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How Does Population Aging Impact Household Financial Asset Investment?

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Abstract: The accelerated aging of China's population will inevitably increase the burden of social retirement and significantly impact the development of financial markets, which is not conducive to sustainable social development. A proper allocation of financial assets will enable households to earn more property income and facilitate the appropriate allocation of social capital. The aging of the population is an essential factor affecting the allocation of financial assets to households. This paper examines the impact of an aging population on household financial asset allocation based on data from the 2015, 2017, and 2019 China Household Finance Surveys (CHFS). The study finds that aging significantly negatively affects household risky financial asset participation, depth of participation, and diversity. The findings remain robust after robustness tests using a two-way fixed effects model. In addition, this paper examines the mechanisms of influence from the perspectives of both risk aversion and financial literacy. In terms of mediating variables, aging increases the risk aversion of household heads, and an increase in risk aversion discourages households from investing in risky financial assets. In terms of moderating variables, the dampening effect of aging on investment in risky financial assets diminishes as financial literacy increases. In addition, empirical findings based on heterogeneity find that aging has a stronger negative impact on risky financial asset participation, depth of participation, and diversity in rural areas. Aging has a stronger negative impact on risky financial asset participation for households with children.

Keywords: financial asset; pollution; investment; China

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1. Introduction

China has the largest elderly population in the world. As the elderly grow older, their income through labor capacity will gradually decrease, and their ability to cope with the risks of daily life will weaken. At this stage, the economic sources of the elderly in China mainly come from three aspects, which are family member support, social pension, and property income. Judging from the current situation, the pension method based on family and social pensions will face huge challenges. From the perspective of the source of social pension funds, according to the "2019–2050 China Pension Actuarial Report", without considering the increase in per capita benefits, the payment pressure of basic pension insurance for urban employees is constantly increasing. In 2019, nearly two contributors were needed to support a retiree; in 2050, almost one contributor will be required to support a retiree. From the perspective of intergenerational transfer within the family, in the context of low birthrate and family planning, the 4-2-1 (four elderly people, one couple and one child) family structure has become a typical family structure in China. This will make it difficult for family children to have enough money and time to support the elderly. In this context, increasing family property income is one of the main measures to ensure that the elderly can enjoy their old age comfortably. Reasonable financial asset allocation is one of the main channels for families to obtain property income. Middle-aged and elderly residents have more social capital and wealth, and a reasonable allocation of financial assets can smooth consumption and enhance family utility and happiness in old age.

What impact does population aging have on household financial asset allocation? What is the mechanism of action? Under the background of China's increasingly aging population, research on the above problems can deepen the understanding of the household financial asset allocation phenomenon and help guide residents to invest rationally and increase property income. At the same time, it is of great significance to formulating relevant policies for developing China's financial market.

This paper empirically studies the relationship between population aging and household financial asset allocation using data from three national micro-household surveys conducted by the China Household Finance Survey (CHFS) of the Southwestern University of Finance and Economics in 2015, 2017, and 2019. These high-quality household survey data can bring the model closer to reality and can test the impact mechanism and the impact of various heterogeneities in a better way.

The possible contributions of this paper are reflected in the following aspects. First, this paper divides the investment behavior of household financial risk assets into three aspects: specific risk financial asset participation, participation depth, and diversity. Empirical tests are carried out with cross-sectional data and panel data, respectively. Secondly, this paper empirically tests the impact mechanism of aging on household financial asset allocation by using the questions about risk attitude and financial literacy in the questionnaire. Finally, this paper examines the heterogeneous impact of aging on household financial asset allocation from urban and rural areas and raising children.

The paper is structured as follows. Section 2 presents the relevant literature and sets out the research hypotheses. Section 3 presents the data sources and variables. Section 4 gives the empirical results and performs robustness tests. Section 5 analyses and tests the impact. Section 6 conducts a heterogeneity analysis. Section 7 provides the conclusions of the paper.

2. Literature Review and Research Hypotheses

The existence of household heterogeneity is an important factor affecting the allocation of household financial assets. Scholars mainly conduct research based on four aspects. First, the impact of background risk on household financial asset allocation [1,2]. Second, financial literacy can affect information processing ability and reduce transaction costs, affecting household financial asset allocation [3,4]. Third, family social network is an important factor influencing family financial investment decisions [5,6]. Fourth, the impact of various demographic characteristics on the allocation of household financial assets, such as age, marriage, and education level [7–11].

With the aging of countries tends to be serious. The source of retirement living for the elderly is increasingly dependent on retirement savings investment. Scholars have gradually begun to pay attention to the impact of population aging on household financial asset allocation. The research on population age and residents' investment decisions can be traced back to the age effect theory and the life cycle hypothesis theory. Age effect theory is based on a multi-period model, which analyzes consumption and investment decision-making problems over the life cycle [12–14]. The theory holds that investment decisions are affected by time but not age and decrease with time, which is not in line with reality. The traditional life cycle hypothesis (LCH) first appeared in the 1950s as a theory for analyzing household consumption functions [15].

The life cycle theory divides the life of residents into youth, middle age, and old age. When residents enter old age, they will use the savings they have accumulated before for consumption, resulting in a relatively low marginal propensity to consume and a relatively low savings rate. Individuals will face different income status and consumption needs at different life cycle stages, which will impact their asset allocation. Subsequently, Bakshi and Chen [16] believed that people in different age groups would choose different investment targets. Before the age of 40, people mainly invest in real estate; after the age of 40, with the increase in income, they start to invest in securities such as stocks; in old age, with the rise