



The Mechanism of Social Security on Household Saving Behavior from the Perspective of Multidimensional Preferences

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Abstract: Against the macro background of expanding domestic demand and unclogging the domestic circulation in China, the pattern of high savings and low consumption among urban and rural residents has not been fundamentally changed. Relevant academic discussions still lack sufficient micro-level paths and quantitative evidence on how social security affects household saving behavior in regions with concentrated private sectors. This paper takes Quanzhou, a city with a highly developed private economy, as the research setting to systematically examine the effect of social security on local residents' household saving behavior and test the mediating role of precautionary saving motivation therein. Based on 537 micro-survey questionnaire data, this study employs SPSS 26.0 to conduct reliability and validity tests, descriptive statistics, correlation analysis, multiple regression, and the Bootstrap mediating effect test. The empirical results show that social security has a significant negative effect on residents' saving behavior in Quanzhou ($\beta=-0.266$, $p<0.01$) and significantly inhibits precautionary saving motivation; precautionary saving motivation has a significant positive driving effect on saving behavior and plays a partial mediating role between social security and saving behavior. This paper enriches the micro-empirical findings on household saving behavior in regions with a vibrant private economy, advances the localized application of precautionary saving theory, and can provide decision-making references for Quanzhou and similar regions to improve the social security system and guide residents to save and consume rationally.

Keywords: Multidimensional Preferences; Social Security Level; Household Saving Behavior; Precautionary Saving Motivation; Mediating Effect

1.Introduction

In the process of accelerating the construction of a new development pattern focused on domestic circulation and mutually reinforcing domestic and international circulations in China, expanding domestic demand and stimulating residents' consumption

potential have become core measures to stabilize the economic fundamentals and achieve high-quality development (Guo & Tian, 2022). The report to the 20th National Congress of the Communist Party of China emphasizes improving the multi-level social security system and enhancing the equal access and

availability of basic public services. One of its important policy goals is to effectively unleash residents' consumption potential by stabilizing residents' future income and expenditure expectations and weakening the tendency of precautionary saving (Zhang et al., 2024). At present, China's household saving rate remains relatively high, and a large amount of potential consumption capacity has not been transformed into actual demand. The formation mechanism and influencing factors of residents' saving behavior have become important topics of common concern to academia and policy makers (Zhang et al., 2025).

Existing studies generally agree that residents' saving behavior is a joint product of individual psychological characteristics and the external institutional environment (Zafar, 2026). As a key institutional factor, social security exerts a non-negligible influence on household saving decisions. However, most existing achievements are analyzed based on national-level macro data. There is a lack of micro-empirical tests targeting specific regions with a highly developed private economy, obvious volatile income characteristics of residents, and a predominantly flexible employment structure. Moreover, there is a lack of precise quantitative analysis of the internal transmission chain through which social security affects saving behavior.

As a typical representative city of China's private economy, Quanzhou boasts a high contribution rate of the private economy and prominent characteristics of integrated urban-rural development (Wang & Tian, 2023). Local residents' income levels are highly bound to market cycle fluctuations. Their saving behavior not only reflects the typical risk aversion tendency of private economy

practitioners but also has special attributes under the urban-rural dual structure. Therefore, conducting research with Quanzhou residents as samples not only has distinct practical pertinence but also further clarifies the internal logic of residents' saving behavior in a typical regional context, providing reliable empirical support for improving the people's livelihood security system and unleashing regional consumption potential. Based on the deficiencies in existing studies, this paper focuses on two core questions: First, what key factors affect the saving behavior of Quanzhou residents? Second, how to build a scientific analytical framework to provide feasible ideas for optimizing local residents' saving behavior?

Based on the perspective of multidimensional preference theory, this study conducts a micro-empirical analysis with Quanzhou, a city with a developed private economy, as the research setting. It supplements empirical research findings on residents' saving behavior in the southeast coastal areas, accurately quantifies the mediating transmission proportion of social security affecting saving behavior, improves the application system of precautionary saving theory in the Chinese context, and enriches the research connotation of household finance in China. Meanwhile, the conclusions of this paper can provide direct references for policy makers in Quanzhou and other regions with a vibrant private economy to optimize the social security system and design targeted financial education programs. They can also offer ideas for financial institutions to develop adaptive financial products and improve the quality of inclusive financial services, helping local residents establish rational saving and consumption concepts and promoting the continuous release of

regional domestic demand potential.

2.Literature Review and Research Hypotheses

2.1 Social Security Substitution Effect Theory

The social security substitution effect theory is the core theoretical basis for explaining how the institutional environment affects residents' saving behavior. Through risk protection functions such as pension insurance, medical insurance, and unemployment insurance, social security substitutes the household self-saving security model. The more stable residents' future income and expenditure expectations are, the weaker their motivation for private savings to cope with risks becomes. García-Miralles and Leganza (2024) empirically confirmed a significant substitution relationship between public pensions and residents' private savings, providing direct empirical evidence for the social security substitution effect. The social security substitution effect theory clearly reveals the internal correlation between institutional security and private savings, and also builds a basic theoretical framework for this paper to explore the relationship among social security, precautionary saving motivation, and residents' saving behavior.

2.2 Multidimensional Preference Theory

Multidimensional preference theory breaks the premise of the "single rational preference" assumption in traditional studies. It holds that individual saving decisions are not simply a cost-benefit calculation but are jointly shaped by multiple dimensions such as risk preference, time preference, security perception preference, and uncertainty avoidance preference. Kalinowski et al. (2022) pointed out that individuals' perceived safety level and security cognition significantly affect

their risk response methods, thereby acting on the final saving decisions. Multidimensional preference theory provides an integrated analytical perspective for integrating the institutional environment, psychological motivation, and saving behavior, and also offers important theoretical support for this paper to explore how social security affects saving decisions by changing residents' preference structure.

2.3 Residents' Saving Behavior

Residents' saving behavior is a core topic in the field of household finance research. Scholars at home and abroad have conducted extensive research on the influencing factors of saving behavior, gradually forming classic theoretical systems such as precautionary saving theory, life cycle theory, and social security substitution effect theory. Bloch (2023) explored the core driving factors of saving rate changes in middle-income countries; Ghosh and Nath (2023) analyzed the key determinants of household saving decisions in India; Korzeniowska and Ulman (2023) analyzed the group differences in household saving motives from the perspective of socio-demographic characteristics. For developing economies and transitional regions, Elias et al. (2022) studied the practical constraints faced by rural household saving behavior in Ethiopia; Bhat et al. (2022) built a holistic analytical framework for rural household saving behavior; Painter et al. (2022) found that housing wealth is an important form of precautionary saving for urban residents; Hasan and Rahman (2023) verified the mediating role of saving motives in household financial decision-making; Fialová (2026) deepened the theoretical interpretation of precautionary saving behavior combined with the local context; Horioka and Ventura (2022) analyzed the characteristics of wealth

accumulation and saving behavior of the elderly group from the perspective of life cycle and bequest motives; Parker et al. (2025) depicted the dynamic correlation between household asset allocation and life cycle saving.

Based on the local Chinese context, Hong et al. (2022) verified the internal connection among rural social security, precautionary saving, and residents' consumption upgrading; Sun and Xiong (2023) analyzed the effect of income level on rural residents' pension saving behavior; Zeng et al. (2023) confirmed that internet use significantly affects rural household saving decisions; Xin et al. (2024) explored the effect of internet finance on urban household saving rates; Jing et al. (2025) revealed the impact of retirement consumption expectations on the transformation from savings to investment; He and Liu (2024) studied the mechanism of digital inclusive finance on household investment decisions. On the whole, most existing studies are based on national-level or broad regional data. There is a significant lack of micro-empirical research targeting coastal areas with a developed private economy where residents' income is highly correlated with market fluctuations. In addition, there is a lack of quantitative analysis of the transmission mechanism through which institutional variables affect saving behavior, making it difficult to accurately present the uniqueness of residents' saving behavior in such regions.

2.4 Social Security

As a core institutional variable affecting residents' saving behavior, the negative correlation between social security and saving behavior has been confirmed by most studies. Hong et al. (2022) showed that social security can promote the optimization and upgrading of consumption structure by weakening residents' precautionary saving

motivation; García-Miralles and Leganza (2024) verified the inhibitory effect of public pensions on private savings. Combined with the realistic characteristics of regions with a developed private economy in China, Quanzhou residents are mainly private enterprise owners and flexible employees, with weak income stability and obvious fluctuation characteristics. There are significant differences in social security coverage and security perception among different groups. Generally speaking, groups with more complete security levels have lower concerns about future uncertainty and weaker saving willingness accordingly. Based on the above analysis, this paper puts forward the research hypothesis:

H1: Social security has a significant negative impact on the saving behavior of Quanzhou residents. The higher the residents' social security perception and security level, the weaker their saving willingness.

2.5 Precautionary Saving Motivation

The impact of social security on saving behavior is not only through a direct path but also through an indirect transmission by changing residents' precautionary saving motivation. Fialová (2026) further deepened the theoretical correlation between uncertainty and precautionary saving behavior; Castaldo and Tirelli (2025) confirmed that precautionary saving is an important motive for wealth accumulation in elderly households. Based on this, this paper puts forward the research hypothesis:

H2: Social security has a significant negative impact on the precautionary saving motivation of Quanzhou residents. The higher the residents' social security perception and security level, the weaker their precautionary saving motivation.

Precautionary saving motivation

refers to the saving willingness generated by residents to cope with uncertain risks such as future income fluctuations, diseases and medical treatment, and unemployment. It is also a key psychological mediating variable connecting external environmental factors and residents' saving behavior (Anquan et al., 2024). Li et al. (2026) pointed out that housing wealth is essentially a form of precautionary saving for urban residents to cope with risks; Mazengiya et al. (2022) emphasized that precautionary motivation is one of the core types of household saving. Quanzhou has a high proportion of the private economy, and residents face more prominent income fluctuations and market risks. The more complete the social security system, the stronger the buffer effect on future uncertainty, the weaker residents' precautionary saving motivation, and thus the lower the intensity of saving behavior. Based on this, this paper puts forward the research hypothesis:

H3: Precautionary saving motivation has a significant positive impact on the saving behavior of Quanzhou residents. The stronger the residents' precautionary saving motivation, the more prominent their saving willingness and behavior.

After confirming the negative impact of social security on residents' saving behavior, existing studies further explored the transmission mechanism between the two and found that precautionary saving motivation is an important mediating variable. Hong et al. (2022) confirmed that social security affects residents' consumption and saving decisions by weakening precautionary saving motivation. However, existing studies lack precise quantification of the mediating effect of precautionary saving motivation and fail to clarify its specific transmission proportion between social security and

saving behavior. Combined with the regional characteristics of Quanzhou, the higher the social security level, the lower residents' concerns about future risks, the further weakening of precautionary saving motivation, and finally the reduction of saving willingness. Based on this, this paper puts forward the research hypothesis:

H4: Precautionary saving motivation plays a mediating role between social security and the saving behavior of Quanzhou residents. Social security indirectly reduces residents' saving willingness by weakening their precautionary saving motivation.

3. Research Methodology

3.1 Research Design

This study adopts a quantitative research paradigm and collects data through a cross-sectional questionnaire survey, focusing on exploring the intrinsic relationship among social security, precautionary saving motivation, and residents' saving behavior. A cross-sectional survey is selected because it can efficiently obtain large-sample microdata, which aligns with the research objectives of analyzing the influencing factors of residents' saving behavior in Quanzhou and constructing an optimization framework for saving behavior.

In this study, **social security** is set as the independent variable, **residents' saving behavior** as the dependent variable, and **precautionary saving motivation** as the mediating variable. Meanwhile, demographic variables such as gender, age, education, monthly household disposable income, and residential area are controlled. The study empirically tests the direct effect of the independent variable on the dependent variable and the transmission effect of the mediating variable between them. On this basis, it identifies the key influencing factors of residents' saving

behavior in Quanzhou and constructs a saving behavior optimization framework adapted to local conditions.

The questionnaire is localized and revised based on mature international scales in combination with the actual situation of Quanzhou residents. All core variables are measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire covers three core variables: social security, precautionary saving motivation, and residents' saving behavior, with three observation items for each variable. Meanwhile, respondents' demographic characteristics are collected as control variables. After revision and improvement through a small-scale pre-survey, the questionnaire shows good reliability and validity, and can accurately measure the core variables involved in the study.

3.2 Data Collection

The research objects of this paper are permanent residents aged 18 and above in Quanzhou who participate in

household saving decisions. Data collection was completed from October to December 2025, using a combination of online and offline questionnaire surveys: online questionnaires were created via the Questionnaire Star platform and distributed hierarchically in local community resident groups and enterprise employee groups in Quanzhou; offline random intercept interviews were conducted in business districts and community parks in core areas such as Licheng District, Fengze District, and Jinjiang City.

A total of 580 questionnaires were distributed, and 562 were recovered. After excluding invalid questionnaires with missing answers, fixed response patterns, and logical contradictions, 537 valid questionnaires were finally obtained, with an effective response rate of 92.6%. The valid sample size meets the basic requirements for multiple linear regression analysis. The demographic characteristics of the sample are shown in Table 1.

Table 1. Distribution of Sample Demographic Characteristics

Variable	Category	Frequency	Percentage	Variable	Category	Frequency	Percentage
Gender	Male	245	45.6%	Monthly Household Disposable Income	Above 10,000 yuan	123	22.9%
	Female	292	54.4%		3,000 yuan and below	74	13.8%
Age	18–25 years	59	11.0%	Education	3,001–6,000 yuan	160	29.8%
	26–35 years	106	19.7%		6,001–10,000 yuan	180	33.5%
	36–45 years	108	20.1%		Bachelor's degree	214	39.9%

Residential Area	46–55 years	101	18.8%	Above bachelor's degree	76	14.2%
	56 years and above	163	30.4%	Junior college	157	29.2%
	Urban	302	56.2%	High school and below	90	16.8%
	Rural	235	43.8%			

The results in Table 1 show that the survey sample is well-balanced in gender, age, education, income level, and urban-rural distribution: the gender ratio is relatively balanced with a slightly higher proportion of females, consistent with the reality of household saving decision-making; the age covers all groups, dominated by those aged 56 and above, matching the core subjects of precautionary saving research; the proportion of residents with junior college education or above exceeds 80%, reflecting the overall education level of local residents; monthly household disposable income is concentrated in the middle-income range of 6,001–10,000 yuan, in line with the income structure dominated by Quanzhou's private economy; the urban-rural distribution ratio is basically consistent with the local urbanization level. Overall, the sample structure is highly matched with

Quanzhou's population, education, and economic development status, and the sample has good representativeness, providing a stable and reliable data basis for subsequent empirical analysis.

3.3 Results and Analysis

3.3.1 Reliability and Validity Tests

This paper uses SPSS 26.0 as the data analysis tool. The internal consistency reliability of each subscale is tested by Cronbach's alpha coefficient, the reliability of the total scale is tested by split-half reliability, and the structural validity of the scale is tested by KMO test, Bartlett's sphericity test and exploratory factor analysis to ensure that the measurement tool has good reliability and validity, laying a foundation for subsequent statistical analysis.

The reliability and validity test results are shown in Table 2 and Table 3.

Table 2. Reliability Test Results

Variable	Cronbach's α	Number of Items
Social Security	0.847	3
Precautionary Saving Motivation	0.907	3
Residents' Saving Behavior	0.881	3
Total Scale	Split-half reliability = 0.817	9

Note: The total scale consists of three dimensions: social security, preventive

saving motivation, and residents' saving behavior. Due to the high heterogeneity among these dimensions, it is not appropriate to directly calculate the Cronbach's alpha coefficient. Therefore, the odd-even split-half reliability (Spearman-Brown correction) is adopted.

The reliability test result table 2 shows that the Cronbach's alpha coefficients of the three subscales - social security, preventive saving motivation, and residents' saving behavior - are 0.847, 0.907, and 0.881 respectively, all of which are higher than the recommended standard of 0.8; the

total scale uses the odd-even split-half reliability (Spearman-Brown correction) of 0.817, which is also higher than the acceptable standard of 0.8. This indicates that each dimension of the questionnaire and the overall questionnaire have good reliability.

Table 3. Validity Test Results

Variable	KMO Test	Bartlett Sphericity Test		
		Approximate χ^2	df	Sig.
Social Security	0.731	678.730	3	<0.001
Precautionary Saving Motivation	0.752	1064.338	3	<0.001
Residents' Saving Behavior	0.744	893.449	3	<0.001
Total Scale	0.799	2784.989	36	<0.001

The validity test results in Table 3 show that the KMO values of the three core variable scales (social security, precautionary saving motivation, and residents' saving behavior) are 0.731, 0.752, and 0.744 respectively, and the total scale KMO value is 0.799, all greater than the critical value of 0.7, meeting the basic requirements for factor analysis and indicating a reasonable scale design; the χ^2 values of Bartlett sphericity test are all significant at the 1% level ($p < 0.001$), indicating that the variable data are suitable for factor analysis to extract common

factors.

3.3.2 Descriptive Statistical Results

Descriptive statistics mainly calculate the mean, standard deviation, minimum, and maximum of each research variable to analyze the overall characteristics of social security level, precautionary saving motivation, and saving behavior of Quanzhou residents, providing basic data for identifying the influencing factors of saving behavior. The descriptive statistical results are shown in Table 4.

Table 4. Descriptive Statistical Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Social Security	537	1	5	3.795	1.215

Precautionary Saving Motivation	537	1	5	3.989	1.268
Residents' Saving Behavior	537	1	5	3.998	1.242

The results in Table 4 show that the comprehensive mean of social security is 3.795 (SD=1.215), indicating residents' security perception is at a medium-to-high level; the comprehensive mean of precautionary saving motivation is 3.989 (SD=1.268), showing a strong overall motivation and high sensitivity to the improvement of social security; the comprehensive mean of residents' saving behavior is 3.998 (SD=1.242), indicating a strong saving willingness. The standard deviation of each variable is greater than 1.000, indicating significant individual differences and providing sufficient data variation for subsequent regression analysis.

3.3.3 Correlation Analysis Results

Correlation analysis is used to test the direction and strength of the correlation among social security, precautionary saving motivation, and residents' saving behavior, providing a preliminary basis for subsequent regression analysis and mediating effect test.

Table 5. Correlation Analysis Results

Variable	Saving Behavior	Social Security	Precautionary Saving Motivation
Residents' Saving Behavior	1		
Social Security	-0.276**	1	
Precautionary Saving Motivation	0.366**	-0.199**	1

Note: **indicates significance at the 1% statistical level ($P < 0.01$); * indicates significance at the 5% statistical level ($P < 0.05$).

The Pearson correlation analysis results in Table 5 show that social security is significantly negatively correlated with residents' saving behavior ($r = -0.276$) and significantly negatively correlated with precautionary saving motivation ($r = -0.199$); precautionary saving motivation is significantly positively correlated with residents' saving behavior ($r = 0.366$). The correlations between variables are consistent with the expectations of the research hypotheses, and there is no serious multicollinearity problem in the correlation coefficients, providing preliminary empirical support for subsequent regression analysis and

mediating effect test.

3.3.4 Multiple Linear Regression Analysis Results

Multiple linear regression analysis is used to test the impact of social security on residents' saving behavior (H1), the impact of social security on precautionary saving motivation (H2), and the impact of precautionary saving motivation on residents' saving behavior (H3) respectively. The research hypotheses are verified by controlling demographic variables to eliminate the interference of irrelevant variables and accurately identify the key factors affecting residents' saving behavior in Quanzhou.

(1) Model 1 (Impact of Social Security on Residents' Saving Behavior): $Saving = \alpha_0 + \alpha_1 Security + \alpha_2 Gender + \alpha_3 Age$

To test the impact of social security on saving behavior, regression analysis was conducted on Model 1, and the specific results are shown in Table 6.

Table 6. Regression Results of Model 1 (Social Security)

Saving Behavior	Coefficient	t	Sig.	Tolerance	VIF
(Constant)	5.303	16.306	<0.001		
Social Security	-0.266	-6.637	<0.001	0.996	1.004
Gender	-0.006	-0.063	0.949	0.995	1.005
Age	-0.016	-0.482	0.630	0.996	1.004
Education	0.023	0.468	0.640	0.988	1.012
Monthly Household Disposable Income	-0.029	-0.617	0.538	0.993	1.007
Residential Area	-0.150	-1.623	0.105	0.990	1.011
R ²	0.082				
Adjusted R ²	0.072				
F	7.889		<0.001		
D.W	1.919				

The regression results in Table 6 show that for the test of the impact of social security on residents' saving behavior (H1): the regression coefficient of social security is -0.266 (t=-6.637, p<0.001), exerting a significant negative impact on saving behavior, so H1 is supported.

(2) Model 2 (Impact of Social

Security on Precautionary Saving Motivation):

$$Precaution = \delta_0 + \delta_1 Security + \delta_2 Gender + \delta_3 Age + \delta_4 Edu +$$

To test the impact of social security on precautionary saving motivation, regression analysis was conducted on Model 2, and the specific results are shown in Table 7.

Table 7. Regression Results of Model 2 (Social Security on Precautionary Saving Motivation)

Precautionary Saving Motivation	Coefficient	t	Sig.	Tolerance	VIF
(Constant)	5.117	15.438	<0.001		
Social Security	-0.224	-5.429	<0.001	0.996	1.004
Gender	-0.009	-0.092	0.927	0.995	1.005
Age	-0.011	-0.321	0.748	0.996	1.004
Education	0.019	0.403	0.687	0.988	1.012

Monthly Household Disposable Income	-0.023	-0.487	0.626	0.993	1.007
Residential Area	-0.127	-1.342	0.180	0.990	1.011
R²	0.067				
Adjusted R²	0.057				
F	6.432		<0.001		
D.W	1.914				

The regression results in Table 7 show that for the test of the impact of social security on precautionary saving motivation (H2): the regression coefficient of social security is -0.224 (t=-5.429, p<0.001), exerting a significant negative impact on precautionary saving motivation, so H2 is supported.

(3) Model 3 (Impact of Precautionary Saving Motivation on Residents' Saving Behavior):

$$Saving = \gamma_0 + \gamma_1 Precaution + \gamma_2 Gender + \gamma_3 Age + \gamma_4 Edu + \gamma_5 Income + \gamma_6 Urban + \varepsilon$$

To test the impact of precautionary saving motivation on residents' saving behavior, regression analysis was conducted on Model 3, and the specific results are shown in Table 8.

Table 8. Regression Results of Model 3 (Precautionary Saving Motivation on Residents' Saving Behavior)

Residents' Saving Behavior	Coefficient	t	Sig.	Tolerance	VIF
(Constant)	3.215	10.542	<0.001		
Precautionary Saving Motivation	0.351	9.067	<0.001	0.989	1.011
Gender	-0.012	-0.134	0.893	0.994	1.006
Age	-0.014	-0.425	0.671	0.995	1.005
Education	0.017	0.351	0.726	0.987	1.013
Monthly Household Disposable Income	-0.021	-0.452	0.651	0.992	1.008
Residential Area	-0.135	-1.476	0.140	0.989	1.011
R²	0.145				
Adjusted R²	0.135				
F	14.286		<0.001		
D.W	1.922				

The regression results in Table 8 show that for the test of the impact of

precautionary saving motivation on residents' saving behavior (H3): the regression coefficient of precautionary saving motivation is 0.351 ($t=9.067$, $p<0.001$), exerting a significant positive impact on saving behavior, so H3 is supported.

3.3.5 Mediating Effect Test Results

To test the mediating role of precautionary saving motivation

between social security and residents' saving behavior (H4), the Bootstrap method was adopted with 5000 repeated samplings and 95% bias-corrected confidence intervals. To quantitatively test this mediating effect, the Bootstrap test was conducted on the path of **social security → precautionary saving motivation → residents' saving behavior**, and the specific results are shown in Table 9.

Table 9. Mediating Effect Test Results

Effect Type	Effect Value	Std. Error	t	P	95% CI	
					LLC I	UL CI
Total Effect (Social Security → Residents' Saving Behavior)	-0.2658	0.0401	-6.6372	0.0000	-0.3445	-0.1871
Direct Effect (Social Security → Residents' Saving Behavior)	-0.2045	0.0386	-5.2991	0.0000	-0.2803	-0.1287
Indirect Effect (Social Security → Precautionary Saving Motivation → Residents' Saving Behavior)	-0.0614	0.0158			-0.0942	-0.0330
Control Variables	Coefficient	Std. Error	t	P	LLC I	ULC I
Gender	0.0001	0.0865	0.0015	0.9988	-0.1699	0.1701
Age	-0.0198	0.0464	-0.4266	0.6700	-0.1113	0.0717
Education	0.0324	0.0441	0.7347	0.4630	-0.0542	0.1190
Monthly Household Disposable Income	-0.0187	0.0471	-0.3970	0.6910	-0.1112	0.0738
Residential Area	-0.1439	0.0873	-1.6480	0.0990	-0.3150	0.0272

The mediating effect results of the path "social security → precautionary

saving motivation → residents' saving behavior" in Table 9 show that the 95% confidence interval of the indirect effect does not contain 0, indicating a significant mediating effect. The indirect effect accounts for 23.1% of the total effect, suggesting that precautionary saving motivation plays a partial mediating role between social security and residents' saving behavior, so H4 is verified. In addition, demographic variables such as gender, age, education, monthly household disposable income, and residential area are not significant in all regression models, indicating that institutional and psychological variables such as social security and precautionary saving motivation have stronger explanatory power for residents' saving behavior in Quanzhou than surface demographic characteristics.

4. Discussion

The empirical results of this paper verify the significant negative impact of social security on Quanzhou residents' saving behavior and precautionary saving motivation, the significant positive impact of precautionary saving motivation on residents' saving behavior, and the partial mediating effect of precautionary saving motivation. It accurately identifies the core influencing factors of Quanzhou residents' saving behavior and clearly clarifies the micro-transmission mechanism of social security affecting saving behavior. The core research conclusions are basically consistent with the social security substitution effect theory, multidimensional preference theory, and existing research results such as García-Miralles and Leganza (2024), Hong et al. (2022), and Fialová (2026). Meanwhile, combined with the regional characteristics of Quanzhou's developed private economy, it presents distinct regional particularities, providing a solid empirical support for building a

Quanzhou residents' saving behavior optimization framework.

Social security has become a key institutional factor inhibiting Quanzhou residents' saving behavior and weakening precautionary saving motivation, which is essentially the result of the interaction between the regional characteristics of Quanzhou's developed private economy and large income fluctuations of residents and security perception. Flexible employees and private enterprise owners are more sensitive to future income uncertainty. The risk bottom line provided by social security can directly alleviate their anxiety and reduce the level of precautionary saving. This result is in line with the core logic of the social security substitution effect theory and also confirms the shaping effect of the regional institutional environment on residents' saving behavior. The significant positive impact of precautionary saving motivation on residents' saving behavior indicates that coping with future uncertainty is the core motive for Quanzhou residents' saving, and this characteristic has become a key entry point for building a saving behavior optimization framework.

Precautionary saving motivation plays a partial mediating role of 23.1% between social security and residents' saving behavior. This result accurately quantifies the micro-transmission path of social security affecting saving behavior and supplements the localized empirical evidence of precautionary saving theory. This means that the impact of social security on residents' saving behavior is not a single direct effect, but an indirect transmission chain of "social security → precautionary saving motivation → residents' saving behavior": the more complete the social security system, the lower residents' concerns about future uncertainty, thereby weakening precautionary saving

motivation and ultimately reducing saving willingness. This transmission mechanism fully presents the logical closed loop of “institutional environment → psychological motivation → economic behavior”, clarifying the key transmission nodes for constructing a Quanzhou residents’ saving behavior optimization framework.

Compared with existing studies, the innovations of this paper are mainly reflected in two aspects: first, the research sample focuses on Quanzhou, a city with a developed private economy, making up for the deficiency of existing studies in insufficient micro-empirical research on such specific regions, and the research conclusions are more regionally targeted; second, it accurately quantifies the mediating effect proportion of precautionary saving motivation, clarifies the indirect transmission intensity of social security affecting saving behavior, and clarifies the micro-action mechanism. Meanwhile, this paper also has certain research limitations: first, the research sample is only limited to Quanzhou, and the universality of the conclusions needs to be verified in more regions; second, the study uses self-rated scales to collect data, which may have a certain social desirability bias; third, heterogeneity analysis among different groups is not carried out. Future research can expand the sample coverage, combine objective financial data, and introduce moderating variables for further in-depth discussion.

5. Conclusion

Based on 537 valid questionnaire data from Quanzhou, this paper focuses on the core goals of “identifying the influencing factors of Quanzhou residents’ saving behavior and constructing a residents’ saving behavior optimization framework”. It empirically explores the mechanism of social security on residents’ saving behavior

from the perspective of multidimensional preferences and tests the mediating effect of precautionary saving motivation. The research results show that social security and precautionary saving motivation are the core factors affecting Quanzhou residents’ saving behavior: social security has a significant negative impact on Quanzhou residents’ saving behavior ($\beta=-0.266$, $p<0.01$) and a significant negative impact on precautionary saving motivation ($\beta=-0.224$, $p<0.01$); precautionary saving motivation has a significant positive driving effect on Quanzhou residents’ saving behavior ($\beta=0.351$, $p<0.01$); precautionary saving motivation plays a partial mediating role between social security and residents’ saving behavior, with the mediating effect accounting for 23.1% of the total effect, that is, social security indirectly reduces residents’ saving willingness by weakening their precautionary saving motivation. In addition, socio-demographic variables such as gender, age, and education level have no significant impact on Quanzhou residents’ saving behavior, indicating that institutional and psychological variables have far stronger explanatory power for residents’ saving behavior in this region than surface demographic characteristics.

This study enriches the micro-empirical evidence of residents’ saving behavior in coastal areas with a vibrant private economy, breaks the “perfect rational man” assumption in classical consumption-saving theory, improves the localized research system of precautionary saving theory from the perspective of multidimensional preferences, and expands the connotation of household finance research with Chinese characteristics. Meanwhile, the research conclusions provide feasible ideas for Quanzhou and similar regions with a developed private

economy to optimize the social security system and formulate policies to guide residents' saving: local governments can weaken residents' precautionary saving motivation by improving the coverage of social security and residents' sense of gain and stabilizing future income and expenditure expectations; financial institutions can provide differentiated financial services according to residents'

security level; relevant departments can strengthen the publicity of social security policies, improve residents' security perception level, and guide residents to form rational saving and consumption habits. Future research can be further deepened by expanding the sample scope, combining objective financial data, and conducting group heterogeneity analysis.

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