxation (continuation from pp.351-352). Robust standard errors in parentheses.

Pseudo R2	0,0926	0,122	0,0924	0,176
Wald chi2	425,6***	1154***	464,1***	1210***
Sensitivity (%)	95,57	86,51	93,7	87,73
Specificity (%)	21,48	42,49	22,93	48,89
Pearson chi2	4634,04***	8032,78***	4509,11***	6953,72***
Hosmer-Lemeshow	39,74***	19,43***	30,92***	35,93***

<sup>\*</sup>statistically significant at 10 %

### **REMARKS**

<sup>1</sup>The dataset used, as well as complete documentation including the questionnaires in national languages, is available here: <a href="https://www.gesis.org/issp/modules/issp-modules-by-topic/role-of-government/2006">https://www.gesis.org/issp/modules/issp-modules-by-topic/role-of-government/2006</a>.

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<sup>\*\*</sup>statistically significant at 5 %

<sup>\*\*\*</sup>statistically significant at 1 %

<sup>&</sup>lt;sup>2</sup>The dataset used, as well as complete documentation including the questionnaires in national languages, is available here: <a href="https://www.gesis.org/issp/modules/issp-modules-by-topic/role-of-government/2016">https://www.gesis.org/issp/modules/issp-modules-by-topic/role-of-government/2016</a>.

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