sustainability

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The Effects of Solidarity, Income, and Reliance on the State on Personal Income Tax Preferences. The Case of the Czech Republic

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Abstract: The current increase in government spending, caused by COVID epidemics and the increasing visibility of leftist political groups in public media, emphasizes the short-term need for sustainable income taxation. In the long run, rising inequality worldwide makes taxation of high-incomes indispensable for sustainable economic development. This paper empirically studies public attitudes on taxation related to income, preferences for solidarity vs. individual performance, and reliance on the state in the Czech Republic. In this Eastern European country, the dichotomies above bear even more importance due to the communist past. We apply the hierarchical regression analysis with smoothing spline transformations to a representative sample of public opinion data (N = 1104, aged 15–95 years, M ± SD: 47.74 ± 17.39; 51.2% women, 18.50% with higher education). The results suggest that income was associated with the perception that taxes for the rich are inadequately high but was unrelated to perceptions of tax adequacy for average and poor groups of respondents. Higher solidarity and reliance on the state were associated with the desire to increase taxation of high-incomes and decrease taxation of poor income groups. Surprisingly, the reliance on the state was associated with a desire to decrease taxation of average-incomes and total taxation while increasing tax progressivity. Preferences for solidarity were associated with higher preferred overall taxation and more tax progressivity. The explanatory powers of preferences for solidarity and reliance on the state in explaining the variation in tax preferences are at least equivalent and, in some cases, twice as large as the explanatory power of the age, gender, education, and income altogether. The results above present new mechanisms that can contribute to sustainable endogenous economic development.

Keywords: income; tax; preferences; solidarity; reliance on the state

Citation: Cabelkova, I.; Smutka, L. The Effects of Solidarity, Income, and Reliance on the State on Personal Income Tax Preferences. The Case of the Czech Republic. *Sustainability* **2021**, *13*, 10141. https://doi.org/10.3390/su131810141

Academic Editor: Roberta Costa

Received: 13 August 2021
Accepted: 3 September 2021
Published: 10 September 2021

1. Introduction

In the aftermath of the COVID epidemy and long periods of unbalanced budgets, many developed countries face an increasing need to find new sources of budget revenues. Increased taxation of the rich seems to be one way to go. Solidarity with the less fortunate ones is often chosen as a major argument for the so-called "solidarity tax,", making the rich pay more [1–3]. Increasing income inequality raises the short-run public appetite to increase the taxes levied on the rich [4–6].

In the long run, progressive taxation seems to be indispensable for sustainable development, as it is one of the main ways to reduce inequality. The World Social Report 2020, published by the UN Department of Economic and Social Affairs (DESA), shows that inequality was growing over the last thirty years for 70% of the world population. Income inequality has been growing in most developed countries and in some middle-income countries, including China (ibid.). As a result, the richest 1% of the global population has accumulated twice as much wealth as 90% of the global population [7]. The income shares of people earning top 10% incomes in the US and Canada have increased from 34% in 1980 to 47% in 2016 [8]. In European countries, the rise of inequality was smaller. The share of 10% highest incomes grew from 33% in 1980 to 36% in 2016.

The growing inequality brings several problems. First, the income polarization and disappearance of the middle class presents substantial challenges to social solidarity and political trust [9]. Higher inequality brings more health problems [10,11], higher crime rates [12], and more wars and political instability [13]. The ever-growing riches of the high-income individuals, at the stagnation of the rest, presents a moral problem and aggravates the importance of the inequality dilemma on the moral level [14]. The stagnation or decrease of the incomes of some categories of people, while the average standard of living is growing, brings an additional burden to the social security net. The polarization of income creates substantial envy and distress [15]. In societies with unequal access to health care and education, people are likely to experience a poverty trap for several generations [16].

Besides moral and social effects, income inequality mutes economic performance. Indirectly, the social, educational, health, and political consequences of economic inequality dampen social and human capital [17,18]. Directly, the increase in the number of poor hinders aggregated demand on this income group. The increased demand of the super-wealthy few cannot compensate for this decrease, as the latter's propensity to consume is usually much lower, while the propensity to save is much higher. Thus, savings (and investments) increase at the expense of consumption. However, under the conditions of lowered consumption, these investments eventually lose their profitability, due to the lack of demand, leading to economic stagnation. These effects were well understood in economic theory from the times of Karl Marx [19], Keynes [20], and Kalecki [21,22], as well as through macroeconomic models created by Rowthorn [23], Dutt [24], Taylor [25], and Bhaduri and Marglin [26]; the most comprehensive summarization of the idea can be found in [27]. Carvalho and Rezai [28] provided empirical support for the argumentation above on the data from the USA between 1967 and 2010. Neves et al. [29] reported similar results. The reduction of inequality seems indispensable. Progressive taxation seems to be one of the main ways to go.

The early body of theoretical literature suggests four main justifications for progressive taxation [30,31]. The socialist group of theories claims that taxes need to support and enforce the more equitable distribution of wealth [32–34]. The compensatory group of theories views taxation as a way to compensate for the advantages of the rich over the poor [34–36]. The economic group of theories suggests that everyone should pay, according to their ability to pay and the benefits they receive [34,37]. The welfare maximization theory highlights the difference in the loss of utility of the rich and poor, caused by unit taxation making the taxation of rich less painful [38].

In COVID times in Europe, tax-related fiscal solidarity is discussed mainly in the context of European cross-country solidarity [39–41]. Similar to individual tax attitudes, when low-income people are less willing to pay high taxes, citizens living in poorer EU countries are less willing to support fiscal solidarity than their counterparts in more affluent countries [41]. Interestingly, the within-country solidarity attitudes and the desire to help poor, non-European countries are stronger within the European population than cross-country fiscal solidarity intentions within the European Union [42].

On the micro-level, the recent studies on solidarity, inequality, and tax preferences are rather rare, and the results are rather controversial. Ballard-Rosa et al. [43], on the representative sample from Austria and Germany, found that people's preferences for progressive taxation have little relationship to perceived inequality. In their experiment, updating information about inequality did not lead to a significant change of preferences from progressive taxation. This way, the authors explain a paradox of no recent apparent change in tax progressivity through inequality growth.

On the representative sample from Belgium, Stiers et al. [44] showed that progressive tax preferences are characteristic of left-wing citizens with political sophistication, strengthening the relationship between ideology and preferences for progressive taxation and weakening the negative relationship between progressive taxation and income. The authors conclude that, for the highly sophisticated group, there is no apparent conflict between high-incomes and highly progressive taxation. Thus, political sophistication may lead to high-incomes paying more taxes and supporting an equal society. However, this willingness also depends on whether more affluent people consider their incomes to be sufficiently high. Cansunar [45] showed that most high-income earners support progressive taxation when they identify themselves with a lower group.

Progressive taxation has a special meaning in post-communist (or post-soviet) countries, such as the Czech Republic. For several generations, people in these countries were motivated to be reliant on the state. The state was the only holder of the factors of production, the only source of employment, and the main regulatory force of all political and economic processes. The state ideology emphasized equality as one of the main goals, and the desire for excessively high individual income was considered immoral. The whole idea of the revolution of 1917 that led to the creation of the Soviet block was to transfer the money and power from the rich to the poor, in order to ensure a more equitable distribution of wealth. While not always practiced, the desire for interclass solidarity constituted one of the foundations of Socialist ideology.

The aftermath of the fall of Communism in Central and Eastern Europe brought market-based ideas on how society should be organized. Personal initiatives, rather than group solidarity or reliance on the state, became the driving force of economic development. However, some social mechanisms prevailed. The social safety net, collective health insurance, and solidarity-based, pay-as-you-go retirement system transferred some mechanisms of group solidarity to the market-based economic environment. Naturally, social benefits need to be paid by some form of taxation, which, by itself, may represent some form of solidarity when the rich pay more than the poor.

However, progressive taxation presents several drawbacks. It demotivates high-earning individuals to work more and middle-earning individuals to become high-earning [46,47]. It may create considerable resentment in the high-income group and lead to tax evasion [48,49]. It may redirect low-income people from productive activities to living from social benefits. This excessive reliance on the state for one's well-being may continue in generations.

To sum it up, we can hypothesize that in post-communist countries, ideologically (in this paper, we omitted issues related to tax enforcement (namely fines, probability of fines, etc.), as they are more related to actual tax paying, rather than the ideal of which taxes are "correct"; we analysed the total attitude to the state and the perceptions of whether the taxes are spent wisely, which can also affect tax preferences), three main groups of factors affect personal income tax preferences: income (rich might not want to pay more, though there are some exceptions), preferences for solidarity (people preferring more solidarity prefer higher tax progressivity and, possibly, higher taxes), and reliance on the state (people more reliant on the state prefer higher taxes and possibly higher progressivity).

The goal of the paper is to empirically assess the impact of the preferences for solidarity, reliance on the state, and individual income on the preferences for the size and progressivity of income tax in the Czech Republic. We employ the representative dataset collected in the Czech Republic in 2019 (N = 1104, aged 15–95 years, M $\pm$ SD: 47.74 $\pm$ 17.39; 51.2% women, 18.50% with higher education). Methodologically, we rely on hierarchical linear and ordinal regression analysis, with ordinal smoothing spline transformations or ordinal predictors, to assess the significance of the factors above and the relative importance of each of them in explaining variability in tax attitudes.

The chosen indicators enable us to decouple the perceived tax progressivity into the preferred taxation of high-, average-, and low-income groups and assess whether the tax progressivity is primarily viewed as higher taxation of the rich or lower taxation of the poor. The subjective adequacy of current taxes enables us to test not only total tax preferences but also marginal tax preferences, as related to the current taxation.

The paper is structured as follows. A brief literature survey is continued by the description of the Data and Methods sections. The section Results presents the results of the econometric analyses, while the sections Summary of Results and Discussion summarize the results and discuss the findings. The last section concludes.

2. Public Perceptions of Ideal Taxation in the Literature

Sustainable income taxation cannot be achieved without public consent on the "right" taxation scheme. If the taxation scheme does not fit the public, people with find numerous ways to avoid taxation via shadow or black economy, corruption, clientelism, etc. There are two main concerns the public usually has. First, the public is usually interested in the solidarity of wealthy with the poor. Second, the public is concerned that the state has enough funds for the social security net, so that the public can rely on the state in the case of need. In both cases, there is likely to be a perception that higher incomes should pay more, in absolute or relative numbers.

In most cases, the higher the income, the lower the preferences for tax progressivity [50–54]. The decision is rational, as people usually do not like to be taxed. However, this does not always hold. Some of the wealthiest people are, in some cases, reported to be more willing to pay taxes [55], and some groups of people facing higher tax rates are more willing to pay them [56–58]. Rationally, lower-income groups are reported to be more supportive of redistributive policies than high-income groups as they are, in most cases, the recipients of these policies [59].

The attitudes toward tax progressivity are also associated with the perceived level of inequality [60] that is related to social solidarity and the need for redistribution. However, McCall and Kenworthy [61] reported that inequality is not the best factor for explaining preferences for "taxing the rich" in a dynamic setting; the attitudes regarding tax progressivity did not change in America while inequality grew (ibid.). Similarly, Haggard et al. [55] report that increased inequality has limited effects on public attitudes towards redistribution and may even diminish support for public policies aimed at the reduction of inequality.

Political ideologies, class-related ideas about inequality reduction, and social stereotypes are documented to provide a more all-encompassing explanation of tax attitudes [30,59]. Political ideologies associated with tax attitudes include individualism, meritocracy, perceived deservingness, social dominance, free-market ideology, belief in justice, liberal or conservative ideologies, party identification, and racial prejudice [59,62–67]. Individualism, meritocracy, and the ideology of market economy effectively imply that the person gets what he deserves and any redistribution via taxes is not fair. Conservative ideologies, certain party identifications, and belongingness to racial and other minorities may make people more likely to vote for redistribution. In any case, the potential for taxation to increase redistribution implies some idea of solidarity and fairness [68].

The concept of the fairness of taxation allows various interpretations. One idea of fairness supposes reciprocation. Naturally, the poor cannot be expected to reciprocate the money they were transferred by the state from the tax revenues acquired from the rich [69,70]. Neither can the rich expect to get adequate service for their money (paid in taxes) from the government, as they are less likely to use state systems of health care, school, or police. Therefore, they may perceive that the tax system treats them unfairly [71,72], especially in the environment, when there are doubts that the tax money is not wasted by politicians or, worse, are not stolen by politicians or used inefficiently [73].

From the point of view of individual taxpayers, taxation reflects preferences for solidarity. Social solidarity is one of the central foundations of the modern welfare state that binds together the poor and the rich. It reduces the risks of pure market economy [74] and creates social cohesion [75].

The impact of social solidarity on tax preferences was studied in several environments. In the context of racial struggles in the USA, in-group solidarity was shown as a key mechanism through which racial threats shape preferences for taxation [76]. In Europe, the inflow of migrants produces two contradictory effects regarding decreases of social solidarity and preference for redistribution, caused by the hostile attitude toward migrants and the increase of social solidarity and preferences for redistribution, as the local population faces increased risks of losing jobs [77]. In the Czech Republic, refugees and migrants are framed in the daily media mainly as a burden on host society, as victims of a humanitarian crisis and, to a lesser degree, as a security threat [78]. These ideas primarily form the (non-)solidarity population attitudes. In China, the preferences for solidarity and redistribution are highly related to social class and the level of income [79,80]. We add to this line of research by studying the effects of solidarity in the post-communist, Eastern European country—the Czech Republic.

The creation of the welfare state implies a safety network, which prevents inhabitants from falling to the bottom of the social and financial hierarchy, in case of misfortune. This option may decrease the willingness of the population to strive for their welfare, as it reduces the risks of disastrous outcomes. Thus, people are getting used to relying on the state for the basic needs they have. In the post-communist countries, such as the Czech Republic, the reliance on the state is also the heritage of the communist past, where most of the economy was regulated by the state, and most of the social benefits were provided by the state. The public goods, social security compensations, and other state benefits, however, need to be paid for in taxes.

To sum it up, one of the main goals of taxation is to enact the principles of group solidarity, which implies a redistribution of income from the high-income group to low-income. This redistribution may take various forms, from direct financial transfers to the poor to the provision of (quasi-)public goods and services for all independently on income. The redistribution, however, has substantial effects on incentives. It reduces the incentives of the rich to earn more as some of their income is taken away. It may reduce the incentives of the poor to exert more effort, as they can otherwise receive compensation from the state. It allows the inhabitants to be reliant on the state, rather than, e.g., the family, in the case of bad fortune. It may make some people fully reliant on social security compensations to cover their financial needs.

The preferences for solidarity and reliance on the state are likely to be affected by the socio-economic history of the country and the prevailing ideology(-ies) imposed on the population. In post-communist (or post-socialist) countries, such as the Czech Republic, the communist ideology was heavily based on proclaimed (though not always practiced) group solidarity, low inequality, and reliance on the state. The jobs were guaranteed by the state. The salaries were regulated and guaranteed by the state. The prices and the varieties of goods to be purchased were governed by the state. The old generation, brought up under the communist ideology, might have been affected. The transition to market economy reduced this ideological pressure, though some principles of solidarity pertained to the concepts of the social or welfare state. In both cases, taxation and redistribution are the main mechanisms of social solidarity.

As solidarity and redistribution are some of the most visible effects of direct taxation of incomes, it seems reasonable to assume that if taxes are effective, these aspects of current taxation should correspond to the population's preferences. Similarly, it seems reasonable to assume that solidarity and reliance on the state are related to the preferred income taxation, including the size and progressivity of taxation. We might hypothesize that the higher the preferences for solidarity, the higher both the preferred income taxation and the preferred progressivity of taxes.

Since solidarity reduces individual initiative, depending on income (higher income groups, if taxed more, may lose their motivation to work), we include income in the analysis. The adverse effect of solidarity-based taxation is the reliance of (mostly) low-income groups on the state. We might hypothesize that the higher the reliance on the state, the higher the preference for both high taxation and high progressivity of taxes.

Thus, this paper studies the association between income, preferences for solidarity (as opposed to individual performance), and reliance on the state for one's well-being on one side and income tax preferences on the other.

The following hypotheses are tested:

Hypothesis 1.1 ($H_{1.1}$). *Personal income is negatively associated with preferences for tax progressivity.*

Hypothesis 1.2 ($H_{1.2}$). *Personal income is associated with subjective adequacy of current taxes of high-, average-, and low-income groups (adequate, too high, and too low).*

Hypothesis 2.1 ($H_{2.1}$). *Preferences for solidarity, as opposed to individual performance, are associated with higher preferences for tax progressivity.*

Hypothesis 2.2 ($H_{2.2}$). *Preferences for solidarity, as opposed to individual performance, are associated with subjective adequacy of current taxes of high-, average-, and low-income groups (adequate, too high, and too low).*

Hypothesis 3.1 ($H_{3.1}$). *Individual reliance on the state for one's well-being, as opposed to reliance on oneself, is positively associated with tax progressivity preferences.*

Hypothesis 3.2 ($H_{3.2}$). *Individual reliance on the state for one's well-being, as opposed to reliance on oneself, is associated with subjective adequacy of current taxes of high-, average-, and low-income groups (adequate, too high, and too low).*

3. Materials and Methods

3.1. Participants and the Survey

The data were collected in November 2019 in a survey conducted by the Czech Institute of Sociology [81]. A total of 1104 respondents (aged 15–95 years, M $\pm$ SD: 47.74 $\pm$ 17.39; 51.2% women, 18.50% with higher education) completed the questionnaire, voluntarily and anonymously, under the supervision of 217 experienced interviewers. A total of 67.1% of the respondents filled out the paper version of the questionnaire, while 32.9% relied on a computer-aided version of the questionnaire. All participants were Czech native speakers living in the Czech Republic. The method of sampling relied on the representative sampling with quotes. The quotes included geographical position, age, gender, and education of the respondents. The territorial representativeness of the sample was ensured by the very construction of the interview network, where the controlled characters are the size of the place of residence and regions. According to quotes, the data sample is representative of the Czech Republic. Due to the good quality of the completed questionnaires, all conducted interviews were included in the processing. The data were kindly provided by the Czech Social Science Data Archive [81].

3.2. Measures

3.2.1. Income Tax Preferences

Two perspectives were employed to measure the income tax preferences: the normative and the marginal. The normative perspective captured the preferences for taxation of the rich, compared to the poor. The marginal perspective compared the preferred taxation of the three income groups (rich, average, and poor) to the current taxation. These two measures were interdependent, as the experience with current taxation influences the ideal taxation. Oppositely, the normative ideas on ideal taxation can substantially influence the subjective evaluation of current taxation.

Tax progressivity is often interpreted in the way that the high-income groups should pay a higher percentage of taxes, while the average- and the low-income groups are forgotten [82,83]. Decoupling the tax progressivity into the preferred taxes for three income groups (high-, average-, and low-income) enabled us to decompose the tax preferences from the normative perception of tax progressivity to the more understandable ideas related to three groups of taxpayers.

The total measure of tax preference was composed of the answers to the following question:

"People pay taxes at a percentage of their income. Do you think that compared to low-income people, high-income people should pay taxes—a much higher percentage of their income, a somewhat higher percentage of their income, the same percentage as low-income people"? [81]

Five possible answers included the following: much higher percentage (23.8% of the respondents), somewhat higher percentage (38.4%), the same percentage (35.0%), a slightly smaller percentage (2.0%), and a much smaller percentage (0.9%). The first two answers (much and higher percentage) described progressive taxation preferences (62.2% of the respondents). The third answer (high-income should pay the same percentage in taxes as low-income people) described preferences for proportionate taxation (35.0%). The fourth and fifth options (slightly and much smaller percentage) represented preferences for regressive taxation (2.9%).

The second indicator of tax preferences measured preferred taxation, as related to current taxation for high-, average-, and low-income groups. The current system of income taxes in the Czech Republic presents a considerable degree of proportionality: the flat rate of 15% of super-gross salary applies to much of the population. The extra 7% of solidarity tax applies only to those whose super-gross income is above 48 times the average yearly wage, which is rare. However, the Czech population, as represented by the respondents in the survey studied, reported preferences for a higher degree of tax progressivity. Approximately half of the respondents stated that the current taxes for high-income groups are low or too low (50.3%, Table 1) and the taxes for low-income groups are high or too high (66.7%, Table 1).

Table 1. The measure of marginal tax progressivity. The distribution of the respondents (valid percentages of respondents).

Var.	Taxes for the Following Groups Are: [a]	Too High, %	High, %	Adequate, %	Low, %	Too Low, %	N
Tax_h	High-income group	5.1	12.9	31.7	34.5	15.8	978
Tax_a	Average-income group	8.5	33.9	53.7	3.6	0.4	1010
Tax_l	Low-income group	25.8	40.9	29.8	2.9	0.6	1000

[a] "What do you think about the taxes in our country? Think first about taxes for high-income people, then average-income people, and then low-income taxes. Are taxes currently too high, high, adequate (reasonable), low, or too low?" [81].

3.2.2. Preferences for Solidarity and Reliance on the State

The indicators for the preferences for solidarity and reliance on the state are presented in Table 2.

Table 2. The indicators for the reliance on the state and solidarity. The distribution of responses (valid percentages of respondents).

State	Financial security of retired citizens is the responsibility of the (1–5: State vs. Citizens) [a]	1—sate, %	2, %	3, %	4, %	5—citizens, %	N
		25.0	28.6	33.9	9.4	3.0	1091
Solidarity	The pension system should be based on (1–5: solidarity vs. individual performance) [a]	1—solidarity, %	2, %	3, %	4, %	5—individual performance, %	N
		14.4	18.5	32.5	22.2	12.5	1087

[a] "Which of the following two statements would you rather prefer? The number 1 means that you are fully inclined to the statement on the left, and the number 5 that you are fully inclined to the statement on the right. The number 3 means your attitude is somewhere between these two statements. (a) 1—The pension system should be based on solidarity, that is to say, the level of pensions of those who contribute more and those who contribute less is not very different; 5—The pension system should be based on the performance of each individual, that is, the amount of his or her contribution to the system. (b) 1—the state should take care of the financial security of retired citizens; 5—Citizens are to take care of their own financial security in retirement" [81].

The disadvantage of these indicators is the emphasis on the pension system for the retired. In the Czech Republic, the retirement compensations are mostly financed by the state, though some attempts to introduce the second pillar of individual savings appeared. The proportion of such savings in the overall budget for the retired is scant.

Thus, the pension system is similar to the tax system, in the way that state-managed pension insurance contributions are obligatory and depend on income, and when reaching a certain age, almost everyone is legitimate for the retirement compensations financed by the government.

3.2.3. Age, Gender, and Education

Age was reported as a continuous variable. The respondents were aged 15–95 years, M ± SD: 47.74 ± 17.39. Gender was reported as a dummy variable, reflecting men and women categories only (51.2% women). Education covered basic, secondary without state exam, secondary without state exam, and higher; 18.50% reported higher education.

3.3. Data Transformations

The first indicator of tax adequacy, the answers to the question "Should high-income people pay a higher percentage tax compared to low-income people", was re-coded in the following way. To create an indicator for the preferences for progressive taxation, we merged answers 1 (a much higher percentage of their income) and 2 (somewhat higher percentage of their income). The third option (the same percentage as low-income people) represented preferences for proportional taxation. The last two options (4 and 5, a slightly smaller percentage and a much smaller percentage) would represent preferences for regressive taxation. This variable was not used, due to the low number of observations.

The second indicator of tax preferences relied on the question "Are taxes currently too high, high, adequate, low, or too low?" for different income groups. This question included two components: the absolute idea about taxation in the country and the size of taxation of one group, relative to the other. To differentiate these two and filter out the absolute perception of taxes, we divided the original answers for each group by the sum of answers for all three groups. The following new variables were computed:

$$\text{TaxAdequacyH} = \text{Tax}_\text{h}/(\text{Tax}_\text{h} + \text{Tax}_\text{a} + \text{Tax}_\text{l}) \tag{1}$$

$$\text{TaxAdequacyL} = \text{Tax}_\text{l}/(\text{Tax}_\text{h} + \text{Tax}_\text{a} + \text{Tax}_\text{l}) \tag{2}$$

$$\text{TaxAdequacyA} = \text{Tax}_\text{a}/(\text{Tax}_\text{h} + \text{Tax}_\text{a} + \text{Tax}_\text{l}) \tag{3}$$

$$\text{TaxAdequacy} = \text{Tax}_\text{h} + \text{Tax}_\text{a} + \text{Tax}_\text{l} \tag{4}$$

where:

Tax_h, Tax_a, and Tax_l stands for absolute tax adequacy for the high, average, and low-income brackets, respectively.

TaxAdequacyH, L, and A reflect relative tax adequacy for high-, low-, and average-income groups. TaxAdequacy reflects overall subjective perception on whether taxes are too high, high, adequate, low, or too low.

Yet another data transformation solved the problem of the inclusion of ordinal predictors to the regression model. Typically, researchers suggest refraining from the inclusion of ordinal predictors to regression analysis, as the distances between the categories are not uniform. The common advice is to split the variable into a set of dummies and test the hypothesis as a set of associations with individual dummies. However, this approach leads to the loss of ordinality essential in many hypotheses [84]. In addition, sets of dummies do not allow for the inclusion of the variable as an interaction term and testing the moderating and mediating effects (ibid).

The smoothing splines transformation represents an alternative approach, enabling both to correct the distances between the categories and not to lose the essential ordinality. In this study, all the ordinal predictors (except education) were transformed through the ordinal spline approach (knots 2, order 2 [84]), which is proven to be invariant to any monotonic transformation of the predictor scores (ibid). The Pearson correlations of original and transformed variables are presented in Table 5.

3.4. The Models

A set of hierarchical multinomial regression models were computed to study the effects of income, preferences for solidarity, reliance on the state, relative adequacy of taxes for different income groups, and overall tax adequacy (Formulas (5)–(7) in Table 3). As the preferences for progressive and proportionate taxation are computed as binary variables, the binary logistic hierarchical regression was employed to study the effects of income, preferences for solidarity, and reliance on the state, controlling for socio-demographic variables (Formulas (8)–(10) in Table 4)

Table 3. Hierarchical regression for perceived tax adequacy of high-, middle-, and low-income groups, as well as overall tax adequacy stages.

Stage 1	$TaxAdequacy_i = a_0 + a_1 Income + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi$	(5)
Stage 2	$TaxAdequacy_i = a_0 + a_1 Income + a_2 Solidarity + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi$	(6)
Stage 3	$TaxAdequacy_i = a_0 + a_1 Income + a_2 Solidarity + a_3 State + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi$	(7)

Table 4. Hierarchical regression for progressive or proportionate taxation. Stages.

Stage 1	$TaxScheme = logit(a_0 + a_1 Income + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi)$	(8)
Stage 2	$TaxScheme = logit(a_0 + a_1 Income + a_2 Solidarity + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi)$	(9)
Stage 3	$TaxScheme = logit(a_0 + a_1 Income + a_2 Solidarity + a_3 State + a_{4\text{–}6} Education + a_7 Age + a_8 Gender + \xi)$	(10)

where:

TaxAdequacyi stands for subjective, relative tax adequacy for higher-, average-, and lower-income groups and the overall tax adequacy (Formulas (1)–(4))

TaxScheme stands for a preference for progressive or proportional taxation variable Tax_p transformed, as explained in the data transformation section

Income stands for net personal monthly income

Solidarity stands for the preferences for solidarity on one side and individual performance on the other, as for personal well-being (variable solidarity in Table 2)

State stands for reliance on the state on one side and personal responsibility, as for personal well-being (Table 2)

Education, *Age*, and *Gender* refer to education dummies, age, and gender, respectively.

The moderation models for the effects of *Solidarity*, *State*, and *Income* on tax preferences were tested, too. However, the interaction terms were not statistically significant. The presentation of these models, and their results, were omitted from this paper to keep the paper concise. The models above were controlled for multicollinearity, via a correlation matrix and VIFs and for heteroscedasticity.

4. Results

Tables 5–7 present the results of the models 6–10. Table 5 shows the results for relative tax adequacy of high- and low-earners. Table 6 reports the results for average earners and total tax adequacy. Table 7 summarizes the results for preferences for progressive taxation and proportionate taxation.

From Table 5 follows that all the regressions are statistically significant in 5% significance levels. The inclusion of additional variables on the next stage of hierarchical regression brought a significant increase in F-statistics.

Table 5. Tax adequacy for high- and low-earners. The results of hierarchical regression analyses.

Variable	Tax Adequacy for High Earners						Tax Adequacy for Low Earners						
	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.	Corr.
Personal Income	−0.121 **	0.006	−0.101 **	0.018	−0.089 *	0.034	0.107 *	0.016	0.088 *	0.042	0.078	0.069	
Solidarity			−0.259 ***	0.000	−0.192 ***	0.000			0.239 ***	0.000	0.181 ***	0.000	0.950 ***
State					−0.203 ***	0.000					0.176 ***	0.000	0.948 ***
Education Primary	0.000	0.995	−0.029	0.579	−0.063	0.223	−0.029	0.598	−0.001	0.980	0.028	0.590	
Education Secondary *w*/*o* exam	0.136 *	0.020	0.112 *	0.048	0.081	0.148	−0.077	0.188	−0.055	0.338	−0.028	0.621	
Education Secondary with exam	0.037	0.522	0.022	0.697	0.000	0.996	−0.002	0.968	0.012	0.836	0.031	0.581	
Age	0.016	0.687	−0,024	0.551	−0.043	0.268	−0.043	0.295	−0.006	0.886	0.011	0.774	
Gender (men)	0.007	0.874	−0,010	0.813	−0.020	0.622	−0.020	0.640	−0.005	0.910	0.004	0.919	
R Square	0.031		0.095		0.129		0.023		0.077		0.103		
R Square Change	0.031		0.064		0.034		0.023		0.054		0.026		
F and model significance (Sig)	3.278 **	0.004	9.078 ***	0.000	11.170 ***	0.000	2.363 *	0.029	7.232 ***	0.000	8.647 ***	0.000	
F Change	3.278 **	0.004	42.525 ***	0.000	23.453 ***	0.000	2.363 *	0.029	35.634 ***	0.000	17.195 ***	0.000	
N	611		611		611		611		611		611		

Note: β stands for standardized regression coefficient. Reference variables: higher education, women. The ordinal predictors, except education, were transformed via ordinal spline transformation (knots 2, order 2, [84]). Pearson correlations between the original and transformed variables are listed in column Corr. *** Significant at the 0,001 level (two-tailed). ** Significant at the 0.01 level (two-tailed). * Significant at the 0.05 level (two-tailed). The models for mediation and moderation were not statistically significant. We do not report the results, for the conciseness of the paper.

Table 6. Tax adequacy for average-income group and total tax adequacy, as functions of personal income, solidarity versus performance, and state versus citizen, controlling for sociodemographics. The results of hierarchical regression analyses.

Variable	Tax Adequacy for Middle-Income						Tax Adequacy Total					
	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.
Personal income	0.060	0.180	0.051	0.248	0.045	0.307	−0.097 *	0.029	−0.091 *	0.042	−0.098 *	0.027
Solidarity vs. performance			0.109 **	0.008	0.075	0.084			−0.087 *	0.035	−0.130 **	0.003
State vs. citizen					0.104 *	0.019					0.129 **	0.003
Education primary	0.045	0.406	0.058	0.288	0.075	0.169	−0.003	0.963	−0.012	0.819	0.009	0.864
Education secondary W/O exam	−0.135 *	0.021	−0.125 *	0.033	−0.109	0.063	0.014	0.806	0.006	0.915	0.026	0.660
Education secondary with exam	−0.067	0.251	−0.060	0.298	−0.049	0.397	−0.020	0.737	−0.025	0.671	−0.011	0.855
Age	0.037	0.360	0.054	0.187	0.064	0.118	0.024	0.553	0.011	0.794	0.023	0.571

Table 6. *Cont.*

Variable	Tax Adequacy for Middle-Income						Tax Adequacy Total					
	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.	β	Sig.
Gender (men)	0.019	0.653	0.026	0.539	0.031	0.460	−0.091 *	0.031	−0.096 *	0.022	−0.090 *	0.032
R square	0.023		0.034		0.043		0.016		0.023		0.037	
R square change	0.023		0.011		0.009		0.016		0.007		0.014	
F and model significance (Sig)	2.382 *	0.028	3.076 **	0.003	3.408 **	0.001	1.623	0.138	2.038 *	0.048	2.882 **	0.004
F change	2.382 *	0.028	7.096 **	0.008	5.567 **	0.019	1.623	0.138	4.470 *	0.035	8.613 **	0.003
N	611		611		611		611		611		611	

Note: β stands for standardized regression coefficient. Reference variables: higher education, women. The ordinal predictors, except education, were transformed via ordinal spline transformation (knots 2, order 2, [84]). ** Significant at the 0.01 level (two-tailed). * Significant at the 0.05 level (two-tailed). The models for mediation and moderation were not statistically significant. We do not report the results, for the conciseness of the paper.

Table 7. Preferences for progressive and proportionate taxation, as functions of personal income, solidarity versus performance, and state versus citizen, controlling for sociodemographics. The results of hierarchical binary regression analyses.

Dependent Variable	Preferences for Progressive Taxation						Preferences for Proportionate Taxation					
	Estimate	Sig.	Estimate	Sig.	Estimate	Sig.	Estimate	Sig.	Estimate	Sig.	Estimate	Sig.
Threshold	−0.408	0.276	−0.550	0.155	−0.686	0.081	0.283	0.454	0.400	0.304	0.527	0.181
Personal Income	−0.001 **	0.003	−0.001 *	0.011	−0.001 *	0.017	0.001 *	0.011	0.001 *	0.031	0.001 *	0.045
Solidarity vs. performance			−0.487 ***	0.000	−0.409 ***	0.000			0.447 ***	0.000	0.370 ***	0.000
State vs. citizen					−0.314 **	0.001					0.304 **	0.003
Education Primary	0.271	0.385	0.121	0.708	−0.057	0.862	−0.390	0.218	−0.258	0.430	−0.088	0.790
Education Secondary w/o exam	0.824 **	0.001	0.742 **	0.005	0.635 *	0.017	−0.917 ***	0.000	−0.840 **	0.002	−0.739 **	0.006
Education Secondary with exam	0.220	0.368	0.131	0.602	0.067	0.793	−0.244	0.319	−0.161	0.521	−0.100	0.693
Age	0.007	0.134	0.005	0.353	0.003	0.592	−0.010	0.056	−0.007	0.153	−0.006	0.286
Gender (men)	0.001	0.997	0.059	0.742	0.103	0.569	−0.009	0.958	−0.066	0.718	−0.108	0.556
Cox and Snell R^2	0.046		0.087		0.101		0.048		0.081		0.095	
Nagelkerke R^2	0.064		0.120		0.140		0.067		0.114		0.132	
McFadden R^2	0.037		0.071		0.083		0.039		0.068		0.079	
Sig.		0.000		0.000		0.000		0.000		0.000		0.000
N	665		659		656		665		659		656	

Link function logit. Reference variables: higher education, women. The ordinal predictors, except education, were transformed via ordinal spline transformation (knots 2, order 2, [84]). *** Significant at the 0,001 level (two-tailed). ** Significant at the 0.01 level (two-tailed). * Significant at the 0.05 level (two-tailed). The models for mediation and moderation were not statistically significant. We do not report the results, for the conciseness of the paper.

4.1. Tax Adequacy of High-Income Groups. Relation with Income, Solidarity, and Reliance on the State

Expectedly, as denoted in Table 5 (high earners part), personal income proved to be positively associated with the perception that taxation of the high-income group is excessively high. Similar to [50–53], the higher is the income of the respondent, the less he wants to pay high taxes.

On the other hand, solidarity proved to be positively associated with the perception that taxation of the high-income group is inadequately low. Oppositely, individual performance (at the opposite of solidarity) proved to be negatively associated with the perception that taxation of the high-income group is excessively high. This result corresponds to the general idea that solidarity implies increasing taxation of high-incomes makes incomes more equal.

Similarly, reliance on the state proved to be positively associated with the perception that taxation of the high-income group is inadequately low. Oppositely, accepting personal responsibility proved to be positively associated with the perception that taxation of the high-income group is inadequately high. Naturally, reliance on the state can be characteristic for the recipients of social security benefits, who supposedly need the rich to pay the bill.

From all the socio-demographic variables (age, gender, and education), secondary education (w/o state exam) proved to be associated with the perception that taxes of the high-income group are inadequately low. Surprisingly, the age of the respondents was not statistically significant, though older respondents were brought up under the communist regime and were exposed to different ideological propaganda than under the market system.

The income and socio-demographic characteristics of the respondents explained 3.1% of variability, as measured by R^2. The explanatory power of solidarity versus performance variable measured and R^2 change was twice as much (6.4%). Another 3.4% was explained by reliance on the state. The cumulative total explanatory power of both the solidarity vs. performance and state vs. citizen variables was three times larger than the explanatory power of the income, age, gender, and education only. The relative influences of opinion variables on tax adequacy, measured by the relevant coefficients, were approximately the same.

4.2. Adequacy of Taxes for Low-Income Taxpayers. Relation with Income, Solidarity, and Reliance on the State

The results for high earners, presented above, mirrored the results for the tax adequacy of low earners (Table 5, low earners), namely, the higher the personal income, the more the respondents believe that the taxes for the low-income group are low or too low. Supposedly, high-income respondents want to redistribute the tax burden by increasing taxes for the low-incomes.

Similarly, the more the respondents stress solidarity, the more they believe that taxes for the low-income group are too high. Thus, solidarity for the respondents implies taxation that reduces inequality. Oppositely, the more respondents stress personal performance, rather than solidarity, the more they believe that the taxes of the low-income group are too low. People highlighting individual performance are likely to expect all the rest to do the same, as it seems to be fair. Thus, they might want to increase the taxation of low-income groups to make the taxation fairer.

Expectedly, the more the respondents think that personal well-being is the responsibility of the state, rather than citizens, the more they believe that the taxes for the low-income group are too high. This corresponds to the idea that the high-income group should pay for the well-being of all via taxes, while the low-income group will receive the benefits. Oppositely, the more the respondents believe that well-being is the responsibility of the person, rather than the state, the more they think that the taxes of the low-income people are too low. Supposedly, respondents highlighting individual responsibility for personal well-being will expect all to pay their share in taxes.

The income and socio-demographic characteristics of the respondents explained 2.3% of variability, as measured by R^2. The explanatory power of preference for solidarity, measured by R^2 change, was twice as much (5.4%). Another 2.6% was explained by reliance on the state. The joint explanatory power of the preference for solidarity and reliance on the state was three times larger than the explanatory power of income, age, gender, and education.

4.3. Adequacy of Income Taxes for Average-Income Taxpayers and Total Taxes. Relation with Income, Solidarity, and Reliance on the State

Table 6 presents the results of hierarchical regression analysis for tax adequacy for the average-income group and total tax adequacy as functions of personal income, preferences for solidarity, and reliance on the state, controlling for age, gender, and education.

From Table 6 follows that all the regressions were statistically significant on 5% significance levels. The inclusion of additional variables on the next stage of hierarchical regression brought a significant increase in F-statistics.

Surprisingly, personal income was not associated with tax adequacy for the middle-income bracket. However, the higher the personal income, the more the respondent believes that overall taxes are too high. Given that the income was not related to middle-income taxation, the perceived too high total taxation was more related to the taxation of high- or low-income groups. However, the results, presented above, indicated that high-income respondents view taxes for the low-income group as too low. Thus, the high total taxation refers primarily to the taxation of high-incomes.

Expectedly, preferences for higher solidarity were related to higher taxation: the more the respondents stress solidarity opposite to performance, the more they believe that overall taxes are too low. Similarly, personal responsibility was associated with low preferred taxation: the higher the reliance on the state for personal well-being, the more the respondents believe that the middle-income taxes and total taxes are too high.

Out of all socio-demographic variables, gender was the only variable related to overall taxation: men consider overall taxes to be more excessively high, compared to women.

4.4. Preferences for Progressive and Proportionate Taxation. Relation with Income, Solidarity, and Reliance on the State

The results of hierarchical binary regression analysis are presented in Table 7.

From Table 7 follows that all the regressions were statistically significant on 5% significance levels. The inclusion of additional variables in the next stage of hierarchical regression brought a significant increase in F-statistics.

Expectedly, higher incomes proved to be associated with lower preferences for progressive taxation and higher are preferences for proportionate taxation. This result, again, substantiates the do-not-tax-me hypothesis and the theories of fairness of taxation. However, it does not correspond to the general idea of solidarity.

Similar to the results presented above, the more people stressed performance, as opposed to solidarity, the less they prefer progressive taxation and the more they prefer proportionate taxation. The more the respondents relied on the state for their well-being, the more they preferred progressive taxation and the less they prefer proportionate taxation.

Out of all socio-demographic variables, only education proved to be related to tax preferences: people with a secondary education without state exams, compared to people with higher education, prefer more progressive taxation and less proportionate taxation.

5. Summary of Results and Discussion

The results of the third stage of hierarchical regression analyses are summarized in Table 8.

Table 8. Summary of the results for tax preferences, as related to income, preference for solidarity, and reliance on the state.

	Taxation of Different Income Groups						Total Taxation and Tax Progressivity			
	High-Income [a]		**Low-Income [a]**		**Average-Income [a]**		**Total Taxation**		**Progressive Taxation**	**Proportionate Taxation**
Current taxation is	Too high	Too low	Too high	Too low	Too high	Too low	Too high	Too low		
Income	+	–	N/A	N/A	N/A	N/A	+	–	–	+
Sig.	0.034	0.034	0.069	0.069	0.307	0.307	0.027	0.027	0.017	0.045
Solidarity [b]	–	+	+	–	N/A	N/A	–	+	+	–
Sig.	0.000	0.000	0.000	0.000	0.084	0.084	0.003	0.003	0.000	0.000
Individual performance [b]	+	–	–	+	N/A	N/A	+	–	–	+
Sig.	0.000	0.000	0.000	0.000	0.084	0.084	0.003	0.003	0.000	0.000
Reliance on State [c]	–	+	+	–	+	–	+	–	+	–
Sig.	0.000	0.000	0.000	0.000	0.019	0.019	0.003	0.003	0.001	0.003
Reliance on oneself [c]	+	–	–	+	–	+	–	+	–	+
Sig.	0.000	0.000	0.000	0.000	0.019	0.019	0.003	0.003	0.001	0.003

Note: the results correspond to the third stage of hierarchical regression analysis; + (−) stands for positive (negative) relationship. [a] Perceived taxation is measured on the scale of too high (1)—too low (5). To differentiate this scale from the scale "state your level of agreement with the statement: taxes for high-income people are too high (1—agree, 5—disagree)", we included both of the poles (too high and too low) in the table. [b] The preferences for solidarity were measured as the opposite of preferences for individual performance. Similar to the previous case, to differentiate this scale from a one-sided one, we included both of the poles in the table, as they enable different interpretations. [c] Reliance on the state was measured on the scale: "reliance on the state (1)—reliance on ourselves (5)".

We formulated six main hypotheses in the introductory sections. As presented in Table 8, the first hypothesis ($H_{1.1}$) was confirmed. Income was, indeed, negatively related to tax progressivity. The second hypothesis ($H_{1.2}$) was partially confirmed. Income was associated with the current taxation of the higher income group, while no association was found for the income and tax adequacy of low- and high-income groups. Understandably, the higher is the income, the more the taxation of higher incomes was considered too high. In addition, income was positively associated with the perception that current total income is too high.

The hypothesis $H_{2.1}$ was confirmed in full. Preferences for solidarity, as opposed to individual performance, were shown to be associated with higher preferences for tax progressivity. The hypothesis $H_{2.2}$ was confirmed in parts of high- and low-income groups. Preferences for solidarity were associated with the perception that the taxation of high-income groups is too low and that of low-income groups is too high. The association of solidarity with tax adequacy of the average-income group was statistically insignificant.

The hypothesis $H_{3.1}$ was confirmed in full. Reliance on the state was positively associated with preferences for progressive taxation. Similarly, hypothesis $H_{3.2}$ was confirmed in full. Namely, reliance on the state was positively associated with perceptions that the current taxation of the rich is too low, that of the poor is too high and, surprisingly, current average and total taxation is too high.

The existing literature suggests that income is negatively associated with preferences for total income taxation and tax progressivity [50–53]. Obviously, high-incomes try to avoid increased taxation. However, political sophistication may cause even high-income people to support increased tax progressivity in strife for equal society [44]. Moreover, Cansunar [45] showed that that the adverse attitudes of high-incomes toward tax progressivity significantly depends on the subjective positioning of individuals on the income scale and seems to affect the preference for income tax progressivity more than the actual income.

The results presented in Table 8 are generally in line with the previous findings [50–53] that income is negatively related to tax progressivity preferences. However, they go further than that. Preferences for tax progressivity may imply two distinct phenomena—increased taxes for higher-income groups and/or decreased taxes for the low-income group (both as percentages of income). In the analysis above, income was positively associated with the desire to reduce taxes for high-incomes, but it was not related to the taxation of middle- and low-incomes. The perceptions of tax adequacy of low-incomes were more related to preferences for solidarity and reliance on the state; in both cases, preferences for solidarity and reliance on the state were positively associated with the perception that taxation of low-income groups is too high. It corresponds to the perception that lower progressivity of taxes, from the view of higher-income groups, means lower taxation of higher incomes, independent of the taxation of other income groups. It basically justifies the approach of a number of researchers, who interpret tax progressivity primarily as a need to make the rich pay more [82,83]. The negative association of income with the preference for progressive taxation and positive association to proportionate taxation aggravates the conjecture that primarily, tax progressivity is more associated with the rich paying more than it is related to the other two groups of taxpayers. The question remains whether the rich will indeed pay more, as the tax compliance preferences of the rich were found to be lower than those of the other groups [85].

The significance of the income hypothesis was not surprising, in that the resistance of taxation of higher-income groups was more profound for higher-income respondents. However, given the overall attitudes of solidarity, one might expect that the ideas on taxation of low-incomes would be more uniform; independent of income, we might expect that, out of solidarity, people prefer low taxation of low-incomes. Results, to the contrary, presented the desire to tax the low-incomes (more than they are currently taxed) to be increasingly function with the personal income of the respondents. This corresponds to the idea of fairness, where everyone should contribute his part for the services he receives [69,70], rather than to the idea of solidarity, where the rich should pay more.

Predictably, preferences for solidarity were associated with the desire to increase taxes for the rich and decrease taxes for the poor, but they were unrelated to the taxes for average-incomes. Preferences for solidarity were also related to higher preferences for progressive taxation, lower preferences for proportionate taxation, and to the desire to increase current taxes. All these findings correspond to the general idea of solidarity as a way to help the disadvantaged or decrease inequality [86]. However, some recent studies found little association between the change in preferences for tax progressivity and changes in subjective inequality levels [43], while others found a significant association between tax preferences and left-wing political orientation (the latter implying more solidarity [44]). This concept of solidarity has both emotional and practical components. Emotionally, helping the disadvantaged bring emotional satisfaction. Practically, it creates the social safety net for the case of one's loss of fortune [87].

Interestingly, from Table 8 follows that reliance on the state for one's well-being was associated with the desire to increase taxes for high-incomes and decrease taxes for average- and low-incomes. The total taxation is expected to be lower too. Expectedly, reliance on the state was associated with higher tax progressivity and lower preferences for proportionate taxation. Thus, the idea of progressive taxation, for people reliant on the state, means an increase of the state duties of high earners only, while the others should pay less. The overall taxation should also decrease. The ideology is not sustainable, as there will be less budget to pay for the needs of those relying on the state.

The most interesting finding, presented in Table 8, concerns the relative importance of income, preference for solidarity, and reliance on the state in explaining the variability of tax preferences. While income was, in many cases, statistically significant, the explanatory power of solidarity and reliance on the state, measured by R^2, was at least as high and, in some cases, twice higher than the explanatory power of income, gender, and education altogether.

Surprisingly, age, gender, and education were not as significant as expected. Age was not significantly associated with any of the tax variables; gender was significantly related to the overall taxation only (men consider overall taxation too high, compared to women); people with a lower level of secondary education (no state exam), compared to higher educated respondents, preferred more progressive and less proportionate taxes. This finding corresponds to the do-not-tax-me hypothesis, as higher educated individuals usually receive higher wages. On the other hand, personal incomes were controlled for.

The results presented in this paper show the important ways the state could increase the sustainability of taxation and sustainability of economic growth via taxation. Besides the increase in tax enforcement and punishments for the case of not paying taxes, the state could rely on policies that build more solidarity in society. The solidarity of the rich and the poor can provide more public support for progressive taxation and eventually decrease inequality. Low-income people will get more funds through the social safety net, which increases their demand. The latter will provide a boost to economic production and overall economic growth.

The results presented in this paper line several avenues for further research. Firstly, more research needs to be done on the interpretation of an increase in progressive taxation, regarding whether it should be interpreted as an increase of the taxation of the rich (as it is often viewed in the literature) or the decrease taxation of the poor (or both). While the need to increase the taxation of the rich and make them pay these taxes is well discussed in the literature, taxation of the poor was not a subject of extended research. The reason is obvious, as taxation of the poor does not bring in tax revenue as high as the taxation of the rich. However, the fact that the poor need to pay reasonable taxes may have a psychological effect on participating in the expenses of society, rather than only relying on the benefits it brings.

This issue gets to be even more important, in the context of the apparent irrationality manifested in the analysis of the relationship between tax preferences and reliance on the state. It was found that reliance on the state for one's well-being was associated with the desire to increase taxes for high-incomes and decrease taxes for average- and low-incomes. The total taxation is expected to be lower too. Thus, the more people rely on the state, the less they think that the state should get more money in taxes. Arguably, more participation of low-income groups in the paying of taxes may rationalize their attitudes to the state revenues and expenses.

The results also present some limitations. Firstly, all the limitations related to the methodology of data collection (questionnaires) apply here. Namely, the ways people state their preferences in questionnaires do not necessarily mean that they will behave according to them. The other limitation concerns the representation of different income groups in the survey. Given that the survey is representative of the Czech Republic, the number of super-rich people is rather limited. Moreover, these people are often not accessible for these kinds of surveys. Thus, we cannot sufficiently grasp the opinions of super-rich elites who have a disproportionally strong influence on tax income and tax policy.

6. Conclusions

The overall increase in inequality, notable over the last 50 years, presents a threat to sustainable economic development. Besides the social, criminal, or health effects of inequality, which indirectly affect the sustainability of economic development, the increased inequality directly affects the sustainability of economic growth. Disproportionally decreased demand of low-incomes does not allow businesses to sell more, as high-incomes cannot sufficiently compensate. The system motivates high-incomes to save more, thus creating disproportionally high savings and overconsumption. These savings cannot be invested efficiently due to a decrease in demand, resulting in a decrease in return to capital. The whole system can turn into a downward economic spiral.

The redistribution of the wealth from high-incomes to the low can be achieved via progressive taxation. However, progressive taxation cannot be effective unless the taxation scheme corresponds to the preferences of the public. There are two mechanisms that can affect their preferences: the issue of solidarity of the rich and poor and the idea of reliance on the state for financial assistance, if needed.

The economic aftermath of the COVID epidemic put more importance on inter- and intra-country solidarity. New solidarity tax, to pay for the needs of the poor (individuals or countries), is discussed in many European countries. In this environment, public support for increased taxation is vital. This paper studied public preferences for income taxation in the Czech Republic. Preferences for income taxation and tax progressivity are hypothesized to be related to three main factors: personal income, preference for solidarity versus individual performance, and reliance on the state for one’s well-being, as opposed to reliance on oneself. These three hypotheses were tested on a large representative sample of the respondents from the Czech Republic via a set of hierarchical regression analyses (linear or ordinal, depending on the type of dependent variable), controlling for age, gender, and education. The relative explanatory power of opinion variables (solidarity and reliance on the state) was contrasted with the explanatory power of income age, gender, and education altogether.

The results suggest that higher incomes prefer less progressive taxation and lower overall taxation rates. Similarly, high-incomes were associated with the perception that taxes of high-income bracket are too high. However, income was unrelated to the subjective adequacy of current taxes for average- and low-income groups.

Expectedly, solidarity was related to lower income inequality. Namely, more preferred solidarity was associated with, subjectively, too low taxation of the rich and too high taxation of the poor, but unrelated to the subjective adequacy of taxation of an average-income group. Similarly, solidarity increased preferences for progressive taxation and lowered preferences for proportionate taxation. Expectedly, more solidarity meant higher total taxation—people with higher solidarity preferences believed that current taxation is too small.

Reliance on the state produced the most unexpected results. Though more reliance on the state was associated with the desire to increase taxes for high-incomes (perception that taxes for high-incomes are too low), the same reliance on the state meant desire to decrease overall taxation (the overall taxes too high). The obvious incoherence of this approach (where the state is to take the money to satisfy people relying on it) presents a new line of research aimed at the rationality of those relying on the state.

Though much of the income taxation theory is primarily concerned with defining and enforcing tax duties, according to income, the results of this study suggest that solidarity and reliance on the state may play a higher role in determining tax preferences than income itself. The explanatory power of both solidarity and reliance on the state proved to be at least as high as the explanatory power of income, age, gender, and education altogether. Moreover, in the regressions of the tax adequacy of high- and low-earners, the explanatory power of solidarity versus performance variable was twice higher than the explanatory power of age, gender, and education compound.

The results contribute new empirical evidence to the literature on taxation and may be interesting to both tax practitioners and researchers. The solidarity and reliance on the state are shown to be one of the mechanisms with increased preferences for progressive taxation, which seems indispensable for sustainable economic development. The potential of these two forces is high, as they are responsible for more variability in the preferences for progressive taxation than income, per se. Progressive taxation, in times of large income inequality, is one of the important mechanisms that can ensure sustainable, long-run economic development based on endogenous economic growth.

Author Contributions: Conceptualization, I.C. and L.S.; methodology, I.C.; formal analysis, I.C.; investigation, I.C.; resources, L.S.; data curation, I.C.; writing—original draft preparation, I.C. and L.S.; writing—review and editing, I.C.; supervision, L.S.; project administration, L.S. Both authors have read and agreed to the published version of the manuscript.

Funding: The paper was supported by the internal research project 2021B0002 "The post-Soviet region in the context of international trade activities: opportunities and threats arising from mutual cooperation", solved at the Department of Economics, Faculty of Economics and Management, Czech University of Life Sciences in Prague. The project was funded by Faculty of Economics and Management, Czech University of Life Sciences.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Institutional Review Board (or Ethics Committee) of Czech University of Life Sciences (protocol code DTF1501/2021, 15 January 2021).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data that support the findings of this study are available from The Institute of Sociology, Academy of Sciences of the Czech Republic, the Center for Public Opinion Research (Sociologický ústav (Akademie věd ČR), Centrum pro výzkum veřejného mínění), but restrictions apply to the availability of these data, which were used under license for the current study and are not publicly available. Data are, however, available from the author upon reasonable request and with permission of The Institute of Sociology, Academy of Sciences of the Czech Republic.

Conflicts of Interest: The authors declare no conflict of interest.

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