

RELIGION AND ECONOMIC ATTITUDES: A REPLICATION WITH ISSP DATA

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Abstract

The role of religion is rarely acknowledged by economists; although, some studies have already shown its importance for economic development and the body of research is growing. Among other outcomes, previous research has provided some evidence that religiosity matters in the process of formation of economic attitudes, even in post-communist countries. This paper uses the data from International Social Survey Programme to provide additional evidence for those findings.

Key words: religion, attitudes, Central Europe, ISSP

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Introduction

The relation of religion and economy is not a new topic in social sciences. We could trace it to Adam Smith and more recently to Max Weber. However, only in the recent decades we can observe a more serious and intense interest in the impact of religion on economic variables. This renewed interest results from the growing research in institutional and cultural economics pointing to new important variables to be included in economic analysis.

One of the basic issues in the field is the mechanism of influence; how does religion affect economic outcomes? Weber's (1905) suggestion that the mechanism is in the work ethics has been seriously challenged in the literature (see, e.g., Delacroix and Marsh 2001). Several alternative mechanisms have been proposed to account for the observed relations. Among them is the suggestion that religion affects social and economic attitudes which in turn affect economic outcomes, either directly or via social and economic institutions.

The relation between religiosity and economic attitudes has been shown to exist even in post-communist countries where religion had been oppressed for many decades (Minarik 2014a). The purpose of this paper is to verify those results using different data on religiosity and social attitudes. The paper first very briefly reviews previous research on the topic. Then,

it presents the empirical strategy, the data and the results. Final part compares the results with the previous research and concludes.

1 Previous research

Since the paper aims to present empirical results the literature review is intentionally brief. Therefore, it omits the literature on the relation between religion and economic outcomes, the debate on Weber and alternative mechanisms of influence as well as the studies on religion and economic institutions. The focus is solely on the effect of religion and religiosity on attitudes and the specifics of social and economic attitudes in post-communist countries.

Regarding religion and attitudes there are several relevant studies. Giorgi and Marsh (1990) show that the Protestant work ethic as a cultural phenomenon rather than a personal characteristic. La Porta et al. (1997) demonstrate the effect of religion on trust and subsequently on performance of large organizations. Arrunada (2010) postulates that Protestants and Catholics share similar work ethic but they differ in social ethic which is also relevant for economic development. The most complex study in this respect is that of Guiso et al. (2003) examining the effect of religiosity on different social and economic attitudes.

Post-communist countries deserve particular attention due to a specific social development over a considerable period of time. Several studies document the differences in values attitudes between the East and the West (Kohak 1992, Schwartz et al. 2000, Alesina and Fuchs-Schundeln 2007, van Hoorn and Maseland 2010). Minarik (2014a) replicates the study of Guiso et al. (2003) focusing solely on post-communist countries and finds a significant effect of religion on economic attitudes.

2 Empirical strategy

The empirical strategy is the same as in Guiso et al. (2003) and Minarik (2014a). The data – although, they come from a different source – are pooled cross-sections of individuals from different countries. Country effects are controlled for to eliminate the impact of country-specific institutions other than religion, and time effects to eliminate changes through the transition. As in the previous papers, this approach probably results in underestimating the effect of religion; on the other hand, the effects we observe may be attributed to religion with greater certainty.

To pre-empt the latent variable critique, the results should be interpreted as correlations rather than causal effects, even where causal language is used later in the text.

The choice of dependent and explanatory variables is limited compared to Guiso et al. (2003) and Minarik (2014a) partly due to availability of data and partly to give more focus to those attitudes that are more directly related to economic policies in the post-communist transition.

3 Data

The International Social Survey Programme (ISSP) is a continuing annual program of cross-national collaboration on surveys covering topics important for social science research. Since the early 1980s it has carried out representative national surveys on different issues in a cross-section of countries. Different modules (questionnaires) are used repeatedly allowing study of the dynamics in social variables. So far there have been three waves of the survey focusing on religion – in 1991, 1998, and 2008. The analysis in this paper uses the cumulative dataset aggregating the data from all three waves.

For the purpose of the present study, only the post-communist countries were kept in the dataset. This leaves us with observation from the Czech Republic, East Germany, Hungary, Poland, Slovakia and Slovenia. The survey was not administered in the Czech Republic and Slovakia in 1991, otherwise all countries have been surveyed in all three waves. The dataset for the analysis below consists of 18808 individual respondents. However, not all questions have been asked in every wave of the survey, or the data are missing for some respondents. Therefore, regressions in the following section are usually based on a smaller number of observations.

Every researcher in the field of religion must acknowledge that measuring religiosity is a problematic task. An individual's religious life has many facets. His or her involvement may range from mere faith to active participation in a religious organization. Affiliation with a particular denomination may manifest itself in various degrees from simple declaration of belonging to a group, through participation and donation of time and material resources, to a formal position in the group. However, if we do not want give up quantitative research in religion as such, we have to accept the measures that are available.

Several measures are employed in this study, as well as in the previous research, that represent different aspects of religiosity. The most basic aspect of religiosity is belief in God.¹ The literature shows that the early years of education obtained at home have a significant impact on future world-view. Unlike the World Values Survey (used by Guiso et al. 2003, and

¹ In the present analysis, it is determined by the answer to the question 'Which best describes your beliefs about God?' with four valid answers 'I don't believe in God now and I never have', 'I don't believe in God now, but I used to', 'I believe in God now, but I didn't use to', and 'I believe in God now and I always have'. The former two responses are coded as disbelief, the latter two as belief.

Minarik 2014a), the ISSP survey does not ask about this directly, it was necessary to use a proxy variable.² Only 72.5 % of those raised religiously in the sample do believe in God.

Participation in religious activities also differs among individuals. We distinguish two levels of participation and separate people who are currently religious and actively religious according to Guiso et al. (2003).³ Religiosity measured by these four criteria across the different post-communist countries is summarized in Tables 1 and 2.

Religious affiliation is understood as a matter of self-declaration.⁴ Note that religious affiliation is a completely different measure from the previous four. Some people do believe in God but do not claim to belong to any religious denomination (2.5 % of the sample). At the same time, there are people who do not believe in God claim to have a religious affiliation (13.8 % of the sample). Table 3 shows how affiliation relates to different religiosity measures.

Table 1. Religiosity by country (%)

Country	Does believe in God	Raised religiously	Currently religious	Actively religious	Number of respondents
Czech Republic	37.8	56.8	34.7	6.1	2736
East Germany	24.4	57.5	15.8	2.8	3016
Hungary	63.3	69.5	38.7	11.3	3010
Poland	93.8	97.0	88.9	47.9	3473
Slovakia	74.2	78.1	61.2	30.3	2422
Slovenia	62.0	78.1	27.5	7.1	4151
All countries	59.9	73.8	44.2	17.5	18808

Table 2. Distribution of respondents by religious denomination and country (%)

Country	Catholic	Protestant	Other affiliation	No religious affiliation
Czech Republic	39.1	4.8	1.6	52.2
East Germany	4.9	26.2	1.2	67.6
Hungary	62.5	19.9	1.2	15.9
Poland	90.8	0.4	0.7	7.4
Slovakia	69.2	13.0	0.6	16.3
Slovenia	76.8	1.7	4.0	16.1
All countries	59.1	10.2	1.7	28.0

² As a proxy measure, we use the response to one the following questions: ‘And what about when you were around 11 or 12, how often did you attend religious services then?’ or ‘When you were a child, how often did your mother attend religious services?’ or ‘When you were a child, how often did your father attend religious services?’. If in any of these question the respondent stated frequency once a month or higher, we coded this as raised religiously.

³ In this study, the values are based on the question ‘How often do you attend religious services?’. ‘Currently religious’ are those individuals who attend at least once a year; ‘actively religious’ are those who attend at least once a week or 2-3 times a month.

⁴ The specific wording of the question aimed at eliciting respondents affiliation slightly differs across countries; although, the meaning is equivalent.

Table 3. Religiosity by religious denomination (%)

Religious denomination	Does believe in God	Raised religiously	Currently religious	Actively religious
Catholic	83.2	88.5	62.5	27.6
Protestant	66.4	70.3	43.6	6.8
Other	82.1	63.6	46.7	19.1
No affiliation	8.7	44.7	6.3	0.3

Table 4. Economic attitudes – summary statistics

Variable	Mean	Standard deviation	Minimum	Maximum
Govt. responsibility to provide jobs	0.93	0.26	0	1
Govt. responsibility to reduce inequality	0.85	0.36	0	1
Wrong to cheat on taxes	0.74	0.44	0	1
Wrong to cheat on benefits	0.90	0.30	0	1
People can be trusted	0.32	0.47	0	1

Quantitative research of economic attitudes is not less risky than quantitative research of religion. Combining these two topics in a cross-country perspective also leads to severe constrain in data availability. Five variables have been selected that are economically relevant and they have been included in the ISSP module on religion. They concern government responsibilities regarding labor, income equality, taxes, benefits and trust. Summary statistics are provided in Table 4.

First two variables concern the attitudes towards the responsibility of the government to provide jobs and to reduce income inequality. Positive attitude towards the government is coded as 1, negative as 0.⁵ There are two variables concerning honesty in dealing with government regarding taxes and benefits. Roughly speaking, positive attitude on honesty is coded as 1, negative as 0.⁶ The fifth variable concerns trust; respondents who trust others received the value of 1, those who do not trust received a 0.⁷

⁵ The values are defined as positive (definitely/probably should, coded as 1) or negative (definitely/probably should not, coded as 0) answer to the question ‘On the whole, do you think it should or should not be the government’s responsibility ... to provide a job for everyone who wants one?’ and ‘...to reduce income differences between the rich and poor?’ respectively.

⁶ The values are defined upon the response to the following questions: ‘Do you feel it is wrong or not wrong if a taxpayer does not report all of his or her income in order to pay less income taxes?’ and ‘Do you feel it is wrong or not wrong if a person gives the government incorrect information about himself/ herself to get government benefits that he/ she is not entitled to?’. Answers ‘Wrong’ and ‘Seriously wrong’ are coded as 1, answers ‘Not wrong’ and ‘A bit wrong’ are coded as 0.

⁷ The variable is based on the survey question ‘Generally speaking, would you say that people can be trusted or that you can’t be too careful in dealing with people?’ Positive answers (‘People can almost always be trusted’

Table 5. Demographic characteristics – summary statistics

Variable	Mean	Standard deviation	Minimum	Maximum
Gender (male)	0.45	0.50	0	1
Age	45.92	16.82	15	97
Years of education	11.09	3.09	1	28
Work status (employed)	0.52	0.50	0	1

Finally, the choice of control variables is informed by the previous research. All regression are controlled for gender, age, education and work status. The work status separates employed respondents from the rest of the sample such as unemployed, retired or students. Summary statistics are also provided in Table 4. There might exist correlation and even causal relation between religiosity and the control variables in post-communist countries. For example, religious people had often been denied higher education by the communists. It is also well known that religiosity increases with age and this is also true in post-communist countries (Minarik 2014b). This may lead to underestimation of the effect of religiosity.

Table 6. Religion and economic attitudes (logistic regressions, odds ratios reported)

	(1)	(2)	(3)	(4)	(5)
	Govt should provide jobs	Govt should reduce inequality	Wrong to cheat on taxes	Wrong to cheat on benefits	People can be trusted
Atheist	1.328 ***	1.173 *	0.920	0.782 **	1.037
Raised religiously	1.151	1.320 ***	1.015	1.094	0.928
Currently religious	1.338 **	1.120	0.975	0.830 *	1.269 ***
Actively religious	1.148	0.983	1.117	1.180	1.176 **
Male	0.529 ***	0.788 ***	0.957	0.885 *	1.131 ***
Age	1.002	1.010 ***	1.023 ***	1.020 ***	1.000
Years of education	0.858 ***	0.873 ***	1.000	1.060 ***	1.128 ***
Employed	0.804 **	0.895	1.097 *	1.079	1.003
Number of observations	9883	9599	9431	9663	10390
LR chi2	333.4	785.9	407.0	232.2	795.6

*, **, *** denote that odds ratios are statistically different from one at 10%, 5% and 1% level respectively. Full results including standard errors and p-values are available from the author on request.

and ‘People can usually be trusted’) are coded as 1, negative answers (‘You usually can’t be too careful in dealing with people’ and ‘You almost always can’t be too careful in dealing with people’) are coded as 0.

4 Empirical results

4.1 General results on religiosity

The estimates of the impact of religiosity are presented in Table 6. Logistic regression is used to estimate the effect of the explanatory variables due to the binary nature of the dependent variables; the table presents odds ratios. The excluded group is made up of people who believe in God but who were not raised religiously and currently do not participate in any religious activity. The effect of atheism can be viewed as the opposite to the effect of belief; that is, a significant coefficient on atheism represents a significant effect of religious belief. Effects of different measures of religiosity should be read cumulatively as the different aspects may cumulate. For example, the correct estimate for a person that believes in God, was raised religiously and goes to church once a week (that is, she is currently religious and actively religious) can be obtained by multiplying the three odds ratios (the products are not reported due to space constraint).

Table 7. The role of religious denominations (logistic regressions, odds ratios reported)

	(1)	(2)	(3)	(4)	(5)
	Govt should provide jobs	Govt should reduce inequality	Wrong to cheat on taxes	Wrong to cheat on benefits	People can be trusted
Atheist	1.327 **	1.183 *	0.915	0.767 **	1.011
Catholic raised	1.138	1.242 **	0.921	1.053	0.862 *
Catholic currently	1.303 *	1.257 **	1.019	0.808	1.280 ***
Catholic actively	1.085	0.945	1.097	1.182	1.209 ***
Protestant raised	0.973	1.122	1.108	0.863	0.973
Protestant currently	1.354	0.868	0.962	0.934	1.321 **
Protestant actively	1.535	0.815	0.861	0.818	0.809
Other religion raised	0.923	2.014 *	1.000	1.486	0.870
Other religion currently	1.047	0.510	0.646	0.903	1.365
Other religion actively	2.500	0.899	5.629 ***	1.553	1.874
Male	0.530 ***	0.792 ***	0.958	0.882 *	1.128 ***
Age	1.002	1.011 ***	1.023 ***	1.021 ***	1.000
Years of education	0.858 ***	0.874 ***	0.999	1.060 ***	1.127 ***
Employed	0.804 **	0.886 *	1.099 *	1.075	1.004
Number of observations	9883	9599	9431	9663	10390
LR chi2	333.1	795.4	418.0	234.7	800.1

*, **, *** denote that odds ratios are statistically different from one at 10%, 5% and 1% level respectively. Full results including standard errors and p-values are available from the author on request.

Obviously, religiosity does have certain effect on social attitudes. Although, the effect of religion appears to be quite complex. The first two questions reflect the position on the role of the government. Non-believers are more likely to see employment and income equality as responsibilities of the government. However, religious upbringing and practice work in the same direction as atheism.

Belief in God and religiosity also seem to affect the attitudes on honesty in dealing with the government. Although, unlike in the previous issues, the effect is rather insignificant or barely significant. Interestingly, occasional religious participation appears to promote dishonesty regarding government benefits. On the other hand, religiosity significantly encourages trust among people. This effect is observable both for occasional and active participation in religious services.

4.2 Results on particular denominations

Although religiosity may be interesting as such, most research focuses on the effects of different religions. Table 7 presents the estimates from logistic regressions with individual denominations. Decomposition of the effects of religion leads to an observation that it is mostly attributable to Catholicism. Participation in Catholic religion leads to more statist attitudes, especially with regard to the role of the state in income redistribution. Other religions (i.e., other than Western Christianity) appear to have the opposite effect – religious upbringing leads to statist attitudes regarding income inequality, while religious participation fully offsets this effect. Religious participation also fosters honesty in dealing with state.

Trust is another characteristic influenced by religiosity. The belief in God seems insignificant, while religious practice appears to matter. The effect of Catholicism is ambiguous. Catholic upbringing reduces trust; however, occasional participation in Catholic services increases trust significantly and it does so even more if one participates frequently. The effect is similar with Protestantism. Although, the effect is only significant with occasional participation and frequent participation eliminates it. Participation in ‘other religions’ also enhances trust among religionists.

4.3 A comment on control variables

The effect of control variables in both regressions is mostly significant, thus it justifies the selection of these variables. With regard to gender we observe that males are less statist and somewhat less honest in dealing with the state (although the effect is barely significant); also masculinity increases trust. People are more statist with increasing age and less statist with

increasing level of education. Education also fosters trust. Employed people are less persuaded that the state is responsible for provision of jobs; they also do not favor redistribution and are less prone to cheat on taxes (although these effects are only marginally significant). Generally, these results are in line with previous research (Guiso et al. 2003, Minarik 2014a).

Conclusion

The purpose of this paper is to replicate previous studies on religion and economic attitudes with different data. Let us compare the results from the previous regressions with those of Minarik (2014a) and Guiso et al. (2003). First, Minarik (2014a) shows that religion proves to affect formation of social and economic attitudes; although, the magnitude of the effect appears to be lower in post-communist countries in comparison with the rest of the world. The analysis in this paper does not allow direct comparison with non-post-communist countries. However, it confirms the general direction of the effect of religiosity. Namely, religious belief decreases demands on the government, while religious upbringing and participation make people more statist (consistent with Minarik 2014a), and religiosity promotes pro-social attitudes such as honesty and trust (consistent with Guiso et al. 2003).

Also the effect of different denominations is in line with the previous research. Particularly the effect of Catholicism on the attitudes towards the state in post-communist countries conform the previous findings of Minarik (2014a). The effect of Catholicism on trust in post-communist countries (not examined in Minarik 2014a) is consistent with the findings of Guiso et al. (2003) who studied countries across the world. The effect of Protestantism is somewhat different, particularly in the fact that active participation in Protestantism generally enhances trust while the opposite is true in our sample. This might be due to specific conditions of Protestant churches in post-communist countries, an issue worth attention in further studies.

This study confirms the importance of religion in present-day economies, including the post-communist countries where religion has suffered under the oppressive communist regimes. While it may not appear to be the most important variable, religion affects attitudes which in turn do influence institutions and economic outcomes. And even if religion obviously is not a policy variable, as it cannot be adjusted to improve the economic situation, it should be taken into account as a relevant factor in evaluation of the effects of economic policies.

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