

# Summary of *Broadband Internet and the Stock Market Investments of Individual Investors*

HANS K. HVIDE, TOM G. MELING, MAGNE MOGSTAD, and OLA L. VESTAD

Summarized by Li Ziming

## 1. What are the research questions?

- Whether broadband affects the stock market participation and portfolio efficiency of individual investors.

## 2. Why are the research questions interesting?

- Although the broadband facilitates the acquisition of information and reduces the costs involved in entering the market, but there is controversy on whether the internet use improve the “democratization of finance”. And existing literature has certain limitations that only focus on subgroup investors and only research platforms.
- A public program in Norway provides exogenous variation in internet use. The broadband expansion was progressively rolled out in Norway which generates spatial and temporal variation in broadband coverage in the entire population. This creates a good experimental environment to examine the effects of broadband.

## 3. What is the paper’s contribution?

- Contributes to a literature on how internet use affects the portfolio choices of individual investors.
  - Existing literature: The detrimental effects on investor behavior: excessive stock trading (Barber et al., 2022), herding and speculation (Allen et al., 2022).
  - Extend: This paper documents positive effects of internet use.
- Contributes to a literature in household finance.
  - Existing literature: Several factors can affect stock market participation: personal wealth (Brunnermeier and Nagel, 2008), educational attainment (Cole, Paulson, and Shastry, 2014), computer ownership (Bogan, 2008), and financial literacy (Lusardi and Mitchell, 2014).
  - Extend: This paper analyzes the effects of an exogenous reduction in the fixed costs of equity market participation due to faster internet access.

## 4. What hypotheses are tested in the paper?

- H1: Broadband use increases stock market participation.
- H2: Broadband use positively impacts portfolio allocation and outcomes for individual investors.

### a) Do these hypotheses follow from and answer the research questions?

- Yes.

### b) Do these hypotheses follow from theory? Explain logic of the hypotheses.

- The broadband reduces the costs involved in entering the market which may increase stock market participation rates.
- The broadband facilitates the acquisition of information which may increase investors’ belief and lead to increased trading activity and improved choices.

## 5. Sample: comment on the appropriateness of the sample selection procedures.

- There is no authoritative database recording Norway’s financial market transaction data. The data such as fund transaction exists in different sources and it is difficult to unify.

**6. Comment on the appropriateness of variable definition and measurement.**

- The paper uses the prior year's broadband coverage rate as the instrument variable, but it is conditional exogenous and may coincide with other reforms or developments in the financial sector.

**7. Comment on the appropriateness of the regress/predict model specification.**

- The paper uses the instrumental variable method and includes the municipality and year fixed effects. Endogeneity issues are well resolved.

**8. What difficulties arise in drawing inferences from the empirical work?**

- Whether the instrumental variable is exogenous to all factors except the municipality and year factors.

**9. Describe at least one publishable and feasible extension of this research.**

- We can obtain the optical fiber or 5G popularize data form three major telecom operators in China to study the role of the Internet in the Chinese context.