The Evolution of Religion, Religiosity and Socio-Economic Attitudes

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Abstract

This paper examines changes over time in the relationship between religion, religiosity and socio-economic attitudes. Both remain strongly correlated with socio-economic attitudes. We also find, however, that for many attitudes the relationship with religiosity and religion are susceptible to changes over time. Many of these changes are not only statistically significant, but are also substantial. In several cases, these changes follow divergent patterns for different levels of religiosity and for different religions.

1. Introduction

Social scientists have long been interested in examining the influence of religion on people's attitudes. For the most part, religion has been suggested as an important driver for socio-economic transformation. In his pioneering work, Weber (1905) refers to religion as a catalyst for social change. He labels the Protestant Reformation as a "mental revolution" that triggered modern-day capitalism (Guiso, Sapienza, and Zingales 2003). However, Becker and Woessmann (2009) provide an opposing view to this claim. They argue that it was not religion per se that was important at the time, but the Protestantism-induced increase in literacy. Since the seminal work by Weber (1905), the role of religion in explaining socio-economic preferences is still under close examination (Alaoui and Sandroni 2018; Iyer 2016; Minarik 2014). When considering the nexus between religion and economic performance, there are virtually two main hypotheses that have gained widespread attention in the literature. As pointed out by Minarik (2014), the first hypothesis postulates that there is something "intrinsic" to certain religions that can either encourage or discourage the development of institutions necessary for economic growth. The second hypothesis posits that there is something else in the past, correlated with religion, that trapped a country in an equilibrium with attitudes that can be more or less favorable to economic growth (Minarik 2014; Guiso et al. 2003). However, not much attention has been given so far to how the correlations with socio-economic attitudes change over time.[i]

The purpose of this study is to fill this gap in the literature, by focusing on how religion's influence on people's attitudes changes over time. Two main questions are addressed: 1) Do religion and religiosity remain correlated with socio-economic attitudes? 2) Are these attitudes evolving in different ways for different religions and different levels of religiosity?

A large theoretical literature ignores the changing effect of religious beliefs and practices on socio-economic preferences, on ground that cultural traits and values are supposedly persistent relative to economic outcomes. However, Koukal (2017) provides the first evidence that Swiss Catholicism, an institution known for its rigid religious doctrine and persistence, made a surprising move towards modernization in a short period of time, thus implying that cultural traits and economic preferences change faster than generally assumed. Her findings further suggest that "cultural shaped preferences" can change relatively quickly.[ii]

This paper extends the approach by Guiso et al. (2003) to examine the evolution of the relationship between religion, religiosity and socio-economic attitudes over time, using OLS and Panel regression models. We base our study on data from both the World Values Survey (WVS) and the European Values Survey (EVS), using the six available waves, representing nearly 90 percent of the world's population. Using this large-scale cross-sectional dataset enables us to investigate changes in people's attitudes over time, in contrast to most of the existing literature that focuses only on the cross-sectional effects of religion. It also ensures that our results are not dependent on country-specific historical and social circumstances.

The results reported in this study provide important novel insights. The relationship between religion, religiosity and socio-economic attitudes, analyzed over 33 years, from 1981 to 2014, changes significantly and substantially in many aspects. For some attitudes, these changes follow divergent patterns. Contrary to conventional wisdom on the persistence of cultural traits relative to economic outcomes, this study thus shows that religious values and preferences are susceptible to changes over time, and that these effects are observable within one generation.

This paper is organized as follows. Section 2 discusses the theoretical background and related empirical studies. Section 3 presents the data and the empirical strategy, while Section 4 reports the estimation results. Section 5 concludes, and the tables are in the appendices.

2. Previous research

The nexus between religion and economic performance has gained widespread attention since the pioneering work of Weber (1905). Subsequent studies are part of a broader debate that has focused attention on the relation between religious beliefs, service attendance, denominations, cultures, and economic outcomes (see Alaoui and Sandroni 2018; Koukal 2017; Iyer 2016; Guiso et al. 2006; Barro and McCleary 2003; Iannaccone 1998).

Glaeser and Glendon (1998) test Weber's claim about the economic prosperity of the protestant reformation. Without totally endorsing Weber's views on the link between Protestantism and economic growth, they built a model validating his claim that belief in predestination affects economic development. They find that Protestants and Presbyterians display stronger correlation between "worldly success" and church attendance, and between individuals and

group behaviors. They conclude that predestation may be considered as a more "socially efficient belief system" although those who believe in an "afterlife" tend to benefit from the doctrines of "freewill".

Becker and Woessmann (2009) extend this debate further. They refute Weber's Protestant ethics thesis, and provide an alternative theory which shows that Protestant economic success was mainly attributable to an increase in Protestants' literacy, not their work ethics per se that was important at the time. They strongly argue that higher human capital among Protestants causes most of the economic changes that occurred in the 19th Century. However, Alaoui and Sandroni (2018) analyze the secular thesis that wealth accumulation is a moral obligation, and the Calvinist religious dogmatism – that salvation is preordained by God, which Weber (1905) argues was one of the driving forces behind the Protestant ethics. Their result shows that Weber's argument of a connection between Protestant ethics and Calvinism holds.

Niu, Zhao, and Ding (2016) examine the influence of religious belief on trust among Chinese people in central and local government using micro-level data from a nationally representative survey. Their results show that religious belief reduces trust in Central Chinese government significantly. Lal (2001) reports contrasting views of different cultures. He observes that there are vast differences between Christianity, Islam and Eastern religions due to factors that extend deep into the past, and often attributable to certain political preferences and decisions made. He further claims that changes in family and legal revolutions, from the 6th through the 11th centuries, led to the development of institutions very different from those observed in Muslim countries and in communist countries like China.

Kuran (2004) identifies several issues, believed to be institutional drawbacks for most Muslim societies. He highlights the Islamic law of inheritance, the Waqf system, individually oriented contract law combined with egalitarian inheritance system, and the ban of interest on loans. As cited in Minarik (2014, p. 69), however, Kuran (2004) noted that although Islam itself is not "inherently incompatible with innovation and progress, Islamic institutions remain a factor in Middle East's economic backwardness". Mehanna (2003) shows that predominantly Protestant countries like the United States of America tend to be relatively more open, in terms of trade, than countries with dominant Catholic or Muslim faiths.

The relationship between individual levels of religiosity and attitudes toward immigration or strangers has gained less attention in the literature. Guiso et al. (2003) do a formal study where they observe that, on average, religious people are more intolerant toward other races and immigrants. This effect is large when an individual is raised religiously. From an international trade perspective, Barro and MacCleary (2006) point out that religion significantly influences international trade and finance, based on the premise of whether religion fosters or hinders social interactions with strangers. But this point by Barro and MacCleary (2006) is not conclusive, leaving room for further examination.

The intensity of one's religious affiliation separately affects economic preferences. To put it another way, von der Ruhr and Daniels (2003, p.28) maintain that a "devout member of a denomination may have different views" compared to "less active member of a religious group". Dahl and Ransom (1999) survey members of the Mormom Church on tithing beliefs. The authors examine the strength of religious affiliation and individual religiosity in the presence of self-serving beliefs or economic self-interest. They argue that devout members (defined by church attendance) are less likely to allow financial self-interest to influence their understanding of income for tithing purposes. They treat gifts, unemployment insurance, self-employment income, inheritances, stock market gains, and tax-deferred pension plans differently as they individually define their income for tithing purposes. Although the likelihood ratio statistics were not significant, they find a pattern that more frequent churchgoers appear to be less "self-serving" than infrequent churchgoers (von der Ruhr and Daniels 2003).

Pyle (1993) observes that individuals affiliating with "fundamentalist denominations tend to hold conservative economic and political attitudes" (cited in von der Ruhr and Daniels 2003, p.29). This implies that denominations with conservative views are more likely to show negative attitudes toward others, foreign workers, government institutions and the market economy.

Religious affiliation thus differs in practice and belief. Iannaccone (1998) maintains that most religious human capital is "quite specific, because doctrine, ritual, and styles of worship vary greatly from one denomination to the next". Over time, religious experience, education, or training tends to affect one's religious beliefs or practices. Iannaccone (1990) also argues that socio-economic mobility promotes denominational mobility – that is, "people raised in

relatively poor (fundamentalist Protestant) denominations are more likely to switch to relatively rich (mainline Protestant) denominations if they themselves are prosperous and well educated". Examining the changing effects of religious beliefs and practices on people's socio-economic attitudes is, therefore, an important topic.

3. Data and Descriptive Statistics

3.1 Description of data

This study employs Integrated Values Survey data from both the World Values Survey[iii] (WVS) and the European Values Survey[iv] (EVS) databases, from 1981 to 2014. The Integrated Values Survey is a large-scale cross-national investigation about people's beliefs and values, ranging from religion, politics to socio-economic life. They include a large number of questions replicated in nearly all parts of the world. We use the six available Integrated Values Surveys from the waves: 1981-1984, 1989-1993, 1994-1998, 1999-2004, 2005-2009, and 2010-2014. The more than 385,000 thousand respondents are from 113 countries, representing around 90 percent of the world's population.

The EVS and WVS are two separate research programs that conduct similar surveys using common questionnaires. In most cases, a country can only participate in one at a time, but not in both. The EVS data file is being processed in Cologne by the University of Tilburg and the GESIS Department Data Archives for Social Sciences, while the WVS data file is done by ASEP/JDS in Madrid. Both projects have developed a separate longitudinal file, allowing researchers to harmonize the two files using a common dictionary to facilitate a deeper and broader analysis. This, therefore, allows us to construct an "Integrated Values Surveys 1981-2014 data file", a combination of the four EVS waves in 1981-2008, and the six WVS waves in 1981-2014. The resulting file consists of 113 countries, 1,427 variables, and 506,268 cases or observations.

Some countries had many missing observations. Careful analysis of missing data shows that some questions (variables) were not asked in all surveys, either for an entire wave or in specific countries and time. We therefore omitted countries with many missing observations.[v,vi] The resulting file consists of an unbalanced panel of 386,839 respondents from 83 independent

states. Table 1 (see Appendix 1) presents summary statistics for countries and variables used in the study.

3.2 Measures of religiosity and religious affiliation (independent variables)

In general, measuring religiosity is a problematic task to pursue, since people's religious lives may range from "mere faith" irrespective of religious practices to an active involvement in religious activities (Minarik 2014). In the same vein, religious affiliation may also vary from a simple declaration of "belonging" rather than "behaving", and from frequent to infrequent religious participation. Religion, in itself, is a difficult subject to measure too, given variations in factors that influence people's beliefs and practices, which is "not always easily linked to an a priori hypothesis regarding its relationship to specific economic outcomes". Moreover, its interaction with other factors that affect a "person's preferences is difficult to disentangle" (von der Ruhr & Daniels 2003, p. 29). Different measures are employed in this study, representing different aspects of religious intensity and affiliation, summarized in tables and panels accompanied with some brief information on each specific measure.

Panel A, Table 1, presents summary statistics of people's attitudes toward religion by country. The first column reports the percentage of those who responded *"Yes"* to the question: *"Independent of whether you attend religious services or not, would you say you are a religious person?"* The second and third columns are percentage responses to the question: *"Apart from weddings and funerals, about how often do you attend religious services these days?"* The fourth column reports the percentage of respondents who answer *"No"* to the question: *"Do you believe in God?"* We used these variables to measure religiosity. Unlike Guiso et al. (2003), we consider self-declared religiosity (belief-orthodoxy), independent of service attendance as a proxy for "raised religiously" since this aspect of religiosity is becoming far less relevant today than it was decades back. In fact, since 1998, neither the European Values Survey (EVS) nor the World Values Survey (WVS) has asked respondents whether they were brought up religiously, perhaps due to increasing religious switching irrespective of one's childhood religious attachment. This, therefore, allows us to measure religiosity from two broader perspectives (i.e., belief orthodoxy and institutional mode of religious intensity) that are far more relevant today, and could thus have the propensity to influence people's economic thinking.

We also measure religious affiliation. In this study, religious affiliation is understood to be a self-declared membership with a religious group or denomination. Panel B, Table 1, reports the distribution of respondents by religious denomination and country. Religious denomination is measured based on the response to the question: *"Do you belong to a religion or religious denomination? If yes, which one?"* The options are coded from 0 to 8, where the code 0 represents respondents who answer *"No"* to the question. The remaining codes from 1-8 are respondents who declare that they belong to a particular religion. The latter respondents were therefore used to analyze religious affiliation. The code 1 represents those who say they are Roman Catholic, 2 is used for Protestant, 3 for Orthodox, 4 for Jew, 5 for Muslim, 6 for Hindu, and 7 for Buddhist. All other denominations were captured in the "other" category, which is coded as 8.[vii]

Religious denominations differ with respect to religious beliefs and service attendance. An important observation is that most people think and act religious, regardless of whether they attend churches or not, and are most often willing to adhere to religious precepts. The focus here thus is not to only measure exposure to religious teachings, through frequent service attendance, but to also consider the potential impact of those who think they are religious but do not attend religious services. It is also important to note that this paper compares differences across denominations (inter-denomination) over time but not differences within each religious group (intra-denomination). For instance, we treat Protestant as a single affiliation, without differentiating the views of adherents based on the degree of their religiosity. As specified by Blouin, Robinson, and Starks (2013), we consider the three religion dimensions – identifying with a denomination (belonging), service attendance (behaving) and religious orthodoxy (believing).

Panel C, Table 1, reports the distribution of religiosity by religious denomination. Regardless of attending religious services, those who report that they are religious are most frequent among Catholic and Orthodox Christians. However, considering the frequency of religious attendance, at least once a week, Muslim, Other Affiliations, and Hindus report higher attendance rates. Religious attendance also varies greatly across denominations if we focus on those who attend religious service less often. By this measure, religious attendance is higher amongst Hindu, whereas Protestant reports the lowest. Therefore, when measuring the impact of different religious affiliations on economic preferences over time, it is particularly important to consider these "systematic differences" in religious beliefs and practices. These systematic differences

across religious denominations tend to raise a few questions: Are denominations with a higher percentage of frequent service or churchgoers more likely to display attitudes that are conducive for economic growth, since they are mostly exposed to religious teachings and practices? Is belief-orthodoxy, irrespective of service attendance, just as important as attending religious services, or is it the other way around? What are the marginal effects of these systematic differences on economic attitudes over time? As reported in Cornwall (1998), studies by Hougland and Wood (1980) and Roberts and Davidson (1984) find that group involvement influences behaviors more than does belief-orthodoxy. These studies, according to Cornwall (1998), use fairly weak measures of religious beliefs. While belief in God and life after death should be included in the analysis of religion, however, Cornwall (1998) suggestion implies that other dimension of religious beliefs such as "particularistic orthodoxy" and "spiritual commitment" regardless of attendance should not be disregarded either, since they also reflect the intensity of one's level of religiosity.

It is important to note that the statistics reported in Panel B, Table 1, are sample responses to self-declared religious affiliation, and may not reflect a country's dominant religion. The Central Intelligent Agency (CIA) World Factbook[viii] could be an important reference point if one is interested in knowing the dominant religion in a particular country. In contrast with Guiso et al. (2003), however, measuring the impact of dominant religion is not the focus of this study, and the numbers in Panel B are only based on participants' responses to self-declared religious affiliation.

3.3   Measures of economic attitudes (dependent variables)

Several questions from the integrated world values surveys reflect people's economic attitudes. In Panel D, Table 1 presents summary statistics for the dependent variables, representing economic attitudes. These variables are measures of people's attitudes. Like Guiso et al. (2003), we focus on attitudes that directly influence one's economic life. The dependent variables (26 in total) are divided into six different categories and include measures of attitudes toward cooperation, government, women, legal rules, market economy, thrift and market fairness. Since all of these economic attitudes are relevant for economic outcomes, we employ all of them in our study, as in Guiso et al. (2003). In the next section, we present some brief information on these dependent variables, particularly on how they are measured.

3.3.1 Measures of attitude toward trust and cooperation

The first category of the dependent variables consists of metrics on people's attitudes toward trust and cooperation. Variable 1 (labeled as most people can be trusted), reports participants' response to the question: *"Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?"* The variable is coded as 1 if respondents believe that most people can be trusted and 2 otherwise. We recode 1 for those who answered 1 to the question and 0 otherwise. Variable 2, labeled as *"intolerant toward people of different race"* and Variable 3, *"intolerant toward immigrants or foreign workers"* are based on the question: *"On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?"* Variable 4, labeled as *"average intolerance"* is the combination of variable 2 and variable 3, and is coded as 1 if at least one of the variables is equal to one.

3.3.2 Measures of attitude toward government

The second category of dependent variables includes measures of respondents' attitudes toward government and its institutions. Variable 5, labeled as *"trust the government"*; Variable 6, *"trust the police";* and Variable 7, *"trust the armed forces";* are based on the response to the question: *"I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?"* The answers are coded from 1 to 4, respectively. However, we recode them so that a higher number represents a higher degree of confidence.

3.3.3 Measures of attitude toward women

In the third category of the dependent variables, we use measures of people's attitude toward women. Since women's participation in the job market has strong effects on labor participation, this category focuses on survey questions that influence their "propensity to work". Variable 8 is based on the answer to the following question: *"Do you agree, disagree or neither agree nor disagree with the following statement: When jobs are scarce, men should have more right to a job than women?"* Answers are coded 1 to 3, respectively. However, we recode them so

that a higher number represents a higher degree of agreement. Variable 9 is the response to the question: *"Do you think that a woman has to have children in order to be fulfilled or is this not necessary?"* The answer *"Needs children"* is coded as 1 and 0 otherwise. Variables 10-12 are based on the following question: *"For each of the following statements I read out, can you tell me how strongly you agree or disagree with each. Do you strong strongly agree, agree, disagree, or strongly disagree?"* The statements are: Variable 10, *"Being a housewife is just as fulfilling as working for pay"*; Variable 11, *"Both the husband and wife should contribute to household income"*; and Variable 12, *"A university education is more important for a boy than for a girl"*. Answers are coded from 1 to 4, but we recode them so that a higher number represents a higher degree of agreement.

3.3.4   Measures of attitude toward legal rules

The fourth category contains key measures of people's attitude toward the legal rules or norms. Variable 13 comes from the answer to the question similar to Variables 5 to 7, except that it is about the *"legal system"*. Responses are coded from 1 to 4, but we recode them such that a higher number reflects a higher degree of confidence. Variables 14 to 18 are from the question: *"Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between, using this card."* Answers range from 1 to 10 on a scale, with 1=never justifiable and 10=always justifiable. The questions considered are: Variable 14, *"Claiming government benefits to which you are not entitled"*; Variable 15, *"Avoiding a fare on public transport"*; Variable 16, *"Cheating on taxes if you have a chance"*; Variable 17, *"Buying something you knew was stolen"*; and Variable 18, *"Someone accepting bribe in the course of their duties"*.

3.3.5   Measures of attitude toward the market economy

The fifth category of variables includes measures of people's attitudes toward the market economy. Variables 19 to 21 represent the answers to the question: *"Now I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left, and 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between."* Like Guiso et al. (2003), the statements reported in this study are those

on the right, which are the opposite of those on the left, and they include: Variable 19, *"We need larger income differences as incentives for individual efforts"*; Variable 20, *"Government ownership of business and industry should be increased";* Variable 21, *"Competition is harmful. It brings out the worst in people"*.

3.3.6 *Measures of attitudes toward thriftiness and fairness of the market*

The last category of dependent variables measures attitudes toward thriftiness and market's fairness. For the measure of attitude toward thriftiness, the following question was considered: *"Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important?"* The answer 1 is coded if respondents declare as important, Variable 22, *"thrift, saving money and things"*, 0 otherwise. Variables 23 to 25 are based on the same question as Variables 19 to 21, except that the statements are answers to the options: Variable 23, *"People should take more responsibility to provide for themselves"*; Variable 24, *"Hard work doesn't generally bring success-it's more a matter of luck and connections"*; and Variable 25, *"Wealth can grow so there's enough for everyone"*. Finally, Variable 26, is the answer to the question: *"Why, in your opinion, are there people in this country who live in need? Here are lists of opinions: which comes closest to your view?"* We coded as 1 the response, *"They are poor because of laziness and lack of willpower"* and 0 otherwise.

3.4 Control variables

Several studies have used demographic characteristics to examine the influence of religion on people's attitudes (see, for example, Niu et al. 2016; Leon and Pfeifer 2013; Renneboog and Spaenjers 2012; Daniels 2005; Guiso et al. 2003). Mueller and Johnson (1975) suggest that the effect of education, social class, and occupation differs across religious group and that these demographic characteristics may change over time. Hougland and Wood (1980) and Welch (1981) suggest that demographic variables should not be dropped from "causal models" since they do explain variance in religious behaviors. To avoid this error, our choice of control variables follows Guiso et al. (2003), using fixed effects and several demographic characteristics that are important to the study. The rationale here is to separate the effect of religion from other confounding effects, since an attempt to ignore this could lead to spurious

regressions (Guiso et al. 2003, p. 242). The same authors also observe that including income and health as control variables could underestimate the impact of religion since there are existing empirical works that show that religion positively affects health and income. We include health and income as control variables, as the inclusion is supported by many empirical studies,[ix] mainly from the perspective of the so-called deprivation theory, which maintains that religion is a source of compensation for people suffering from economic or social problems (Soares 2006; Glock and Stark 1965; Pope 1942; Troeltsch 1931; Niebuhr 1929).

Panel E, Table 1, reports the demographic characteristics of respondents. These variables are key control variables employed in our study. "Health" is based on the following question: *"All in all, how much would you describe your state of health these days? Would you say it is: Very Poor, coded as 1; Poor, coded as 2; Fair, coded as 3; Good, coded as 4; and Very Good, coded as 5."* We recode them so that a higher number represents a higher state of health. The variable "Male" is recoded from the sex of respondents. It is equal to 1 if the respondent is male, and 0 otherwise. The variable "Age" reports the age of respondents, expressed in years. "Education" is coded based on the question: *"At what age did you (or will you) complete your full-time education, either at school or at an institution of higher education? Please exclude apprenticeships."* It is expressed in years. "Social Class" is the response to the question: *"People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class. Would you describe yourself as belonging to the: Upper Class, coded as 1; Upper Middle Class, coded as 2; Lower Middle Class, coded as 3; Working Class, coded as 4; and Lower Class, coded as 5".* We recode them so that a higher number reflects a higher social class. "Income" is the answer to the question: *"On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in".* The variable is coded from 1 (lowest group) to 10 (highest group).

4. Analysis and results

To gauge the validity of our findings, we first discuss in §4.1 whether the control variables and measures of religiosity confirm a priori expectations. The main objective of this section is to

establish how the statistical significance of religiosity and religion evolves over time, and these results are discussed in more detail in §4.2 and §4.3, respectively.

4.1 The importance of religiosity

Table 2, Panel A to E (see Appendix 2A), reports the overall influence of religiosity on economic attitudes, considering the effects of religious beliefs and service attendance. OLS regression models are employed to test the cross-sectional effect of religiosity on economic preferences. They include control variables (respondents' health, sex, age, education, social class, and income), countries fixed effects, and survey year dummies. Valid observations and the size of reference categories vary across regressions. The rationale here is to observe the impact of religion relative to economic outcomes. Additional dissimilarities to Guiso et al. (2003) are partial differences in the variables employed as measures of individual levels of religious intensity. For example, the variable "raised religiously" is proxied by "religious but does not attend religious service", consistent with changing global patterns of religious beliefs.

4.1.1   Control variables

The empirical analysis shows that health remains an important variable that explains variations in people's attitudes. It has significant positive impact on all attitudes. This implies that healthier people display good attitudes toward trust and cooperation, in relation to others and government institutions. They are more tolerant, less conservative toward women, respect legal rules, and are pro-markets. The only exception remains thrift and saving money, and perhaps because they still do not attach more importance to "precautionary savings" since they are healthier (Guiso et al. 2003 p. 248). All these results are statistically significant, except for attitude toward women's employment and children fulfillment, which is less robust compared to the result found by Guiso et al. (2003).

Education has diverse effects on economic attitudes. Educated people are less likely to trust neither the government, the police nor the army. They have also less trust in the justice system but are less likely to cheat on taxes, claim government benefits, accept a bribe, and avoid fare on public transport, which is slightly different from the result reported by Guiso et al. (2003). All these effects are statistically significant except for trust in the justice system and buying

stolen goods. However, they are more tolerant and tend to confide in other people more. Not surprisingly, education comes with a more positive view toward women. Educated people believe that job opportunities should be open regardless of gender differences. They also believe a university education is as good for girls as it is for boys, and display pro-market attitudes but less thriftiness. Educated people believe that success is more a matter of luck and connection rather than hard work, and thus poor people are such not because of laziness.

Age has a significant impact on all attitudes, and this effect is also mixed across categories. Older people are more likely to trust people but are more intolerant toward other races and foreign workers. They trust the government, police, and army, and are less likely to violate legal norms. Older people also tend to display attitudes that are far less progressive toward women. However, they are more likely to support competition and private ownership of business and industry. They believe more in thrift, perhaps due to the relative importance attached to "pension savings". Finally, older people believe that individuals should work harder to accumulate wealth in order to provide for themselves, rather than solely relying on the government.

The effect of gender on attitudes is mixed. Males are more likely to trust people, but are far more intolerant toward other races and immigrants. They also tend to display less trust toward police but more toward the army. These effects are all statistically significant, except for trust toward the government where it is negative and insignificant. In addition, their attitudes toward women remain far more conservative than women themselves. They are also more likely to violate legal rules and tend to believe more in the market economy. The only exception, however, is their attitudes toward thrift and saving money, which are less positive than the corresponding attitudes of women.

The higher an individual's subjective social status, the more likely he is to trust people and accept immigrants as neighbors (although the latter effect is not statistically significant). The effect of subjective social class on trust toward government institutions is also mixed and moves significantly in favor of the government and the police but not the army. Its effects on attitudes towards women are more progressive. However, people with higher perceived social status tend to violate legal rules more, a finding which is vastly different from the result reported by Guiso et al. (2003), although they still trust the legal system. They also tend to exhibit attitudes that are pro-market, but less with thriftiness.

Higher income is associated with increased trust and tolerance toward other people, but not government institutions, where the effects appear to be negative and statistically significant. Not surprising also, people with higher income are more likely to believe that women should contribute less to household income, and tend to display progressive attitudes toward women. Its effects on legal norms vary across attitudes, with more trust in the justice system but a greater dislike of paying taxes. They are also (albeit statistically insignificantly) more willing to accept a bribe. On the other hand, they believe that it is not justifiable to buy stolen objects and claim government benefits falsely.

To summarize, although the effect of these control variables on economic attitudes is not the main focus of our study, by testing them we see that mostly "their sign conforms to some intuitive priors" and mostly consistent with the findings reported by Guiso et al. (2003), thus reassuring the validity of the empirical approach. In Table 3 and 4, these control variables are not reported, since their interpretations are less relevant to the scope of this study, although they are included in all regressions to control for confounding effects.

4.1.2   Religiosity

Table 2, Panel A to E, reports the influence of religiosity on economic attitudes. Like Guiso et al. (2003), people who are non-religious or simply do not believe in God are the excluded group when measuring the combined or cumulative effects of religious intensity. Although the result of the three main levels of religiosity is separately reported, their overall impact can also be read cumulatively. These cumulative effects are reported at the bottom of each table. They reflect the sum of their respective coefficients. Unlike Guiso et al. (2003), we extended the cumulative effects to see how the impact varies across different levels of religiosity. However, the overall cumulative effect (the sum of the coefficients of all the three levels of religiosity) remains the more relevant result since it depicts the average impact of religious intensity on people's attitudes.

We find that religiosity is statistically significantly correlated with economic attitudes. Overall, religious people trust others more, trust the government, the police, the army, and the justice system. They are also less likely to violate legal rules, but their attitudes toward the market

economy are relatively mixed. However, they display attitudes that are far more conservative toward women and are also more intolerant toward other races and immigrants. The only surprising result is their attitudes toward market's competition and state ownership of business and industry. Religious people do not seem to have a clear distinctive view about the market (where the effects are mostly insignificant), but are on average more likely to believe that people should have larger income differences as incentives for their individual efforts.

On the other hand, people who do not believe in God or self-reported atheists display attitudes that are different from religious people. However, there exist few similarities nowadays, different from the findings reported by Guiso et. al. (2003). Like religious people, atheists are more intolerant and also tend to distrust other people more, although the effect is relatively small if we compare it to the overall impact of religiosity. But atheists still do not seem to trust government institutions and pay less attention to legal norms. Their attitudes toward the market and its fairness, however, remain unclear and varies significantly. They tend to display more progressive attitudes toward women, compared to religious people.

All three levels of religiosity, however, relate positively to trust toward others. However, this effect is not statistically significant for those who do not attend religious services. It is mostly affected by religious participation, and relatively more so among frequent service attendants. Intolerance toward others is statistically more robust for religious people who neither attend services or do so less often. When we consider the cumulative effects of religiosity, religious intolerance is stronger and more apparent. Trust toward the government is also positively affected by all levels of religious intensity, but the effect is weaker for regular service attendants. This might further imply that religious belief, regardless of service attendance, could be relatively sufficient to warrant more trust in government institutions, and perhaps encourage political participation (Driskell, Embry, and Lyon 2008).

Conservative attitudes toward women are statistically stronger for all measures of religiosity. The only exception is those who are religious but do not attend services, where their attitudes toward women's contribution to household income are statistically insignificant. Attitudes toward legal rules are mixed across religious belief and practice. However, people who attend religious services regularly tend to display better attitudes toward legal rules (all statistically significant) compared to other dimensions of religiosity. Pro-market attitudes are also far less relevant to people who are actively involved in religious activities than other levels of religious

beliefs, although there are no statistically significant effects on competition and state ownership of business and industry. People who attend religious services frequently seem not to encourage thrift or saving money. Perhaps this effect is due to their exposure to religious teachings and principles, where people are regularly reminded that worldly wealth will play little role on judgment day when it is not used and shared wisely with people in need. The impact of these religious teachings and doctrines on people's religious lives and social interactions may differ across individuals. Finally, the remaining effects of religious intensity on market's fairness are mixed, while for each measure of religiosity there is a statistically significant positive relation with the idea that wealth accumulation is for everyone.

An important observation from Table 2 is that religious belief, without attending religious services, influences attitudes in very similar ways compared to those who attend religious services. In fact, people who only believe that they are religious also trust the government, the police, the army, and the justice system more. They are also more conservative toward women. These effects are all statistically significant at the one percent significance level. By extension, these results also imply that beliefs, regardless of religious practices, seem to be an important measure of religiosity that is strongly related to individuals' attitudes or behaviors. For instance, Driskell et al. (2008) use data from the Baylor Religion Survey conducted in 2005 to examine the influence of church attendance, traditions, and beliefs on political participation. They find that religious belief has significant positive impact on national political participation. The suggested explanation is that the willingness of the religious to participate in political activities might be driven by their trust in government institutions.

To sum up, we see that religiosity, i.e., both religious beliefs and practices, are strongly related to individual's economic attitudes.

4.2 Religiosity and socio-economic attitudes over time

In Table 3, Panel A to E, we examine the changes in the relation between religiosity and economic attitudes over time. We depict the change in the influence of religiosity for every year that passes using a panel regression model. To estimate this effect, we use variables representing the interaction term of the survey year and respondents. The respondents include people who declare that they do not believe in God (reported as atheist); those who say that

they are religious but do not attend services; and those who express that they attend religious services, either frequently or at least once every year. All regressions in Table 3 also include (but do not report) control variables, country fixed effects, and survey year dummies.

4.2.1   Results on levels of religiosity over time

All other things equal, trust toward others for religious and non-religious people do not significantly change over time. Intolerance levels, however, are increasing for all levels of (non-) religiosity, and some of these changes are statistically significant. The same holds for trust towards the government. An even more interesting result is that atheists become *less* trustful towards the police and towards the army, while religious people not attending services or attending services at least once a year become *more* trustful. These changes are not only statistically significant but arguably also meaningful, as these aggregate changes amount to roughly one third of the standard deviations in trust levels over our time sample.

There are also divergent patterns in the attitudes towards women. On the question whether women need children to be fulfilled, atheists are becoming *more*, and the religious *less* conservative. These changes are not only statistically significant, but also clearly substantial: in only 33 years, the aggregate of the opposite changes between atheists and religious people attending religious services at least once a year amount to almost a standard deviation. The obverse divergence in opinions can be found on the question whether being a housewife is just as fulfilling as working for pay: it is now the atheists who are becoming *less* and the religious *more* conservative. All these changes are statistically significant and meaningful; the divergence in opinions is larger than half the standard deviation. There are no such obvious changes or patterns, however, in the opinions on whether both husband and wife should contribute to household income or whether men should have more rights in the case of job scarcity.

In the attitudes toward legal rules the opinions of atheists and religious people also show some divergent patterns. For the non-religious, trust in the legal system and concerns about cheating taxes do not change significantly, while for the religious people not attending services or attending services at least once a year the trust levels increase and concerns decrease statistically significantly. A clearer divergence takes place with respect to buying stolen goods:

while the religious become *less*, atheists become *more* concerned about it. These changes are not only statistically significant, but the divergence of almost a standard deviation in the sample period is also clearly substantial.

The attitudes toward the market economy turn out to be more persistent than other attitudes. Only those who attend religious services regularly are becoming less supportive of competition and, as the atheists, more supportive of public ownership, while the atheists become less concerned about income inequality.

Only people who participate in religious services frequently are becoming less supportive of thrift. On the question of whether success is more a matter of luck and connection, atheists and the religious who attend services frequently are becoming *more* while the religious who do not attend or attend religious services at least once a year are becoming *less* supportive of this claim. Religious people are becoming more supportive of hard work, and seem not to favor the claim that success is more a matter of luck and connections, except for those who attend religious services frequently, where the effect is positive and slightly significant. Contrary to atheists, however, people who attend religious services more frequently are showing more positive attitudes toward wealth accumulation over time, where the remaining levels of religious intensity show no significant change over time. Regarding the question of whether it is the responsibility of the government to provide for all its citizens, only frequent service attendants are statistically becoming more negative, while those who do not attend religious services at all and those who attend less frequent are showing attitudes that are almost similar to atheists, although this effect is relatively stronger among people who do not believe in God. Finally, there is only a significant change in attitudes toward the poor for those who attend religious services, either frequently or less often. They tend to become less supportive of the assertion that poor are such because of laziness.

4.3 Religion and socio-economic attitudes over time

The attitudes of adherents depend on the type of religious denominations. We deal with this in Table 4. We focus on self-declared membership of a religious group or denomination, irrespective of one's level of religious beliefs or practices. Since religious beliefs, regardless of service attendance, are just as important as those who are committed to religious practices, sampling affiliates based on institutional mode of religiosity only (i.e., service or church

attendance) could conceal important characteristics that are unique to certain denominations. For this reason and unlike Guiso et al. (2003), we do not differentiate affiliates based on the intensity of their religious beliefs and practices. The focus, therefore, is to examine the changing effects of religious values on economic attitudes for different religions over time, but not how they differ in terms of religiosity.

Table 4, Panel A to E, reports the effects of different religious denominations on people's attitudes over time, with a focus on seven major religions. Like Table 3, a panel regression model is employed. The sample is restricted to respondents who declare that they belong to a specific religion during the survey period, from 1981 to 2014, irrespective of the differences in individual levels of religious intensity. All regressions also include (but do not report) control variables, country fixed effects, and survey year dummies. The seven denominations included are Catholics, Protestants, Muslims, Jews, Hindus, Buddhists, and Orthodox Christians. All regressions in Table 4, Panel A-E, exclude respondents who say that they do not belong to a religious group or denomination since our focus in this section is to determine the changes in the relation between different religious denominations and economic attitudes.

4.3.1   Result on the impact of different religions over time

There is a divergent pattern in the level of trust reported by adherents of different religions. While Catholics, Muslims, Hindus, Buddhists, and Orthodox have *decreasing* levels, Protestants on the contrary have *increasing* levels of trust toward other people. Only for Jews there is no statistically significant change over time. There is a different, but also divergent pattern, in the levels of intolerance. Catholics are becoming *more* tolerant, while Muslims, Hindus, Buddhists and Orthodox are becoming *less* tolerant. For Jews, there is again no statistically significant change over time, while for Protestants the only statistically significant change is an increase in tolerance toward other races. These aggregate changes in the 33 years of our sample are also substantial, varying from more than half a standard deviation between Protestants (more trust) and Muslims (less trust) for the question 'most people can be trusted' to more than one standard deviation between Catholics (more tolerant) and Hindus (less tolerant) in intolerance levels. Trust levels toward the government, the police and the army are increasing statistically significantly over time for all religions.

Protestants, Muslims, and Hindus are becoming more supportive of the idea that both husband and wife should contribute to household income. When considering the question whether man and woman have equal rights to scarce jobs, however, there is a divergent pattern. While Catholics and Jews tend to *more* equality, Protestants tend to *less* equality in this respect. There is no divergence regarding the question whether women should have children in order to be fulfilled. All denominations tend to agree less, only for Protestants these changes over time remain statistically insignificant. Similarly, adherents to all denominations tend to agree more over time with the claim that being a housewife is just as fulfilling as working for pay. Finally, except for the Catholics and the Orthodox, adherents to the denominations report significantly increasing levels of support for the claim that university education is more important for a boy than for a girl.

All religions are becoming statistically significantly more trustful of the legal system. However, the willingness to break legal norms is mixed and varies across religions. Muslims and Hindus' unwillingness to cheat on taxes seems to be weakening over time, while the opposite holds for Catholics and Protestants. When it comes to claiming government benefits, only Protestants, Hindus, and Buddhists' attitudes are significantly changing over time. Only for Hindus it becomes more acceptable to claim benefits one is not entitled to. This aggregate change over the 33 years of the data sample between Hindus and Protestants is substantial, almost a standard deviation. Avoiding a fare on public transport becomes less acceptable to Catholics, Protestants, and Buddhists, while the opposite holds for Hindus. Buying stolen goods is becoming a less questionable issue for Catholics, Protestants, and Muslims, while the same holds for bribery for Jews. Catholics and Buddhists, however, become less tolerant toward accepting a bribe. The substantial relative change between Jews and Buddhists on accepting bribes amounts to almost a standard deviation. We thus observe that even though across all denominations the levels of trust toward the legal system are increasing, except for Buddhists and the Orthodox, it is becoming more acceptable to break one or more rules mentioned in the questionnaires.

Catholics and Buddhists are becoming more supportive of competition. Muslims and Hindus, on the contrary, are becoming less supportive of market competition. Protestants and Hindus turn to be more willing to accept income inequality over equality, while Buddhists are less willing to do so. Support for state ownership of businesses increases among Muslims and the

Orthodox, but decreases for the Catholics and Hindus. The aggregate change is larger than half a standard deviation for each of the three cases.

An encouraging attitude toward thrift is increasingly found among Catholics, Muslims, Hindus, and Buddhist, while the opposite holds for Protestants and Jews. Catholics, Protestants, and Hindus tend to become less supportive for government responsibility over individual responsibility. On the contrary, Muslims and Buddhists become more supportive for government responsibility at the expense of private responsibility. Catholics, Protestants, Muslims, Buddhists and the Orthodox tend to become less convinced that success is more a matter of luck and connections than of hard work, while Hindus report an opposite development of their convictions. The aggregate divergent change in their opinions totals up to almost a standard deviation over our sample period. The question whether wealth accumulation is for everyone gets more support over time from the Catholics, Hindus, and Buddhists, but less from the Muslims and the Jews. The belief that the poor are so because of laziness has, for the most part, remained constant over time, except for statistically significant decreases in the support for this idea among Protestants, Hindus, and Buddhists.

5. Conclusion

In this paper, we are the first to capture the evolution of the correlations between religion, religiosity and socio-economic attitudes. Our research provides several important novel insights. First, the level of religiosity, irrespective of denomination, is statistically significantly correlated with these attitudes. Second, these relations between religiosity and attitudes change over time in a pattern in which the opinions of atheists diverge from those of the religious. Third, the correlations between different religious beliefs and socio-economic attitudes change over time and, in some cases, in divergent patterns, too. Many of these changes are not only statistically significant but also substantial.

This study thus provides one of the first pieces of evidence that religious values and preferences are susceptible to changes over time, contrary to popular wisdom on the persistence of cultural traits relative to economic attitudes. These changes in cultural traits and socio-economic attitudes are observable within roughly a generation, i.e., in the 33 years from 1981 to 2014 that our sample covers. In some cases, attitudes among denomination converge while in other

cases they diverge. The differences in results may be attributable to changing global religious landscape.[x] We leave, however, important questions like the importance of the attitudes for, for example, economic growth and the causality of the statistical relations, for further research.

Acknowledgments

Replication statement

All data for replication can be downloaded from www.worldvaluessurvey.org, www.europeanvaluesstudy.eu, and https://www.cia.gov/library/publications/resources/the-world-factbook/.

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Appendix 1:

Descriptive statistics. Table 1, Panel A-E.

Table 1: Data

Panel A: Attitudes towards religion by country (percentages)

Country	Religious person	Attends religious service at least once a year	Attends religious service at least once a week	Does not believe in God	Number of repondents
Britain	37.70	30.30	10.94	13.49	4862
United States	74.18	65.63	39.23	5.62	6223
Spain	55.86	51.34	25.03	12.32	8612
Germany	42.31	42.52	9.43	32.89	9516
Russia	60.72	46.07	3.99	15.24	8077
Australia	52.98	40.04	15.82	16.59	6174
Sweden	31.79	35.79	4.11	36.03	7421
Netherlands	55.96	44.08	15.92	33.68	7747
China	11.72	7.96	2.05	20.87	7791
Brazil	85.34	70.89	44.00	0.94	4768
South Africa	79.47	77.69	54.31	1.17	14050
Argentina	72.60	55.89	21.87	5.95	6398
Italy	81.90	79.36	35.30	7.60	7897
France	45.59	34.86	8.29	30.84	6319
Saudi Arabia	63.58	71.11	29.29	0.13	1502
Canada	71.31	63.47	27.07	6.19	7079
Portugal	79.88	64.10	35.66	8.08	3738
Japan	21.93	69.11	3.10	23.82	8170
Norway	44.45	46.75	5.10	26.07	5532
Mexico	70.27	80.92	47.10	4.52	8990
Egypt	76.41	68.10	43.42	0.00	7574
Singapore	28.76	71.99	37.57	13.15	3484
Switzerland	61.00	53.54	15.28	8.96	5125
New Zealand	42.69	34.96	14.27	23.78	841
Colombia	82.30	77.13	45.84	0.64	7533
Croatia	75.56	73.50	25.97	11.92	3724
Ghana	94.07	90.44	80.59	0.16	3086
Albania	66.77	63.94	14.63	6.48	3533
Algeria	64.18	60.96	47.90	0.12	2482
Azerbaijan	27.74	51.50	5.19	0.50	1002
India	75.33	85.46	40.81	7.27	10124
Indonesia	73.40	87.96	64.61	0.03	3015
Iran	81.55	80.00	30.18	0.27	5199
Denmark	65.94	48.50	2.64	31.57	4742
Iraq	68.70	49.42	31.61	0.16	6226
Ireland	68.29	88.00	68.58	4.05	4242
Czech Rep.	37.38	33.56	8.21	46.61	7909
Bangladesh	84.99	86.81	72.63	0.96	3025
Armenia	88.00	75.54	14.08	3.15	2600
Belgium	62.00	48.44	21.58	26.66	7358
Bosnia	80.32	74.97	22.61	8.09	3512
Malaysia	70.53	84.17	64.85	0.84	2501
Bulgaria	48.67	57.52	6.69	26.54	5607
Pakistan	74.04	75.39	46.38	0.00	3933
Chile	66.47	60.42	26.60	3.56	5700
Uganda	93.01	94.81	78.74	0.70	1002
Taiwan	49.86	40.96	7.00	8.72	3245
Peru	81.21	79.10	42.48	1.33	5422
Philippines	80.94	93.25	65.00	0.47	3600
Poland	72.75	74.21	44.22	1.92	5567
Dominican Rep.	74.34	71.94	43.41	7.19	417
Ecuador	71.13	81.70	48.92	2.75	1202
El Salvador	69.30	80.94	58.05	0.56	1254
Estonia	33.03	38.87	3.29	35.45	6085
Finland	54.42	49.86	4.75	15.40	4761
Kazakhstan	62.53	55.33	8.87	10.00	1500
Georgia	92.79	75.06	16.63	2.54	6210
Morocco	56.56	52.01	45.36	0.03	3651
Iceland	69.66	53.92	2.97	18.03	3405
Jordan	85.56	45.43	32.68	0.08	3623
South Korea	16.46	59.70	24.79	11.63	7070
Kyrgyzstan	84.66	63.39	25.17	4.05	2543
Lebanon	63.58	83.33	45.83	1.25	1200
Latvia	61.42	50.95	4.93	19.17	4622
Libya	72.69	68.65	34.77	0.28	2131
Moldova	81.80	81.22	13.34	3.44	4589
Montenegro	70.03	55.08	6.18	14.03	2816
Puerto Rico	83.76	81.85	53.24	0.74	1884
Romania	82.01	81.92	25.29	2.85	8256
Serbia	70.64	66.68	7.49	16.33	3992
Viet Nam	37.56	41.24	6.21	30.42	2495
Slovenia	65.35	59.83	17.97	24.94	4479
Zimbabwe	90.77	87.09	77.26	0.56	2502
Thailand	33.98	84.67	37.09	28.38	2734
Trinidad and Tobago	81.06	76.61	41.68	0.35	2001
Turkey	71.94	59.58	32.08	0.85	5888
Ukraine	68.51	65.09	10.77	13.07	8013
Macedonia	72.45	76.65	15.13	8.70	3550
Tanzania	89.50	89.84	84.03	0.68	1171
Uruguay	53.23	28.90	12.50	10.17	3000
Uzbekistan	48.67	45.13	4.73	1.33	1500
Venezuela	80.83	74.25	30.63	0.46	2400
North Ireland	60.68	71.79	46.60	5.62	2116
Total	**63.28**	**61.71**	**26.73**	**11.96**	**386839**

Table 1: Data (continued)

Panel B*:** ***Distribution of respondents by religious denomination and country (percentages)

Country	Catholic	Protestant	Jewish	Muslim	Hindu	Buddhist	Orthodox	Other religious affiliations	No religious affiliations
Great Britain	13.78	55.15	0.44	2.60	0.84	0.44	0.14	7.29	19.32
United States	23.26	31.04	2.47	0.32	0.18	0.51	0.42	16.55	25.25
Spain	84.32	0.51	0.04	0.34	0.04	0.11	0.29	3.71	10.64
Germany	26.93	21.64	0.05	1.37	0.04	0.07	0.55	15.61	33.74
Russia	0.31	0.68	0.11	5.87	0.03	0.31	61.11	0.38	31.20
Australia	25.03	35.09	0.86	0.64	0.54	1.34	1.65	3.35	31.51
Sweden	1.63	47.16	0.05	0.73	0.11	0.03	0.42	36.41	13.46
Netherlands	35.89	14.23	0.17	1.46	0.32	0.26	1.07	9.61	36.99
China	0.49	2.87	0.00	1.22	0.02	5.12	0.00	0.54	89.75
Brazil	63.94	2.99	0.07	0.07	0.00	0.22	2.38	17.24	13.12
South Africa	12.99	36.57	0.74	2.84	3.01	0.24	0.85	28.31	14.44
Argentina	75.77	1.05	1.13	0.08	0.17	1.16	0.44	4.82	15.37
Italy	97.25	0.32	0.01	0.01	0.01	0.07	0.04	0.40	1.87
France	80.00	2.02	1.11	2.70	0.14	0.41	0.63	0.87	12.12
Saudi Arabia	0.00	0.00	0.00	97.20	0.33	0.00	0.00	2.27	0.20
Canada	45.60	26.51	0.78	0.72	0.25	0.36	0.47	7.37	17.96
Portugal	96.58	0.85	0.03	0.09	0.00	0.00	0.00	2.40	0.03
Japan	0.61	0.76	0.05	0.00	0.04	39.66	1.40	3.52	53.95
Norway	1.23	85.22	0.04	0.68	0.10	0.21	0.33	2.50	9.68
Mexico	71.10	2.20	0.12	0.06	0.02	0.07	0.42	7.23	18.78
Egypt	0.00	0.00	0.00	93.98	0.00	0.00	0.00	6.02	0.00
Singapore	6.61	9.49	0.17	25.81	9.20	22.74	0.00	10.35	15.64
Switzerland	47.62	38.91	0.35	1.41	0.19	0.22	0.67	2.88	7.76
New Zealand	13.05	0.00	0.37	0.73	1.10	0.00	0.37	51.22	33.17
Colombia	76.57	1.40	0.03	0.03	0.00	0.03	0.00	9.64	12.31
Croatia	92.36	0.18	0.15	0.51	0.03	0.00	1.75	0.45	4.56
Ghana	17.43	56.55	0.03	13.69	0.03	0.03	6.60	3.28	2.36
Albania	25.66	6.04	2.95	49.36	0.43	0.20	10.60	0.13	4.63
Algeria	0.00	0.00	0.00	99.76	0.00	0.00	0.00	0.24	0.00
Azerbaijan	0.00	0.00	0.20	96.41	0.00	0.00	1.70	0.20	1.50
India	1.69	0.95	0.34	9.59	78.65	1.72	0.49	3.67	2.89
Indonesia	2.16	4.52	0.03	92.62	0.00	0.00	0.00	0.43	0.23
Iran	0.00	0.00	0.00	97.96	0.00	0.00	0.00	1.23	0.81
Denmark	0.91	97.18	0.05	0.35	0.37	0.09	0.00	0.79	0.26
Iraq	0.26	0.03	0.00	99.23	0.00	0.00	0.14	0.34	0.00
Ireland	95.78	2.39	0.00	0.08	0.10	0.13	0.10	0.90	0.53
Czech Rep.	63.32	6.59	0.57	0.00	0.00	0.00	0.27	0.80	28.45
Bangladesh	0.56	0.07	0.03	88.84	10.00	0.33	0.03	0.00	0.13
Armenia	0.04	0.08	0.08	0.04	0.00	0.04	54.30	42.75	2.67
Belgium	92.33	1.48	0.27	2.50	0.00	0.02	0.29	2.09	1.03
Bosnia	15.46	0.10	0.22	41.07	0.00	0.00	23.66	0.13	19.37
Malaysia	3.36	2.20	0.12	60.41	7.73	18.45	0.00	6.24	1.48
Bulgaria	0.50	0.53	0.05	13.28	0.07	0.05	73.03	0.34	12.16
Pakistan	0.00	0.00	0.00	78.74	0.08	0.00	0.00	5.90	15.28
Chile	64.01	6.04	0.14	0.00	0.11	0.02	2.48	5.39	21.81
Uganda	36.56	43.06	0.00	16.98	0.10	0.00	0.40	1.80	1.10
Taiwan	1.27	4.02	6.71	0.03	1.39	25.00	7.79	29.54	24.26
Peru	78.06	7.71	0.09	0.02	0.11	0.06	0.00	5.60	8.36
Philippines	75.47	1.84	0.00	3.51	0.00	0.00	0.00	12.11	7.07
Poland	95.51	0.71	0.02	0.02	0.00	0.04	0.91	0.47	2.31
Dominican Rep.	59.90	1.71	0.00	0.00	0.00	0.00	0.00	14.43	23.96
Ecuador	62.70	0.00	0.00	0.00	0.00	0.00	0.00	13.82	23.48
El Salvador	58.85	0.00	0.00	0.00	0.00	2.23	0.00	22.97	15.95
Estonia	1.80	18.02	0.09	0.27	0.00	0.18	27.43	1.74	50.49
Finland	0.94	58.33	0.28	0.09	0.00	0.00	1.36	20.72	18.28
Kazakhstan	0.93	0.60	0.07	51.13	0.13	0.13	26.60	0.13	20.27
Georgia	0.75	0.05	0.13	4.21	0.02	0.03	90.54	1.75	2.53
Morocco	0.05	0.03	0.19	99.59	0.08	0.00	0.03	0.03	0.00
Iceland	0.92	94.48	0.00	0.00	0.00	0.00	0.00	2.88	1.72
Jordan	0.80	0.22	0.00	96.93	0.00	0.00	0.55	1.49	0.00
South Korea	15.22	20.86	0.07	0.11	0.04	23.99	0.36	2.81	36.53
Kyrgyzstan	0.36	0.67	1.18	83.31	0.08	0.12	6.71	0.12	7.46
Lebanon	23.12	1.15	0.00	55.09	0.00	0.00	11.78	8.86	0.00
Latvia	28.09	27.10	0.20	0.20	0.00	0.03	26.61	1.48	16.30
Libya	0.00	0.00	0.00	98.33	0.00	0.00	0.00	1.67	0.00
Moldova	1.07	1.23	0.36	0.05	0.00	0.00	92.13	1.25	3.91
Montenegro	5.93	0.14	0.09	21.62	0.00	0.00	69.00	1.21	2.01
Puerto Rico	57.30	9.95	0.54	0.00	0.00	1.34	0.00	14.98	15.89
Romania	5.40	2.80	0.10	0.15	0.00	0.04	88.61	2.21	0.70
Serbia	6.77	0.96	0.06	4.42	0.00	0.03	78.21	0.84	8.72
Viet Nam	6.06	1.04	0.12	0.04	0.04	15.38	0.04	46.41	30.87
Slovenia	74.06	1.04	0.00	1.51	0.02	0.07	2.06	0.89	20.34
Zimbabwe	19.00	53.16	0.00	0.80	0.04	0.04	0.60	16.64	9.72
Thailand	0.26	0.07	0.07	2.38	0.04	96.70	0.00	0.22	0.26
Trinidad and Tobago	20.42	42.97	0.00	6.17	21.99	0.25	0.40	1.42	6.37
Turkey	0.29	0.19	0.06	90.26	0.00	0.00	0.06	0.21	8.93
Ukraine	6.89	1.42	0.29	0.49	0.06	0.12	65.65	4.93	20.16
Macedonia	0.47	0.18	0.12	22.55	0.00	0.03	64.16	0.15	12.36
Tanzania	28.40	18.85	3.61	40.36	0.09	0.00	4.99	1.98	1.72
Uruguay	33.52	1.04	0.20	0.00	0.03	0.10	0.00	10.79	54.30
Uzbekistan	0.07	0.27	0.07	95.70	0.20	0.07	3.02	0.00	0.60
Venezuela	75.11	6.55	0.00	0.00	0.04	0.08	0.08	0.63	17.50
North Ireland	38.88	29.64	0.00	0.00	0.00	0.06	0.50	3.06	27.86
Total	**28.90**	**13.13**	**0.33**	**17.50**	**2.83**	**3.08**	**12.14**	**6.89**	**15.19**

Table 1: Data (continued)

Panel C: Religiosity by religious denomination (percentages)

Country	Religious person	Attends religious service at least once a year	Attends religious service at least once a week
Catholic	83.3	78.4	39.8
Protestant	72.3	66.5	29.6
Jew	60.4	70.0	25.3
Muslim	82.6	72.0	42.0
Hindu	80.8	86.5	40.3
Buddhist	46.3	76.1	18.4
Orthodox	85.8	78.2	14.1
Other Affiliations	74.4	72.2	42.0

Table 1: Data (continued)

Panel D: Economic and social attitudes: Summary Statistics (dependent variables)

Variable	Mean	Median	Standard Deviation	Interq. Range	Min	Max
Attitudes toward others or Cooperation						
1. Most people can be trusted	0.26	0	0.44	1	0	1
2. Intolerant toward people of different races	0.13	0	0.34	1	0	1
3. Intolerant towards immigrants or foreign workers	0.16	0	0.37	0	0	1
4. "Average intolerance"	0.22	0	0.41	0	0	1
Attitudes toward the government						
5. Trust the government	2.35	2	0.88	1	1	4
6. Trust the police	2.47	3	0.91	1	1	4
7. Trust the armed forces	2.68	3	0.89	1	1	4
Attitudes toward women						
8. When Jobs are scarce, men should have more right to a job than women	2.17	2	0.71	1	1	3
9. Do you think that women should have children in order to be fullfilled	0.59	1	0.49	1	0	1
10. Being a housewife is just as fulfilling as working for pay	2.78	3	0.86	1	1	4
11. Both the husband and wife should contribute to household income	3.26	3	0.71	1	1	4
12. A university education is more important for a boy than for a girl	2.04	2	0.89	1	1	4
Attitudes toward legal rules						
13. Trust the Justice system/legal rules	2.47	2	0.87	1	1	4
14. Justifiable: Claming government benefits?	2.46	1	2.33	2	1	10
15. Justifiable: Avoiding fare on public transport?	2.65	1	2.46	3	1	10
16.Justifiable: Cheating on taxes?	2.5	1	2.35	2	1	10
17.Justifiable: Buying stolen object?	1.93	1	1.77	1	1	10
18. Justifiable: Someone accepting a bribe?	1.77	1	1.73	1	1	10
Attitudes toward the market economy						
19. We need larger income differences as incentives for individual effort vs. Incomes should be made more equal	5.87	6	2.94	4	1	10
20. Government ownership should be increased vs. Private ownership should be increased	5.0	5	2.83	4	1	10
21. Competition is harmful vs. Competition is good	3.45	3	2.45	4	1	10
Attitudes toward thrift and market's fairness						
22. Do you think to be especially important that children be encouraged to learn at home "thrift, saving money and things"?	0.36	0	0.48	1	0	1
23. Government should take more responsibility vs. Individual should take more responsibility to provide for themselves	6.23	6	2.99	5	1	10
24. Success is more a matter of luck and connections vs. Hard work improves life	4.25	4	2.85	5	1	10
25. Wealth can grow so there's enough for everyone vs. One can get rich only at the expense of others	6.49	7	2.78	4	1	10
26. In your opinion who lives in need is poor because of laziness and lack of will power	0.32	0	0.47	1	0	1

Table 1: Data (continued)

Panel E: Demographic characteristics (Control variables)

Variable	Mean	Median	Standard Deviation	Minimum	Maximum	Number of observation
Health	3.85	4	0.88	1	5	358498
Male	0.48	0	0.50	0	1	384986
Age	42.17	40	16.55	14	108	385055
Education	19.19	18	5.93	6	80	304975
Social class	2.69	3	0.98	1	5	238044
Income	4.70	5	2.38	0	10	302413

Appendix 2A:

Results: Religiosity and socio-economic attitudes. Table 2, Panel A-E.

Table 2: Religiosity and socio-economic attitudes

Panel A: Attitudes toward others and government

Variables	Most people can be trusted	Intolerant toward other races	Intolerant toward immigrants or foreign workers	Average Intolerance	Trust the government	Trust the police	Trust the army or soldiers
Health	0.0295***	-0.0035**	-0.0092***	-0.0113***	0.0521***	0.0532***	0.0472***
	(0.0016)	(0.0014)	(0.0016)	(0.0017)	(0.0035)	(0.0034)	(0.0034)
Male	0.0061**	0.0088***	0.0103***	0.0104***	-0.0048	-0.0155***	0.0621***
	(0.0025)	(0.0022)	(0.0024)	(0.0026)	(0.0054)	(0.0053)	(0.0053)
Age	0.0008***	0.0006***	0.0003***	0.0005***	0.0028***	0.0028***	0.0044***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0002)	(0.0002)	(0.0002)
Education	0.0019***	-0.0024***	-0.0022***	-0.0028***	-0.0027***	-0.0048***	-0.0048***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0005)	(0.0004)	(0.0004)
Income	0.0073***	-0.0038***	-0.0035***	-0.0051***	-0.0114***	-0.0071***	-0.0073***
	(0.0006)	(0.0006)	(0.0006)	(0.0007)	(0.0014)	(0.0014)	(0.0014)
Social class	0.0068***	0.0012	-0.0018	-0.0002	0.0221***	0.0286***	-0.0001
	(0.0015)	(0.0013)	(0.0014)	(0.0016)	(0.0032)	(0.0032)	(0.0031)
Does not believe in God	0.0205***	0.0204***	0.0182***	0.0207***	-0.0143	-0.0381***	-0.1077***
	(0.0050)	(0.0045)	(0.0053)	(0.0053)	(0.0107)	(0.0106)	(0.0105)
Religious but does not attend religious service	0.0011	0.0131***	0.0124**	0.0181***	0.0651***	0.0843***	0.0962***
	(0.0049)	(0.0044)	(0.0048)	(0.0051)	(0.0106)	(0.0105)	(0.0103)
Attends religious service frequently	0.0107***	0.0037	0.0023	0.0009	0.0168**	0.0286***	0.0103
	(0.0032)	(0.0029)	(0.0032)	(0.0034)	(0.0069)	(0.0069)	(0.0068)
Attends religious service at least once a year	0.0098**	0.0164***	0.0075*	0.0165***	0.1265***	0.1410***	0.1658***
	(0.0042)	(0.0038)	(0.0041)	(0.0044)	(0.0090)	(0.0089)	(0.0089)
Number of observations	109309	109027	106160	106154	105600	108065	107419
Adj. R Square	0.150	0.117	0.127	0.152	0.174	0.161	0.156
Religious + Attends service at least once a year	0.0109***	0.0295***	0.0199***	0.0346***	0.1916***	0.2253***	0.2520***
	(0.0000)	(0.0000)	(0.0010)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Religious + Attends service frequently	0.0118***	0.0168***	0.0147*	0.0190**	0.0819***	0.1129***	0.1065***
	(0.0000)	(0.0000)	(0.0900)	(0.0100)	(0.0000)	(0.0000)	(0.0001)
Religious + Attends service frequently + Attends service at least once a year	0.0216***	0.0332***	0.0222***	0.0355***	0.2084***	0.2539***	0.2723***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)

Note: All variables are defined in Section 3. Table 2 reports the coefficients of an OLS regression, where the dependent variables are indicated at the top of each panel. The last three rows (with plus signs) report the sum of their respective coefficients, followed by the p-values for the test that the sum of the coefficients is significantly different from zero (given in parentheses). All other numbers in parentheses are standard errors. All regressions include a country fixed effect and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, and *p < 0.10.

Table 2: Religiosity and socio-economic attitudes (continued)

Panel B: Attitudes toward women

Variables	Both husband and wife should contribute to household income	Women should have children inorder to be fulfilled	When jobs are scarce, men should have more rights to a job than women	Being a housewife is just as fulfilling as working for pay	University education is more important for a boy than for a girl
Health	0.0167***	-0.0038	0.0019	0.0174***	-0.0109***
	(0.0040)	(0.0024)	(0.0027)	(0.0034)	(0.0034)
Male	-0.1172***	0.0141***	0.0799***	0.0409***	0.2288***
	(0.0064)	(0.0038)	(0.0041)	(0.0053)	(0.0052)
Age	-0.0010***	0.0023***	0.0016***	0.0037***	0.0025***
	(0.0002)	(0.0001)	(0.0001)	(0.0002)	(0.0002)
Education	0.0035***	-0.0039***	-0.0059***	-0.0057***	-0.0101***
	(0.0005)	(0.0003)	(0.0003)	(0.0004)	(0.0004)
Income	-0.0067***	-0.0091***	-0.0155***	-0.0058***	-0.0132***
	(0.0016)	(0.0009)	(0.0011)	(0.0014)	(0.0014)
Social class	0.0053	-0.0050**	-0.0018	-0.0015	-0.0089***
	(0.0038)	(0.0022)	(0.0024)	(0.0031)	(0.0031)
Does not believe in God	-0.0166	-0.0517***	-0.0217***	-0.0862***	-0.0204*
	(0.0148)	(0.0087)	(0.0083)	(0.0107)	(0.0106)
Religious but does not attend religious service	-0.0130	0.0281***	0.0276***	0.0650***	0.0653***
	(0.0132)	(0.0078)	(0.0081)	(0.0104)	(0.0103)
Attends religious service frequently	-0.0423***	0.0221***	0.0340***	0.0592***	0.0616***
	(0.0080)	(0.0047)	(0.0053)	(0.0068)	(0.0068)
Attends religious service at least once a year	-0.0335***	0.0494***	0.0228***	0.0538***	0.0780***
	(0.0117)	(0.0069)	(0.0069)	(0.0089)	(0.0088)
Number of observations	52058	51677	110692	106231	108683
Adj. R Square	0.088	0.258	0.142	0.126	0.117
Religious + Attends service at least once a year	-0.0465**	0.0775***	0.0504***	0.1188***	0.1433***
	(0.0200)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Religious + Attends service frequently	-0.1018***	0.0502***	0.0616***	0.1242***	0.1269***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Religious + Attends service frequently + Attends service at least once a year	-0.1353***	0.0996***	0.0844***	0.1780***	0.2049***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)

Note: All variables are defined in Section 3. Table 2 reports the coefficients of an OLS regression, where the dependent variables are indicated at the top of each panel. The last three rows (with plus signs) report the sum of their respective coefficients, followed by the p-values for the test that the sum of the coefficients is significantly different from zero (given in parentheses). All other numbers in parentheses are standard errors. All regressions include a country fixed effect and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, and *p < 0.10.

Table 2: Religiosity and socio-economic attitudes (continued)

Panel C: Attitudes toward the legal rules

Variables	Trust the Justice system	Justifiable: cheating on taxes?	Justifiable: buying stolen goods/object	Justifiable: claiming government benefit you are not entitle t	Justifiable: avoiding fare on public transport?	Justifiable: someone accepting bribe?
Health	0.0544***	-0.0814***	-0.0937***	-0.1029***	-0.0830***	-0.0722***
	(0.0040)	(0.0081)	(0.0132)	(0.0092)	(0.0089)	(0.0065)
Male	-0.0019	0.1810***	0.1721***	0.0753***	0.0334**	0.1047***
	(0.0062)	(0.0125)	(0.0217)	(0.0142)	(0.0137)	(0.0100)
Age	0.0010***	-0.0121***	-0.0174***	-0.0149***	-0.0179***	-0.0092***
	(0.0002)	(0.0008)	(0.0008)	(0.0005)	(0.0005)	(0.0003)
Education	-0.0006	-0.0017*	-0.0025	-0.0045***	-0.0022*	-0.0048***
	(0.0005)	(0.0010)	(0.0016)	(0.0012)	(0.0011)	(0.0008)
Income	0.0092***	0.0146***	-0.0375***	-0.0147***	-0.0197***	0.0037
	(0.0016)	(0.0032)	(0.0050)	(0.0037)	(0.0035)	(0.0026)
Social class	0.0220***	0.0313***	0.0211	0.0192**	0.0366***	0.0324***
	(0.0037)	(0.0074)	(0.0130)	(0.0085)	(0.0082)	(0.0060)
Does not believe in God	-0.0016	0.0961***	0.1505***	-0.0021	0.0540***	0.0918***
	(0.0116)	(0.0253)	(0.0417)	(0.0284)	(0.0273)	(0.0202)
Religious but does not attend religious service	0.0687***	-0.0179	-0.1505***	-0.0102	-0.0498*	-0.0064
	(0.0118)	(0.0247)	(0.0281)	(0.0281)	(0.0271)	(0.0198)
Attends religious service frequently	0.0287***	-0.1377***	-0.1271***	-0.0720***	-0.0989***	-0.0823***
	(0.0082)	(0.0161)	(0.0276)	(0.0184)	(0.0177)	(0.0130)
Attends religious service at least once a year	0.1343***	-0.0852***	-0.1358***	0.0221	-0.0531**	0.0040
	(0.0099)	(0.0211)	(0.0355)	(0.0137)	(0.0230)	(0.0170)
Number of observations	78465	105432	21164	107220	108058	109696
Adj. R Square	0.148	0.093	0.071	0.115	0.127	0.122
Religious + Attends service at least once a year	0.2030***	-0.1031***	-0.2863***	0.0119*	-0.1029***	-0.0024**
	(0.0000)	(0.0000)	(0.0000)	(0.0902)	(0.0010)	(0.0200)
Religious + Attends service frequently	0.0974***	-0.1556***	-0.2776***	-0.0822***	-0.1487***	-0.0887***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Religious + Attends service frequently + Attends service at least once a year	0.2317***	-0.2408***	-0.4134***	-0.0601***	-0.2018***	-0.0847***
	(0.0000)	0.0000	(0.0000)	(0.0000)	(0.0000)	(0.0000)

Note: All variables are defined in Section 3. Table 2 reports the coefficients of an OLS regression, where the dependent variables are indicated at the top of each panel. The last three rows (with plus signs) report the sum of their respective coefficients, followed by the p-values for the test that the sum of the coefficients is significantly different from zero (given in parentheses). All other numbers in parentheses are standard errors. All regressions include a country fixed effect and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, and *p < 0.10.

Table 2: Religiosity and socio-economic attitudes (continued)

Panel D: Attitudes toward the market economy

Variables	Competition is harmful versus Competition is good	Income inequality versus Income equality	state ownership of business versus Private ownership
Health	-0.1359***	0.0351***	-0.1144***
	(0.0104)	(0.0111)	(0.0110)
Male	-0.2203***	0.0751***	-0.2945***
	(0.0162)	(0.0172)	(0.0171)
Age	-0.0062***	-0.0018***	-0.0012**
	(0.0006)	(0.0006)	(0.0006)
Education	-0.0139***	0.0080***	-0.0098***
	(0.0014)	(0.0014)	(0.0014)
Income	-0.0112***	0.1081***	-0.0626***
	(0.0042)	(0.0045)	(0.0044)
Social class	-0.0604***	0.1247***	-0.1178***
	(0.0096)	(0.0103)	(0.0102)
Does not believe in God	0.0213	-0.0867**	0.1151***
	(0.0313)	(0.0347)	(0.0345)
Religious but does not attend religious service	-0.0269	0.1842***	-0.0440
	(0.0317)	(0.0340)	(0.0337)
Attends religious service frequently	0.0261	-0.0122	0.0090
	(0.0212)	(0.0224)	(0.0221)
Attends religious service at least once a year	0.0273	0.1346***	-0.0366
	(0.0268)	(0.0291)	(0.0179)
Number of observations	98752	109607	155878
Adj. R Square	0.069	0.129	0.107
Religious + Attends service at least once a year	0.0004	0.3188***	-0.0806
	(0.1023)	(0.0000)	(0.2201)
Religious + Attends service frequently	-0.0008	0.1770**	-0.0350
	(0.1241)	(0.0413)	(0.1900)
Religious + Attends service frequently + Attends service at least once a year	0.0265	0.3066***	-0.0716
	(0.1091)	(0.0000)	(0.1768)

Note: All variables are defined in Section 3. Table 2 reports the coefficients of an OLS regression, where the dependent variables are indicated at the top of each panel. The last three rows (with plus signs) report the sum of their respective coefficients, followed by the p-values for the test that the sum of the coefficients is significantly different from zero (given in parentheses). All other numbers in parentheses are standard errors. All regressions include a country fixed effect and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, and *p < 0.10.

Table 2: Religiosity and socio-economic attitudes (continued)

Panel E: Attitudes toward thriftiness and market's fairness

Variables	Encouraging thrift, saving money and things	Success is more a matter of luck and connections versus Hard work improves life	Wealth accumulation for everyone	Government responsibility versus Individual responsibility	Poor are lazy
Health	-0.0076***	-0.1599***	0.1224***	-0.0896***	0.0180***
	(0.0018)	(0.0128)	(0.0126)	(0.0113)	(0.0040)
Male	-0.0069**	-0.0968***	-0.1359***	-0.0776***	0.0344***
	(0.0028)	(0.0198)	(0.0194)	(0.0174)	(0.0066)
Age	0.0019***	-0.0090***	0.0060***	-0.0015**	0.0008***
	(0.0001)	(0.0007)	(0.0007)	(0.0006)	(0.0002)
Education	-0.0031***	0.0023	0.0036**	-0.0063***	-0.0027***
	(0.0002)	(0.0017)	(0.0016)	(0.0015)	(0.0005)
Income	-0.0039***	-0.0007	0.0361***	-0.0995***	0.0085***
	(0.0007)	(0.0052)	(0.0051)	(0.0045)	(0.0015)
Social class	-0.0067***	-0.0932***	0.1154***	-0.1394***	0.0341***
	(0.0017)	(0.0119)	(0.0117)	(0.0104)	(0.0039)
Does not believe in God	-0.0065	0.1962***	-0.1842***	0.0714**	-0.0109
	(0.0366)	(0.0360)	(0.0351)	(0.0351)	(0.0133)
Religious but does not attend religious service	0.0019	-0.1072***	0.0948**	-0.0204	-0.0016
	(0.0055)	(0.0375)	(0.0368)	(0.0343)	(0.0126)
Attends religious service frequently	-0.0154***	-0.0371	0.1185***	-0.0574**	0.0147*
	(0.0036)	(0.0265)	(0.0259)	(0.0226)	(0.0083)
Attends religious service at least once a year	0.0048	-0.1225***	0.0858***	-0.0021	0.0185*
	(0.0047)	(0.0317)	(0.0311)	(0.0294)	(0.0110)
Number of observations	112021	76468	74927	110120	19579
Adj. R Square	0.083	0.078	0.069	0.112	0.101
Religious + Attends service at least once a year	0.0067	-0.2297***	0.1806***	0.0225	0.0169*
	(0.1437)	(0.0000)	(0.0000)	(0.3000)	(0.0570)
Religious + Attends service frequently	-0.0135***	-0.4782**	0.2133***	-0.0778**	0.0131**
	(0.0000)	(0.0100)	(0.0000)	(0.0420)	(0.0201)
Religious + Attends service frequently + Attends service at least once a year	-0.0087	-0.6007***	0.2991***	-0.0799**	0.0497***
	(0.3571)	(0.0000)	(0.0000)	(0.0410)	(0.0035)

Note: All variables are defined in Section 3. Table 2 reports the coefficients of an OLS regression, where the dependent variables are indicated at the top of each panel. The last three rows (with plus signs) report the sum of their respective coefficients, followed by the p-values for the test that the sum of the coefficients is significantly different from zero (given in parentheses). All other numbers in parentheses are standard errors. All regressions include a country fixed effect and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, and *p < 0.10.

Appendix 2B:

Results: The evolution of religiosity and socio-economic attitudes. Table 3, Panel A-E.

Table 3: The evolution of religiosity and socio-economic attitudes

Panel A: Attitudes toward others and the government

Variables	Most people can be trusted	Intolerant toward other races	Intolerant toward immigrants or foreign workers	Average Intolerance	Trust the government	Trust the police	Trust the army or soldiers
Atheist X Time	0.0009	0.0019***	0.0017***	0.0021***	0.0042***	-0.0024*	-0.0028**
	(0.0006)	(0.0005)	(0.0006)	(0.0006)	(0.0013)	(0.0013)	(0.0013)
Religious but does not attend religious service X Time	-0.0008	0.0011**	0.0010*	0.0020***	0.0060***	0.0039***	0.0056***
	(0.0006)	(0.0005)	(0.0006)	(0.0006)	(0.0013)	(0.0013)	(0.0013)
Attends religious service frequently X Time	0.0002	0.0006	0.0005	0.0002	0.0008	-0.0007	0.0018**
	(0.0004)	(0.0004)	(0.0004)	(0.0004)	(0.0009)	(0.0009)	(0.0009)
Attends religious service at least once a year X Time	-0.0003	0.0003	0.0003	0.0010*	0.0074***	0.0068***	0.0060***
	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0011)	(0.0011)	(0.0011)
Number of observations	109309	109027	106160	106154	105600	108065	170419
Adj. R Square	0.150	0.117	0.127	0.152	0.172	0.158	0.151

Note: All variables are defined in Section 3. Table 3 reports the coefficients of a panel regression, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they are either religious or do not believe in God (labeled as Atheist) during the survey periods, from 1981 to 2014. To estimate the changing pattern of religiosity and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was administered. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each level of religiosity on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Table 2, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 3: The evolution of religiosity and socio-economic attitudes (continued)

Panel B: Attitudes toward women

Variables	Both husband and wife should contribute to household income	Women should have children in order to be fulfilled	When jobs are scarce, men should have more rights to a job than women	Being a housewife is just as fulfilling as working for pay	University education is more important for a boy than for a girl
Atheist X Time	-0.0031	0.0083***	-0.0008	-0.0085***	0.0005
	(0.0031)	(0.0018)	(0.0010)	(0.0013)	(0.0012)
Religious but does not attend religious service X Time	0.0057*	-0.0036**	0.0003	0.0047***	0.0036***
	(0.0030)	(0.0018)	(0.0010)	(0.0013)	(0.0013)
Attends religious service frequently X Time	0.0077***	-0.0062***	0.0015**	0.0038***	0.0043***
	(0.0021)	(0.0012)	(0.0007)	(0.0009)	(0.0009)
Attends religious service at least once a year X Time	0.0037	-0.0088***	0.0003	0.0027**	0.0060***
	(0.0027)	(0.0016)	(0.0008)	(0.0011)	(0.0011)
Number of observations	52058	51677	110692	106231	108683
Adj. R Square	0.087	0.258	0.142	0.125	0.115

Note: All variables are defined in Section 3. Table 3 reports the coefficients of a panel regression, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they are either religious or do not believe in God (labeled as Atheist) during the survey periods, from 1981 to 2014. To estimate the changing pattern of religiosity and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was administered. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each level of religiosity on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Table 2, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 3: The evolution of religiosity and socio-economic attitudes (continued)

Panel C: Attitudes toward the legal rules

Variables	Trust the Justice system	Justifiable: cheating on taxes?	Justifiable: buying stolen goods/objects?	Justifiable: claiming government benefits you are not entitle to?	Justifiable: avoiding fare on public transport?	Justifiable: someone accepting bribe?
Atheist X Time	-0.0002	-0.0012	-0.0221***	-0.0057*	0.0004	0.0064***
	(0.0013)	(0.0031)	(0.0066)	(0.0034)	(0.0032)	(0.0024)
Religious but does not attend religious service X Time	0.0044***	0.0070**	0.0055	0.0055	0.0078**	0.0074***
	(0.0013)	(0.0031)***	(0.0068)	(0.0034)	(0.0033)	(0.0025))
Attends religious service frequently X Time	0.0008	-0.0005	0.0209***	-0.0090***	-0.0011	-0.0025
	(0.0009)	(0.0021)	(0.0047)	(0.0023)	(0.0023)	(0.0017)
Attends religious service at least once a year X Time	0.0069***	0.0083***	0.0225***	0.0134***	0.0105***	0.0071***
	(0.0011)	(0.0026)	(0.0058)	(0.0029)	(0.0028)	(0.0021)
Number of observations	78465	105432	21164	107220	108058	109696
Adj. R Square	0.145	0.091	0.071	0.115	0.126	0.121

Note: All variables are defined in Section 3. Table 3 reports the coefficients of a panel regression, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they are either religious or do not believe in God (labeled as Atheist) during the survey periods, from 1981 to 2014. To estimate the changing pattern of religiosity and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was administered. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each level of religiosity on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic control as in Table 2, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 3: The evolution of religiosity and socio-economic attitudes (continued)

Panel D: Attitudes toward the market economy

Variables	Competition is harmful versus Competition is good	Income inequality versus income equality	State ownership of business versus Private ownership
Atheist X Time	0.0032	-0.0074*	0.0084**
	(0.0037)	(0.0041)	(0.0041)
Religious but does not attend religious service X Time	0.0021	-0.0002	-0.0014
	(0.0038)	(0.0042)	(0.0042)
Attends religious service frequently X Time	0.0098***	0.0000	0.0139***
	(0.0001)	(0.0028)	(0.0028)
Attends religious service at least once a year X Time	0.0047	0.0046	-0.0026
	(0.0032)	(0.0036)	(0.0035)
Number of observations	98752	109607	107057
Adj. R Square	0.070	0.129	0.103

Note: All variables are defined in Section 3. Table 3 reports the coefficients of a panel regression, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they are either religious or do not believe in God (labeled as Atheist) during the survey periods, from 1981 to 2014. To estimate the changing pattern of religiosity and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was administered. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each level of religiosity on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic control as in Table 2, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 3: The evolution of religiosity and socio-economic attitudes (continued)

Panel E: Attitudes toward thriftiness and market's fairness

Variables	Encouraging thrift, saving money and things	Success is more a matter of luck and connections versus Hard work improves life	Wealth accumulation for everyone	Government responsibility versus Individual responsibility	Poor are lazy
Atheist X Time	0.0008	0.0073*	-0.0073*	0.0141***	0.0018
	{0.0007}	{0.0040}	{0.0039}	{0.0042}	{0.0021}
Religious but does not attend religious service X Time	0.0011	-0.0142***	-0.0008	0.0098**	0.0002
	{0.0007}	{0.0041}	{0.0040}	{0.0043}	{0.0021}
Attends religious service frequently X Time	-0.0014***	0.0049*	0.0073***	-0.0082***	-0.0025*
	{0.0005}	{0.0028}	{0.0027}	{0.0029}	{0.0014}
Attends religious service at least once a year X Time	0.0009	-0.0138***	-0.0024	0.0124***	-0.0032*
	{0.0029}	{0.0034}	{0.0034}	{0.0036}	{0.0018}
Number of observations	112021	76468	74927	110120	19579
Adj. R Square	0.084	0.078	0.068	0.112	0.101

Note: All variables are defined in Section 3. Table 3 reports the coefficients of a panel regression, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they are either religious or do not believe in God (labeled as Atheist) during the survey periods, from 1981 to 2014. To estimate the changing pattern of religiosity and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was administered. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each level of religiosity on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Table 2, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Appendix 2C:

Results: The evolution of religion and socio-economic attitudes. Table 4, Panel A-E.

Table 4: The evolution of religion and socio-economic attitudes

Panel A: Attitudes toward others and the government

Variables	Most people can be trusted	Intolerant toward other races	Intolerant toward immigrants or foreign workers	Average Intolerance	Trust the government	Trust the police	Trust the army or soldiers
Catholic X Time	-0.0019***	-0.0010**	-0019***	-0.0020***	0.0035***	0.0080***	0.0119***
	{0.0005}	{0.0004}	{0.0005}	{0.0005}	{0.0011}	{0.0011}	{0.0010}
Protestant X Time	0.0020***	-0.0012**	-0.0003	0.0001	0.0046***	0.0043***	0.0129***
	{0.0007}	{0.0006}	{0.0006}	{0.0007}	{0.0014}	{0.0014}	{0.0014}
Muslim X Time	-0.0060***	0.0080***	0.0045***	0.0056***	0.0120***	0.0151***	0.0121***
	{0.0007}	{0.0006}	{0.0006}	{0.0007}	{0.0014}	{0.0014}	{0.0014}
Jews X Time	-0.0030	0.0002	-0.0021	0.0004	0.0131***	0.0159***	0.0092**
	{0.0023}	{0.0019}	{0.0021}	{0.0023}	{0.0046}	{0.0046}	{0.0046}
Hindu X Time	-0.0050***	0.0073***	0.0079***	0.0120***	0.0218***	0.0325***	0.0097***
	{0.0011}	{0.0010}	{0.0010}	{0.0011}	{0.0023}	{0.0023}	{0.0022}
Buddhist X Time	-0.0039***	0.0021**	0.0035***	0.0029***	0.0073***	0.0072***	0.0061***
	{0.0009}	{0.0009}	{0.0009}	{0.0010}	{0.0020}	{0.0019}	{0.0019}
Orthodox X Time	-0.0049***	0.0053***	0.0026***	0.0038***	0.0051***	0.0047***	0.0086***
	{0.0009}	{0.0007}	{0.0008}	{0.0009}	{0.0018}	{0.0018}	{0.0018}
Other religious affiliations X Time	-0.0015**	0.0006	0.0000	0.0006	0.0049***	0.0035***	0.0086***
	{0.0006}	{0.0005}	{0.0006}	{0.0006}	{0.0013}	{0.0013}	{0.0013}
Number of observations	154794	154755	151847	151832	151513	154437	153247
Adjusted R Square	0.148	0.112	0.130	0.157	0.185	0.163	0.167

Note: All variables are defined in Section 3. Table 4 reports the coefficients of a panel regression, as in Table 3, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they belong to a particular religion during the survey periods, from 1981 to 2014. To estimate the changing pattern of each religion and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was conducted. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each religious denomination on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Tables 2 and 3, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes $p < 0.01$, **$p < 0.05$, *$p < 0.10$.

Table 4: The evolution of religion and socio-economic attitudes (continued)

Panel B: Attitudes toward women

Variables	Both husband and wife should contribute to household income	When jobs are scarce, men should have more rights to a job than women	Women should have children in order to be fulfilled	Being a housewife is just as fulfilling as working for pay	University education is more important for a boy than for a girl
Catholic X Time	0.0019	0.0018**	-0.0112***	0.0051***	0.0014
	(0.0026)	(0.0008)	(0.0016)	(0.0011)	(0.0010)
Protestant X Time	0.0146***	-0.0054***	-0.0012	0.0094***	0.0056***
	(0.0032)	(0.0011)	(0.0019)	(0.0014)	(0.0014)
Muslim X Time	0.0271***	0.0007	-0.0072**	0.0187***	0.0123***
	(0.0052)	(0.0011)	(0.0031)	(0.0014)	(0.0013)
Jews X Time	0.0129	0.0067*	-0.0113	0.0082*	0.0123***
	(0.0140)	(0.0036)	(0.0085)	(0.0046)	(0.0045)
Hindu X Time	0.0241***	-0.0016	-0.0081***	0.0044*	0.0298***
	(0.0053)	(0.0018)	(0.0031)	(0.0023)	(0.0022)
Buddhist X Time	-0.0042	0.0009	-0.0174***	0.0128***	0.0057***
	(0.0055)	(0.0015)	(0.0033)	(0.0020)	(0.0020)
Orthodox X Time	0.0143	-0.0018	-0.0117*	0.0173***	0.0020
	(0.0116)	(0.0014)	(0.0068)	(0.0018)	(0.0018)
Other religious affiliations X Time	0.0061*	-0.0007	-0.0136***	0.0060***	0.0053***
	(0.0036)	(0.0010)	(0.0021)	(0.0013)	(0.0013)
Number of observations	54638	159404	54116	151016	156626
Adjusted R Square	0.088	0.137	0.256	0.122	0.119

Note: All variables are defined in Section 3. Table 4 reports the coefficients of a panel regression, as in Table 3, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they belong to a particular religion during the survey periods, from 1981 to 2014. To estimate the changing pattern of each religion and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was conducted. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each religious denomination on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Tables 2 and 3, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, *p < 0.10.

Table 4: The evolution of religion and socio-economic attitudes (continued)

Panel C: Attitudes toward the legal rules

Variables	Trust the Justice system	Justifiable: cheating on taxes?	Justifiable: claiming government benefits you are not entitle to?	Justifiable: avoiding fare on public transport?	Justifiable: buying stolen goods or objects?	Justifiable: someone accepting bribe?
Catholic X Time	0.0018*	-0.0074***	0.0046	-0.0050*	0.0148**	-0.0049**
	(0.0011)	(0.0029)	(0.0028)	(0.0028)	(0.0061)	(0.0021)
Protestant X Time	0.0105***	-0.0055*	-0.0167***	-0.0140***	0.0332***	-0.0007
	(0.0014)	(0.0033)	(0.0038)	(0.0036)	(0.0070)	(0.0027)
Muslim X Time	0.0108***	0.0109***	-0.0029	0.0055	0.0424**	0.0022
	(0.0015)	(0.0035)	(0.0040)	(0.0038)	(0.0172)	(0.0028)
Jews X Time	0.0130***	0.0173	0.0070	0.0071	0.0434	0.0263***
	(0.0047)	(0.0109)	(0.0125)	(0.0120)	(0.0321)	(0.0089)
Hindu X Time	0.0089***	0.0748***	0.0497***	0.0777***	0.0192	0.0556***
	(0.0023)	(0.0053)	(0.0061)	(0.0058)	(0.0148)	(0.0044)
Buddhist X Time	0.0074***	-0.0063	-0.0148***	-0.0211***	0.0182	-0.0170***
	(0.0020)	(0.0046)	(0.0053)	(0.0051)	(0.0118)	(0.0038)
Orthodox X Time	0.0055***	-0.0032	-0.0074	0.0054	-0.0118	-0.0069**
	(0.0018)	(0.0042)	(0.0048)	(0.0046)	(0.0269)	(0.0034)
Other religious affiliations X Time	0.0060***	-0.0107***	-0.0048	-0.0122***	0.0107	-0.0067***
	(0.0013)	(0.0031)	(0.0034)	(0.0033)	(0.0079)	(0.0025)
Number of observations	122473	152284	153645	155047	21710	156790
Adjusted R Square	0.164	0.082	0.094	0.109	0.067	0.098

Note: All variables are defined in Section 3. Table 4 reports the coefficients of a panel regression, as in Table 3, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they belong to a particular religion during the survey periods, from 1981 to 2014. To estimate the changing pattern of each religion and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was conducted. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each religious denomination on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Tables 2 and 3, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, *p < 0.10.

Table 4: The evolution of religion and socio-economic attitudes (continued)

Panel D: *Attitudes toward the market economy*

Variables	Competition is harmful versus Competition is good	Income inequality versus Income equality	State ownership of business versus Private ownership
Catholic X Time	-0.0214***	0.0010	-0.0070**
	(0.0031)	(0.0035)	(0.0035)
Protestant X Time	0.0061	0.0131***	-0.0002
	(0.0040)	(0.0046)	(0.0045)
Muslim X Time	0.0151***	0.0059	0.0150***
	(0.0043)	(0.0045)	(0.0044)
Jews X Time	-0.0019	0.0076	-0.0042
	(0.0134)	(0.0152)	(0.0150)
Hindu X Time	0.0261***	0.0345***	-0.0176**
	(0.0066)	(0.0075)	(0.0073)
Buddhist X Time	-0.0196***	-0.0179***	-0.0317***
	(0.0057)	(0.0065)	(0.0064)
Orthodox X Time	0.0077	0.0019	0.0361***
	(0.0052)	(0.0059)	(0.0058)
Other religious affiliations X Time	-0.0036	0.0196***	-0.0080*
	(0.0037)	(0.0042)	(0.0041)
Number of observations	146439	157742	153517
Adjusted R Square	0.068	0.124	0.098

Note: All variables are defined in Section 3. Table 4 reports the coefficients of a panel regression, as in Table 3, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they belong to a particular religion during the survey periods, from 1981 to 2014. To estimate the changing pattern of each religion and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was conducted. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equals to its original value. The result should be interpreted as the marginal effect of each religious denomination on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Tables 2 and 3, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, *p < 0.10.

Table 4: The evolution of religion and socio-economic attitudes (continued)

Panel E: *Attitudes toward thriftiness and market's fairness*

Variables	Encouraging thrift, saving money and things	Government responsibility versus Individual responsibility	Success is more a matter of luck and connections versus Hard work improves life	Wealth accumulation for everyone	Poor are lazy
Catholic X Time	0.0010*	-0.0095***	-0.0320***	0.0149***	-0.0005
	(0.0006)	(0.0035)	(0.0034)	(0.0034)	(0.0019)
Protestant X Time	-0.0014*	-0.0091**	-0.0144***	0.0050	-0.0113***
	(0.0008)	(0.0046)	(0.0045)	(0.0044)	(0.0022)
Muslim X Time	0.0035***	0.0117***	-0.0185***	-0.0130***	-0.0034
	(0.0007)	(0.0045)	(0.0048)	(0.0047)	(0.0036)
Jews X Time	-0.0045*	-0.0117	0.0014	-0.0422***	-0.0042
	(0.0025)	(0.0154)	(0.0147)	(0.0143)	(0.0106)
Hindu X Time	0.0052***	-0.0132*	0.0446***	0.0254***	-0.0130***
	(0.0012)	(0.0075)	(0.0072)	(0.0071)	(0.0041)
Buddhist X Time	0.0017*	0.0214***	-0.0210***	0.0124**	-0.0083**
	(0.0011)	(0.0065)	(0.0062)	(0.0061)	(0.0038)
Orthodox X Time	0.0008	0.0064	-0.0121**	0.0044	0.0002
	(0.0010)	(0.0059)	(0.0057)	(0.0056)	(0.0086)
Other religious affiliations X Time	-0.0019***	-0.0078*	-0.0286***	0.0241***	-0.0022
	(0.0007)	(0.0042)	(0.0041)	(0.0040)	(0.0024)
Number of observations	161388	158542	123036	120087	20297
Adjusted R Square	0.085	0.106	0.081	0.070	0.104

Note: All variables are defined in Section 3. Table 4 reports the coefficients of a panel regression, as in Table 3, where the dependent variables are indicated at the top of each panel. The sample is restricted to respondents who said that they belong to a particular religion during the survey periods, from 1981 to 2014. To estimate the changing pattern of each religion and economic attitudes over time, an interaction term was computed by multiplying the share of each response by the year the survey was conducted. The time variable (survey-year) was centered to have a mean of zero and a standard deviation equal to its original value. The result should be interpreted as the marginal effect of each religious denomination on economic attitudes for every year that passes. If one is interested in observing the effect in 33 years (i.e., the sample period from 1981 to 2014), for instance, we can do this by multiplying each coefficient by 33, and so on. Numbers in parentheses are standard errors. All regressions include the same demographic controls as in Tables 2 and 3, a country fixed effect, and survey year dummies (coefficients not reported). ***denotes p < 0.01, **p < 0.05, *p < 0.10.

Appendix 3:

Countries participating in EVS and WVS (1981-2014)

(Countries ordered by wave and year of study)

Country / Region	1981 - 1984		1989 - 1993		1994 - 1998	1999 - 2004		2005 - 2009	2008 - 2010	2010-2014
	EVS	WVS	EVS	WVS	WVS	EVS	WVS	WVS	EVS	WVS
Argentina		1984		1991	1995		1999	2006		2013
Australia		1981			1995			2005		2012
Belgium	1981		1990			1999			2009	
Canada	1982		1990				2000	2006		
Denmark	1981		1990			1999			2008	
Finland		1981	1990		1996	2000		2005	2009	
France	1981		1990			1999		2006	2008	
Germany West	1981									
Great Britain	1981		1990		1998	1999		2005	2009/2010	
Hungary		1982	1991		1998	1999		2009	2008/2009	
Iceland	1984		1990			1999			2009/2010	
Ireland	1981		1990			1999			2008	
Italy	1981		1990			1999		2005	2009	
Japan		1981	1990		1995		2000	2005		2010
Korea, Republic of		1982	1990		1996		2001	2005		2010
Malta	1983		1991			1999			2008	
Mexico		1981	1990		1995/1996		2000	2005		2012
Netherlands	1981		1990			1999		2006	2008	2012
Northern Ireland	1981		1990			1999			2008	
Norway	1982		1990		1996			2007	2008	
Spain	1981		1990	1990	1995	1999	2000	2007	2008	2011
South Africa		1982		1990	1996		2001	2006		2013
Sweden	1982		1990		1996	1999		2006	2009/2010	2011
United States	1982		1990		1995	1999	1999	2006		2011
Austria			1990			1999			2008	
Belarus				1990	1996	2000			2008	2011
Brazil				1991				2006		2014
Bulgaria			1990		1997	1999		2005	2008	
Chile				1990	1996		2000	2006		2011
China				1990	1995		2001	2007		2012
Czech Republic			1991	1991	1998	1999			2008	
Estonia			1990		1996	1999			2008	2011
Germany			1990		1997	1999		2006	2008/2009	2013
India				1990	1995		2001	2006		2014
Latvia			1990		1996	1999			2008	
Lithuania			1990		1997	1999			2008	
Nigeria				1990	1995		2000			2011
Poland			1990	1989	1997	1999		2005	2008	2012
Portugal			1990			1999			2008	
Romania				1993	1998	1999		2005	2008	2012
Russian Federation				1990	1995	1999		2006	2008	2011
Slovakia			1991	1990	1998	1999			2008	
Slovenia			1992		1995	1999		2005	2008	2011
Switzerland				1989	1996			2007	2008	
Turkey				1990	1996	2001	2001	2007	2008/2009	2011
Albania					1998		2002		2008	
Armenia					1997				2008	2011
Azerbaijan					1997				2008	2011
Bangladesh					1996		2002			
Bosnia and Herzegovina					1998		2001		2008	
Colombia					1997/1998			2005		2012
Croatia					1996	1999			2008	
Dominican Republic					1996					
El Salvador					1999					
Georgia					1996			2009	2008	2014
Macedonia, Republic of					1998		2001		2008	
Moldova, Republic of					1996		2002	2006	2008	
New Zealand					1998			2004		2011
Pakistan					1997		2001			2012
Peru					1996		2001	2006		2012
Philippines					1996		2001			2012
Puerto Rico					1995		2001			
Montenegro					1996		2001		2008	
Serbia					1996		2001		2008	
Taiwan Province of China					1994			2006		2012
Ukraine					1996	1999		2006	2008	2011
Uruguay					1996			2006		2011
Venezuela					1996		2000			
Algeria							2002			2013
Egypt							2001	2008		2013
Greece						1999			2008	
Indonesia							2001	2006		
Iran (Islamic Republic of)							2000	2007		
Iraq							2004	2006		2012
Israel							2001			
Jordan							2001	2007		2014
Kyrgyzstan							2003			2011
Luxembourg						1999			2008	
Morocco							2001	2007		2011
Saudi Arabia							2003			
Singapore							2002			2012
Tanzania, United Republic Of							2001			
Uganda							2001			
Viet Nam							2001	2006		
Zimbabwe							2001			2012
Andorra								2005		
Burkina Faso								2007		
Cyprus								2006	2008	2011
Ethiopia								2007		
Ghana								2007		2012
Guatemala								2004		
Hongkong								2005		2013
Kosovo									2008	
Malaysia								2006		2012
Mali								2007		
Northern Cyprus									2008	
Rwanda								2007		2012
Serbia and Montenegro								2005		
Thailand								2007		2013
Trinidad and Tobago								2006		2011
Zambia								2007		
Bahrain										2014
Ecuador										2013
Kazakhstan										2011
Kuwait										2014
Lebanon										2013
Libya										2014
Palestine										2013
Qatar										2010
Tunisia										2013
Uzbekistan										2011
Yemen										2014

Source: European Values Survey (EVS) and World Values Survey (WVS)

Endnotes

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[i] This study thus explores the correlations between religion, religiosity and socio-economic attitudes. For ease of exposition, however, we sometimes use phrases implying that the causality runs from the former to the latter, realizing that this causality requires a long chain of logic, see also Keely (2003).

[ii] Note that Guiso et al. (2003) make a similar observation for Catholics raised before and after the second Vatican council.

[iii] www.worldvaluessurvey.org

[iv] www.europeanvaluesstudy.eu

[v] These include: Slovakia, Hungary, Kuwait, Cyprus, Cyprus(T), Hong Kong, Kosovo, Belarus, Lithuania, Mali, Tunisia, Greece, Nigeria, Austria, Luxembourg, Andorra, Bahrain, Israel, Malta, New Zealand, Palestine, Guatemala, Burkina Faso, Yemen, Serbia and Montenegro, Zambia, Ethiopia, and Rwanda.

[vi] For other countries, we exclude survey years due to large missing data problems. This exclusion does not negate however, the validity of the research findings: when we included these survey years, the results do not change qualitatively. The country-years excluded are: Armenia (1997), Turkey (2001), Germany (1990, 1999), Azerbaijan (1997), Poland (1990, 1999), Norway (1982, 1990), Mexico (1981), Spain (1990, 1999), Slovenia (1992, 1999), Russia (1990, 1999), Columbia (1997), Britain (1990, 1999), Finland (1981), South Africa (1990), and USA (1982, 1990).

[vii] Note that the original coding is extended with relatively more denominational options (i.e., different religious denominations) than what is inscribed on the survey questionnaires. We therefore focus on the 7 major religions or denominations. Amongst other denominations, some respondents fall in similar sub-religious group. We recode them, adding together respondents

who belong to similar religion irrespective of how they are sub-grouped. For this reason, we consider "Roman Catholics" and "Catholics but do not follow rules" as "Catholics". Similarly, "Shia" or "Sunni" Muslims are added to the "Muslim" category.

[viii] CIA: https://www.cia.gov/library/publications/resources/the-world-factbook/

[ix] See for example Cornwall (1998).

[x] PEW Research Center: Religion and Public Life. April 5, 2017.

(http://www.pewforum.org/2017/04/05/the-changing-global-religious-landscape/)