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On the connection between cultural values and personal income taxation

Abstract. The article explores the relationship between Hofstede's cultural dimensions and personal income taxation, as it is, what was never done in the scientific literature. It briefly describes the current level of scientific discourse and history of thought development in this problem field, forming the theoretical basis for substantiating the assumed relationship. Using theoretical reasoning as well as comparative quantitative methods (logistic and linear regression analysis), the paper shows the connection between some of Hofstede's cultural dimensions (power distance, individualism) and the establishment of progressive income taxation and top marginal tax rates. It is found that lower scores of power distance are associated with progressive income taxation, as well as higher tax rates. In addition, some potential mechanisms underlying this relationship are discussed. It is emphasized that cultural values can have two levers of influence on tax policy (bottom-up and top-down), since both the politicians responsible for designing tax systems and the citizens who shape the redistribution demand carry the national cultural values. The sample under study includes 115 countries at different levels of economic development.

Keywords: *taxation, tax policy, national culture, Hofstede's dimensions, comparative study.*

JEL Classification: P5, Z1.

For reference: **Chargaziya L.D.** (2023). On the connection between cultural values and personal income taxation. *Journal of the New Economic Association*, 1 (58), 32–46. DOI: 10.31737/22212264_2023_1_32

1. Introduction

The discussion around the optimal design of tax systems remains one of the most acute in the modern political economy. Tax issues often become the sticking point of debates not only between famous politicians but also between experienced economists and political scientists, while the very diversity of tax systems that simultaneously exist in (and even within) a wide variety of states is hardly possible to list. Yet, we still understand little about actual determinants of tax systems. Special attention in comparative studies of taxation is usually paid to the cross-country differences in personal income taxes, which are usually considered as dominant ones in developed countries (Sandford, 2000). But despite all the attempts to explain these differences, the topic remains insufficiently developed due to several reasons.

First of all, our understanding of tax systems is complicated by the number of scientific branches that include tax issues in their competence. Thus, economists prefer to explain the emergence of different systems through economic parameters of the states (Gordon, Li, 2009). Political scientists emphasize the importance of institutional design (Galli, 2002) and the competition of ideas in the political process (Morgan, 1994), while political philosophers mostly rely on normative and ideological aspects of taxation (Dietsch, 2018). Yet, every type of explanations remains very limited and, hence, incomprehensive.

But none of these approaches is actually wrong; it's just an illustration of how unyielding and challenging the comparative study of taxation is. The current level of

scientific discourse directly points to the necessity of using interdisciplinary approach. Yet, some schools explaining the diversity of tax systems are still struggling to achieve the attention they deserve, what may be the case for cultural explanations.

And there are some reasons for such attitude towards culture as an explanatory variable. Thus, N. Glazer (Glazer, 2000) argues that there is an almost invisible associative link between cultural and racial explanations that pre-emptively make scientists look for 'better' explanatory categories. But, of course, challenges we face dealing with cultural explanations are not limited to ethical issues. Another problem is the lack of objectivity in evaluation of cultures. First of all: how to define what culture is? And what social values should we consider as the cultural ones? And is it possible at all to measure *parameters of culture*? Surprisingly enough, to some extent yes, it is possible.

In the 1980s, social psychologist and organizational anthropologist Geert Hofstede (Hofstede, 1980) developed a system of cultural dimensions that did not lose its relevance to this day. A detailed description of the Hofstede cultural model will be presented in the special section of our paper. But despite recent introduction of several others dimensional models, Hofstede's one still enjoys high credibility in academic circles, and may be of great use for our research.

Up to this day, no comparative studies attempted to establish the connection between cultural values measured by Hofstede and tax policies of different states as they are. Our research aims to examine this connection. The main research question we have, hence, is: *do cultural values influence tax policies and if so, what way?*

To answer this question, we pose two hypotheses. The clarification of the logic behind them can be found further.

Hypothesis 1. Power distance cultural index (PDI) is connected with the establishment of progressive taxation. We assume that lower scores of PDI are associated with progressive personal income taxes, and higher scores of PDI with the flat ones.

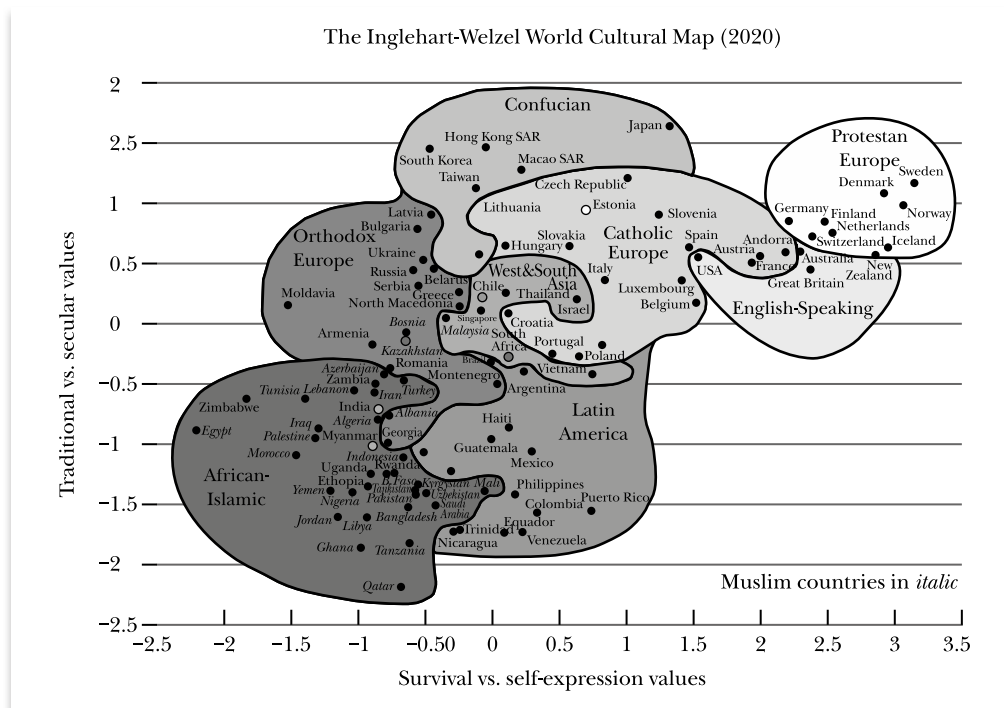
Hypothesis 2. Top marginal tax rate of personal income is connected with the PDI and individualism (IDV) cultural dimensions. In our research the top marginal tax rate serves a proxy for the level of progressive mode of taxation. We assume, hence, that lower level of PDI and higher level of IDV have a strong association with the more progressive status of taxation, and vice versa.

To test these hypotheses, we use quantitative methods, in particular, logistic, and multiple linear regression.

2. Tax policies and culture: current level of scientific discourse

2.1. On the origins of our insight

Tax policies were always a controversial subject in the political discourse. Centuries pass by, but one thing remains unchanged: any attempt to find a reasonable consensus on tax issues that would fit even similarly developed states is doomed to failure. The problem of finding the consensus on taxation was comprehensively disclosed in the article by A. Cobham (Cobham, 2007), in which he argued that 'optimal taxation' is apt to stay a perennial *Ultima Thule* due to value-based key components of tax systems. Thus, several dominant ideas of so called 'tax consensus' were built on almost entirely intuitive assumptions that had no actual scientific grounds. Among such features were, for example, the tax neutrality (preventing market distortions, which are

**Fig. 1**

The Inglehart–Welzel world cultural map – World Value Survey. Round 7 (<https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp>).

Source: The Inglehart–Welzel world cultural map – World Values Survey 7 (<http://www.worldvaluessurvey.org/>).

often considered as negative for economy) and replacing the redistribution taxes with government expenditures.

Nevertheless, Cobham posits that tax neutrality can in fact slow the development of market, while distortions can stimulate the economy and ultimately be more 'efficiency-enhancing' (Cobham, 2007, p. 3). Government expenditures may seem a good alternative to progressive taxation but only from the first sight. In the low-income states, due to the poor capacity of government, following the liberal tax consensus might make politicians to give up their only possible way of regulating wealth inequality within the state. But what's even more interesting for us is Cobham's consideration of taxes not only as a purely economic issue, but also as a *social* phenomenon.

Thus, despite the fact that development of a *universally* applicable tax system remains an unreachable goal, we can still observe some significant similarities in tax policies of states in the same cultural areas. Let us look at the cultural map (Fig. 1) proposed by the brilliant political scientists R. Inglehart, C. Welzel (World Value Survey, 2020). We can notice, how taxes, and especially personal income taxes, vary depending on the cultural coordinates of a state. And not only tax rates vary but also the types of taxation. For example, 'Protestant Europe' and 'English-Speaking' areas can be characterized by relatively high and progressive personal income taxes, while 'African-Islamic' and 'Orthodox Europe' by the low (or nonexistent) and flat ones. Indeed, there are numerous studies showing that progressive personal income taxes and higher tax reve-

nues to GDP ratio are more typical for the states with higher self-expression and secular values (Dökmen, 2018; Arikan, Bloom, 2019).

In historical process, different states have used a wide variety of economic systems, and therefore we have more than just an idea of what different policies are capable under certain circumstances. But politicians and economists still argue, which system is 'better', and no significant steps towards establishing the consensus are expected in the near future. This proposition may seem self-evident and, hence, unnecessary, since opposite economic doctrines are often based on incompatible values, but at the same time, it reveals one significant insight. Economic and, especially, tax policies in the contemporary world may no longer be only about the efficiency of systems, but also about cultural and ethical foundations of society; about the picture of the desired 'just' world, seeded in our minds by the cultural paradigms.

The actual problem of finding the optimal tax system is the term 'optimal' – it still remains undefined. Indeed, it is very difficult to find common ground, when we keep using different optics, or different parameters to analyze the economy. Thus, P. Diamond and E. Saez (Diamond, Saez, 2011) advocate very high (up to 70–80%) combined marginal tax rates in their paper, while a Stanford economist C. Jones (Jones, 2022) insists on a top rate of no more than 28%. Authors of both articles care about general welfare of society, in both articles a great math was performed. So, why is there such a difference? And the answer is because these authors represent different philosophical approaches towards economy and entrepreneurship.

P. Diamond and E. Saez are concerned about the wealth inequality and consider the rich as a 'necessary' evil, while C. Jones posits that entrepreneurship has value in itself, because it provides society with innovations, from which everyone benefits. And the differences in their conclusions are ultimately caused by authors' values; by considering rich 'good' or 'bad'. In the first case, the term 'optimal' means 'securing social equality', while in the second one – 'encouraging overall economic and scientific development'. Hence the preferred tax system is determined by the point of view originating from authors' or politicians' or voters' ethical and philosophical backgrounds. And probably nothing shapes them more than our heuristic biases and the cultural basis of our conscious.

Without any doubt, culture is the main source of social values (Huntington, 2000). This line of reasoning brings us back to probably the most famous work by Max Weber, 'The Protestant ethic and the spirit of capitalism' (Weber, 1958), in which he argues that one of the main factors that had influenced the development of modern capitalism was the form of state religion. Weber suggests that work ethic of Protestantism was positive towards entrepreneurship. Patience and secular world, and therefore, Protestant societies were first to engage in capitalism. And despite all the criticism on his work, Weber's conjecture about the exceptional influence of cultural traditions on the political and economic development of society is still supported by many of the most influential political scientists of our time including (Fukuyama, 1995; Inglehart, 2000; Harrison, 1992; etc.). But the point is that if we accept that culture can influence social choice of economic systems, so the question comes: can't it also cause variations *within* these systems?

Here it is crucial to note that our scientific intuition is also based on the fundamental premise of structural functionalism, which considers culture from an instru-

mental point of view. It means, we assume that culture sets up social institutions in order to sustain itself. A society is understood as 'a system of relationships maintaining itself through cybernetic feedback, while institutions are orderly sets of relationships the function of which is to maintain the society as a system' (Mahmud, 2008, p. 81). If institutions are stable and social system's elements work together as a unity, then these elements are supposed to be approved by the dominant culture that finds expression in social values leading society to certain political and economic choices.

Considering all the above, we're approaching probably the most challenging part of our reasoning, namely, how something as ephemeral and ethereal as culture can be measured and used in quantitative research.

2.2. On the culture and cultural dimensions. Our expectations

To discuss cultural influence on economic parameters, we have to define what we mean by 'culture', though, it may sound much easier than it is. 'Culture' is a very vague term, which has multiple definitions in a huge variety of contexts. Hence, the definition we will consider as a suitable one should reflect both – the discourse, we find ourselves in, and the aims we're going to pursue. It was brilliantly put by S. Huntington: 'if culture includes everything, it explains nothing' (Huntington, 2000, p. xv).

Since, our work is dedicated to the influence of national culture on taxation, our understanding of culture should observe its instrumental side. By 'culture' we understand social values, beliefs and attitudes that may cause cross-country differences in choice of policies. At the same time, data on cultural values we choose should be credible, quantified and have a record of successful use in comparative studies.

After some consideration, we decided to use G. Hofstede's cultural dimensions model (Hofstede, 1980). His classification of cultures based on the results of cross-national survey became a breakthrough in social science and a huge contribution to the comparative social research. And despite the fact that Hofstede's cultural dimensions are based on ethnic and national categories, one of his main concerns was also organizational culture and its impact on the work of companies and institutions (including the political ones).

And here is another premise of our research: politicians involved in public administration and legislative activity are also *humans*, who are just the same representatives of national cultures as common citizens. Hence, culture has two levers of influence on tax policy: the first one is 'from below', in other words: 'tax policy should not contradict socio-cultural demands of voters; the second is 'from above', meaning that world view of legislators and public administrators is also shaped by cultural values that may affect their work. And the necessity of taking into account these both levers of influence is one of the main reasons, why we chose Hofstede's cultural model.

But before proceeding further, we briefly discuss the essence of Hofstede's cultural dimensions and describe our expectations of certain dimensions' impact on our models. First of all, cross-national scores for every dimension are nothing but figures and can make sense only in a comparative perspective. Two out of four cultural dimensions are presented as binary oppositions, and two – as indexes. Minimum score for each dimension is 1, and maximum is 100. Cultural dimensions should be interpreted as follows.

1. Power Distance Index (PDI). Basically, the degree of hierarchy acceptance in the society is 'the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed *unequally*' (Hofstede, 1980). We

assume that PDI will affect the choice between flat and progressive tax systems, as well as the top marginal tax rate, because of two intuitive reasons:

1) the less unequal society is concerning power distribution, the more equal it wants the wealth to be distributed;

2) since PDI also represents the ‘detachment’ of the elites from common citizens, even if the demand for redistribution is very high within the society, those who are in charge may just not notice it. The illustration of that logic may easily be found in most of the post-soviet states, where despite high social request for redistribution flat income taxes still prevail.

2. Individualism (IDV) versus Collectivism. This dimension describes the relation ‘I’ versus ‘We’ within the social groups; the degree to which people are interconnected in the society and the simplicity of creating new social connections.

We assume that IDV will mostly influence the top marginal tax rate, since people in individualistic societies are expected to pursue a material self-interest, and since the majority of people benefits from redistribution policies. So, we expect that the highest taxes will be found in individualist societies. Collectivist societies are expected not to rely on the government and tax policies concerning wealth redistribution – people from collectivist societies simply do not need any state ‘empowerment’ to help each other. Yet, this does not mean that individualist societies (like those of Scandinavia) do not use private means of redistribution: they simply need an additional ‘legislative guarantee’ (a symbolic declaration of intention to redistribute), while collectivist societies do not, – since the redistribution is already implied in their culture.

3. Uncertainty Avoidance Index (UAI) is the extent to which culture determines behavior of groups and individuals in the variety of situations. Thus, cultures with high UAI try to avoid situations of ambiguity using a large number of *informal* laws, behavioral codes etc.

In one of the previous studies J. Johnson and T. Lenartowicz (Johnson, Lenartowicz, 1998) showed that UAI affects the level of economic freedom and, hence, may be the determinant of ‘tax burden’ that state imposes on its citizens. However, they intentionally excluded PDI from the equation (Johnson, Lenartowicz, 1998, p. 341), thinking that it did not have any mechanism of influence on the economic freedom, what strongly contradicts our reasoning. The omitted variable bias could exist, and we assume that competing in the regression model, PDI will come out the only ‘significant’ winner since it directly influences actual policies, while UAI’s effects may easily be dissolved in the long chain of mediation. Therefore, to check our line of reasoning we will include UAI in our models, yet, we don’t have any special expectations concerning that variable.

4. Masculinity (MAS) versus Femininity: ‘A preference in society for achievement, heroism, assertiveness, and material rewards for success’ (Hofstede, 1980). Its counterpart represents ‘a preference for cooperation, modesty, caring for the weak and quality of life’.

Johnson and Lenartowicz (Johnson, Lenartowicz, 1998) provided evidence that MAS may affect the degree of economic freedom, and, therefore, this variable may be of interest for us. Yet, the mechanism of its influence on economic policies (proposed by them) is quite vague. The authors posit that masculine societies, which praise success and material reward, will oppose progressive income taxation; however, such reasoning

seems to be a logical mistake since progressive income taxation does not lessen the *social* value of competition and success. Nor it makes the rich significantly less rich.

In a brilliant book called ‘The triumph of injustice’ E. Saez and G. Zucman (Saez, Zucman, 2019) demonstrated that enormously rich people like Warren Buffet or Mark Zuckerberg earn in a form of personal income just as much as they need to spend, while most of their wealth remains in a form of capital gains (that are *not taxed* until assets are sold). Some of the billionaires like Jeff Bezos were successful in paying zero federal income taxes, despite de jure progressive taxation in the US. Even libertarian thinkers like F.A. Hayek (Hayek, 1956) posited that progressive income taxation is an illusion, since rich people can always find ways of not paying what they should (a sort of competition setting in itself), and, hence, this system has more of a symbolic than economic function. Therefore, since the very essence of competition is not distorted by tax systems, we do not expect any particular influence of masculinity dimension on the personal income taxes. However, we will include this variable in our models to satisfy our insight.

In the next section, we briefly cover the works related to our research field.

2.3. On the previous studies of the connection between culture and taxation

The existence of a cultural influence on taxation has been assumed by many scholars, including (Schumpeter, 1991; Nerré, 2008; Reid, 2007 and others).

J. Martinez-Vazquez and S. Wallace (Martinez-Vazquez, Wallace, 1999) hypothesized that national tax systems to a large extent are based on national culture. That means if some things are considered by culture as ‘sacred’ (say, religious institutions) taxes on them will be low or non-existent, although it may be economically inefficient. B. Nerré (Nerré, 2008) posited that contradiction between recently implemented tax policies and national culture can easily cause ‘tax cultural shock’ and, hence, low compliance among taxpayers.

G. Tsakumis, A. Curatola and T. Porcano (Tsakumis et al., 2007) found a strong influence of several Hofstede’s cultural dimensions on tax evasion, after controlling for the GNI per capita. In the follow-up study G. Richardson (Richardson, 2008) achieved similar results, using a little larger sample (all the possible data twelve years ago). Tax effort (and the size of governmental sector) also proved to be influenced by culture in a study conducted by M. McCoon (McCoon, 2012).

Some attempts were made to explain tax policies using particular elements of culture: social trust, confidence, religiosity (Gulev, Lierse, 2012; Bjørnskov, Svendsen, 2013; Torgler, 2006). Thus, it was discovered that religious societies tend to oppose progressive taxation and governments’ role of wealth redistributors. The new PLOS one research (Arikan, Bloom, 2019) showed, that religiosity can be mediated in several ways and more often people that oppose redistribution also identify themselves as conservatives. Yet, never before the connection between Hofstede’s cultural dimensions and personal income taxation was investigated.

We hope that theoretical part of our work emphasized some gaps in our understanding of tax systems, and at the same time demonstrated that tax policies are not the only pure consequence of political actors’ economic ‘rationality’. Yet, tax policies can neither be considered as purely and unpredictably random: we believe that our study will become a good contribution to the understanding of tax systems’ determinants. In the next sections, we elaborate on our methodology, test our hypotheses, and interpret the findings according to our theoretical framework.

3. Evidence for the connection between cultural values and tax policies

3.1. Data, Methods and Methodology

To test our hypotheses, we used statistical methods, in particular, logistic and multiple linear regressions. But before we proceed to our models, we should describe how and from what sources we collected the data, as well as how it was transformed to fit our aims. First, we created a sample with our independent variables, namely, Hofstede's cultural dimensions using the most relevant data derived from (Hofstede Insights, 2021) for 115 states. Cross-national data on tax systems was compiled based on the official governmental sources. Since our prime interest is personal income taxation we decided not to account for indirect taxes. Thus, we encoded states that use flat personal income taxes as 0 and states that use progressive ones as 1. 'Pseudo'-progressive tax systems (like the Russian one with a single step 13–15%) were also encoded as 0. Using the same sources, top marginal tax rates (on a national level) were added to our sample.

Almost similar control variables were included in our models for both hypotheses. Thus, among the most important determinants of tax policies and development of social institutions scientists often emphasize the current level of inequality in the state, the income of the population and the state capacity (Besley, Persson, 2009; Dallinger, 2010; Franko et al., 2013). We used the following measures for these parameters:

1) income inequality – the Gini index for the last possible date estimated by World Bank¹, since there is a lack of modern data on all the states in our dataset. However, the Gini index remains one of the most credible measures of inequality and no better solutions seem to be present;

2) income of the population – the GNI per capita estimated by World Bank² that captures mean income of citizens;

3) state capacity – the Government Effectiveness Index (GEI) estimated by World Bank³.

For the model, which describes the connection between cultural values and top marginal tax rates, we also added the type of tax system itself as a control variable, since it is obvious that progressive tax systems will be characterized by higher tax rates than the flat ones, and this effect should also be considered.

Yet, cultural dimensions may not be the only cultural variables that may affect tax systems. Thus, there is a viral belief that generous welfare states and progressive tax policies are associated with high level of social capital and, consequently, social trust (Compton, 2018; Kleven, 2014), the impact of which we will also evaluate in our complementary models in order to secure robustness of the results. For that purposes we will use the data collected by (World Value Survey, 2020).

Every regression model was built and diagnosed in R-Studio with all the necessary tests, including multicollinearity and heteroscedasticity ones. Thus, we had a chance to transform 'problematic' data in order to avoid undesirable distortions, e.g. GNI per capita had serious problems with heteroscedasticity, and hence, we've used its natural logarithm in our models. The limitations of our analysis will be covered in the last section of the chapter.

¹ World Bank. Gini index (<https://data.worldbank.org/indicator/SI.POV.GINI>).

² World Bank. GNI per capita (<https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD>).

³ World Bank. Worldwide Governance Indicators (<https://info.worldbank.org/governance/wgi/>).

3.2. Results

3.2.1. Testing the first hypothesis

The first hypothesis was formulated as follows: power distance index (PDI) is connected with the establishment of progressive taxation. We assume that lower scores of PDI are associated with progressive personal income taxation, and higher scores of PDI with a flat one. Hence, we expect that PDI will be significant and will have a negative sign in our models.

To test this hypothesis, we've used the following logistic regression model:

$$1) \quad \text{Log} \left[\frac{P(\text{TaxSystem} = \text{True})}{\{1 - P(\text{TaxSystem} = \text{True})\}} \right] = \alpha_0 + \beta_1(\text{PDI})_i + \beta_2(\text{IND})_i + \beta_3(\text{MAS})_i + \beta_4(\text{UCI})_i + \beta_5(\text{GEI})_i + \beta_6(\ln \text{GNI})_i + \beta_7(\text{GiniIndex})_i + \beta_8(\text{Trust})_i + \epsilon_i$$

In order to evaluate the influence of control variables on the model we add them gradually. Thus, we can observe how consistent our main results are. Table 1 presents the results from estimating logistic regression model. As we can see, *PDI* appears to be significant ($p < 0.01$) even after controlling for all the other factors. *GEI* was significant on the level of 10% ($p < 0.1$) in the complete model, but after the *PDI* was excluded from the equation its significance increased to the level of 1% ($p < 0.01$). Even more interesting is economic parameter, namely, *GNI* per capita that becomes significant only after we exclude the *PDI* from the equation. And as the hypothesis predicted the sign of *PDI* is negative.

An addition of social trust to the equation (model no. 6 in Table 1) didn't make any difference, concerning our variable of interest. Hence, we can conclude that there is definitely a relationship between low power distance level and establishing the progressive taxation, that supports our first hypothesis.

Table 1

Culture and tax systems

Independent variables	Dependent variable: taxation type (flat or progressive)					
	(1)	(2)	(3)	(4)	(5)	(6)
Power Distance	-0.050*** (0.016)	-0.048*** (0.016)	-0.045*** (0.017)			-0.060** (0.025)
Individualism	-0.006 (0.014)	-0.008 (0.015)	-0.006 (0.015)	0.015 (0.013)		-0.025 (0.020)
Masculinity	-0.005 (0.013)	-0.005 (0.013)	-0.002 (0.014)	-0.004 (0.012)		0.014 (0.016)
Uncertainty Avoidance	-0.016 (0.010)	-0.015 (0.010)	-0.010 (0.012)	-0.010 (0.011)		-0.034* (0.018)
<i>GEI</i>		0.112 (0.301)	0.500 (0.485)	0.998** (0.462)	1.349*** (0.412)	0.721 (0.563)
$\ln \text{GNI}$			-0.453 (0.422)	-0.691* (0.416)	-0.837** (0.372)	-0.438 (0.557)
<i>GiniIndex</i>			-0.004 (0.028)	0.007 (0.026)	0.008 (0.025)	-0.050 (0.040)

End of table 1

Independent variables	Dependent variable: taxation type (flat or progressive)					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>SocialTrust</i>						-0.026 (0.027)
Constant	5.329*** (1.626)	5.225*** (1.641)	8.874** (3.981)	6.935* (3.862)	7.870** (3.835)	13.428** (5.449)
Observations	115	115	115	115	115	85
Log Likelihood	-66.317	-66.130	-65.523	-69.744	-70.949	-46.271
Akaike Inf. Crit.	142.634	144.261	147.047	153.489	149.899	110.542

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

3.2.2. Testing the second hypothesis

The second hypothesis we test was formulated as: top marginal tax rate on personal income depends on the power distance (*PDI*) and individualism (*IDV*) cultural dimensions. We assume that lower scores of *PDI* and high scores of *IDV* are associated with high progressivity of taxation, and vice versa. Hence, we expect that *PDI* and *IDV* variables will be significant and will have negative and positive sign accordingly. So, the model we estimate to test the second hypothesis is:

$$2) \text{ TopMarginalTaxRate}_i = \alpha_0 + \beta_1(PDI)_i + \beta_2(IDV)_i + \beta_3(MAS)_i + \beta_4(UCI)_i + \beta_5(\text{TaxSystem})_i + \beta_6(GEI)_i + \beta_7(\ln GNI)_i + \beta_8(GiniIndex)_i + \beta_9(Trust)_i + \epsilon_i.$$

Just like in the case with the first hypothesis we include the control variables into the model gradually. Table 2 presents our results. As we see the model is highly significant (F-statistic = 15.848; p-value < 0.001) and explain relatively large percent-

Table 2

Culture and top marginal tax rates

Independent variables	Dependent variable: taxation type (flat or progressive)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Power distance	-0.346*** (0.066)	-0.242*** (0.062)	-0.222*** (0.066)	-0.201*** (0.065)			-0.243*** (0.089)
Individualism	0.065 (0.063)	0.082 (0.057)	0.065 (0.061)	0.089 (0.062)	0.181*** (0.057)		0.014 (0.078)
Masculinity	0.032 (0.057)	0.039 (0.051)	0.046 (0.052)	0.070 (0.051)	0.060 (0.053)		0.068 (0.065)
Uncertainty avoidance	-0.041 (0.048)	-0.008 (0.043)	-0.008 (0.044)	0.035 (0.048)	0.034 (0.050)		0.022 (0.068)
Taxation type		10.629*** (1.992)	10.588*** (2.003)	9.950*** (1.974)	11.578*** (1.978)	12.207*** (2.039)	9.047*** (2.418)

End of Table 2

Culture and top marginal tax rates

Independent variables	Dependent variable: taxation type (flat or progressive)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>GEI</i>			1.251 (1.319)	5.107** (2.027)	7.101*** (1.998)	7.958*** (1.815)	5.872** (2.333)
<i>GiniIndex</i>				-0.071 (0.114)	-0.038 (0.118)	-0.089 (0.119)	-0.093 (0.156)
<i>ln GNI</i>				-4.540** (1.751)	-5.294*** (1.802)	-3.978** (1.691)	-5.110** (2.200)
<i>SocialTrust</i>							-0.052 (0.099)
Constant	51.535*** (6.914)	35.128*** (6.907)	33.843*** (7.066)	74.092*** (17.093)	62.439*** (17.334)	62.602*** (17.919)	88.827*** (21.905)
Observations	115	115	115	115	115	115	85
Adjusted R ²	0.371	0.496	0.490	0.512	0.473	0.428	0.468
F-statistic	17.778*** (df= 4; 110)	23.469*** (df= 5; 109)	19.095*** (df= 6; 107)	15.848*** (df= 8; 105)	15.493*** (df= 7; 106)	22.131*** (df= 4; 109)	9.124*** (df= 9; 74)

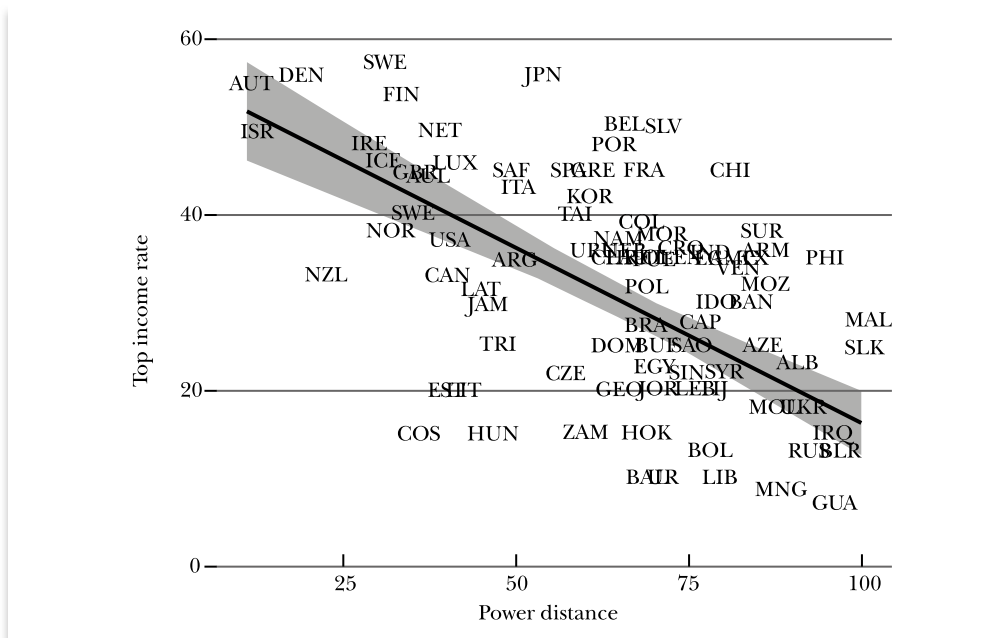
* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Fig. 2

The connection between power distance and the top marginal tax rate

age of variation in the top marginal tax rate (adjusted R^2 equals to 0.512). And again, our results did not change after all the control variables, including social trust, were included into the model.

Power distance was always significant at the level of 0.01, but individualism variable reached any level of significance only when *PDI* was excluded from the model. The sign of *PDI* variable is negative, and the sign of *IDV* is positive as was predicted by our hypothesis. Visualization of the connection between power distance index and progressivity of taxation can be found in the Fig. 2. Thus, we can conclude that the relationship between power distance and progressivity of taxation indeed exists, and that power distance is more important for high progressivity than the level of individualism within the society, what partially supports our second hypothesis.

3.3. Limitations

First, due to the lack of the data we're using a cross-sectional approach, so, our results are not properly protected from omitted variable bias. We've tried to minimize this problem by adding the most important determinants of tax policies to the models, but this limitation should certainly be taken into account when interpreting the results, since it is simply impossible to fully grasp the specifics of institutional design, historical inertia, temporal trends, and other unobservable and unquantifiable factors that may affect tax policies.

Another line of problems is associated with establishing causal relations, since regression models do not imply causation. To clarify the nature of the relationship between tax policies and national culture we tried to substantiate the causality through theoretical argumentation, emphasizing that culture changes at a relatively slow pace compared to economic policies. Moreover, we also elaborated on the structural functionalism framework, in which our work is being done, and introduced two potential mechanisms of *PDI*'s influence on the work of policymakers. Thus, we hope, at least partially, to solve this problem.

Finally, there are also limitations associated with the external validity of the results. It may seem that there should be no such, since our sample covers 115 states, but our models don't capture regional differences in tax systems and that's the thing that we should have in mind while interpreting the results. Thus, our results only have validity for national tax policies and by no means can be projected on the regional and sub-regional levels.

4. Conclusion

Culture was always a driving force of the development of different societies, as well as one of the main products of their development. And there is not a single element of social life that can escape the cultural influence. Changes in cultural values find expression and lead to transformations even in the most imperceptible components of our everyday life. And there should be no surprise that culture may affect the performance of formal political institutions and, ultimately, states' economic policies, some evidence for what we provided with our research.

The main finding of our work may be formulated as follows: *the higher is PDI the lower is the progressivity of personal income taxation*. But what can we derive from this finding?

First of all, even after controlling for the quality of political institutions and various economic parameters, PDI can explain the gap between high social request for wealth redistribution in post-soviet states and the widespread flat tax systems there. Thus, post-soviet tax policies may strongly contradict redistribution preferences of people who live in post-soviet states, but they *do not* with their cultural values.

It reveals that cultural preoccupation may mean more to citizens and policy-makers than actual redistribution preferences the population has. Yet, this does not mean that tax systems are doomed to immutability, since the main property of culture is constant development and that's especially important for the post-soviet cofigurative cultures. Cultural values change according with transformation of parenting, socialization processes and formal education. Thus, the first step in the establishment of any productive tax system is to inculcate new cultural norms that would fit the desired system and guarantee an appropriate tax compliance: to behave well, people should agree that the system they comply to is fair, and, probably, nothing shapes our 'fairness sense' more than culture.

To conclude we want to emphasize that by no means our research should be considered as overarching, and there is a lot of work to be done, concerning the subject. We hope that some well-deserved attention was brought to the problem of the connection between culture and personal income taxation, and more studies providing evidence or challenging our inferences will soon appear.

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Поступила в редакцию 07.11.2021

Received 07.11.2021

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О связи между культурными ценностями и налоговой политикой

Аннотация. В статье исследуется взаимосвязь между культурными измерениями Хофстеде и налогами на доходы физических лиц, чего никогда ранее не делалось в научной литературе. Кратко описывается современный уровень научного дискурса и история развития мысли в данном проблемном поле; формируется теоретическая база для обоснования предполагаемой взаимосвязи. Используя теоретические рассуждения, а также сравнительные количественные методы (логистический и линейный регрессионный анализ), в статье показана связь между некоторыми культурными измерениями Хофстеде (дистанция власти, индивидуализм) и установлением прогрессивного подоходного налогообложения и верхних предельных налоговых ставок. Установлено, что более низкие показатели дистанции власти ассоциируются с прогрессивным подоходным налогообложением, а также с более высокими предельными налоговыми ставками. Кроме того, обсуждаются некоторые потенциальные механизмы, лежащие в основе этой связи. Подчеркивается, что культурные ценности могут иметь два рычага влияния на налоговую политику (снизу вверх и сверху вниз), поскольку и политики, отвечающие за разработку систем налогообложения, и граждане, формирующие запрос на перераспределение, являются носителями национальных культурных ценностей. Исследуемая выборка включает 115 стран, находящихся на разных уровнях экономического развития.

Ключевые слова: налогообложение, налоговая политика, культурные измерения Хофстеде, сравнительные исследования.

Классификация JEL: P5, Z1.

Для цитирования: **Чаргазия Л.Д.** (2023). О связи между культурными ценностями и налоговой политикой // *Журнал Новой экономической ассоциации*. № 1 (58). С. 32–46. DOI: 10.31737/22212264_2023_1_32