

Determinants of Household Risky-Asset Participation and Portfolio Quality: A Critical Review

Yichen Hu*

University of Exeter, Exeter, England

**Corresponding author: Yichen Hu.*

Abstract

Household participation in risky-asset markets matters for long-term wealth accumulation. However, many households still avoid these markets. Some households enter the market, but then make weak investment choices. This review examines the main determinants of household risky-asset participation and portfolio quality. The review compares studies on entry costs, wealth constraints, financial capability, behavioural bias, trust, financial advice, and digital investment platforms. It finds that risk aversion alone does not explain non-participation. Non-participation is also linked to participation costs, perceived complexity, low wealth, liquidity constraints, and limited risk capacity. After households enter the market, portfolio quality depends on financial literacy, behavioural bias, diversification, fees, and trading behaviour. Digital finance has mixed effects. Robo-advisors may help households access diversified and low-cost portfolios. However, app-based trading platforms may encourage speculative and attention-driven trading. The review concludes that better market access does not automatically lead to better investment outcomes. Policy and future research should therefore focus on portfolio quality and household financial welfare, rather than participation rates alone.

Keywords

household finance, risky-asset participation, portfolio quality, financial literacy, digital finance

1. Introduction

Household investment in risky assets plays an important role in long-term wealth accumulation. Over time, assets such as equities and equity funds usually offer higher expected returns than cash or deposits. However, many households still do not participate in risky-asset markets. Even among those who do participate, portfolio choices are often far from ideal. Many investors hold concentrated portfolios, pay high fees, or trade too frequently, which can reduce net returns.

These two issues should be distinguished. Not entering the market is different from entering the market and then investing poorly. The reasons behind them may overlap, but they are not identical. For this reason, this review adopts a two-stage framework. The first stage is participation, which asks why some households do not hold risky assets at all. The second stage is portfolio quality, which asks why some participants still make weak investment decisions after entering the market [1, 2].

This topic has become more important in recent years because the investment environment has changed. Digital platforms, robo-advisors, and app-based brokerages have reduced some traditional barriers to entry. At the same time, they may also encourage frequent trading, speculative behaviour, and poor product choice [2, 3]. Easier market access therefore does not always lead to better household outcomes.

The aim of this review is to examine the main determinants of household risky-asset participation and portfolio quality. It also considers how digital finance affects both issues. This topic matters for household welfare, inequality, retirement security, and financial inclusion policy.

Based on this aim, the review addresses the following three research objectives:

Research Objective 1: To identify the main factors that explain why many households remain outside risky-asset markets.

Research Objective 2: To examine why some households that participate in risky-asset markets still hold weak or low-quality portfolios.

Research Objective 3: To analyse how digital finance changes the relationship between market access and investment quality.

2. Background

In this review, risky assets refer mainly to financial products with short-term price risk. These include directly held stocks, equity mutual funds, ETFs, and similar market-based products. Housing is not treated as a risky asset in this review. However, it remains relevant because it affects liquidity, background risk, and a household's capacity to bear financial risk. Pension arrangements also matter for similar reasons.

A useful starting point in the literature is the distinction between participation and allocation. Participation refers to whether a household holds any risky asset at all. Allocation refers to what happens after entry, including the risky share of the portfolio, the level of diversification, the type of product chosen, and the amount of trading. This distinction is common in household finance because the decision to enter the market is often separate from the decision about how to invest once inside the market [1, 2].

This distinction matters because rising participation does not necessarily imply better financial outcomes. A household may move from non-participation into a portfolio with high fees, poor diversification, or excessive turnover. In that case, participation increases, but welfare may not. For this reason, the literature increasingly focuses not only on whether households invest, but also on how well they invest. Measures such as net returns, diversification, fees, and trading intensity are therefore central to assessing portfolio quality [2, 4].

Overall, the literature suggests that household investment behaviour is shaped by three broad forces: economic constraints, financial capability, and the surrounding environment. Economic constraints include wealth, liquidity, and income risk. Capability includes financial literacy and the ability to understand products and compare costs. Environment includes trust, advice, institutions, and, more recently, digital platform design. These ideas provide the basis for the following review.

3. Literature Review

3.1 Entry Costs and Market Participation

One of the most common explanations for non-participation is the existence of entry costs. These costs may be direct, such as account setup requirements, minimum balances, and time spent gathering information. They may also be indirect, such as the fear of making mistakes or the sense that investing is too complicated. Vissing-Jorgensen [5] shows that even small participation costs can lead to substantial non-participation, especially for households with low wealth. A positive expected return is therefore not enough on its own to make market entry worthwhile.

This argument helps explain an important pattern in the data: participation tends to rise with wealth. Wealthier households can spread fixed costs over a larger asset base, so market entry becomes more worthwhile for them. By contrast, for households with limited savings, the expected benefits of entering the market may appear too small relative to the effort involved. Campbell [1] also notes that once households start participating, they often continue to do so. This suggests that setup costs may be partly sunk and that experience itself may reduce future barriers.

More recent work has extended this idea by focusing on perceived rather than purely objective costs. Duraj et al. [6] argue that many households see investing as difficult and intimidating, and that this perception helps explain persistent non-participation. This shows that reducing formal fees may not be enough. Even if account opening becomes easier through digital technology, many households may still stay out of the market if they feel uncertain, unprepared, or afraid of losses.

This literature gives a clear explanation for persistent non-participation, even when the equity premium is positive. It also has limits. Researchers often infer entry costs from behaviour rather than observe them directly. As a result, these costs may also capture low trust, weak financial capability, or limited access to advice. Even so, the main conclusion remains persuasive. Many households stay out of risky-asset markets because entry is costly in a broader sense than standard models first assumed.

3.2 Risk Capacity, Wealth, and Constraints

A second major explanation focuses on the household's financial situation. Wealth is strongly related to both participation and risky-asset holdings, but this relationship should not be understood only as a scale effect. Wealth matters because it helps households absorb entry costs and increases their risk capacity. Households with more liquid wealth and more stable income are in a better position to tolerate short-term losses without being forced to sell assets at a bad time [1, 2].

This point matters because low risky-asset holdings do not always show a strong dislike of risk. In many cases, they reflect background constraints. Labour income risk, housing commitments, and limited liquid savings all reduce a household's ability to bear financial risk.

Borrowing constraints reinforce this argument. When households cannot borrow easily against future income, they may choose to keep more wealth in safe and liquid forms. This helps explain why some households hold low-risk portfolios even when risky assets have higher long-run expected returns. The issue is not simply preference. It is also balance-sheet vulnerability.

This literature also offers a useful correction to simple life-cycle models. Standard theory often suggests that younger households should hold more risky assets because they have a long-time horizon. In reality, younger households may also face lower wealth, less stable employment, student debt, and housing costs. These factors reduce effective risk capacity. As a result, the observed pattern of low participation among younger or lower-wealth households may be consistent with rational behaviour under constraint.

Still, this strand of research also has limitations. Wealth is closely related to education, social background, and financial capability, so the estimated effect of wealth may partly reflect omitted factors. In addition, survey data often measure wealth imperfectly. Despite these problems, the core finding is persuasive: household portfolios cannot be understood without taking account of resources, liquidity, and exposure to background risk.

3.3 Financial Capability, Behavioural Bias, and Portfolio Quality

If entry costs and financial constraints help explain why households stay out of risky-asset markets, they do not fully explain why some participants still invest poorly. For this question, financial capability and behavioural bias are especially important. Lusardi and Mitchell [7] show that financial literacy is associated with better financial decisions, including retirement planning and market participation. In the investment context, literacy matters because it helps households understand diversification, compare fees, and interpret risk-return trade-offs.

However, limited knowledge is not the only problem. Behavioural finance suggests that many portfolio mistakes happen even when investors have access to information. Campbell [1] argues that most households do not make catastrophic mistakes, but a minority make persistent and costly errors. These mistakes are more common among households with lower wealth and lower education. Calvet, Campbell, and Sodini [4] also show that the main household investment inefficiencies are often non-participation and under-diversification. While the average welfare loss may not always be large, the losses for some households are substantial.

Several behavioural patterns appear repeatedly in the literature. Familiarity bias leads investors to prefer firms, sectors, or assets they already know. This can result in concentrated portfolios. Overconfidence can lead to excessive trading, which often reduces net returns after costs. Narrow framing may cause households to judge each investment separately instead of considering overall portfolio risk. Loss aversion can also discourage broad exposure to risky assets, especially when investors focus heavily on short-term losses [1, 2].

These ideas are important because they show that market entry alone is not enough. A household may start investing and still choose expensive, concentrated, or frequently traded products. In that case, financial access improves, but portfolio quality does not. The literature therefore suggests that capability and judgement are both central. Better access without sufficient understanding may simply move households from non-participation into low-quality participation.

3.4 Trust, Advice, and Digital Investment Environments

A further part of the literature focuses on the investment environment itself. Households do not make decisions in isolation. Trust in financial markets, access to advice, and institutional design all affect behaviour. Guiso, Sapienza, and Zingales [8] show that trust plays an important role in stock market participation. Households that distrust financial institutions or fear unfair treatment are less likely to invest in stocks. Participation therefore depends on return, risk, and the extent to which households see the market as credible and safe.

Financial advice can sometimes reduce barriers created by complexity. Georgarakos and Inderst [9] show that advice may support participation when products are difficult to understand. However, advice is not automatically beneficial. Its value depends on the incentive structure behind it. If advisors are rewarded for selling expensive products, advice may worsen rather than improve outcomes. Linnainmaa, Melzer, and Previtero [10] make this concern even stronger by showing that advisors themselves may hold mistaken beliefs. In this case, advice may spread errors instead of correcting them.

Digital finance adds a new dimension to this discussion. Robo-advisors may improve access to diversified portfolios at lower cost and with less effort from households [11–15]. For some investors, this can improve portfolio construction and reduce the role of behavioural mistakes. However, other digital platforms have very different effects. Barber et al. [3] show that Robinhood users display attention-driven trading patterns. Chapkovski, Khapko, and Zoican [16] also find that gamification influences investor behaviour. These findings suggest that app design can affect decisions in ways that encourage turnover and speculation rather than long-term investing.

This is an important development in recent household finance research. Digital finance lowers barriers to entry, but it also changes the behavioural environment. Easier access may increase participation, yet design features such as push notifications, trending lists, or easy access to options and leverage may reduce portfolio quality. For this reason, the effect of digital finance should not be judged only by whether more households open accounts. The more important question is whether digital participation improves welfare after fees, trading costs, and risk exposure are considered [15, 17].

4. Key Findings and Insight

The literature points to three main findings. First, household non-participation in risky-asset markets is best explained by entry costs, perceived complexity, and limited risk capacity. These factors often work together. Low-wealth households may face not only weaker incentives to enter the market, but also greater fear of losses and less room to absorb mistakes. This means that non-participation is often better understood as a response to real constraints than as a simple preference for safety [1, 5, 6].

Second, portfolio quality after entry depends strongly on financial capability and behavioural discipline. Households that participate in risky-asset markets do not automatically invest well. The literature shows that poor diversification, high fees, and excessive trading are often linked to low literacy, behavioural bias, and weak or conflicted advice [4, 7, 10]. Participation and quality are therefore related but distinct dimensions of household finance.

Third, digital finance changes both participation and portfolio quality at the same time. It can reduce setup frictions and lower the cost of market access, which should increase participation. At the same time, digital platforms may also increase impulsive trading and encourage exposure to more speculative products [3, 16, 17]. The overall effect is therefore mixed. Digital finance can widen access, but whether it improves welfare depends on how platforms are designed and how households use them.

Taken together, these findings suggest that household investment outcomes are shaped by the interaction of three broad forces: constraints, capability, and environment. Constraints affect whether households can enter the market at all. Capability affects whether they can make sensible choices after entry. Environment affects whether markets, advisors, and digital platforms support good decisions or make poor decisions more likely.

5. Discussion

5.1 Implications

One implication of this review is that participation alone is an incomplete measure of success. In many policy discussions, increasing the number of households with investment accounts is treated as a sign of progress. However, the literature suggests that this is too narrow. If households enter the market but then hold expensive or poorly diversified portfolios, higher participation may not lead to better welfare. For this reason, outcomes such as net returns, diversification, turnover, and fee levels deserve more attention.

A second implication is that households outside risky-asset markets should not be treated as one uniform group. Some are limited mainly by low wealth and liquidity constraints. Others may be blocked more by distrust, low confidence, or weak financial knowledge. This matters because different barriers require different responses. Cutting fees may help one group, while clearer information, simpler products, or stronger investor protection may matter more for another. A single policy tool is unlikely to work equally well for all households.

The review also suggests that digital finance should be evaluated more carefully. It is easy to assume that lower fees and easier app access automatically improve household finance. The evidence does not fully support that view. Some digital tools, especially robo-advisors, may help households move into low-cost diversified portfolios. But other platforms appear to encourage attention-driven trading and short-term speculation [3, 15, 16]. This means that digital innovation should be judged by actual investor outcomes, rather than access alone.

5.2 Research Limitation

The existing literature also has several limitations. Many studies focus on one factor at a time, such as wealth, literacy, or trust. However, these factors often interact. Low literacy may be especially damaging in high-choice digital environments. Trust may matter more when financial products are complex. Advice may help some households, but only when advisor incentives are aligned with investor welfare. Future research would benefit from studying these interactions more directly.

Another limitation concerns measurement. Key concepts such as confidence, perceived complexity, and attention are difficult to observe. Surveys may capture beliefs only imperfectly, while administrative data often record behaviour without explaining why that behaviour occurred. A stronger research agenda would combine behavioural measures with detailed account or platform data. This would make it easier to study how digital design, product presentation, and investor capability jointly affect real outcomes.

6. Conclusion

This review examined household risky-asset participation and portfolio quality as two related but separate issues. The literature shows that non-participation is strongly shaped by entry costs, perceived complexity, low

wealth, and limited risk capacity. It also shows that poor portfolio quality after entry is often linked to low financial capability, behavioural bias, weak advice, and institutional or platform design.

The review further suggests that digital finance has made the issue more complicated. It can reduce traditional barriers to entry and broaden access to investment products. At the same time, it can also encourage trading behaviour that reduces net returns and increases avoidable risk. For this reason, higher participation should not be treated as sufficient evidence of better household financial outcomes.

The main conclusion is that better access and better investing are not the same thing. Household welfare depends on market entry, product choice, trading behaviour, fees, and unnecessary risk. Future research should pay more attention to the interaction between household constraints, financial capability, and the digital environment. It should also assess success through welfare-based outcomes, rather than participation rates alone.

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Conflicts of Interest

The authors declare no conflict of interest.

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