



Rethinking the Stock Market Participation Puzzle: A Qualitative Approach

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Motivation

- For at least 30 years, financial economists have been trying to understand **why stock market participation (SMP) has been low.**
- **While many explanations** have been proposed, **existing explanations** typically **originate in the researcher's mind**, shaped by their assumptions and understanding of households' decision problem.
- Several years ago, we realized that nobody had **asked individuals to explain in an *undirected* way and in their own words “why they invest the way they invest.”**



What We Do

- **Qualitative research approach:** In **90-minute, semi-structured interviews**, we let **25 German non-investors and investors** explain their financial decisions and understanding of investing in the stock market.
- We analyze interview transcripts using *human-led* **qualitative content analysis** as well as *LLM-based* approach.
 - Which determinants do individuals actually talk about?
 - What surprises us that we had possibly overlooked or misunderstood?
- **Mixed methods:** We **test** key qualitative findings **in large representative survey**.

What We Find That Surprised Us

- Non-investors are aware of attractive equity investments. But they ***believe that***
 - ***successful*** participation requires **substantial knowledge and preparation** before entering
 - **active, high-frequency investing** is needed to realize **high returns** and ***avoid losses***.
- Investors often **share non-investors' beliefs** but **overcome barriers** through **family, peers, or trusted advisers**.
- **Entry and participation costs** have been recognized and are widely used modeling choice.
 - **Much of the costs are (mis-)perceptions** of what is needed to enter and to participate
 - **Hard to observe**, interviews suggest **they can be large**
 - Mis-perception is rooted in **ignorance of market efficiency** and passive investing
 - Ignorance of market efficiency affects ***how*** investors invest: **under-diversification** and **over-trading**.

What Is Qualitative Research?

Idea: Gather individuals' **subjective** experiences and perceptions **to understand** the "what," "how," and "why" of their behavior.

How: Small number of in-depth **interviews** with **open-ended questions** and **probing**

Data: **Textual** not numerical

Analysis: Potential to group or count, but mainly **interpretative** content analysis.

➤ Important methodological & philosophical **differences with economics**
[relativism (Boas), grounded theory (Glaser), critical theory (Adorno, Marcuse)]

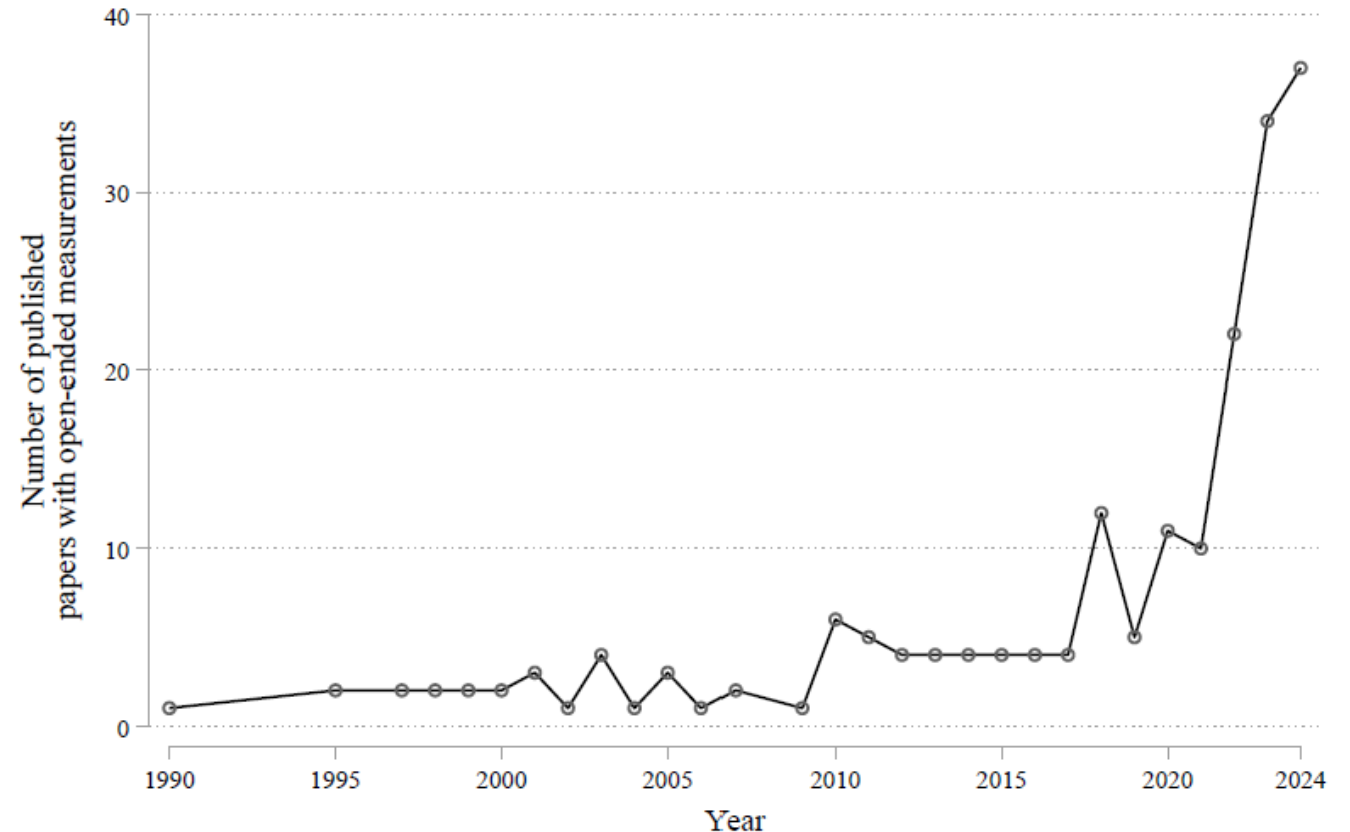
➤ However, much can be gained from **pragmatic approach:**

- **Interviews uncover surprises** overlooked or misunderstood by existing theory
- **Mixed Methods:** Validate qualitative results with large scale survey.

Qualitative Research in Finance & Economics

So far, only a few prominent applications: Lintner (1956), Bewley's (1999), Brav et al. (2005), Piore (2006)

Increasing interest in **open-ended survey questions** or **AI-chatbots** (Geiecke and Jaravel (2024), Chopra and Haaland (2024)).



Source: Haaland, Roth, Stantcheva, and Wohlfahrt (2025)

Qualitative Sample & Interview

Market research firm (Séissmo) recruited participants for **market research about *money and finance*** using ***purposeful***, not representative sampling:

- 25 to 54 years of age
- men and women
- resident of former West-Germany
- **college-educated**
- **save regularly or have financial assets**

Interviews conducted online in December 2021 by Séissmo based on **semi-structured interview guide**.

Final sample of 25 interviewees:

- **Saturation** after 16 interviews of **non-investors**.
- For comparison, interview 9 ***recent* investors** that started investing within 2 years prior to the interview.



Analysis

Deductive coding: Label interview segments with codes from **coding scheme derived from literature**.

- Every code shows up at least once
- Frequency distribution **similar** between non-investors and investor
- **Entry and Participation Costs** most frequent

Qualitative Content Analysis:

- Review and synthesize coded interviews to determine:
 - What aligns with theory
 - What is surprising given existing literature
 - What are new insights

Code Structure	All	Non-investor	Investor
ITEM 1: Entry and Participation Costs	46%	45%	47%
<i>Financial expenditure</i>	1%	0%	2%
<i>Non-monetary costs and benefits</i>	11%	12%	9%
<i>Abilities and Knowledge</i>	34%	33%	36%
ITEM 2: Preferences and Beliefs	38%	39%	37%
<i>Preferences</i>	16%	17%	14%
<i>Beliefs</i>	23%	23%	23%
ITEM 3: Economic Environment and Intended Equity Holding	16%	16%	15%
<i>Intended holdings</i>	7%	7%	7%
<i>Life cycle and background risks</i>	2%	2%	2%
<i>Constraints</i>	2%	2%	1%
<i>Substitutes, comparisons to other classes and liabilities</i>	5%	5%	5%



Findings

- All non-investors **mention stocks and the equity market**, *without* the interviewer prompting them, and generally perceive **equity returns as attractive** (estimated to be between 5 and 10% annually).
- Non-investors as well as investors dislike **risk** and the **possibility of losing money**.
- **However, what surprised us:**
 - Non-investors *perceive* **surprisingly high entry and participation**
 - Investors **share these perceptions** but **overcome** the related costs.
 - **“Ignorance of market efficiency”** leads to **non-participation** and investment **“mistakes.”**

Interviews: *Perceived Entry Costs*



Luise

(non-investor,
PhD student in
neuroscience, 25)

*“Stocks are a **very complex thing** that you really have to **deal with before you start investing in stocks**. It's not something where I say, yes, I'll do it today. Maybe I'll just pick up a stock or something. You can't do that. (Shakes head). **There has to be a lot of preparation.**”*

Interviews: *Perceived Entry Costs*

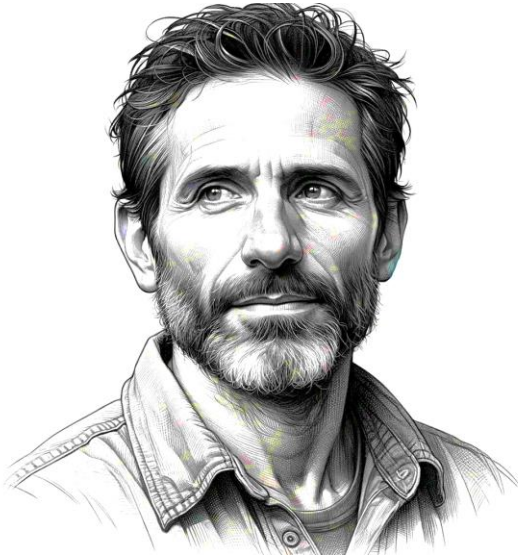
When probed what she wanted to know, Ingrid (51) explains:

*“Just like when I buy a new **kitchen appliance**, I look into it first. How it works or **what the reviews are like**, what the experience is like and so on.”*



Ingrid
(non-investor,
sales: medical
devices, 51)

Interviews: *Perceived Entry Costs*



Luca

(non-investor,
carpenter, 40)

*“And **if you have studied it well**, let's say how stocks work. Then **you know your way around it**. For example, to see which product or **which stock will be really good** in two- or three-years' time.”*

Insight 1: Perceived Entry Costs

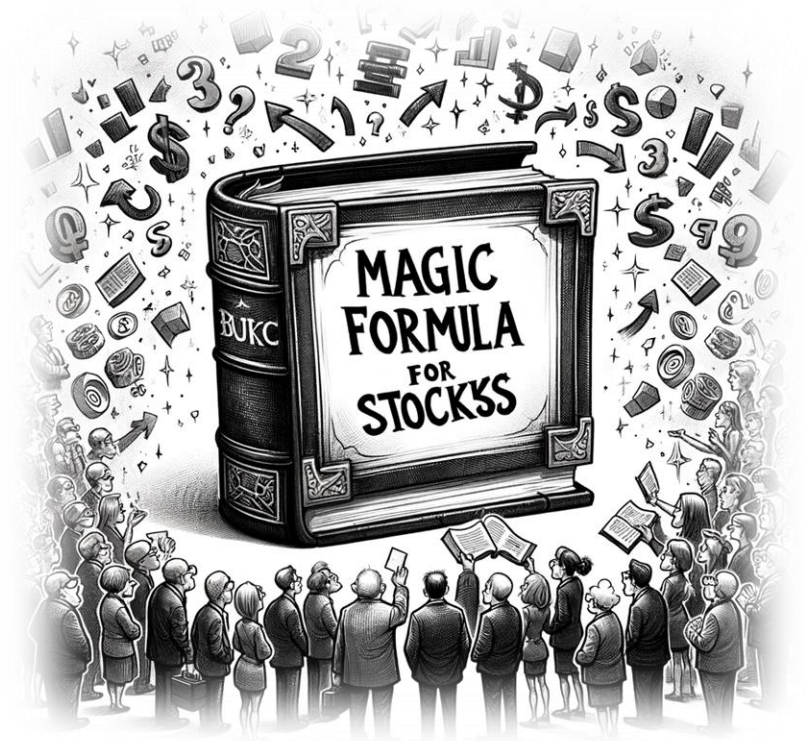
Non-investors believe that “**algorithms**” exist to:

- distinguish **good and bad** companies
- **time** the market
- **avoid losses.**

Non-investors assume that such algorithms:

- are known to investors
- can be **uncovered** if one invests enough time and effort.

Entering the stock market **without** sufficient **knowledge** and proper **preparation** is seen as “***dangerous***” and “***irresponsible.***”



Interviews: *Perceived* Participation Costs

“...you have to be after it ... if you let it slip, things can go wrong quickly...”



Bianca

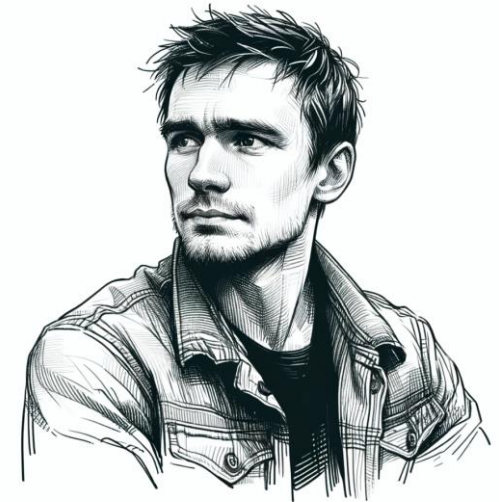
(non-investor,
attorney, 27)

For high returns and to avoid losses, non-investors believe they must:

- **monitor** stocks and funds closely,
- **follow** firm and macro **news**,
- continuously **decide** whether to buy or sell,
- **trade** frequently.

Interviews: Diversification

“Three companies are enough for me. With 10 companies, I have to find out even more about each individual company. 10? No. I don't have a good gut feeling about it. I can lose sight of everything. No, no.”



Oliver

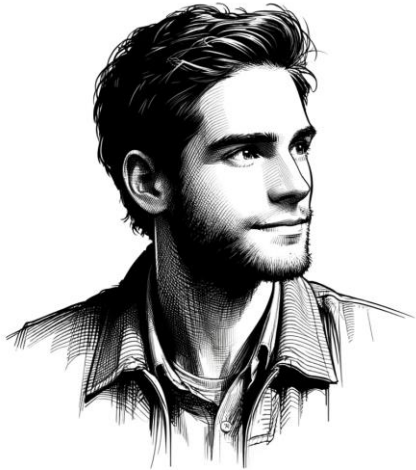
(non-investor,
sales: retail, 31)

Some non-investors mention that **funds/ETFs** require less attention (***“monthly vs. daily”***), but they perceive the **selection** of a ***“good”*** fund **difficult** and wonder what is inside a fund.

Insight 2: Perceived Participation Costs

- Non-investors assume that **active investing** is needed to shape returns and **avoid losses**.
- However, **active investing** requires **time, attention, and effort** and generates **transaction costs**.
- While *some* non-investors find active investing potentially exciting, *others* conclude that the perceived costs reduce the expected benefits such that **non-investing is their preferred choice**.

Interviews: Perspective of investors



David
(investor,
admin: logistics, 36)

*“In the beginning, you're **overwhelmed**, ... you have to **pay attention** to so **many things**, look at how the company is doing, what are the figures, do I have to be able to **read the balance sheet**, what does the balance sheet tell me?”*

Insight 3: Perspective of Investors

- Investors are **more confident** in their finance knowledge.
- Investors share the view that **much knowledge** is needed to **successfully** invest in the equity market.
- They **confirm** that **time and effort** are **necessary to monitor investments**.
- Some investors use **advisers**. If they do, they **assume** that advisers have necessary knowledge and **monitor, evaluate, and trade** on their behalf.

Insight 4: Becoming an Investor

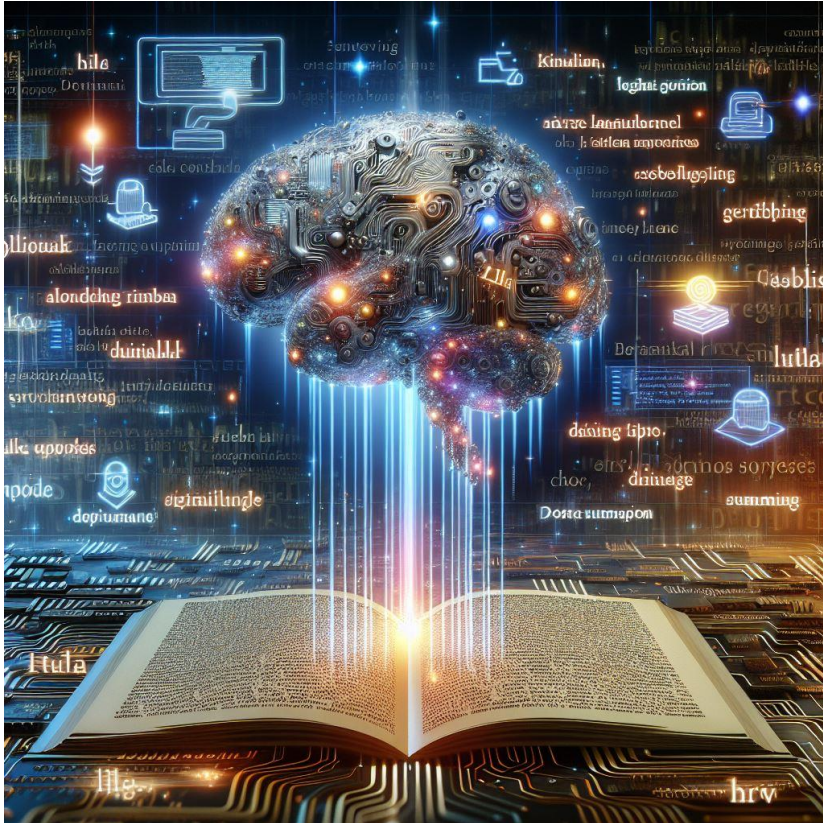
How do investors overcome entry costs and how do they manage participation costs?

They seem to **overcome entry and participation costs** through:

- family members
- peers
- trusted financial advisers
- curiosity
- desire to plan for the future
- cognitive and execution skills

But *not* by understanding **market efficiency** makes stock picking and market timing unnecessary.

LLM-based Analysis of Interviews



Use Llama-3.3, to analyze interviews following Geiecke and Jaravel (2024)):

- Positive and negative aspects of investing in stock market
- Difficulties with investing in stock market

LLM highlights **positive returns** as well as risks, potential losses, complexity, and **necessary knowledge and time & effort**.

However, *unless specifically prompted*, LLM does **not** mention ***what*** – in the mind of interviewees – **knowledge, time, and effort *are needed for***.

Survey

In July & August 2024, we conduct a **representative survey** of German pre-retirement adult population (N=7,475):

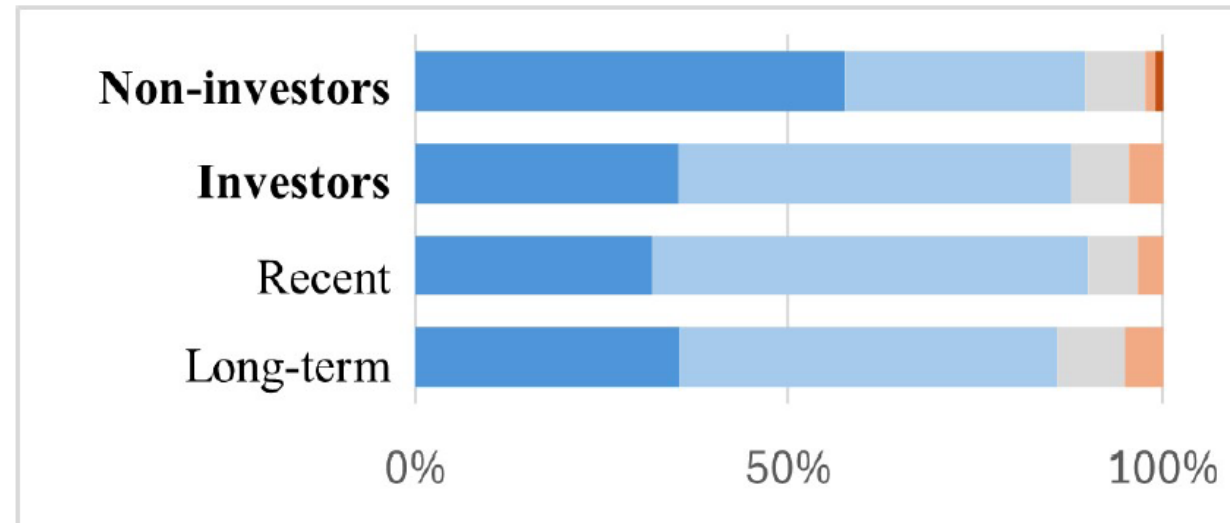
- **non-investors** (never)
- investors: **all, recent** (< 3 years) and **long-term** (> 10 years)

We use **interview quotes**, traditional **survey questions**, and a **vignette study** to test main insights from interviews.

- We **confirm belief** among non-investors and investors and that **knowledge** and **effort** are needed to **successfully** participate in the stock market. For example:
 - 72% (74%) of non-investors, 66% (59%) of recent investors, and 55% (41%) of long-term investors believe stocks (funds) need to be **monitored** at least once a week.
 - Conditional on holding mainly stocks (58%), 56% of investors hold less than 5 stocks, citing **effort of following many firms as most important reason**.

Survey: Perceived Entry and Participation Costs

"Before investing in stocks, one should familiarize oneself with them. Just like I would research a new kitchen appliance before buying it - how it works, its reviews, user experiences, and so on."



(Dark blue represents full agreement, while dark orange represents full disagreement)

Survey: Monitoring: *At least once per week*

Panel A: Individual Stocks

Investments need to be monitored (Fraction in %)	Non- Investors	Investors	Recent	Long-term
Daily	25.46	11.86	13.92	12.62
At least once per week	47.06	49.14	51.55	42.52
At least once per month	14.20	23.57	24.74	22.43
At least once per half-year	5.17	11.86	6.70	15.89
Once per year or less	8.11	3.57	3.09	6.54
Observations	986	700	194	214

Panel B: Mutual Funds or ETFs

Investments need to be monitored (Fraction in %)	Non- Investors	Investors	Recent	Long-term
Daily	23.98	9.48	15.22	6.25
At least once per week	49.83	40.31	44.02	34.82
At least once per month	13.70	26.50	25.00	26.79
At least once per half-year	5.30	16.32	11.41	20.98
Once per year or less	7.18	7.39	0.43	11.16
Observations	905	717	184	224

Survey: Limited Diversification

Individual stocks or funds:

- 58% of investors mainly hold individual stocks
- 57% of non-investor do not know how they would invest, while 11% say they would invest individual stocks

Conditional on investing in individual stocks, how many?

How many different companies would you choose/did you choose	Non- Investors	Investors	Recent	Long-term
Exactly 1	16.39	14.26	16.44	17.35
More than 1 but less than 5	69.60	42.17	53.08	29.64
Between 5 and 10	11.64	25.33	21.23	26.27
More than 10	2.38	18.24	9.25	26.75
Observations	421	1,283	292	415

Survey: Limited Diversification due to Monitoring

What prevents you from investing in a larger number of companies?	Non-Investors	Investors	Recent	Long-term
Fees associated with buying and selling	50.61	28.88	32.08	24.67
Difficulty of selecting additional companies	23.36	33.37	37.74	25.33
Effort involved in following many companies	50.61	42.61	42.64	34.87
Concentration on existing companies	28.71	24.79	19.62	25.33
Lack of knowledge of other companies	10.41	11.15	9.43	16.45
Satisfied with current companies	16.79	13.46	11.81	25.99
Uncertainty about timing to buy/sell stocks	-	21.45	27.55	17.43
Waiting for the right time to buy/sell	-	21.64	16.98	26.32
Other	4.14	3.81	3.02	7.24
Observations	411	1,049	265	304

Survey: Evidence from a Vignette Study

*Non-investors and investors believe that one can **distinguish** between **good and bad companies** and that **monitoring and trading** can generate **higher returns** and **avoid losses**.*



(Image not shown in the survey)

Survey Task: Compare 5-year performance of 3 hypothetical German equity investors, investing EUR 10,000 for 5 years.

Analysis-P has a lot of financial knowledge, selects the 10 in their view “best” DAX firms, and constantly monitors and adjusts the portfolio.

Random-P knows only the names of the DAX companies, selects 10 firms randomly (1 for each of 10 industries), and does not adjust the portfolio.

Passive-P has little financial knowledge, invests in a DAX ETF and does not adjust the portfolio.

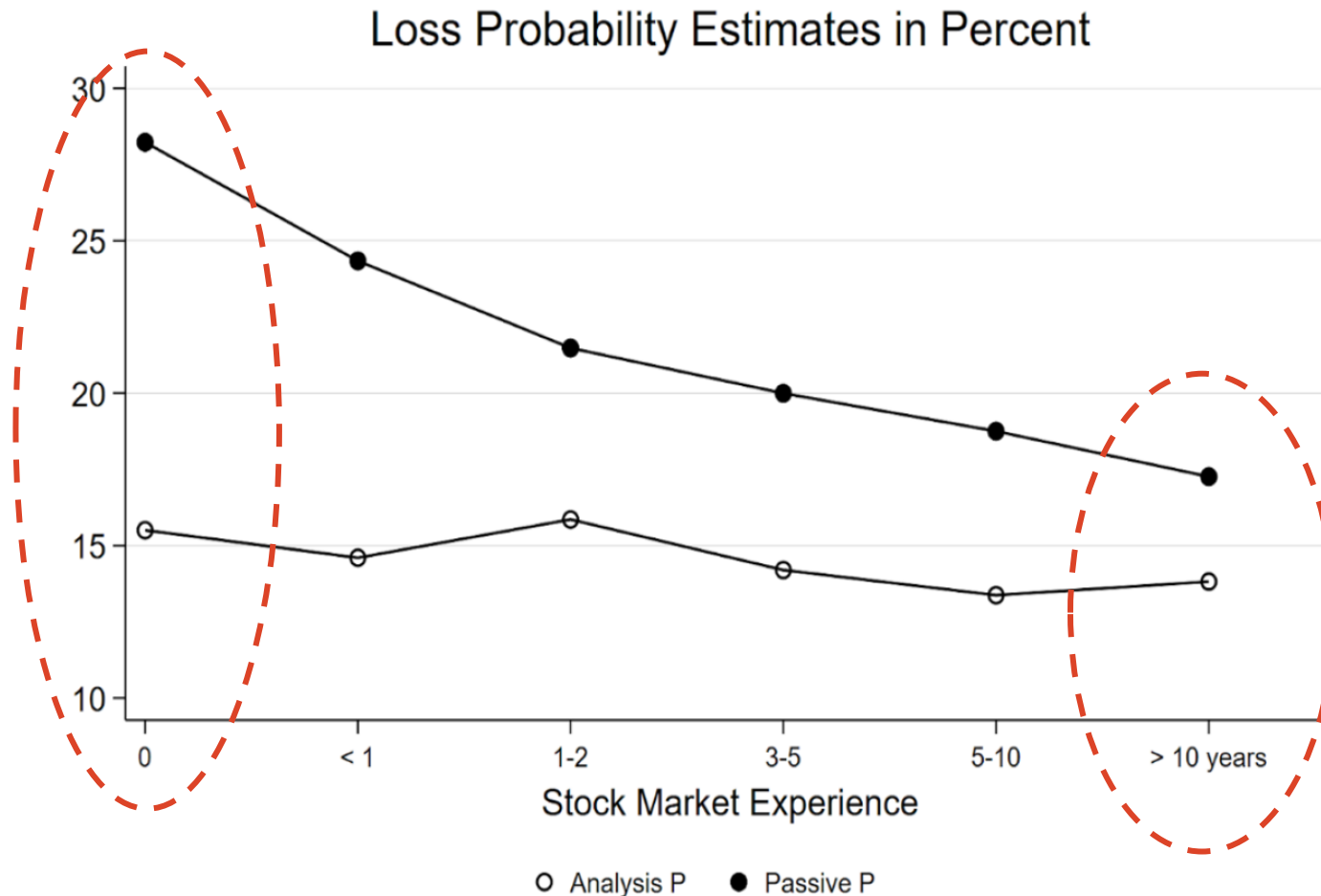
Survey: Vignette: Return

Survey Task: Rank the three investors with regard to 5-year portfolio return

	Non-Investors	Investors	Recent	Long-term
<i>Highest Ranked: Fraction (in %)</i>				
Analysis-P	86.70	73.10	85.32	63.18
Random-P	16.39	14.26	13.57	11.51
Passive-P	17.11	31.03	22.16	37.66
<i>Active vs. Passive: Fraction (in %)</i>				
Analysis-P > Passive-P	80.91	67.74	77.01	60.88
Analysis-P = Passive-P	10.04	9.74	10.80	6.07
<i>If Analysis-P > Passive-P</i>				
Expected Return Difference (in €)	607.64	1,287.20	1,360.39	1,520.23

Survey: Vignette: Loss Probability

Survey Task: Estimate the loss probability at end of year 5 for each investor



Analysis-P

- *Higher* return
- *Lower* risk (loss probability)

Conclusion

- **We explore qualitative research** – asking people why they do what they do – as a potentially useful tool for questions in household finance.
- We apply **qualitative research** to better understand stock market participation.
 - In 25 **in-depth interviews**, non-investors and investors explain why they invest the way they invest.
 - **We find surprisingly high *perceived* entry and participation costs** due to **belief in active investing** or “ignorance of market efficiency” -- **with implications for investment behavior.**
 - Variation in participation arises due to heterogeneity in who manages to **overcome perceived costs.**
- We validate these new insights with **large representative survey.**

What should I do before buying stocks of public companies in the stock market?



Before buying stocks of public companies, consider these steps:

1. ****Research****: **Understand the company's financial health, performance, and future prospects. Analyse its earnings reports, balance sheets, and growth potential.**
2. ****Industry Analysis****: Examine the industry trends and dynamics in which the company operates. Consider how economic factors and market conditions may affect the industry.
3. ****Risk Assessment****: Evaluate the risks associated with the company and its sector. Assess factors like competition, regulatory challenges, and market volatility.
4. ****Financial Health****: Check key financial ratios and metrics. Look at debt levels, profitability, and liquidity to gauge the company's overall financial stability.
5. ****Management Team****: **Assess the competency and track record of the company's management. Strong leadership is crucial for a company's success.**
6. ****Dividends and Buybacks****: If you're interested in income, check if the company pays dividends or engages in share buybacks. This can indicate a commitment to returning value to shareholders.
7. ****Market Conditions****: Consider broader market conditions and economic trends. Timing your stock purchase during favorable market conditions can impact your returns.
8. ****Diversification****: Avoid putting all your money into one stock. Diversifying your portfolio across different sectors can help manage risk.
9. ****Long-Term Perspective****: Determine your investment goals and time horizon. Investing with a long-term perspective may help weather short-term market fluctuations.
10. ****Stay Informed****: **Keep track of news and developments related to the company and its industry. Stay informed about any changes that might impact your investment.**

What should I do before buying stocks of public companies in the stock market?



Qualitative Sample

ID	First Name	Gender, Age	Marital Status, Children, Hh size	Education, Occupation	Monthly Savings (EUR)	Word count
Non-investors						
1	Madeline	Female, 51	N.A., 2, 2	Apprenticeship, FT: IT Sales	50-100	10,492
2	Bianca	Female, 27	Single, 0, 1	College (Law), FT: Attorney	100-200	9,722
3	Cathleen	Female, 41	Single, 0, 1	College, PT: Retail, Eldercare	50-100	11,112
4	Luise	Female, 25	Single, 0, 3	College (Sport), FT: Research Assistant, PhD student	300 -400	10,556
5	Luca	Male, 40	Divorced, 1, 3	Apprenticeship, FT: Carpenter	100-200	9,077
6	Pia	Female, 35	Married, 2, 4	Apprenticeship, PT: Pub. Sector Accountant	50-100	11,316
7	Nadine	Female, 25	Single, 0, 2	Apprenticeship, PT: Public Sector, Student	150-200	8,592
8	Kirstin	Female, 52	Single, 4, 3	Apprenticeship, PT: Administrative Clerk	100-200	11,292
9	Ingrid	Female, 51	Married, 0, 2	College, PT: Sales Medical Devices	300-350	10,503
10	Ralf	Male, 51	Single, 0, 2	Apprenticeship, FT: Sports Coach	100-200	10,919
11	Michaela	Female, 31	Single, 0, 2	College, FT: Legal Administrator	100-200	6,498
12	Silke	Female, 45	N.A., N.A, 2	Collage (Teacher), FT: Teacher	>400	10,638
13	Esther	Female, 45	Married, 5, 3	Apprenticeship, PT: Accounting Manager	100-200	12,779
14	Resit	Male, 44	Single, 0, 2	College, FT: Sales Tech. Sector	>200	9,519
15	Jacob	Male, 47	Married, 2, 4	College, FT: Self-employed City Guide	N.A.	9,784
16	Oliver	Male, 31	Single, 0, 1	Apprenticeship, FT: Employee in Textile Industry	100-200	7,636
Investors						
17	Uta	Female, 48	Divorced, 0, 1	Apprenticeship, FT: Printing House	100-200	12,868
18	Dennis	Male, 32	Single, 0, 1	Apprenticeship, FT: Geriatric Nurse	>100	8,073
19	Monique	Female, 34	Married, 1, 3	Apprenticeship, PL: Flight Attendant	>200	9,235
20	David	Male, 36	Single, 0, 1	Apprenticeship, FT: Office Clerk in Logistics	>200	7,231
21	Oscar	Male, 25	Single, 0, 1	College (Tourism Management), FT: Hotel Employee	50-100	9,911
22	Anika	Female, 40	Married, 0, 2	Apprenticeship, FT: Secretary in Real Estate	>200	9,930
23	Lukas	Male, 38	Married, 1, 2	College, FT: Public Sector Officer	>200	9,910
24	Adam	Male, 45	Single, 0, 2	College, FT: Employee in Tourism	N.A	12,153
25	Manuel	Male, 50	Married, N.A., 3	College, FT: HR Manager	100-200	11,995

Coding Scheme

Item	Coding term	Sub-code
ITEM 1: Entry and Participation Costs	<i>Financial expenditures</i>	Financial expenditure - fixed entry costs
		Financial expenditure - fixed participation costs
		Financial expenditure - proportional costs
	<i>Non-monetary costs and benefits</i>	Opportunity costs (time) and effort*
		Interest/excitement
		Desire for control/ independence
		Status quo bias
	<i>Abilities and Knowledge</i>	Cognitive, recall, and math skills
		Financial literacy*
		Confidence in financial ability and knowledge
		Peer effects (operating through fixed entry or participation)
		Information sources*
ITEM 2: Preferences and Beliefs	<i>Preferences</i>	Risk and Ambiguity*
		Loss Aversion
		Disappointment/ Regret aversion
		Peer effects (operating through preferences)
		Time horizon and time preferences*
		Religion, culture, values, political orientation, stereotypes
	<i>Beliefs</i>	Past exposure to adverse stock market events
		Return perception
		Risk perception
		Trust*
		Perceived probability of disaster or significant loss of wealth
		Peer effects (operating through subjective beliefs)
Item 3: Economic Environment and Intended Equity Holding	<i>Intended holdings</i>	
	<i>Life cycle and background risks</i>	Life-cycle aspects
		Health status and risk
		Unemployment and labor income risk
	<i>Constraints</i>	Borrowing constraints
		Perceived irreversibility and liquidity constraints
		Consumption and financial commitments
	<i>Substitutes, comparisons to other classes and liabilities</i>	

Survey Data

	All	Non-Investors	Investors	Recent	Long-term	Past Investors
Number of Participants	7,475	3,703	2,967	739	916	805
Fraction (in %)	100.00	49.54	39.69	9.89	12.25	10.77
Male	48.51	35.97	63.03	54.40	70.31	52.67
Age	45.51	45.80	43.79	35.86	54.42	50.56
College	22.54	11.94	36.84	29.09	35.04	18.63
Apprenticeship	62.89	67.73	54.13	50.74	61.46	72.92
Married	45.94	40.13	52.44	38.97	62.23	48.70
Employed	67.22	58.71	78.23	72.12	76.31	65.84
Self-employed	3.72	3.19	4.08	1.89	6.11	4.84
Unemployed	3.72	5.83	1.15	1.89	0.66	3.48
Retired	11.02	13.61	6.77	2.57	13.21	14.78
Income: < €3k	43.37	56.98	25.72	36.94	20.85	45.84
Income: €3k < €7k	51.18	41.13	63.63	53.59	67.36	51.55
Income: > 7k	5.44	1.90	10.65	9.47	11.79	2.61
Saves regularly	62.42	52.69	86.72	79.84	88.65	64.10
Saves occasionally	15.90	20.85	8.10	14.48	6.99	18.51
Net worth: <€50k	47.34	65.87	25.04	42.90	14.19	44.35
Net worth: €50-200k	24.82	19.77	30.23	28.96	26.20	28.07
Net worth: €200-450k	13.06	8.43	18.71	12.58	23.91	13.54
Net worth: €450-950k	10.10	4.64	16.82	9.34	22.82	10.43
Net worth: >€950k	4.68	1.30	9.20	6.22	12.88	3.60
Homeowner	38.11	27.09	50.59	35.05	67.58	42.86
Mortgage	23.32	17.90	30.03	26.12	28.60	23.48
Consumer credit	20.03	20.47	19.41	21.79	14.74	20.25
Fin. literacy, out of 3	2.15	1.83	2.48	2.23	2.71	2.37
Confidence fin. knowl.	47.95	29.25	71.05	55.62	78.82	48.82
Trust others	29.54	22.74	38.86	37.21	37.45	26.46
Exp. equity premium	3.47	3.25	3.67	3.27	4.54	3.73

What We Find

- While many known explanations of limited participation are mentioned by interviewees, **mis-perceptions** of *large entry and participation costs* stand out.
- While non-investors are aware of attractive equity investments, they ***believe that***
 - *successful* participation requires **substantial knowledge and preparation** before entering
 - **active, high-frequency investing** is needed to realize **high returns** and ***avoid losses***.
- Investors often **share non-investors' beliefs** but **overcome barriers** through **family, peers, or trusted advisers**.
 - Mis-perceptions affect ***how*** investors participate leading to under-diversification and overtrading.
- Interviews allow us to uncover high perceived entry and participation costs that are rooted in unawareness of market efficiency.

Analysis: Step 1 - Coding

Label interview segments (1+ sentences) with codes from detailed **coding scheme derived from existing literature (deductive coding)**.

- Every code shows up at least once
- Only 3 new codes (interest/excitement, desire for control, and perceived illiquidity)
- Entry and Participation Costs (Knowledge) most common.
- Very similar between investors and non-investors

Code Structure	All	Non-investor	Investor
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<i>Beliefs</i>	23%	23%	23%
ITEM 3: Economic Environment and Intended Equity Holding	16%	16%	15%
<i>Intended holdings</i>	7%	7%	7%
<i>Life cycle and background risks</i>	2%	2%	2%
<i>Constraints</i>	2%	2%	1%
<i>Substitutes, comparisons to other classes and liabilities</i>	5%	5%	5%

Step 2: Qualitative Content Analysis



3+ researchers individually review and summarize coded interview texts.

For each category, as a group we discuss:

- what aligns with theory
- what offers **new insights** into known determinants
- what are **surprising aspects** overlooked by existing theory
- potential **survey questions**