

The Impact of Households Risk Preferences on the Bank Wealth Management Products Consumption—Evidence from Urban Households of China

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Abstract

By using the data of China's household financial survey, this paper analyzes the current situation of Chinese urban households' consumption on bank wealth management products, and explores the impact of Chinese urban households' risk preferences and other factors on the consumption of bank wealth management products. The results show that risk preferences have a significant positive impact on the purchasing possibility and consumption amount of wealth management products of urban household banks in China. the higher the degree of risk preference, the higher possibility for urban households to purchase the bank wealth management products and the more the household would like to pay. This paper also explore other factors which influences the consumption of bank financial products, and finds that the improvement of financial literacy, the increase of years of education, and the accumulation of family wealth will promote the consumption of bank wealth management products, while the gender is male and having religious beliefs will inhibit the consumption of consumers on bank wealth management products.

Keywords

Chinese urban households, risk preferences, bank wealth management products.

1. Introduction

In China, Family is the basic unit of social and economic activities. It plays an important role in social and economic activities. To a certain extent, family financial activities are an integral part of the financial system and reflect many aspects of economic activities. In recent years, with the rapid development of China's economy, the living standards of Chinese households have also increased, and their asset allocation has also gradually diversified. In addition to investing in financial assets such as stocks and funds, bank wealth management products have gradually become one of the important asset allocation methods. Although since the beginning of bank wealth management products selling in China in 2003, the bank wealth management products market in China have developed into a large market with annual sales volume of nearly one trillion in just a few years, but compared with other developed countries, now the enthusiasm of Chinese households to buy bank wealth management products is not high, then why is this happening? What factors affect Chinese households' purchasing of bank wealth management products? This article will answer these questions through analysis.

2. Literature Review

In China, bank wealth management products refer to the financial management plan that commercial banks develop, design and sell for specific target customer groups, and invest and

manage according to prior agreement. They are profitable financial assets with high expected return rate and various types which enable customers to realize the Value-keeping and Value-adding of Property. Under the rules formulated in advance, banks are entrusted by customers to invest, and the customers themselves bear losses or gain profits. Any investment is risky, and it is with no exception for bank wealth management products. According to portfolio theory, the decision of households to make a choice of household financial assets depends primarily on risk preferences. The Portfolio Selection theory of Markowitz (1952) which is widely accepted in by the public, holds the view that the portfolio of rational investors is similar, consisting of a certain proportion of market portfolios which composed of risky assets and a certain proportion of riskless assets. The higher the degree of risk preference, the higher the proportion of market portfolios they will hold, and the lower the proportion of riskless assets the will hold. Barasinska (2012) analyze the impact of German family's personal risk attitude on financial portfolio, and the result shows that risk attitude has a significant impact on the holding of risky assets. The higher the risk aversion, the more likely the family is to hold a portfolio with a higher proportion of riskless assets. Pfeifer (2013) using German data to study the impact of personal religious beliefs on financial risk preference and financial decision-making. It finds that the willingness to take financial risks would affect investors' financial behavior. The more willing to take financial risks, the more willing to invest in a certain asset. However, most of these studies focus on foreign consumers. Whether the research conclusions are also applicable to explain China's practical problems remains to be further discussed. As a risky asset, how does the investment risk preference of Chinese urban households affect the consumption of bank financial products? In order to study this problem, this paper will take the risk preference of family investment as the core independent variable to study the impact of risk preference and other factors on the consumption of bank financial products. At the same time, this paper will use descriptive statistical method to analyze the reasons why Chinese urban households do not buy bank financial products.

3. Data

This paper uses the data from the China Household Finance Survey (CHFS) in 2013. CHFS is a nationwide follow-up survey of large-scale family dynamic financial behavior carried out by China Family Finance Research Center of Southwest University of Finance and Economics. Its main purpose is to collect relevant information on the micro-level of family finance. China's household finance survey adopts a three-stage stratified sampling method proportional to population size (PPS), aiming at collecting micro-information of China's household finance through scientific and modern survey technology to provide high-quality data for domestic and foreign researchers to study China's households finance problems. The data in 2013 covered 29 provinces in China and obtained information on housing assets, financial wealth, liabilities, income, consumption, social security and insurance of 28141 households. In the questionnaire of 2013, there are not only questions about risk preference of household investment, but also investigate the situation of households purchasing bank wealth management products. The data has a large number of survey samples and the data quality is high. what's more, the survey data is in line with the research direction of this paper, which provides strong data support for the research questions in this paper. After screening out the unreasonable data, this paper obtains 14850 valid data which can be used for data analysis.

4. The Variables and Measure

4.1. Investment Risk Preference

Mark portfolio theory holds that the proportion of individuals willing to invest wealth in risky assets and non-risky assets depends on their risk preferences. When Two-fund separation

theorem is valid, risk preference is the only factor that leads to the different decision of portfolio. With the development of portfolio theory, more factors have been included in the framework of portfolio theory, but risk preference has always been recognized as an important factor affecting household' investment decisions, this is no exception for the choice of bank financial products. Compared with savings, bank financial product as a risky asset, the higher risk preference household are, the more likely they are to buy bank financial products. This paper divides risk preference into five levels: unwilling to take risks, willing to take slightly low risks, average risks, slightly high risks, and high risks. The specific score is from 0 to 4. The higher the score means the higher degree of risk preference. Table 1 shows the risk preference of urban households in China, In the table, "unwilling to take any risk" and "willing to take low risk" are defined as risk aversion type, willing to take "average risk" is defined as risk neutrality, willing to take "slightly higher risk" and "high risk" are defined as risk preference type. From the Table1, we can know that households who purchased bank wealth management products accounted for only 3.34% of all sample households, there is just a few households purchased bank wealth management products. After classification in terms of the degree of risk preference, we find that the more risk-preferred group, the larger the proportion of households buying bank financial products, among the three categories of risk preference, risk-preferred group purchased the largest proportion of bank financial products (5.9%) and risk-averse group purchased the smallest proportion of bank financial products (2.34%).

Table 1. Classification in terms of the degree of risk preference

	purchased	unpurchased	total	Proportion of people who have purchased
risk preference	128	2,042	2,170	5.90%
risk neutrality	207	4,037	4,244	4.88%
risk aversion	285	11,869	12,154	2.34%
total	620	17948	18568	3.34%

4.2. Financial Literacy

financial literacy can be defined as the extent to which individuals can understand and apply financial information (Huston,2009). Financial literacy will affect whether families participate in financial markets, failure to grasp a higher level of financial literacy would restrict the participation of household in financial markets (Rooij et al.,2011). Buyers with higher financial literacy have a better knowledge of various financial products and a deeper understanding of investment strategies. They can collect more effective information needed for decision-making and have a clearer understanding of the risks of financial products of banks so that they can make decisions on whether to buy financial products according to their investment objectives and the actual situation of their families. Buyers with low financial literacy have relatively insufficient knowledge of bank financial products, which will affect their decision-making.

At present, most studies measure the financial literacy level of residents from three dimensions: compound interest, inflation, and risk diversity (Agarwal et al.,2010; Lusardi et al., 2010; Lusardi, 2015). In the 2013 China Family Finance Survey, three questions were designed to examine the financial literacy level of the respondents: interest rate calculation, inflation rate calculation and investment risk recognition. In this paper, considering the difference between answering errors and not knowing the knowledge, we will assign 2 points for correct answers, 1 point for wrong answers, and 0 points for "not knowing" the answers, and add up the scores of the three questions to measure family financial literacy.

4.3. Other Variables

① Age.

Age is an important factor affecting households' decision whether to buy the bank financial products or not. Young people have a strong ability to obtain labor income in the future, they can withstand the investment losses of bank financial products and have a high degree of risk preference. However, with the growth of age, especially in the old age, family income decreases, and they need to face the expenditure of pension and medical care, so they may have lower risk preference and they can not afford high-risk investment.

② Gender.

Gender will influence people to make investment decisions, Related research points out that women are more risk-averse than men (Croson and Gneezy, 2009). Another research shows that women were more conservative in portfolio allocation and preferred to choose assets with low risk (Sunden and Surette, 1998). Therefore, men may be more inclined to buy bank financial products than women. We use 1 for male and 0 for female.

③ Marital status.

Marriage can change the family's income. At the same time, it also means that two people depend on each other and guarantee each other, so that they may be willing to take relatively high risks in the investment of financial assets. Therefore, marital status may have an impact on the purchase of bank financial products. In this paper, 1 means married and 0 means unmarried.

④ Whether to own real estate or not.

Usually, the primary asset allocated by Chinese families is real estate. Ownership of real estate makes people feel that their lives are basically guaranteed. Then people will invest in risky assets such as stocks. Therefore, whether own the real estate may have an impact on bank financial products. In this paper, 1 means owning a house, 0 means not owning a house.

⑤ Education

The years of education can affect the consumption of bank financial products in many ways. People with long education years tend to have higher income, calculating ability and information acquisition ability than those with short education years. They also have higher risk preference and are more likely to buy bank financial products. In this paper, the education level is converted into years. According to the standard of Chinese education, education begins in elementary school. In terms of the education situation of different people, the possible years of education are 0, 6, 9, 12, 13, 15, 16, 19 and 22, respectively.

⑥ Total household assets and income

Risk aversion decreases as wealth increases (Suarez, 1983). Families with more wealth are less sensitive to risk, which makes them more likely to buy bank financial products. Families with smaller wealth tend to save because they cannot afford losses.

⑦ Religious beliefs

Pfeifer (2013) used German data to study the impact of individual religious beliefs on financial risk preferences and financial decisions and found that risk-free preferences of non-religious people were higher than those with religious figures. Therefore, religious beliefs may also have an influence on the consumption of bank wealth management products. This article indicates that 1 has a religious belief and 0 means no religious belief.

⑧ Health

People in poor health need to spend more money on health care and are more reluctant to invest in risky assets, so people in poor health may be less likely to buy bank financial products. This article divides the health status into four levels and the specific score is from 0 to 4, the higher the level or the score, the healthier the body.

5. Study Findings

5.1. Summary Statistics of Variables

Summary statistics for our sample of households are shown in Table 2. We distinguish between households with purchased and unpurchased of bank financial products. We find that only 620 households in 18568 urban households in China have purchased bank financial products, accounting for 3.34%, and 17948 households have not purchased bank financial products, accounting for 96.66%. Thus, the popularity of bank financial products in China is not high, there are a Few households buy bank financial products. Moreover, the risk preference, average financial literacy and average years of education of families who buy bank financial products are higher than those who do not buy bank financial products.

Table 2. Summary Statistics of Variables

Purchase situation of bank financial products	Purchased	unpurchased
Observation	620	17948
expenditure	153.03	0.00
risk_preference	1.57	1.01
financia_literacy	3.77	2.42
male	0.41	0.49
ln_income	11.69	10.30
ln_asset	14.36	12.78
age	48.23	48.94
education	13.65	10.43
health	1.97	1.75
house	0.78	0.75
male	0.41	0.49
marriage	0.88	0.82
religion	0.06	0.10

Note: The table shows the mean of the variable. ln_income is the logarithm of total income, ln_asset is the logarithm of total assets, the expenditure refers to the expenditure on purchasing bank financial products.

5.2. Reasons for Not Purchasing Bank Financial Products

Figure 1 shows the reasons why households don't buy bank financial products. From the figure, we can know that the four main reasons why households don't buy bank financial products are that they don't have so much money, lack of relevant financial knowledge, and have never heard of this product and they can't bear the high risk of bank financial products. It can be seen that family risk preference and financial literacy both have important impact on the purchase of bank financial products.

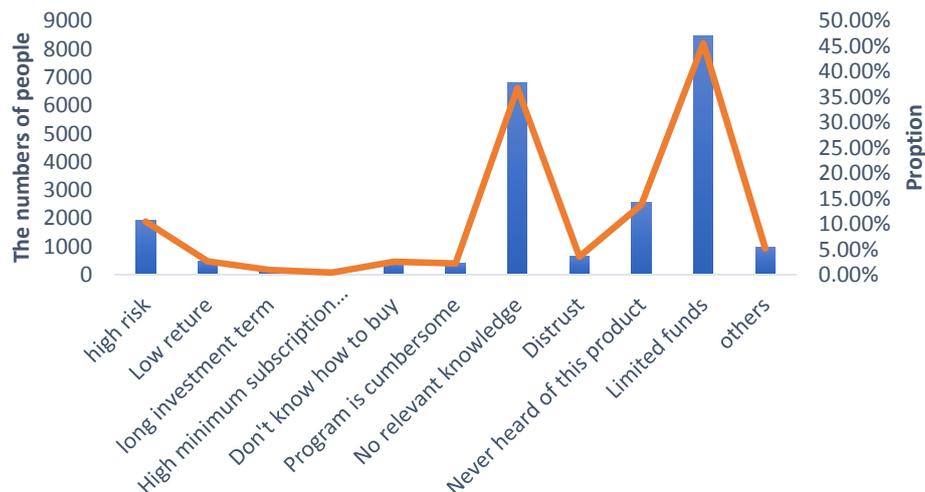


Figure 1. The reasons why people do not but the bank wealth management products

5.3. The Impact of Risk Preference and Other Factors on the Consumption of Bank Financial Products

In this part, we will consider two problems: one is the impact of risk preference on the possibility of purchasing bank financial products; the other is the impact of risk preference on the consumption amount of bank financial products. Among them, when exploring the influence of family risk preference on the possibility of purchasing bank financial products, the explanatory variable of this paper is the dummy variable of whether to purchase bank financial products. Therefore, this paper chooses to establish Probit model to study this problem. When studying the impact of risk preference on the consumption amount of bank financial products, the explanatory variable of this paper is the consumption amount of bank financial products. Therefore, this paper chooses to establish Tobit model to study it.

Table 3. The Impact of Risk Preference on the Consumption of Bank Financial Products

	Probit(1)		Tobit(2)	
Risk_pererence	0.0834***	(0.017)	36.21***	(7.842)
Financial_literacy	0.120***	(0.014)	50.78***	(8.375)
Ln_income	0.130***	(0.025)	69.09***	(13.227)
Ln_asset	0.306***	(0.020)	128.0***	(16.818)
Age	0.0129***	(0.002)	5.355***	(0.839)
education	0.0526***	(0.007)	17.70***	(3.057)
Health	-0.0101	(0.019)	-9.878	(8.095)
House	-0.387***	(0.055)	-151.5***	(26.591)
Male	-0.294***	(0.043)	-100.9***	(18.561)
Marriage	0.106*	(0.062)	36.38	(25.327)
Religion	-0.207**	(0.083)	-72.67**	(35.012)
_cons	-8.799***	(0.295)	-3804.7***	(459.509)
N		18568		18568
r2_p		0.216		0.0930

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

Note: Model (1) is the result of Probit regression, and its explanatory variable is whether or not purchased bank financial products, purchased is 1, not purchase is 0. Model (2) is the result of Tobit model regression, and its explanatory variable is the consumption amount of bank financial products.

As shown in Table 3, model (1), the coefficient before the risk preference variable is positive and has passed the significance test under the level of 5% confidence. It shows that the Chinese family's risk preference has a significant promoting effect on the purchase of bank financial products. The higher the risk preference, the higher the possibility for households to purchase bank financial products. The coefficient before financial literacy is positive and has passed the significance test under the level the 5% confidence, which means that the improvement of financial literacy of Chinese households will increase the possibility of purchasing bank financial products. The results of other variables show that the increase of age, the increase of years of education and the accumulation of family wealth will increase the possibility of households buying bank financial products; however, gender is male and having religious beliefs will significantly inhibit the purchase of bank financial products. Health status has a negative impact on the possibility of purchasing financial products it, but it is not significant. Married has a positive effect on the possibility of purchasing financial products, but it is not significant. In model (2), we can know that except for the different coefficients of variables, the significant level of variables in model (2) is consistent with that in model (1). The results show that the increase of risk preference, financial literacy, family wealth, age and years of education of Chinese households can significantly promote the increase of consumption amount of the bank financial products. Ownership of real estate, religious beliefs, and the gender is male can significantly inhibit Chinese households' spending on bank financial products. While health status and whether married or not have no significant impact on the amount of money consumed by bank financial products.

6. Conclusion

Using the data of China Family Finance Survey in 2013, We analyses the relationship between risk preference of Chinese household investment and consumption of bank financial products from the micro-household level. The study finds that the risk preference of Chinese households is generally low. Among 18568 urban households in China, only 3.34% of households bought bank financial products, while 96.66% of households did not buy bank financial products. It can be seen that the enthusiasm of Chinese households to purchase bank financial products is generally low. We explore the reasons for not purchasing bank financial products, and finds that the four main reasons for not purchasing bank financial products are that there are not so much funds in the household, lack of relevant financial knowledge, and never heard of bank financial products and the risk of bank financial products is too high.

Furthermore, this paper explores the influence of household risk preference and other factors on the purchase possibility and consumption amount of bank financial products in China. The study finds that household risk preference has a significant promoting effect on the purchase of bank financial products. The higher the risk preference, the higher the possibility of purchasing bank financial products and the more expenditure the urban households would like to pay for it. The improvement of financial literacy increases the possibility of purchasing bank financial products. At the same time, the increase of age, the increase of years of education and the accumulation of family wealth will also promote family consumption on bank financial products. However, the gender is male and having religious beliefs will restrain family consumption of bank financial products. Health status and marital status have no significant impact on the consumption of bank financial products.

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