



# Why Are People So Reluctant to Place Their Savings in an Index Fund?

*A survey-experiment on the effect of economic knowledge on attitudes and savings choices*

**Lene Marie Andersen & Birk Bårdssønn Sæther**

**Supervisor: Hallgeir Sjøstad**

Majors: Financial Economics, Strategy and Management

**NORWEGIAN SCHOOL OF ECONOMICS**

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

## Executive Summary

The scientific literature reveals that a significant portion of the population lacks knowledge regarding foundational financial concepts. As a result of this knowledge gap, many people end up making suboptimal personal finance decisions. A common example is the preference for regular savings accounts for long-term savings as opposed to saving through stock market investments. An easy and accessible option for stock market participation is index fund investing, which has historically yielded substantially higher returns than savings accounts. Despite this, a majority of the population still defers from stock market investments.

In this master's thesis we want to examine if insufficient knowledge is limiting people from saving in index funds. To test this possibility, we have conducted a survey-experiment. After collecting descriptive data about the participants, the sample was randomly assigned to a treatment group or a control group, to enable causal inference. The treatment group received thorough and empirically correct information about index fund functioning and historical performance, whereas the control group received only the most basic information regarding savings accounts and index funds. As outcome variables we then compared knowledge, attitudes, and hypothetical choices between index funds versus traditional savings accounts.

Our primary results indicate that providing people with data-based information about index funds increases their knowledge about past returns, makes them more optimistic about future returns, makes them perceive index funds as less risky, increases their intent to place their own money in index funds rather than using a standard bank account, and also increases the likelihood of recommending index funds to others. These findings support *limited knowledge* as one potential factor that can explain why only a small proportion of the population chooses to place their personal savings in index funds. We found no support for a treatment effect on the perceived trustworthiness of the financial institutions.

In our exploratory analysis we sought to examine if there were any meaningful differences between business students and non-business students. These findings indicate that it is easier to affect business students' perceptions of index funds in a positive direction with information and leading them toward index funds as their preferred savings method. For non-business students, the information intervention did not yield a statistically significant impact on their choice intentions, despite a significant impact on their knowledge and assumptions about past and future returns.

Despite the positive and robust average effect of the information intervention, based on our primary hypotheses prior to collecting the data, the heterogeneity results from our follow-up analysis are more ambiguous. One interpretation is that having access to correct information at the moment of decision-making can make a positive difference, but still, that it is not the only factor affecting people's personal finance decisions. Having a relevant educational background and pre-existing economic knowledge may be equally important as limiting factors, serving as potential boundary conditions that are necessary for the efficacy of straightforward informational interventions.

When people make personal finance choices, there are most likely a large number of different psychological factors involved. The current study has provided causal evidence for the effectiveness of *one* driver of such choices, namely, to have easy and immediate access to correct information about index funds, based on a relatively large sample of Norwegian students. However, the current study was not able to identify a statistically significant information effect on choice intentions among students who lack pre-existing economic knowledge and possibly a set of related attitudes (i.e., non-business students). Therefore, it remains a question for future research to examine whether other types of interventions might be needed to help the majority of the student population to seriously consider index funds for their long-term personal savings, including those who do have pre-existing, in-depth economic knowledge from their educational background or professional experience.

## **Preface**

This master's thesis is written as a part of our master's degree in Economics and Business Administration at the Norwegian School of Economics. This 30-credit study, conducted within the majors of Financial Economics and Strategy and Management, provides a complete dive into a relevant financial domain.

Our study focuses on Norwegian students to see if a lack of understanding prevents them from saving in index funds. We found the topic to be deeply intriguing on a personal level as well as academically, making the thesis-writing process an educational and fascinating experience.

We would like to express our gratitude to our supervisor, Hallgeir Sjøstad, whose major influence shaped the direction of our master's thesis. Sjøstad's thoughts have been essential from leading us in improving our theme focus to offering valuable assistance through the whole process.

## Table of Contents

<b>1. INTRODUCTION</b> .....	<b>8</b>
1.1 INTRODUCTION TO PERSONAL SAVINGS .....	8
1.2 RESEARCH QUESTION.....	9
1.3 HYPOTHESES .....	9
1.4 STRUCTURE OF PAPER.....	10
<b>2. LITERATURE REVIEW</b> .....	<b>11</b>
2.1 SAVINGS AND INVESTMENT TRENDS IN NORWAY .....	11
2.2 SAVING METHODS IN NORWAY .....	12
2.2.1 <i>Bank Account deposits</i> .....	12
2.2.2 <i>Stocks &amp; Stock Funds</i> .....	13
2.2.3 <i>Saving through Real Estate</i> .....	14
2.3 TRUST IN INSTITUTIONS .....	14
2.4 OVERVIEW OF INDEX FUNDS .....	15
2.4.1 <i>Features and Benefits of Index Funds</i> .....	15
2.4.2 <i>Comparing Returns</i> .....	16
2.5 KNOWLEDGE GAP IN INVESTMENT CHOICES .....	17
2.5.1 <i>Reasons for the Knowledge Gap</i> .....	17
2.5.2 <i>Gap in Risk Understanding</i> .....	18
2.5.3 <i>Implications of the Knowledge Gap</i> .....	19
2.6 PSYCHOLOGICAL FACTORS .....	20
2.6.1 <i>Attitude-Behavior Gap</i> .....	20
2.6.2 <i>Prospect Theory &amp; Loss Aversion</i> .....	21
2.6.3 <i>Status Quo Bias</i> .....	22
2.6.4 <i>Paradox of Choice</i> .....	22
2.6.5 <i>Present Bias</i> .....	23
2.6.6 <i>Negativity and Availability Bias</i> .....	23
2.6.7 <i>Cognitive Bias Mitigation</i> .....	24
2.7 APPLICATION OF THEORY .....	25
<b>3. METHODOLOGY</b> .....	<b>27</b>
3.1 RESEARCH DESIGN AND APPROACH TO THEORY DEVELOPMENT .....	27
3.2 METHOD.....	28
3.3 PROCEDURE FOR DATA COLLECTION .....	30
3.3.1 <i>Survey Design</i> .....	30
3.3.2 <i>Survey Part 1: Descriptive Overview</i> .....	33
3.3.3 <i>Survey Part 2: A Controlled Experiment</i> .....	34
3.4 METHODS OF ANALYSIS .....	39
3.4.1 <i>Preparations of Data Set</i> .....	39
3.4.2 <i>Preparing for Data for Descriptive Analysis and Statistical Testing</i> .....	39
3.5 RESEARCH QUALITY .....	40

---

3.5.1	Reliability.....	40
3.5.2	Validity.....	41
3.6	ETHICAL CONSIDERATIONS .....	43
<b>4.</b>	<b>RESULTS.....</b>	<b>44</b>
4.1	RESULTS AND ANALYSIS FOR STUDY PART 1: PERSONAL SAVINGS PREFERENCES.....	44
4.2	RESULTS FOR STUDY PART 2: CONTROLLED EXPERIMENT.....	44
4.2.1	<i>Hypothesis H1: Knowledge about Past Returns.....</i>	45
4.2.2	<i>Hypothesis H2: Beliefs about Future Returns.....</i>	46
4.2.3	<i>Hypothesis H3: Risk Associated with Index Funds .....</i>	47
4.2.4	<i>Hypothesis H4: Trust in Financial Institutions .....</i>	47
4.2.5	<i>Hypothesis H5: Effect on Own Choices .....</i>	48
4.2.6	<i>Hypothesis H6: Effect on Recommendations to Others.....</i>	49
4.3	EXPLORATORY ANALYSIS.....	49
4.3.1	<i>Knowledge about Past Returns.....</i>	49
4.3.2	<i>Beliefs about Future Returns .....</i>	51
4.3.3	<i>Effect on Own Choices .....</i>	52
4.3.4	<i>Effect on Recommendations to Others.....</i>	53
<b>5.</b>	<b>DISCUSSION.....</b>	<b>55</b>
5.1	SHORT SUMMARY OF MAIN FINDINGS.....	55
5.1.1	<i>H1 &amp; H2: Knowledge .....</i>	55
5.1.2	<i>H3 &amp; H4: Attitude regarding Risk and Trust.....</i>	56
5.1.3	<i>H5 &amp; H6: Effect on their Choice Intentions - Primary Hypotheses.....</i>	57
5.2	EXPLORATIVE ANALYSIS: DISCUSSION .....	58
5.2.1	<i>Knowledge: Business Students vs. Non-Business Students .....</i>	58
5.2.2	<i>Choice Intentions: Business Students vs. Non-Business Students .....</i>	59
5.3	FURTHER GENERAL REFLECTIONS ON FINDINGS.....	60
5.4	PRACTICAL APPLICATION OF FINDINGS.....	62
5.5	LIMITATIONS .....	63
<b>6.</b>	<b>CONCLUSION .....</b>	<b>65</b>
	<b>REFERENCES.....</b>	<b>67</b>
	<b>APPENDIX.....</b>	<b>76</b>

---

**Table of Figures**

Figure 1: Knowledge about past returns .....	46
Figure 2: Beliefs about future returns .....	46
Figure 3: Risk associated with index funds .....	47
Figure 4: Trust in financial institutions.....	48
Figure 5: Effect on own choices .....	48
Figure 6: Effect on recommendations to others .....	49
Figure 7: Business students: Knowledge about past returns.....	50
Figure 8: Non-business students: Knowledge about past returns .....	50
Figure 9: Business students: Beliefs about future returns.....	51
Figure 10: Non-business students: Beliefs about future returns .....	52
Figure 11: Business students: Effect on own choices .....	52
Figure 12: Non-business students: Effect on own choices .....	53
Figure 13: Business students: Effect on recommendations to others .....	54
Figure 14: Non-business students: Effect on recommendations to others.....	54

# 1. Introduction

## 1.1 Introduction to Personal Savings

The concept of personal saving is critical in today's volatile economic climate. It is the practice of setting aside a portion of one's income today, to secure future financial well-being (Halvorsen, 2011). Saving reflects the fundamental principle of living within one's means and preparing for the future. The significance of personal saving is important for several reasons. First and foremost, it offers individuals financial security during unexpected hardships, like sudden job losses or unforeseen emergencies. It ensures a safety net, ensuring that individuals can maintain their standard of living without resorting to borrowing or incurring debt. Saving is also pivotal for planned future expenses, like buying a home, traveling, or ensuring a comfortable retirement.

The methods and instruments of saving have evolved over the years. We have gone from traditional piggy banks and under-the-mattress cash reserves from yesteryear to individuals now having access to an array of financial products tailored to their specific savings needs. These range from simple savings accounts to more sophisticated investment avenues like stocks, bonds, and mutual funds. Yet, despite its evident importance, personal savings remains an often misunderstood concept. Factors such as financial literacy, economic conditions, and individual priorities play a significant role in shaping one's saving behavior.

Among the array of financial products, index funds have proven themselves as a solid option, providing exposure to the stock market, solid returns, and a high level of diversification (Heaton et al., 2017). Despite this, the majority of the Norwegian population choose other alternatives than index funds for their personal savings (VFF, 2023b), despite the lower historical returns of the alternatives (Forbrukerrådet, 2020). In this thesis, we will examine potential factors for why saving in index funds is not more popular. The thesis will focus on the influence of knowledge on individuals' attitudes towards saving in index funds and use a survey-experiment to examine if providing empirically correct information about index funds can have a positive effect on choice intentions towards personal saving in index funds.



---

## 1.2 Research Question

The purpose of the study is to examine why individuals make the savings decisions they make, and if a lack of knowledge regarding index funds is deferring them from choosing this as their choice for savings. In accordance with the background reviewed above, we chose to explore the following research question in the master's thesis:

*“Does a lack of knowledge prevent people from investing in index funds as their personal savings strategy?”*

This research question will be studied with a focus on the Norwegian population, where we have chosen to examine students in particular. Furthermore, despite other personal savings opportunities, the research question will primarily be examined through the lens of the comparison between saving in a savings account in a bank, which is surprisingly common (Melkild, 2022), and saving in index funds, which is surprisingly rare (Sættem, 2022).

## 1.3 Hypotheses

In this subchapter, we will present the hypotheses of the experiment. The hypotheses will be based on the presented research question, previous research, and relevant theory. The experiment will test six hypotheses divided into three categories. First, to examine if providing the information treatment has its intended effect, we have *knowledge*. Second, if providing information will influence the perceived riskiness and trust, thus examining their *attitude*. Third, which will contain our primary hypotheses, if providing information will influence their *choice intentions*.

### **Knowledge**

- *H1: Compared to participants in the control condition, a greater proportion of participants in the information condition will believe that index funds have provided the best returns in the past 20 years.*
- *H2: Compared to participants in the control condition, a greater proportion of participants in the information condition will believe that index funds will provide the best returns in the next 20 years.*

## Attitude

- *H3: Compared to participants in the control condition, participants in the information condition will perceive index funds as less risky.*
- *H4: Compared to participants in the control condition, participants in the information condition will perceive the standard financial management of index funds as more trustworthy.*

## Choice Intention: Primary hypotheses

- *H5: Compared to participants in the control condition, participants in the information condition will be more likely to choose an index fund for their personal savings (rather than a standard savings account).*
- *H6: Compared to participants in the control condition, participants in the information condition will be more likely to advise others to choose an index fund for their personal savings (rather than a standard savings account).*

## 1.4 Structure of Paper

In Chapter 2, we will start by presenting a literature review. First, we will present some of the most common saving methods in Norway. We will shortly present relevant data and previous research regarding trust in institutions and what impacts trust in financial institutions, before a more in-depth presentation of index funds. Then, we will move on to the knowledge gap in investment choices and financial literacy, before finishing the literature review with some of the psychological factors that may impact individuals' personal finance choices. The methodology of the thesis is presented in Chapter 3, where we present the methodological choices made, how we designed the survey-experiment, and an evaluation of the quality of the research. In Chapter 4, we present the findings of the research, before we in Chapter 5 present a discussion regarding the findings. In Chapter 6, we finish the thesis with our conclusion of the research question.

## 2. Literature Review

### 2.1 Savings and Investment Trends in Norway

In Norway, the majority of individuals do not have substantial savings in traditional bank accounts, funds, and stocks. If we exclude the appreciation in housing value, an average Norwegian household saves around NOK 48,000 annually. This figure remains consistent across households where the primary income earner is aged between 30 and 60. Those in their 20s save slightly less, as do those over 70 (Halvorsen, 2019). When deciding on a savings method for the future, individuals will weigh various factors. These include returns, risk, liquidity, and the level of management oversight required. While preferences vary among individuals, a primary motivation for saving is the anticipation that their money will increase in value over time.

Over time, it has been shown that equity funds have given a higher return than a traditional savings account in a bank (Finansportalen, n.d.). Despite this, the majority of the population is not investing in the stock market. Slåen & Skibenes (2022) found that compared to Swedes, Norwegians save approximately the same amount, but Swedes prefer saving through the stock market while Norwegians prefer using a savings account. However, a recent survey shows that equity fund investments have been increasing in Norway as of 2023, with investment numbers reaching an all-time high in 2022 and 2023 (VFF, 2023a). The survey showed that 48% of the Norwegian population has investments in equity funds, a 2% rise from 2021. Notably, even those in lower income brackets are venturing into equity funds, with a significant 28% increase from 2021 to 2022 (VFF, 2022). It is also worth noticing that men save more than women when they have surplus funds, especially when they deem the conditions favorable for investing in mutual funds (VFF, 2022). However, this gap is starting to narrow. As of 2023, while 52% of men had investments in equity funds, women were not far behind at 46% (VFF, 2023a).

The study shows that younger individuals outperform older generations when it comes to stock market participation. 53% of people between the ages of 18 and 30 and 54% of those between the ages of 30 and 39 invest in stock funds. In comparison, 45% of the population aged 40 to 49, and 45% of the population over 50, have assets in stock funds. Additionally, the study shows that significantly more people under the age of 40 have increased their stock fund investments in comparison to people over the age of 50 (VFF, 2023a).

Norwegians had a total of NOK 295 534 451 000 invested in stock funds as of August 2023, with NOK 73 342 956 000 invested in index funds. As a result, the overall proportion invested in index funds is 24.82% of the total amount invested in stock funds (VFF, 2023b). The advantages of index funds will be elaborated on in Chapter 2.4. Given that a fraction of the capital is allocated to index funds, which again is done by a minority of the population, it underscores the need to investigate our research question: why do only a few choose to invest in index funds for their long-term personal savings despite so many independent financial professionals recommend them (Forbrukerrådet, 2020; Grønning, 2022; Hilmersen, 2023; Kvasdheim, 2023)?

## 2.2 Saving Methods in Norway

In comparison to other countries, the Norwegian people are good at saving money. According to Klarna Money Management Pulse, 85% of Norwegians save money (Hedin, 2023). This is greater than the global average of 81%. The methods of saving vary. In this section of the thesis, we will discuss the most popular saving techniques in Norway.

### 2.2.1 Bank Account deposits

The most common form of saving in Norway is deposits in a bank account (Norges bank, 2020). While deposits in a current account are primarily for daily transactions, individuals may use them for long-term savings or as a buffer account as well. However, if the purpose of saving is long-term, a savings account should be a more fitting choice. The returns of using a savings account come from the interest achieved on their deposits, potential taxes and fees deducted. The return is primarily determined by the interest rate set by the bank, which depends on the bank's strategy, macroeconomic factors, and the policy rate set by the central bank.

Saving in a savings account bears almost no risk. However, Hveem et al. (2013) identify two primary risks associated with savings in an account. The first one is a deposit loss. In the event of the bank's bankruptcy, deposits may be lost. However, deposits of up to NOK 2 million per bank are insured by the Bankenes Sikringsfond (Bankenes Sikringsfond, 2023). Individuals are also exposed to interest rate fluctuations. Interest rates are primarily affected by macroeconomic factors and changes in Norges Bank's policy rate.

## *BSU*

Boligsparing for Ungdom (BSU) is a specific type of savings account in a bank aimed at young adults. By saving in a BSU account, the deposits will be frozen in the account at the end of the year. To both open and save money in the account, the customer must be under the age of 34, and they can deposit a maximum of NOK 27,500 annually. To access the deposits, the customer must use them for real estate purposes, e.g., as a down payment for a mortgage (Skatteetaten, n.d.). Because banks offer a higher interest rate than other savings accounts, the account is popular among young people in Norway. Additionally, individuals who save in a BSU account get a tax deduction of 10% of the annual deposited amount. However, the advantages of the account are limited by a total deposit amount of NOK 300,000 (Skatteetaten, n.d.).

### **2.2.2 Stocks & Stock Funds**

Stocks are ownership shares in a particular company, with each share representing a fractional ownership stake. Savers can invest their funds by purchasing stocks in the stock market and gaining a small ownership stake in the company. This investment can be made directly by purchasing firm stocks or indirectly through stock funds that invest in a variety of companies. However, investing in the stock market entails significant risks. Stock valuations are influenced by a variety of circumstances, which can result in large changes or even a complete loss of value, particularly in the event of a company's bankruptcy.

A stock fund is a type of equity fund that primarily invests in stocks. VFF (n.d.) defines a fund as a stock fund if at least 80% of the assets are invested in stocks. Stock funds invest in a diverse range of stocks, lowering the risk of investing in just one company in the market. However, because the stock market fluctuates in value, there is still significant risk for short-term investors. Stock funds can also be classified according to their industry or geographical location and might also vary greatly in terms of how actively the funds are managed. Actively managed funds seek to outperform their respective markets. On the other hand, index funds seek to replicate a specific benchmark index. We will elaborate on index funds later in the thesis, which is typically the recommended type of long-term personal saving for non-experts (Forbrukerrådet, 2020; Grønning, 2022; Hilmersen, 2023; Kvadsheim, 2023).

### 2.2.3 Saving through Real Estate

For a large part of the population, the biggest investment they will make in their lives is purchasing a home. As of 2022, 81.8% of the Norwegian population owns the home they live in (SSB, 2023a). Saving is usually framed as a part of your disposable income not consumed. However, another framing is the change in net worth from one period to another (Halvorsen, 2019). Homeowners must usually get a mortgage to buy their home. As they make down payments on this loan, their net worth increases. Furthermore, real estate tends to appreciate in value, thus increasing their net worth even more. However, there are several risks associated with saving through real estate. The real estate market may fluctuate in value, which may result in a loss by purchasing and selling real estate at the wrong times. Furthermore, interest rates may increase rapidly, making it difficult to handle a mortgage.

## 2.3 Trust in Institutions

Trust is often perceived as an essential part of a well-functioning society, not only between individuals, but also between individuals and their institutions (Segaard & Saglie, 2023). Together with its Scandinavian neighbors, Norway ranks high internationally regarding trust in its institutions. This trust in Scandinavian society between its population and institutions has been described as “Nordic Gold” for its positive effects (Holmberg & Rothstein, 2020). As an example, trust in its institutions was a central part of making people follow rules and regulations during the COVID-19 pandemic (DFØ, 2023).

The public’s trust is also important for financial institutions. However, trust fluctuates over time, and different scenarios impact trust in various ways. Crujisen et al. (2021) point out five main determinants of trust in financial institutions. First, the level of trust in financial institutions is influenced by the broader economic situation. It is procyclical, meaning it tends to increase when the economy does well and decreases during financial crises. Second, the practices of financial institutions impact the trust of the public. Institutions that act responsibly are trusted more. Third, individual attributes of the consumer influence their trust, but its impact varies depending on the situation. Fourth, there is a correlation between trust in a specific institution and generalized trust in the financial system and broader society. Finally, effective policies and proper oversight ensuring that financial institutions remain transparent and accountable may be highly influential in preventing a decline in their trust.

As an example, after the collapse of Silicon Valley Bank in early 2023, as well as other turbulences in the financial sector, only 10% of the American population reported a high level of trust in its financial institutions (AP-NORC, 2023). This was down from 22% in 2020. Nevertheless, according to the Edelman Trust Barometer, trust in the financial services sector is increasing, despite still being considered distrusted by the majority of developed countries in the survey (Edelman, 2022). However, the report does not include Norway or any other Nordic country.

In relation to our research question, we aim to examine whether the absence of investments in index funds is connected to a lower level of trust in the financial institutions concerning index funds. As index fund investing entails that the institutions manage the capital and make trades for the customer, a certain level of trust may be necessary.

## 2.4 Overview of Index Funds

Among the many investment opportunities, index funds stand out for their simplicity, cost-effectiveness, and historical performance. It was introduced in the 1970s and has since become a favored choice for many novice and seasoned investors (Culloton, 2011). An index fund is a type of mutual fund or exchange-traded fund, designed to mimic the performance of a specific market index. This could be a broad market index like the S&P 500, a sector-specific index, or even an international index. The primary goal of an index fund is not to outperform the market but to match its return, hence mirroring its highs and lows (Fernando et al., 2023).

### 2.4.1 Features and Benefits of Index Funds

Since index funds hold all or a representative sample of the stocks or bonds in their chosen index, they offer inherent diversification, which again is connected to lower risk. Additionally, Bessembinder (2018) found that since 1926, the net gain of the entire US stock market can be attributed to the top-performing 4% of publicly listed companies, while the rest of the stocks performed on par with Treasury bills. As a lack of diversification may result in the exclusion of a significant portion of the best-performing stocks, this may explain why poorly diversified portfolios often underperform compared to indices. Heaton et al. (2017) demonstrated this by devising a model that showed how the absence of diversification frequently results in underperformance relative to the overall markets.

Index funds typically offer the advantage of lower management fees in comparison to actively managed funds. This cost efficiency stems from their straightforward management approach, which aims to emulate the performance of the selected indices, rather than outperform them. In contrast, actively managed funds incur higher expenses due to the research and active trading required to seek superior returns, which in turn leads to increased fees for investors.

Index funds also have low barriers of entry for new investors, as they are relatively easy to understand. Individual stock analysis, examining market trends, and financial reports may be challenging for potential investors who want to invest in the stock market. An index fund offers low barriers of entry if a potential investor wants to invest in the stock market without doing any individual stock picking themselves, at the same time as they may get the yield the market has to offer (Switzer, 2020).

### **2.4.2 Comparing Returns**

Within the plethora of opportunities regarding investments, index funds have stood out for their low costs and solid returns. Forbrukerrådet (2020) examined the returns of index funds compared to actively traded funds over the past 20 years. They found that in comparison to index funds, actively managed funds resulted in 1.1 percentage points lower annual returns. As the losses compound over time, with a NOK 500,000 investment over a 20-year period, you could expect to lose a profit of NOK 371,400 by investing in actively managed funds compared to index funds.

The disparity in returns worsens when you compare index funds to savings in a traditional savings account. According to SSB (n.d.), the average interest rate on deposits in Norwegian banks over the past 20 years has been 1.88%. Over a 20-year period, this will give a return of 45.14%. However, in the last 20 years, the consumer price index has increased by 52.17% (SSB, 2023b). This means that the value of the returns, measured in real value instead of nominal value, has *decreased* by using a savings account.

Despite the significant disparity in returns, the majority of people prefer to save their money in a traditional savings account. That is why we want to look at the possible causes of the lack of investment in index funds, which clearly provide superior returns.



---

## 2.5 Knowledge Gap in Investment Choices

The landscape of investment opportunities is filled with a sea of different options, strategies, and approaches. However, despite all the resources available, a significant knowledge gap persists among many potential and current investors in the wider public. The knowledge gap in investment choices refers to the disparity in understanding and awareness of investment options and strategies among individuals.

Knowledge gaps in investment choices are closely connected to the financial literacy of the population. Financial literacy can be defined as “the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing” (Fernando, 2023). According to Lusardi & Mitchell (2011), financial literacy is widespread in both developed and rapidly changing markets. Levels of financial literacy vary among different groups of the population as well, and women are on average less financially literate than men (Allianz, 2017; Skårdal & Driveklepp, 2023), which may contribute to further inequalities in society. Recognizing this issue, organizations have engaged in financial education initiatives. The Organization for Economic Cooperation and Development (OECD) is one important participant, emphasizing the importance of financial education in improving financial literacy and developing informed financial decision-making. The OECD works with policymakers and public authorities to develop and implement national financial education policies and individual programs, offering new approaches to increasing financial literacy among the populations of partner countries (OECD, n.d.).

### 2.5.1 Reasons for the Knowledge Gap

There can be several factors contributing to the knowledge gap and differences in financial literacy. A lack of financial education is a core part of the knowledge gap, as financial literacy is not a core component of many educational curricula. As a result, many individuals graduate without a foundational understanding of personal finance. This was also pointed out by Skårdal & Driveklepp (2023), whose recommendation was an incorporation of financial literacy into the school curricula. According to Allianz (2017), people who understand financial and risk concepts make better financial judgments. They suggest that financial literacy has an impact on decision-making that is independent of other human characteristics such as education or age.

Furthermore, the complexity of the financial markets may seem daunting to many. With such a large selection of stocks, bonds, mutual funds, and other financial products, many may be intimidated from entering the sphere. Potential investors may also feel a sense of information overload. In today's digital age, there is a wealth of information available. Hence, it can be challenging to distinguish credible sources from questionable ones, and the sheer volume of available data can be overwhelming. Other reasons may be psychological factors, as we will cover in Chapter 2.6.

### **2.5.2 Gap in Risk Understanding**

Allianz (2017) show that it is risk-related concepts that most people find hardest to understand, especially concepts about diversifying risk. According to the findings of their survey, the frequency of right answers declines significantly across all nations when confronted with increasingly complicated risk questions. In most nations, less than half of the people correctly answer these types of questions, demonstrating that risk and return are the least understood concepts. Only 49% of the sample knew how to compute expected returns, and only 40% accurately assessed risk and return. A particularly large issue was that many respondents chose "don't know" instead of providing an incorrect answer. Considering that previous studies suggest that responding with "don't know" reveals a deeper lack of knowledge than simply answering incorrectly, the survey results point to a significant lack of risk understanding (Allianz, 2017).

Lack of risk tolerance and risk understanding may have severe consequences for individuals' personal savings. Mishra (2018) found that individuals who had a lower risk tolerance and lacked an understanding of risk were less likely to participate in the stock market. This is reflected in Slåen & Skibenes (2022), who found lower stock market participation among Norwegians compared to Swedes, at the same time as Norwegians to a greater extent associate the word "stock" with risk. Furthermore, they found Swedes are more willing to take risks to get better returns. As a lack of stock market participation may have long-term implications, having a fundamental understanding of the riskiness of investments may substantially improve the savings and investments of individuals. However, the aversion to taking risks and how to understand it is holding them back. Women, in particular, do poorly on risk-related questions (Allianz, 2017), and according to Halvorsen (2011), Norwegian women are also more risk averse than Norwegian men.

### 2.5.3 Implications of the Knowledge Gap

As a lack of knowledge and financial literacy results in different investment choices, this may result in increased economic inequality and a lack of financial security and stability for large parts of the population. As previously shown, the returns of index funds are superior compared to the majority of the alternatives. As these different returns compound over time, the disparity in the wealth of the population will increase. For many, personal savings are an important part of a comfortable retirement. A lack of knowledge regarding investments may result in a widely different retirement than initially expected. Rooij et al. (2011) find that those with lower financial literacy are much less likely to invest in the stock market, thus not gaining the equity risk premium. Furthermore, a certain level of financial literacy is necessary for reaching goals like buying a house or managing through financial hardship. Rooij et al. (2012) find that people with low financial literacy have lower financial wealth, even when controlling for other determinants like income, age, education, family composition, risk tolerance, patience, and attitude towards savings.

Not only are people with lower financial literacy less likely to invest in the stock market, but those who do are more likely to do poorly. Those with low levels of financial literacy are more likely to hold a larger proportion of so-called “lottery stocks”, which are stocks with high volatility, high share turnover, and low amount of institutional investors (Betermier et al., 2021). They are also more likely to have a bias towards the stock market of their home country and the stock of their employers, which may result in lower diversification (Kimball & Shumway, 2007). Investors with low financial literacy are also the ones who are least aware of fees, which can severely reduce total returns when calculated for (Lusardi & Mitchell, 2014). Calvet et al. (2009) find that people with low levels of financial literacy who participate in the stock market are more likely to hold under-diversified portfolios and exhibit stronger behavioral biases. Some of these biases will be elaborated on in Chapter 2.6.

Furthermore, a lack of knowledge and financial literacy may result in an increased vulnerability regarding financial scams. According to Økokrim (2023), there were over 23,000 reported fraud attempts in 2022. This is an increase of almost 60% since 2013. However, the report also mentions that based on numbers from the banking sector, the real numbers probably are higher than the reported attempts due to a large amount of dark numbers. People with limited knowledge and financial literacy are less likely to detect fraud and are thus more likely to fall prey to financial scams or be misled by false information (Engels, et al., 2019). Increased

knowledge and financial literacy may contribute to a reduction in the number of individuals who have been defrauded by such scams.

## 2.6 Psychological Factors

Standard economic theory has made a few assumptions with respect to human decision-making. The theory is usually based on the assumptions that individuals primarily act out of narrow self-interest, possess perfect rationality, have perfect information, and will act perfectly to maximize their own utility (Kahneman, 2011). Thus, it stands to reason that people, based on standard economic theory, have all the necessary knowledge, and will make savings and investment choices perfectly to maximize their own returns and utility.

However, these assumptions stand in contrast to several observed empirical phenomena, documented in psychology and behavioral economics, as humans do not necessarily make the best financial decisions, nor act out of complete self-interest (Kahneman et al., 1986; Thaler & Sunstein, 2021). The rise of behavioral economics has gained much attention in psychology and public policy and suggests a shift in understanding (Reed et al., 2013). It proposes that people are driven by a broader set of motivations and operate within bounded rationality rather than perfect rationality. This perspective suggests that the choices people often make seem inconsistent with the optimizing superhuman in the standard economic model (Thaler, 1979). Therefore, it seems to be the case that people are closer to having bounded rationality, where our choices are limited by several boundary conditions. Even when they have access to perfect information, they lack the cognitive capacity to evaluate all possibilities consistently and well. Instead, humans frequently make decisions based on their habits and other mental shortcuts, which are known as *heuristics* (Dale, 2015). This works in many cases and simplifies the world, but it can also lead to various biases, which we will delve deeper into in this chapter.

### 2.6.1 Attitude-Behavior Gap

The attitude-behavior gap refers to the disparity between individuals' expressed attitudes and their actual behavior. In other words, individuals may express a certain attitude towards something, but what they actually do is something different (Tarfaoui & Zkim, 2017). The gap between attitude and actual behavior is frequently discussed within behavioral economics in relation to a variety of topics, such as consumer behavior and sustainability. However, it may also be relevant in relation to personal finance choices.

A possible reason for an attitude-behavior gap is cognitive dissonance. Cognitive dissonance theory refers to the psychological phenomenon of discomfort felt when one's attitude does not align with one's behavior (Villines, 2023). Cognitive dissonance may then result in individuals adapting their attitude after their behavior, instead of the other way around. Individuals may also adopt certain defense mechanisms to mitigate cognitive dissonance. This may be done by avoiding reminders of or getting information contradicting one's current behavior, delegitimizing evidence against one's current behavior, or belittling the importance of the dissonance.

There may be an example of an attitude-behavior gap regarding the lack of investments in index funds. As index funds, and stock market participation in general, get a lot of attention for their superior returns, people may have a perceived or expressed attitude towards using them as a savings method, but defer from making the necessary changes.

## **2.6.2 Prospect Theory & Loss Aversion**

*Prospect Theory* is a theory within behavioral economics referring to how people handle decisions involving risk. Developed by behavioral economists Daniel Kahneman & Amos Tversky in 1979, the theory stands in contrast to standard economic theory, which relies on the assumption that humans are rational agents who act out of their own utility maximization. Instead, Prospect theory states humans are not purely rational and utility maximizing but act inconsistently when handling decisions including risk and utility maximization (Kahneman, 2011).

One of the key findings of Kahneman & Tversky was that humans are loss averse. *Loss aversion* refers to the psychological phenomenon of individuals' tendency to strongly avoid losses to acquire equal gains, thus, they overvalue potential losses and undervalue potential gains. Put simply, the pain of losing is stronger than the pleasure of gaining. For example, losing NOK 100 has a bigger negative impact than the positive impact of gaining NOK 100. Loss aversion is connected to *the endowment effect*, a related phenomenon where people base the value of an item if they own the item or not (Kahneman, 2011). By giving a higher value to things they own, individuals may avoid actions where they may lose some of what they already have.

Loss aversion may have an impact on investment and savings choices. Individuals may be aware that the stock market goes up and down. Despite higher potential returns and reduced

risk by investing long term, the fear of a stock market downturn and potential losses for the individual may make them choose “safer” saving alternatives. As the potential losses are overvalued and potential gains are undervalued, they may choose alternative methods, like using a savings account. Thus, the long-term returns are reduced.

### **2.6.3 Status Quo Bias**

*Status quo bias* is a cognitive bias referring to individuals’ preference for how things are right now, aka the “status quo” (Samuelson & Zeckhauser, 1988). Individuals impacted by the bias may experience any deviation from the status quo as a loss, preferring things to stay the way they are. The bias may be related to *loss aversion*, as change may expose the individual to losses. Another related factor may be *regret aversion*, where the individual is concerned about ending up in a situation where they regret their decision, thus choosing to maintain the status quo.

Savings accounts are typically the introductory method for personal savings, often regarded as the safe and conventional choice. The perception of savings accounts as the safe alternative and the status quo may result in an aversion to alternative investment options, such as investing in the stock market. Consequently, the bias towards familiarity can lead to suboptimal long-term financial outcomes.

### **2.6.4 Paradox of Choice**

Standard economic theory, based on *homo economicus*, would indicate that having more options is positive since you may have a larger variety and choices adapted to your exact need. However, this may not always be the case. The *paradox of choice*, also known as choice overload, refers to a tendency of choice aversion if presented with too many opportunities (Schwartz, 2004). Put simply, if an individual has many different options to choose between, they might not make a choice at all.

Related to savings and investments, the paradox of choice may impact individuals by having an overload of alternatives, thus deferring them from changing their fund allocation. A quick look in DNB reveals that they offer 394 different funds to invest in, where 44 of them are index funds (DNB, 2023). As an investor you can choose actively managed or passively managed funds, how much to allocate in different securities, different sectors, and geographic areas. For

---

an inexperienced investor, this may be overwhelming, resulting in them not making a choice at all.

### 2.6.5 Present Bias

Within standard economic theory, time preferences for money are clear, and money today is worth more than money tomorrow. However, *present bias*, also known as “time inconsistency” or “hyperbolic discounting”, is a cognitive bias where this is taken even further. Individuals afflicted by the bias give a disproportionately high value to immediate rewards, thus undervaluing long-term future benefits (Xiao & Porto, 2019). As an example, someone may prefer getting NOK 100 today than getting NOK 200 next year, despite a 100% increase in value.

Present bias can significantly affect investment decisions, leading individuals to procrastinate on investing due to an irrational preference for immediate rewards over higher future gains (Xiao & Porto, 2019). The bias causes future benefits to be greatly discounted, making the immediate value of money disproportionately more attractive. Additionally, present bias can influence the choice of savings method. Despite the stock market’s potential for higher long-term yields, its short-term fluctuations in value due to market volatility can deter those influenced by the bias. Consequently, this may cause them to favor less volatile methods, like savings accounts, despite the lower returns.

### 2.6.6 Negativity and Availability Bias

Humans tend to show a *negativity bias*, which refers to the tendency to learn and use negative information to a greater extent than positive information (Vaish et al., 2008). This has severe effects on stock market participation, as those with pessimistic beliefs invest less in stocks (Kézdi & Willis, 2011). Negativity bias is exacerbated by *availability bias*, where individuals believe the likelihood of something happening is higher based on how easy it is to recall (Sadi et al., 2011). This is illustrated by Goetzmann et al. (2016), who find that despite the rarity of major one-day stock market crashes, like those seen in 1927 and 1987, the ease of recalling such events results in individuals massively overestimating their likelihood.

The negativity bias is illustrated by the effect of the financial media, as the media has an asymmetric effect on beliefs. While media coverage with a negative sentiment has a negative effect on beliefs and increases their crash probability perceptions, positive coverage has no

effect (Goetzmann et al., 2016). This is likely exacerbated by the media itself, which disproportionately reports on negative economic news (Binsbergen et al., 2022). Furthermore, while the financial media has a negative effect on perceptions and behavior, its potential positive effects are limited, as media content in general does not contain new information about fundamental asset values (Tetlock, 2007).

These biases influence real-life behavior, as pessimism and subjective perceptions of crash probability negatively influence stock and stock fund investments (Choi & Robertson, 2020; Goetzmann et al. 2016). As individuals become more pessimistic regarding future returns after a market downturn, they will invest less (Egan et al., 2021). This negatively influences long-term future returns. Historically, following a market downturn, the future returns of the market have been higher, not lower (Cochrane, 2011; Goetzmann & Kim, 2017). Consequently, investor negativity, and the resulting lack of investments, ends up hurting investors by providing lower long-term returns.

In relation to our research question, these effects may be a possible explanation for why most people do not allocate savings to the stock market, or index funds specifically. Despite the recommendations from independent experts and the support from scientific literature, we still do not see the inflow of capital into index funds as one might expect. This may be impacted by the ease of recalling market downturns, and how we to a greater extent learn and use negative information.

### **2.6.7 Cognitive Bias Mitigation**

The current literature on cognitive bias mitigation is conflicted, and the efficacy of mitigation strategies is uncertain. One of the challenges of bias mitigation is that cognitive biases are, by nature, largely unconscious, and may be hardwired to a certain extent due to their neural and evolutionary origins. They are therefore hard to identify for the impacted individual (Korteling et al., 2021). Furthermore, evidence of behavioral change due to bias mitigation is hard to find without reminders of the biases for the participants.

Despite the conflicting evidence, some studies do indicate that behavioral biases may be mitigated. Sellier et al. (2019) found evidence that awareness of the bias reduced its effect by 29%. Additionally, different methods may have different efficacy. Dunbar et al. (2014) examined two different methods, a video game, and an instructional video, to see which was most effective in reducing biases. Their findings showed that the video game had a stronger



effect in reducing the biases. However, Poos et al. (2017) found no difference between the efficacy of gamified and non-gamified mitigation strategies. What they did find was that both strategies had an effect and that the effectiveness of the mitigation depended on the type of cognitive bias.

The current state of the literature on cognitive bias mitigation paints a varied picture, with contradictory findings and questions about the efficacy of mitigation techniques. The underlying difficulty stems from the fact that prejudices are mainly unconscious and potentially ingrained, making identification challenging for individuals. Despite these obstacles, some research suggests that behavioral biases can be reduced. The topic is still evolving, stressing the importance of ongoing research to improve tactics and extend our understanding of cognitive bias reduction. Investors may approach index fund investing with a clearer and more rational mentality if cognitive biases are addressed and mitigated.

## 2.7 Application of Theory

The returns, simplicity, and diversity of index funds should make them a natural savings choice for a large part of the Norwegian population. Based on standard economic theory, people should have perfect information, act completely rationally and out of self-interest, and choose what gives them the most utility in the long term. However, as previously stated, we do not see this in their actual choices, as only a minority of the Norwegian population is invested in the stock market, and only a fraction of this is invested in index funds.

Observations of actual human behavior reveal that humans diverge from the theory of what perfectly rational agents would do in several ways, and the theory of bounded rationality fits better with the observed behavior (Simon, 1955). Actual human behavior is influenced by several heuristics and cognitive biases, an aversion to risk and loss, and a tendency to not necessarily act in accordance with one's own attitude and best interests. However, the extent to which these psychological factors affect decision-making, and whether they can be mitigated, remains an area of uncertainty. Nonetheless, awareness and recognition of these behavioral traits may contribute to explaining and understanding the decisions people make regarding personal finance and investments.

Based on the awareness of knowledge gaps in investment decisions and low financial literacy rates, there is reason to believe that one important explanation for why people do not choose

index funds for their personal savings might be a lack of knowledge and comprehension of how they work, misperceptions of how risky they are and what they consist of, and incorrect beliefs about historical returns. Thus, in the remaining part of this thesis, we will examine if providing more information results in a positive change in the respondents' knowledge, their trust and perceived riskiness of index funds, and their choice intentions.

### 3. Methodology

“Methodology refers to the theory of how research should be undertaken, including the theoretical, and philosophical assumptions upon which research is based and the implications of these for the method or methods adopted” (Saunders et al., 2019).

In this section of the thesis, we elucidate the decisions made with regard to methodology. We commence by introducing our chosen research approach and study design. Thereafter we delve into the research strategy, time frame, study context, and data analysis techniques. Finally, we conduct a comprehensive quality assessment and engage in discourse encompassing the practical and ethical dimensions of our chosen methodology.

#### 3.1 Research Design and Approach to Theory Development

When deciding on a research approach, one must consider the key philosophical perspectives: deductive, inductive, or a combination of the two, known as an abductive approach. In the deductive method, one tests a theoretical proposition using a research strategy tailored specifically for its testing (Saunders et al., 2019). With a deductive approach, the study aims to systematically draw conclusions regarding the causation between our treatment and the potential change in attitude. This is to say, examine whether an increase in information regarding index funds leads to a change in the perception towards them.

The research design acts as a structured plan for gathering and analyzing data to address a specific research question, where the sources, methods, and techniques are thoroughly justified (Saunders et al., 2019). Generally, research designs can be divided into three main categories. First, an *exploratory design*, which seeks to examine under-researched areas, and often relies on open-ended “what” or “how” questions to find new insights. Second, a *descriptive design* seeks a detailed understanding of subjects or events, by posing questions like “who”, “what”, “where”, “when”, and “how”. Descriptive designs often expand upon initial findings from exploratory studies. Lastly, an *explanatory design* seeks to examine causality between variables by posing “why and “how” questions, to clarify observed phenomena.

Regarding the study’s objective and research question, we are seeking to describe and explain the attitude and expectations of Norwegian students related to index fund investing compared to saving in a traditional savings account in a bank, and if increased knowledge regarding index

funds changes their perception. This study was done using a *descriptive design* to examine their current knowledge and savings habits, and an *explanatory design*, using a survey experiment examining if an increased level of knowledge of index funds would result in a change in attitude towards saving in index funds.

According to Cappelen and Tungodden (2012), the experimental method has two distinct advantages. The strategy provides good control over the environment, which eliminates other alternative incentives in an economic setting. Another significant advantage is that experiments allow for randomization. Randomization implies that participants in the experiment are selected randomly and divided into groups. The participants are divided into two groups: control and treatment. The treatment group is subjected to some form of modification known as “treatment”, whilst the control group is not. If there are observed differences in behavior between groups in a well-designed experimental study, the differing treatment conditions remain the most likely explanation for the observed effect.

Experiments allow us to address a fundamental problem when observing data connections: whether we are studying causality (causal connection) or correlation (covariation). Randomization assures that groups are equal in terms of observable and unobservable variables (Cappelen & Tungodden, 2012). To investigate causality, we can compare the treatment and control groups. If the experiment is carried out correctly and the independent variable (treatment) has an effect on the dependent variable, the experiment has “internal validity” and the causal inference is credible (Saunders et al., 2019).

## 3.2 Method

The main methods when conducting a research project are qualitative and quantitative, or a combination of these methods (Saunders et al., 2019). In the context of this thesis, a quantitative research approach is employed for both the descriptive and explanatory phases of the design.

Quantitative research appears to be the most suitable and logical approach to gain a more profound understanding of our research topic. The structured nature of quantitative methods ensures consistency and allows for results to be easily replicated. This quantitative approach complements our choice of a hypothesis-testing deductive methodology and the blend of descriptive and explanatory design.

When collecting data, it can involve either primary or secondary data. Primary data is gathered specifically for the objectives of the current research projects, while secondary data is already collected from previous research endeavors (Saunders et al., 2019). While there exist some past studies with data relevant to our thesis topic, none precisely match our intended purpose and target population. We therefore collected primary data to investigate our research questions. Nonetheless, the thesis uses secondary data from the literature review to complement our findings.

In quantitative research, surveys often serve as a primary data collection tool. For our master's thesis, we have chosen to conduct a segmented survey of: Part 1; the responder's approach to current savings, and Part 2; a survey experiment testing how participants respond to different amounts of information regarding index funds. Therefore, there are two main segments of the survey, one descriptive part, and one experimental part. Saunders et al. (2019) categorize this approach as multi-method research due to the incorporation of two distinct data collection techniques.

The purpose of study part 1 is to learn more about the respondents in general and to find out if they save money today, and if so, which methods they use. This research can help us assess whether they are familiar with index funds and to what extent our sample already uses them as a savings method. Furthermore, this will help us understand how representative our sample is.

In Part 2 of the study, we aim to examine the impact of familiarity with index funds. Specifically, we question if a deficit of information could steer individuals towards alternative savings methods, such as traditional savings accounts. To this end, we conducted a survey-experiment using varying levels of information. Those in the treatment group received a detailed overview of index funds. The extent of information provided to each participant was randomly assigned. After reviewing the material, all participants responded to the same set of questions. This approach allows us to ascertain whether an individual's awareness of index funds significantly influences their investment choices. Additionally, we aim to discern why, even with adequate knowledge of index funds, some individuals might still choose not to invest in them.

### 3.3 Procedure for data collection

Gathering high-quality data is crucial for maintaining the validity and reliability of research. Equally important are the ethical implications, with data collection being a major area of concern for potential breaches of individual privacy and research integrity. In this chapter of the thesis, we will delve into the methods of data collection. Key decisions and considerations will be highlighted and explained. The complete online survey employed for this data collection can be found in the appendix.

#### 3.3.1 Survey Design

##### *Procedure and Material*

Surveys are frequently employed in both descriptive and explanatory studies. Often, the data gathered is quantitative and acquired through numbered rating scales. Thus, the data is applicable to study potential correlations and potential causative relationships (Saunders et al., 2019). There are several ways of building and distributing a survey. However, for this thesis, we have opted to use a digital survey, where we developed the survey using the online platform, Qualtrics. The platform allows for an organized survey development process, an intuitive and simple survey design and interface, and the opportunity to anonymize the respondents.

Tourangeau et al. (2000) emphasize the necessity for respondents to understand the questions clearly, retrieve relevant autobiographical memories, and aptly judge and respond to the information conveyed through the questions. In alignment with this, Haraldsen (1999) outlines several fallacies to avoid when constructing a survey: 1) Avoiding too general or leading questions, make sure they only can be interpreted in one way 2) Provide answer options that are both exhaustive and mutually exclusive; and 3) The questionnaires must be self-instructive, relevant, and clearly formulated. The questions in our survey and their answer alternatives were formulated with these factors in mind.

Using a survey with a fixed format and consistent language limits the possibilities of different and wrong interpretations by the respondents. This enhances the internal validity of the research (Saunders et al., 2019). The language of this survey is set to Norwegian due to the target population being Norwegian students. Except for the treatment text, the wording used in the survey was identical for all respondents and was written in a simple and straightforward

manner, with the same sentence structure for all questions. This was to avoid different interpretations and ensure internal validity.

To examine Norwegian students' views regarding index fund investing, we have chosen to recruit students from a wide range of institutions and fields of study. The largest group among the respondents were students at the Norwegian School of Economics, due to their high response rate. However, to get a more representative sample of the population, we recruited students from a wide variety of institutions with different fields of study, and from different parts of Norway. By researching and contacting different student groups for other institutions, we were able to post the survey in a multitude of different groups, which resulted in a more representative sample.

The sampling of the population was random, though the selection was limited to those who were willing to respond to the survey via anonymous links sent to the students. As stated, the biggest response came from students at the Norwegian School of Economics. We reached out to them through email as our primary approach as we have access to all the students' email addresses through the school's Outlook. Additionally, we shared the survey on our private Facebook and Instagram pages and requested some of our friends who attend other universities to share it with us. However, as the majority of responses still came from students at the Norwegian School of Economics, we reached out to Facebook groups for students from various institutions and fields of study, and they agreed to let us post about the survey. We received responses from at least 22 different educational institutions at the end.

To create a small incentive and nudge students to complete the survey, the respondents had the opportunity to participate in a lottery to win 10 gift cards at Godt Brød, each valued at NOK 100. Upon completing the survey, the respondents were given the opportunity to join the lottery or not. If the respondents chose that they did not want to participate, the survey would finish, and respondents would get a message thanking them for completing the survey. However, if the respondents wanted to participate in the lottery, they would be redirected to a new survey where they could report their name and address. The redirection to a new survey for respondents who wanted to join the lottery was done to ensure there was no link between the responses in the survey and their personal information, thus ensuring the anonymity of the respondents.

Abbey & Meloy (2017) have noted that incorporating an attention check can greatly enhance construct and scale validity. Due to this, we decided to incorporate an attention check towards

the end of the survey to ensure the respondents read the text provided. Respondents were presented with a straightforward question about the likelihood of rain where they live the next day. To demonstrate whether they had actually read the full question, they were directed in the text above to choose the value “0” on a scale from 0 to 10. We opted to exclude the respondents who reported any of the other likelihoods than “0”, considering they most likely had not been attentive or failed to read the questions thoroughly before responding to the previous questions.

### *Numerical Examples*

While developing the treatment information, several different measures for the return on index fund investing were evaluated. To ensure a representative return, we needed a source that gave us a long enough timespan and an index for the global stock market. Eventually, the measure used was the return of the MSCI World Index over the past 20 years. The index tracks the performance of large and mid-cap companies across 23 different developed countries and shows how a portfolio consisting of the index would develop over time. The data was gathered from the website Curvo (2023), which has data showing the development of the index from December 1978 until June 2023. The return was calculated by the following formula:

$$\begin{aligned} \text{Value June 2003} \times (1 + X)^{20} &= \text{Value June 2023} \\ &= 168,582 \times (1 + X)^{20} = 984,408 \end{aligned}$$

By solving for x, we get a return of 0.09224. For simplicity, and as the index does not consider management fees, the return was rounded off to an even 9% in our numerical example. In our numerical example of an investment of NOK 100,000 with a 9% return, we then have:

$$100,000 \times 1.09^{20} = \text{NOK } 560,441$$

As for the return in our savings account example, the solution was simpler. We derived the average interest rate on deposits of the banks in Norway over the last 20 years from SSB (n.d.), before calculating the annual average. This resulted in an average annual interest rate of 1.88%. For simplicity, this was rounded up to 2% in our numerical example. Thus, in our numerical example of an investment of NOK 100,000 with a 2% return, we then have:

$$100,000 \times 1.02^{20} = \text{NOK } 148,594$$



---

## *Respondents*

The survey was distributed in September 2023 and remained accessible for a period of approximately two weeks. Within this timeframe, the survey garnered clicks from 919 individuals. After removing respondents who did not complete the survey, and those who failed the “attention check”, we were left with a final sample of 583 valid respondents. As our main goal was to concentrate primarily on Norwegian students, we conjectured that the majority of the participants were indeed Norwegian, with a minimal number of international students.

Among the valid responses, there were 240 students from NHH, 22 from HVL, 106 from UiB, 6 from Høyskolen Kristiania, 6 from BI, 4 from NTNU, 37 from UiO, 121 from various other universities, and 55 individuals who are currently not a student. Regarding fields of study, the breakdown was as follows: 273 within business administration, 43 within STEM fields, 30 within law, 41 within social science, 41 within humanities, 40 within medicine, 38 in psychology, 55 within pedagogics, 38 within other fields, and 32 respondents indicating they were not students.

In terms of gender, we had 378 female respondents, 201 male respondents, and 3 individuals who preferred not to disclose their gender. On average, participants spent 6 minutes and 30 seconds on the survey, with a median time of slightly under 4 minutes. The respondents’ academic levels were diverse, comprising 15 one-year program students, 262 bachelor students, 243 master’s students, 6 Ph.D. students, 15 people who answered something else, and 53 who identified as non-students.

It is worth mentioning that the number of non-students varies among the different questions. We assume that this is because some of the respondents interpreted the questions as they were supposed to choose what they once studied and not what they are doing today.

### **3.3.2 Survey Part 1: Descriptive Overview**

The survey begins with a series of general questions designed to define the sample’s demographics. This required a series of list questions for their “age”, “gender”, “educational institution”, “field of study”, and “degree studying towards”. There was a “catch-all-category” for educational institution and topic of study, where respondents could define their replies if it was not reflected in the list. To explain their current knowledge and saving practices, respondents were asked which of the following investment and savings methods they had

---

previously heard of and which they were presently employing. The options were “savings account in a bank”, “BSU”, “Index funds”, “singular stocks”, and “none of the above”.

### **3.3.3 Survey Part 2: A Controlled Experiment**

#### *Experiment Design*

An experiment is a method used to examine the causal relationship between variables to test hypotheses (Saunders et al., 2019). It involves a specific treatment on certain study units, and then measuring the effect of the treatment. Within this context, the introduced treatment on the study units is the independent variable, while the potential resulting effect is the dependent variable (Johannessen et al., 2020).

There are various experimental designs available, each aiming to optimally evaluate predictive hypotheses. Classical experiments, quasi-experiments, and within-subject designs are among the commonly used approaches, each presenting its own set of advantages and disadvantages. The selection of a design is crucial, particularly in terms of managing control variables and confounding variables (Saunders et al., 2019). The experiment utilized in this thesis employs a controlled, classical between-subject design with independent measures. This approach diverges from the conventional classical experiment by examining the effects of two manipulations of the independent variable instead of one. As a result of this expanded group inclusion, a larger participant pool was necessary to preserve a study’s statistical power and minimize the likelihood of committing a Type 1 error (Saunders et al., 2019).

The two primary options for a classical experiment’s design are either a straightforward variant involving post-testing the groups or including a pre-test of the groups before the experiment (Saunders et al., 2019). The experiment for this thesis was conducted using the simple post-testing variant. The decision was made to explore specifically how the information given impacted the participants’ responses. Furthermore, even if it were possible, pre-testing would demand a greater time commitment from the participants, which is likely to have an impact on the response rate and accuracy of the responses.

#### *Experiment Participants*

The experiment is based on the same participants as in the first part of the survey, with the main difference that each participant was randomly assigned to one of two groups: Group A or Group B. Group A, serving as the control condition, had a sample size of  $N_a = 294$ , while group

---

B, designed as the treatment group consists of  $N_b = 289$  participants. Due to a relatively large sample size, random placing of participants, and similar distribution, our study will have a good basis for identifying possible relations between cause and effect (Johannessen et al., 2020). Although we had participants from various fields of study, business administration students represented 47% of the total. Given the reasonable assumption that these individuals possess some basic pre-existing understanding of index funds due to their education, we will also test in our explorative analysis if we get a different treatment effect if we separate them from the non-business students.

### *Experiment Procedure - Independent Variables*

Part 2 of the survey, consisting of the experiment, was presented to the participants after completing survey part 1. As previously noted, participants were randomly assigned to one of two groups, either group A or group B. While both groups received information about traditional savings accounts and index funds, group B (the treatment group) was provided with more extensive information. Both groups were then required to respond to an identical set of questions.

Group A, the control condition, was presented only with the most basic information regarding traditional savings accounts and index funds. The main goal was to see if their lack of knowledge influenced their choice of savings. The participants in group A read the following description:

***“We will now give you a brief explanation of two of the most common forms of saving in Norway.***

#### ***Savings Account in a Bank:***

*A regular savings account is a type of account you can have in a bank, which offers a slightly higher interest rate than what you would receive in a standard checking account. You can save in this way by transferring a larger one-time amount, or by setting up an automatic monthly transfer.*

#### ***Index Funds: Investing in Stocks:***

*An index fund is a type of mutual fund that aims to track the market index either in Norway or globally, and contains small ownership stakes in various stocks from different companies.*

---

*You can invest in this manner by transferring a larger one-time amount, or by initiating an automatic monthly transfer.”*

Group B, the treatment group, got the same information as Group A, but additionally, they were given extensive information about the nature and historical returns of index funds. The participants in group B read the following description:

***“We will now give you a brief explanation of two of the most common forms of saving in Norway.***

***Savings Account in a Bank:***

*A regular savings account is a type of account you can have in a bank, which offers a slightly higher interest rate than what you would receive in a standard checking account. You can save in this way by transferring a larger one-time amount, or by setting up an automatic monthly transfer.*

***Index Funds: Investing in Stocks:***

*An index fund is a type of mutual fund that aims to track the market index either in Norway or globally, and contains small ownership stakes in various stocks from different companies. You can invest in this manner by transferring a larger one-time amount, or by initiating an automatic monthly transfer.*

*Index funds are suitable for those who desire a higher long-term return than what is usually obtained from a regular savings account in a bank and want to invest in the stock market without significant knowledge of individual stocks. Index funds also provide lower risk than if you were to invest all your savings in a single stock since the money is distributed across a large number of different stocks. Think of it as a safety net: if one company goes through a tough period or goes bankrupt, the other companies that perform well in the fund can help offset the loss, ensuring you still profit in the long term. Therefore, the risk is substantially lower than if you were trying to pick a single stock to invest in on your own.*

*An index fund tracks a benchmark index, like the main index on the Oslo Stock Exchange or the world index, replicating the return in the segment of the stock market that the fund follows. Because they track these indices, the cost of saving in the index funds is often very low for the customer (meaning, you do not pay high management fees to an expensive stockbroker who picks individual stocks).*

---

*Index funds are best suited for those who wish to start long-term savings, with a time perspective of at least 10 years or more. In the short term, stock markets can fluctuate greatly, but long-term experience suggests that saving in index funds provides a better return than saving in a regular bank savings account. The longer you keep your savings in the fund, the better prepared you are to handle the natural fluctuations in the market over time.*

***Key Figures:***

*We will now provide you with a simple example comparing the historical return on a traditional savings account in a bank with savings in index funds.*

*If you had placed NOK 100,000 in a traditional savings account with a 2% interest rate 20 years ago, you would have NOK 148,594 today.*

*The MSCI World Index, which aims to measure a global market index, has had an annual return of approximately 9% over the past 20 years. This means that if you had placed NOK 100,000 in a standard index fund that followed this index 20 years ago, you would have NOK 560,441 today.”*

### ***Experiment Procedure - Dependent Variables***

For the dependent variables that were measured right after reading the scenario text, which was presented in an identical way to all participants in both experimental groups, the questions were formulated to assess a general evaluation of knowledge, attitude towards personal saving, and choice intentions. In other words, the variables are created for testing our predictive hypotheses.

### **Knowledge and Beliefs**

For this part, respondents were presented with two questions. The first question asked them about what they believe has given the highest return over the past 20 years, measuring their knowledge about past returns. The second question required them to consider which investment they think will provide the highest return in the next 20 years, measuring their beliefs about the most likely future returns. For both questions, participants could choose from the following options: savings account outperforms index funds, savings account and index funds have the same performance, and index funds outperform savings accounts. The exact questions presented to the participants were as follows:

*“What do you think has provided the highest return over the past 20 years: Savings account in a bank or stock savings in index funds?”*

*“What do you think will provide the highest return in the future, over the next 20 years: Savings account in a bank or stock savings in index funds?”*

### **Risk and Trust Perceptions**

Further in the survey, we pose questions regarding their assumed risk and trust towards the two methods of saving. These are answered by using a Likert-inspired 5-point scale from “Very little trust” to “Very much trust”, and “Very little risk” to “Very high risk” (Saunders et al., 2019). These were asked to examine if the attitude changed within the two groups. The questions were stated as follows:

*“Generally: How risky do you consider saving in an ordinary savings account in a Norwegian bank or financial institution?”*

*“Generally: How risky do you consider saving in an index fund through a Norwegian bank or financial institution?”*

*“Generally: How much trust do you have in Norwegian financial institutions managing the values in ordinary bank savings accounts in an honest and responsible manner?”*

*“Generally: How much trust do you have in Norwegian financial institutions managing the values in index funds in an honest and responsible way?”*

### **Choice Intentions**

This last part requires the respondents to make a choice based on their current knowledge. These are presented with only two possible answers, ensuring the respondents must make an actual choice. They could choose between a savings account in a bank and saving in index funds. The questions were stated as follows:

*“Consider beginning a regular savings plan today with a long-term time horizon (20 years) and a fixed monthly withdrawal of NOK 2,000.  
Which form of saving would you prefer?”*

*“Assume you were asked by a good friend or a close family member what would be the ideal way for them to save if they had a long-term time horizon (20 years) and wanted to set up a*

---

*fixed monthly withdrawal of NOK 2,000.  
What would you recommend them to save in?"*

## 3.4 Methods of Analysis

### 3.4.1 Preparations of Data Set

Before we did our analysis, the data was controlled and prepared. The first preparations were made in Qualtrics before the rest of the data set was exported and opened in the data analysis program Jamovi.

The main preparations of the data set consisted of removing invalid responses and recoding values. First, we removed all respondents who did not complete the survey, which means that we removed anyone who did not answer all our questions. Afterward, we removed anyone who failed the attention check, so all the respondents who had chosen anything else but “0” were removed.

The values of past and anticipated future returns were further recoded into binary variables. In this case, individuals who believed that index funds and savings accounts had roughly the same return, or that savings accounts had provided the highest returns for the past 20 years were assigned the value 0. Value 1 was assigned to those who thought index funds had provided the highest return. The same goes for the question asking what they believed would provide the highest return over the next 20 years. For our explorative analysis, we had to distinguish between business students and non-business students. consequently, we assigned value 1 for respondents studying business administration, and value 2 for respondents studying any other field of study.

### 3.4.2 Preparing for Data for Descriptive Analysis and Statistical Testing

The statistical analysis for this thesis was conducted using the program Jamovi. This is an open-source statistical software built on top of the R programming language. It has a user-friendly graphical interface and is built to be simple to use for a variety of statistical studies. We used a two-tailed t-test to test for the non-binary variables- risk and trust. For the binary variables, we conducted a chi-squared test to determine the significance. Both analyses were conducted in Jamovi. Additionally, we produced figures using Excel to illustrate our findings.

## 3.5 Research Quality

In this part, we will address the study's overall quality, distinguishing between reliability and validity. The main goal of high reliability and validity is to improve the study's credibility and quality.

### 3.5.1 Reliability

Reliability refers to the consistency and dependability of results from a study. It addresses whether one would have obtained the same results with the same research design if the study had been conducted by others and in different situations.

To achieve a high degree of reliability, the measurements need to be exact, and the measurement errors need to be eliminated as much as possible. Saunders et al. (2019) separate between four threats to the study's reliability: participant error, participant bias, researcher error, and researcher bias. In the following sections, the four threats to the study's reliability will be discussed.

#### *Participant Error and Participant Bias*

*Participant error* includes factors that could have an impact on respondents' performance, such as if they are feeling under time pressure (Saunders et al., 2019). Since they received the survey through email or Facebook pages, the respondents decided for themselves if they wanted to take part in the study and when they wanted to respond. Due to their ability to select when they wished to respond, there was less chance that a participant would complete the survey when they were pressed for time.

The experiment group received a lot of information, which might have had an impact on how well they performed. It might have caused the participants to become impatient or frustrated, which might have caused them to give sloppy responses. This mood might have also damaged the rest of the research. The survey was tested on family and friends because it was unclear how the respondents would interpret the experiment. In this manner, we could determine if it was sufficiently clear. After the information was given, we included a question that asked the respondents whether they had read the information or not, and they had to answer it to be able to move on. They felt forced to respond in this manner, and hopefully, they were truthful about their reading of the text.



*Participant bias* refers to any factors that might result in an inaccurate response from the respondent. According to Saunders et al. (2019), a participant may, for example, offer a false response if they believe others are watching them or if they wish to make a good impression. Since the participants received the survey through email and Facebook posts, they could choose when to complete it, potentially avoiding the feeling of being observed. Participant bias might also arise if the respondents understood the intention behind the survey and responded more positively. In the email, they were informed that the survey aimed to map out “attitudes towards personal savings” and that the results would be part of a research project. This phrasing might have set a mindset for the participants, influencing their responses.

### *Researcher Error and Researcher Bias*

The two final threats to reliability might come from the researchers themselves and are known as researcher bias and error. Researcher error encompasses all factors that might alter a researcher’s interpretation of respondents’ answers. This could result from the researcher being insufficiently prepared for misunderstanding some aspects of their own study. Researcher bias, on the other hand, is any aspect that can result in biases in the researcher’s registration of the replies. For instance, a researcher might impose their subjective views during the registration and interpretation of responses (Saunders et al., 2019). The potential for researcher errors and biases was minimized in this study since there were two of us analyzing the data and interpreting the results. Furthermore, the possibility of subjective bias in interpretation was limited as we formulated the primary hypotheses and the statistical analysis plan *before* conducting the data collection. Also, data was electronically gathered through Qualtrics, with automatic randomization of participants to experiment conditions, which reduces the likelihood of researcher bias in data collection.

### **3.5.2 Validity**

Validity refers to how closely the findings match the goal of the investigation (Dahlum, 2021). A distinction is made between internal and external validity.

#### *Internal Validity*

Internal validity concerns the extent to which one can assume a causal relationship between two variables. It is established for an experiment when it can be statistically demonstrated that a treatment leads to an outcome, and not due to other extraneous or confounding variables

(Saunders et al., 2019). We have assigned the participants randomly, and this randomization helps eradicate threats to internal validity by ensuring comparable groups in terms of both observable and unobservable factors (Cappelen & Tungodden, 2012). By randomization, we are ensuring that the cause of the change in choices between the groups is the treatment of increased information.

The internal validity will be established for a survey when it measures what it was supposed to measure (Saunders et al., 2019). When making the survey, we were conscious about making the questions as clear as possible to increase the possibility of people understanding them. To increase the possibility of the respondents perceiving the questions correctly, the survey was tested on friends and family.

### *External Validity*

External validity may be more difficult to establish. Because there is no pre-testing, the study avoids influencing the participants before they do the experiment, but there are two other potential threats: *sampling bias* and *the Hawthorne effect*.

The risk of sampling bias is that the sample differs significantly from the population. There is also a possibility that, because the survey was sent to everyone in the relevant fields of study, those who responded differed significantly from those who did not. We attempted to ensure this by reaching out to many different fields of study. Nonetheless, many of our responses are from business administration students, therefore we will omit them from our analysis later in our thesis. Furthermore, as previously stated, men are more risk-seeking and have greater financial literacy than women. Because we have a higher proportion of female responses, this could potentially influence the results of the experiment.

The Hawthorne effect may also influence responses. This effect occurs when individuals change their behavior because they are aware that they are being observed (Saunders et al., 2019). As we promised participants that the survey was anonymous, we hope there is no incentive for them to change their answers in the current study. Furthermore, because this was an online poll, participants were never personally observed. The third factor that precludes participants from being influenced by the Hawthorne effect is that we, the writers, are students on the same level as the participants.

## 3.6 Ethical Considerations

The focus of research ethics is the application of fundamental ethical concepts to the scientific process. This includes determining whether the research process was conducted in an appropriate manner, with consideration to the privacy and rights of all parties that participated in the research, and ensuring the credibility of research results without threatening the individual's integrity (Saunders et al., 2019).

We were careful not to ask questions that could be used to identify respondents while constructing the survey, and it was not possible to track any of the responses back to specific respondents in the study. The email and Facebook posts invitations to the survey clearly specified what kind of information the survey covered and what it would be used for, allowing respondents to understand why the survey was undertaken. The survey was likewise voluntary, and everyone had the option of responding or not. It was also possible to exit the survey at any time if they did not choose to respond or did not have the time to do so. Furthermore, while determining whether to participate in the lottery, those who did were redirected to a new poll where they supplied their name and address. As a result, we were unable to match any of the participants' names with their responses.

## 4. Results

### 4.1 Results and Analysis for Study part 1: Personal Savings

#### Preferences

The objective of testing preferences concerning personal savings was to gain insight into which savings methods individuals were familiar with, and which they use themselves as personal savings methods. To achieve this, respondents were given the opportunity to select between the most common savings methods in Norway, and they had the flexibility to choose multiple alternatives.

When asked about their familiarity with different savings methods, the results were as follows: A vast majority, 99% (575), were familiar with the traditional savings account in a bank. Close behind, 96% (558) had heard about BSU. Index funds were known to 81% (470) of the respondents, while individual stocks were recognized by 80% (469). Only a tiny fraction, 1% (4) of respondents reported they had never heard of any of the options offered.

Focusing on how these savings methods are used, the results showed a slightly different picture. Notably 91% (527) were saving in a traditional savings account in a bank, 66% (385) in BSU, 56% (324) in index funds, 29% (166) in individual stocks, and 3% (16) respondents did not save in any of the alternatives.

### 4.2 Results for Study Part 2: Controlled Experiment

Prior to presenting the results and analysis from the controlled experiment, we will recap the hypotheses being tested.

#### Knowledge

- *H1: Compared to participants in the control condition, a greater proportion of participants in the information condition will believe that index funds have provided the best returns in the past 20 years.*
- *H2: Compared to participants in the control condition, a greater proportion of participants in the information condition will believe that index funds will provide the best returns in the next 20 years.*

## Attitude

- *H3: Compared to participants in the control condition, participants in the information condition will perceive index funds as less risky.*
- *H4: Compared to participants in the control condition, participants in the information condition will perceive the standard financial management of index funds as more trustworthy.*

## Choice Intention: Primary Hypotheses

- *H5: Compared to participants in the control condition, participants in the information condition will be more likely to choose an index fund for their personal savings (rather than a standard savings account).*
- *H6: Compared to participants in the control condition, participants in the information condition will be more likely to advise others to choose an index fund for their personal savings (rather than a standard savings account).*

Four binary variables- H1, H2, H5, and H6- as well as two non-binary variables- H3 and H4- are used in our analysis. The non-binary variables have more categories than the binary variables, which only have two. The validity of the analysis and the soundness of the inferences made from it are ensured by selecting the appropriate test based on the type of variable.

### 4.2.1 Hypothesis H1: Knowledge about Past Returns

In line with our first hypothesis, a significantly larger share of participants in the information treatment condition (95.2%) believed that index funds have provided superior historical returns compared to participants in the control condition (88.8%). A chi-squared test showed that this difference of 6 percentage points was statistically significant,  $X^2(1, N = 583) = 8.00, p = .005$ .

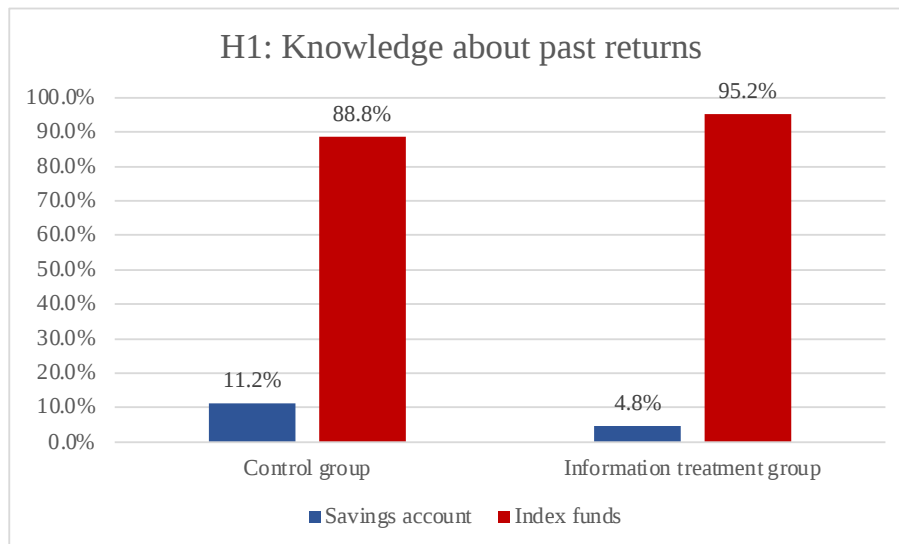


Figure 1: Knowledge about past returns

#### 4.2.2 Hypothesis H2: Beliefs about Future Returns

In line with our second hypothesis, a significantly larger share of participants in the information treatment condition (95.8%) believed that index funds would provide superior future returns compared to participants in the control condition (88.4%). A chi-squared test showed that this difference of 7 percentage points was statistically significant,  $X^2(1, N = 583) = 11.0, p < .001$ .

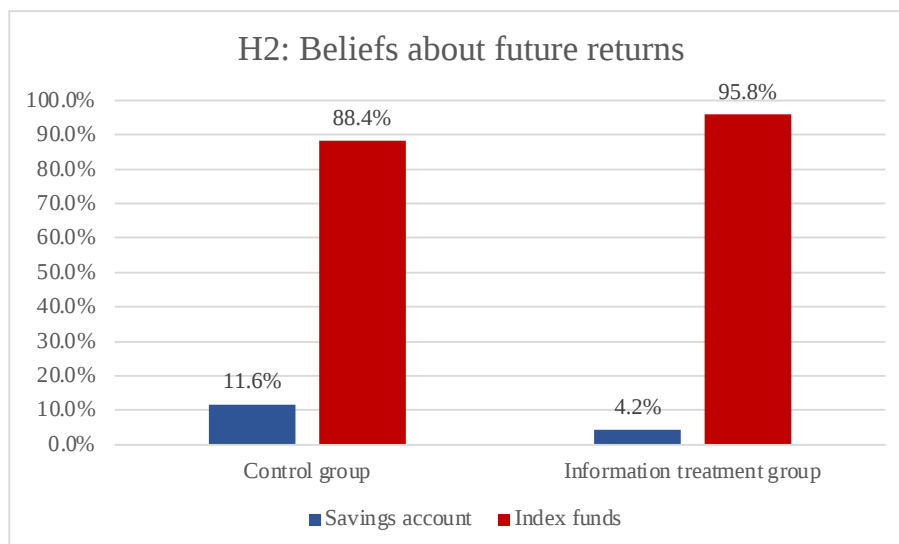


Figure 2: Beliefs about future returns

### 4.2.3 Hypothesis H3: Risk Associated with Index Funds

In line with our third hypothesis, participants in the information treatment condition perceived index funds as less risky compared to participants in the control condition ( $M_{\text{treatment}} = 2.88$ ,  $SD = 1.040$  vs.  $M_{\text{control}} = 3.18$ ,  $SD = 0.987$ ). An independent  $t$ -test showed that this difference was statistically significant ( $p < .001$ ), with a small effect size ( $d = 0.29$ ).

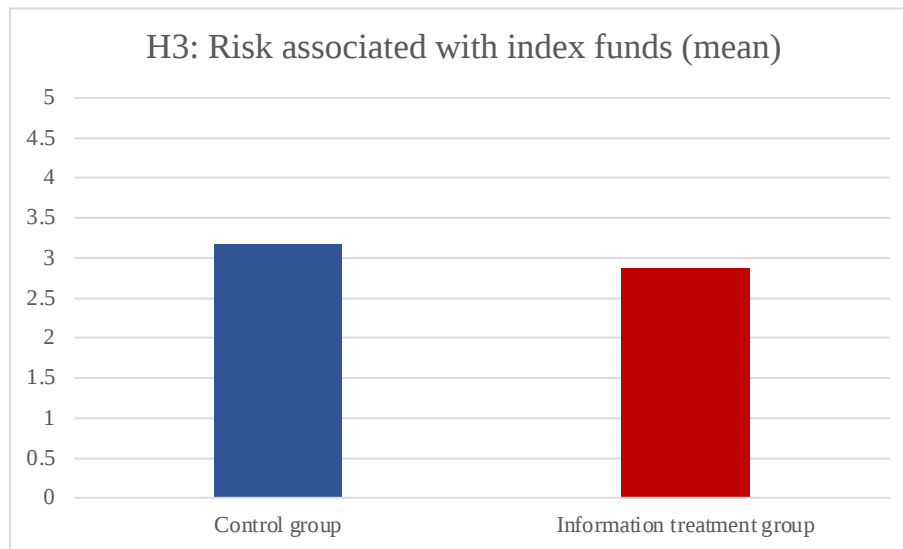


Figure 3: Risk associated with index funds

### 4.2.4 Hypothesis H4: Trust in Financial Institutions

In contrast with our fourth hypothesis, our analysis showed an insignificant difference in the information treatment and control condition's reported trust in the financial management of index funds ( $M_{\text{treatment}} = 3.71$ ,  $SD = 0.832$  vs.  $M_{\text{control}} = 3.74$ ,  $SD = 0.891$ ). An independent  $t$ -test showed that the difference was not statistically significant ( $p = .688$ ).

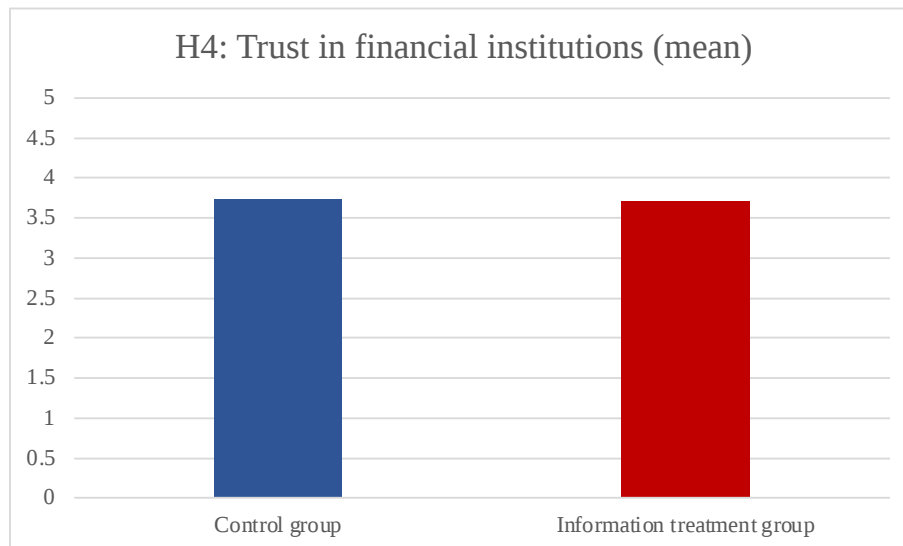


Figure 4: Trust in financial institutions

#### 4.2.5 Hypothesis H5: Effect on Own Choices

In line with our fifth hypothesis, a significantly larger share of participants in the information treatment condition (83.0%) would choose index funds for their own long-term personal savings compared to participants in the control condition (74.8%). A chi-squared test showed that this difference of 8 percentage points was statistically significant,  $X^2(1, N = 583) = 5.91$ ,  $p = .015$ .

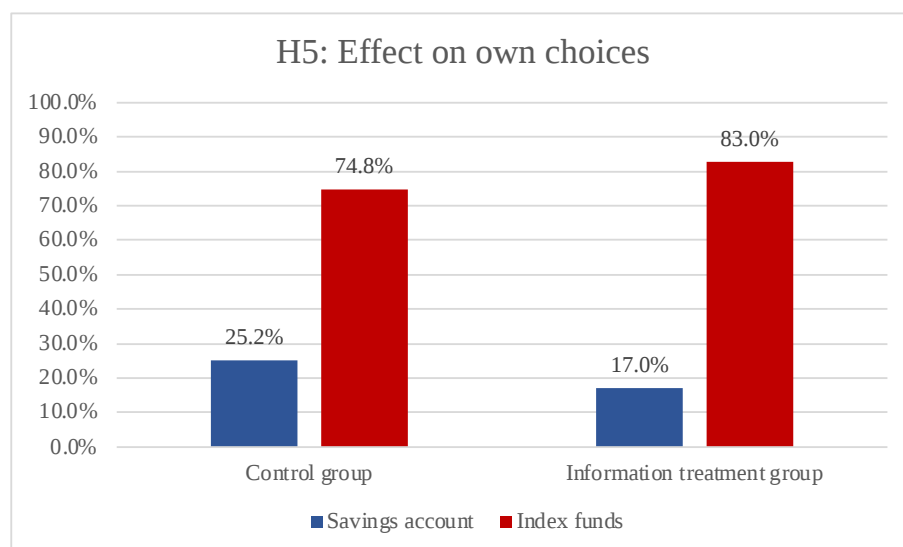


Figure 5: Effect on own choices



## 4.2.6 Hypothesis H6: Effect on Recommendations to Others

In line with our sixth hypothesis, a significantly larger share of participants in the information treatment condition (88.9%) would be more likely to advise others to choose index funds for their personal savings compared to the control condition (80.6%). A chi-squared test showed that this difference of 8 percentage points was statistically significant,  $X^2(1, N = 583) = 7.79$ ,  $p = .005$ .

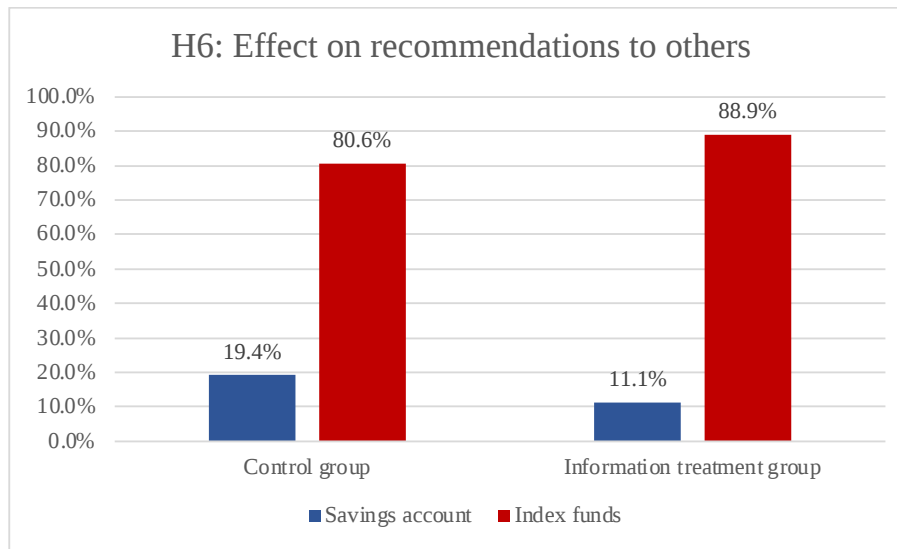


Figure 6: Effect on recommendations to others

## 4.3 Exploratory analysis

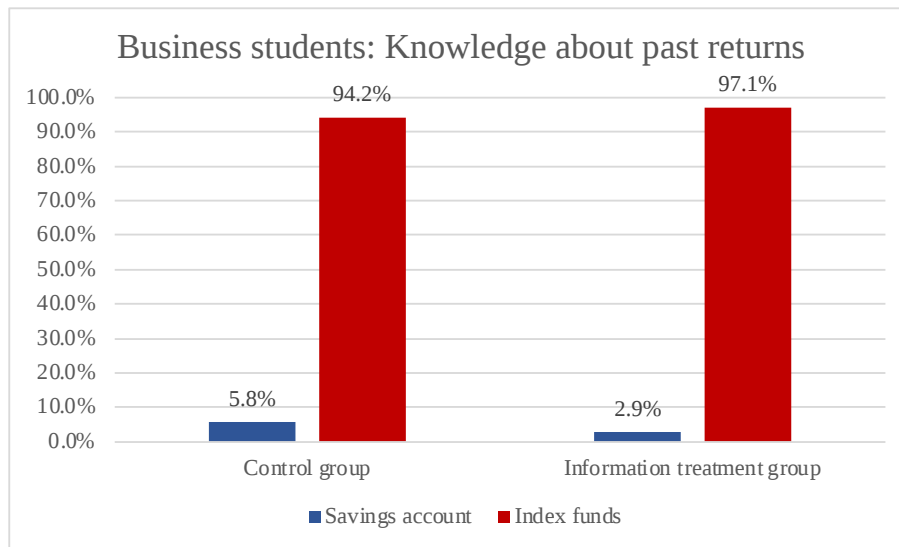
After conducting the main experiment and tests, we wanted to examine if there were disparities between business and non-business students regarding the effect of the treatment. Thus, we conducted more tests where we separated business and non-business students. Chi-square tests were used for all analyses in this part.

### *Business students vs. non-business students*

#### 4.3.1 Knowledge about Past Returns

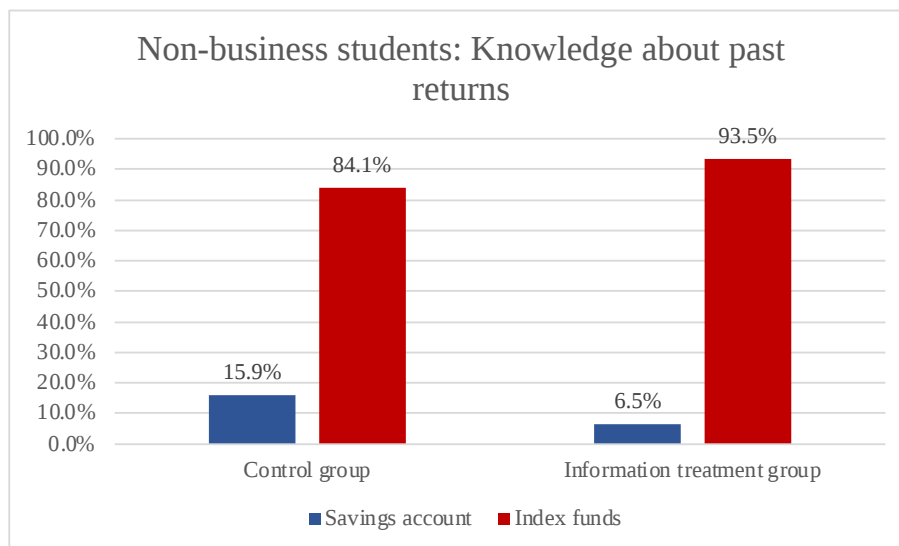
Starting with business students, there was a minor difference between the two groups. The information treatment condition (97.1%) believed that index funds have provided superior historical returns than participants in the control condition (94.2%). However, a chi-squared

test showed that this difference of 3 percentage points was not statistically significant,  $X^2(1, N = 273) = 1.36, p = .243$ .



*Figure 7: Business students: Knowledge about past returns*

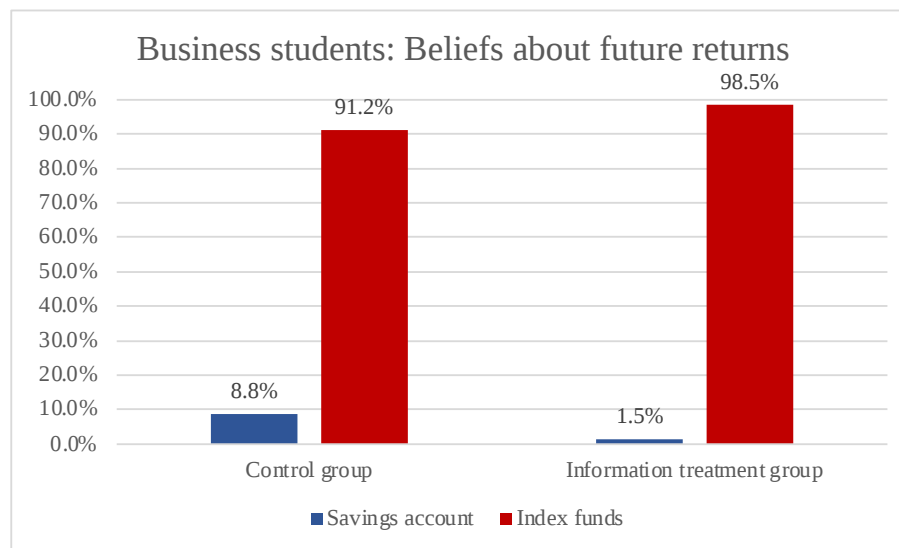
For the non-business students, a significantly larger share of participants in the information treatment condition (93.5%) believed that index funds have provided superior historical returns than participants in the control condition (84.1%). A chi-squared test showed that this difference of 9 percentage points was statistically significant,  $X^2(1, N = 310) = 6.82, p = .009$ .



*Figure 8: Non-business students: Knowledge about past returns*

### 4.3.2 Beliefs about Future Returns

Starting with business students, a significantly larger share of participants in the information treatment condition (98.5%) believed that index funds will provide superior future returns compared to participants in the control condition (91.2%). A chi-squared test showed that this difference of 7 percentage points was statistically significant,  $X^2(1, N = 273) = 7.45, p = .006$ .



*Figure 9: Business students: Beliefs about future returns*

Further, for the non-business students, a significantly larger share of participants in the information treatment condition (93.5%) believed that index funds will provide superior future returns compared to participants in the control condition (85.4%). A chi-squared test showed that this difference of 8 percentage points was statistically significant,  $X^2(1, N = 310) = 5.36, p = .021$ .

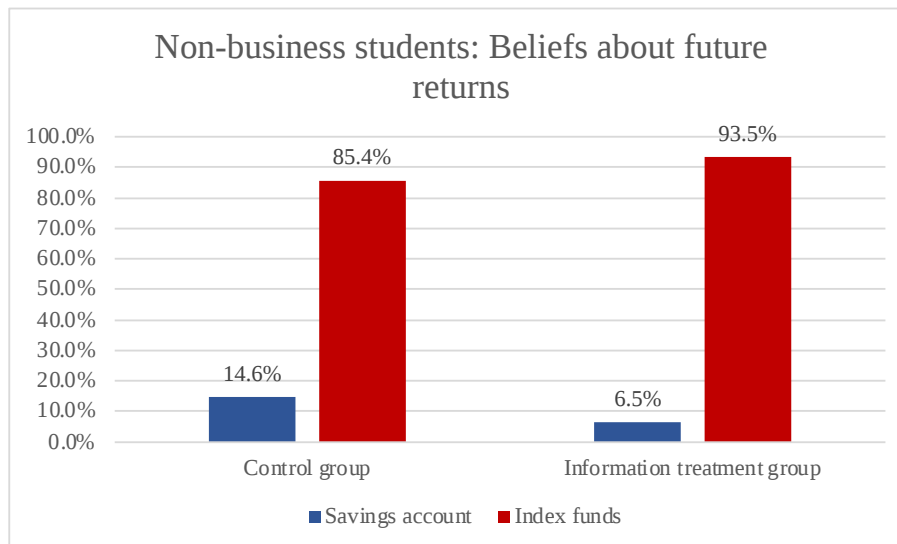


Figure 10: Non-business students: Beliefs about future returns

### 4.3.3 Effect on Own Choices

Starting with the business students, a significantly larger share of participants in the information treatment condition (94.9%) would choose index funds for their own long-term personal savings compared to participants in the control condition (87.6%). A chi-squared test showed that this difference of 7 percentage points was statistically significant,  $\chi^2(1, N= 273) = 4.49, p = .034$ .

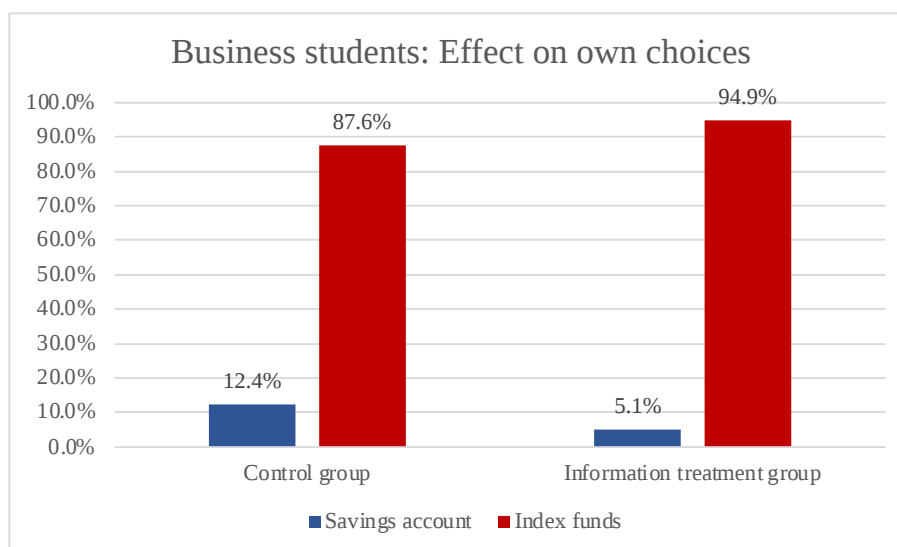
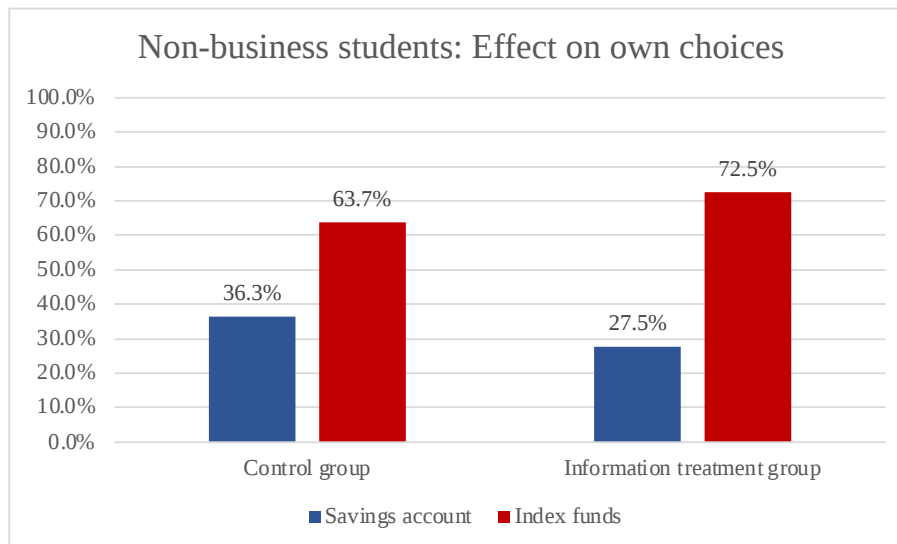


Figure 11: Business students: Effect on own choices

Further, for the non-business students, there are few differences between the two groups. The information treatment condition (72.5%) would choose index funds more often for their own

long-term personal savings compared to the control condition (63.7%). A chi-squared test showed that this difference of 9 percentage points was not statistically significant,  $X^2(1, N = 310) = 2.80, p = .095$



*Figure 12: Non-business students: Effect on own choices*

#### **4.3.4 Effect on Recommendations to Others**

Starting with the business students, a significantly larger share of participants in the information treatment condition (97.8%) would be more likely to advise others to choose index funds for their personal savings compared to the control condition (88.3%). A chi-squared test showed that this difference of 10 percentage points was statistically significant,  $X^2(1, N = 273) = 9.46, p = .002$ .

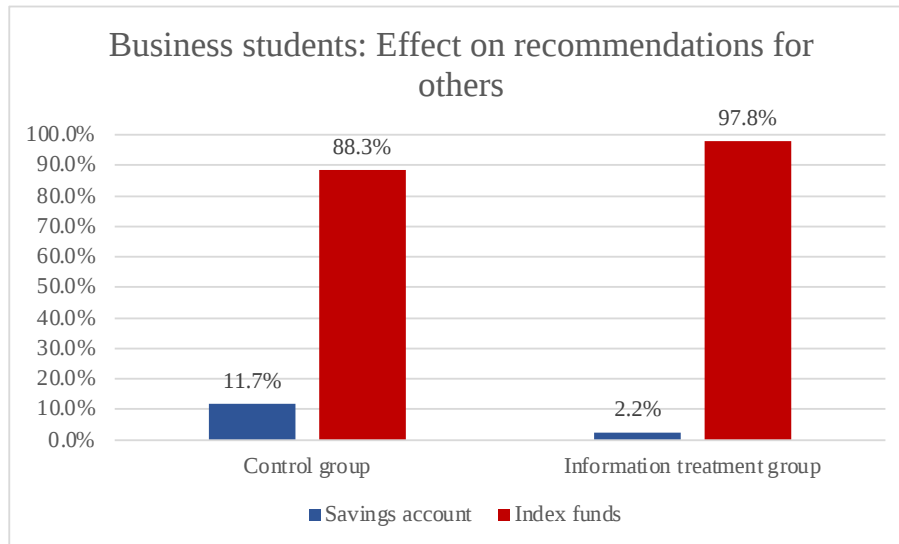


Figure 13: Business students: Effect on recommendations to others

Further, for the non-business students, there are few differences between the two groups. The information treatment condition (81.0%) would be more likely to advise others to choose index funds for their personal savings compared to the control condition (73.9%). A chi-squared test shows that this difference of 7 percentage points was not statistically significant,  $X^2(1, N = 310) = 2.27, p = .132$ .

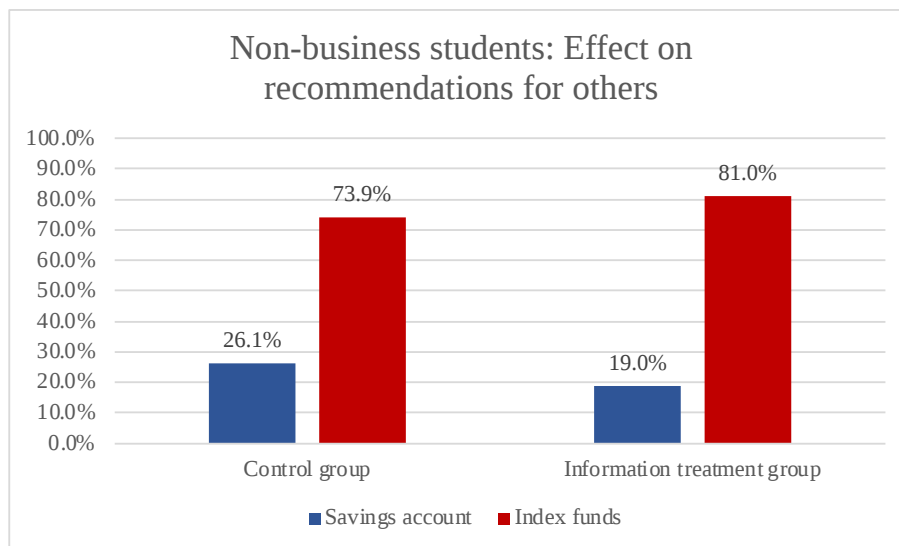


Figure 14: Non-business students: Effect on recommendations to others

## 5. Discussion

### 5.1 Short Summary of Main Findings

For the study, six hypotheses were presented to answer the research question, “*Does a lack of knowledge prevent people from investing in index funds as their personal savings strategy?*” Based on the results of this thesis, a lack of knowledge seems to be a limiting factor for people to choose to invest in index funds as a savings strategy. Our findings will be discussed in relation to our research question and linked to the presented literature.

In the first part of the study, we found that the vast majority of respondents had heard about Index funds before. However, we do not know how much knowledge they have about the concept, if they are very familiar with it, or if they have only heard the term “index fund” before. We also found that a slight majority of our sample reported to already save in index funds, which is a much higher proportion than in the general public.

For the next part, we found evidence supporting hypotheses 1, 2, 3, 5, and 6, but did not find evidence supporting hypothesis 4. This indicates that, overall, providing information does influence people’s knowledge, perception of riskiness, and choice intentions toward index funds in a positive direction. However, it does not necessarily influence the trust perceptions of the financial institutions. We will now discuss the implications of each hypothesis.

#### 5.1.1 H1 & H2: Knowledge

Our findings from hypotheses H1 and H2 shed light on the role of knowledge in determining perceptions of financial goods. Both hypotheses focused on how the different groups (treatment vs. control) assessed index funds’ past and future performance in comparison to traditional savings accounts in a bank.

#### *Perception and the Influence of Information*

In hypothesis 1 we observed that after receiving specific information on index funds, the treatment group perceived these funds to have higher past returns than savings accounts, compared to the control group. In our study, we found a statistically significant effect of the information treatment on the knowledge of past returns. Similarly, hypothesis 2 stated that the treatment group expected index funds to outperform savings accounts in terms of future returns

compared to the control group. These results were also statistically significant. These findings are consistent with the existing narrative about knowledge gaps in investment decisions.

In our study, when the treatment group was given additional information about index funds, they were far more likely to regard index funds for greater returns in the past and in the future. This phenomenon stands in contrast to the control group, which, due to a possible knowledge gap, leaned to a greater extent toward savings accounts as a returns option.

Naturally, because the treatment group has recently been exposed to the benefits of index funds, the information about savings accounts may be seen as more negative. Based on the negativity bias, this may have improved index funds' relative favorable assessment. Furthermore, because individuals were just exposed to the treatment, positive information may be more available in their minds. Additionally, because our sample consists primarily of young students, they are unlikely to have felt the effects of substantial stock market downturns, decreasing the influence of the availability bias.

### **5.1.2 H3 & H4: Attitude regarding Risk and Trust**

#### *Attitude regarding Risk*

In hypothesis 3, the treatment group was hypothesized to report a higher level of risk associated with index funds, compared to the control group. In our study, we found a statistically significant effect of the information treatment on how risky index funds were perceived. Savings accounts, which are seen as low-risk vehicles, may appeal to people with weak risk comprehension. The results imply that an explanation of how risk is reduced in index funds by diversification, saving long-term, and how substantial the return differences are, reduces the perceived riskiness. Furthermore, humans' tendency of risk aversion may be reduced if provided with an explanation of how the risk works and how it may be mitigated.

However, as previously mentioned, the majority of the subjects in the study were women, who score lower in financial literacy and especially regarding risk. Furthermore, women are in general more risk averse than men. The significance of our results may be impacted by this. Women may have a greater advantage of exposure to information regarding risk management and mitigation as they already have a greater need for it, thus increasing the significance of the results.



---

### *Attitude regarding Trust in Financial Institutions*

In hypothesis 4, the treatment group was hypothesized to report a higher level of trust in the financial institutions' management of index funds, compared to the control group. However, the null hypothesis could not be rejected. Based on this, it seems like the Norwegian model, with its "Nordic Gold", of high levels of trust in institutions may impact the financial institutions as well. The control group had a mean of 3.74 and the treatment group had a mean of 3.71, both with a median of 4, indicating that the majority of respondents have trust in the institutions. Thus, the lack of and falling trust in financial institutions seen in other nations does not seem to apply to Norway.

This may be explained by Cruijssen et al. (2021) and the determinants presented in the study. The trust in financial institutions is impacted by the greater economic situation, and despite the recent interest rate hikes and rise in prices, the economic situation in Norway may be perceived as better compared to other countries. Furthermore, Norwegian financial institutions may be perceived as more responsible and transparent. There is not the same level of large bank failures or crises, as has recently been seen in the United States with the Collapse of Silicon Valley Bank and Signature Bank, and in Switzerland with the liquidity crisis of Credit Suisse (Carstens, 2023). As a result, regardless of how much information they receive about how the banks operate, the Norwegian population may maintain a high degree of trust in financial institutions. However, this is unknown, because the information treatment provides limited amounts of information about how financial institutions operate in general as the treatment is about index funds specifically.

#### **5.1.3 H5 & H6: Effect on their Choice Intentions - Primary Hypotheses**

In hypothesis 5, the treatment group was hypothesized to report that they would choose index funds as their future savings method compared to the control group. The experimental results confirmed this with a statistically significant outcome. Likewise, hypothesis 6 suggested that the treatment group would be more likely to recommend index funds as a savings method for the future, compared to the control group. A statistically significant result was found for this hypothesis as well.

As the results indicate, providing information on how index funds work does increase their attractiveness, both for the subject themselves and for recommendation to others. This is in line with the recommendations of organizations and published research (Allianz, 2017; Mishra,

2018; OECD, n.d.; Skårdal & Driveklepp, 2023), who suggest increased focus on financial education. Educating the population, increasing their knowledge, and improving financial literacy will likely increase the attractiveness of index funds and improve their long-term savings, in addition to other aspects of their personal finances.

### *Limitations for Actual Behavioral Change*

As the results indicate, individuals do change their reported choice intentions if presented with further information regarding index funds. However, this may not *necessarily* result in actual behavioral change. Based on the theory of the attitude-behavior gap, just because the respondents have changed their attitude and choice intentions regarding index funds, they may evade making the actual behavioral changes necessary. As the population has access to substantially more information than what we provided in the experiment, they are either not acting on said information or are not seeking it out in general. Furthermore, if they have the necessary knowledge, they may still be limited by several other factors and biases. We will elaborate on the limitations for actual behavioral change in chapter 5.3.

## 5.2 Explorative analysis: Discussion

### **5.2.1 Knowledge: Business Students vs. Non-Business Students**

As seen in the results, we observed that after receiving specific information on index funds, the treatment group perceived these funds to have higher past returns than savings accounts, compared to the control group, which was statistically significant for the non-business students. However, we do not see a statistically significant effect on business students. Despite this, when examining the responses of the business students, we see the lack of significance is mainly due to close to everyone knowing that index funds have provided a higher return regardless and therefore the treatment has no significant effect on them. This is presumably due to their base level of financial education. In contrast, the results from non-business students suggest that information interventions can effectively reduce knowledge gaps among the group.

The results underscore the importance of financial literacy in understanding investment performance. The business students' base level of financial education may have equipped them with a correct understanding of index funds' performance, thus the treatment had little additional effect. Conversely, non-business students benefitted from the treatment, which could

have addressed their initial knowledge gap, resulting in a change in their beliefs consistent with historical data—that index funds typically outperform savings accounts over the long term.

Furthermore, when we look at the future returns, we see a minor change in the outcomes. The study still had a statistically significant effect on non-business students, but in this case, we observe that it is also statistically significant for business students. Because of the unpredictability of markets, business students may be more wary about attributing historical returns to future expectations, and hence may be persuaded by the treatment that presents compelling arguments for solid future prospects. Thus, there is a larger disparity between the groups.

### **5.2.2 Choice Intentions: Business Students vs. Non-Business Students**

As mentioned in our results, we see a statistically significant effect on business students when it comes to choosing index funds as a long-term savings method. However, we do not see a statistically significant effect on non-business students. Similarly, we see a statistically significant effect on business students when it comes to recommending index funds as a long-term savings method, but we do not see a statistically significant effect on non-business students. This is interesting as the non-business students, after being exposed to the treatment, had a positive significant change in their knowledge regarding past returns and a positive significant change in their assumptions regarding the future. However, there was no significant change in their choice intentions about their own savings or recommendations. This may seem counterintuitive, as one might expect it would have a larger effect on the non-business students due to their lack of prior knowledge.

Subjects may feel they still do not have sufficient knowledge regarding index funds, and therefore stay with the safe choice of using a savings account. This expands on the boundary condition, which in this case assumes that the student has some knowledge regarding personal finance. A brief introduction and exposure regarding index funds might not suffice if the student has little or no prior knowledge. Another possible reason is that these students may disproportionately value the immediacy and security of a savings account despite knowing the long-term benefits of index funds. This is consistent with present bias, where immediate certainty is often preferred over future potential. These people might not necessarily care about maximizing their returns, which stands in contrast to the standard economic theory about the rational and maximizing human.

Another possible reason is that business students may have developed a greater interest in maximizing returns due to their education as they are taught to evaluate decisions based on financial metrics. They may also take an active interest in personal savings as a way to apply what they learn in class, leading them to become more focused on maximizing returns from their investments.

However, another possible reason is that the causation goes the other way. That is, instead of business students becoming more focused on returns due to their education, they may choose to study business because of their personal interest in maximizing returns, which aligns with the goals of business itself. Therefore, when presenting the features of index funds to business students, they are more likely to absorb and act on the information.

It is important to highlight that, while the choice intentions of non-business students were not statistically significant, the results show a trend that approaches significance, but not reaching the 5% level. The direction of this trend follows the same pattern as observed with business students and indicates that our information treatment may have an effect. The results may have been statistically significant with a larger sample size. However, this is uncertain. Future research with a larger sample size would be necessary to correctly assess the existence of such an effect in this population, which will improve the statistical power.

### 5.3 Further general reflections on findings

Our research indicates that increased information and educating the population regarding savings and investments have a significant positive impact on the choice intentions of the subjects. However, we also find that the vast majority of people, regardless of being in the treatment group or control group, believe that index funds have had the best returns, will have the best returns, would choose index funds themselves, and would recommend others to do so. So, why do we not see the same pattern in actual saving behavior in the general public? If the population already believes that index funds outperform savings accounts, we should see higher levels of it in the population. There may be several factors impacting this lack of action.

Based on the theory of the attitude-behavior gap, just because the respondents have changed their attitude and choice intentions regarding index funds, they may evade making the actual changes necessary. The attitude of most of our sample is positive, as they believe index funds have higher returns and would choose it as their savings method. However, this is not reflected

in actual behavior seen in the population. If the aim is to reduce this gap to improve the personal finance choices of the population, further focus should be on how to close this gap and identify factors impacting it. The results from the experiment in this thesis provide evidence for *one* factor that can help, that further informing and educating the population may contribute to reducing this gap. However, there are other factors impacting it as well.

There is substantially more information regarding index funds, and the stock market in general, accessible to the population. They may find it online, via their bank, through books, or other sources, but the majority have not made the effort to find said information. Based on cognitive dissonance theory, the population may act in a way to not be confronted with their own cognitive dissonance. If increased information becomes a reminder of their less-than-ideal decision-making, consequently causing cognitive dissonance, an easier solution may be to avoid the information in general.

Throughout this thesis, we have examined several cognitive biases that could be responsible for maintaining the observed gap. The limitations in choosing index funds, as seen in the sample despite the assumption of higher returns in the future, may be the enduring fear of potential losses, which is based on loss aversion. The endowment effect, which causes people to overvalue their money and keep clear of what may be a reasonable acceptance of short-term losses, may amplify this effect. No matter the expected future returns, some people might not want to choose index funds as long as the possibility of losses is present.

Furthermore, people tend to delay important tasks or spend available assets immediately, which is a clear indication of present bias. In our experiment, we attempted to mitigate the potential impact of present bias by clearly stating what they would do *if* they were to start a savings plan. However, they may be impacted when they actually have to make the necessary changes in real life. This may be exacerbated by the paradox of choice. Merely choosing index funds over savings accounts in a survey is far easier than choosing among the plethora of different alternatives presented by financial institutions. Furthermore, when people feel secure in their current financial situation, they may be more likely to resist changes that could improve their long-term prospects due to status quo bias.

Another aspect that should be included is that some people may not have, or may feel they do not have, the necessary funds to start saving long-term through for example index funds. This is a natural concern, especially now with rising interest rates and prices, and everyone does not necessarily have available capital. However, identifying the limiting factors and mitigating

them will make it easier when they first have the opportunity to start saving and improve their long-term personal finances.

The results of our primary hypotheses indicate a positive effect of the information treatment, but the ambiguity of the results of our follow-up exploratory analysis exemplifies how multiple factors affect the personal finance choices made. In this thesis, we have presented several psychological factors that may impact the observations made in our study, as well as real-life choices. As the information treatment did not have a significant effect on non-business students' choice intentions, it exemplifies how different factors impact the choices. Therefore, future research should examine whether other types of interventions might be necessary to make the rest of the student population consider index funds as an alternative for their long-term personal savings. However, despite not finding a statistically significant impact on choice intentions of the non-business students, the trend seems to indicate a potential effect. Future research with a larger sample size would be necessary to correctly assess the existence of such an effect in this population, which will improve the statistical power.

## 5.4 Practical Application of Findings

Based on the thesis findings, educational institutions should use more information to influence the population's knowledge, attitude, and choices. By integrating aspects of personal finance and savings habits into the school curricula, the institutions can help in reducing knowledge gaps and increase financial literacy. The curricula do not have to be about index funds specifically, but rather general aspects which would make it easier to understand how they function. Having a foundational understanding of how the stock market operates, the importance of saving regularly, the effects of compounding, and how to mitigate risk would likely go a long way.

Furthermore, learning about how we are impacted by psychological heuristics and cognitive biases may not only impact our personal finances but also other aspects of our lives. Thus, learning about this through the educational system may have several benefits. Cognitive bias mitigation training could easily be implemented, through both in-text non-dynamic methods and more playful interactive ways.

Financial institutions have a responsibility to ensure that the customer receives correct and helpful information regarding personal finances, and many take this responsibility seriously.

---

An example of this is the #Huninvesterer (Norwegian for she invests) campaign by DNB. The campaign incentivizes women to learn more about investments and entrepreneurship, and they have courses and events to provide information. Events like this can have a significant positive effect on the knowledge and financial literacy of its participants and help reduce the gap between men and women. Another company contributing to improving financial literacy among citizens is Sparebank 1 Nord-Norge. Around 3000 Northern Norwegian pupils received training in everything from savings, budgets, and interest over a few weeks. Their goal is for young people to avoid ending up financially disadvantaged from an early age, as this can spread well into adulthood (Hansen, 2022). Financial institutions can create a significant difference by providing more campaigns like this. Additionally, they should ensure they have easily accessible information regarding savings that mitigate the impact of biases. For example, not promoting an excessive number of different alternatives, illustrating potential long-term return differences, and making it easy to make the right choices.

The media, and financial news outlets in particular, have a responsibility to provide objective and factual news. However, it might be hard to counteract the asymmetric effect of media coverage. Despite the difficulties of counteracting the effect, sensationalistic coverage of minor events is likely to exacerbate the damaging effects. As the financial media is disproportionately negative (Binsbergen et al., 2022), there might be potential for improving the effects the media has on individuals' negativity and availability bias by providing more moderate and objective coverage. Furthermore, by highlighting the likely higher future returns during a market downturn (Cochrane, 2011; Goetzmann & Kim, 2017), the media may reduce the likelihood of people making poor decisions for their long-term returns. In our information treatment, the respondents were informed of the possibility of large short-term fluctuations. However, they were also informed of the long-term returns. Despite the possibility of short-term losses, the positive aspects in the information treatment still yielded a significantly positive response. Our results indicate that the media may have a positive influence on the population's perceptions of their personal finances.

## 5.5 Limitations

This subchapter discusses the study's potential weaknesses. To begin with, we have many respondents who are studying business administration, which may have an impact on our standard hypotheses. This is why we chose to do an exploratory analysis to see if there were

any differences between business and non-business students. However, when we divided the groups, only 310 non-business students, and 273 business students were further divided into control and treatment groups. Since we have smaller groups for the treatment- and control group, the results for the explorative analyses might be less accurate.

Furthermore, as the majority of our sample was female, it is possible that this influenced the results of the study. The reason for this is that research indicates that men are more financially literate than women and are more likely to invest in the stock market. The results might have been different if the sample had been more representative of the general population.

We also acknowledge the possibility that our sample does not fully reflect the larger population. While 48% of Norwegians invest in the stock market, and even higher percentages for young people, the amount of money invested in index funds is quite small. Therefore, we assume that the percentage of people saving in an index fund is a minority. This conflicts with our findings, which show that 56% of respondents already invest in index funds, implying that our sample may not precisely reflect the broader saving habits of the population. Furthermore, as we chose to focus on students in particular, this may also lead to selection bias, limiting the applicability of the results for the greater population.



## 6. Conclusion

In this study, we wanted to see if a lack of knowledge limits people from saving in index funds. Our study sought to investigate the effect of an information treatment on the respondent's knowledge. First, research literature from several scientific fields was presented. Second, a quantitative survey was used to gather and descriptively analyze data on savings preferences, while a survey experiment with two groups was used to explore the effect of information. Six hypotheses were tested in the study, each of which provided useful insights into the complex dynamics impacting personal saving decisions.

Our findings reveal that, overall, information significantly influences people's knowledge, perceptions of risk, and choice intentions toward index funds. Hypotheses 1, 2, 3, 5, and 6 received support, indicating that knowledge gaps play a crucial role in shaping individuals' attitudes and choice intentions regarding index funds. The results align with existing literature on financial literacy, emphasizing the impact of knowledge gaps on decision-making. The implications of these knowledge gaps extend beyond individual financial decisions, potentially contributing to increased economic inequality and vulnerability to financial scams.

The study did not find any statistically significant effect of the treatment on trust in financial institutions. The lack of effect may be due to several reasons. One potential reason is the high level of trust Norwegians have in general, thus limiting the effect of further information. Another potential reason might be the limited information in the treatment regarding how the bank operates or other aspects that may have a larger impact on their perceived trustworthiness.

In our exploratory analysis, our goal was to explore if there were any distinct differences between business students and non-business students. The results indicate that it is easier to affect business students' perceptions of index funds in a positive direction with information and nudging them toward index funds as their preferred savings method. For non-business students, the information intervention did not result in a statistically significant impact on their choice intentions, despite a significant impact on their knowledge and assumptions about past and future returns.

Despite the promising results of our study, limited knowledge regarding index funds seems to be only one piece of the puzzle. As mentioned, when exploring only non-business students, we found no significant effect on the respondents' choice intentions, showing there are several factors impacting our savings habits. In our paper, we have discussed potential psychological

factors that may hold people back and limit them from making the necessary changes. Another possible reason that would explain the disparity in effect between the business and non-business groups, is that the information treatment provided is not sufficient to see behavioral change.

## References

- Abbey, J. D., & Meloy, M. G. (2017). Attention by design: Using attention checks to detect inattentive respondents and improve data quality. *Journal of Operations Management*, 53-56, 63–70.
- Allianz. (2017). When will the penny drop? In *Allianz*. Allianz SE. <https://gflec.org/wp-content/uploads/2017/01/Allianz-international-pensions-financial-literacy-2017-report.pdf>
- AP-NORC . (2023, March 22). *Few have confidence in financial institutions - AP-NORC*. AP-NORC . [https://apnorc.org/projects/few-have-confidence-in-financial-institutions/?doing\\_wp\\_cron=1697154364.7351140975952148437500](https://apnorc.org/projects/few-have-confidence-in-financial-institutions/?doing_wp_cron=1697154364.7351140975952148437500)
- Bankenes Sikringsfond. (2023, February 27). *Hvor mye dekker garantien? - Bankenes Sikringsfond nettsted*. [Www.bankenessikringsfond.no](http://www.bankenessikringsfond.no). <https://www.bankenessikringsfond.no/om-garantien/hvor-mye-dekker-garantien/>
- Bessembinder, H. (2018). Do stocks outperform Treasury bills? *Journal of Financial Economics*, 129(3), 440–457. <https://doi.org/10.1016/j.jfineco.2018.06.004>
- Betermier, S., Calvet, L. E., Knüpfer, S., & Kvaerner, J. (2021). What Do the Portfolios of Individual Investors Reveal About the Cross-Section of Equity Returns? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3795690>
- Binsbergen, J. H. van, Bryzgalova, S., Mukhopadhyay, M., & Sharma, V. (2022, October 28). *(Almost) 200 Years of News-Based Economic Sentiment*. Social Science Research Network. <https://doi.org/10.2139/ssrn.4261249>
- Calvet, L. E., Campbell, J. Y., & Sodini, P. (2009). Measuring the Financial Sophistication of Households. *American Economic Review*, 99(2), 393–398. <https://doi.org/10.1257/aer.99.2.393>

- 
- Cappelen, A. w., & Tungodden, B. (2012). Atferdsøkonomi og økonomiske eksperimenter. *Magma -Tidsskrift for Økonomi Og Ledelse*, 12(05), 26–30.
- Carstens, A. (2023). Some lessons for crisis management from recent bank failures. *Www.bis.org*. <https://www.bis.org/speeches/sp231019.htm>
- CHOI, J. J., & ROBERTSON, A. Z. (2020). What Matters to Individual Investors? Evidence from the Horse's Mouth. *The Journal of Finance*, 75(4), 1965–2020. <https://doi.org/10.1111/jofi.12895>
- COCHRANE, J. H. (2011). Presidential Address: Discount Rates. *The Journal of Finance*, 66(4), 1047–1108. <https://doi.org/10.1111/j.1540-6261.2011.01671.x>
- Crujisen, C., Haan, J., & Roerink, R. (2021). Financial knowledge and trust in financial institutions. *Journal of Consumer Affairs*, 55(2). <https://doi.org/10.1111/joca.12363>
- Curvo. (n.d.). *Backtesting for the European index investor*. Curvo.eu. Retrieved October 23, 2023, from <https://curvo.eu/backtest/market-index/msci-world?currency=eur>
- Dahlum, S. (2021, March 9). *validitet*. Store Norske Leksikon. <https://snl.no/validitet>
- Dale, S. (2015). Heuristics and biases: The science of decision-making. *Business Information Review*, 32(2), 93–99. <https://doi.org/10.1177/0266382115592536>
- DFØ. (2023, October 9). *Tillit | DFØ*. Dfo.no. <https://dfo.no/undersokelser/innbyggerundersokelsen-2021/tillit>
- DNB. (2023). *Spare* (Version 4.25.0) [Mobile app]. App store. <https://apps.apple.com/no/app/spare/id1203703116>
- Dunbar, N. E., Miller, C. H., Adame, B. J., Elizondo, J., Wilson, S. N., Lane, B. L., Kauffman, A. A., Bessarabova, E., Jensen, M. L., Straub, S. K., Lee, Y.-H., Burgoon, J. K., Valacich, J. J., Jenkins, J., & Zhang, J. (2014). Implicit and explicit training in the mitigation of cognitive bias through the use of a serious game. *Computers in Human Behavior*, 37, 307–318. <https://doi.org/10.1016/j.chb.2014.04.053>

---

Edelman. (2022). *Global Report Trust in Financial Services Sector*.

[https://www.edelman.com/sites/g/files/aatuss191/files/2022-03/2022%20Edelman%20Trust%20Barometer\\_Trust%20in%20Financial%20Services.pdf](https://www.edelman.com/sites/g/files/aatuss191/files/2022-03/2022%20Edelman%20Trust%20Barometer_Trust%20in%20Financial%20Services.pdf)

Egan, M., MacKay, A., & Yang, H. (2021). Recovering Investor Expectations from Demand for Index Funds. *The Review of Economic Studies*, 89(5), 2559–2599.

<https://doi.org/10.1093/restud/rdab086>

Engels, C., Kumar, K., & Philip, D. (2019). Financial literacy and fraud detection. *The European Journal of Finance*, 26(4-5), 420–442.

<https://doi.org/10.1080/1351847x.2019.1646666>

Fernando, J. (2023, March 30). *Financial Literacy*. Investopedia.

<https://www.investopedia.com/terms/f/financial-literacy.asp>

Fernando, J., Silberstein, S., & Velasquez, V. (2023, March 24). *What Are Index Funds, and How Do They Work?* Investopedia.

<https://www.investopedia.com/terms/i/indexfund.asp>

Finansportalen. (n.d.). *Alle plasseringer – fordeler og ulemper – Finansportalen*.

[Www.finansportalen.no](http://Www.finansportalen.no). Retrieved September 14, 2023, from

<https://www.finansportalen.no/plassere-penger/risiko-og-avkastning/>

Fobrukerrådet. (2020). ER FONDENE SOM BANKENE ANBEFALER TIL KUNDENS BESTE? In *Forbrukerradet*. Forbrukerrådet.

<https://storage02.forbrukerradet.no/media/2020/06/globale-aktive-aksjefond-oppdateret-analyse-2020-forelopig-versjon-lokal-disk.pdf>

Goetzmann, W. N., & Kim, D. (2018). Negative bubbles: What happens after a crash.

*European Financial Management*, 24(2), 171–191.

<https://doi.org/10.1111/eufm.12164>

- 
- Goetzmann, W. N., & Shiller, R. J. (2016). Crash Beliefs from Investor Surveys. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2750638>
- Grønning, T. (2022, June 18). *Sparepenger i aksjefond: Hva bør du gjøre med aksjene nå?* NRK. [https://www.nrk.no/tromsogfinnmark/sparepenger-i-aksjefond\\_-hva-bor-du-gjore-med-aksjene-na\\_-1.16004880](https://www.nrk.no/tromsogfinnmark/sparepenger-i-aksjefond_-hva-bor-du-gjore-med-aksjene-na_-1.16004880)
- Halvorsen, E. (2011). Norske husholdningers sparing Kilde: SSB Nasjonalregnskapet. In SSB. [https://www.ssb.no/a/publikasjoner/pdf/oa\\_201103/halvorsen.pdf](https://www.ssb.no/a/publikasjoner/pdf/oa_201103/halvorsen.pdf)
- Halvorsen, E. (2019, December 9). *Vi bruker boligen som sparegris*. Ssb.no. [https://www.ssb.no/inntekt-og-forbruk/artikler-og-publikasjoner/vi-bruker-boligen-som-sparegris?fbclid=IwAR0Gpt0kso1\\_z-HJr9EG0CVMYmg95Y-hwfgFiU41iu1fOD-rGc6eQ1edjhQ](https://www.ssb.no/inntekt-og-forbruk/artikler-og-publikasjoner/vi-bruker-boligen-som-sparegris?fbclid=IwAR0Gpt0kso1_z-HJr9EG0CVMYmg95Y-hwfgFiU41iu1fOD-rGc6eQ1edjhQ)
- Hansen, S. A. (2022, March 18). *Økonomisk kunnskap ut i skolene!* Wwww.sparebank1.No. <https://www.sparebank1.no/nb/nord-norge/om-oss/nyheter/okonomisk-kunnskap-ut-i-skolene-.html>
- Haraldsen, G. (1999). *Spørreskjemametodikk etter kokebokmetoden*. Ad Notam Gyldendal.
- Heaton, J. B., Polson, N., & Witte, J. H. (2017). Why Indexing Works. *SSRN Electronic Journal*, 33(6), 690–693. <https://doi.org/10.2139/ssrn.2673262>
- Hedin, J. (2023, April 3). *Money Management Pulse*. Klarna Insights. <https://insights.klarna.com/money-management-pulse/>
- Hilmersen, T. (2023, April 12). UiB-professor: Fremdeles mye usikkerhet rundt bank. *Finansavisen*. <https://www.finansavisen.no/finans/2023/04/12/8000160/uib-professor-fremdeles-mye-usikkerhet-rundt-bank>
- Holmberg, S., & Rothstein, B. (2020). *SOCIAL TRUST -THE NORDIC GOLD?* [https://www.gu.se/sites/default/files/2020-05/2020\\_1\\_Holmberg\\_Rothstein.pdf](https://www.gu.se/sites/default/files/2020-05/2020_1_Holmberg_Rothstein.pdf)

- 
- Hveem, D. J., Mjølhus, J., Nordstoga, H., & Plahte, A. (2013). *Personlig økonomi* (1st ed.). Cappelen Damm akademisk.
- Johannessen, A., Christoffersen, L., & Tufte, P. A. (2020). *Forskningsmetode for økonomisk-administrative fag*. Abstrakt Forlag A/S.
- Kahneman, D. (2011). *Thinking, Fast and Slow*. Farrar, Straus and Giroux.  
<http://dspace.vnbrims.org:13000/jspui/bitstream/123456789/2224/1/Daniel-Kahneman-Thinking-Fast-and-Slow-.pdf>
- Kahneman, D., Knetsch, J., & Thaler, R. (1986). American Economic Association Fairness as a Constraint on Profit Seeking: Entitlements in the Market. *Source: The American Economic Review*, 76(4), 728–741.  
[https://web.mit.edu/curhan/www/docs/Articles/15341\\_Readings/Justice/Kahneman.pdf](https://web.mit.edu/curhan/www/docs/Articles/15341_Readings/Justice/Kahneman.pdf)
- Kézdi, G., & Willis, R. J. (2011, November 1). *Household Stock Market Beliefs and Learning*. National Bureau of Economic Research. <https://doi.org/10.3386/w17614>
- Kimball, M. S., & Shumway, T. (2007). Investor Sophistication and the Home Bias, Diversification, and Employer Stock Puzzles. *SSRN Electronic Journal*.  
<https://doi.org/10.2139/ssrn.1572866>
- Korteling, J. E., Gerritsma, J. Y. J., & Toet, A. (2021). Retention and Transfer of Cognitive Bias Mitigation Interventions: A Systematic Literature Study. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.629354>
- Kvadsheim, H. (2023, April 3). *Kvadsheim: Terningkast 6-fondene jeg anbefaler*. [Www.vg.no](https://www.vg.no). <https://www.vg.no/dinepenger/sparing-og-investering/fond/i/RGaV05/kvadsheim-terningkast-6-fondene-jeg-anbefaler>

- 
- Lusardi, A. M., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics and Finance*, 10(4), 497–508.  
<https://doi.org/10.1017/s1474747211000448>
- Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, 52(1), 5–44.  
<https://doi.org/10.1257/jel.52.1.5>
- Melkild, M. (2022, October 31). *Nordmenn på den internasjonale sparetoppen*. Finansavisen.  
<https://www.finansavisen.no/nyheter/personlig-okonomi/2022/10/31/7954097/nordmenn-pa-den-internasjonale-sparetoppen>
- Mishra, R. (2018). Financial Literacy, Risk Tolerance and Stock Market Participation. *Asian Economic and Financial Review*, 8(12), 1457–1471.  
<https://doi.org/10.18488/journal.aefr.2018.812.1457.1471>
- OECD. (n.d.). *International Gateway for Financial Education - Organisation for Economic Co-operation and Development*. [Www.oecd.org](http://www.oecd.org). Retrieved November 21, 2023, from <https://www.oecd.org/financial/education/>
- Økokrim. (2023). *Bedrageri - et samfunnsproblem*.
- Poos, J. M., van den Bosch, K., & Janssen, C. P. (2017). Battling bias: Effects of training and training context. *Computers & Education*, 111, 101–113.  
<https://doi.org/10.1016/j.compedu.2017.04.004>
- Reed, D. D., Niileksela, C. R., & Kaplan, B. A. (2013). Behavioral Economics. *Behavior Analysis in Practice*, 6(1), 34–54. <https://doi.org/10.1007/bf03391790>
- Rooij, M. C. J. V., Lusardi, A., & Alessie, R. J. M. (2012). FINANCIAL LITERACY, RETIREMENT PLANNING AND HOUSEHOLD WEALTH. *The Economic Journal*, 122(560), 449–478. <https://www.jstor.org/stable/41494444>



- 
- Rooij, M. V., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, *101*(2), 449–472.  
<https://doi.org/10.1016/j.jfineco.2011.03.006>
- Sadi, R., Asl, H. G., Rostami, M. R., Gholipour, A., & Gholipour, F. (2011). Behavioral Finance: The Explanation of Investors' Personality and Perceptual Biases Effects on Financial Decisions. *International Journal of Economics and Finance*, *3*(5).  
<https://doi.org/10.5539/ijef.v3n5p234>
- Sættem, J. B. (2022, May 11). *Norske husholdninger sparer i de dyreste fondene: – Jeg blir litt sjokkert*. NRK. [https://www.nrk.no/norge/norske-husholdninger-sparer-i-de-dyreste-fondene\\_-\\_jeg-blir-litt-sjokkert-1.15958198](https://www.nrk.no/norge/norske-husholdninger-sparer-i-de-dyreste-fondene_-_jeg-blir-litt-sjokkert-1.15958198)
- Samuelson, W., & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty*, *1*(1), 7–59. <https://doi.org/10.1007/bf00055564>
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students* (8th ed.). Pearson.
- Schwartz, B. (2004). *The paradox of choice : why more is less*. Ecco, An Imprint Of Harpercollins Publishers.
- Segaard, S. B., & Saglie, J. (2023). *INSTITUTT FOR SAMFUNNS- FORSKNING*  
*Institusjonell tillit i ulike befolkningsgrupper i Norge Kunnskapsoversikt og deskriptiv analyse*. [https://samfunnsforskning.brage.unit.no/samfunnsforskning-xmlui/bitstream/handle/11250/3059671/ISF\\_Rapport\\_2023-5\\_Segaard\\_og\\_Saglie\\_UUweb.pdf?sequence=1&isAllowed=y](https://samfunnsforskning.brage.unit.no/samfunnsforskning-xmlui/bitstream/handle/11250/3059671/ISF_Rapport_2023-5_Segaard_og_Saglie_UUweb.pdf?sequence=1&isAllowed=y)
- Sellier, A.-L., Scopelliti, I., & Morewedge, C. k. (2019). Debiasing Training Improves Decision Making in the Field. *Psychological Science*, *30*(9), 1371–1379.
- Simon, H. A. (1955). A Behavioral Model of Rational Choice. *The Quarterly Journal of Economics*, *69*(1), 99. <https://doi.org/10.2307/1884852>

- 
- Skårdal, H. V., & Driveklepp, V. (2023). *Evaluating a potential gender gap, disparities in residency, and factors affecting financial literacy in Norway*. Uia.brage.unit.no. <https://uia.brage.unit.no/uia-xmlui/handle/11250/3078660>
- Skatteetaten. (n.d.). *BSU - Boligsparing for ungdom*. Skatteetaten. Retrieved November 17, 2023, from <https://www.skatteetaten.no/person/skatt/hjelp-til-riktig-skatt/bank-og-lan/bsu/>
- Slåen, A. C., & Skibenes, Z. K. (2022). *Spareatferd i Norge og Sverige: En studie av norske og svenske sparevaner, tidspreferanser og risikopreferanser* [Master thesis]. <https://openaccess.nhh.no/nhh-xmlui/bitstream/handle/11250/3017396/masterthesis.pdf?sequence=2&isAllowed=y>
- SSB. (n.d.). *08175: Bankenes utlåns- og innskuddsrenter. Totaltelling (prosent) 1980 - 2022*. Statistikkbanken. SSB. Retrieved October 23, 2023, from <https://www.ssb.no/statbank/table/08175/tableViewLayout1>
- SSB. (2023a, January 25). *Boforhold, registerbasert*. SSB. <https://www.ssb.no/bygg-bolig-og-eiendom/bolig-og-boforhold/statistikk/boforhold-registerbasert>
- SSB. (2023b, October 10). *Konsumprisindeksen*. SSB. <https://www.ssb.no/priser-og-prisindekser/konsumpriser/statistikk/konsumprisindeksen>
- Switzer, J. (2020, May 20). *What Are Index Funds? A Beginner's Guide To Index Investing*. Investing Basics. <https://investingbasics.ca/guides/index-funds/>
- Tarfaoui, D., & Zkim, S. (2017). Ecological Attitude-Behavior Gap: A Theoretical Analysis. *International Journal of Economics & Strategic Management of Business Process (ESMB)*, 8(1), 33–38.
- Tetlock, P. (2007). Giving Content to Investor Sentiment: The Role of Media in the Stock Market. *The Journal of Finance*, 62(3), 1139–1168. <https://doi.org/10.1111/j.1540-6261.2007.01232.x>

- 
- Thaler, R. (1979). Toward a positive theory of consumer choice. *Journal of Economic Behavior & Organization*, 1(1), 30–60.
- Thaler, R. H., & Sunstein, C. R. (2021). *Nudge. The final edition*. Yale University Press.
- Tourangeau, R., Rips, L. J., & Rasinski, K. A. (2000). *The psychology of survey response*. Cambridge University Press.
- Vaish, A., Grossmann, T., & Woodward, A. (2008). Not all emotions are created equal: The negativity bias in social-emotional development. *Psychological Bulletin*, 134(3), 383–403. <https://doi.org/10.1037/0033-2909.134.3.383>
- VFF. (n.d.). *Aksjefond*. Verdipapirfondenes Forening. Retrieved October 23, 2023, from <https://vff.no/fondshandboken/artikler/aksjefond>
- VFF. (2022, June 29). *Ny undersøkelse: Rekordhøy andel nordmenn som har penger plassert i....* Verdipapirfondenes Forening. <https://vff.no/news/2022/ny-undersokelse-rekordhoy-andel-nordmenn-som-har-penger-plassert-i-aksjefond>
- VFF. (2023a, June 26). *Ny undersøkelse: Rekordhøy andel nordmenn mellom 18-30 år har....* Verdipapirfondenes Forening. <https://vff.no/news/2023/ny-undersokelse-rekordhoy-andel-nordmenn-mellom-18-30-ar-har-plassert-penger-i-aksjefond>
- VFF. (2023b, August). *Markedsstatistikk siste måned: Norske personkunder per fondstype august 2023*. Verdipapirfondenes Forening. <https://vff.no/siste-m%C3%A5ned>
- Villines, Z. (2023, May 23). *Cognitive dissonance: Definition, effects, and Examples*. [Www.medicalnewstoday.com. https://www.medicalnewstoday.com/articles/326738](https://www.medicalnewstoday.com/articles/326738)
- Xiao, J. J., & Porto, N. (2019). Present bias and financial behavior. *FINANCIAL PLANNING REVIEW*, 2(2). <https://doi.org/10.1002/cfp2.1048>

# Appendix

## Part 1 of the study

NHH



### Takk for at du ønsker å delta i denne spørreundersøkelsen!

Temaet for denne undersøkelsen er personlig sparing, og det tar ca. 5 minutter å gjennomføre. Du trenger ingen forkunnskaper for å delta: Vi ønsker bare å lære så mye som mulig om hvilke holdninger og oppfatninger folk flest har til dette temaet.

Svar så ærlig og oppriktig som du kan, og husk å lese teksten på hvert spørsmål før du svarer. Din identitet vil bli holdt anonym, som betyr at vi ikke kan knytte svarene du oppgir til hvem du er.

Denne spørreundersøkelsen er del av en masteroppgave og et relatert forskningsprosjekt ved NHH, ledet av masterstudentene Lene Andersen og Birk Sæther. Ansvarlig for denne studien er Hallgeir Sjøstad, professor i psykologi og ledelse ved NHH.

### Dersom du samtykker til å delta i denne spørreundersøkelsen:

Gå videre til neste side for å begynne.

NHH



Hvor gammel er du?

Under 18 år

18-24

25-31

32-38

Over 38 år

Kjønn:

Mann

Kvinne

Annet/ønsker ikke å oppgi

Hva er ditt studiested? (Du kan velge flere)

NHH

HVL

UIB

Høyskolen Kristiania

BI

NTNU

UIO

Er ikke student nå

Annet: Vennligst spesifiser

---

Hva er ditt studiefelt? (Du kan velge flere)

Økonomi og administrasjon

Realfag / Ingeniørstudier

Juridiske fag

Samfunnsvitenskapelige fag

Humanistiske fag

Medisinske fag (lege, sykepleie, tannpleie etc.)

Psykologiske fag

Pedagogiske fag / Lærerstudier

Er ikke student nå

Annet: Vennligst spesifiser

---

Hvilken grad studerer du for øyeblikket mot?

Årsstudium

Bachelorgrad

Mastergrad

Doktorgrad

Er ikke student nå

Annet: vennligst spesifiser

Hvis noen, hvilke av de følgende investerings- og sparemetoder har du hørt om før? (Du kan velge flere)

Sparekonto i bank

BSU

Indeksfond

Enkeltaksjer

Ingen av alternativene over

Dersom du sparer, hvilke av de følgende investerings- og sparemetoder benytter du deg av per i dag? (Du kan velge flere)

Sparekonto i bank

BSU

Indeksfond

Enkeltaksjer

Ingen av alternativene over

## What the control group received of information

### Les denne teksten før du går videre:

Vi skal nå gi deg en kort forklaring på to av de vanligste spareformene i Norge.

#### Sparekonto i bank

En ordinær sparekonto er en type konto du kan ha i en bank, som gir litt høyere rente enn man vil få på en vanlig brukskonto. Man kan spare på denne måten ved å overføre et større enkeltbeløp, eller ved å starte et fast månedlig trekk som går av seg selv.

#### Indeksfond: Sparing i aksjer

Et indeksfond er en type aksjefond som forsøker å følge markedsindeksen enten i Norge eller globalt, og inneholder små eierandeler i mange forskjellige aksjer fra ulike selskaper. Man kan spare på denne måten ved å overføre et større enkeltbeløp, eller ved å starte et fast månedlig trekk som går av seg selv.

#### Viktig:

Har du lest gjennom teksten over her?

Hvis ikke: Les teksten nå, før du går videre.

Ja: Jeg har lest teksten og er klar til å gå videre

Nei: Jeg har ikke lest teksten over



## What the treatment group received of information

### Les denne teksten før du går videre:

Vi skal nå gi deg en kort forklaring på to av de vanligste spareformene i Norge.

#### Sparekonto i bank

En ordinær sparekonto er en type konto du kan ha i en bank, som gir litt høyere rente enn man vil få på en vanlig brukskonto. Man kan spare på denne måten ved å overføre et større enkeltbeløp, eller ved å starte et fast månedlig trekk som går av seg selv.

#### Indeksfond: Sparing i aksjer

Et indeksfond er en type aksjefond som forsøker å følge markedsindeksen enten i Norge eller globalt, og inneholder små eierandeler i mange forskjellige aksjer fra ulike selskaper. Man kan spare på denne måten ved å overføre et større enkeltbeløp, eller ved å starte et fast månedlig trekk som går av seg selv.

Indeksfond er passende for de som ønsker en høyere langsiktig avkastning enn det man vanligvis får på en ordinær sparekonto i banken, og som ønsker å investere i aksjemarkedet uten store forkunnskaper om enkeltaksjer. Indeksfond gir også lavere risiko enn dersom man plasserte alle sparepengene sine i én enkelt aksje, fordi pengene fordeles på et stort antall ulike aksjer. Tenk på det som et sikkerhetsnett: Hvis ett selskap går gjennom en tøff periode eller går konkurs, så kan de andre selskapene som gjør det bra i fondet bidra til å utligne tapet og sørge for at man likevel går i pluss på lang sikt. Derfor vil risikoen være betraktelig lavere enn dersom man selv skulle forsøke å velge én enkelt aksje som man vil investere i.

Et indeksfond følger en referanseindeks, som for eksempel hovedindeksen på Oslo Børs eller verdensindeksen, der målet er å gjenskape avkastningen i den delen av aksjemarkedet som fondet følger. Fordi de følger denne indeksen er kostnaden ved å spare i indeksfond ofte svært lave for kunden (dvs. man betaler ingen høye forvaltningsgebyrer til en dyr aksjemegler som skal plukke enkeltaksjer).

Indeksfond egner seg best for de som ønsker å starte en langsiktig sparing, med et tidsperspektiv på minimum 10 år eller lenger. På kort sikt kan aksjemarkedene svinge mye, men på lang sikt tyder all erfaring på at sparing i indeksfond gir bedre avkastning enn sparing på en ordinær sparekonto i banken. Jo lenger man holder sparepengene i fondet, jo bedre rustet er man til å takle de naturlige svingningene som kan oppstå underveis i markedet.

#### Viktig:

Har du lest gjennom teksten over?

Hvis ikke: Les teksten nå, før du går videre.

Ja: Jeg har lest teksten over og er klar til å gå videre

Nei: Jeg har ikke lest teksten over

**Nøkkeltall:**

Vi skal nå gi deg et enkelt eksempel som sammenligner den historiske avkastningen på sparekonto i bank i sammenligning med aksjesparing i indeksfond.

Dersom du for 20 år siden hadde plassert 100 000 kroner på en **sparekonto** med 2 % rente, så ville du i dag hatt **148 594 kroner**.

MSCI World Index, som har som formål å være et mål på en global markedsindeks, har de 20 siste årene hatt en årlig avkastning på ca. 9 %. Dette betyr at dersom du hadde plassert 100 000 kroner for 20 år siden i et vanlig **indeksfond** som fulgte denne indeksen, så ville du i dag hatt **560 441 kroner**.

**Viktig:**

Har du lest gjennom teksten over her?

Hvis ikke: Les teksten nå, før du går videre.

Ja: Jeg har lest teksten og er klar til å gå videre

Nei: Jeg har ikke lest teksten over

**Part 2 of the study:**

NHH



Siste del:

Vi skal nå stille deg noen få spørsmål knyttet til dine holdninger og oppfatninger om sparing.

Gå videre til neste side for å starte.



NHH



Hva tror du har gitt høyest avkastning i løpet av de siste 20 år:  
Sparekonto i bank eller aksjesparing i indeksfond?

Sparekonto i bank har gitt høyere avkastning enn indeksfond siste 20 år

Sparekonto i bank og indeksfond har gitt omtrent samme avkastning siste 20 år

Indeksfond har gitt høyere avkastning enn sparekonto i bank siste 20 år

NHH



Hva tror du vil gi høyest avkastning i fremtiden, i løpet av de  neste 20 år :  
Sparekonto i bank eller aksjesparing i indeksfond?

Sparekonto i bank vil gi høyere avkastning enn indeksfond i neste 20 år

Sparekonto i bank og indeksfond vil gi omtrent samme avkastning i neste 20 år

Indeksfond vil gi høyere avkastning enn sparekonto i bank i neste 20 år

Generelt sett:

Hvor risikabelt anser du det å spare på en ordinær sparekonto i en norsk bank eller finansinstitusjon?

Svært lite risikabelt

Lite risikabelt

Nøytralt

Litt risikabelt

Svært risikabelt

Generelt sett:

Hvor risikabelt anser du det å spare i et indeksfond gjennom en norsk bank eller finansinstitusjon?

Svært lite risikabelt

Lite risikabelt

Nøytralt

Litt risikabelt

Svært risikabelt

NHH



Generelt sett:

Hvor mye tillit har du til at norske finansinstitusjoner forvalter verdiene i ordinære sparekontoer i bank på en ærlig og ansvarlig måte?

Svært lite tillit

Lite tillit

Nøytralt

Mye tillit

Svært mye tillit

Generelt sett:

Hvor mye tillit har du til at norske finansinstitusjoner forvalter verdiene i indeksfond på en ærlig og ansvarlig måte?

Svært lite tillit

Lite tillit

Nøytralt

Mye tillit

Svært mye tillit



NHH



**Du har nå fullført spørreundersøkelsen. Tusen takk for din deltakelse!**

Ønsker du å delta i loddrekningen om et gavekort på 100 kroner hos Godt Brød?

Ja

Nei

**If the participant answered “Yes” to participate in the lottery**

NHH



Vennligst skriv inn ditt navn og din fulle adresse i tekstboksen nedenfor for å delta i konkurransen



**If the participant answered "No" to participate in the lottery:**

NHH



Takk for at du tok deg tid til å ta denne spørreundersøkelsen.  
Svaret ditt er registrert.