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Analysis of the Impact of Pension Finance on Household Financial Asset Allocation in Chengdu

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Abstract

Global populations face the universal challenge of aging, with China's demographic aging issue characterized by its large scale, profound impact, and rapid progression. This phenomenon places dual pressures on the nation's economic growth and pension burden. As the economic hub of western China, changes in household financial asset allocation in Chengdu are highly representative. Therefore, this paper takes Chengdu as the research object to investigate household asset allocation behaviors in response to pension financial products. Based on the Chengdu Household Finance Survey (CHFS) data, the Probit model is employed to analyze the key factors influencing household financial asset allocation. The study finds that the allocation of risky financial assets is significantly associated with factors such as pension ownership and household income levels. Finally, based on the results of the model analysis, the paper proposes relevant suggestions for optimizing the structure of household financial asset allocation in Chengdu, aiming to help households better address future pension demands.

Keywords

Pension Finance; Household Financial Asset Allocation; Probit Model; Chengdu.

1. Introduction

According to the "2022 National Elderly Affairs Development Bulletin" released by the Ministry of Civil Affairs, China's aging population has experienced a steady and consistent increase from 2012 to 2020, indicating that the country's demographic structure has transitioned into a stage of significant aging. In light of these demographic shifts, the development of pension finance has gradually become a focal point of societal attention. The structure of household financial asset allocation in China has been substantially influenced by the aging trend, leading to growing household interest in pension funds, elderly services, and the pension industry.

As a key economic hub in Western China, Chengdu's aging population phenomenon is particularly prominent (Table 1). From 2018 to 2022, Chengdu's aging population represented a significant proportion of Sichuan Province's total, making the changes in its household financial asset allocation particularly representative and valuable for research.

Table 1. Data on Elderly Population in Chengdu (2018–2022)

Year	2018	2019	2020	2021	2022
Elderly Population (Million)	315.06	316.04	315.27	320.80	324.24
Increase (Million)	/	0.98	-0.77	5.53	3.44
Growth Rate	/	0.31%	-0.24%	1.75%	1.07%
Proportion of Total	21.35%	21.07%	20.75%	20.61%	20.63%
National Elderly Proportion	17.90%	18.10%	18.70%	18.90%	19.80%
Sichuan Province Elderly Proportion	20.40%	21.22%	21.71%	21.51%	20.04%

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Research on the changes in household financial asset allocation has been extensively conducted by scholars both domestically and internationally, with significant achievements made based on the respective national contexts. Internationally, the field of pension finance began earlier, with relatively mature systems. However, as China faces the increasing challenges of population aging, domestic scholars have become more focused on how to effectively address this issue. Based on a review of both domestic and international research findings, this study identifies three main factors influencing changes in household financial asset allocation: the degree of population aging and family structure, household income and wealth, and risk preferences.

Firstly, the degree of population aging and family structure significantly impact the allocation of household financial assets. Weixiong Chen (2017) indicated that as the aging process intensifies, the overall allocation of household financial assets tends to increase [1]. Yajuan Lu (2018) found that when the number of elderly individuals in a household increases, the proportion of overall risky investments generally decreases, although the amount of stock investments may increase [2]. Binhui Jian and Tingting Xu (2019) further noted that a household's participation in pension insurance is closely linked to its income level [3].

Secondly, household income and wealth also play a key role in asset allocation. Li Zhou (2023) observed that with an increase in the elderly population within a household, the proportion of risky investments generally decreases, regardless of the household composition [4]. However, in the specific area of stock investments, the investment amount shows an increasing trend.

Lastly, risk preferences are a critical factor influencing household asset allocation. Peter Santen (2019) noted that decisions regarding savings and consumption within households are closely related to pension income levels [5]. Khan Safdar Ullah (2022) further emphasized that the configuration of household investment portfolios is strongly influenced by the risk preferences of its members [6].

These studies indicate that changes in household financial asset allocation result from the interplay of multiple factors. While population aging may lead to a decrease in the proportion of overall risky assets, household income levels and risk preferences play an important role in adjusting asset choices. Therefore, this study focuses on Chengdu as a case study to explore how regional differences in economic development levels and policy environments affect household financial asset allocation. Through data surveys and Probit model analysis, it reveals the role of pension finance in optimizing household financial asset allocation, providing practical insights for addressing population aging and promoting the healthy development of household finances.

2. Data Source

This study uses the 2019 survey data from the China Household Finance Survey (CHFS). The database provides detailed information on household financial conditions, individual income levels, expenditure patterns, and other related factors, covering 29 provinces and over 300 districts and counties (excluding Tibet, Xinjiang, Hong Kong, Macau, and Taiwan). Due to the survey's high authority and widespread use in recent years, it was chosen as the data source. For this research, 1,163 matched sample data points from Chengdu in 2019 were selected. These data cover various aspects of household information, including consumption and income, demographic characteristics, social employment, and social security, providing authoritative empirical data for this study. This database is highly suitable for examining the relationships between social pension finance and household asset allocation.

The respondent information is categorized by gender and age, as shown in Table 2.

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Table 2. Basic Information of Chengdu Residents' Sample

Attribute	Option	Number of People (persons)	Proportion (%)
By Gender	Male	830	71.4%
	Female	333	28.6%
By Age	24-29 years	60	5.16%
	30-35 years	58	4.99%
	36-41 years	83	7.14%
	42-47 years	157	13.49%
	48-53 years	192	16.51%
	Above 53 years	613	52.71%
By Household Size	1-3 members	781	67.15%
	4-7 members	382	32.85%

2.1. Divide by Gender

According to the results from the Chengdu household financial asset allocation database, among 1163 valid responses, 830 respondents were male, accounting for 71.4%, while 333 respondents were female, accounting for 28.6%. This indicates that the sample database for Chengdu residents contains a significantly higher proportion of males.

2.2. Divide by Age

According to the statistics from the CHFS 2019 database, respondents aged 35 and below accounted for 10.15%, while those aged 53 and above accounted for 52.71%. Clearly, the sample data for older individuals far exceeds that of younger individuals, indicating that Chengdu has a serious aging population, with a significant proportion of elderly individuals.

2.3. Divided by Household Size

According to the statistics from the CHFS 2019 database, more than half of the households were one-child families, accounting for 67.15% of the overall sample, while a minority were multi-child families, accounting for 32.85%.

3. Research Hypothesis

Based on the factors influencing the financial asset allocation of households in Chengdu, this paper proposes four hypotheses.

3.1. The Impact of Pension Ownership on Chengdu Households' Holdings of Risky Financial Assets

Statistical analysis of the questionnaire data reveals that most households with pensions tend to hold risky financial assets, as illustrated in Tables 3 and 4. Furthermore, Wenpei Zhu and Yi Lin (2023), through an analysis of pension finance development in the United States, Japan, and the Netherlands, argue that integrating the three pillars of pension finance with the specific national context can effectively foster development [7]. This integration, in turn, promotes households' participation in risky financial asset holdings, with pension ownership being a key contributing factor.

Table 3. Pension Ownership Among Chengdu Residents

Ownership	Number	Proportion
Yes	624	53.65%
No	539	46.35%

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Table 4. Risk Financial Asset Ownership Among Chengdu Residents

Ownership	Number	Proportion
Yes	1087	93.47%
No	76	6.53%

Based on these considerations, the first hypothesis of this study is proposed:

H1. *Pension ownership exerts a certain degree of influence on Chengdu households' participation in risky financial asset holdings.*

3.2. The Impact of Annual Household Income on the Financial Asset Allocation of Chengdu Households

Over years of development, the composition of household assets has become a critical consideration. Wenpei Zhu and Yi Lin (2023) discovered that when monetary savings and investment portfolios come into play, changes occur in household income and expenditure patterns [7]. Similarly, the research by Y.T. Chen(2023) revealed that variations in income and investment portfolios directly influence future outcomes [8]. As household income increases, the proportion of investments in risky assets tends to rise correspondingly. This suggests that higher-income households are more inclined to participate in risky financial asset markets.

Based on the above reasons, this study proposes the second hypothesis:

H2. *Annual household income has a certain degree of impact on the behavior of Chengdu households in holding financial assets.*

3.3. The Impact of Risk Attitude on the Financial Asset Allocation of Chengdu Households

Khan Safdar Ullah et al. (2022), through an analysis of data from the Household, Income, and Labour Dynamics in Australia (HILDA) survey, summarized the risk preferences of households in asset allocation. Their study delved deeply into various risk preferences and their differences from traditional financial management models [6]. Similarly, Hongmei Li et al. (2023), in their empirical research on elderly households, found that with an increase in risk preference, the financial management capabilities of elderly households also improve correspondingly, facilitating more effective investment in financial needs [9].

Based on the above reasons, this study proposes the third hypothesis:

H3. *Risk attitude influences the decision-making process of Chengdu households in participating in risky financial assets.*

3.4. The Impact of Household Size on the Financial Asset Allocation of Chengdu Households

Yajuan Lu et al. (2018) explored the impact of population aging on household financial asset allocation from the perspective of household structure and size [2]. Their research showed that with population aging, elderly households exhibit reduced demand for financial assets and a diminished capacity to bear risk. This results in a decreased proportion of household investment in risky assets, even though the absolute amount of stock investment increases.

Based on the above theoretical foundation, this study proposes the fourth hypothesis:

H4. *Household size influences the participation of Chengdu households in risky financial activities.*

4. Model Construction

To deeply investigate how pension finance affects the ownership of risky financial assets among households in Chengdu, this study employs Probit regression analysis using Stata.

$$Rpart_i^* = \alpha Pension_i + \beta X_i + \varepsilon_i$$

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$$Rpart = I(Rpart_i^* > 0)$$

Here, $Rpart^*$ represents a *Latent Variable*; $Rpart$ denotes household i, which is a dummy variable indicating whether the household holds risky financial assets, with a value of *1* if they do and *0* otherwise. $Pension$ is a dummy variable representing whether household i has a pension. The symbol I *(*)* denotes an indicator function, taking a value of 1 if the condition inside the parentheses is met and 0 otherwise. ε epsilon is a random error term that follows a normal distribution, and X represents control variables.

5. Variable Setting

5.1. Variable Description

The explanatory variable is defined as whether a household holds a pension. The dependent variables are defined as the depth and breadth of participation in financial assets by households in Chengdu. Household characteristics, household income, education level, and risk preferences are included as control variables.

Table 5. Dependent Variable Definition

Variable	Variable Description
Whether Chengdu households own risk financial assets	Assigned value: 1 for ownership; 0 otherwise

Table 6. Explanatory Variable Definition

Variable	Variable Description
Pension Ownership	Assigned value: 1 for ownership; 0 otherwise
Annual Household Income	Assigned values: 5w-7w=0, 8w-10w=1, 11w-13w=2

To ensure the accuracy and reliability of the research results, we selected control variables to exclude the interference of other potential influencing factors. This study adopts three dimensions-household characteristics, household economic status, and risk preference-to choose seven control variables. The specific categories and assignments are detailed in Table 7.

Table 7. Control Variable Definition

Variable	Description
Gender	Assigned value: 1 for male; 0 for female
Age	Assigned values: 24-29=0, 30-35=1, 36-41=2, 42-47=3, 48-53=4, above 53=5
Educational Level	Assigned values: Primary or below=1, Junior high=2, High school and vocational=3, University=4
Health Status	Assigned values: Very unhealthy=1, Unhealthy=2, Average=3, Healthy=4, Very healthy=5
Marital Status	Assigned value: 1 for married; 0 for unmarried (and others)
Household Size	Assigned values: 1-3=0, 4-7=1
Risk Attitude	Assigned values: High risk, high return=1; Moderate risk, moderate return=3; Avoid risk=5

5.2. Descriptive Statistical Analysis of Variables

After processing the data and excluding missing values, a total of 1,163 valid samples were obtained, and the descriptive statistics of the variables are summarized in Table 8.

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Table 8. Descriptive Statistics of Variables

Variable	Obs	Mean	SD	Median	Min	Max
Risk Financial Assets Ownership	1,163	0.065	0.247	0.000	0.000	1.000
Pension Ownership	1,163	0.918	0.274	1.000	0.000	1.000
Annual Household	1,163	10.614	1.414	10.840	5.278	13.455
Gender	1,163	0.714	0.452	1.000	0.000	1.000
Age	1,163	55.051	14.409	54.000	24.000	85.000
Educational Attainment	1,163	2.046	1.038	2.000	1.000	4.000
Health Status	1,163	3.294	0.907	3.000	1.000	5.000
Marital Status	1,163	0.842	0.365	1.000	0.000	1.000
Household Size	1,163	3.046	1.511	3.000	1.000	7.000
Risk Attitude	1163	1.693	1.034	1.000	1.000	5.000

Dependent Variables: The mean percentage of households participating in risky financial assets is 6.5%, with a median of 0. This indicates that households generally adopt a cautious attitude toward risky financial assets, with the majority opting for savings, cash, and other wealth-preserving methods instead of investing in stocks or mutual funds. This behavior may be linked to households' overall risk aversion toward such assets.

Independent Variables: Among the respondents, the mean percentage of pension ownership is 91.8%, with a standard deviation of 0.274, indicating a high pension participation rate but a lack of diversification. The mean annual household income is 106,140 yuan, with a median of 108,400 yuan and a standard deviation of 1.414, reflecting a substantial proportion of low-income households in Chengdu and significant wealth disparities among them.

Control Variables: The number of male respondents is twice that of females, and the proportion of married individuals far exceeds that of unmarried ones. Most respondents have an above-average health status. The mean education level is 2.064, with a median of 2, suggesting that the majority of respondents possess an education level equivalent to junior high school. The average household size is 3.064, with a median of 3, indicating that most surveyed households consist primarily of single-child families. Lastly, the mean risk attitude score is 1.639, with a median of 1, demonstrating that most households have a higher propensity for risk-taking.

6. Regression Results Analysis

6.1. Model Analysis

To more accurately evaluate whether the explanatory variables significantly influence the dependent variable, this study adopts a two-step approach. First, a Probit model is used to analyze how the two core explanatory variables affect the probability of households holding risky assets. After this preliminary analysis, seven control variables are added for another Probit model regression analysis. This method allows us to more precisely determine whether the influence of the core explanatory variables on the dependent variable is independent of other variables. The results are shown in Table 9 and Table 10:

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Table 9. Regression Results with Pension Ownership as the Key Explanatory Variable

Variable	Probit 1 (Risk Financial Asset Ownership)	Probit 2 (Risk Financial Asset Ownership)
Pension Ownership (Key Explanatory Variable)	0.200* (0.116)	0.558*** (0.172)
Gender		-0.255* (0.141)
Age		-0.0340 (0.0575)
Educational Attainment		0.412*** (0.0700)
Health Status		0.142* (0.0799)
Marital Status		0.779*** (0.238)
Household Size		-0.123** (0.0587)
Risk Attitude		0.246*** (0.0606)
Constant	-1.626*** (0.0899)	-3.835*** (0.476)
Sample Size	1163	1163

Notes: (1) ***, *, * indicate significance levels at 1%, 5%, and 10%, respectively.

(2) Figures in parentheses are robust standard errors.

Table 10. Regression Results with Annual Household Income as the Key Explanatory Variable

Variable	Probit 3 (Risk Financial Asset Ownership)	Probit 4 (Risk Financial Asset Ownership)
Annual Household Income (Key Explanatory Variable)	0.739*** (0.122)	0.453*** (0.145)
Gender		-0.269* (0.140)
Age		0.0671 (0.0472)
Educational Attainment		0.323*** (0.0727)
Health Status		0.146* (0.0804)
Marital Status		0.600** (0.235)
Household Size		-0.147** (0.0601)
Risk Attitude		0.241*** (0.0613)
Constant	-2.675*** (0.213)	0.485*** (0.142)
Sample Size	1163	1163

Notes: (1) ***, *, * indicate significance levels at 1%, 5%, and 10%, respectively.

(2) Figures in parentheses are robust standard errors.

The study reveals that in a regression model containing only the core explanatory variable and the dependent variable, the variable representing pension holding passes the test at the 10%

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significance level, while household annual income passes at the 1% significance level. This indicates that household annual income has a more significant positive impact on holding risky financial assets compared to pension holdings.

After introducing a series of control variables, both core explanatory variables in this study successfully pass the test at the 1% significance level, demonstrating their significant influence on household financial asset allocation. Among the control variables, six factors pass the tests at significance levels of 10%, 5%, and 1%, respectively, whereas the factor of age is completely insignificant. This suggests that, apart from age, these factors exert varying degrees of influence on the financial asset allocation of households in Chengdu.

To further investigate the specific effects of the two core variables on risky financial assets after incorporating control variables, this study conducts a detailed analysis of the regression results of Probit Model 2 (with pension holding as the core explanatory variable) and Probit Model 4 (with household annual income as the core explanatory variable). The findings, as shown in Tables 11 and 12, provide deeper insights.

Table 11. Probit Model 2 Regression Results

Risky Financial Asset Holding	Coefficient	Std. err.	z	P> | z |	[95% conf.interval]	
Pension Ownership	.5575825	.1721164	3.24	0.001	.2202406	.8949244
Gender	-.255099	.1407384	-1.81	0.070	-.5309412	.0207432
Age	-.034004	.0574823	-0.59	0.554	-.1466673	.0786593
Educational Attainment	.4115567	.0699821	5.88	0.000	.2743943	.5487192
Health Status	.1417101	.0799289	1.77	0.076	-.0149476	.2983678
Marital Status	.7791598	.2377169	3.28	0.001	.3132432	1.245076
Household Size	-.1230075	.0586873	-2.10	0.036	-.2380325	-.0079824
Risk Attitude	.2457024	.060605	4.05	0.000	.1269187	.364486
_cons	-3.834832	.4761345	-8.05	0.000	-4.768039	-2.901626

Table 12. Probit Model 4 Regression Results

Risky Financial Asset Holding	Coefficient	Std. err.	z	P> | z |	[95% conf.interval]	
Annual Household Income	.484546	.1423051	3.40	0.001	.2056331	.7634589
Gender	-.2689305	.1402463	-1.92	0.055	-.5438081	.0059471
Age	.0671301	.0471803	1.42	0.155	-.0253416	.1596018
Educational Attainment	.3230318	.0727226	4.44	0.000	.180498	.4655655
Health Status	.1464662	.0803818	1.82	0.068	-.0110792	.3040117
Marital Status	.5999781	.2349037	2.55	0.011	.1395754	1.060381
Household Size	-.1470867	.0600938	-2.45	0.014	-.2648682	-.0293051
Risk Attitude	.2414981	.0613448	3.94	0.000	.1212646	.3617316
_cons	-4.20792	.4894935	-8.60	0.000	-5.167309	-3.24853

Based on the regression data in Table 11, the p-value of pension holding status for Chengdu households' risky financial assets is 0.001, which is less than 0.05. The regression coefficient is 3.24, greater than 0, and significant at the 0.01 level. Therefore, it can be inferred that whether households participate in pensions has a highly significant positive impact on their participation in risky financial asset investment. This indicates that households holding pensions are generally more likely to engage in risky financial asset activities.

According to the regression data in Table 12, the p-value of household annual income for Chengdu households' risky financial assets is 0.001, which is less than 0.05. The regression coefficient is 3.40, greater than 0, and significant at the 0.01 level. This suggests that the higher the annual income of Chengdu households, the greater the likelihood of their participation in risky financial assets.

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Furthermore, among the control variables, the p-values of marital status, educational attainment, risk attitude, and household size are all less than 0.05. Except for household size, the regression coefficients of the other three variables are positive, indicating that these four control variables have a relatively significant effect on households' holdings of risky financial assets. Additionally, the results further demonstrate that households with higher educational attainment are more likely to participate in risky financial assets. Analysis of marital status data also reveals that married households are more inclined to increase their likelihood of participating in risky financial assets compared to unmarried individuals. Similarly, households with higher risk preferences are more likely to hold risky financial assets. However, the survey data indicate a negative correlation between household size and risky financial assets, suggesting that the larger the household size, the lower the probability of participating in risky financial assets. Finally, gender, age, and health status are not significant at the 5% significance level, indicating that these three factors do not have a significant impact on households' participation in risky financial assets.

6.2. Marginal Effects and Prediction Accuracy

To accurately evaluate the impact of core explanatory variables and control variables on the holding of risky financial assets, this study adopts the method of marginal effect analysis. This approach allows for a clearer understanding of the contribution of each variable to the outcome and facilitates observation of the extent to which changes in a specific independent variable affect the probability of an event occurring. Moreover, it helps to verify the validity of our hypotheses. The marginal effects are shown in Tables 13 and 14.

Table 13. Marginal Effect Analysis with Pension Ownership as the Core Explanatory Variable

Delta-method						
	dy/dx	std. err.	z	P>z	[95% conf.	interval]
Pension Ownership	.0579339	.0180468	3.21	0.001	.0225628	.0933051
Gender	-.0265053	.0146471	-1.81	0.070	-.055213	.0022024
Age	-.0035331	.0059748	-0.59	0.554	-.0152436	.0081774
Educational Attainment	.0427616	.0074596	5.73	0.000	.028141	.0573821
Health Status	.014724	.0083356	1.77	0.077	-.0016136	.0310615
Marital Status	.0809562	.0248686	3.26	0.001	.0322148	.1296977
Household Size	-.0127807	.0061245	-2.09	0.037	-.0247845	-.0007769
Risk Attitude	.025529	.0063757	4.00	0.000	.0130328	.0380252

The table shows that when all control variables are held constant, changes in household pension holdings lead to a probability of about 5.8% for participation in risky financial assets.

Table 14. Marginal Effect Analysis with Annual Household Income as the Core Explanatory Variable

Delta-method						
	dy/dx	std. err.	z	P>z	[95% conf.	interval]
Annual Household Income	.0501815	.0149298	3.36	0.001	.0209196	.0794433
Gender	-.0278515	.0145573	-1.91	0.056	-.0563832	.0006802
Age	.0069523	.0048944	1.42	0.155	-.0026406	.0165451
Educational Attainment	.0334544	.0076067	4.40	0.000	.0185456	.0483633
Health Status	.0151686	.0083521	1.82	0.069	-.0012013	.0315385
Marital Status	.0621361	.0243819	2.55	0.011	.0143484	.1099237
Household Size	-.0152329	.0062484	-2.44	0.015	-.0274795	-.0029862
Risk Attitude	.0250105	.0064367	3.89	0.000	.0123948	.0376262

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Table 14 shows that when control variables are held constant, for every unit increase in household annual income, the likelihood of participating in risky financial assets increases by approximately 5.0%. Similarly, it is clearly observed that education level, marital status, and risk attitude are positively correlated with holding risky financial assets, while the number of household members is negatively correlated with holding risky financial assets.

Finally, this study evaluates the goodness of fit of the Probit model using the "estat clas" command, which can adequately demonstrate the model's predictive accuracy. Since the model evaluates the situation of holding risky financial assets, with control variables held constant, the results of the two models are almost identical, as shown in Table 15.

Table 15. Goodness-of-Fit Test of the Mode

Probit model for y			
Classified	D	~D	Total
+	1	1	2
-	75	1086	1161
Total	76	1087	1163
Classified + if predicted Pr(D)>=.5			
True D defined as y!=0			
Sensitivity		Pr(+| D)	1.32%
Specificity		Pr(-|~D)	99.91%
Positive predictive value		Pr(D| +)	50.00%
Negative predictive value		Pr(~D| -)	93.54%
False + rate for true~D		Pr(+|~D)	0.09%
False - rate for true D		Pr(-| D)	98.68%
False + rate for classified +		Pr(~D| +)	50.00%
False-rate for classified -		Pr(D| -)	6.46%
Correctly classified			93.47%

Table 15 shows that the model's predictive accuracy (Correctly classified) reaches 93.47%, indicating that the model is significantly effective. This suggests that whether a household holds pension funds and the annual household income are positively correlated with and have a strong incentive effect on the participation of Chengdu residents in risky financial assets.

6.3. Conclusion

Based on the empirical analysis, it is concluded that the ownership of risky financial assets by Chengdu residents is significantly associated with pension ownership, annual household income, educational attainment, marital status, household size, and risk attitude. However, gender, age, and health status do not have a significant impact on the ownership of risky financial assets among Chengdu residents. Therefore, Hypotheses 1, 2, 3, and 4 are all validated.

Pension ownership has a significant positive effect on the likelihood of Chengdu households owning risky financial assets. In the model, the coefficient of this factor is 3.21, indicating that for every additional household member with a pension, the probability of the household participating in risky financial asset investment increases. As shown in Table 13, an increase of one unit in pension ownership corresponds to a 0.0579 increase in the probability of Chengdu households holding risky financial assets.

The increase in annual household income among Chengdu residents significantly incentivizes the ownership of risky financial assets, demonstrating a notable positive effect. In the model, this factor has a coefficient of 3.36, indicating that higher annual household income leads to a more active attitude toward participating in risky financial asset investments. As shown in

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Table 14, with an increase in annual household income, the proportion allocated to risky financial assets rises by 0.0502.

Risk attitude also has a significant positive impact on the ownership of risky financial assets by Chengdu households. In the model, this factor's coefficients are 4.00 and 3.89, respectively, showing that households with a risk-averse attitude tend to adopt a more conservative stance toward risky financial assets. As reflected in Tables 13 and 14, for every unit increase in risk attitude, the probability of holding risky financial assets increases by 0.0255 and 0.250, respectively.

Household size, however, exhibits a significant negative correlation with the ownership of risky financial assets. The coefficients for this factor are -2.09 and -2.44, indicating that as the number of household members increases, attitudes toward holding risky financial assets become more negative. According to Tables 13 and 14, for each additional household member, the probability of holding risky financial assets decreases by 0.128 and 0.152, respectively.

7. Recommendations

With the development of China's social pension system and the influence of international pension finance markets, Chengdu residents' household financial asset allocation is undergoing significant changes. Based on the empirical analysis in this study, the following recommendations are proposed:

7.1. Ptimize a Diversified Pension Security System and Coordinate the Three Pillars

Research indicates that pension participation facilitates households' entry into the risky financial market. To this end, the government can optimize the three-pillar pension system. Firstly, the foundational role of the first pillar should be strengthened to ensure the sustainability of pensions, improve benefits, and expand coverage. Secondly, the development of the second pillar should be advanced by promoting corporate pensions and occupational pension plans while enhancing their flexibility. Lastly, the third pillar should be invigorated through tax incentives, diversification of commercial pension insurance products, and pension finance education to encourage personal savings.

7.2. Promote Financial Services for the Elderly and Raise Awareness of Pension Finance

Differences in pension participation arise from variations in pension amounts, usage, and cognitive needs. Financial institutions in Chengdu should offer diverse and flexible pension financial products to meet the needs of different elderly groups. Cross-industry collaborations should be encouraged to provide comprehensive elderly care solutions. Community-based initiatives, such as regular pension finance awareness activities, can improve public understanding and encourage broader participation. Events like competitions and seminars can also increase societal attention to pension finance.

7.3. Enhance Inclusiveness of Pension Finance and Develop Service Platforms

Despite the expanded coverage of the pension finance system, inclusiveness needs to be improved, particularly in southwestern regions like Chengdu. The government can enhance service efficiency and accessibility through online platforms and offline service networks, offering tailored services for the elderly. Diverse pension products should be designed to cater to different income levels and risk preferences, complemented by personalized services. Additionally, efforts should be made to improve financial literacy among the elderly, alongside strengthening regulatory mechanisms to ensure the safety of financial products and mitigate risks.

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References

[1] W.X. Chen: The Impact of Population Aging on Household Financial Asset Allocation (MS., Xiangtan University, China 2017), p. 27.

[2] Y.J. Lu, L. Shu, and J.H. Wang: The Impact of Population Aging on Household Financial Asset Allocation-From the Perspective of Family Structure. Modern Economic Discussion, Vol. 05 (2018) No. 05, p. 40-45.

[3] B.H. Jian, and T.T. Xu: Household Age Structure, Pension Insurance, and Household Financial Asset Allocation. Financial Development Research, Vol. 06 (2019) No. 07, p. 23-27.

[4] Li Zhou, Hao Liu, and Jiashan Li: Retirement Shocks, Information Access, and the Efficiency of Household Financial Asset Allocation in China—Discussing Household Pension Choices Against the Backdrop of Aging. Fujian Forum (Humanities and Social Sciences Edition), Vol.03 (2023) No.3, p. 123-139.

[5] Peter Santen: Uncertain Pension Income and Household Saving. Review of Income and Wealth, Vol. 65 (2019) No. 03, p. 908-929.

[6] K.S. Ullah, R. Satyanarayana, R.H. Ur, et.al: Household Portfolio Allocations: Evidence on Risk Preferences from the Household, Income, and Labour Dynamics in Australia (HILDA) Survey Using Tobit Models. Journal of Risk and Financial Management, Vol. 15 (2022) No. 04, p. 689-701.

[7] Wenpei Zhu, and Yi Lin: Identifying, Preventing, and Governing Pension Financial Risks in the Context of Population Aging. Contemporary Economic Management, Vol.45 (2023) No. 09, p.79-89.

[8] Y.T. Chen: The Impact of Pension Insurance on Household Financial Asset Allocation and Regional Differences-An Empirical Analysis Based on CHFS 2019 Data (MS. Guangxi Normal University, China 2023), p. 36.

[9] Hongmei Li, Ziqi Zhang, and Jinlong Guo: The Relationship Between Financial Literacy, Risk Preferences, and the Efficiency of Financial Asset Allocation in Chinese Elderly Households. Price Theory and Practice, Vol. 11 (2023) No. 02, p. 202-208.