



# IN GOD WE TRUST

How Religious Beliefs Affect Economics

By Patricia Houlihan

For a century, economists, sociologists, and political scientists have taken turns asking why some countries prosper while others remain mired in poverty. Protestant countries nearly always surpass Catholic countries, while Islamic countries invariably land at the bottom of the economic ladder—important history for Americans trying to establish a market democracy in Iraq. New research by [Luigi Zingales](#) explains how the link between religion and economics makes it such an enormous struggle.

# Zingales by the Numbers: Results by Religion

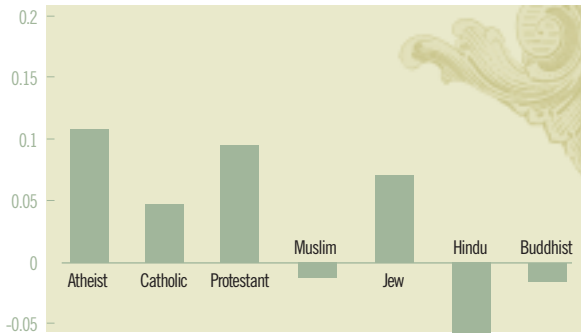


Figure 1: Trust toward People

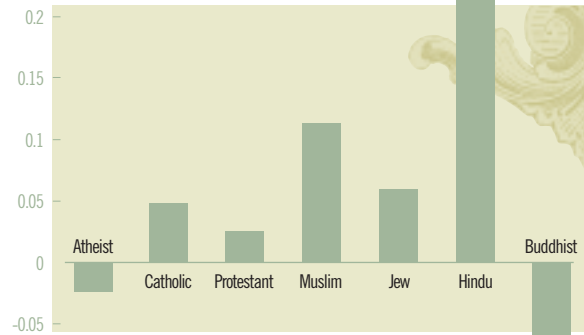


Figure 2: Intolerance

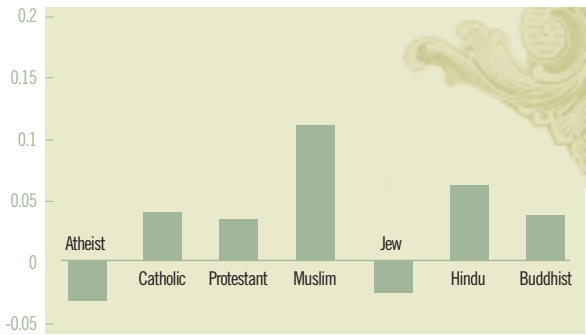


Figure 3: Discrimination against Women

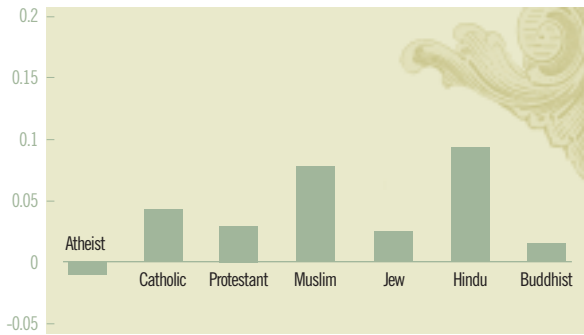


Figure 4: Trust in the Government

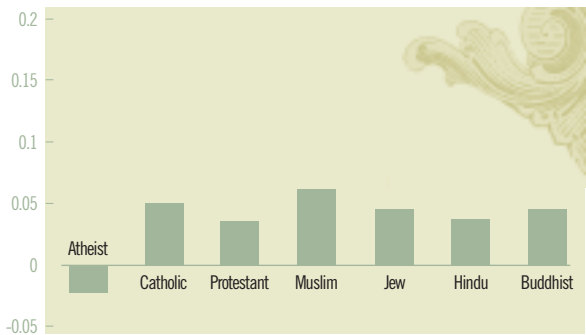


Figure 5: Trust in the Legal System

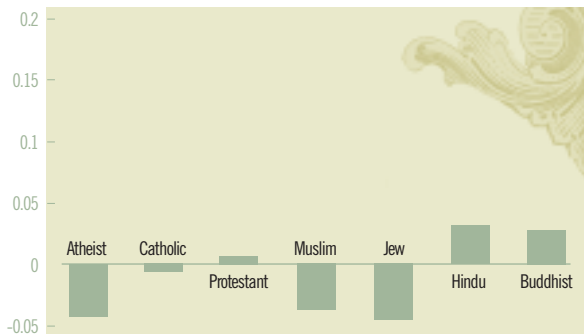


Figure 6: Accept Inequality for Incentives

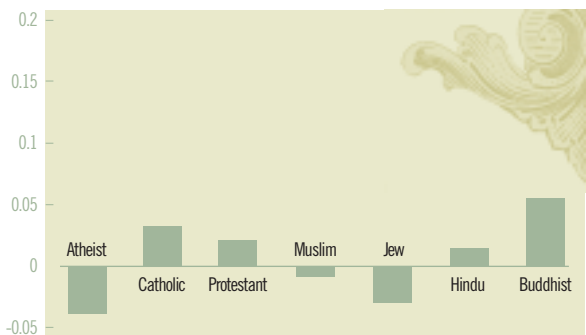


Figure 7: Private vs. Public Ownership

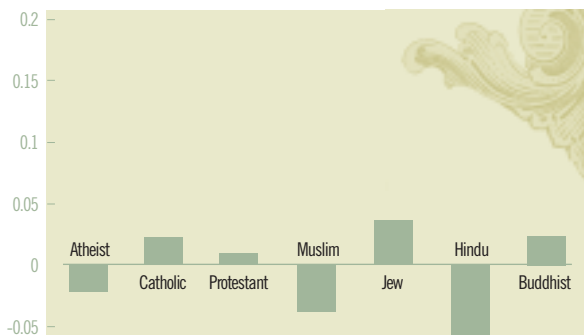


Figure 8: Is Competition Good?

**Categorically Speaking:** Zingales’s research suggests a link between religions and economic attitudes. For ease of comparison, the authors normalized to zero the average response, so the values reported on the y-axis should be interpreted as percentage deviations from the mean.

Zingales, Robert C. McCormack Professor of Entrepreneurship and Finance, said the key to finding the link is to focus on the differences in religions within countries, not between them. He is the coauthor of a new study, “People’s Opium? Religion and Economic Attitudes,” with Luigi Guiso of the University of Sassari, Italy, and Paola Sapienza of Northwestern, that examines survey results from 100,000 people around the world. When it comes to the values important for economic development to take hold, researchers say, Muslims around the world fall on the low end of the scale. They trust others less, are more intolerant of others, discriminate against women more, and support private ownership less than the average person.

This could be troubling news for countries where Islam is the dominant religion, Zingales said. “I think the worrisome message for the United States is that creating a market democracy in Iraq is much more difficult than politicians anticipated.”

What may help is additional education. “If you’re educated, you understand the role of incentives. Even if you think equality is more important, once you study a little bit of economics, you understand it’s important to create incen-

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tives even at the cost of giving up some of that equality.

“Of course, that kind of education takes a lot longer than six months,” Zingales said.

Another tool in the rebuilding of Iraq that will help compensate for low levels of trust is legal enforcement. “In countries where cheating on taxes or taking a bribe is not considered too bad, you want to invest more in law enforcement and increase the level of punishment,” he said.

#### A Different Approach

While research on the question of religion and economics is not new—it dates back a century to German sociology pioneer Max Weber—the approach that Zingales and his

coauthors take is new. Traditional studies were saying, “Since on average, Turks are less promarket than Americans, we conclude that Muslims are less promarket than Protestants.” The problem with this approach, Zingales said, is that Turkey and the United States differ in many dimensions and it is hard to disentangle which one causes the difference in attitude.

“Instead, we look within Turkey and within the United States, as well as 53 other countries. How do a Muslim and a Catholic compare within Turkey? How do they compare within the United States? What we see is that within Turkey, the person who claims to be Catholic is a little bit more promarket than the person who claims to be Muslim, and the same is true within the United States and in a lot of other countries. Since this method controls for every country’s characteristics, it’s very difficult to attribute this to other factors,” Zingales said.

Zingales and his coauthors used data from the World Values Survey, a collection of questionnaires about individuals’ basic values and beliefs that were administered between 1981 and 1997 by the Institute for Social Research of the University of Michigan. This data set allowed them to use such demographics as age, income, and social class to control for possible confounding effects. “In France, Muslims tend to be immigrants, and as such, poorer,” he said. “We wanted to be able to distinguish whether their attitudes were driven by being Muslim or by being poor.”

The World Values Survey also enabled researchers to see which religions were dominant in each country. “We find that generally,

the effect of belonging to the dominant religion tends to attenuate many of the impacts of religion except for tolerance,” Zingales said. “If you belong to the dominant religion, you tend to be intolerant. If you are a member of a minority religion, you tend to be more tolerant.”

In selecting data, the authors focused on attitudes they believe have a significant impact on economics. For example, they said, trust is relevant for economic growth, attitudes toward women affect their labor market participation, and attitudes toward government influence political stability (which economists have deemed important for growth and investment). They also considered attitudes toward law, which illustrate a country’s law-and-order tradition (which in turn

affects financial development and growth), and pro-market policies because economists believe they favor growth, Zingales said. Overall, increased mutual trust, respect for the law, and willingness to endure sacrifices for a better future are qualities associated with a higher level of economic development.

Zingales and his coauthors also opted to focus on a person's attitude rather than on his or her economic situation or actions. "Asking somebody his view of cheating on taxes is different from asking him if he has cheated on his taxes," the researchers wrote. "The decision of whether to actually cheat is affected greatly by the probability of being caught. This is a function of a country's law enforcement, not of an individual's attitude." Instead, Zingales said, "We focused on the willingness to do certain things—to cheat on taxes, to not pay the bus fare—because that's closer to what religion can drive."

**“Religious beliefs might explain why capitalism spread so successfully in East Asia...while it hasn’t penetrated the Islamic countries.” —Luigi Zingales**

Although some economists are uncomfortable using survey data, worried that people will lie or respond carelessly, Zingales and his coauthors correlated answers with other individual characteristics. They found the results “surprisingly consistent,” he said. “For example, richer people tend to declare themselves less likely to break the law. But there are two exceptions: they’re more likely to cheat on taxes and more willing to accept bribes.”

To look for a cause-and-effect relationship between religiousness and attitude, Zingales and his coauthors conducted an experiment using the Second Vatican Council as a framework. The conferences held by the Roman Catholic Church from 1962 to 1965 resulted in changing the Mass from Latin to vernacular languages and set the stage for more open relationships between the Church and other denominations. “Vatican II represented a major shift in doctrine,” Zingales said. “By looking at the responses of individuals to such a change, we could tell whether it is the religious doctrine that drives these effects or not. To do so, we

employed what economists call the ‘double difference approach.’ We compared the difference between Catholics born before and after 1961 with the difference between Protestants or Jews born before and after that date. In this way, we could separate the effect of a generic generational change from the effect of a change in the Catholic doctrine. And what we found was that Vatican II had an impact on making Catholics more tolerant, but also less pro-market. That corresponds with one common viewpoint that Vatican II was a movement to the left for the Church.”

**Measured Responses**

The depth of the questionnaire allowed researchers to measure the fervor of a respondent's faith as well as differences between Roman Catholics, Protestants, Muslims, Hindus, Jews, and Buddhists. Overall, the effect of religiousness on economic development is good, they concluded. Religious people trust others more, trust the government and the legal system more, are less willing to break the law, and are more likely to believe that markets' outcomes are fair. “Yet,” researchers wrote, “religious people tend to be more racist and less favorable with respect to working women.”

But researchers found that the effect of religion differed depending on whether individuals were brought up religiously, whether they attended worship services, and how often they did so. “Trust toward others is associated mostly with religious participation, not religious upbringing,” they wrote. “By contrast, intolerance is mostly an outcome of being raised religiously. Active churchgoers are not more intolerant toward immigrants than the rest of the population (but not less either) and they are less sympathetic to women's rights. Finally, both a religious upbringing and active religious participation increase trust toward government institutions.”

Zingales and his coauthors conclude that religious beliefs seem to strengthen people's faith in government institutions and in markets. But religion's impact on mutual cooperation is decidedly mixed, he said. “Christian religions fare the best—or the least bad—in terms of their impact on cooperation,” he said. “Hinduism and Islam fare the worst, while Buddhism is mixed.”

Hinduism and Islam are best at promoting trust toward government institutions, while Christian religions do the

worst and Buddhism is mixed, the study says. Finally, Buddhism seems to promote the best attitudes toward the free-market system, although Christian religions come in second behind Buddhism, Zingales said. “The definite laggards are Islam and Hinduism. Between Catholics and Protestants,” he added, “the ranking is more mixed. Protestants are more willing to trade some equality for better incentives, but they are less favorable to competition and private property than Catholics are.

“That means it’s difficult to attribute the greater economic success of Protestant countries to their religion.”

The study may have particular resonance for policy makers around the world. “Religious beliefs might explain why capitalism spread so successfully in East Asia, where Buddhists prevail, while it hasn’t penetrated the Islamic countries,” Zingales said.

One question the research team could not answer was, What creates the doctrine of a religion? “For example, much of the Islamic religious doctrine was developed between the ninth and eleventh centuries in Arab countries in a political environment aimed at preserving the status quo,” Zingales said. “Elements of this doctrine might have survived in the religious teaching of the American Muslim.”

It would make sense for successive research to link attitude with outcome, Zingales said. “Does someone’s attitude toward savings correlate with lower savings, for instance?” he said. “We’d like to determine the correlation. That would be closing the circle.” ■

**ON THE WEB** To read the paper, “People’s Opium? Religion and Economic Attitudes,”

or to learn more about Zingales’s research, visit [gsbwww.uchicago.edu/news/gsbchicago/facultylinks.html](http://gsbwww.uchicago.edu/news/gsbchicago/facultylinks.html).

## Around the World: A Matter of Faith

The World Values Survey identified the religious beliefs of the majority of people in 55 countries between 1981 and 1997. Belonging to the dominant religion in a country attenuates many of the impacts of religion, according to research by Luigi Zingales, Luigi Guiso, and Paola Sapienza.

COUNTRY	DOMINANT RELIGION	COUNTRY	DOMINANT RELIGION
Argentina	Catholic	Italy	Catholic
Armenia	Other affiliations	Japan	No religious affiliation
Australia	Protestant	Latvia	No religious affiliation
Austria	Catholic	Lithuania	Catholic
Azerbaijan	Muslim	Macedonia	Other affiliations
Bangladesh	Muslim	Mexico	Catholic
Belarus	Other affiliations	Moldova	Other affiliations
Belgium	Catholic	Montenegro	Other affiliations
Bosnia	Muslim	Netherlands	No religious affiliation
Brazil	Catholic	Norway	Protestant
Britain	Protestant	Peru	Catholic
Bulgaria	No religious affiliation	Poland	Catholic
Chile	Catholic	Portugal	Catholic
Colombia	Catholic	Puerto Rico	Catholic
Croatia	Catholic	Romania	Other affiliations
Denmark	Protestant	Russia	No religious affiliation
Dominican Rep.	Catholic	Serbia	Other affiliations
Estonia	No religious affiliation	Slovenia	Catholic
Finland	Protestant	South Africa	Protestant
France	Catholic	Spain	Catholic
Georgia	Other affiliations	Sweden	Protestant
Germany (East)	No religious affiliation	Switzerland	Catholic
Germany (West)	Protestant	Turkey	Muslim
Hungary	Catholic	Ukraine	Other affiliations
Iceland	Protestant	United States	Protestant
India	Hindu	Uruguay	No religious affiliation
Ireland	Catholic	Venezuela	Catholic
Ireland (Northern)	Protestant		

Source: The World Values Survey