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Research on the Mechanism of Improving the Quality of Chinese Residents' Household Financial Asset Allocation

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ABSTRACT

In recent years, China's economy is in the transition stage from high speed growth to high quality development, and the report of the 20th Party Congress puts forward the new concept of "high quality development of finance", while the family, as an important member of China's financial market, will be conducive to the high quality of China's social and financial development by improving the quality of its financial asset allocation. Financial inclusion is intended to create a fair and efficient financial market, which plays a positive role in optimizing the allocation of family financial assets. With the continuous updating of financial technology and financial services, inclusive finance can be developed rapidly, this project will use China's CHFS data to conduct empirical tests, use hierarchical analysis to define indicators from the fairness and efficiency dimensions to construct the Tobit model as well as the advanced model to analyze the enhancement mechanism of China's residents' household financial asset allocation, in order to provide some theoretical thinking for the unfair and inefficient allocation of household financial assets at present.

KEYWORDS

Equity and efficiency; Mechanisms for improving the quality of household financial asset allocation; Tobit model; Hierarchical analysis.

1. INTRODUCTION

The report of China's 20th National Congress and the spirit of the two sessions emphasized that the improvement of people's quality of life is closely linked to high-quality financial development, and that the relationship between the two reflects the country's strong commitment to the continued pursuit of economic prosperity and people's well-being. With the advent of the 21st century, the scale of household wealth in China continues to show growth, creating new opportunities and challenges for both the country and individuals. While household wealth continues to grow, the financial market has also witnessed a phase of rapid development, providing individuals with more financial instruments and investment channels.

However, an increase in household wealth does not mean that it automatically preserves and increases in value. Particularly against the backdrop of the vagaries of the financial market, families need more precise financial planning and asset allocation strategies to cope with the risks from market volatility. While awareness of household financial management is growing, there are still some problems. Many families lack sufficient expertise and experience in financial asset allocation to develop ideal asset

allocation plans, which leads to a low participation rate in the allocation of financial assets and a monolithic allocation structure, limiting the potential for wealth appreciation.

Against this background, it is particularly important to improve the quality of financial asset allocation among Chinese households. By establishing an effective mechanism to stimulate households to actively participate in financial asset allocation, it can bring multiple benefits to individuals and the country. High-quality financial asset allocation can help families better realize their financial goals, including savings, retirement, education and other needs; reasonable asset allocation can reduce the financial risks faced by families and enhance financial stability; and good asset allocation can also promote the healthy development of the financial market and enhance the stability and sustainability of the market.

Improving the quality of financial asset allocation for Chinese households is not only in line with the broader interests of national development, but also directly related to the financial well-being of individual households. By introducing fair and efficient mechanisms, promoting financial education, increasing investor participation and lowering allocation costs, families will be assisted in better coping with changes in the financial market, thereby realizing wealth appreciation and long-term financial security, which is an indispensable part of realizing high-quality financial development.

2. LITERATURE REVIEW

2.1. Measuring Asset Allocation Effectiveness Research

According to the Homo economicus hypothesis, rational individuals will always seek to maximize their own interests or utility, which, when applied to the investment market, should be manifested in the following way: all households will hold the same portfolio of asset allocations that maximize returns. In reality, a variety of factors such as information asymmetry, risk preferences, and asset size lead these households to choose very different asset portfolios. In order to measure the degree of optimization of households' financial asset allocation portfolios, there is a need to find a broadly applicable indicator that can measure the degree of effectiveness and the strengths and weaknesses of the different portfolios.

The methods of definition by academic scholars can be broadly categorized into two types, the first is based on the type and diversity of allocation of household financial asset portfolios; the second is based on the measurement of the effectiveness of the performance of similar funds, which adopts the Sharpe ratio as a measure of the portfolio's merits. Firstly, Markowitz (1952) defined risk as the volatility of return and proposed the mean-variance analysis framework so that the asset allocation can achieve the optimal balance effect. Gourieroux and Monfort (2005) found that the Sharpe ratio is directly related to the expected utility, which suggests that the Sharpe ratio to a certain extent can also reflect the effectiveness of the investment portfolio. Based on the data of portfolios held by several households at the end of 2008, Wu Satellite (2015) calculates the portfolio Sharpe ratio by calculating the proportionate weight of each risky asset to the total asset, and then using the trading index return of each total asset class as an approximate substitute for the return on holding that asset, and calculating the return on that asset within the household in an averaging manner. In addition to this, Farinelli (2008) applies the Sortino ratio to measure the effectiveness of a household's portfolio of financial assets, which focuses more on the analysis of expected losses in the (left) tail than the Sharpe ratio, in order to distinguish whether volatility is favorable or not.

2.2. Study on mechanisms to enhance the quality of asset allocation

The study of financial asset allocation usually requires consideration at both the macro and micro levels.

From the macro level, most scholars choose factors such as financial literacy, financial inclusion, and the degree of fintech development to start analyzing. Using data from the 2019 CHFS, Xu Mengjie (2023) finds that financial literacy can significantly promote and increase the proportion of household investment in risky financial assets. Liu Yu(2021), through the analysis of the mechanism of financial inclusion, argues that it positively promotes the probability and investment depth of households' participation in risky financial assets; Zhang Zhen(2022) argues that it creates a significant optimization effect on financial assets with different risks, and so on. Wu Yi (2022), through an empirical study combining fintech indicators with CHFS data, argues that the development of fintech positively affects the allocation of medium- and high-risk financial assets, and negatively affects the allocation of low-risk financial financing, while increasing household financial accessibility.

From the micro level, the research on the factors influencing the allocation of household financial assets is more concrete and in-depth than the macro. From the perspective of happiness economics, Su Meifu (2023) empirically analyzes financial literacy as a moderating variable and finds that subjective happiness plays an inverse role in risky financial asset allocation, but plays a role in promoting risky financial asset allocation for families with high financial literacy. Chen Xuxing (2022) found that family size and the structure of the number of children also affect the willingness of families to participate in risky financial asset allocation. Yu Qiuyu and Cai Ye (2021) find that property holding status has a significant positive contribution to the allocation of financial assets of households. Based on the perspective of social health insurance, Wang Stable et al. (2020) conclude that social health insurance increases household investment in risky financial assets by enhancing the share of household security assets. Duo Chunmei (2021) concludes that credit constraints hinder the participation rate and depth of household financial asset allocation in China, and this effect is more significant in rural households.

2.3. Summary

In the existing literature, the research of analyzing the factors affecting the selection of financial asset portfolios has basically matured, while the research of considering the effectiveness of investment portfolios and the corresponding enhancement mechanism has not yet formed a complete theoretical analysis system, and based on the empirical study of the effectiveness of the quality of asset allocation based on the CHFS data, this paper tries to introduce the indicators of the two dimensions, namely "fairness" and "efficiency", to construct a more detailed judgment index. In the empirical study of the effectiveness of asset allocation quality based on CHFS data, this paper tries to introduce the "fairness" and "efficiency" dimensional indexes, construct a more detailed judgment index, explore the impact of the two indexes in the family asset allocation, and try to find a new perspective to analyze the quality of asset allocation enhancement mechanism.

3. THEORETICAL ANALYSIS

In terms of empirically studying the effectiveness of asset allocation quality based on CHFS data, we believe that the two dimensions of equity and efficiency should be taken into consideration. By constructing a more refined judgment index, this paper aims to explore the impact of these two indicators in household asset allocation and tries to analyze the quality improvement mechanism of asset allocation from a new perspective. Therefore we put forward the following hypotheses:

H1: Equity and efficiency can each benefit the allocation of household financial assets

H2: Combining financial assets that consider both equity and efficiency dimensions can improve the quality of households' financial asset allocation

First, equity and efficiency, as two important dimensions, each have a positive effect on the allocation of household financial assets. The fairness dimension focuses on the equity and fairness of the financial market, including market access, information disclosure, trading rules and other aspects of

fairness. The existence of unfairness in the financial market will result in some households not being able to obtain a fair allocation of financial resources, thus affecting the quality of asset allocation. Therefore, maintaining the fairness of financial markets is one of the important factors in improving the quality of household asset allocation.

Second, the efficiency dimension focuses on the efficiency and effectiveness of financial markets, including market liquidity, transaction costs, market transparency and other aspects of efficiency. The existence of inefficiency in financial markets will lead to higher costs and risks faced by households in the process of asset allocation, thus affecting the quality of asset allocation. Therefore, improving the efficiency of financial markets is one of the important factors in improving the quality of household asset allocation.

Furthermore, a comprehensive consideration of the two dimensions of equity and efficiency of financial assets can enhance the quality of household financial asset allocation. In practice, we can promote fairness and efficiency in the financial market by formulating reasonable policies, strengthening regulation and enhancing market transparency. At the same time, we can also improve the quality of family asset allocation by guiding families to make reasonable asset allocations and improving their financial literacy and risk awareness.

In order to explore the impact of the two indicators of fairness and efficiency in household asset allocation, this paper constructs more detailed judgment indices. These indices include market access index, information disclosure index, trading rules index, market liquidity index, transaction cost index, and market transparency index. Through the evaluation and analysis of these indices, we can have a more comprehensive understanding of the fairness and efficiency of the financial market, so as to better guide families to make reasonable asset allocation.

In addition, we can verify the impact of the two indicators of equity and efficiency on the quality of household asset allocation through empirical research. For example, use CHFS data to analyze the asset allocation of different households at different time periods and explore its relationship with the two indicators of equity and efficiency. Through such a study, we can gain a deeper understanding of the factors and mechanisms influencing household asset allocation, so as to provide more targeted recommendations and measures to improve the quality of household asset allocation.

In conclusion, in empirically studying the effectiveness of asset allocation quality based on CHFS data, we should take the two dimensions of fairness and efficiency into consideration. By constructing a more refined judgment index and conducting empirical research, we can gain a more comprehensive understanding of the impact of the fairness and efficiency of the financial market on the quality of household asset allocation, and thus provide more targeted recommendations and measures to improve the quality of household asset allocation.

4. RESEARCH DESIGN

4.1. Sample selection and data sources

The data selected for this paper comes from the China Household Finance Survey (CHFS) conducted by Southwestern University of Finance and Economics in 2019. This survey aims to understand the economic status, asset allocation and liabilities of Chinese households. In the survey data, we categorize assets into financial and non-financial assets in order to gain a more comprehensive understanding of household asset composition.

Financial assets refer to those assets that can be traded in the financial market, including cash, deposits, financial products, stocks and funds. These assets usually have a high degree of liquidity and realizability and are an important part of a household's investment portfolio.

Non-financial assets, on the other hand, refer to those assets that cannot be traded in the financial market, such as real estate, vehicles, industrial and commercial production and operation assets. These assets usually have a high physical value and long-term investment value, and are an important part of household wealth.

By analyzing the survey data, we can gain a deeper understanding of the asset composition and investment preferences of Chinese households. At the same time, these data can also serve as a reference for policymakers, helping them to better understand the economic situation and needs of households so that they can formulate policies that are more in line with the actual situation.

4.2. Definition of variables and description of symbols

4.2.1. Explained variables

The explanatory variable in this paper is the financial asset allocation (FINANCE) of Chinese household residents, because it is too one-sided if risky financial assets or risk-free financial assets are presented separately as the allocation of household financial assets. Therefore, the proportion of financial assets to total assets in each piece of data is used to measure the financial asset allocation of Chinese household residents.

4.2.2. Explanatory variables

The explanatory variables in this paper are two indices (FAI, EFF) calculated from two first-level dimensions of equity and efficiency. Five second-level dimensions are included in the equity dimension: financial literacy differences, financial exclusion, credit constraints, financial strength, and degree of understanding; and four second-level dimensions are included in the efficiency dimension: risk attitude, income level, financing guarantees, and credit constraints. In order to smooth the data, the final calculated index is logarithmically processed.

The calculation of the index is derived from the hierarchical analysis method, first of all, according to the complexity and importance of financial services as a judgment criterion to derive the judgment matrix; secondly, the eigenvalues of the judgment matrix are calculated to get the eigenvectors corresponding to the largest eigenvalues; through the consistency test, the eigenvectors obtained can be obtained by normalization of the weights; and finally, the index is obtained by multiplying the indicators by the corresponding weights to get the sum of indices.

The weights of financial literacy differences, financial exclusion, credit constraints, financial strength, and understanding are 0.0618, 0.2625, 0.4185, 0.0972, and 0.1600, respectively; and the weights of risk attitudes, income levels, financing guarantees, and credit constraints are 0.1601, 0.0954, 0.4673, and 0.2772, respectively.

4.2.3. Control variables

Since personal characteristics such as age, gender, and household status will have an impact on the allocation of household financial assets, personal characteristics are selected as control variables. Specifically, age, gender (1 for male, 2 for female), hukou status (1 for agricultural, 2 for non-agricultural, and 3 for unified resident hukou), and literacy level (assigned values 1~9 in descending order).

4.2.4. Description of symbols

Table 1. Description of symbols

Variant	Notation
Ratio of financial assets	finance
fairness index	fai
financial literacy	acc
financial exclusion	rep
credit constraint	cre
level of understanding	und
financial strength	fun
efficiency index	eff
risk attitude	risk
income level	Income
financing	sec
credit constraint	cre
overall index (e.g. Dow Jones or Nikkei index)	a
(a person's) age	age
distinguishing between the sexes	gender
household status	rua
educational attainment	edu

4.3. Research model

4.3.1. Tobit model

Since the explanatory variable is the ratio of financial assets to total assets, the allocation of uninvested financial assets in it is zero, which is in line with the characteristics of the truncated data, so this paper adopts the Tobit model. For the two dimensions of equity and efficiency respectively, the model expression is set as:

$$finance = \alpha fai + \beta X + \mu$$

$$finance = \lambda eff + \delta X + \mu$$

Where, X is the control variable, μ is the random error term, and the remaining variables are referenced above.

4.3.2. Advanced Modeling

The above model establishes the foundation for proving hypothesis H1 to construct a two-dimensional balanced index, while hypothesis H2 hopes to construct a model that can enhance the allocation of household financial assets by combining the two dimensions after screening high-quality indexes, so as to provide an explanation for proposing later policy recommendations. In order to prove hypothesis H2, this paper combines equity and efficiency into one index a, and conducts Tobit regression analysis again.

5. EMPIRICAL RESULTS AND ANALYSIS

5.1. Descriptive statistics

Table 2 shows the results of descriptive statistics for each variable, which shows that the average share of household financial assets in total assets is 16.4%, indicating that the participation of our households in financial investment is still low. The average age of the respondents is 47, and the

proportion of men and women is comparable, so the data is more credible and there is no gender bias. The average literacy level corresponds to junior high school, and literacy is generally low.

Table 2. Descriptive statistics of variables

variant	Sample size	Average value	SD	Min	Max
fun	30,390	12326.38	76860.98	0	4,000,000
Income	30,390	92171.28	228784.4	-5500000	1.20E+07
sec	30,390	118747.9	3725.155	0	3924958.8
finance	30,390	0.1639322	0.2156546	0	1
age	30,390	47.7969	22.32647	18	89
fai	30,390	7.870823	5.228319	-2.783852	15.86924
eff	30,390	8.491688	1.457899	-4.243469	15.98319
cre	30,390	10975.56	165818.2	0	3.15E+07
rep	30,390	0	1	-0.749	3.266
und	30,390	4.39198	0.9169147	1	5
acc	30,390	4.214286	1.011172	1	5
risk	30,390	0.854888	0.3645248	0.2	1
rua	30,390	2.564825	0.98264655	1	3
edu	30,390	3.429701	1.757894	1	9
gender	30,390	1.494379	0.4999707	1	2

5.2. Main model regression results and analysis

5.2.1. Baseline regression model

Table 3 shows the regression results of the equity-based Tobit model. Column 2 shows the effect of "equity" on the proportion of household financial assets, and the coefficient is significantly positive at the 1% level, indicating that "equity" can help improve the quality of the allocation of household financial assets. The coefficient is significantly positive at the 1% level, indicating that "fairness" can help improve the quality of household financial assets allocation.

Columns 3 to 7 in Table 3, respectively, are the effects of financial literacy, financial strength, degree of understanding, financial exclusion, and credit constraints on the proportion of household financial assets, and the coefficients are all significantly positive at the 1% level, suggesting that with the improvement of financial literacy, financial strength, deepening of the degree of understanding, reduction of the financial exclusion index, and reduction of credit constraints, it can effectively promote the allocation of household financial assets, and initially proves hypothesis 1.

Of the five sub-indicators, financial literacy has the greatest impact on household financial asset allocation, indicating that reducing differences in financial literacy can maximize household financial asset allocation if financial literacy is improved.

From the results of the control variables, the coefficient of literacy is significantly positive, indicating that a high level of literacy can improve the allocation of household financial assets; age has a negative effect on improving the allocation of household financial assets, and with the growth of age, the speed of accepting information may be reduced, which leads to not dare to easily invest money into the financial market; gender also has a negative effect on improving the allocation of household financial assets, and the amount of women in the amount of financial investment is Gender also plays a negative role in increasing household financial asset allocation, with women investing less than men in financial investments, probably because women tend to be risk-neutral while men tend to be risk-lovers.

Table 3. "Fair" Tobit regression results

variant	fai	acc	fun	und	rep	cre
	finance	finance	finance	finance	finance	finance
fai	0.16**					
	(0.0216)					
acc		0.149***				
		0.0012				
fun			0.127***			
			0.0017			
und				0.103***		
				0.0017		
rep					0.0974***	
					0.0021	
cre						0.0721***
						0.0249
age	-0.00901***	-0.00905***	-0.0087***	-0.00957***	-0.00902***	-0.00872
	(0.00077)	0.00071	0.00074	0.00075	0.00075	0.00074
gender	-0.00792**	-0.00791*	-0.00837**	-0.00742	-0.00792***	-0.00812***
	0.00258	0.00241	0.00144	0.00321	0.00255	0.00144
rua	-0.00433	-0.00441	-0.00537*	-0.00419	-0.00432	-0.00429*
	0.000601	0.000599	0.000595	0.000606	0.000473	0.000497
edu	0.02125***	0.02136***	0.02186***	0.04749***	0.02655	0.02186***
	0.000847	0.000787	0.000418	0.000765	0.000654	0.000458

Note: ***, **, and, * indicate significant at the 1%, 5%, and 10% levels, respectively; robust standard errors in parentheses, below.

In order to understand this result more deeply, we further explore the effects of income levels, risk attitudes, credit constraints, and financing guarantees on households' financial asset allocation. From columns 3 to 6 of the table, we can see that the coefficients of these variables are all significantly positive. This implies that households are more likely to increase their financial asset allocation as their income level rises; that households with more positive risk attitudes are more willing to take risks and thus increase their financial asset allocation; and that improvements in credit constraints and financing guarantees also help households to increase their financial asset allocation.

This result further confirms our hypothesis that income level, risk attitude, credit constraints and financing guarantees have a positive impact on enhancing household financial asset allocation. It also implies that we should take these factors into full consideration when formulating household financial asset allocation strategies in order to improve the financial efficiency and asset appreciation of households.

Table 4 shows the results of the efficiency-based regression of the Tobit model, and the analysis is similar to the previous one. It is clear from the regression results that the coefficient of "efficiency" is significantly positive, which indicates that efficiency has a positive impact on the improvement of the allocation of household financial assets.

Table 4. "Efficiency" tobit regression results

variant	eff	Income	risk	cre	sec
	finance	finance	finance	finance	finance
eff	0.133***				
	(0.0052)				
Income		0.126***			
		0.0044			
risk			0.105***		
			0.0057		
cre				0.092***	
				0.0049	
sec					0.081***
					0.0051
age	-0.00846***	-0.00870***	-0.00955***	-0.00871***	-0.00889***
	(0.00045)	0.00044	0.00057	0.00045	0.00051
gender	-0.00752**	-0.00821***	-0.00641***	-0.00835***	-0.00825***
	0.00146	0.00144	0.00322	0.00145	0.00143
rua	-0.00485	-0.00526*	-0.00478*	-0.00529*	-0.00482
	0.000303	0.000295	0.000581	0.000679	0.000481
edu	0.01886***	0.02132***	0.02152***	0.02186***	0.02125
	0.00485	0.00418	0.000510	0.000458	0.000468

5.2.2. Progressive regression

Financial efficiency and financial equity are two important concepts in the field of finance. Financial efficiency refers to the ability of the financial system to optimize resource allocation, while financial equity emphasizes that the financial system should provide equal opportunities and treatment for all. Since differences in financial efficiency are the ultimate manifestation of differences in financial fairness, to further explore the relationship between financial efficiency and financial fairness, we set up a judgment matrix and used the hierarchical analysis method to calculate the weights of the two. Through this method, we obtained two weights of 66.7% and 33.3% respectively. This means that the weight of efficiency far exceeds the weight of equity in the financial field.

Table 5. Regression results

Variant	eff
	finance
eff	0.187***
	(0.0039)
age	-0.00876***
	(0.00045)
gender	-0.00871**
	0.00147
rua	-0.00551
	0.000298
edu	0.02471***
	0.00492

However, this does not mean that we should completely ignore financial equity. In fact, the regression results show that taking both "equity" and "efficiency" into account is more likely to enhance the allocation of household financial investments. This means that while pursuing financial efficiency, we also need to pay attention to financial equity in order to ensure the sustainable development of the financial system.

The effects of financial literacy and income levels on household financial allocation involved are the same as those analyzed in 1 above.

5.3. Robustness tests

5.3.1. Replacement of explanatory variables

The original explanatory variable is the allocation of financial assets of Chinese household residents (finance), according to the relevant questions in the questionnaire, participation in at least one type of financial investment activities is regarded as participation in the allocation of household financial investment and takes the value of 1. Otherwise, it is regarded as non-participation in the allocation of household financial investment and takes the value of 0. Therefore, the replacement of the explanatory variable (nfinance) takes the values of 0 and 1. Based on this, we replaced the probit model for regression. The following regression using the index a in the advanced regression, the results are divided into two tables to show the results are as follows:

Table 6. Regression of equity and efficiency on household financial investment participation1

variant	a	acc	fun	und	rep	cre
	nfinance	nfinance	nfinance	nfinance	nfinance	nfinance
a	0.865***					
	(0.152)					
acc		0.698***				
		(0.148)				
fun			0.0.512*			
			(0.139)			
und				0.483***		
				(0.098)		
rep					0.454***	
					(0.103)	
cre						0.421***
						(0.114)
age	0.00168***	0.00172*	0.00167*	0.00177*	0.00182*	0.00178
	(0.00121)	0.00119	0.00118	0.00125	0.00132	0.00127
gender	-0.157**	-0.161**	-0.154**	-0.174	-0.169**	-0.171**
	0.03664	0.03554	0.04122	0.33262	0.36545	0.34585
rua	-0.454	-0.441	-0.437*	-0.449	-0.432	-0.429*
	0.0312	0.0330	0.0321	0.0411	0.373	0.397
edu	0.07125***	0.07136*	0.07186*	0.06749*	0.06655	0.07186*
	0.00478	0.00487	0.00418	0.00465	0.00454	0.00458

Based on the tabular data, we can clearly see that the coefficient of a is significant at the 1% level. This result strongly suggests that the willingness of households to engage in financial investment increases significantly as equity and efficiency increase. This finding further confirms the solidity of our previous argument.

First, we need to be clear about the important impact of fairness on household financial investment participation. When market fairness is improved, family investors will feel more at ease and have greater trust in the market. This sense of trust will inspire them to participate more actively in financial investment, thus helping not only to raise the level of family wealth but also to promote the healthy and stable development of the capital market.

Second, improved efficiency also has a significant impact on household financial investment participation. When market efficiency is improved, household investors are able to obtain market information more quickly and accurately, so that they can more accurately judge market trends and make more effective investment decisions. This will help them achieve higher investment returns and further stimulate their enthusiasm for financial investment participation.

In summary, the willingness of households to participate in financial investment increases significantly as equity and efficiency improve. This conclusion not only has a deep theoretical foundation, but is also fully supported by empirical research. Therefore, we can be sure of the solidity of this argument. At the same time, it also reminds us that in the process of promoting the development of the financial market, we need to focus on improving the fairness and efficiency of the market, so as to attract more families to participate in financial investment and promote the prosperity and development of the capital market.

Table 7. Regression of equity and efficiency on household financial investment participation2

variant	a	Income	risk	cre	sec
	nfinance	nfinance	nfinance	nfinance	nfinance
a	0.869***				
	(0.148)				
Income		0.788***			
		(0.146)			
risk			0.0.725***		
			0.138		
cre				0.692***	
				0.112	
sec					0.654***
					0.109
age	0.00167***	0.00162***	0.00169***	0.00171***	0.00172***
	(0.00124)	0.00129	0.00121	0.00115	0.00122
gender	-0.156**	-0.151**	-0.164***	-0.164	-0.171***
	0.03564	0.03654	0.03922	0.03262	0.034545
rua	-0.449	-0.447	-0.437*	-0.441	-0.439
	0.0313	0.0328	0.0326	0.0421	0.3731
edu	0.07126***	0.07126***	0.07176***	0.06699***	0.06845
	0.00468	0.00481	0.00518	0.00445	0.00471

5.3.2. Adding control variables

On the basis of the original control variables, we add two new control variables, namely, unemployment rate (umem) and industrial structure (stru), and once again conduct robustness tests on the allocation of household financial investment and "equity" and "efficiency". Here, we again quote the a from above, and only show the results of a and each variable are returned to the country, as follows:

After the introduction of the new control variables, the coefficient of a remains positive at the 1% significance level, indicating that the positive impact of household financial asset allocation is not affected by the addition of the new control variables. This further proves the robustness of the empirical results of this paper.

Table 8. Test results

Variant	a
	finance
a	0.745***
	(0.0925)
unem	-0.0829***
	(0.01265)
stru	0.0654
	(0.00954)
age	0.00129***
	(0.00014)
gender	-0.01156**
	0.001564
rua	-0.149
	0.0213
edu	0.0626***
	0.0042

6. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusion

This paper empirically analyzes the use of financial assets in the Chinese Household Finance Survey (CHFS), which was conducted in 2019, and employs the Tobit model and the progression model to establish a model for synergistically assessing the quality of households' financial asset allocation in terms of equity and efficiency, and obtains the following conclusions.

(1) After descriptive statistics, this paper selects five secondary dimensions to measure the degree of influence of "fairness" on the quality of family financial asset allocation, and empirically analyzes and finds that financial literacy has the greatest influence on the allocation of family financial assets, suggesting that with the improvement of financial literacy, financial strength, deepening of the degree of understanding, reduction of the financial exclusion index, and reduction of credit constraints, it can effectively promote the allocation of family financial assets. It shows that with the improvement of financial literacy, financial strength, deepening of understanding, reduction of financial exclusion index, and reduction of credit constraints, it can effectively promote the allocation of household financial assets.

(2) Efficiency has a positive impact on the increase in households' financial asset allocation. As income levels rise, households are more likely to increase their financial asset allocation; households with a more positive attitude to risk are more willing to take risks and thus increase their financial asset allocation; and improvements in credit constraints and financing guarantees also help households increase their financial asset allocation.

(3) Finally, through the hierarchical analysis method, this paper finds that the weight of efficiency far exceeds the weight of equity. However, this does not mean that we should completely ignore financial equity. In fact, the regression results suggest that taking both "fairness" and "efficiency" into account is more likely to enhance the allocation of household financial investment. This means that while pursuing financial efficiency, we also need to pay attention to financial equity to ensure the sustainable development of the financial system.

6.2. Concluding recommendations

First, we need to be clear about the important impact of fairness on household financial investment participation. When market fairness is improved, family investors will feel more at ease and have greater trust in the market. This sense of trust will inspire them to participate more actively in financial investment, thus helping not only to raise the level of family wealth but also to promote the healthy and stable development of the capital market.

Second, improved efficiency also has a significant impact on household financial investment participation. When market efficiency is improved, household investors are able to obtain market information more quickly and accurately, so that they can more accurately judge market trends and make more effective investment decisions. This will help them achieve higher investment returns and further stimulate their enthusiasm for financial investment participation.

In summary, the willingness of households to participate in financial investment increases significantly as equity and efficiency improve. This conclusion not only has a deep theoretical foundation, but is also fully supported by empirical research. Therefore, we can be sure of the solidity of this argument. At the same time, it also reminds us that in the process of promoting the development of the financial market, we need to focus on improving the fairness and efficiency of the market, so as to attract more families to participate in financial investment and promote the prosperity and development of the capital market.

6.3. Other recommendations

6.3.1. Promote fintech innovation and broaden investment channels

The participation rate and depth of household financial asset allocation of Chinese families lag far behind the international level, and domestic financial products can only meet the requirements of a small group of people and do not meet the needs of the majority of investors, so the improvement of the quality of financial asset allocation is imminent. First of all, promote financial technology innovation from the social level, through the introduction of intelligent investment adviser, blockchain and other technologies, to provide more convenient and efficient financial services and broaden investment channels. The development of financial technology can reduce the threshold and cost of financial asset allocation, so that more family investors can participate in it, thus increasing the participation rate of family financial assets and realizing the efficiency of asset allocation. Secondly, there is a need to establish a sound long-term investment mechanism in the market, and to release positive investment signals through the development of tax incentives and other incentives, so as to encourage family investors to participate in and make long-term investments, reduce the impact of short-term fluctuations in the market, and enhance the long-term returns of allocation.

6.3.2. Enhancing market transparency and improving the investment climate

In a sufficiently level playing field, financial institutions will be subject to stringent regulation and will be required to provide their customers with sufficient and accurate information to enable investors to better understand the characteristics, risks and expected returns of different financial assets. On this premise, household investors will make more informed financial asset allocation decisions and choose investment portfolios that match their risk tolerance and objectives. Currently, there are many financial products in the financial market that exploit regulatory "loopholes", blurring the boundaries of their own product positioning, false propaganda to consumers, labeled "risk-free", and fleeing after an accident, leaving the victims burdened with debt. Regulators should carry out fine-grained supervision of financial products to ensure that information disclosure is adequate and truthful, to avoid false publicity and misleading information, to reduce the information asymmetry risk faced by family investors in the process of financial asset allocation, and to enable each family to make informed investment decisions based on accurate information.

6.3.3. Enhance self-financial literacy and allocate diversified investment portfolios

Society encourages household investors to adopt a diversified investment strategy in their asset allocation, rather than just saving assets. In a fair and transparent financial market, investors do not need to pay for the false propaganda of financial products, and the impact of negative externalities caused by information asymmetry is minimized, thus creating a suitable investment market. Investors need to improve their rejection of financial products, take the initiative to understand financial knowledge, leverage on professional financial institutions, and put forward financial asset allocation needs, thereby reducing investment risks and increasing the potential for long-term investment returns. Investors with a certain reserve of financial literacy should also pay close attention to changes in the market and make timely adjustments to their investment portfolios to adapt to the ever-changing economic and financial environments, pay attention to risks while pursuing high returns, and emphasize the importance of long-term planning and risk management.

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