Religion and Venture Investing: A Cross-Country Analysis[1]

Min Maung[2]

Zhenyang Tang[3]

Xiaowei Xu[4]

Abstract

Using a sample of 56 countries over the 2000-2016 period, we document lower levels of venture capital investments in more religious countries. These results are not specific to any primary religion. Furthermore, we show that the negative relation between religiosity and venture investing mainly stems from risk aversion inherent in religiosity. Our results are unlikely driven by economic clout, as we show more religious countries in fact have higher levels of domestic credit or non-financial investments, despite lower levels of venture investments. We also present several findings consistent with risk aversion. Venture investments in more religious countries are more likely to have successful exits and are less likely to be foreign or early-stage deals. Our results are robust to different measures of venture investments and religiosity, and to alternative specifications that account for endogeneity.

JEL Code: G18; G24; Z12

Keywords: venture capital, risk aversion, religion, religiosity

1. Introduction

Venture capitalists are a group of financial intermediaries that specialize in high-risk investments in start-up firms (Gompers, 1995). They have been shown to play an important role in funding innovation, which could potentially affect a country's long-term technological and economic growth (Hellmann and Puri, 2000; Kortum and Lerner, 2000; Samila and Sorenson, 2011). The level of venture investing exhibits substantial variation across countries; however, studies on the determinants of such variation have been limited (Jeng and Wells, 2000). In this study, we investigate how religion, or the level of religiosity, in particular, affects venture investing.

Religion is universally present in almost all societies; many differences in legal systems and culture across countries can find their roots in religion (North, Orman, and Gwin, 2013). Although how religion affects economic growth has been extensively studied (see Weber, 1930; Landes, 1998; Barro and McCleary, 2003; Guiso, Sapienza, and Zingales, 2006), studies on religion and financial investments are much more recent. Hilary and Hui (2009), Benabou, Ticchi, and Vindigni (2015), Jiang, Jiang, Kim, and Zhang (2015), Adhikari and Agrawal (2016), and Chircop, Johan, and Tarsalewska (2019) find that firms located in more religious locations or with religious CEOs invest less, especially in risky and innovative projects.

Why does religion affect financial investments? The literature attributes it to the close connection between religion and risk-taking. Stark and Bainbridge (1987) and Stark, Iannaccone, and Finke (1996) argue that being religious per se can be viewed as a rational and risk-averse decision. A risk-averse person is willing to forego certain contemporaneous rewards and pleasures in life to avoid the risk of afterlife punishment such as going to hell (Miller and Hoffman, 1995). Empirically, the close connection between risk aversion and religiosity has been documented in many studies, such as Hilary and Hui (2009) and Noussair, Trautmann, Kuilen, and Vellekoop (2013). In addition to the greater risk aversion shared by the general religious population, certain religions may further instill risk attitudes through teachings and socio-economic institutions. For example, gambling is strictly forbidden in Protestantism but not in Catholicism, which results in greater risk tolerance of Catholics over Protestants (Kumar, Page, and Spalt, 2011; Adhikari and Agrawal, 2016). While the effect of religiosity or religious intensity (regardless of whether a religious person is, say, Protestant or Catholic) on risk-taking is

negative, the effect of religion on risk-taking could be either positive or negative depending on the religion. Thus, it is important to distinguish religiosity from primary religions; as Guiso, Sapienza, and Zingales (2006) point out, it is the intensity of religious beliefs or religiosity that affects economic attitudes.

We postulate that, due to the greater inherent risk in VC investing, risk aversion embedded in religiosity can affect venture investments to a greater extent compared to other investments (Ruhnka and Young, 1991; Gompers and Lerner, 2001; Cumming, Fleming, and Schwienbacher, 2005). While it is true that a vast majority of venture investments are concentrated in risky industries,[5] this is not the only source that could contribute to the riskiness. Venture capitalists usually have limited historical financial information about the start-ups, and gathering information is costly (Groh, von Liechtenstein, and Lieser, 2010). Venture capitalists also have limited information about the growth potential of the firm and the founding entrepreneur's ability (Berger and Frame, 2007; Berger and Udell, 1998). Hence, unlike their more established counterparts, venture firms contain higher adverse selection and agency costs (Cumming and Johan, 2013; Hain, Johan, and Wang, 2016), and are riskier.

In general, VC investors are risk-tolerant. At the personal level, risk aversion may not deter certain individuals from investing in venture capital provided that these investors are properly rewarded. Much of the VC literature has also been devoted to studying the trade-off between VC risk and return, and mechanisms to mitigate these risks. However, in aggregate, societies or countries that are comprised mainly of risk-averse individuals may see a disproportionately low share of venture investments. Hence, the levels of venture investments may be disproportionately low in more religious countries.

We analyze venture investing in 56 countries from 2000 to 2016 and find that both the number and the dollar value of venture capital investments are significantly lower in more religious countries. In contrast, the effect of a country's primary religion on venture investing is not always significant. This negative association between religiosity and venture investing may come from reduced entrepreneurial activities that demand less venture funds, which we define as the demand effect, and/or lower investor willingness to supply funds available

---

[5] According to the National Venture Capital Association Handbook (2016), for instance, almost 70% of the venture investments in 2015 were directed towards Information Technology and related industries.

for venture investments, which we define as the supply effect. We show that our results likely come from both the supply and demand effects.

We next investigate the mechanism behind these results. Our findings suggest that religiosity affects venture investing through the channel of risk aversion. We also find mixed evidence for attitudes towards science and technology[6] but do not find support for other potential mechanisms such as investor protection, tax, or trust. Further, we examine the secularization hypothesis, an important alternative explanation which argues that economic development reduces citizenry's level of religiosity. We show that although more religious countries have less venture investing, their overall investment levels are higher. The negative relationship between religiosity and venture investing remains strong when we only analyze developed countries. All these results suggest that our results are unlikely driven by economic clout in more developed countries. Finally, we show that venture investments in religious countries tend to be less risky: they are less likely to be cross-border or early-stage investments and are more likely to end with successful exits. This finding is consistent with a recent US study by Chircop, Johan, and Tarsalewska (2019) which indicates that firms located in religious US counties make more conservative investments. Overall, our results support the view that religiosity has a negative impact on venture investing through the channel of risk aversion.

We make two contributions to the literature. First, this paper helps better understand the role of religion in a country's economic growth. The previous literature largely discusses how religiosity promotes ethics and trust and is thus conducive to higher productivity and growth (Weber, 1930; Barro and McCleary, 2003; Guiso, Sapienza, and Zingales, 2006). However, Benabou, Ticchi, and Vindigni (2015) argue that religiosity may have a negative impact on long-term growth by discouraging innovation. We are the first to document the negative impact of religiosity on venture investing in a large cross-section of countries. Although venture investing serves as an alternative to bank credit and other forms of financing (Maier and Walker, 1987), it is fundamentally different as it provides guidance and resources to help nurture innovation (Timmons and Bygrave, 1986). In this

---

[6] Religion also shapes citizenry's attitudes towards science and technology (Scheufele, Corley, Shih, Dalrymple, and Ho, 2009; Benabou, Ticchi, and Vindigni, 2015), an important determinant of venture investing.

regard, our findings support Benabou, Ticchi, and Vindigni (2015) that religiosity may be detrimental to innovation and long-term economic growth.

Second, we identify the mechanism behind the relationship between religion and venture investing, which has been elusive in the literature. Religion is a complex social phenomenon that consists of a set of values, rules, and norms. Effects of religion may stem from common traits shared by all religious followers, or religion-specific traits such as investor protection (Stulz and Williamson, 2003), gambling attitudes (Kumar, Page, and Spalt, 2011; Adhikari and Agrawal, 2016), and tax (Poterba, 1989). Our results suggest that it is the common religiosity across all religions that matters in venture investing; hence, our study supports the argument by Guiso, Sapienza, and Zingales (2006) that economic attitudes are affected by the *intensity* of religious beliefs. Further, we find that risk aversion explains our results better than other mechanisms such as trust. We also present evidence that our results are not likely driven by economic clout, which potentially affects religiosity.

The rest of the paper is organized as follows. Section 2 reviews the previous literature. Section 3 describes our data and methodologies. Section 4 reports our empirical results. In Section 5, we discuss our results and conduct robustness analysis, and Section 6 concludes the paper.

2. Literature review

2.1 Religion, religiosity, and risk aversion

Studies of religion could offer insight into how beliefs, norms and values, morals, and culture could affect economic attitudes and activities (Iannaccone, 1998; Barro and McCleary, 2003). In studies relating to economics and finance, religion has long been considered an important cultural variable. La Porta, Lopez-de-Silane, Shleifer, and Vishny (1999) use religion as a proxy for culture and show that predominantly Protestant countries have better governments than Catholic and Muslim countries. Stulz and Williamson (2003) claim that Catholic culture, owing largely to its anti-usury provisions, provides less protection to creditors' rights compared to Protestant culture. It has also been noted that religious people trust the government and the legal system more and are less willing to break the law (La Porta, Lopez-de-Silane, Shleifer, and Vishny, 1999). However, other studies

pertaining to the relationship between trust and religion yield mixed results (Guiso, Sapienza, and Zingales, 2006; Berggren and Bjørnskov, 2009; Welch, Sikkink, Sartain, and Bond, 2004).

Some of the earliest theoretical works relating religiosity to risk preferences could be attributed to Miller and Hoffmann (1995) and Stark, Iannaccone, and Finke (1996). Religious acceptance, according to authors, could be considered a risk-averse behavior because one has "nothing to lose" by believing in God. Relating to corporate decision making, Hilary and Hui (2009) find that firms located in religious locations make risk-averse financial decisions. Noussair, Trautmann, Kuilen, and Vellekoop (2013) provide similar results that measures related to religiosity such as church membership and church attendance affect risk aversion.

Although religion may be passed on from one generation to another, it is also often the case that certain people are more predisposed to embracing a religion than others. In general, the fear of the unknown drives people to accept religion. This argument was put forth by Malinowski (1925) who claims that religiosity is related to a desire to control those things that cannot be controlled and is also a way of dealing with the fear of death. Religious beliefs are desirable because one has nothing to lose by believing in God but potentially much to gain (an argument known as Pascal's wager). In this spirit, Miller and Hoffman (1995) argue that the acceptance of religion is risk-averse behavior.

2.2 Risk and the supply and demand of venture capital

VC investments target start-up firms and hence are riskier than investments in publicly traded firms (Schilit, 1993). For instance, Liles (1977) finds that the proportion of "winners" in VC investment is lower than that of "losers" and returns for those that are marginally profitable are low compared to their risks. The risks include portfolio betas and certain characteristics such as small size and financial structure (Cochrane, 2005), and the liquidity risk associated with the failure to exit (Cumming, Fleming, and Schwienbacher, 2005). Consistent with the traditional risk-return trade-off theory, the authors find that the required returns for early-stage investments are significantly higher than those for other stages.

While it is plausible that investors may employ strategies to reduce venture risks and require higher returns, it remains unclear how risk, and aversion thereof, would affect the demand and supply of venture funds. To the

extent that VC investors are properly rewarded for taking on additional risk, personal risk aversion seems rather unimportant from the individual perspective. However, systematic risk aversion in aggregate is analogous to imposing some institutional framework that hampers the growth of the industry. Bruton, Ahlstrom, and Puky (2009), among others, propose the importance of what could be considered "institutional framework" (page 764), which includes "rules, regulations, norms, values, and taken-for-granted assumptions about what constitutes appropriate behavior (Scott, 2002)."[7] Hence, VC behavior in different countries could be attributed to, among others, differences in normative, cognitive, and regulatory institutions in each country (Busenitz, Gomez, and Spencer, 2000). Given the growing importance of the venture capital industry, how risk aversion may affect demand and supply of aggregate venture capital is important from a policy standpoint.

The VC literature suggests that entrepreneurs of start-up firms rely extensively on funding provided by venture capitalists.[8] Hence, to a large degree, the demand for venture funds is highly correlated with entrepreneurship activities. Several factors affect people's decision to start businesses (e.g., see Henrekson and Sanandaji, 2017), and these factors include both financial and non-financial goals such as prestige (Baumol, 2002), and cultural and psychological factors such as a desire to gain social recognition and media attention (Schumpeter, 1934; Henrekson and Sanandaji, 2017). Eberhart, Eesley, and Eisenhardt (2017) argue that failed entrepreneurs are shunned in some societies, creating heightened uncertainties for potential entrepreneurs. Therefore, the risk for entrepreneurs is not only limited to financial losses but also includes perceived stigma associated with the failed ventures. For risk-averse individuals, starting a new venture is less desirable than other career options such as being employed elsewhere. Hence, an aversion to risk negatively affects entrepreneurial activities (Audretsch, Bonte, and Tamvada, 2013) and this, in turn, reduces the demand for venture funds.

Risk aversion by venture capitalists also affects the supply of venture capital funds. Bodnaruk and Simonov (2016) show that managers with high loss aversion are more likely to self-select to be employed by

---

[7] Institutional theory suggests that actions by economic agents in an industry may correspond to practices generally accepted in that industry, and these practices may not be most economically efficient (Bruton, Fried, and Manigart, 2005).

[8] These are usually smaller firms with high information asymmetry problems and few tangible assets (Gompers and Lerner, 2001). Hence, debt financing is not a viable option for most of these firms.

funds that seek low-risk investments (e.g., fixed income and balanced funds).The authors find that, after controlling for age, gender, and other characteristics, funds run by managers with higher loss aversion have significantly lower downside beta. In addition, institutional investors such as pension funds are funded by members' contributions, and risk-averse members are also likely to self-select to contribute to funds that do not engage in lottery-type investments.[9] Although we do not have data on religiosity of contributors to these funds or the religiosity of fund managers, we generalize that, all else being equal, countries where religiosity is widespread will experience lower levels of contributions to funds that engage in risky investments such as venture funds. We also expect that risk-averse fund managers will limit the downside risk by limiting their funds' exposure to risky investments. Combined, the supply of venture funds in religious countries will be lower.

3. Data and methodology

3.1 Sample

Our sample includes global venture investment activities from 2000 to 2016. We obtain data on venture capital firms and portfolio firms (enterprises) from SDC VentureXpert. Following Brander, Du, and Hellman (2015), we restrict our sample to companies that received the first round of investments between 2000 and 2016 inclusive, because SDC VentureXpert has only limited international coverage before 2000. Considering that the database may have disproportionately good coverage for venture activities in the United States, we exclude all US companies that received VC financing during the sample period to make sure that our results are not biased by any one country.[10] We then extract the number and dollar amount of venture investments as well as venture capital and portfolio firm information.

We identify a country's primary religion using the 2000 CIA World Factbook as in Stulz and Williamson (2003). We measure a country's degree of religiosity using survey results from World Value Surveys (WVS).[11]

---

[9] It may as well be that not all ventures carry the same type of risk: some ventures (such as biotech) may indeed be riskier than other types. However, we do not make this distinction in this paper. Our focus is on venture versus other types of financing.
[10] This is similar to Nahata, Hazaruka, and Tandon (2014). Including the US in our analysis does not change our main results.
[11] Other researchers have also used religion-related data from the World Value Surveys. They are, among others, Barro and McCleary (2003), Guiso, Sapienza, and Zingales (2006), and Hilary and Hui (2009).

Each wave conducts national surveys of basic values and beliefs of individuals from representative samples. For each WVS wave, respondents[12] in sample countries are asked the question of how important religion in their lives is. The responses range from "very important" to "not important at all." We consider those responding "very important" and "rather important" as religious. A country's religiosity is defined as the percentage of respondents answering that religion is very important or rather important in their lives. To match with our venture capital dataset period of 2000 to 2016, we use the WVS wave 4 (1999-2004), wave 5 (2004-2009), and wave 6 (2010-2014). We use the religiosity data from wave 6 for the remaining years (i.e., 2015 and 2016) of our venture capital dataset. For waves 4-6, the religiosity data are available for 40, 57, and 60 countries, respectively.[13]

We merge SDC VentureXpert data with the religion data and then apply two criteria. First, we only include countries that have had at least one cross-border venture transaction throughout the sample period. By transaction, we mean a country either invested in or received investments during the sample period. Second, we drop countries with fewer than 15 enterprises that received venture investments during our sample period. After applying these two criteria, our final sample consists of 56 countries with available religion and VC data. We report the religiosity and primary religion of these countries in Panel A of Table 1.[14]

[Insert Table 1 about here]

3.2 Variables

For the most part of the paper, the dependent variables are the dollar amount and the number of venture investments in each country. Specifically, we aggregate the total amount and number of VC investments made to all enterprises in a country each year. To account for the size of the economy, we divide the dollar amount of venture investments by the country's GDP and then multiply the ratio by 1,000.

Our main independent variable is *Religiosity*, the country-level religiosity variable as defined in Section

---

[12] In wave 6, for instance, more than 80 thousand people from 60 countries responded to the question. The lowest number is 841 (New Zealand) and the highest number is 3,531 (South Africa). The number of respondents generally ranges between 1,000 and 2,000.

[13] Countries such as Austria, Belgium, Denmark, Greece, Ireland, Israel, Luxemburg and Portugal are not covered in the WVS surveys. For robustness, we use the Gallup survey (which covers more countries) and obtain similar results.

[14] Some countries/regions in our sample may serve as offshore financial centers for other countries/regions. For example, VCs headquartered in Singapore or Hong Kong may invest on behalf of investors from China. Removing offshore financial centers (defined by the IMF) from our sample does not affect our results.

3.1. To separate the effect of religiosity from religion, we control for primary religions: Catholic, Muslim, and Protestant. Our control variables include legal origin, GDP, market capitalization, foreign trade, IPO activities, GDP growth, interest rate, accounting standards, R&D expenses, tax, and education. The legal origin data are obtained from La Porta, Lopez-de-Silane, Shleifer, and Vishny (1999) and Djankov, McLiesh, and Shleifer (2007). We use a dummy variable *Legor UK* to denote the British legal origin of a country. *GDP* is the log of GDP per capita of enterprise countries. Market capitalization is the ratio of market capitalization to GDP. Foreign trade is defined as the sum of exports and imports of goods and services measured as a share of GDP. IPO activities are measured using both the total dollar value and the total number of all IPO issues in the country each year. We control for the annual growth rates of both aggregate GDP and GDP per capita for all countries. The interest rate is the percentage real interest rate. Accounting standards (*CIFAR*) are measured by an index created based on companies' 1990 annual reports on their inclusion or omission of 90 accounting items, from the Center for International Financial Analysis Research. The same index has been used by Jeng and Wells (2000). R&D expenses are measured by total research and development expenditure as a percentage of GDP. Tax is the taxes on income, profits and capital gains, as a percentage of total taxes. Education is a country's tertiary school enrollment rate. We report a list of detailed variable definitions and data sources in Online Appendix A.[15]

We report descriptive statistics of these variables in Panel B of Table 1. Average religiosity across the sample countries is 64.3%. Religiosity displays widespread variations: the lowest religiosity is 11.8% (China) and the highest is 99.9% (Egypt). Catholic, Muslim, and Protestant make up approximately 75% of country samples. In untabulated results, we find that the distribution of religions does not vary much between countries that make or receive venture investments. However, countries of certain religions are more active in VC activities. Protestants, as an example, are likely to be investors as much as they are likely to be investees.

We report the correlation matrix of our key variables in Online Appendix B. Religiosity is negatively correlated with both measures of venture investing. We also see a strong and negative correlation between religiosity and GDP, suggesting that we need to account for economic development in less religious countries.

---

[15] All online appendices are available at the journal webpage.

Protestant (Muslim) countries, on average, are less (more) religious. In untabulated tests, we calculate the Variance Inflation Factor (VIF) values when all these variables are included to assess the likelihood of multicollinearity. The highest VIF value is 4.47, a number that is well within an acceptable level.

3.3 Methodology

Our base model is as follows:

Venture Capital Investment $_{it}$ = α + β RELIGIOSITY $_{it}$ + γ Primary Religions $_{it}$ + λ^j controls $_{j,it}$ + ε$_{it}$ (1)

The dependent variable is the dollar amount of venture investment in country i at year t scaled by its GDP. *Religiosity* is the enterprise country's religiosity. Primary religions are dummies indicating whether a country is predominantly Catholic, Protestant, or Muslim. *CONTROLS* denote enterprise-country control variables discussed in Section 3.2. We include year dummies and cluster the standard errors by the enterprise country. Our two dependent variables are not normally distributed. VC investment amount is left-censored at 0; hence, we report results using Tobit models. The number of VC investments is a discrete count data, which exhibits over-dispersion. Hence, we use negative binomial models.[16] Our results are robust to the use of OLS models.

We continue to investigate whether religiosity affects the supply or the demand for venture capital. This can help identify the mechanism behind religiosity. For example, if religiosity affects venture investing through enhanced trust, then we should expect greater investor willingness to provide capital to start-ups, but not necessarily greater entrepreneurial activities (i.e., the demand for venture capital). Following Gompers and Lerner (1998) and Jeng and Wells (2000), we identify factors that affect the demand and supply of venture capital. Determinants of VC demand include IPO activities, GDP growth, accounting standards, R&D expenditure, taxes, and education. Gompers and Lerner (1998) argue that IPO activities are essential for entrepreneurial activities. GDP growth may proxy for economic fluctuation, which affects start-up activities (Audretsch and Acs, 1994). Good accounting standards reduce information asymmetry and hence increase venture capitalists' willingness to invest in portfolio firms; it may benefit both the supply and demand of venture investments (Jeng and Wells,

---

[16] Although Poisson regression could accommodate zero values of dependent variables, it cannot accommodate over-dispersion. When the Poisson model is used, we find large and significant Chi^2 values, indicating that the Poisson model is not appropriate for our data.

2000). R&D expenditure measures entrepreneurial activities in start-ups and is likely associated with the demand for investments (Gompers and Lerner, 1998). Low capital gains taxes induce people to become entrepreneurs (Poterba, 1989; Gompers and Lerner, 1998), which increases the demand for venture capital. Education provides high-quality labor, which benefits start-ups (Jeng and Wells, 2000). Determinants of VC supply include IPO activities, interest rates, and accounting standards. Jeng and Wells (2000) argue that IPO activities are the most important determinants of venture capital supply, because the main risk involved in venture investing is not getting the investment back. Interest rate affects how attractive alternative investments are, and therefore investors' willingness to supply capital for venture investments (Gompers and Lerner, 1998). We also include GDP, market capitalization, trade, and legal origin as control variables.

We use 3-stage estimation for systems of simultaneous equations to estimate the supply and demand equations listed below:

$$VC\ Demand_{it} = \alpha^D + \beta^D\ Religiosity_{it} + \gamma^D\ Primary\ Religions_{it} + \lambda^{jD}\ Demand\ Determinants_{j,it} + \varepsilon^D_{it} \quad (2)$$

$$VC\ Supply_{it} = \alpha^S + \beta^S\ Religiosity_{it} + \gamma^S\ Primary\ Religions_{it} + \lambda^{jS}\ Supply\ Determinants_{j,it} + \varepsilon^S_{it} \quad (3)$$

In equilibrium, $VC\ Demand_{it} = VC\ Supply_{it} = Venture\ Capital\ Investment_{it}$ in equation (1). In both equations, we use the dollar value and the number of venture capital investments as the endogenous variables. In the demand equation, the exogenous variables are IPO activities, GDP and GDP per capita growth, accounting standards, R&D expenditure, capital gains tax, and education. In the supply equation, the exogenous variables are IPO activities, interest rates, and accounting standards. Other common exogenous variables are GDP, market capitalization, trade, and legal origin.

In the next step, we use a mediation model to further investigate the channels through which religiosity may affect venture investing. For a factor to be a valid channel (i.e., a mediator variable), it should influence venture investing and be influenced by religiosity in a significant way. Following the methodology proposed by Baron and Kenny (1986), we estimate the following equations:

$$Venture\ Capital\ Investment = \alpha_0 + \alpha_1 Religiosity + \alpha_2 Controls + \eta \qquad (4)$$

$$Mediator = \beta_0 + \beta_1 Religiosity + \beta_2 Controls + \varepsilon \qquad (5)$$

$$Venture\ Capital\ Investment = \gamma_0 + \gamma_1 Religiosity + \gamma_2 Mediator + \gamma_3 Controls + \xi \quad (6)$$

If religiosity affects venture investing through the mediator, the coefficient of religiosity should be less significant in equation (6) than in equation (4), when the mediator is controlled for. The indirect mediator effect is thus $\beta_1\gamma_2$, and we can test its statistical significance using the Sobel z-score, which is equal to $\beta_1\gamma_2/\sqrt{\beta_1^2\sigma_{\gamma_2}^2 + \gamma_2^2\sigma_{\beta_1}^2}$ (Sobel 1982).

We examine possible mechanisms behind religiosity based on the literature. A number of studies suggest that risk aversion is a valid mechanism (Hilary and Hui, 2009; Kumar, Page, and Spalt, 2011; Noussair, Trautmann, Kuilen, and Vellekoop, 2013; Adhikari and Agrawal, 2016). Other studies find that religiosity can also reflect ethics and trust (Weber, 1930; Barro and McCleary, 2003; Guiso, Sapienza, and Zingales, 2006), investor protection (Stulz and Williamson, 2003), tax (Poterba, 1989), and attitudes toward science and technology (Benabou, Ticchi, and Vindigni, 2015). We measure risk aversion using the WVS survey items A195 (importance of venture and taking risks) and E047 (worry or welcome possibility related to changes). The attitude toward technology is measured by the WVS items E219 (do science and technology make our way of life change too fast), E220 (do we depend too much on science and not enough on faith), and E234 (the world is better off/worse off without science and technology). The investor protection measure is the shareholder and creditor protection indices from La Porta, Lopez-de-Silane, Shleifer, and Vishny (1999). Tax is the percentage of tax on income, profits，and capital gains in total taxes from the World Bank, as defined earlier. Trust, obtained from the World Value Survey (WVS A165), is the percentage of respondents who think most people can be trusted.

One issue that is more difficult to address is that of the secularization hypothesis. Although some studies suggest that the secularization hypothesis is not supported by the US data (see Iannaccone, 1998), it is still plausible to think that our results can be driven by the negative correlation between GDP per capita and religiosity. We argue that if it is economic clout that drives both religiosity and venture investing, then we should also see the same association between religiosity and a country's overall investments, not just venture investments. We use data on domestic credit by banks, domestic credit by the financial sector, domestic credit provided to the

private sector, and investments in non-financial assets as measures of overall investment activities in a country. We then regress each variable (scaled by GDP) on religiosity. We also report results using the dependent variables defined as the dollar amount of venture investing scaled by domestic credit and investment in non-financial assets. The secularization hypothesis does not explain why religious countries make disproportionately less venture investments relative to other investments.

We next consider the possibility that risk aversion not only reduces the overall level of venture investing but also induces venture capitalists to make less risky investments. Chircop, Johan, and Tarsalewska (2019) find that firms located in more religious counties make safer venture investments. We investigate whether this is also true in an international setting - specifically, whether venture investments are more likely to have successful exits (IPO or acquisition exits) in more religious countries. For this purpose, we use a Cox Hazard model and define an event (or "failure") as a successful exit via IPO or acquisition, and then predict whether religiosity increases the likelihood (i.e., "hazard") of a successful exit. Similarly, risk aversion predicts religious countries to avoid foreign deals or early-stage deals, which are riskier. We use Logit models to analyze whether religiosity has negative coefficient estimates when the dependent variables are dummies indicating whether the country has made at least one foreign VC investment or at least one early-stage VC investment.

Finally, we use a country-dyad setting and focus on cross-border flows of venture investing. This helps us identify whether religious countries make less venture investment or receive less venture investment. Our main model for country-pair regressions is as follows:

Venture Capital Investment $_{ijt}$ = α + δ Religiosity$_{it}$ + γ Religiosity $_{jt}$ + β^k controls $_{kijt}$ + ε$_{it}$ (7)

The dependent variables are the dollar amount of investment from country *i* to country *j*, scaled by country *j*'s GDP and the number of investments from country *i* to country *j*. We consider all potential country pairs of *i*'s and *j*'s but exclude same-country deals. Our main interest lies in δ and γ, and we expect both coefficients to be negative.

4. Results

4.1 Baseline Results

Table 2 reports coefficient estimates of the country panel regressions corresponding to the model described

in Equation 1. The dependent variable is the dollar amount of venture investments in a country in a year. In column 1, we include legal origin, GDP, market capitalization, trade, IPO activities, and GDP growth as control variables. In column 2, we include additional control variables that may influence either the supply or the demand of venture investing, such as interest rate, accounting standards (CIFAR), R&D expenditure, tax, and education. We do not include these variables in column 1 because they have more missing values than the controls used in column 1; including all these variables in regressions reduces our sample size from 394 to 153, and the number of countries analyzed from 56 to 23. Regardless of the sample size, the coefficient estimates of *Religiosity* are negative and significant across all columns (significant at the 1% level in column 1, and at the 5% level in column 2). We also find trade openness (*TRADE*), GDP growth, market capitalization, and IPO activities are important determinants of venture investing.

[Insert Table 2 about here]

In columns 3 and 4, we include dummies for three influential primary religions: Protestantism, Catholicism, and Islam. If the effect of religion stems from religion-specific teachings or institutions, then the primary religion dummies should be statistically significant, while the significance of religiosity should decrease substantially. This is not the case. All three dummies are not statistically significant in column 3. In column 4, when additional control variables are included and the sample size is reduced by more than half, the coefficient estimates of *Protestant* and *Catholic* become statistically significant; however, the coefficient estimate of *Religiosity* remains statistically significant at the 1% level. It seems what really matters to venture investing is how seriously citizenry takes each religion, rather than the primary religion itself.

In column 5, we limit our sample to Protestant and Catholic countries. First, we want to make sure our results are not driven by any institutional characteristics of Christian countries. Second, since Catholics are known for their gambling attitudes, we want to examine whether our results are driven by religion-induced gambling attitudes. We find that the coefficient of Religiosity remains significant in the Christian subsample, while the dummy variable of Protestantism is insignificant.

In column 6, we address the potential endogeneity of religiosity. Specifically, we consider three instrument

variables – religious pluralism, state regulation of religions, and state religion. All of these variables should affect religiosity but should not directly affect venture investing (Barro and McCleary, 2003). Religious pluralism, or the existence of more than one dominant religion or lack thereof, promotes religious diversity and quality. State regulation of religions deters religious pluralism and reduces people's participation and their religiosity. A counter argument to the negative effect of state religions is that state religions are often accompanied by subsidies and this may subsequently increase participation. Following Barro and McCleary (2003), we instrument a country's religiosity by the existence of state religion and state regulation, as well as its religious pluralism.[17] The coefficient of religiosity remains negative and significant.

In Table 3, we investigate the number of venture investments in a country, rather than the dollar amount of venture investing. This is to ensure our results are not driven by a few extremely large venture investments in certain countries. In addition, it has been argued that what really matters to innovation is the guidance and mentoring from venture capitalists rather than the investment itself (Timmons and Bygrave, 1986). In this regard, the number of venture investments can potentially be of greater interest to policymakers.

[Insert Table 3 about here]

We find in Table 3 that religiosity exhibits a strong and negative association with the number of venture investments. Same as in Table 2, we report results using the full sample (columns 1 and 3) and the reduced sample with additional control variables (columns 2 and 4). We include primary religion dummies in columns 3 and 4 and report our subsample analysis of Christian countries in column 5 and instrumental variable regression results in column 6. Overall, the findings in Table 3 confirm those in Table 2.

4.2. Supply, demand, and mechanisms behind religiosity

Tables 2 and 3 show that religious countries have less venture investing. We are also interested in whether it is caused by religious investors being less willing to provide capital (which we refer to as the supply of venture capital), or by religious entrepreneurs founding fewer high-tech start-ups (which we refer to as the demand for

---

[17] The three data items are from Table 1 of Barro and McCleary (2003). The first stage regression is not reported and is available upon request.

venture capital). Separating the supply and the demand effects is a difficult task as they are often affected by a common set of variables. Fortunately, several studies such as Gompers and Lerner (1998) and Jeng and Wells (2000) have already summarized variables that may influence venture capital supply or demand. Based on these studies, we include IPO activities, GDP growth, accounting standards, R&D expenditure, tax, and education as determinants of demand for venture capital. On the supply side, we include IPO activities, interest rates, and accounting standards. We also include other controls such as the legal origin, GDP, market capitalization, and trade in both supply and demand regressions. We then use a three-stage estimation of a system of simultaneous equations to estimate the supply and demand equations jointly.

[Insert Table 4 about here]

We report our results in Table 4. In columns 1 and 2 (3 and 4), we report the coefficient estimates of the supply and demand equations, respectively, when the dependent variable is the dollar amount of venture investments scaled by GDP (the log number of VC investments). The coefficient of *Religiosity* is statistically significant at the 1% level across all four columns. The results suggest that both the demand and the supply effects exist; religiosity decreases both investors' willingness to provide capital and entrepreneurs' willingness to engage in projects.[18]

One question Table 4 does not answer is: Why exactly does religiosity affect the demand and supply of venture capital? As elaborated in the literature review, religiosity is correlated with a wide range of traits such as risk aversion, trust, and attitudes towards science and technology, as well as institutional differences such as investor protection and tax burden. We use a mediation model to examine all these potential mechanisms. We use World Value Survey longitudinal data to measure risk aversion, trust, and attitudes towards science and technology. Specifically, we use responses to questions A195 (is adventure and taking risks important to this person) and E047 (do you worry about or welcome changes) to measure the degree of risk aversion in a country. We use responses to question A165 (can most people be trusted) to measure the general degree of trust in a

---

[18] Our model satisfies the order and rank conditions and both equations can be identified. Dropping IPO activities and accounting standard from the demand equations to increase the number of excluded variables does not affect our results.

country. We use responses to questions E219 (does science and technology make our way of life change too fast), E220 (do we depend too much on science and not enough on faith), and E234 (is the world better off with science and technology) to measure attitudes towards science and technology. Our measures of risk aversion and attitudes towards science and technology follow that of Benabou, Ticchi, and Vindigni (2015). We also use investor protection indices (shareholder protection and creditor protection) from La Porta, Lopez-de-Silane, Shleifer, and Vishny (1999), and taxes on income, profits and capital gains (as a percentage of total taxes) from the World Bank. For each variable representing a potential mechanism behind religiosity and venture investing, we run a mediation model outlined by equations (4) – (6) and perform Sobel test to determine if it serves as a valid mediator variable. We summarize our findings in Table 5. For ease of comparison and discussion, we only report coefficients of the variables of interest and Sobel test scores, but all our control variables as well as year fixed effects have been included in regressions.

[Insert Table 5 about here]

We find that both measures of risk aversion are significant in both steps and for both measures of venture investing. In addition, the Sobel tests suggest that risk aversion serves as a valid mediator variable between religiosity and venture investing at a confidence level of 5% (1% when the dependent variable is the number of VC investments). In contrast, investor protection, tax, and trust do not exhibit significant associations with venture investing, although they are strongly related to religiosity. Sobel tests suggest that these are not mediator variables. The results for attitudes towards science and technology are somewhat mixed. The first two measures (E219 and E220) are not significantly associated with venture investing; however, the third measure (E234) has significant coefficient estimates. We also note that in our data, E219 and E220 have a strong and positive correlation, while E234 shows a very weak and positive correlation with E219 but is negatively correlated with E220. Our analysis of the attitudes towards science and technology is thus inconclusive.

One identification issue we have not addressed thus far is that both religiosity and venture investing could be driven by economic clout in a specific region, as some scholars argue that economic development leads to less religious citizenry (i.e., the secularization hypothesis). We shall argue that since our venture investing measure is

already scaled by GDP, the secularization hypothesis (i.e., the negative correlation between GDP and religiosity), in fact, introduces a bias *against* our findings. In addition, if our results are really driven by economic clout, then religiosity should also be negatively correlated with other measures of investments in a country. We examine four variables that measure the intensity of domestic investments, including domestic credit by banks, domestic credit by the financial sector, domestic credit to private sectors, and investments in non-financial assets. We report our results in Panel A of Table 6. Inconsistent with the secularization story, we find that more religious countries do not have lower levels of investments, although they have lower levels of venture investments. In Panel B, we regress the ratio of venture capital investments over total investments on religiosity and find results consistent with those in Table 2. We conclude from the results that religiosity does not lead to lower investment levels in general but does induce lower levels of venture capital investments relative to total investments.

[Insert Table 6 about here]

4.3. Religion and risk of venture investing

If the relation between religiosity and venture investing channels through risk aversion, we should expect religious countries to have safer, as well as less, venture investments. We follow Chircop, Johan, and Tarsalewska (2019) and examine the relationship between religion and the risk of venture investing. We first investigate venture capital exits across countries. If risk aversion induces venture capitalists to focus on safer projects, we should expect a greater likelihood of successful exits in more religious countries. For this purpose, we obtain exit data from SDC VentureXpert and use a Cox Hazard model to analyze the likelihood of successful exits. Following Nahata, Hazaruka, and Tandon (2014), we code IPO exits and acquisition exits as successful exits. We report the Cox Hazard estimates in Table 7. In column 1, we use religiosity as our variable of interest, while in column 2 we also include primary religion dummies. The coefficient of *Religiosity* is significantly positive: at any point in time, venture capital investments in religious countries are more likely to have successful exits. In columns 3 and 4, we define successful exits as IPO exits only, which are known to be more profitable compared to acquisition exits for venture capitalists. Our results hold when these alternative definitions of successful exits are used. In untabulated results, we also show that Logit regressions have similar results.

[Insert Table 7 about here]

We next examine decisions to invest in foreign deals and in early-stage deals, which are riskier compared to domestic deals and later-stage deals (Chircop, Johan, and Tarsalewska, 2019). The number of venture investments exhibits great variation across countries; to avoid giving too much weight to countries with more venture investments, we analyze the decisions at the country level. We use two dummy variables, *Foreign* and *Early Stage*, to denote if venture capitalists from a country invest in any foreign deals or in any seed- or early-stage deals in that year, respectively.

In Table 8, we report the Logit regression results of venture capitalist decisions. In columns 1 and 2, the dependent variable is *Foreign*, which equals 1 if VCs from the country invest in at least one foreign deal in a year, and 0 otherwise. In columns 3 and 4, the dependent variable is *Early Stage*, which equals 1 if VCs from a country invest in any seed-stage or early-stage deal in the year, and 0 otherwise. The coefficient of *Religiosity* is significantly negative in all four columns, while the coefficients of primary religion dummies are insignificant.

[Insert Table 8 about here]

5. Further analysis, robustness, and discussion

5.1 Country dyad analysis

In this section, we examine cross-border venture investments at country dyad level in our sample. Country dyad results are of particular interest because it potentially allows us to unravel the effects of religiosity on VC investors and enterprises. Specifically, we consider each of the countries in our sample a potential investor country (VC) and, at the same time, a potential enterprise country (Ent). That is, for each of the 56 countries with cross-border venture deals in our sample, we consider that it could potentially either make VC investments to other countries or receive VC investments from other countries. A similar approach has also been adopted by Bottazzi, Da Rin, and Hellmann (2017). We define the dependent variables as the dollar amount and number of venture investments from all VCs in the investor country to all enterprises in the enterprise country, scaled by the enterprise country's GDP. We then regress them on each country's religiosity and primary religion. To further

19

account for country-level characteristics that may affect venture investing, we include country fixed effects in our analysis. Because a country's religiosity and primary religion do not exhibit over-time variation, we only include the enterprise country fixed effects when we analyze the VC country's religiosity, and vice versa. Some of our control variables that do not vary over time may also be dropped due to the inclusion of country fixed effects.

Hain, Johan, and Wang (2016) document that trust can be an important determinant of cross-border VC investments. To account for the potential influence from trust, we further include variables that are related to trust such as same religion, same language, same legal origin, and distance. We also include a dummy *Conflict* which equals 1 if the two countries in a dyad have had border conflicts since the 21st century. The idea is that border conflicts significantly reduce trust between countries. We report our results in Table 9.

We find that the coefficients of religiosity of both VC countries and enterprise countries are negative and statistically significant. We do not find that venture capitalists tend to invest in countries of the same religion, as the coefficient of *Same Religion* is largely insignificant. Venture capitalists invest more in countries of the same language, but less in countries that had border conflicts or are geographically more distant. Our findings show that in the cross-border setting, the impact of religiosity remains strong even after accounting for trust between the two countries.

[Insert Table 9 about here]

5.2 Robustness

We perform a number of robustness tests in untabulated results. One concern is that, due to the small variations of religiosity over time, our results are inflated by more observations from countries with better data coverage in VentureXpert. To address this concern, we take the country-level averages of VC investments and regress them on religiosity measured at the beginning of the sample period (the year 2000). We still find a significant and negative relation between religiosity and venture investing.

We also investigate outliers. For example, Miller (2000) argues that religiosity only proxies for risk aversion in western societies, but not in eastern societies (primarily East Asian countries) in which religions are non-exclusive (i.e., the eastern religions do not claim to be "the one and only correct spiritual path"; as a result,

they tend to emphasize on personal behavior rather than on organizational affiliation). One may also think that the booming venture activities in China, which is the largest non-religious country, may drive our results. We find that our results hold if we remove China and other East Asian countries from our sample.

Finally, we consider the potential impact of tax havens and offshore financial centers on our results. Excluding regions that are identified by the IMF as tax havens or offshore financial centers does not change our results.

5.3 Endogeneity and further discussion

In this section, we discuss potential endogeneity issues in our study and summarize our tests on identification. Researchers generally acknowledge that economic development, in turn, may affect people's religiosity. Perhaps the most widely cited, and hotly debated, is that of secularization hypothesis.[19] As countries develop economically, people become less religious. One argument is that, as countries become economically developed, there is less need for organized religion. An alternative argument is that economic development may produce "better" quality religious products as more religions compete.

A similar case can be made for the reverse causality between religiosity and VC investing (or risk-taking, in our case). Though the case of reverse causality is not as apparent as in the case of religion and economic growth, critics may argue that risk inherent in venture capital investing may cause people to become less (or more) religious: as people take on more risks and engage in entrepreneurial activities, their beliefs and values may change. Although the literature provides us with almost no guidance on the argument, we allow for the possibility that venture investment may indeed affect religiosity. Many of the tables presented in our results section, however, do not support either the secularization hypothesis or reversed causality. We find that although religious countries tend to be poorer, they do not have less investment activity (measured by total investments in non-financial assets and domestic credit). Further, since we scale the dollar amount of venture investments by GDP, which is negatively correlated with religiosity, the correlation between economic clout and religiosity, in fact, brings a bias against our results. It is thus plausible to think that there is something unique about venture investing which makes

---

[19] Please refer to Barro and McCleary (2003) for a detailed discussion.

it quite different from general investments and substantially more sensitive to a country's religiosity. We attribute it to the greater risk inherent in venture investing.

To further address the concern that some country-level omitted variables are not fully accounted for in our analysis, we examine our results across various subsamples that are homogeneous in economic development, financial market development, and culture. For example, we examine the subsamples of developed countries (high-income economies defined by the World Bank and OECD countries) and report the findings in Online Appendix C. We find consistent results with all these subsamples. We also investigate the subsamples of former British colony countries and EU countries in untabulated tests and find robust results.

Finally, we show that our results are unlikely driven by greater trust in more religious countries. We show in Online Appendix D that trust does not significantly explain venture investing. Further, we find in Table 9 that controlling for variables related to bilateral trust but not religiosity- such as border conflicts, cultural distance, same language, and same legal origin- does not affect the significance of religiosity in the cross-border analysis.

6. Conclusion

It is well-known that venture capital investments display cross-sectional dispersions among countries. For example, it has often been suggested that European countries, compared to the US, generally underperform in the entrepreneurial arena. Grilli and Murtinu (2014) estimate that the ratio of VC to private equity (PE) investments in 2009 is 17% in Europe but it is 67% in the US. Such variation also exists across other regions of the world. Owing largely to the growing importance of the VC industry in propagating economic growth, job creation, and innovation, what affect venture capital financing and its success have become subjects of extensive research.

Henrekson and Sanandaji (2017) cite a wide range of institutional and social factors that may explain why some countries may better develop what the authors term "Schumpeterian entrepreneurship." These factors range from social attitudes towards entrepreneurship to cultural and psychological factors. Religion is a social, and in some places, political, institution. However, in venture capital research, studies of the role played by religion and

religiosity are extremely limited. Our argument is that religiosity offers important insights into people's attitudes towards risk-taking and that it would negatively affect the flow of funds.

Notably, there are important research papers that show that culture and institutional similarities (or differences) are important determinants of venture capital flows. Our results confirm that religion also belongs to the mix of cultural and institutional factors affecting venture capital inflow. We find it interesting that, despite the differences across religions, what really matters appears to be the religiosity.

It should be noted that our results are very robust to a variety of cultural, regulatory, and economic variables, and country fixed effects. They are also robust to the inclusion of instruments that are arguably exogenous. To sum, religiosity affects people's attitudes towards risk-taking and, to some extent, their views on science and technology; this, in turn, drives the demand and supply for venture funds. From a policy perspective, being able to identify (with reasonable accuracy) drivers of venture investment is important. In this paper, we identify one important deterrent to such investments.

Our findings also shed light on the secularization hypothesis, which suggests that, as countries develop economically, people become less religious. However, we find that although more religious countries tend to be poorer and have less venture investment, they, in fact, have more domestic credit and more investment in non-financial assets. These results suggest that religiosity could have a significant effect on start-up venture investing and that the real cost of religiosity may be on a country's innovation, as suggested by Benabou, Ticchi, and Vindigni (2015).

REFERENCES

Adhikari, B. K., Agrawal, A., 2016. Religion, gambling attitudes and corporate innovation. Journal of Corporate Finance 37, 229-248.

Audretsch, D.B., Acs, Z.J., 1994. New-firm startups, technology, and macroeconomic fluctuations. Small Business Economics, 6(6), pp.439-449.

Audretsch, D.B, Bönte, W., Tamvada, J.P., 2013. Religion, social class, and entrepreneurial choice. Journal of Business Venturing 28 (6), 774-789.

Barro, R.J., McCleary, R.M., 2003. Religion and economic growth across countries. American Sociological Review 68, 760-781.

Baumol, W. J., 2002. The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism. Princeton University Press, New Jersey.

Bénabou, R., Ticchi, D., Vindigni, A., 2015. Religion and innovation. American Economic Review, 105(5), pp.346-51.

Berger, A., Frame, W., 2007. Small business credit scoring and credit availability. Journal of Small Business Management 45, 5–22.

Berger, A., Udell, G., 1998. The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. Journal of Banking & Finance 22, 613–673.

Berggren, N., Bjørnskov, C., 2009. Does Religiosity Promote Property Rights and the Rule of Law? Working Paper, Research Institute of Industrial Economics.

Bodnaruk, A.,Simonov,A., 2016. Loss averse preferences, performance, and career success of institutional investors. Michigan State University Working Paper.

Bottazzi, L., Da Rin, M., Hellmann, T. F., 2017. The importance of trust for investment: Evidence from venture capital. Review of Financial Studies 29, 2283–2318.

Brander, J.A., Du, Q., Hellman, T., 2015. The effects of government-sponsored venture capital: International evidence. Review of Finance 19. 571–618.

Bruton, G.D., Ahlstrom, D., Puky, T., 2009. Institutional differences and the development of entrepreneurial ventures: A comparison of the venture capital industries in Latin America and Asia. Journal of International Business Studies 40, 762–778.

Bruton, G. D., Fried, V. H., Manigart, S., 2005. Institutional influences on the worldwide expansion of venture capital. Entrepreneurship Theory and Practice 29, 737–760.

Busenitz, L.W., Gomez, C., Spencer, J.W., 2000. Country Institutional Profiles: Unlocking Entrepreneurial Phenomena. Academy of Management Journal 43, 994-1003.

Chircop, J., Johan, S., Tarsalewska, M., 2019. Does religiosity influence venture capital investment decisions? Working Paper. Available at SSRN: https://ssrn.com/abstract=3026156.

CIA, 2010. CIA World Factbook 2010. Central Intelligence Agency. Langley.

Cochrane, J., 2005. The risk and return of venture capital. Journal of Financial Economics 75, 3-52.

Cumming, D. J., Johan, S.A., 2013. Venture Capital and Private Equity Contracting: An International Perspective. Elsevier Science Academic Press.

Cumming, D. J., Fleming, G., Schwienbacher, 2005. Liquidity risk and venture capital finance. Financial Management 34, 77–105.

Djankov, S., McLiesh, C., Shleifer, A., 2007. Private credit in 129 countries. Journal of Financial Economics 12, 77-99.

Eberhart, R.N., Eesley, C.E., Eisenhardt, K.M., 2017. Failure is an option: institutional change, entrepreneurial risk, and new firm growth. Organization Science 28(1) 93-112.

Gompers, P.A., 1995. Optimal investment, monitoring, and the staging of venture capital. The journal of finance, 50(5), pp.1461-1489.

Gompers, P.A., Lerner, J., 1998. What drives venture capital fundraising? Brooking Papers on Economic Activity (Microeconomics), 149-180.

Gompers, P.A., Lerner, J., 2001. The venture capital revolution. Journal of Economic Perspectives 15, 145–168.

Grilli, L., Murtinu, S., 2014. Government, venture capital and the growth of European high-tech entrepreneurial firms. Research Policy 43, 1523–1543.

Groh, A.P., von Liechtenstein, H., Lieser, K., (2010). The European venture capital and private equity country attractiveness indices. Journal of Corporate Finance 16, 205-224.

Guiso, L., Sapienza, P., Zingales, L., 2006. Does culture affect economic outcomes? Journal of Economic Perspectives 20, 23-48.

Hain, D., Johan, S., Wang, D., 2016. Determinants of cross-border venture capital investments in emerging and developed economies: The effects of relational and institutional trust. Journal of Business Ethics 138, 743–764.

Hellmann, T., Puri, M., 2000. The interaction between product market and financing strategy: The role of venture capital. The review of financial studies, 13(4), pp.959-984.

Henrekson, M., Sanandaji, T., 2017. Schumpeterian entrepreneurship in Europe compared to other industrialized regions. Working Paper, Research Institute of Industrial Economics.

Hilary, G., Hui, K. W., 2009. Does religion matter in corporate decision making in America? Journal of Financial Economics 93, 455–473.

Iannaccone, L.R., 1998. Introduction to the economics of religion. Journal of Economic Literature 36, 1465–1496.

Jeng, L.A., Wells, P.C., 2000. The determinants of venture capital funding: Evidence across countries. Journal of Corporate Finance, 6, 241–289.

Jiang, F., Jiang, Z., Kim, K.A., Zhang, M., 2015. Family-firm risk-taking: does religion matter?. Journal of Corporate Finance, 33, pp.260-278.

Kortum, S.S., Lerner, J., 2000. Assessing the impact of venture capital on innovation. RAND Journal of Economics, Winter.

Kumar, A., Page, J. K., Spalt, O. G., 2011. Religious beliefs, gambling attitudes, and financial market outcomes. Journal of Financial Economics 102, 671–708.

Landes, D., 1998. The Wealth and Poverty of Nations. W.W. Norton, New York.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., 1999. The quality of government. Journal of Law, Economics, and Organization 15, 222–279.

Liles, P. R., 1977. Sustaining the Venture Capital Firm. Management Analysis Center, Inc., Cambridge.

Maier, J.B., Walker, D.A., 1987. The role of venture capital in financing small business. Journal of Business Venturing, 2(3), pp.207-214.

Malinowski, B., 1925. Science, religion, and reality. New York: Mac-millan.

Miller, A. S., 2000. Going to hell in Asia: the relationship between risk and religion in a cross cultural setting. Review of Religious Research 42(1), 5-18.

Miller, A. S., Hoffman, J.P., 1995. Risk and religion: An explanation of gender differences in religiosity. Journal for the Scientific Study of Religion 34, 63-75.

Nahata, R., Hazaruka, S., Tandon, K., 2014. Success in global venture capital investing: Do institutional and cultural differences matter? Journal of Financial and Quantitative Analysis 49, 1039-1070.

North, C.M., Orman, W.H. and Gwin, C.R., 2013. Religion, corruption, and the rule of law. Journal of Money, Credit and Banking, 45(5), pp.757-779.

Noussair, C. N., Trautmann, S.T., Kuilen, G., Vellekoop, N., 2013. Risk aversion and religion. Journal of Risk and Uncertainty 47, 165-183.

Poterba, J., 1989. Venture capital and capital gains taxation. In: Summers, L.H. (Eds.), Tax Policy and the Economy, MIT Press, Cambridge.

Ruhnka, J.C., Young, J.E., 1991. Some hypotheses about risk in venture capital investing. Journal of Business Venturing 6, 115-133.

Samila, S., Sorenson, O., 2011. Venture capital, entrepreneurship, and economic growth. The Review of Economics and Statistics, 93(1), pp.338-349.

Scheufele, D.A., Corley, E.A., Shih, T.J., Dalrymple, K.E., Ho, S.S., 2009. Religious beliefs and public attitudes toward nanotechnology in Europe and the United States. Nature nanotechnology, 4(2), p.91.

Schilit, K.W., 1993. A comparative analysis of the performance of venture capital funds, stocks and bonds, and other investment opportunities. International Review Strategic Management 4, 301–320.

Schumpeter, Joseph A. 1911 [1934]. The Theory of Economic Development. Transaction Publishers New Brunswick, NJ and London, UK:.

Scott, W. R., 2002. The changing world of Chinese enterprise: An institutional perspective. In Tsui, A. S., and Lau, C.M. (Eds), The Management of Enterprises in the People's Republic of China, Kluwer Academic Publishers, London.

Stark, R. and Bainbridge, W.S., 1987. A theory of religion. New York: Peter Lang.

Stark, R., Iannaccone, L., and Finke, R., 1996. Religion, Science, and Rationality. The American Economic Review, 86(2), 433-437.

Stulz, R. M., Williamson, R., 2003. Culture, openness, and finance. Journal of Financial Economics 70, 313-349.

Timmons, J.A., Bygrave, W.D., 1986. Venture capital's role in financing innovation for economic growth. Journal of Business venturing, 1(2), pp.161-176.

Weber, M., 1930. The Protestant Ethic and the Spirit of Capitalism. Allen and Unwin, London.

Welch, M. R., Sikkink, D., Sartain, E., Bond, C., 2004. Trust in God and trust in man: The ambivalent role of religion in shaping dimensions of social trust. Journal for the Scientific Study of Religion 43, 317–343.

Table 1. Sample Overview

This table reports descriptive statistics of our sample and key variables. Panel A reports the religiosity and primary religion of the 56 countries/regions included in our sample. Panel B reports descriptive statistics at the country-year level. Variable definitions are reported in Online Appendix A. All continuous variables are winsorized at the 1% level.

Panel A. Primary Religion and Religiosity by Country/Region

Name	Religiosity	Primary Religion	Deals	Name	Religiosity	Primary Religion	Deals
Argentina	0.652	Catholic	79	Netherlands	0.286	Catholic	366
Australia	0.399	Protestant	273	New Zealand	0.38	Protestant	78
Brazil	0.888	Catholic	203	Nigeria	0.973	Muslim	40
Bulgaria	0.466	Other	8	Norway	0.355	Protestant	93
Canada	0.599	Catholic	1151	Pakistan	0.959	Muslim	10
Chile	0.733	Catholic	19	Peru	0.815	Catholic	6
China	0.125	None	2571	Philippines	0.978	Catholic	31
Colombia	0.867	Catholic	3	Poland	0.848	Catholic	75
Croatia	0.56	Catholic	12	Romania	0.838	Other	19
Cyprus	0.807	Other	15	Russia	0.419	Other	150
Czech Republic	0.227	None	23	Saudi Arabia	0.978	Muslim	5
Egypt	0.998	Muslim	26	Singapore	0.739	Buddhist	349
Estonia	0.269	None	34	Slovakia	0.48	Catholic	18
Finland	0.452	Protestant	281	South Africa	0.893	Protestant	41
France	0.409	Catholic	954	South Korea	0.517	Protestant	286
Germany	0.331	Protestant	1003	Spain	0.46	Catholic	299
Ghana	0.982	Other	13	Sweden	0.301	Protestant	562
Hong Kong	0.307	Local beliefs	206	Switzerland	0.472	Catholic	402
Hungary	0.4	Catholic	31	Taiwan	0.512	Buddhist	181
India	0.828	Hindu	1523	Tanzania	0.955	Other	14
Italy	0.762	Catholic	156	Thailand	0.912	Buddhist	60
Japan	0.215	Buddhist	263	Tunisia	0.984	Muslim	12
Jordan	0.995	Muslim	15	Turkey	0.911	Muslim	41
Latvia	0.373	Other	28	Uganda	0.949	Protestant	8
Lebanon	0.794	Muslim	8	Ukraine	0.571	Other	33
Lithuania	0.538	Catholic	20	United Kingdom	0.407	Protestant	2156
Malaysia	0.964	Muslim	81	Vietnam	0.332	None	22
Mexico	0.816	Catholic	65				

Name	Religiosity	Primary Religion	Deals
Morocco	0.989	Muslim	9

Panel B. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Inv Amt/GDP	394	0.477	0.963	0.000	13.412
# VC Inv	394	152.784	289.412	1.000	1726.000
Religiosity	394	0.643	0.272	0.118	0.999
Protestant	394	0.234	0.424	0.000	1.000
Catholic	394	0.340	0.474	0.000	1.000
Muslim	394	0.175	0.381	0.000	1.000
Legor UK	394	0.335	0.473	0.000	1.000
GDP	394	9.416	1.201	6.134	11.425
Mkt Cap	394	0.911	1.328	0.012	8.861
Trade	394	0.874	0.763	0.237	4.009
IPO Value	394	7.642	51.751	0.000	881.408
# IPO	394	41.025	83.599	0.000	824.000
GDP Growth	394	3.615	3.858	-10.894	33.736
GDP Per Capita Growth	394	2.458	3.758	-11.877	30.357
Interest	337	4.165	7.383	-42.310	44.627
CIFAR	297	72.064	7.538	56.000	85.000
R&D	312	1.394	1.027	0.114	4.292
Tax	370	43.362	16.460	2.784	93.555
Education	324	38.538	14.989	2.724	68.637

Table 2. Religion and the Amount of Venture Capital Investing

The dependent variable is Inv Amt/GDP, the dollar amount of venture investing divided by the country's GDP. Definitions of variables can be found in Online Appendix A. Tobit regression results are reported in columns 1-5; column 6 reports results using instrument variables. In column 5, we only analyze Protestant and Catholic countries. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Model	(1) Tobit	(2) Tobit	(3) Tobit	(4) Tobit	(5) Tobit (Catho+Prot)	(6) IV + 2SLS
Religiosity	-0.804***	-1.267**	-0.663**	-1.488***	-0.847***	-0.926**
	(-3.44)	(-2.47)	(-2.39)	(-3.21)	(-2.79)	(-2.00)
Protestant			0.166	0.702***	0.155	0.595***
			(0.80)	(3.95)	(0.43)	(2.97)
Catholic			-0.043	0.881***		0.871***
			(-0.21)	(3.28)		(2.92)
Muslim			-0.061	0.131		0.039
			(-0.27)	(0.46)		(0.13)
Legor UK	0.059	0.266	-0.022	0.532***	0.261	0.606***
	(0.45)	(1.17)	(-0.16)	(3.51)	(0.78)	(3.53)
GDP	-0.030	-0.252	-0.046	-0.518***	-0.049	-0.428***
	(-0.47)	(-1.55)	(-0.74)	(-3.39)	(-0.25)	(-2.59)
Mkt Cap	0.105***	-0.056	0.103**	-0.078	-0.194*	-0.052
	(2.62)	(-0.39)	(2.25)	(-0.62)	(-1.90)	(-0.38)
Trade	0.258***	0.404*	0.293**	0.479***	0.515***	0.383**
	(2.69)	(1.71)	(2.37)	(3.27)	(4.49)	(2.31)
IPO Value	-0.000	0.000	0.000	0.004	-0.001	0.004
	(-0.05)	(0.03)	(0.15)	(0.49)	(-0.13)	(0.46)
# IPO	0.002***	-0.002**	0.002***	-0.002*	-0.003	-0.002*
	(3.54)	(-2.25)	(4.13)	(-1.66)	(-1.52)	(-1.82)
GDP Growth	0.097**	0.010	0.099**	-0.208	-0.165	-0.210*
	(2.14)	(0.07)	(2.35)	(-1.63)	(-1.36)	(-1.85)
GDP Per Capita Growth	-0.065	0.010	-0.068*	0.228*	0.181	0.236**
	(-1.54)	(0.07)	(-1.85)	(1.80)	(1.47)	(2.07)
Interest		0.013		0.008	0.017***	0.003
		(1.55)		(1.02)	(2.69)	(0.46)
CIFAR		0.005		0.006	0.012	0.006
		(0.40)		(0.52)	(1.39)	(0.62)
R&D		0.139		0.283**	0.093	0.329**
		(1.59)		(2.09)	(0.56)	(2.57)
Tax		0.003		0.009*	0.001	0.006
		(0.36)		(1.71)	(0.23)	(1.13)
Education		-0.001		-0.005	-0.004	-0.004
		(-0.16)		(-1.17)	(-0.69)	(-0.94)
Constant	0.993	3.246*	1.023*	5.001***	1.004	3.876**
	(1.47)	(1.80)	(1.67)	(3.19)	(0.60)	(2.52)
Observations	394	153	394	153	115	153
Pseudo R2	0.101	0.230	0.103	0.313	0.408	0.406

Table 3. Religion and the Number of Venture Capital Investing

The dependent variable is # VC Inv, the number of venture investments. Definitions of other variables can be found in Online Appendix A. Negative binomial regression results are reported in columns 1-5; column 6 reports results using instrument variables. In column 5, we only analyze Protestant and Catholic countries. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Model	Neg. Bi.	Neg. Bi.	Neg. Bi.	Neg. Bi.	Neg. Bi.(Catho+Prot)	IV + 2SLS
Religiosity	-3.414***	-4.755***	-2.235***	-4.927***	-6.565***	-2.790**
	(-4.26)	(-3.89)	(-2.61)	(-4.28)	(-7.49)	(-1.99)
Protestant			0.090	3.011***	0.921	2.830***
			(0.08)	(5.24)	(1.63)	(5.50)
Catholic			-0.475	4.096***		3.562***
			(-0.43)	(3.80)		(5.49)
Muslim			-1.542**	0.162		0.259
			(-2.05)	(0.14)		(0.37)
Legor UK	1.057	1.274	0.574	3.065**	-0.671	2.459***
	(1.62)	(1.37)	(1.02)	(2.57)	(-0.82)	(4.80)
GDP	0.347	-0.341	0.407	-1.271***	-0.206	-1.369***
	(1.62)	(-0.92)	(1.28)	(-4.07)	(-0.51)	(-4.27)
Mkt Cap	-0.183	-0.289	-0.145	-0.078	-0.572	-0.506
	(-1.30)	(-0.57)	(-1.15)	(-0.12)	(-1.57)	(-1.44)
Trade	-0.534*	-0.857	-0.558	-0.258	-1.699***	-0.100
	(-1.91)	(-1.14)	(-1.41)	(-0.38)	(-4.00)	(-0.28)
IPO Value	-0.003***	0.044	-0.001	0.051	0.011	0.077***
	(-3.46)	(1.32)	(-1.61)	(1.30)	(0.51)	(2.69)
# IPO	0.007*	-0.006	0.008**	-0.009***	0.005*	-0.006**
	(1.81)	(-1.05)	(2.30)	(-2.65)	(1.93)	(-2.00)
GDP Growth	-0.126	-0.363	0.061	-0.819	-0.573	-1.544***
	(-1.00)	(-0.74)	(0.52)	(-1.44)	(-1.26)	(-3.86)
GDP Per Capita Growth	0.233*	0.410	0.023	0.848	0.620	1.593***
	(1.96)	(0.83)	(0.21)	(1.40)	(1.32)	(3.91)
Interest		-0.030		-0.051*	-0.006	-0.009
		(-0.89)		(-1.79)	(-0.37)	(-0.27)
CIFAR		0.775**		1.536***	0.594**	1.461***
		(2.39)		(2.95)	(2.33)	(4.29)
R&D		0.044		0.063**	0.039*	0.060***
		(1.43)		(2.46)	(1.86)	(3.81)
Tax		0.001		-0.007	-0.041*	-0.006
		(0.04)		(-0.29)	(-1.90)	(-0.59)
Education		0.019		-0.006	0.026*	-0.002
		(0.80)		(-0.32)	(1.94)	(-0.11)
Constant	3.350	11.403***	2.195	17.319***	12.554**	14.558***
	(1.43)	(2.83)	(0.94)	(4.26)	(2.46)	(4.00)
Observations	394	153	394	153	115	153
Pseudo R2	0.0804	0.0808	0.0882	0.118	0.163	0.774

Table 4. Simultaneous Regressions: Supply vs. Demand

The dependent variables are Inv Amt/GDP in columns 1 and 2, and log of # VC Inv in columns 3 and 4. Definitions of other variables can be found in Online Appendix A. Three-stage regressions of systems of simultaneous equations are used for this table. We report supply equation estimates in columns 1 and 3, and demand equation estimates in columns 2 and 4. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Dep. Var.	(1)	(2)	(3)	(4)
	Inv Amt/GDP		log(# VC Inv)	
	Supply	Demand	Supply	Demand
Religiosity	-1.166***	-1.138***	-5.020***	-4.678***
	(-3.53)	(-3.63)	(-5.83)	(-6.46)
Protestant	0.381***	0.403***	1.296***	1.543***
	(2.65)	(2.83)	(3.48)	(4.46)
Catholic	0.363**	0.420***	0.899**	1.691***
	(2.55)	(2.93)	(2.44)	(4.78)
Muslim	0.086	0.080	-0.010	-0.111
	(0.44)	(0.42)	(-0.02)	(-0.24)
Legor UK	0.239*	0.261**	1.573***	1.823***
	(1.79)	(1.97)	(4.55)	(5.69)
GDP	-0.241***	-0.256***	0.206	-0.143
	(-3.15)	(-3.33)	(1.03)	(-0.75)
Mkt Cap	0.079	0.060	-0.004	-0.172
	(0.83)	(0.66)	(-0.01)	(-0.82)
Trade	0.372***	0.373***	0.196	0.248
	(3.14)	(3.28)	(0.63)	(0.93)
IPO Value	-0.000	-0.000	0.000	0.000
	(-0.04)	(-0.09)	(0.98)	(1.41)
# IPO	0.002**	0.002**	0.005***	0.003*
	(2.34)	(2.22)	(2.58)	(1.74)
GDP Growth		-0.016		-0.201
		(-0.37)		(-1.32)
GDP Per Capita Growth		0.021		0.211
		(0.47)		(1.35)
Interest	0.000		0.003	
	(0.04)		(0.39)	
CIFAR	-0.012	-0.010	-0.102***	-0.082***
	(-1.31)	(-1.18)	(-4.21)	(-4.04)
R&D		0.032		0.468***
		(1.01)		(4.16)
Tax		0.001		0.011*
		(0.34)		(1.82)
Education		-0.000		-0.000
		(-0.66)		(-1.30)
Constant	3.558***	3.511***	10.493***	11.102***
	(3.90)	(3.99)	(4.44)	(5.40)
Observations	153	153	153	153
R-squared	0.165	0.188	0.555	0.630

Table 5. Mechanisms behind Religiosity: Mediation Effects

We report results of a mediation model similar to Baron and Kenny (1986). We only report coefficient estimates of the mediators (mechanisms) as well as Sobel Test results. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Dep. Var.	Inv Amt/GDP			# VC Inv		
	First Step	Second Step	Sobel Test	First Step	Second Step	Sobel Test
Risk Aversion (WVS A195)	0.637***	-0.480***	-0.306**	0.638***	-3.200***	-2.041***
	(2.82)	(-2.88)	(-2.02)	(2.82)	(-9.27)	(-2.70)
Risk Aversion (WVS E047)	1.691***	-0.488***	-0.826**	1.691***	-2.690***	-4.548***
	(3.54)	(-2.58)	(-2.09)	(3.54)	(-7.21)	(-3.18)
Attitude Toward Technology (WVS E219)	-0.320**	-0.609**	0.195	-0.320**	-1.111	0.356
	(2.23)	(-2.08)	(1.52)	(-2.23)	(-1.38)	(1.17)
Attitude Toward Technology (WVS E220)	2.383***	-0.008	-0.019	2.383***	0.227	0.540
	(6.11)	(-0.09)	(-0.09)	(6.11)	(1.08)	(1.07)
Attitude Toward Technology (WVS E234)	-1.258***	0.564***	-0.710***	-1.258***	2.007***	-2.523***
	(-4.95)	(4.34)	(-3.264)	(-4.95)	(7.57)	(-4.141)
Investor Protection (Shareholder)	-4.233***	-0.049	0.207	-2.478***	0.323*	-0.801
	(-7.18)	(-0.86)	(0.85)	(-3.99)	(1.69)	(-1.56)
Investor Protection (Creditor)	-2.159***	0.020	-0.043	-1.249*	0.440***	-0.549
	(-3.47)	(0.37)	(-0.37)	(-1.90)	(3.00)	(-1.60)
Tax	-10.311**	-0.003	-0.036	10.311**	0.024	0.249
	(2.20)	(-0.499)	(-0.49)	(2.20)	(1.34)	(1.14)
Trust	-0.261***	0.527	-0.138	-0.261***	-1.790	0.467
	(-3.74)	(1.11)	(-1.06)	(-3.74)	(-1.45)	(1.35)

Table 6. Venture Investments vs. Domestic Investments

Panel A reports how religion affects a country's domestic investments. Panel B reports how religion affects venture investing as percentage of domestic investments. Four different measures of domestic investments are used, and their definitions can be found in Online Appendix A. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Panel A. Religion and Domestic Investments

Dep. Var.	(1) Domestic Bank Credit/GDP	(2) Domestic Credit by Fin. Sector/GDP	(3) Domestic Credit to Private Sector/GDP	(4) Net Inv in Non- Fin Assets/GDP
Religiosity	0.142**	0.158	0.175***	0.006**
	(2.25)	(1.60)	(3.54)	(2.63)
Protestant	-0.115***	-0.156***	-0.148***	-0.005***
	(-4.24)	(-3.81)	(-5.23)	(-5.32)
Catholic	-0.163***	-0.215***	-0.237***	-0.007***
	(-6.69)	(-5.13)	(-8.08)	(-5.97)
Muslim	0.017	0.006	-0.046	0.009***
	(0.49)	(0.09)	(-0.99)	(5.21)
Legor UK	-0.063**	-0.083*	-0.120**	-0.004**
	(-2.17)	(-1.77)	(-2.79)	(-2.71)
GDP	0.013	0.013	0.018	0.001
	(0.81)	(0.57)	(1.21)	(0.90)
Mkt Cap	0.135***	0.203***	0.195***	0.003***
	(5.39)	(6.40)	(9.06)	(3.34)
Trade	0.094***	0.099**	0.078***	0.003***
	(5.18)	(2.65)	(4.17)	(2.94)
IPO Value	-0.003**	-0.005**	-0.004**	-0.000**
	(-2.21)	(-2.39)	(-2.72)	(-2.50)
# IPO	-0.000**	-0.000	-0.000	0.000
	(-2.17)	(-1.50)	(-1.63)	(0.05)
GDP Growth	-0.008	-0.025	-0.020	0.000
	(-0.63)	(-1.20)	(-1.47)	(0.09)
GDP Per Capita Growth	0.007	0.022	0.020	0.000
	(0.56)	(1.00)	(1.35)	(0.06)
Interest	0.002***	0.003***	0.003***	0.000***
	(2.93)	(2.93)	(3.13)	(3.14)
CIFAR	0.005**	0.008**	0.007***	0.000***
	(2.50)	(2.62)	(3.26)	(3.60)
R&D	-0.035*	-0.054	-0.071***	-0.002**
	(-1.72)	(-1.63)	(-3.55)	(-2.78)
Tax	-0.000	-0.002	-0.001	-0.000
	(-0.33)	(-1.39)	(-0.51)	(-0.20)
Education	0.003***	0.004***	0.004***	0.000***
	(5.59)	(3.49)	(5.22)	(4.60)
Constant	-0.489**	-0.509**	-0.623***	-0.024***
	(-2.66)	(-2.11)	(-4.21)	(-4.02)
Observations	152	152	152	138
Pseudo R2	0.911	0.877	0.916	0.891

Panel B. Venture Investments as Percentage of Domestic Investments

Dep. Var.	(1) Inv/Domestic Bank Credit	(2) Inv/Domestic Credit by Fin. Sector	(3) Inv/Domestic Credit to Private Sector	(4) Inv/Net Inv in Non-Fin Assets
Religiosity	-0.017**	-0.012**	-0.018**	-1.574**
	(-2.25)	(-2.39)	(-2.31)	(-2.00)
Protestant	0.005*	0.005**	0.005*	0.388
	(1.73)	(2.36)	(1.77)	(0.90)
Catholic	0.011**	0.007*	0.011**	1.432***
	(2.55)	(1.91)	(2.46)	(3.05)
Muslim	-0.003	-0.001	-0.003	-1.024
	(-0.65)	(-0.38)	(-0.60)	(-1.35)
Legor UK	0.007***	0.004**	0.007***	1.235***
	(3.10)	(2.20)	(2.91)	(3.29)
GDP	-0.010***	-0.007***	-0.010***	-1.308***
	(-3.86)	(-3.77)	(-3.84)	(-4.20)
Mkt Cap	0.000	0.001	0.000	-0.068
	(0.02)	(0.33)	(0.05)	(-0.29)
Trade	0.003	0.002	0.003	0.134
	(1.37)	(1.22)	(1.38)	(0.44)
IPO Value	0.000	0.000	0.000	0.027
	(1.02)	(1.23)	(1.10)	(0.99)
# IPO	-0.000**	-0.000**	-0.000**	-0.008**
	(-2.33)	(-2.47)	(-2.42)	(-2.12)
GDP Growth	-0.002	-0.001	-0.002	-0.367
	(-1.33)	(-1.56)	(-1.32)	(-1.21)
GDP Per Capita Growth	0.002	0.002*	0.002	0.382
	(1.42)	(1.68)	(1.40)	(1.14)
Interest	0.000	0.000	0.000	0.009
	(0.61)	(0.37)	(0.63)	(0.49)
CIFAR	0.000	0.000	0.000	0.016
	(0.60)	(0.48)	(0.54)	(0.82)
R&D	0.006***	0.004**	0.006**	0.789***
	(2.63)	(2.15)	(2.60)	(3.55)
Tax	0.000*	0.000**	0.000*	0.039*
	(1.96)	(2.60)	(1.94)	(1.71)
Education	-0.000	0.000	-0.000	0.004
	(-0.22)	(0.14)	(-0.21)	(0.34)
Constant	0.096***	0.071***	0.097***	10.677***
	(3.54)	(3.71)	(3.55)	(4.32)
Observations	152	152	152	141
Pseudo R2	-0.104	-0.0932	-0.103	0.176

Table 7. Religion and Venture Capital Exits

This table reports Cox Hazard model estimates with venture capital successful exits as events. In columns 1 and 2, we code both IPO exits and acquisition exits as successful exits, while in columns 3 and 4 we only consider IPO exits. Definitions of variables can be found in Online Appendix A. Standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Event	(1) IPO+Acq	(2) IPO+Acq	(3) IPO	(4) IPO
Religiosity	0.090**	0.101***	0.088**	0.111***
	(2.24)	(3.11)	(2.00)	(4.61)
Protestant		-1.159*		-1.517***
		(-1.68)		(-2.79)
Catholic		-2.733***		-4.088***
		(-3.38)		(-5.73)
Muslim		-29.834***		-33.541***
		(-20.29)		(-14.72)
Legor UK	-1.149	-2.241**	-0.907	-3.245***
	(-1.36)	(-2.46)	(-1.15)	(-4.90)
GDP	0.343	-0.016	1.290	0.125
	(0.37)	(-0.02)	(0.93)	(0.20)
Mkt Cap	-0.006	-0.009**	-0.010	-0.015
	(-1.10)	(-2.08)	(-0.73)	(-1.42)
Trade	-0.001	-0.007	0.003	-0.009
	(-0.17)	(-1.02)	(0.28)	(-1.64)
IPO Value	-0.026***	-0.024***	-0.039**	-0.037***
	(-2.85)	(-3.58)	(-2.24)	(-2.88)
# IPO	0.004***	0.004***	0.006***	0.006***
	(5.02)	(4.96)	(3.76)	(5.52)
GDP Growth	-0.078	0.052	0.091	0.227
	(-0.14)	(0.11)	(0.22)	(0.53)
GDP Per Capita Growth	0.277	0.010	0.118	-0.205
	(0.47)	(0.02)	(0.27)	(-0.46)
Interest	-0.028	-0.072	0.017	0.001
	(-0.45)	(-0.85)	(0.31)	(0.01)
CIFAR	0.162**	0.235***	0.150***	0.287***
	(2.54)	(4.49)	(3.02)	(6.21)
R&D	0.857*	0.849	1.121**	0.870*
	(1.69)	(1.37)	(1.97)	(1.72)
Tax	0.003	0.019	0.001	0.024*
	(0.19)	(1.05)	(0.03)	(1.67)
Education	-0.004	-0.025	-0.002	-0.041**
	(-0.33)	(-1.63)	(-0.17)	(-2.45)
Observations	21,273	21,273	30,779	30,779
Pseudo R2	0.0676	0.0765	0.0799	0.100

Table 8. Religion, Foreign Investments and Early-Stage Investments

The dependent variables are dummy variables indicating whether the country invest in at least one foreign deal in columns 1 and 2, and whether the country invests in at least one seed-stage or early-stage deal in columns 3 and 4. Definitions of variables can be found in Online Appendix A. Year fixed effects are included; standard errors are clustered at the country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Dep.	(1) Foreign	(2) Foreign	(3) Early Stage	(4) Early Stage
Religiosity	-2.958**	-3.748**	-6.813***	-8.005***
	(-2.21)	(-2.05)	(-3.08)	(-3.56)
Protestant		1.134		0.093
		(0.71)		(0.05)
Catholic		0.301		0.713
		(0.28)		(0.50)
Muslim		0.982		2.140*
		(1.03)		(1.87)
Legor UK	0.043	0.295	-1.205*	-0.561
	(0.07)	(0.28)	(-1.77)	(-0.46)
GDP	0.340	0.396	-0.695**	-0.542*
	(1.00)	(0.93)	(-1.99)	(-1.72)
Mkt Cap	-0.707	-0.740	-2.099*	-2.246*
	(-0.91)	(-0.90)	(-1.92)	(-1.81)
Trade	0.945*	0.846	0.796	0.873
	(1.81)	(1.60)	(1.06)	(1.21)
IPO Value	0.369**	0.404**	0.662**	0.769**
	(2.41)	(2.45)	(2.52)	(2.55)
# IPO	0.028	0.030	0.056***	0.051***
	(1.37)	(1.31)	(2.66)	(2.86)
GDP Growth	0.284	0.160	0.416*	0.158
	(1.18)	(0.64)	(1.71)	(0.66)
GDP Per Capita Growth	-0.317	-0.202	-0.481**	-0.239
	(-1.35)	(-0.83)	(-2.01)	(-1.03)
Interest	0.015	0.017	0.030	0.034
	(0.57)	(0.66)	(0.89)	(1.02)
CIFAR	-0.021**	-0.020*	-0.014	-0.014
	(-2.44)	(-1.87)	(-1.12)	(-0.91)
R&D	0.036	0.030	0.042	0.035
	(1.46)	(1.21)	(1.18)	(0.90)
Tax	0.269	-0.027	0.646	0.398
	(0.58)	(-0.04)	(1.10)	(0.60)
Education	0.007	0.004	-0.011	-0.004
	(0.32)	(0.16)	(-0.41)	(-0.16)
Constant	-2.032	-1.662	11.696***	10.774***
	(-0.69)	(-0.52)	(2.91)	(2.83)
Observations	233	233	233	233
Pseudo R2	0.324	0.331	0.368	0.391

Table 9. Religion and Cross-Border Venture Investments: Country-Dyad Analysis

This table reports country dyads results. The dependent variables are the dollar amount (Inv/GDP) and number (#Inv) of venture investments in Country j from Country i. We do not include same-country VC investments in the analysis. In columns 1 and 2, enterprise country fixed effects are included, while in columns 3 and 4 VC country fixed effects are included. Definitions of variables can be found in Appendix A. Standard errors are clustered at the enterprise country level. T-statistics are reported in parentheses. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Dep. Var.	Inv Amt/GDP	Log(# VC Inv)	Inv Amt/GDP	Log(# VC Inv)
Religiosity_VC	-0.495**	-0.123***		
	(-2.48)	(-2.75)		
Protestant_VC	0.068	0.031		
	(0.78)	(1.41)		
Catholic_VC	-0.012	0.003		
	(-0.13)	(0.14)		
Muslim_VC	0.259***	0.072***		
	(2.85)	(2.84)		
Religiosity_Ent			-0.741***	-0.218***
			(-3.76)	(-4.33)
Protestant_Ent			0.229*	0.099**
			(1.99)	(2.46)
Catholic_Ent			0.436***	0.094***
			(4.08)	(3.21)
Muslim_Ent			-0.031	0.017
			(-0.26)	(0.44)
Same Religion	0.036	-0.011	-0.005	-0.025
	(0.64)	(-0.71)	(-0.08)	(-1.48)
Same Language	0.260	0.100**	0.497**	0.165**
	(1.30)	(2.04)	(2.66)	(2.61)
Same Legal Origin	-0.001	-0.015	-0.092	-0.040*
	(-0.01)	(-0.64)	(-1.29)	(-1.69)
Border Conflict	-0.540	-0.173**	-0.799***	-0.246***
	(-1.61)	(-2.04)	(-3.27)	(-3.07)
Distance	-0.403***	-0.108***	-0.400***	-0.122***
	(-5.13)	(-5.31)	(-4.92)	(-5.05)
Enterprise Country Controls:				
Legor UK			0.387***	0.090***
			(4.42)	(3.24)
GDP	0.272	0.065	-0.155***	-0.024*
	(0.79)	(0.85)	(-3.02)	(-1.69)
Mkt Cap	-0.000	-0.000	0.001	0.000
	(-0.12)	(-0.21)	(1.43)	(0.88)
Trade	0.001	-0.003	-0.009	-0.035**
	(0.01)	(-0.09)	(-0.17)	(-2.21)
IPO Value	0.004**	0.003***	0.008**	0.004***
	(2.31)	(4.13)	(2.36)	(3.24)
# IPO	-0.001***	-0.000***	-0.000	-0.000
	(-2.78)	(-2.83)	(-0.37)	(-0.48)
GDP Growth	-0.022	-0.007	0.036	0.005
	(-0.43)	(-0.76)	(1.64)	(0.76)
GDP Per Capita Growth	0.017	0.006	-0.027	-0.002
	(0.32)	(0.58)	(-1.29)	(-0.39)

Interest	0.002	-0.000	-0.001	-0.000
	(0.37)	(-0.12)	(-0.39)	(-0.36)
CIFAR			-0.004*	-0.002**
			(-1.87)	(-2.46)
R&D	0.013**	0.002	-0.004***	-0.002***
	(2.11)	(1.29)	(-2.84)	(-3.53)
Tax	0.004	-0.007	0.147***	0.022
	(0.04)	(-0.31)	(2.74)	(1.31)
Education	-0.010*	-0.002**	-0.007***	-0.002***
	(-1.98)	(-2.11)	(-3.14)	(-3.65)
VC Country Controls:				
Legor UK	0.267**	0.069**		
	(2.29)	(2.41)		
GDP	0.158***	0.040***	0.125	0.084
	(3.29)	(3.39)	(0.68)	(1.26)
Mkt Cap	0.001**	0.000*	-0.001*	-0.000
	(2.53)	(1.98)	(-1.73)	(-1.66)
Trade	-0.031	-0.003	0.035	0.008
	(-0.57)	(-0.23)	(0.34)	(0.33)
IPO Value	-0.000	0.000	-0.001	0.001
	(-0.06)	(1.25)	(-0.74)	(1.45)
# IPO	0.001**	0.000**	0.000	0.000
	(2.09)	(2.23)	(0.97)	(0.40)
GDP Growth	-0.021	-0.007	-0.032	-0.022*
	(-1.32)	(-1.67)	(-0.91)	(-1.97)
GDP Per Capita Growth	0.026	0.007	0.027	0.019*
	(1.40)	(1.62)	(0.80)	(1.86)
Interest	0.002	0.001*	0.004	0.002
	(0.87)	(1.79)	(1.22)	(1.39)
CIFAR	-0.011***	-0.003***		
	(-3.79)	(-4.17)		
R&D	-0.010***	-0.003***	0.001	-0.000
	(-4.04)	(-4.31)	(0.15)	(-0.00)
Tax	0.076**	0.017	0.170*	0.014
	(2.10)	(1.42)	(1.94)	(0.72)
Education	-0.005***	-0.001***	0.002	0.000
	(-2.85)	(-2.82)	(0.89)	(0.75)
Constant	1.005	0.443	4.350**	0.888
	(0.32)	(0.61)	(2.20)	(1.38)
Observations	7,784	7,784	7,651	7,651
R-squared	0.137	0.166	0.145	0.191