# Survey on the Factors Influencing Household Asset Allocation Decisions

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*Abstract:* Household asset allocation decisions are subject to behavioural bias and have an impact on the real economy and financial markets. Therefore, it is necessary to research the factors affecting family asset allocation. This paper explores the factors affecting family asset allocation decisions including the personal and family trait, background risk, real estate, tax, and social insurance from both theoretical and empirical perspectives, and highlights the conclusions of relevant Chinese research. This article can provide some suggestions for Chinese economic policy and financial system reform. It also shows that the current research on household asset allocation in China is insufficient, and it is necessary to strengthen both theoretical and empirical research.

# 1. Introduction

The main purpose of asset allocation is to minimize risks and increase investment opportunities. Effective asset allocation can indeed influence the growth of total household assets, and its asset allocation effect plays an important role in the function of the entire financial system and the development of social and economic stability. Family assets can strengthen future consumption and protect families from uncertainty risks, so asset-based policies become more important. Also, policies in this area can promote the continuous accumulation of the value of household assets.

The decision of each independent family on asset allocation may affect labor market, real estate market, financial market, and social financing costs. We know that China is a country with low consumption and high savings. Compared with developed countries, such as the United States, the proportion of stocks held by most households in China is extremely low, and most of the financial assets held are deposits. According to professional statistics, about 80% of Chinese households assets are low-risk assets such as cash, deposits, and government bonds, while only 20% are risky assets. All in all, China displays structural differences in terms of household asset allocation decisions compared with developed countries.

Existing research has studied the problem of household asset allocation decisions extensively. The theoretical and methodological foundations are well-founded and mature, based on national statistics, data from professional institutions, and complex models. However, related studies are mainly conducted in the context of developed countries and it is very likely that their conclusions cannot

apply directly to emerging economies like China. In this paper, we survey some prominent factors influencing the household asset allocation decisions based on literature from both China and developed countries to provide more comprehensive information.

# 2. Literature Review

# **2.1. Personal/Family Trait Factors**

The existing research studies the effects of age, gender, and education level on asset allocation. Calvet [1] and Lei [2] studies the influence of gender on investment behavior in the stock market and finds that men usually prefer risk-taking and high-risk things than women, and tend to explore the unknown, while women often lack security and hate risks. Therefore, female investors are less likely to participate in the stock market than male investors, and the proportion of holding stock assets is also lower. Waite and Gallagher [3] publishes their research on gender. They believe that if both men and women in a married family have a stable income, then the overall income level of the family will be higher and the accumulated family wealth will become more. Therefore, marriage can significantly increase the proportion of investment risk assets and stocks. Guiso [4] researches the age effect. He investigates the distribution structure of the financial assets of some families in the developed economies of the West and finds that there is a non-linear relationship between the age and the investor's investment participation enthusiasm. As age increases, it rises and then declines. The proportion of investment in risky financial assets is marked by a significant inverted U word, and the life cycle effect is highly obvious. The study by Heaton [5] and Chen [6] also supports this view. Bertaut [7] believes that although the size of the age has a strong influence on the probability of the family investment risk financial market of US assets, the impact on the proportion of risky financial assets in total assets is not obvious.

Shi [8] his research on the state of financial assets allocation in Sichuan Province shows that the proportion of stock investment has no life cycle effect, and the actual family financial decision is inconsistent with the theory. The study by Mankiw et al. [9] illustrates that the possible size of household heads participating in stock market investment has a significantly positive correlation with the level of education because market information processing capacity and fixed information cost are conditions for participating in the stock market. If investors are highly educated, the participation cost of the investor's stock market can be greatly reduced by breaking the information barrier. The positive correlation between the level of education and the possibility of investing in the stock market and the proportion of investment is also expressed in different levels by Barber [10], Yu [11] and Zou [12].

# 2.2. Background Risk Factors

The existing literature extensively discusses the factors affecting the allocation of household assets. For example, Baptista [13] points out background risk refers to the risk that cannot be dispersed in the financial market through asset portfolio allocation in financial asset allocation, such as income risk and health. Risks due to factors such as conditions, necessary living expenses, etc. Angerer and Lam [14] bases on data analysis of US residents and suggested that when investors face income risks, they hold a lower proportion of risk assets to reduce risk exposure. For health research, Campbell [15] states that poor health will affect labor income risk through reduced life expectancy and future income reduction, resulting in a reduction in risky assets. As evidenced by Edwards [16], residents with poor health and high health risks choose safer assets. Some scholars in China also studies this topic. Chinese scholars Chen and Wu [17] believe that the higher the labor income risk of the family, the

probability of participation of risk assets. The lower the rate, He et al. [18] also believe that residents with large occupational risks are less likely to invest in risky assets. Tao and Guo [19] found that the risky investment of Chinese residents in the state of health is not statistically significant; He and Shi [20] also believe that health status has no significant impact on the investment probability of residents, and enjoy medical social insurance or residents who have purchased commercial health insurance have a higher investment probability; Liu [21] believes that the impact of health on the proportion of risky financial assets is crucial.

# **2.3. Real Estate and Commercial Assets Factors**

Similarly, domestic and foreign scholars have made deep discussions on the impact of real estate and commercial assets on the allocation of risk assets of residents. The price fluctuations of real estate and commercial assets affect the income risk of residents, so the property is usually considered as a substitute for risk assets. Many scholars prove that the holding of real estate and commercial assets has a "crowding out effect" on risky assets. For example, Fratantoni [22] discovers that many households in the United States do not hold risky assets, and more assets are linked to real estate.

# **2.4. Tax Factors**

Also, scholars study the tax factors affecting the allocation of household assets. The first study on the impact of taxation on asset portfolios is Domar and Musgrave [23], who develop a high tax rate. The demand for high-yield, high-risk assets does not necessarily decrease. Under uncertainty, Von and Morgenstern [24] provide a theoretical basis for the theory of choice that maximizes utility, and Markowitz [25] clarifies on how theory applies to asset selection issues. After that, economists further study the relationship between tax and asset portfolios. Tobin [26] discovers that if risk-free assets have no income and the benefits of risk assets can be properly allocated or invested the utility function is quadratic, and the introduction of a proportional tax can cause the risk-averse to increase the demand for risky assets.

# **2.5. Social Insurance Factors**

There is also social insurance as factors that affect the allocation of household assets, but research scholars have different opinions. Many scholars believe that social insurance can promote the proportion of family holding risky financial assets. MartinFeldtein [27] analyzes the impact of social insurance on the individual retirement by using life cycle model and savings effects of the residents shows that social insurance reduces 30%-50% of the deposits of residents; R. Glenn Hubbard Jonathan Skinner, Stephen P. Zeldes [28] research society the relationship between insurance and household preventive savings based on life cycle model and discover that social insurance can effectively reduce household preventive savings and promote current consumption and investment in risky financial assets. Qiu [29] uses consumer finance and health retirement survey data well, the results show that families with health insurance are more likely to own stocks and invest a greater proportion of financial assets in stocks than those without health insurance. Instead, David Blake [30] demonstrates that family housing and social pension insurance determine personal consumption and important determinants of retirement behavior, housing and social pension insurance for individual residents. It has a positive impact, and the individual's social pension insurance can promote greater savings. A larger amount of social pension insurance can encourage residents to retire early, and clearer social pension insurance can have the effect of delaying retirement. National pensions do not affect retirement.

#### **3. Conclusions**

From both theoretical and empirical perspectives, this paper studies family asset allocation behavior and its influencing factors and summarizes related research concerning Chinese family asset allocation decisions. literature, both at home and abroad, has revealed various factors that influence household asset allocation decisions, from personal/family trait factors (e.g. age, gender, and education) to social factors (e.g. real estate and commercial assets, taxation, and social insurance). We can see that the research in the context of developed countries generally is more complicated in terms of both methodology and contents. Considering the systematic differences between China and developed countries, we cannot simply apply the conclusions drawn from research abroad. There are still a lot of open questions in this field in the context of China and researchers should continue to establish datasets of higher quality, develop more complicated methods, and provide more inspiring theories. Also, the conclusions of this study provide implications for macroeconomic policies such as optimization of household financial asset allocation, and the reform of China's financial market system and products. Taking account of the characteristics of China as an emerging economy, related research on the allocation of family financial assets to some extent has a guiding role for China's macroeconomic policies. For the development of financial markets, the allocation of family financial assets in China is closely related to it, and the family financial asset allocation behavior is also affected by financial market reform.

#### References

- [1] Calvet L E, Campbell J Y, Sodini P. Down or out: Assessing the welfare costs of household investment mistakes[R]. National Bureau of Economic Research, 2006.
- [2] Feng L, Seasholes M S. Individual investors and gender similarities in an emerging stock market[J]. Pacific-Basin Finance Journal, 2008, 16(1): 44-60.
- [3] Waite L, Gallagher M. The case for marriage: Why married people are happier, healthier and better off financially[M]. Broadway Books, 2002.
- [4] Guiso L, Jappelli T, Haliassos M. Household portfolios: An international comparison[J]. Available at SSRN 245805, 2000.
- [5] Heaton J, Lucas D. Market frictions, savings behavior, and portfolio choice [J].Macroeconomic Dynamics, 1997, 1(01): 76-101.
- [6] Chen Xuebin, Fu Dongsheng, Ge Chengjie. Dynamic optimization simulation of investment behavior of individual life cycle consumption in China [J]. Financial Research, 2006, 02: 21-35.
- [7] Halitass M, Bertaut C C. Why do so few hold stocks? [J]. the economic Journal, 1995: 1110-1129.
- [8] Shi Daimin, Song Yan. An Empirical Study on the Choice of Financial Assets of Residents' Households[J]. Statistical Research, 2006 (10): 43-49.
- [9] Mankiw N G, Zeldes S P. The consumption of stockholders and nonstockholders [J]. Journal of Financial Economics, 1991, 29(1): 97-112.
- [10] Barber BM, Odean T. Boys will be boys: Gender, overconfidence, and common stockInvestment[J]. Quarterly Journal of Economics, 2001: 261-292.
- [11] Yu Rong. Research on family financial asset selection behavior in China [D]. Jinan University, 2006.
- [12] Zou Hong, Yu Kaizhi. Analysis of the Characteristics of Financial Assets Selection of Urban Households in China— Based on the Adjustment of Family in 6 Cities Check data [J]. Industrial Technology and Economy, 2009, 05: 19-22.
- [13] Baptista A M. Optimal Delegated Portfolio Management with Background Risk [M]. Journal of Banking & Finance, 2008.
- [14] Angerer X and Lam. Income Risk and Portfolio Choice: An Empirical Study [J]. The Journal of Finance, 2009.
- [15] Campbell J Y. Household Finance [J]. The Journal of Finance, 2006.
- [16] Edwards R D. Health Risk and Portfolio Choice [J]. Journal of Business & Economic Statistics, 2008, 26(4): 472-485.

- [17] Chen Ying, Wu Zhiwei, Gu Peng. The Impact of Family Life Cycle and Background Risk on Family Asset Allocation[J]. Journal of Social Sciences of Jilin University, 2014, (5):10.
- [18] He Xingqiang, Shi Wei, Zhou Kaiguo. Background Risk and Resident RiskInvestment in financial assets [J]. Economic Research, 2009, (12): 119-130.
- [19] Li Tao, Guo Jie. Risk Attitude and Stock Investment [J]. Economic Research, 2009, (2): 56-66.
- [20] He Xingqiang, Shi Wei. Health risks and household consumption of urban residents [J]. Economic Research, 2014: 34-48.
- [21] Liu Jinjun. Heterogeneity of Urban Households in China and Risky Financial Assets Investment [J]. Economic Issues, 2015, (3): 51-55.
- [22] Fratantoni M C. Homeownership, Committed Expenditure Risk, and the Stockholding Puzzle [J]. Oxford Economic Papers, 2001, 53(2): 241-259.
- [23] Domar E D, Musgrave R A. Proportional income taxation and risk-taking [J]. The Quarterly Journal of Economics, 1944, 58(3): 388-422.
- [24] Neumann J, Morgenstern O. Theory of games and economic behavior [J]. 1944.
- [25] Markowitz H M. Portfolio Selection: Efficient Diversification of Instruments, New York, J [J]. 1959.
- [26] Tobin J. Liquidity preference as behavior towards risk[J], The review of economic studies, 1958, 25(2): 65-86.
- [27] Martin. F. Social Security, Induced Retirement, and Aggregate Capital Accumulation [J]. Journal of Political Economy. 1974 (82).
- [28] Hubbard, R., J. Skinner, S. Zeldes, "Precautionary Saving and Social Insurance" [J]. Journal of Political Economy, 1995, 103 (2): pp360-399.
- [29] Qiu Jiaping. Precautionary Saving and Health Insurance: A Portfolio Choice Perspective [J]. Frontiers of Economics in China; Beijing 11.2 (2016): 232-264.
- [30] Blake. The impact of wealth on consumption and retirement behavior in the UK[J]. Applied Financial Economics.2004(8).