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The Impact of Religious Beliefs on Household High-Risk Investment

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Abstract: *Drawing on the 2023 China General Social Survey (CGSS) database, this paper constructs a Probit model to examine the impact of religious belief on high-risk investment behaviour within households. The findings reveal that households with religious beliefs are more inclined to engage in high-risk investments, with social interaction playing a mediating role in this process. By taking religious belief as its point of departure, this study holds both theoretical and practical significance.*

Keywords: *Religious beliefs; High-risk investment; Social interaction*

1. Introduction

Chinese household wealth has grown substantially over the past decade. According to China Household Finance Survey (CHFS) data, average total household assets rose from around 970,000 yuan in 2011 to 3.179 million yuan in 2021—more than a threefold increase within ten years. Over the same period, the domestic financial market has matured considerably, the range of investable products has widened, and ordinary families have begun allocating a growing share of their wealth toward higher-risk financial instruments.

Religion shapes more than spiritual life—it also moulds the values, cognitive habits, and behavioural norms through which people engage with the material world, including how they earn, save, and invest. This makes it worth asking whether religious affiliation produces systematic differences in how Chinese households allocate financial assets. The present paper takes up that question, focusing on participation in high-risk investment and examining the mechanisms through which religious belief may drive this effect.

2. Literature Review and Marginal Contributions

2.1 Macro-Level Research

Religious doctrines shape people's concept of wealth. Becker et al. (2009) pointed out, based on the historical process of the spread of Protestantism, that Protestantism has helped its believers form a rational and long-term economic decision-making concept by promoting literacy and human capital accumulation[1]. Kim et al. (2021) showed that different religions exhibit significant variation in their attitudes toward interest, risk, and wealth[2].

The wealth concept shaped by religion will be directly reflected in the consumption and savings behavior of families. Lu Jiye et al. (2017) drew on cross-country OECD data to show that differences in religious culture can account for part of the variation in national savings rates across Europe and the Americas. Protestant countries, with their cultural emphasis on thrift and long-term thinking, tended to record higher savings rates than Islamic countries overall[3]. Renneboog et al. (2012) found that Catholic believers tend to take a noticeably more conservative approach to financial asset allocation—holding fewer risky assets and putting a larger share of income into savings[4].

The way people think about money is influenced by their religious background, which can lead to different habits when it comes to saving and investing. This, in turn, can have a big impact on how well a region's economy does. For example, Zeng Kanglin (2014) found that religion plays a role in shaping the values and institutions that guide financial decisions, and ultimately affects how resources are allocated[5]. At the macro level, Barro et al. (2003) identified a positive association between the

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

intensity of religious belief and economic growth across countries[6]. In the Chinese historical context, Bai et al. (2015) found that the spread of Christianity between 1840 and 1920 contributed to local economic prosperity by lowering barriers to education and facilitating knowledge diffusion—one of the cleaner cases in the literature of religion leaving a measurable imprint on long-run development[7].

2.2 Micro-Level Research

Whether religious belief makes people more or less willing to take financial risks is, frankly, not an easy question to answer. León et al. (2017) found that in Germany, Christians were less risk-tolerant than the non-religious[8]. But Germany is not China, and the Chinese data look quite different. Ye Dezhu et al. (2016) found the opposite pattern using CGSS data—religious residents were more active in high-risk investment, not less[9]. Yin Zhichao et al. (2019) confirmed this with CHFS data, with the gap showing up most clearly in stock market participation[10]. Wang Yu et al. (2017) and Qiu Xinguo (2020) found similar results from different angles—household financial investment and asset diversification respectively[11][12]. Xu et al. (2025) complicated the picture further still: within China, the direction of the effect actually shifts depending on which religion dominates locally. Buddhist, Islamic, and Catholic regions showed lower risk appetite; Protestant-majority areas showed higher[13]. So the relationship is real, but it is not simple.

Religion does something else too—it puts people in the same room on a regular basis. That recurring contact is, in many ways, the foundation of the social capital argument. Ruan Rongping et al. (2011) documented this in rural China, where religious groups function as informal safety nets through mutual-aid arrangements that help members manage livelihood risks[14]. Ruan Rongping et al. (2014) followed a similar thread into entrepreneurship: religious communities, they found, support business formation partly by providing the kind of interpersonal backing and resource access that is otherwise hard to come by[15]. Dehejia et al. (2007) showed that this support can extend to consumption smoothing—religious organisations, under the right conditions, absorb some of the financial shock that households would otherwise bear alone[16]. Credit markets are no exception. Pan Li et al. (2016) found that religious households in China lean heavily on informal borrowing within their networks, bypassing banks altogether when they need funds[17].

Trust, without which financial markets cannot function, is another dimension where religious belief leaves a mark. Guiso et al. (2003) made the case that religion tends to cultivate higher levels of social trust—and that this, in turn, draws more people into financial market participation. Believers, they found, are generally more willing to trust strangers, more confident in legal and governmental institutions, less inclined toward rule-breaking, and more likely to take the view that market outcomes are basically fair[18]. Liu Yingxi et al. (2016) brought experimental evidence to bear on this question: in game-based settings, participants with stronger religious convictions proved both more trusting toward others and less prone to deception[19].

The literature reviewed above covers considerable ground—from wealth attitudes and risk preferences to social capital and trust—and taken together it makes a plausible case that religion shapes how households make financial decisions. What is less well documented, at least in the Chinese context, is direct empirical evidence on how religious belief affects participation in high-risk investment specifically, and what mechanisms are actually at work. This is not a trivial gap: without it, both the theoretical framing and the empirical foundations for this line of research remain incomplete. The present paper attempts to fill part of that space. In doing so, it also hopes to contribute to the growing body of indigenized scholarship on the economics of religion in China.

3. Theoretical analysis and research hypotheses

As an informal institution, religion affects household high-risk investment through two main channels.

The first channel runs through risk appetite. Religious frameworks tend to offer believers a way of interpreting uncertainty and misfortune that can reduce the anxiety normally associated with unpredictable outcomes. For investors, this may translate into a greater willingness to sit with ambiguity and accept the possibility of loss. There is also a psychological dimension: when facing market volatility or the prospect of adverse outcomes, religiously grounded beliefs can serve as a stabilising force, loosening the grip of loss aversion that might otherwise keep investors out of high-risk markets altogether.

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

The second channel runs through financial knowledge. Religious gatherings are, among other things, regular occasions for members to talk—and in those conversations, investment experiences and market information naturally get passed around. Someone who has earned returns from a particular asset may share how they did it; others with less exposure pick up practical knowledge along the way. In tighter-knit communities, more sensitive market intelligence may circulate as well. Through repeated interaction of this kind, members gradually build both financial literacy and the confidence to act on it. Accordingly, this paper proposes Hypothesis 1:

H1: Religious beliefs exert a positive and facilitating effect on household high-risk investment behavior.

Religious communities are more than collections of believers—they are recurring social environments where people meet, talk, and gradually form stable relationships built on shared experience and mutual trust. These repeated interactions generate social capital, and it is through this accumulated capital that investment-relevant information tends to circulate. Because members generally trust one another, information about financial opportunities travels more freely within religious networks than it might among strangers, and individuals find it easier to learn what others are doing with their money. When someone in the community earns solid returns from a high-risk investment, word gets around; others take note, weigh up what they have heard, and some decide to follow. This kind of peer-driven diffusion—part information sharing, part imitation—is one of the more concrete ways religious networks end up shaping financial behaviour.

There is also a risk-sharing dimension to consider. Religious organisations typically develop mutual-aid arrangements alongside their charitable activities, creating an informal safety net that members can draw on when things go wrong. Knowing that some protection exists against adverse outcomes may lower the psychological cost of taking financial risks, making members somewhat more willing to venture into high-risk markets than they might otherwise be. Accordingly, this paper proposes Hypothesis 2:

H2: Religious beliefs indirectly influence household high-risk investment behavior through social interaction, forming a mediating effect.

4. Study design

4.1 Data source and sample basic situation

The data in this paper comes from the 2023 Chinese General Social Survey (CGSS) questionnaire, which has broad coverage, strong sample representativeness, and high data quality. Given that the CGSS (2023) data simultaneously covers religious beliefs, household financial investment behavior, and related control variables, and has a high degree of fit with the research indicators in this paper, this data was selected as the research sample. After removing extreme values and missing values, 4798 valid samples were obtained.

4.2 Variable selection and descriptive statistics

Dependent Variable: whether the household engages in high-risk investment behavior. Based on respondents' answers to the question "Is your household currently engaged in any of the following investment activities?", the variable is coded as 1 if the respondent reports "stocks" and 0 otherwise.

Independent Variable: whether the respondent holds religious beliefs. Based on respondents' answers to the question "What is your religious belief?", the religious belief variable is coded as 1 if the respondent indicates having any religious affiliation—irrespective of the specific denomination—and 0 otherwise.

Respondents’ gender, age, ethnicity, educational attainment, political affiliation, health status, household registration (hukou), social security, marital status, personal income, household size, housing ownership, and household income are selected as control variables. The coding, definitions, and descriptive statistics of all variables are presented in Table 1.

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

Table 1: Descriptive statistics for variables.

Variable	Variable description	Mean	Standard deviation	Min	Max
risk investment	1 = Holds stocks, 0 = Does not hold	0.050	0.218	0	1
religion	1 = Has religious belief, 0 = No religious belief	0.079	0.270	0	1
gender	1 = Male, 0 = Female	0.456	0.498	0	1
age	From the respondent's year of birth to 2023	54.663	15.914	18	94
ethnicity	1 = Han ethnicity, 0 = Other ethnicity	0.910	0.286	0	1
education	Coded 1-14, with higher values indicating higher educational attainment	5.039	3.046	1	14
party	1 = Member of the Communist Party of China, 0 = Otherwise	0.120	0.326	0	1
health	Coded 1-5, with higher values indicating better health status	3.360	1.130	1	5
registration	1 = Urban hukou, 0 = Otherwise	0.307	0.461	0	1
insurance	1 = Enrolled in social security program(s), 0 = Not enrolled	0.969	0.175	0	1
married	1 = Married with a spouse, 0 = Otherwise	0.735	0.441	0	1
ln income	Total personal income in 2022	8.445	3.859	0	16
family size	Number of household members	3.216	1.846	1	18
house	Number of housing properties owned by the household	1.190	0.646	0	12
ln fincome	Total household income in 2022	10.435	2.126	0	16

4.3 Model setting

Since the dependent variable and the explanatory variable are both binary dummy variables, this paper adopts a Probit model to examine the effect of religious beliefs on household high-risk investment behavior. The Probit model is specified as follows:

$$Ri = \alpha_i + \beta_1 Rel + \beta_2 ControlVar + \varepsilon_i \quad (1)$$

Ri denotes whether the household participates in high-risk investment (coded 1 if participating, 0 otherwise); Rel denotes whether the household holds religious beliefs (coded 1 if having religious beliefs, 0 otherwise); and ControlVar represents the set of control variables.

5. Empirical results analysis

5.1 Baseline Regression of Religious Beliefs on Household High-Risk Investment

Table 2 Probit Regression Results.

	(1) Model 1	(2) Model 2	(3) Model 3
risk_investment			
religion	0.123	0.272**	0.254**
	(0.106)	(0.118)	(0.122)
gender		-0.046	-0.024
		(0.069)	(0.072)
age		0.011***	0.011***
		(0.003)	(0.003)
ethnicity		0.386**	0.252
		(0.172)	(0.176)
education		0.160***	0.121***
		(0.013)	(0.014)
party		-0.047	-0.066
		(0.093)	(0.096)
health		-0.024	-0.054
		(0.035)	(0.037)
insurance		-0.099	-0.229
		(0.194)	(0.198)
ln_income		0.069***	0.026**
		(0.013)	(0.013)
family_size		-0.057***	-0.128***
		(0.022)	(0.025)
married			0.180**
			(0.086)
house			0.217***
			(0.043)

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

ln_fincome			0.305***
			(0.040)
_cons	-1.653***	-3.885***	-6.547***
	(0.032)	(0.370)	(0.519)
N	4,798	4,798	4,798
Log-Likelihood	-955.052	-794.328	-737.069
Pseudo R-sq	0.001	0.169	0.229

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1.

Table 2 reports the Probit estimates across three specifications. Column (1) enters religious belief alone with no controls; column (2) adds individual-level characteristics; column (3) brings in household-level variables as well. The coefficient on religious belief comes out at 0.272 in column (2) and 0.254 in column (3)—both significant at the 5% level—and holds up as controls are added one by one. Taken at face value, a religiously affiliated household is meaningfully more likely to participate in high-risk investment than an otherwise comparable non-religious one.

5.2 Endogeneity Test

Table 3 IV- Probit Regression Results.

	2SLS	IV-Probit
main		
religion	0.638	3.164***
	(0.441)	(0.600)
Controls	Yes	Yes
Observations	4,798	4,798

Standard errors in parentheses
Note: Standard errors clustered at province level.
*** p<0.01, ** p<0.05, * p<0.1.

The baseline estimates may be biased—omitted variables, measurement error, and reverse causation are all plausible concerns in this setting. To get around this, the study uses the provincial density of religious venues as an instrumental variable. The underlying data come from the national authority responsible for religious affairs administration; from these, the number of registered venues in each province is divided by provincial land area to yield a per-ten-thousand-square-kilometre density index. The intuition is straightforward: where religious venues are more densely distributed, exposure to religious communities is more likely, but venue density itself has no obvious direct route to individual investment decisions.

The IV-Probit results are shown in Table 3. The coefficient on religious belief jumps from 0.254 to 3.164 and is now significant at the 1% level—suggesting that ordinary Probit likely understates the true effect, probably because of downward bias from measurement error. On instrument validity, the first-stage F-statistic clears the conventional threshold of 10 by a comfortable margin, so weak-instrument concerns do not appear to be an issue here.

5.3 Robustness Test

Table 4 Robustness Results.

	(1) Probit(Cluster)	(2) Logit(ME)	(3) Biprobit
main			
religion	0.262**	0.017*	1.154***
	(0.125)	(0.009)	(0.232)
Controls	Yes	No	Yes
Observations	4,798	4,798	4,798

Standard errors in parentheses
Note: Standard errors clustered at province level in parentheses.
ME = Marginal Effects. *** p<0.01, ** p<0.05, * p<0.1.

Table 4 shows that the estimated coefficients or marginal effects of religious belief remain consistent across the three testing methods. In the clustered Probit, the coefficient on religious belief is 0.262 ($p < 0.05$)—almost identical to the baseline estimate of 0.254. The Logit model tells a similar story: the marginal effect is 0.017 ($p < 0.10$), meaning religious households are about 1.7 percentage points more likely to hold risky assets than comparable non-religious ones. The bivariate Probit takes the coefficient up to 1.154 ($p < 0.01$), which lines up with what the IV-Probit found earlier. If anything, the pattern across all three checks points the same way: the baseline is probably a conservative estimate, not an inflated one.

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

5.4 Mediation Effect

Turning to the mediation analysis, the mediator variable used here is social interaction. The social interaction measurement framework is shown in Table 5. The CGSS measures social engagement across 11 sub-dimensions, but these items use different response scales—so pooling them directly would be misleading. Each sub-dimension was therefore standardised using Z-scores first, then averaged with equal weights to produce a single composite index. The resulting variable has a mean of 0.006, a standard deviation of 0.491, and runs from −1 at the low end to 4 at the high end. Higher scores mean the respondent engages socially more often.

Table 5 Social Interaction Measurement Framework.

Item No	Item Content	Options and Coding
A311	In the past year, how often did you engage in the following activities during your free time—socializing	1 = Never, 2 = Seldom, 3 = Sometimes,4 = Often, 5 = Very frequently
A31a	Frequency of social and recreational activities with neighbors	1 = Almost every day, 2 = 1–2 times a week,3 = Several times a month, 4 = About once a month,5 = Several times a year, 6 = Once a year or less,7 = Never
A31b	Frequency of social and recreational activities with other friends	Same as above
C1b-C1i	Are you currently a member of the following organizations and do you actively participate in their activities(community organizations, social welfare organizations,mass movements, alumni associations, recreational clubs,labor unions, professional associations or learned societies)	0 = Not a member, 1 = Member but largely inactive,2 = Member and actively participates

Table 6 Baron-Kenny Mediation Steps.

	(1) Step1: Y~X	(2) Step2: M~X	(3) Step3: Y~X+M
main			
religion	0.262**	0.169***	0.224*
	(0.123)	(0.025)	(0.124)
social			0.202***
			(0.061)
Controls	Yes	Yes	Yes
N	4,798	4,798	4,798
Log-Likelihood	-726.134	-3076.792	-720.875
Pseudo R-sq	0.240		0.246

Standard errors in parentheses
Note: Standard errors in parentheses. M = social (OLS); Y = risk_investment (probit).
* p < 0.10, ** p < 0.05, *** p < 0.01

Table 7 KHB Results.

Effect Type	Coefficient	Robust Std.Err	Z-value	P-value	95% Confidence Interval
Total Effect	0.258	0.130	1.99	0.047	[0.004,0.513]
Direct Effect	0.224	0.126	1.78	0.076	[-0.023,0.471]
Indirect Effect	0.034	0.019	1.81	0.070	[-0.003,0.071]

Table 6 reports the results of the Baron–Kenny results. To begin with, religious belief exerts a significantly positive total effect on high-risk investment participation. It also significantly predicts higher social engagement scores. When social engagement is added to the model alongside religious belief, two things happen: social engagement itself has a significant positive relationship with high-risk investment participation, and the coefficient on religious belief shrinks—from 0.262 to 0.224, a drop of roughly 14.5%. The fact that religious belief remains significant but smaller in magnitude points to partial mediation rather than full mediation.

Applying the KHB method allows a more precise decomposition of these effects, the results are shown in Table 7. The total effect of religious belief comes out at 0.258; the portion that operates directly is 0.224; and the portion that passes through social interaction is 0.034, representing about 13.25% of the total. Neither method alone is definitive, but together they build a consistent picture: social interaction is one real pathway—though not the only one—through which religious affiliation ends up raising household participation in high-risk investment.

ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

6. Conclusions and recommendations

Religion is a key part of culture. It shapes how people think, what they value, and how they act, and in this way it has a lasting effect on how households allocate their financial assets, which in turn affects the broader economy. To look into how religious beliefs affect household high-risk investment, this paper uses data from the 2023 Chinese General Social Survey (CGSS) and runs a Probit model. The results show that religious beliefs help push households toward high-risk investment and meaningfully raise the chance that a household will enter high-risk financial markets. As for how this works, religious beliefs do not affect investment choices in a direct way—they mainly work through social interaction. Believing in a religion clearly leads people to take part in social activities more often, and more social interaction is linked to more high-risk investment. Religious activities bring people closer together and get them talking more, which lets investment know-how spread among the group and encourages others in the group to copy and follow along, further raising the odds that a household will join in high-risk investment.

Religious beliefs shape how people see value and wealth. As the capital market system keeps improving, this cultural force deserves real attention. A few suggestions: when making financial policies, more thought should be given to investors' cultural backgrounds, to the spiritual and financial needs of believers, and to the wider social good that religious beliefs can bring; the management of places for religious activities should be brought up to standard, and social interaction should be guided in a positive direction; financial agencies can work with religious groups to keep an eye on investment markets, spread basic financial knowledge, and warn people about fraud risks.

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ISSN 2616-5902 Vol. 8, Issue 7: 48-55, DOI: 10.25236/AJBM.2026.080708

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