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The Impact of Financial Literacy Confidence Bias on Household Consumption——An Empirical Analysis Based on CHFS Data

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Abstract

In recent years, as the complexity of household financial decision-making has increased, there has been an increasing focus on the impact of financial literacy and the confidence bias of financial literacy on household economic behavior. This paper explores the impact of subjective financial literacy and the confidence bias of financial literacy on household consumption from their perspectives and further analyzes the underlying mechanism. Different from previous studies that mainly focus on objective financial literacy, this paper introduces household subjective financial literacy and its deviation from objective financial literacy, constructs a financial literacy confidence bias indicator, and conducts empirical analysis based on nationally representative microdata. It is found that: (1) Both subjective and objective financial literacy of households have a significant positive impact on household consumption level, and the impact effect of subjective financial literacy is more significant; (2) Financial literacy confidence bias has a positive promoting effect on household consumption. Both overconfident and underconfident families show higher consumption levels. Overconfident families have more significant increases in developmental and enjoyment consumption, while underconfident families tend to focus more on survival consumption;(3) Financial literacy confidence bias indirectly contributes to household consumption levels by affecting the proportion of household risk preferences and financial asset allocations, both of which play a part in mediating the effect. This paper expands the theoretical boundaries of the study of financial literacy on household economic behavior from the perspectives of subjective cognition and psychological bias, enriches the empirical evidence of the influencing factors of household consumption, and provides policy insights for improving the quality of residents' financial literacy and optimizing household consumption.

Keywords: Subjective Financial Literacy, Financial Literacy Confidence Bias, Household Consumption

Introduction

In the first quarter of 2025, China's consumer market continued to expand, with consumer spending contributing 51.7% to economic growth, an increase of 7.2 percentage points from the whole of 2024, becoming a key driver of economic recovery and high-quality development. Against the backdrop of the deepening implementation of the “dual circulation” strategy, household consumption, as the main engine of domestic demand, directly impacts the resilience and future development potential of the macroeconomy. How to enhance household consumption willingness and capacity has become a focal point of attention for both the academic community and policymakers.

There are many factors that influence household consumption behavior. In recent years, with the rapid development of digital finance and financial technology, financial literacy has become increasingly important for households when faced with complex financial products and risk decisions. Financial literacy not only reflects an individual's ability to obtain, understand, and apply financial information, but also profoundly influences their daily consumption and wealth management decision-making logic.

Existing research indicates that financial literacy directly influences household consumption and has a positive impact on household consumption patterns. Households with higher levels of financial literacy often achieve better financial outcomes, including improved consumption levels (Xie et al., 2024). Additionally, financial literacy influences household consumption by enhancing investment returns, increasing risk tolerance, and alleviating liquidity constraints. Financial literacy affects asset return rates, exerting a positive influence on consumption levels and consumption growth (Dinkova et al., 2021). Habyarimana and Kakkar (2022) note that financial literacy is an effective strategy for increasing household wealth, as it enhances households' risk tolerance and encourages their participation in high-yield financial markets, thereby boosting household wealth and consumption capacity. Enhancing financial knowledge helps alleviate liquidity constraints, enabling households to allocate more resources to consumption and investment in risky assets (Zhao et al., 2023). These studies primarily focus on the impact of financial knowledge possessed by household members on household consumption behavior.

It is worth noting that, in addition to the objective level of financial knowledge, individuals' subjective perceptions of their own financial capabilities also influence family financial behavior and consumption decisions. Some studies on financial literacy have similarly focused on the impact of subjective financial literacy on individual financial behavior. Subjective financial literacy refers to an individual's self-assessment of their financial knowledge and understanding, which differs from objective financial literacy measured through standardized tests and assessments of actual financial knowledge (Lee & Kim, 2025; Xin et al., 2024). Subjective financial literacy has a positive impact on participation in financial markets (Chung & Kim, 2022). The higher the subjective financial literacy, the more active the trading, the higher the degree of portfolio diversification, and the higher the returns (Bellofatto et al., 2018). Compared to objective financial literacy, subjective financial knowledge has a stronger correlation with financial satisfaction, and this relationship can be either direct or mediated through financial behavior (Hwang & Park, 2023; Riitsalu & Murakas, 2019). Furthermore, subjective financial literacy can influence individuals' financial behavior and intentions, such

as retirement savings plans, by affecting risk tolerance and risk perception (Chen & Chen, 2023; Nguyen et al., 2022).

Subjective financial literacy can be understood as how individuals perceive their own financial knowledge, which may align with their actual financial literacy or may not. When subjective financial literacy does not align with an individual's actual financial literacy, this is referred to as financial literacy confidence bias, manifesting as overconfidence or underconfidence (T. Xia et al., 2014). While the ideal scenario is for individuals to possess both high levels of subjective financial cognition and objective financial literacy, enabling them to engage in more responsible financial behavior and achieve better household financial outcomes (Sajid et al., 2024), this is not the case for all individuals. The impact of financial literacy confidence bias on household financial behavior is more complex. Overconfidence leads investors to engage in higher-risk investments (Z. Hu et al., 2024) and results in frequent trading and high transaction costs (Inghelbrecht & Tedde, 2024). Overconfident individuals are more likely to borrow and exhibit unhealthy debt behavior (Cwynar et al., 2020). Insufficient confidence, on the other hand, leads individuals to be more cautious and conservative in financial decision-making (Pikulina et al., 2017), thereby missing out on optimal investment strategies. Low confidence also has negative effects on participation in financial markets, particularly among high-income and risk-taking individuals (Pikulina et al., 2017). Additionally, research has found that even when individuals possess high objective financial literacy, low confidence leads to reduced financial activity (Yeh & Ling, 2022) and lower financial satisfaction (Pearson & Korankye, 2023).

Research on individual subjective financial literacy and financial literacy confidence bias primarily focuses on their impact on household financial behavior and investment decisions. While existing literature has extensively explored the factors influencing household consumption, no systematic studies have yet examined how subjective financial literacy and financial literacy confidence bias affect household consumption behavior. Especially at the current critical stage of expanding domestic demand and stimulating consumption potential, exploring the specific mechanisms through which individual financial literacy confidence bias influences household consumption decisions holds significant theoretical and practical significance.

Therefore, this study uses data from the China Household Finance Survey to link the unique factor of financial literacy confidence bias with household consumption. It empirically tests the impact of household heads' subjective financial literacy and financial literacy confidence bias on household consumption. By introducing household financial market participation and risk preference as mediating variables, the study further reveals how subjective financial literacy and financial literacy confidence bias influence actual consumption decision-making processes. This study not only addresses key issues in current theory and practice but also provides new analytical perspectives and policy implications for related fields.

On the one hand, this study expands the dimensions of financial literacy research by incorporating subjective financial literacy and financial literacy confidence bias into the analytical framework for the first time. This enriches the previous research perspective, which focused on objective financial knowledge, and reveals the internal path through which financial cognitive bias affects household consumption by introducing intermediary

mechanisms such as household participation in financial markets and risk preference. On the other hand, the research findings help identify the psychological and behavioral factors influencing household consumption behavior, providing a basis for optimizing financial education content and enhancing the consistency between financial cognition and behavior. They also offer practical references for policymakers in stimulating domestic demand, promoting inclusive finance, and improving the quality of household financial decision-making.

The main contributions of this paper are as follows: (1) Existing literature has primarily focused on the impact of individual objective financial literacy on economic behavior, with few studies exploring the subject from the perspective of subjective financial literacy and financial literacy bias. This study expands the scope of financial literacy research. (2) This study examines the impact of subjective financial literacy and financial literacy confidence bias on household consumption, providing a complementary expansion to existing research on the factors influencing household consumption. (3) This study uses household financial market participation and household risk preference as mediating variables, revealing two distinct pathways through which financial literacy bias influences household consumption: household financial market participation and risk preference. This helps elucidate the mechanisms through which financial literacy bias affects household consumption.

Hypotheses Development

Subjective Financial Literacy and Household Consumption

Subjective financial literacy affects household consumption by influencing household financial behavior, investment strategies, and investment returns. Individuals with higher subjective financial literacy tend to adopt more responsible financial behaviors, as evidenced by holding formal bank accounts, participating reasonably in financial markets, and managing credit responsibly (Robb & Woodyard, 2011; Xu et al., 2022). Some studies have also found that households with higher financial literacy have a greater chance of positive investment returns, suggesting that higher financial literacy may lead to better financial outcomes (Chu et al., 2017). Higher levels of subjective financial literacy are associated with better investment returns, especially for younger and more educated households, which are more likely to profit from their investments (Aman et al., 2024; Li et al., 2020). The permanent income hypothesis suggests that households' consumption depends on “permanent income”, i.e. average expected income over time(Friedman, 1957). Sensible and more responsible financial investment and saving and borrowing behaviors of households with higher subjective financial literacy will influence these households to have a higher estimate of their “permanent income” and thus higher levels of consumption as compared to households with lower subjective financial literacy. Based on this, hypothesis 1 is proposed.

Hypothesis 1. Subjective financial literacy is positively related to household consumption.

Financial Literacy Confidence Bias and Household Consumption

Financial literacy confidence bias affects household consumption by influencing household financial satisfaction. A higher financial literacy confidence bias means that the gap between an individual's subjective financial literacy and objective financial literacy is wider, which is reflected in two aspects, overconfidence and underconfidence. Individuals with higher subjective financial literacy are more satisfied with their financial situation and have higher financial well-being (Hwang & Park, 2023; Sajid et al., 2024).Sajid et al. (2024) and Atlas et al.

(2019) argued that higher financial literacy confidence, whether accurate or not, is associated with healthier financial behaviors, such as responsible use of credit cards and more sensible financial investments, which enhance individuals' financial satisfaction. Conversely, low confidence, where an individual's subjective financial literacy is lower than objective financial literacy, leads to poorer financial behaviors, increased financial stress, and lower overall financial satisfaction (Ramalho & Forte, 2019). Subjective Well-being Theory (SWT) suggests that financial satisfaction, as a component of subjective well-being, influences household attitudes and behaviors towards consumption, and that the higher the satisfaction, the more consumption is skewed towards higher quality consumption (Brown & Gathergood, 2020). Based on this the following hypotheses are proposed .

Hypothesis 2. Financial literacy self-confidence bias is positively related to the level of household consumption.

Financial Literacy Confidence Bias, Risk Preferences, and Household Consumption

Financial literacy confidence bias can affect household consumption by influencing household risk preferences. Financial literacy self-confidence bias affects an individual's risk preferences, and over-confidence and under-confidence can have different effects on risk preferences. Individuals who overestimate their financial literacy tend to exhibit higher risk preferences, and this overconfidence leads them to prefer riskier investments (Mudzingiri, 2024). Conversely, financial literacy underconfidence tends to be negatively associated with risk-taking behavior, indicating that less confident individuals have a lower risk appetite (Pavani & Alagwadi, 2023). Households with higher risk tolerance are more likely to increase consumption, and risk appetite promotes all types of household consumption, with the greatest impact on enjoyment consumption (Xie et al., 2022). Households with low risk appetite are more risk-averse and less likely to engage in consumption activities that involve uncertainty or potential financial loss. Risk aversion suppresses the overall consumption behavior of households and has a significant impact on both survival and developmental hedonic consumption (D. Hu et al., 2024). Zhang et al. (2025) also found that low risk-averse households reduce their consumption more significantly when faced with debt than high risk-averse households. Based on this the following hypothesis is proposed.

Hypothesis 3. Risk preference plays a mediating role in financial literacy confidence bias and household consumption.

Financial Literacy Confidence Bias, Financial Market Participation and Household Consumption

Financial literacy confidence bias affects household consumption by influencing household financial market participation. Both financial literacy and financial literacy confidence are associated with financial market participation (Bucher-Koenen et al., 2024), with overconfidence encouraging financial action for those with relatively low levels of financial literacy and underconfidence discouraging financial action for those with high levels of financial literacy, and with the effect of financial confidence likely to be equal to or greater than that of financial literacy (Chambers, 2014).The study by Tian Xia et al. (2014) similarly found that financial literacy overconfidence is positively associated with stock market participation, while financial literacy underconfidence is negatively associated with stock market participation. Financial literacy self-confidence bias affects household financial market participation as reflected in changes in the level of household financial assets. A deeper level of household participation in the financial market implies a higher percentage of

household financial assets (Zou & Deng, 2019). The wealth effect of financial assets is evident; the wealth effect refers to the phenomenon that an increase in the value of financial assets leads to an increase in consumption (Lettau & Ludvigson, 2004). Financial assets have a positive effect on household consumption expenditures (Wang & Zhang, 2020), and households with higher financial assets tend to increase their consumption levels due to the fact that financial wealth provides liquidity and security, which allows households to consume with more confidence (Han & Si, 2020). Across all parts of the wealth distribution, more liquid financial assets have a more direct and significant impact on consumption (Guo & Hardin Iii, 2014), and household consumption is significantly more responsive to dividend payments in all cases (Di Maggio et al., 2020). In this paper, the following hypotheses are formulated using household financial asset share as a proxy variable for household financial market participation.

Hypothesis 4. Household financial asset share plays a mediating role in financial literacy confidence bias and household consumption.

Data and Methodology

Sample and Data Collection

This paper uses the 2019 China Household Finance Survey (CHFS) database as sample data. The database is a nationwide household questionnaire data conducted by Southwestern University of Finance and Economics, and it is a more comprehensive and systematic portrayal of Chinese family members from a micro perspective in China. The database mainly includes data on the characteristics of household members in terms of demographic information, asset information, liability information, income and expenditure, insurance coverage, and employment, etc. The latest publicly available data from this project are the results of the 2019 survey. As of 2019, the survey database covers 29 provinces, autonomous regions, and municipalities directly under the central government (excluding Xinjiang, Tibet, and Hong Kong, Macao, and Taiwan), 170 cities, 345 districts and counties, and 1,360 villages (neighborhood) committees, making the data nationally and provincially representative. The survey database is divided into three databases in terms of regional, household and individual characteristics, and has become one of the main databases for studying the characteristics of Chinese household members at the micro level. In this survey data, the head of the household is the member who has the decision-making power in the household, and the sample of members who become the head of the household has the validity and continuity, while the sample of other family members has more missing values, so this paper refers to the existing literature to limit the sample to the head of the household who has higher data quality. In order to avoid the problem of heterogeneous consumption due to employment and retirement of the population, only the samples with the head of the household aged greater than or equal to 18 and less than or equal to 65 are retained. Due to the existence of outliers and missing values in individual samples in the questionnaire, in order to ensure the completeness and continuity of the samples, this paper applies a bilateral 1% shrinkage to the data of the relevant variables and excludes the samples with missing relevant variables, so that we finally get 29,549 valid samples.

Dependent Variable

The dependent variable of this paper is household consumption, which is measured by the total household consumption expenditure provided by the sample households. According to the Classification of Residents' Consumption Expenditure (2013) published by the China

Bureau of Statistics, this paper defines eight categories of consumption, including clothing consumption, food, tobacco, and alcohol consumption, living goods and services consumption, housing consumption, transportation and communication consumption, culture, education, and recreation consumption, health care consumption, and other consumption, which are summed up to obtain total household consumption. Considering the differences in the size of the household population, this paper also takes the logarithm of the total household consumption in 2019 according to the number of permanent household residents to calculate the per capita household consumption after adding 1. The total household consumption expenditure is subdivided into two categories, one is survival consumption (specifically including clothing, food and beverage, and housing expenditures), and the other is development and enjoyment consumption (specifically including daily necessities and services, transportation and travel, network communications, culture and entertainment, education and training, and health care expenditures), so as to calculate the logarithm of the per capita consumption expenditure of development and enjoyment and the logarithm of the per capita consumption expenditure of survival type, respectively.

Independent Variable

Financial literacy confidence bias can be constructed by characterizing financial literacy overconfidence and underconfidence based on the difference between respondents' subjective and objective financial literacy (Chen & Chen, 2023). Drawing on Kramer (2016), this paper defines financial literacy confidence bias as the portion of subjective financial literacy that cannot be explained by objective financial literacy, and identifies financial literacy underconfidence and financial literacy overconfidence through the deviation of objective financial literacy from subjective financial literacy. To calculate the household financial literacy confidence bias one needs to obtain objective financial literacy indicators and subjective financial literacy indicators of the household.

Objective Financial Literacy (OFL)

Lusardi and Mitchell (2011) propose three key questions for assessing the financial literacy of the population: first, by calculating the interest rate on deposits and compounding the interest rate, the respondents' understanding of the time value of money is examined; second, by comparing the purchasing power of money at different times, the respondents' understanding of inflation is examined; and third, by comparing the risk of stocks with that of funds, the respondents' understanding of risk diversification is revealed. respondents' understanding of risk diversification, a measure that has been widely adopted by academics (Niu et al., 2020)

Four representative financial literacy questions were selected from the CHFS2019 questionnaire, and the number of questions answered correctly by the respondent households was used as an objective financial literacy indicator, with the objective financial literacy variable taking values ranging from 0 to 4. The four representative financial literacy questions are as follows: interest rate question (H3105), assuming that the bank's interest rate is 4% per year, if you save $100 in a fixed term for 1 year, what is the principal and interest earned after 1 year? If you deposit $100 in a fixed-term deposit for one year, what will be the principal and interest after one year? Choose “equal to $104” to assign a value of 1, choose other options to take 0; inflation problem (H3106), assuming that the bank's interest rate is 5% per year, the inflation rate is 8% per year, the $100 in the bank after a year of being able

to buy things? Choose “less than a year ago” to assign a value of 1, choose other options to take 0; Stock Risk Question (H3112), in your opinion, in general, which is more risky, the main board stocks or GEM stocks? Choose “GEM stocks” to assign a value of 1, choose other options to take 0; Fund Risk Question (H3113), in your opinion, in general, which is more risky, equity-biased funds or debt-biased funds? Choose “equity-biased fund” and assign a value of 1, choose other options and take 0.

Subjective Financial Literacy (SFL)

The current practice of subjective financial literacy measurement is mainly to measure subjective financial literacy through the respondents' self-rated level of finance or familiarity with related financial products and services.The CHFS2019 questionnaire has relevant questions related to the respondents' subjective views on financial products. (D9203) “How well do you know stocks, bonds, and funds overall?” The response to this question was used as an indicator of respondents' subjective financial literacy, with specific knowledge of the three types of financial investment instruments assigned a value of 1 to 4, with 1 indicating relatively little knowledge and 4 indicating great knowledge.

Financial Literacy Confidence Bias (FLbias)

Defines financial literacy confidence bias as the portion of subjective financial literacy that cannot be explained by objective financial literacy, and identifies financial literacy underconfidence and financial literacy overconfidence through the deviation of objective financial literacy from subjective financial literacy. Drawing on Kramer (2016) (Kramer, 2016), we refer to the portion of subjective financial literacy that cannot be explained by objective financial literacy as the “financial literacy confidence bias”, or “confidence bias” for short. The formula as follow. $\mathrm{SFL_i}$ is the subjective financial literacy indicator of the ith household, $\mathrm{OFL_i}$ is the objective financial literacy indicator of the ith household, and μ_i is the residual term. Estimating the one-way linear regression model, the residual term obtained is the financial literacy confidence bias indicator, denoted by $\mathrm{FLbias_i}$.

$$\mathrm{SFL_i} = \alpha + \beta \times \mathrm{OFL_i} + \mu_i \qquad (1)$$

$$\mathrm{FLbias_i} = \mathrm{SFL_i} - \alpha - \beta \times \mathrm{OFL_i} \qquad (2)$$

$$\underset{(0.0025)}{\mathrm{SFL_i} = 1.000} + \underset{(0.0022)}{0.213 \times \mathrm{OFL_i}} + \mu_i, \quad R^2 = 0.218 \qquad (3)$$

The regression result of 0.218 indicates that objective financial literacy explains approximately 21.8% of the variation in subjective financial literacy. The corresponding p-value of the F-statistic for testing the overall significance of the equation is 0.000, and the model as a whole is highly significant. The final linear relationship equation between financial literacy confidence bias and subjective and objective financial literacy is obtained as follows:

$$\mathrm{FLbias_i} = \mathrm{SFL_i} - 1.000 - 0.213 \times \mathrm{OFL_i} \qquad (4)$$

The regression line represents the average subjective financial literacy level predicted by objective financial literacy. Referring to Yu et al. (2020) , when the residuals (μ_i) are greater than 1 standard deviation above the regression line, they are categorized as financial literacy

overconfidence (FLover); when the residuals are less than 1 standard deviation below the regression line, they are categorized as financial literacy underconfidence (FLunder), and the residuals are categorized as financial literacy evaluation pertinence between 1 standard deviation above and below the regression line, thus setting two dummy variables for financial literacy overconfidence, financial literacy underconfidence, and financial literacy evaluation pertinence. Literacy Evaluation Neutral two dummy variables, and Financial Literacy Evaluation Neutral as the control group.

Control Variables

The age of the household head, the educational attainment of the household head, household income, household asset level, and the economic development situation of the province where the household is located, among many other factors, all influence household consumption. This paper, following the approach of existing studies and considering the characteristics of the database used, selects control variables from three dimensions: household head characteristics, household characteristics, and regional differences (Wu & Wang, 2023; Zhao et al., 2025).

Household head characteristics mainly include gender, age, education level, marital status, and health status. The gender variable is assigned a value of 1 for male and 0 for female; the age variable is calculated by subtracting the birth year from the sample collection year of 2019 and then logarithmically transformed. The education level is converted into years of education based on the actual educational attainment of the household head. The options for educational attainment in the questionnaire are: no schooling, primary school, junior high school, senior high school, technical secondary school, junior college, bachelor's degree, master's degree, and doctoral degree. The author converts these into years of education (years), which are 0, 6, 9, 12, 13, 15, 16, 19, and 22 respectively. Marital status is a dummy variable, with 1 for married and 0 for unmarried, divorced, or other. Health status is also a dummy variable, with 1 assigned to those who rated their health as very good or good, and 0 for others.

Household characteristics include household size, proportion of children, proportion of elderly, household assets, household liabilities, urban or rural household registration, and household social security and medical insurance status. The author measures household size by the total number of household members, and the proportion of children (members under 16 years old) and the proportion of the elderly (members over 60 years old) to the total population to measure the proportion of children and the proportion of the elderly. The urban or rural household registration variable is assigned a value of 1 for rural households and 0 for urban households. The logarithmic transformation of household assets and liabilities is used to measure the household's asset and liability situation. Household social security and medical insurance status are dummy variables, with 1 assigned to those participating in endowment insurance and medical insurance, and 0 for those not participating.

The regional difference factors of the household's location include the economic development level and financial development level of the province where the household is located. This paper uses per capita GDP to measure the economic development level of the province where the household is located, and the logarithmic transformation of the financial

development index to measure the financial development level of the province where the household is located.

Empirical Methodology

To examine the impact of financial literacy and the confidence bias in financial literacy on household consumption, an OLS regression analysis was conducted, and the following econometric model was established:

$$\mathrm{CON_i} = \alpha_1 + \beta_1 \times \mathrm{FL_i} + \gamma_1 \times \mathrm{X_i} + \varepsilon_i \qquad (5)$$

Among them, the explained variable $\mathrm{CON_i}$ represents the consumption of the sample household, and the core explanatory variables include the objective financial literacy ($\mathrm{OFL_i}$) of the sample household, subjective financial literacy ($\mathrm{SFL_i}$), financial literacy confidence bias ($\mathrm{FLbias_i}$), financial literacy overconfidence ($\mathrm{FL_i over}$), and underconfidence ($\mathrm{FL_i under}$). β is the coefficient estimated for the model, which measures the direction and magnitude of the impact of the core explanatory variables on the explained variable. $\mathrm{X_i}$ is a series of control variables entering the model, and ε_i is the random error term.

To address the endogeneity problem of the explanatory variables, which leads to biased OLS estimates, this study will adopt the two-stage least squares (2SLS) method with instrumental variables for analysis. To verify the stability and validity of the regression results, this study will use the variable replacement method. After performing a 1% winsorization on both the core explanatory variables and the explained variable, the benchmark regression model was re-estimated using heteroscedasticity-robust standard errors to assess the robustness of the regression results.

Empirical Results

Results of the Baseline Regression

In order to empirically analyze the impact of financial literacy and financial literacy confidence bias on household consumption, this paper carries out OLS regression analysis based on equation (5). Table 1 reports the baseline regression results of financial literacy and financial literacy confidence bias on household consumption. The core explanatory variables of models (1) and (2) are subjective and objective financial literacy, respectively; the coefficient of subjective financial literacy is 0.104, which is greater than zero and passes the 1% significance level test, and the coefficient of objective financial literacy is 0.054, which is greater than zero and passes the 1% significance level test. The results show that both subjective financial literacy and objective financial literacy have a positive impact on household consumption, the higher the subjective financial literacy of the household, the higher the household consumption, and the impact of objective financial literacy of the household on household consumption is also the same, but the degree of impact is smaller than that of subjective financial literacy. Model (3) introduces financial literacy bias as a core explanatory variable with a coefficient of 0.063, which is significantly positively related to household consumption, indicating that households that overestimate financial literacy have higher consumption. Overconfidence and underconfidence both belong to financial literacy confidence bias, in order to explore the impact of different biases on household consumption, the two dummy variables of overconfidence and underconfidence are introduced into the model as the core explanatory variables to start the study with the families who have a fair evaluation as the

control group. The results of model (4) show that the coefficients of overconfidence and underconfidence are both positive and pass the 1% significance level test, and in terms of the degree of influence, compared with the families with a fair evaluation of financial literacy, the family consumption of overconfident families is significantly higher, and the influence of overconfidence on family consumption is stronger, and the consumption of families with underconfidence is slightly higher than that of families with a fair evaluation, but the degree of influence of underconfidence on family consumption is smaller.

Table 1
The Impact of Financial Literacy(FL) and Financial Literacy Confidence Bias(FLbias) on Household Consumption(HC)

	(1)	(2)	(3)	(4)
VARIABLES	HC	HC	HC	HC
SFL	0.104***			
	(11.49)			
OFL		0.054***		
		(12.35)		
FLbias			0.063***	
			(6.48)	
FLover				0.149***
				(10.5)
FLunder				0.057***
				(4.63)
Constant	6.422***	6.550***	6.441***	6.493***
	(44.53)	(45.28)	(44.56)	(44.94)
Observations	29,549	29,549	29,549	29,549
R-squared	0.385	0.386	0.383	0.385
Household Head Characteristics	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES

Notes: ***significant at 1% level. **significant at 5% level. *significant at 10% level.

To explore how financial literacy and financial literacy confidence bias affect different types of household consumption, and further analyze the impact of financial literacy confidence bias on household survival consumption(SC) and development and enjoyment consumption(D&EC). The results in Table 2 show that the financial literacy confidence bias index has no significant impact on the two major types of household consumption. Objective financial literacy, subjective financial literacy, overconfidence, and confidence bias all have significant positive impacts on household subsistence consumption and development and enjoyment consumption, but the degree of influence varies. Overall, whether it is subsistence consumption or development and enjoyment consumption, subjective financial literacy has a greater impact, with coefficients of 0.031 and 0.037 respectively, and both pass the 1% significance level test. Compared with households with insufficient confidence, overconfidence has a significantly greater positive effect on household subsistence consumption and development and enjoyment consumption, with coefficients of 0.056 and 0.061 respectively, and both pass the 1% significance level test. This indicates that households with high financial confidence are more willing to invest in development and enjoyment consumption. From the overall quality of the model, financial literacy and confidence bias

have a stronger explanatory power for development and enjoyment consumption, with an R^2 of 0.618, which is higher than the model explaining the impact of explanatory variables on subsistence consumption.

Table 2
Analysis of the Impact of Financial Literacy Bias on Different Types of Household Consumption

VARIABLES	(1) SC	(2) SC	(3) SC	(4) SC	(5) D&EC	(6) D&EC	(7) D&EC	(8) D&EC
OFL	0.031***				0.027***			
	(6.92)				(5.87)			
SFL		0.031***				0.037***		
		(3.40)				(3.87)		
FLbias			0.004				0.014	
			(0.39)				(1.39)	
FLover				0.056***				0.061***
				(3.95)				(4.05)
FLunder				0.037***				0.026**
				(3.04)				(2.03)
Constant	5.102***	5.025***	5.022***	5.057***	5.757***	5.790***	5.692***	5.721***
	(35.06)	(34.62)	(34.57)	(34.79)	(37.81)	(37.48)	(37.46)	(37.62)
Observations	29,549	29,549	29,549	29,549	29,549	29,549	29,549	29,549
R-squared	0.345	0.344	0.343	0.344	0.618	0.618	0.617	0.618
Household Head Characteristics	YES	YES	YES	YES	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES	YES	YES	YES	YES

Endogeneous Discussion

Measurement errors of core explanatory variables, mutual causality, and omitted variables can all lead to endogeneity problems, causing the benchmark regression results to be biased or inaccurate. First, to avoid the impact of the measurement method of financial literacy on the research results, in the robustness test, the author uses principal component analysis to calculate the objective financial literacy of the household. Based on the newly calculated objective financial literacy, the financial literacy confidence deviation index is obtained, and an OLS regression analysis is conducted again. The conclusion remains robust. Second, to alleviate the estimation error caused by omitted variables, when conducting the benchmark regression, following the practices of existing studies, as many control variables as possible are introduced. However, household consumption may still be affected by unobservable variables such as family habits and the influence of relatives and friends, which may still lead to biased results. Third, although there is no direct evidence that household consumption affects financial literacy and the confidence deviation of financial literacy, with the development of digital finance, households may accumulate certain financial experience

during the consumption process, such as using credit and financial products. This experience may make individuals "feel more knowledgeable about finance", thereby enhancing subjective financial literacy. However, if their objective knowledge does not increase, it will increase the deviation between subjective and objective (i.e., the deviation intensifies). If households encounter debt pressure or investment losses during consumption, it may weaken their financial confidence and thus reduce subjective financial literacy. It can be seen that household consumption may, to a certain extent, affect financial literacy and the confidence deviation of financial literacy.

To address the potential endogeneity issue, this paper employs the instrumental variable method. Following the approach of Zhao et al. (2025), the educational attainment(EduA) of the household head is used as an instrumental variable for objective financial literacy. The higher the educational attainment, the better the understanding of financial products and tools, and the higher the level of financial literacy. Educational attainment is exogenous to household consumption and relative deprivation in consumption. Following the approach of Leng et al. (2025), the average financial literacy of the community(AFL) where the household is located is used as an instrumental variable for subjective financial literacy. On the one hand, the level of household financial literacy is also influenced by the financial literacy environment. To a certain extent, the subjective financial literacy level of the same community affects the subjective financial literacy level of individual households. On the other hand, the subjective financial literacy of the same community does not directly affect the consumption decisions of individual households, satisfying the exogeneity condition of the instrumental variable. The instrumental variable for the confidence bias of household financial literacy(IV_FLbias) calculated based on the above instrumental variables also meets the exogeneity condition.

Table 3 shows the results of the two-stage regression of instrumental variables, in which the first-stage regression tests whether there is a significant correlation between instrumental variables and endogenous variables, and from the results, the influence coefficients of the instrumental variables selected in this paper on the endogenous variables have passed the test of 1% significance level, and the influence coefficients are significantly positively correlated, which indicates that the selected instrumental variables can significantly predict the endogenous variables in the first stage, and fulfill the instrumental variable correlation requirements. The second stage tests the causal impact of endogenous variables on the explanatory variables (household consumption), and the regression results are consistent with those of the benchmark regression, the impact coefficient of financial literacy self-confidence bias on household consumption is 0.910 and passes the 1% significance level test, and the Wald F-statistic and Kleibergen-Paap F-value are much larger than the commonly used weak instrumental variable judgment threshold in all models (generally 10), indicating that the selected instrumental variables do not have weak instrumental variable problems and the estimation results are robust.

Table 3
Endogeneity analysis of the Impact of Financial Literacy and Confidence Bias on Household Consumption: 2SLS regression Results

	First stage			Second stage		
	SFL	OFL	FLbias	HC	HC	HC
AFL	0.846***			0.738***		
	（32.36）			（18.59）		
EduA		0.672***			0.341***	
		（17.60）			（8.43）	
IV_FLbias			0.544***			0.910***
			（18.22）			（14.54）
Control variable	YES	YES	YES	YES	YES	YES
Observations	29549	29549	29549	29549	29549	29549
Wald F	1040.40	309.67	332.04	879.93	923.26	809.40
Kleibergen-Paap F	1040.40	309.67	332.04	1040.40	298.5	332.04

Robustness Test

In order to test the reliability of the baseline regression results and to avoid estimation bias in the regression due to differences in the way objective financial literacy is measured, this paper uses principal component factor analysis to reconstruct the objective financial literacy indicator as a means of calculating a new financial literacy confidence bias for the stability test. Table 4 reports the results of the robustness test after replacing the explanatory variables, which are replaced by the objective financial literacy accounted for by principal component factor analysis, and the financial literacy confidence bias calculated based on this objective financial literacy, and the coefficients and significance of the regression results have not changed significantly, and the results are robust.

Considering that the regression results may be affected by extreme values, the core explanatory variables and the dissolved variables are all subjected to the upper and lower 1% shrinkage in the next analysis in order to improve the reliability and stability of the data. Meanwhile, in order to test the robustness of the regression results, the baseline regression model was re-estimated using heteroskedasticity robust standard errors (robust standard errors) to reduce the impact of possible heteroskedasticity on the standard errors and significance levels. The regression results in Table 5 show that the size of the regression results and the significance level results are not significantly different from the benchmark regression results in Table 1, and the results of the study have good robustness.

Table 4
Robustness Tests for Replacement Explanatory variables

VARIABLES	(1) HC	(2) HC	(3) HC	(4) HC
OFL	0.051***			
	（12.31）			
SFL		0.104***		
		(11.49)		
FLbias			0.0657***	
			（6.51）	
FLover				0.165***
				（11.69）
FLunder				0.133***
				（5.32）
Constant	6.548***	6.422***	6.400***	6.472***
	（45.32）	(44.53)	（44.42）	(44.95)
Observations	29,549	29,549	29,549	29,549
R-squared	0.388	0.385	0.386	0.388
Household Head Characteristics	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES

Table 5
Regression results after sample winsorization (Heteroscedasticity robust standard error)

VARIABLES	(1) HC	(2) HC	(3) HC	(4) HC
OFL	0.053***			
	（12.99）			
SFL		0.103***		
		（11.82）		
FLbias			0.068***	
			（6.74）	
FLover				0.158***
				（12.01）
FLunder				0.060***
				（5.24）
Constant	6.431***	6.554***	6.446***	6.510***
	（45.06）	（45.85）	（45.08）	(45.53)
Observations	29,549	29,549	29,549	29,549
R-squared	0.393	0.394	0.391	0.393
Household Head Characteristics	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES

Mechanisms Analysis

To examine whether financial literacy confidence bias affects household consumption through the two mediating variables of risk preference and the proportion of household financial assets, this paper adopts Baron and Kenny's (1986) three-step test method to conduct a mediating effect analysis on the mediating variables.

Risk Preference(RP)

In the mediating effect analysis, risk preference is used as a mediating variable to explore the influence path of financial literacy confidence bias on household consumption. The risk preference variable is measured by the willingness to invest in different risk projects in the CHFS questionnaire, specifically: "If you have a sum of money for investment, which investment project would you be most willing to choose?" (H3104). According to the investment risk willingness of the surveyed households, values are assigned from 1 to 5 in ascending order of risk. "High-risk, high-return projects" are assigned a value of 5, "slightly high-risk, slightly high-return projects" a value of 4, "average-risk, average-return projects" a value of 3, "slightly low-risk, slightly low-return projects" a value of 2, "unwilling to take any risk" a value of 1, and "don't know" a value of 0.

The results of the first step regression show that financial literacy confidence bias has a significant positive impact on household consumption level (coefficient is 0.063, $p < 0.01$), among which the coefficients of overconfidence and underconfidence are 0.149 and 0.057 respectively, both of which are significant at the 1% level. This indicates that the confidence bias in household financial literacy helps to increase the household's consumption level.

The second step regression shows that financial literacy confidence bias has a significant positive impact on risk preference. Specifically, the coefficient of financial literacy confidence bias on risk preference is 0.200 ($p < 0.01$), and the influence coefficients of overconfidence and underconfidence are 0.629 and 0.411 respectively, both of which are significantly positive. This suggests that the greater the confidence bias, the greater the household's risk preference, and the stronger the household's risk preference. Moreover, households that overestimate their financial capabilities will be more inclined to take on higher risks.

The third step regression, after introducing risk preference, found that this variable has a significant positive impact on household consumption (coefficient of 0.052, $p < 0.01$). Meanwhile, the coefficient of financial literacy confidence bias dropped from 0.063 to 0.052, overconfidence from 0.149 to 0.119, and underconfidence from 0.057 to 0.037, all remaining significant. This indicates that risk preference plays a partial mediating role in the process where financial literacy confidence bias affects household consumption behavior. On one hand, confidence bias directly boosts household consumption levels; on the other hand, it indirectly promotes the increase in consumption levels by enhancing household risk preference.

To further test whether the mediating effect of risk preference in the process where financial literacy confidence bias affects household consumption is significant, this paper adopted the Sobel test method. According to the regression results, the regression coefficient of financial literacy confidence bias on risk preference is 0.200, with a corresponding standard error of 0.01587; the regression coefficient of risk preference on household consumption is 0.052,

with a standard error of 0.00352. Substituting these values into the Sobel test formula, the calculated Z value is approximately 13.87, far exceeding the critical value at the commonly used significance level (|Z| > 1.96), indicating that the mediating effect is significant. Therefore, it can be concluded that risk preference plays a significant mediating role in the impact of financial literacy confidence bias on household consumption.

Table 6
Mediation effect Analysis (Risk Preference RP)

VARIABLES	HC	HC	RP	RP	HC	HC
FLbias	0.063*** (6.48)		0.200*** (12.61)		0.052*** (5.40)	
FLover		0.149*** (10.5)		0.629*** (27.37)		0.119*** (8.27)
FLunder		0.057*** (4.63)		0.411*** (20.71)		0.037*** (2.99)
RP					0.052*** (14.78)	0.049*** (13.55)
Constant	6.441*** (44.56)	6.493*** (44.94)	2.038*** (8.62)	2.331*** (9.98)	6.334*** （43.92）	6.380*** （44.21）
Observations	29,549	29,549	29,549	29,549	29,549	29,549
R-squared	0.383	0.385	0.141	0.165	0.388	0.389
Household Head Characteristics	YES	YES	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES	YES	YES

The Proportion of Household Financial Assets(P_HFA)
In a futher analysis of mediating effects, this paper introduces the ratio of household financial assets as a mediating variable to explore the path of financial literacy confidence bias on household consumption. This mediating variable is measured by the ratio of household financial assets to total household assets.

The results of the first step of the regression show that financial literacy confidence bias has a significant positive effect on household consumption level (coefficient 0.063, $p < 0.01$), with the coefficients of overconfidence and underconfidence being 0.149 and 0.057, respectively, which are both valid at 1% significance level, suggesting that a certain degree of self-confidence bias contributes to the household's consumption level.

The second step of the regression shows that financial literacy confidence bias significantly and positively affects the share of financial assets held by households. Specifically, the coefficient of financial literacy self-confidence bias on the share of financial assets is 0.015 ($p < 0.01$), and the coefficients of the effects of over-confidence and under-confidence are 0.051 and 0.030, respectively, both of which are significantly positive. This indicates that the larger

the confidence bias, the more households tend to allocate financial assets, reflecting changes in their investment propensity and wealth structure.

The third step of the regression, after introducing the household financial asset share, finds that this variable has a significant positive effect on household consumption (coefficient 0.438, $p < 0.01$), while the coefficients of financial literacy confidence bias decrease from 0.063 to 0.056, overconfidence from 0.149 to 0.128, and underconfidence from 0.057 to 0.044, and remain significant. This indicates that the proportion of household financial assets plays a partly mediating role in the process of financial literacy self-confidence bias affecting household consumption behavior. Self-confidence bias directly enhances households' consumption level on the one hand, and on the other hand, it also indirectly contributes to the increase of consumption level by enhancing their financial asset allocation behaviors, and then indirectly contributes to the increase of consumption level.

Table 7
Mediation effect Analysis (The proportion of household financial assets)

VARIABLES	HC	HC	P_HFA(%)	P_HFA(%)	HC	HC
FLbias	0.063*** (6.48)		0.015*** (5.91)		0.056*** (5.84)	
FLover		0.149*** (10.5)		0.051*** (13.75)		0.128*** (9.01)
FLunder		0.057*** (4.63)		0.030*** (9.25)		0.044*** (3.62)
P_HFA(%)					0.438*** (19.76)	0.425*** (19.12)
Constant	6.441*** (44.56)	6.493*** (44.94)	0.105*** (2.80)	0.129*** (3.43)	6.394*** （44.52）	6.438*** （44.82）
Observations	29,549	29,549	29,549	29,549	29,549	29,549
R-squared	0.383	0.385	0.090	0.097	0.391	0.392
Household Head Characteristics	YES	YES	YES	YES	YES	YES
Family Characteristics	YES	YES	YES	YES	YES	YES
Regional Differences	YES	YES	YES	YES	YES	YES

Discussion and Conclusion

The present study takes the household consumption of the sample households in the 2019 CHFS database as its research object, with a view to investigating the impact and mechanism of household subjective financial literacy and financial literacy confidence bias on household consumption. The findings of the study demonstrate that both household subjective financial literacy and objective financial literacy exert a significant and positive influence on the level of household consumption. Furthermore, subjective financial literacy exhibits a greater degree of impact on the overall level of household consumption in comparison to objective financial literacy. It is evident that financial literacy self-confidence bias exerts a substantial positive influence on the overall household consumption level. The impact of over-confidence

and under-confidence on household consumption is examined, and it is found that both have a significant positive impact on household consumption compared to a household with a fair evaluation. However, over-confidence contributes much more positively to the household consumption level than under-confidence. A consideration of the various household consumption categories reveals that overconfident households demonstrate a greater propensity towards developmental and hedonic consumption, whilst underconfident households exhibit a stronger orientation towards subsistence consumption. The third point to consider is the issue of financial literacy bias, which includes both overconfidence and underconfidence. This bias affects household consumption by influencing household risk appetite and the share of household financial assets. It is important to note that these two mediating variables play a partly mediating role in the process of financial literacy confidence bias affecting the level of household consumption.

Both subjective and objective financial literacy have a significant positive impact on household consumption levels, with subjective financial literacy having a greater impact on overall household consumption levels than objective financial literacy, proving that hypothesis 1 is valid. This implies that subjective financial literacy has a higher impact on household consumption than objective financial literacy, suggesting that individuals who "think they know about finance" are more likely to drive household consumption than those who "really know". This result further corroborates the findings of Robb & Woodyard (2011) and Xu et al. (2022), and further suggests that households with higher subjective financial literacy tend to adopt more responsible financial behaviors, and these responsible financial behaviors bring significant expected returns to households. According to the permanent income hypothesis, these sizable future expected incomes also influence household consumption decisions, leading to higher levels of consumption among households with high subjective financial literacy.

Financial literacy self-confidence bias has a significant positive effect on the overall level of household consumption, both over-confidence and under-confidence have a significant positive effect on household consumption compared to households with a fair evaluation, and over-confidence contributes to the level of household consumption to a much greater extent than under-confidence. Hypothesis 2 is proved to be valid. This result further confirms the existence of subjective biases in households' financial literacy judgments, which have a real impact on their economic decisions (e.g., consumption). For overconfident households, this is often accompanied by overly optimistic judgments about future economic prospects and investment capacity, and such optimistic expectations can weaken concerns about financial risks, thus stimulating more aggressive consumption behavior. Related studies have concluded that higher financial confidence is positively associated with financial satisfaction (Atlas et al. 2019; Sajid et al., 2024), and that higher satisfaction is associated with a greater bias toward higher quality consumption Brown & Gathergood (2020). In analyzing the impact of financial literacy bias on different types of household consumption, it was found that overconfident households are more inclined to enhance developmental and hedonic consumption, which is consistent with the findings of Brown & Gathergood (2020). In contrast, under-confident households focus more on survival type of consumption, and under-confident households have high financial literacy but low financial confidence, which leads to always being more cautious in their economic behavioral decision making, and prefer survival type of consumption in their consumption decision making.

The mediation effect test finds that financial literacy confidence bias (including overconfidence and underconfidence) indirectly affects household consumption levels by influencing households' risk preferences and the share of household financial assets. On the one hand, risk preference plays a partial mediating role in financial literacy self-confidence bias affecting household consumption level, and Hypothesis 3 holds. Both overconfidence and underconfidence lead to higher levels of risk appetite compared to evaluatively neutral households. Increased risk appetite leads households to prefer current consumption in the trade-off between consumption and saving, as they are more willing to accept uncertainty about future income and asset returns, and thus show a stronger propensity to consume (Gomes et al., 2021). This mechanism suggests that financial cognitive biases indirectly drive changes in household consumption levels by influencing individuals' risk attitudes.

On the other hand, the share of household financial assets also exhibits a partial mediating role in the influence of financial literacy confidence bias on household consumption, and Hypothesis 4 holds. Households with higher self-confidence bias tend to allocate riskier financial assets with higher expected returns (Tian Xia et al., 2014), which leads to an increase in the share of household financial assets in total assets. The “wealth effect” of changes in the value of financial assets boosts consumer spending (Navarro & de Frutos, 2015). Especially when financial markets are performing well, an increase in the value of financial assets can further exacerbate the optimistic expectations of overconfident households, reinforcing their current consumption intentions (Swamy, 2022). Thus, changes in the structure of household asset allocation become one of the important behavioral channels through which financial literacy confidence bias affects consumption.

Both mediating variables in this study exhibit partial mediation, a result that confirms the complexity of financial cognition in shaping consumption decisions in one way or another. The significance of the mediating effect suggests that household risk preferences and financial market participation are key channels through which financial literacy confidence bias influences household consumption decisions, but the persistence of the direct effect suggests that there are still other uncaptured paths, which also suggests that financial literacy bias has a multidimensional and multi-channel impact on household consumption.

The theoretical contributions of this study are: (1) Expanding the perspective of financial literacy research. While most existing literature focuses on objective financial literacy as the main indicator of individual financial capability, this study incorporates subjective financial literacy and the bias of overconfidence in financial literacy, demonstrating that subjective cognition and cognitive bias provide a more powerful explanation of household consumption and enriching the multidimensional measurement framework of financial literacy. Second, it reveals the heterogeneous effect of financial literacy confidence bias on household consumption decisions. The study reveals that both overconfidence and underconfidence can increase consumption levels, but the positive effect of overconfidence is stronger and more significant with regard to developmental and hedonic consumption. This finding provides new evidence of the complexity of the impact of financial literacy self-confidence bias on household economic behaviour. (3) The “financial literacy cognitive bias-risk preference/financial asset allocation-consumption” mechanism is constructed. By verifying the partial mediating role of risk preference and the proportion of financial assets, the

transmission path between financial literacy and consumption is further refined, enriching the exploration of the mechanism of financial literacy confidence bias.

The practical insights of this study include: (1) A targeted shift in the focus of financial education. Policymakers should promote objective financial knowledge, focusing on households' self-assessment capabilities and the discrepancy between subjective perceptions and objective reality. They should avoid monolithic financial literacy campaigns and encourage rational self-assessment and feedback mechanisms. (2) Guide the financial market to create a concise, blockchain-traceable information disclosure system that highlights extreme risk scenarios to overconfident individuals and shows under-confident individuals verifiable historical returns and diversified investment options, in order to improve information transparency, calibrate risk perceptions and improve overall individual financial confidence, thereby promoting the sound development of the market. (3) Guide financial institutions to optimise their products and services. They can take into account customers' financial literacy and confidence bias characteristics when designing financial and consumer credit products, and strengthen risk disclosure for overconfident people to avoid aggressive investment behaviour that could damage family wealth. For those with low self-confidence, financial institutions can provide information and financial planning assistance to avoid excessive conservatism and missed profit opportunities, which may limit their reasonable consumption.

This study has the following limitations: (1) Data limitations: the latest CHFS data only goes up to 2019. This study is therefore based on a single period of CHFS data, which is unable to capture the latest dynamic changes in financial literacy and consumer behaviour. Once data from 2021 and 2023 has been released, multi-period tracking data can be used to test the causal relationship. (2) Limitations in the depth of the mechanism examined, as this paper only considers the two channels of risk appetite and financial market participation. Further exploration of potential mechanisms such as household financial resilience, liquidity constraints and family well-being could enrich the pathways of financial literacy and self-confidence bias on household consumption, helping to construct a more comprehensive theoretical framework.

The present study investigates the impact of subjective financial literacy and financial literacy self-confidence bias on household consumption. The findings indicate that subjective financial literacy exerts a more significant influence on consumption compared to objective financial literacy. Furthermore, the study explores the role of over-confidence and under-confidence in consumption behaviour. It is observed that both forms of over-confidence and under-confidence can stimulate consumption, though over-confidence is found to be more pronounced in terms of its impact on both developmental and hedonic consumption, while under-confidence primarily enhances subsistence consumption. The study also underscores the pivotal role played by risk preference and the proportion of financial assets in the transmission of consumption. The transmission of risk preference and the proportion of financial assets are found to be pivotal in this regard. Consequently, the necessity arises for financial education to concentrate on enhancing the subjective financial literacy of the population and guiding the formation of moderate self-confidence. The creation of a favourable financial market environment and a professional asset allocation service environment, as well as the enhancement of the financial confidence of families, will

effectively release the consumption potential of families, optimise the consumption structure of families, and stimulate the high-quality development of China's economy.

References

Abreu, M., & Mendes, V. (2010). Financial literacy and portfolio diversification. *Quantitative finance*, *10*(5), 515-528.

Aman, H., Motonishi, T., Ogawa, K., & Omori, K. (2024). The effect of financial literacy on long-term recognition and short-term trade in mutual funds: Evidence from Japan [Article]. *International Review of Economics and Finance*, *89*, 762-783. https://doi.org/10.1016/j.iref.2023.10.006

Atlas, S. A., Lu, J., Micu, P. D., & Porto, N. (2019). Financial Knowledge, Confidence, Credit Use, and Financial Satisfaction [Article]. *Journal of Financial Counseling and Planning*, *30*(2), 175-190. https://doi.org/10.1891/1052-3073.30.2.175

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173.

Bellofatto, A., D'Hondt, C., & De Winne, R. (2018). Subjective financial literacy and retail investors' behavior [Article]. *Journal of Banking and Finance*, *92*, 168-181. https://doi.org/10.1016/j.jbankfin.2018.05.004

Brown, G. D. A., & Gathergood, J. (2020). Consumption Changes, Not Income Changes, Predict Changes in Subjective Well-Being. *Social Psychological and Personality Science*, *11*(1), 64-73. https://doi.org/10.1177/1948550619835215

Bucher-Koenen, T., Alessie, R., Lusardi, A., & van Rooij, M. (2024). Fearless woman: Financial literacy, confidence, and stock market participation. *Management Science*.

Chambers, R. (2014). *Rural development: Putting the last first*. Routledge.

Chen, B., & Chen, Z. (2023). Financial Literacy Confidence and Retirement Planning: Evidence from China [Article]. *Risks*, *11*(2), Article 46. https://doi.org/10.3390/risks11020046

Chu, Z., Wang, Z., Xiao, J. J., & Zhang, W. (2017). Financial Literacy, Portfolio Choice and Financial Well-Being [Article]. *Social indicators research*, *132*(2), 799-820. https://doi.org/10.1007/s11205-016-1309-2

Chung, J., & Kim, B. (2022). Heterogeneous Relationship between Financial Literacy and Fund Investment Behaviors: Evidence from South Korea during the Financial Crisis [Article]. *Seoul Journal of Economics*, *35*(2), 159-186. https://doi.org/10.22904/sje.2022.35.2.003

Cwynar, A., Cwynar, W., Patena, W., & Sibanda, W. (2020). Young adults' financial literacy and overconfidence bias in debt markets [Article]. *International Journal of Business Performance Management*, *21*(1-2), 95-113. https://doi.org/10.1504/IJBPM.2020.106117

Di Maggio, M., Kermani, A., & Majlesi, K. (2020). Stock market returns and consumption. *The Journal of Finance*, *75*(6), 3175-3219.

Dinkova, M., Kalwij, A., & Alessie, R. (2021). Know More, Spend More? The Impact of Financial Literacy on Household Consumption [Article]. *Economist (Netherlands)*, *169*(4), 469-498. https://doi.org/10.1007/s10645-021-09391-4

Friedman, M. (1957). The permanent income hypothesis. In *A theory of the consumption function* (pp. 20-37). Princeton University Press.

Gomes, F., Haliassos, M., & Ramadorai, T. (2021). Household finance. *Journal of economic literature*, *59*(3), 919-1000.

Guo, S., & Hardin Iii, W. G. (2014). Wealth, Composition, Housing, Income and Consumption [Article]. *Journal of Real Estate Finance and Economics*, *48*(2), 221-243. https://doi.org/10.1007/s11146-012-9390-z

Habyarimana, J. B., & Kakkar, V. (2022). Financial literacy, the risk-as-feelings hypothesis, and passive income generation [Article]. *Financial Planning Review*, *5*(4), Article e1154. https://doi.org/10.1002/cfp2.1154

Han, H., & Si, F. (2020). How does the composition of asset portfolios affect household consumption: Evidence from China based on micro data [Article]. *Sustainability (Switzerland)*, *12*(7), Article 2946. https://doi.org/10.3390/su12072946

Hu, D., Zhai, C., Wang, X., & Huang, X. (2024). Does household risk attitude affect consumption expenditure? Evidence from Chinese urban households [Article]. *Economic Modelling*, *141*, Article 106924. https://doi.org/10.1016/j.econmod.2024.106924

Hu, Z., Zhang, D., & Xiong, X. (2024). Navigating risk: Impact of overconfidence in financial literacy on retirement wealth reserves [Article]. *Finance Research Letters*, *69*, Article 106095. https://doi.org/10.1016/j.frl.2024.106095

Hwang, H., & Park, H. I. (2023). The relationships of financial literacy with both financial behavior and financial well-being: Meta-analyses based on the selective literature review [Article]. *Journal of Consumer Affairs*, *57*(1), 222-244. https://doi.org/10.1111/joca.12497

Inghelbrecht, K., & Tedde, M. (2024). Overconfidence, financial literacy and excessive trading [Article]. *Journal of Economic Behavior and Organization*, *219*, 152-195. https://doi.org/10.1016/j.jebo.2024.01.010

Kramer, M. M. (2016). Financial literacy, confidence and financial advice seeking. *Journal of Economic Behavior & Organization*, *131*, 198-217.

Lee, S. T., & Kim, K. T. (2025). Objective and subjective financial knowledge among emerging adults. In *Flourishing and Floundering Financially in Emerging Adulthood: A Handbook* (pp. 22-43). https://doi.org/10.1093/9780197699157.003.0003

Leng, C., Ben, F., & Han, C. (2025). Financial literacy and household risky financial asset investment: A family structure perspective based on CHFS data. *Finance Research Letters*, *80*, 107348. https://doi.org/https://doi.org/10.1016/j.frl.2025.107348

Lettau, M., & Ludvigson, S. C. (2004). Understanding trend and cycle in asset values: Reevaluating the wealth effect on consumption. *American Economic Review*, *94*(1), 276-299.

Li, J., Li, Q., & Wei, X. (2020). Financial literacy, household portfolio choice and investment return [Article]. *Pacific Basin Finance Journal*, *62*, Article 101370. https://doi.org/10.1016/j.pacfin.2020.101370

Lusardi, A., & Mitchell, O. S. (2011). *Financial literacy and planning: Implications for retirement wellbeing*.

Mudzingiri, C. (2024). The Effect of Financial Literacy Confidence on Financial Risk Preference Confidence. A Lab Experiment Approach [Article]. *SAGE Open*, *14*(2). https://doi.org/10.1177/21582440241253911

Navarro, M. L., & de Frutos, R. F. (2015). Residential versus financial wealth effects on consumption from a shock in interest rates. *Economic Modelling*, *49*, 81-90.

Nguyen, L. T. M., Nguyen, P. T., Tran, Q. N. N., & Trinh, T. T. G. (2022). Why does subjective financial literacy hinder retirement saving? The mediating roles of risk tolerance and risk perception [Article]. *Review of Behavioral Finance*, *14*(5), 627-645. https://doi.org/10.1108/RBF-03-2021-0036

Niu, G., Zhou, Y., & Gan, H. (2020). Financial literacy and retirement preparation in China. *Pacific-Basin Finance Journal*, *59*, 101262.

Pavani, T. G., & Alagwadi, M. V. (2023). Financial Literacy Overconfidence and Risk Attitude of Individual Investors in Hyderabad [Article]. *Finance India*, *37*(4), 1023-1042. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85186474171&partnerID=40&md5=4a58981ba0a466ef781919966d513472

Pearson, B., & Korankye, T. (2023). The association between financial literacy confidence and financial satisfaction [Article]. *Review of Behavioral Finance*, *15*(6), 935-946. https://doi.org/10.1108/RBF-03-2022-0090

Pikulina, E., Renneboog, L., & Tobler, P. N. (2017). Overconfidence and investment: An experimental approach [Article]. *Journal of Corporate Finance*, *43*, 175-192. https://doi.org/10.1016/j.jcorpfin.2017.01.002

Ramalho, T. B., & Forte, D. (2019). Financial literacy in Brazil – do knowledge and self-confidence relate with behavior? [Article]. *RAUSP Management Journal*, *54*(1), 77-95. https://doi.org/10.1108/RAUSP-04-2018-0008

Riitsalu, L., & Murakas, R. (2019). Subjective financial knowledge, prudent behaviour and income: The predictors of financial well-being in Estonia [Article]. *International Journal of Bank Marketing*, *37*(4), 934-950. https://doi.org/10.1108/IJBM-03-2018-0071

Robb, C. A., & Woodyard, A. S. (2011). Financial knowledge and best practice behavior [Article]. *Journal of Financial Counseling and Planning*, *22*(1), 60-70. https://www.scopus.com/inward/record.uri?eid=2-s2.0-79960775079&partnerID=40&md5=1545e418b688d5466ea1187e2a643388

Sajid, M., Mushtaq, R., Murtaza, G., Yahiaoui, D., & Pereira, V. (2024). Financial literacy, confidence and well-being: The mediating role of financial behavior [Article]. *Journal of business research*, *182*, Article 114791. https://doi.org/10.1016/j.jbusres.2024.114791

Swamy, V. (2022). Financial wealth effects and consumption expenditure. *International Journal of Finance & Economics*, *27*(2), 1933-1946.

Wang, S., & Zhang, X. (2020). An Empirical Study of the Impacts of Assets and Financial Assets of Families on Their Expenditure and Consumption---Based on CFPS Database. 2020 Management Science Informatization and Economic Innovation Development Conference (MSIEID),

Wu, Z., & Wang, Y. (2023). Consumer finance and consumption upgrading: an empirical study of CHFS. *Finance Research Letters*, *54*, 103784.

Xia, T., Wang, Z., & Li, K. (2014). Financial literacy overconfidence and stock market participation. *Social indicators research*, *119*, 1233-1245.

Xia, T., Wang, Z., & Li, K. (2014). Financial Literacy Overconfidence and Stock Market Participation [Article]. *Social indicators research*, *119*(3), 1233-1245. https://doi.org/10.1007/s11205-013-0555-9

Xie, Q., Ke, H., & Peng, J. (2024). Impacts of Financial Literacy on Elderly Households' Consumption [Article]. *Finance Research Letters*, *62*, Article 105146. https://doi.org/10.1016/j.frl.2024.105146

Xie, X., Tong, Z., & Xu, S. (2022). Risk attitudes and household consumption behavior: Evidence from China [Article]. *Frontiers in Public Health*, *10*, Article 922690. https://doi.org/10.3389/fpubh.2022.922690

Xin, Z., Xiao, B., Wang, L., & Xiao, H. (2024). Individuals' differences in self-assessment: The relationship between subjective and objective financial literacy [Article]. *Metacognition and Learning*, *19*(1), 365-379. https://doi.org/10.1007/s11409-024-09375-0

Xu, S., Yang, Z., Ali, S. T., Li, Y., & Cui, J. (2022). Does Financial Literacy Affect Household Financial Behavior? The Role of Limited Attention [Article]. *Frontiers in Psychology*, *13*, Article 906153. https://doi.org/10.3389/fpsyg.2022.906153

Yeh, T. M., & Ling, Y. (2022). Confidence in Financial Literacy, Stock Market Participation, and Retirement Planning [Article]. *Journal of Family and Economic Issues*, *43*(1), 169-186. https://doi.org/10.1007/s10834-021-09769-1

Yu, L., Mottola, G., Bennett, D. A., & Boyle, P. A. (2020). Confidence in financial and health literacy and cognitive health in older persons. *Journal of Alzheimer's Disease*, *75*(4), 1229-1240.

Zhang, Y., Yuan, Y., & Zhao, G. (2025). An empirical study on the impact of household debt level on consumption behavior: Based on the mechanism of the housing provident fund system and risk preference [Article]. *Finance Research Letters*, *72*, Article 106507. https://doi.org/10.1016/j.frl.2024.106507

Zhao, G., Yuan, Y., & Zhang, Y. (2025). Exploring the mechanism and path of financial Literacy's impact on consumption of middle-aged and elderly rural residents: Micro-evidence from CHFS data. *International Review of Economics & Finance*, *97*, 103776.

Zhao, T., Chen, K., Wang, Q., & Luo, C. (2023). Financial literacy, liquidity constraits and household risk asset allocation [Article]. *Finance Research Letters*, *58*, Article 104555. https://doi.org/10.1016/j.frl.2023.104555

Zou, J., & Deng, X. (2019). Financial literacy, housing value and household financial market participation: Evidence from urban China. *China Economic Review*, *55*, 52-66. https://doi.org/https://doi.org/10.1016/j.chieco.2019.03.008