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COMPARING EUROPEAN STUDENTS' INVESTING HABITS

Financial investing survey for European students

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THESIS
Abstract

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Abstract

The subject of this thesis is the comparison of European students and their financial investing habits. This thesis examined how many European students invest, what kind of financial instruments they use and how active they are at investing. The thesis also studies what are the reasons for not investing to those students who do not invest. The theoretical part of this thesis consists of three chapters. The first chapter includes theory about financial investing and some of the most well-known theories around financial investing. The second chapter focuses on different financial instruments, how these work and what are their benefits or problems. The third chapter explains investor psychology and decision-making by using financial behaviour.

The research part of this thesis was executed with quantitative and qualitative methods as well as an internet survey which was used to collect data. The survey received 103 answers of which 98 were accepted to be analysed. The survey was standardized for everyone allowing everyone to answer with the same options, with exception of written answers where the participants had to write down their answer.

From 98 respondents 42 reported that they invest whereas 56 reported that they do not invest. From these 56 non-investors, 37 have considered starting investing, leaving 19 respondents remaining who do not invest or have not considered starting investing. These three categories were then provided their own series of questions. Data from their answers was then compared.

The research showed that less than half of the students invest but the ones who do, show large similarity between each other. Same happened with the people who do not invest but have considered it and with the people who have not considered it. The only differences were shown in the number of investors within a country and how much money was used for investing. The respondents also proved certain financial behaviour elements by explaining about fear of losing and overconfidence. Research show that further study is advised to get more data or explanations to research answers.

Keywords
Financial investing, behavioural finance, international, student, survey, quantitative, qualitative, investment plan

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1 INTRODUCTION TO EUROPEAN STUDENTS INVESTING HABITS

Financial investing is more common than ever before. Finnish students and young people begin investing much earlier nowadays thanks to education, support from government in form of student loans and student financial aid, and even popular culture, which has shaped the perspective of investing. Students are encouraged to start investing as it protects against the inflation and help when it is time to retire. It is also important to start early as time is investors best friend. (Autio 2018; Blomster 2018.)

Financial investing is just as popular in Finland amongst young people as it is with older people. Reasons for investing are different however as younger generation invest to achieve financial independence whereas older generations invest to save for unexpected expenses according to Nordea's survey which was created for the Nordic countries. 53% of the young investors mentioned financial independence as their goal. Young investors also seem to differ from other generations with their investment choices as they seek more responsible financial instruments. (Yle 2018; Nordea 2019.)

This thesis compares European students investing habits. The objective is to find differences and similarities between European students and examine if they have different approaches towards investing. The reason to research this topic was quite practical as financial investing is not a very popular subject for thesis, and it was difficult to find research which would focus on European students and compare their investing habits. Hietanen (2017), has written thesis where he studied Finnish students and the United Kingdom's students' attitudes towards investing but it was in smaller scale compared to this. His work was one motivation to find out more about this subject. Another reason is the continuous evolution of financial investing and the rise of different markets, financial instruments, and investors. This thesis studies how popular financial investing and financial instruments are amongst students and provides foundation for future research which study the same subject or wish to dive deeper into understanding why students invest like they do.

To provide comprehensive study and understanding of this subject, this thesis is divided into seven different categories, which all contribute to the work. After the introduction, chapter two will cover the theoretical part of financial investing and explain some of the most well-known theories and how these can be used in everyday investing. The third chapter looks at the most common financial instruments in which people can invest in. The fourth chapter looks at financial investing from a psychological perspective and introduces financial behaviour and how it can be used to understand investor motives and actions. The fifth chapter begins the research part of this thesis by explaining more thoroughly what kind of research was conducted and what kind of methods were used to collect data. In chapter six we evaluate and examine the data provided by the research and look for differences and similarities between students. The final chapter includes final thoughts on the research and its reliability and liability, followed by self-evaluation and further discussion.

1.1 The objective of the thesis

The objective of this thesis is to study European students' investing habits and look for similarities or differences between countries. These types of habits can be for example activity in investing, amount of money used to invest, selection of financial instruments and preferences on what kind of features their investments include. The main question of the research however can be classified as follows:

- How many students invest and what are their reasons for their decision and are there differences between the students?

This question will separate the respondents into two different categories which are the investors and the ones who do not invest. From the investors we can collect data about their habits on how they invest and compare that data between the countries. From the students who do not invest we can ask why they do not invest and if they would, what kind of decisions would they make.

1.2 Research methods and restrictions

The research of this thesis was performed with quantitative and qualitative methods as well as gathering data from students using an internet survey (Appendix 1). The survey included questions about the student's background which provided groups which could be compared against each other and questions about investing which provided data for evaluation. The survey was sent to different schools around Europe via email and to contacts who spread the survey around. The objective of this approach was to gain as randomised a group as possible to ensure that all results were not affected by a single powerful force such as field of study or financial situation.

There were several restrictions to this research. First, everyone who participated to the survey had to be from country which belongs to the European Union. The second restriction was status. In this survey only students could take part as this thesis focuses on students' perspective. This did not however exclude people from different age groups as the research was aimed at people in universities and universities of applied science in which students can for example easily be over thirty years old.

2 THEORY OF INVESTING

Financial investing means purchasing different financial assets which are expected to yield profit over time. These types of financial securities can be shares, bonds or even physical objects such as gold. Profits from these financial securities come from price increase and from dividends. (Nikkinen, Rothovius & Sahlström 2002, 9; Autio 2018.)

As the objective of investing is to increase the investor's wealth, there are several things to consider when investing. Nowadays there are plenty of different investment options to choose from. These options can differ between features, expenses, risk and expected return. It is important to understand all these concepts when choosing the right investment as these define how much profit can be earned. (Kallunki, Martikainen & Niemelä 2011 95; Fasoúlas, Manninen & Niiranen 2019, 22.)

Investing is not the same as saving. It is important not to confuse these two terms as saving is almost risk free and used to protect wealth compared to investing, where the aim is to increase wealth and investments always contains a risk. Saving can however sometimes be considered as an investment as some banks give interest rate for money in bank accounts. Savings in these bank accounts can receive 1% - 3% annual interest depending on the bank, but annual inflation can also reach those same numbers, making saving a poor investment. Therefore, investments almost always create more profit in the long run unlike savings. (Saario 2016; Autio 2018; Fasoúlas et al. 2019, 21-22.)

Investing in financial securities also increases the welfare of society. This happens indirectly through companies and organizations. Companies and organizations can acquire new resources such as equipment, labour or land with funds that are invested in them thus creating more work for citizens. (Nikkinen et al. 2002, 9; Autio 2018.)

2.1 Different investing theories

In this chapter we go through some of the most well-known theories of financial investing. These are the modern portfolio theory, the capital asset pricing model and the efficient market hypothesis. These theories provide investors understanding how they should invest and why markets behave as they do.

2.1.1 The portfolio theory

The portfolio theory or the modern portfolio theory was founded by Harry Markowitz in 1952. According to his theory investors can reduce their investment risk when they diversify their invested money between different financial instruments such as shares, bonds, and funds. Risk can be reduced even further when the invested money is used to diversify investments within investments. This means purchasing different assets from different industries so that there is no correlation be-

tween each other. The portfolio theory's main goal is not to give the investor the best possible return or the lowest possible risk but to balance it for the investor so that it is possible to get the highest possible return in relation to the risk. (Francis & Dongcheol 2013, 2; Fabozzi & Pachamanova 2016, 201; Kallunki et al. 2019, 29-30.)

In portfolio theory, portfolio is built by diversifying. By increasing the number of different investments, the investor can reduce the unsystematic risk. Unsystematic risk means risk that comes from industry or company factors. These factors include competition, change in management or deteriorating profits of the company. By diversifying enough, it is possible to reduce the unsystematic risk to almost non-existent. What the portfolio theory however cannot reduce is the systematic risk which has an impact on the whole market and its financial instruments. These types of risks are inflation, exchange rates between currencies and interest rates. (Knüpfer & Puttonen 2014, 148-149.)

A portfolio is built with two things in mind: the expected return and the expected risk. Expected return means return that is most possible to get. Expected return is not the same as historical return and the investor cannot expect that specific investments yield the same return every time. Historical returns can however be used to measure possible return. The theory presumes that all returns have a normal distribution which may not always be correct. (Anderson & Tuhkanen 2004, 86.) This is because in real world extreme events occur more frequently than normal distribution presumes (Yiu 2020).

Expected returns variation is measured with standard deviation which is more commonly known as volatility. Volatility measures the whole risk of the investment and as it gets higher the expected return becomes more unstable. Investors can use their preferred risk tolerance and volatility to build their ideal portfolio. With low volatility there is little chance for losing but the investor cannot expect much profit either. High volatility is more suitable for investors who seek higher returns but they must be ready for rapid losses. Portfolio return is also affected by the number of assets in the portfolio and their covariance. (Anderson & Tuhkanen 2004, 87-89.)

After applying calculations about expected returns and volatility of different assets and making different portfolios out of them, the investor must choose which portfolio is the best. According to the theory, it assumes that every investor is a rational investor and always chooses a portfolio which gives the highest expected return with the same level of risk or the same level of profit with the minimal risk. (Anderson & Tuhkanen 2004, 89-90.) In reality investors are not always rational and can choose their portfolio based on their emotions and past experiences. If there are several options to choose from, investors make judgements based on bounded rationality which means premise where investor have reduced the number of choices to few different ones and possibly ruling out all the good options. Bounded rationality and behavioural finance are covered more in chapter 4. (Baker, Filbeck & Ricciardi 2017, 5.)

The constructed portfolios which investors must choose from are found from efficient frontier. Figure 1 represents efficient frontier as a line and different portfolios as dots. When the portfolios are

closer to the efficient frontier, they are more viable option than the ones that are further away. (Anderson & Tuhkanen 2004, 89-90.)

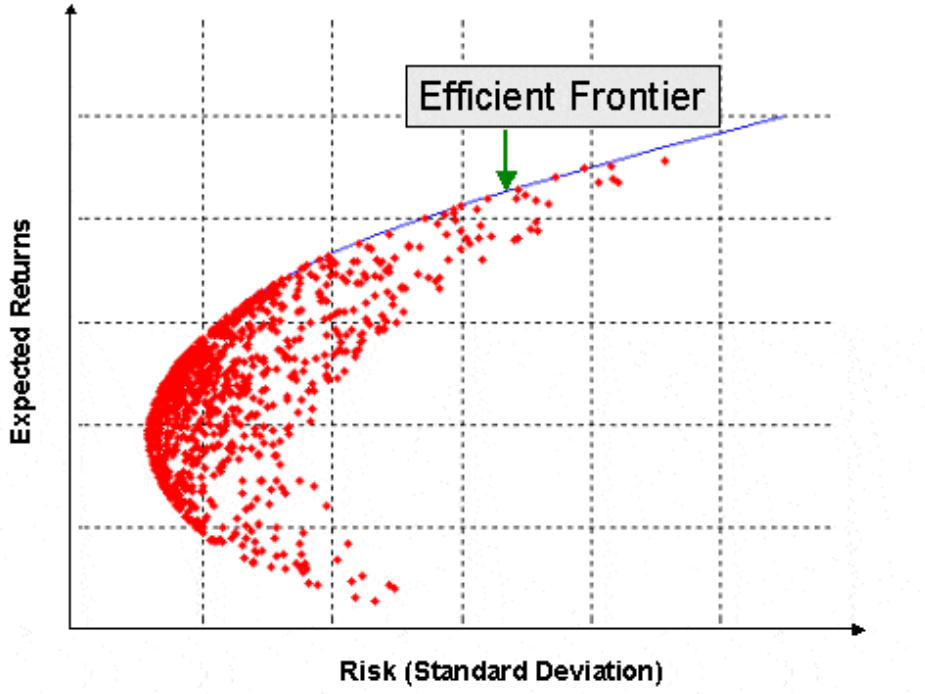


FIGURE 1: Efficient frontier and portfolios (Financetrain 2020).

Modern portfolio theory has received a lot of criticism based on its core idea which is to create portfolios from historical returns and volatilities of financial instruments and predict the expected return. As future cannot be predicted, portfolio theory should not be able to predict the expected returns from historical values as history is not guarantee of the future. (Erkkilä 2018.)

Modern portfolio theory provides framework which can be used to build portfolio that has maximised expected return with a given level of risk which is calculated by using variance or standard deviation. Later studies and developments of the theory have proven however that investors should not be compensated for the whole risk of the investment as they can diversify unsystematic risk away. This means that investors should only be compensated from the systematic risk or in other market risk. This development led to creation of CAPM. (Baker et al. 2017, 4.)

2.1.2 Capital Asset Pricing Model

Capital Asset Pricing Model or CAPM for short, was created by William F. Sharpe when it was discovered that investors should not be compensated for all the risk when they can diversify some of it away. CAPM is used to measure the value of an asset by using expected rate of return and risk. Risk is measured by using Beta which is used to express systematic risk. According to CAPM, the higher

the risk of an asset, the higher the return. (Nikkinen et al. 2002, 68; Anderson & Tuhkanen 2004, 94.)

Investors always seek return from risk. When the risk increases, the investor's desire for higher return increases. As mentioned previously, the unsystematic risk is possible to be removed by diversifying investments leaving only systematic risk which is what defines how much investors seek to receive returns. This systematic risk is measured as Beta. (Knüpfer & Putkonen 2014, 152-153.) Beta is a numerical description of systematic risk. Its purpose is to measure relative volatility between a specific asset and the market. Its normal value is 1 which means that the asset and the market have the same volatility, and they go up and down at the same rate. If Beta value is 2 it means that the asset is twice as volatile as the market. This means that when the market goes up by 10 percent, the asset goes up by 20 percent. Assets with high Beta are called aggressive assets and assets with low Beta are called defensive assets. (Malkiel 2019, 191.)

The reason for using Beta value is the principle that expected return consists of two parts which are risk-free return and risk premium. Risk premium increases as market risk, or in other words, systematic risk increases. Risk premium is calculated by deducting risk-free return from expected return leaving only asset own risk premium. (Anderson & Tuhkanen 2004, 94.)

According to CAPM, theory assets have different rates of return purely because they have different Beta values. This is because CAPM theory assumes that investors have removed unsystematic risk by diversifying investments leaving only systematic risk. Figure 2 demonstrates the relation between risk and return according to CAPM. (Anderson & Tuhkanen 2004, 96.)

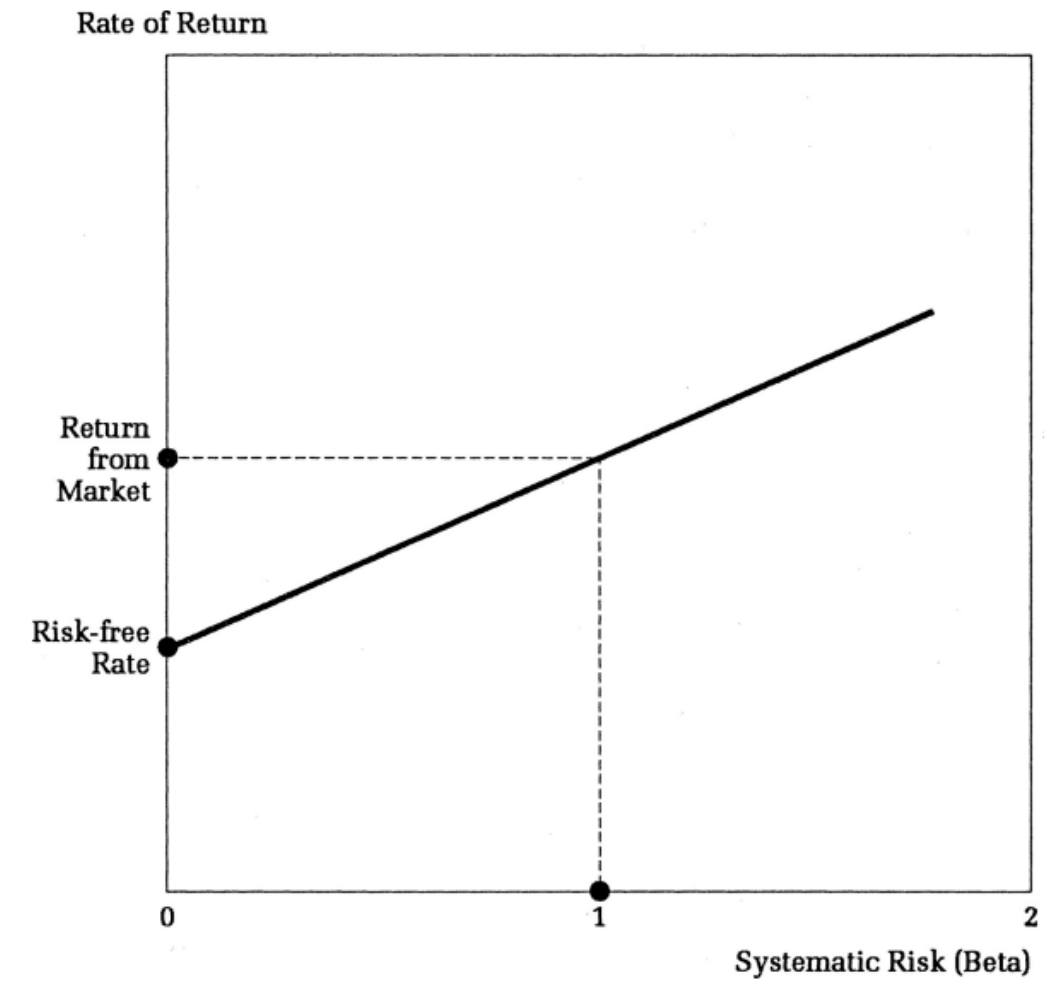


Figure 2: Risk and return according to CAPM (Malkiel 2019).

Capital Asset Pricing Model relies on many assumptions in order to work. The theory presumes that there are no transaction fees of purchasing or selling assets or taxes which gives the investor the ability to easily choose between capital gain yield or dividend yield. Investors are also able to invest in market portfolio which includes all possible assets and their purchases do not affect market prices which means that competition in the market is perfect. CAPM also assumes that all investors have broadly diversified their investments and that they can borrow unlimited amount of money under the risk-free rate of interest. Many of these assumptions do not work in reality, so validity of this theory is compromised. It however does present sufficiently well assets return and can help in understanding market behaviour. (Nikkinen et al. 2002, 68-70.)

CAPM has also been criticized because of its single-factor model and that it cannot pick up other risk factors. CAPM also performs poorly when it is used to explain the cross-section of returns across stocks. Fama and French (1996) brought new perspectives and explained that there are two additional factors which are firm size and book-to-market ratio which can be used to measure companies' value. Carhart (1997) extended this idea and added momentum factor which presumes that

when shares price continue to increase if they go up and continue to decrease when price goes down. (Baker et al. 2017, 4.)

2.1.3 Efficient market hypothesis

Final theory is efficient market hypothesis studied by Eugene Fama. Efficient market hypothesis means a scenario where changes happening at the market are unpredictable and impossible to foresee. These types of changes also need to happen instantaneously, so no one will gain advantage. In order to be efficient, markets must be efficient both inside and outside. External factor means information about asset prices which must be available at the market in order to change market prices of assets immediately whereas internal efficiency regards operative actions. These operative actions mean that there is enough competition between financial services so that transactional fees are low, and transactions happen swiftly. (Nikkinen et al. 2002, 80; Anderson & Tuhkanen 2004, 97; Knüpfer & Puttonen 2014, 166.)

Market efficiency is measured with information. This means that assets market price reflects to all information regarding assets. Market price will only change if new information about the assets comes to the market. This new information must be unpredictable otherwise it is not new. Because information is unpredictable, market price will also change to an unpredictable direction at a random time. This is called random walk. (Nikkinen et al. 2002, 82.)

Efficient market hypothesis has three stages: the weak form, the semi-strong form, and the strong form. These stages represent how much information is given at the market. When the stronger form applies in the market, it includes all weaker forms as well. (Nikkinen et al. 2002, 83.) Weak form represents a situation where all previous information is included in the market price. This information comes from previous prices and transactions. Technical analysis cannot be used to make investment decisions based on weak form as technical analysis is used mostly to find patterns from previous transactions. This could work if the market would react slowly enough to new information. (Nikkinen et al. 2002, 83; Anderson & Tuhkanen 2004, 98.)

According to semi-strong form, market price of an asset includes all public information. Public information can be for example financial statements provided by a company, dividends, expected returns and so forth. Analysing these will not provide enough information to beat the market however, semi-strong form includes fundamental analysis which can be used to measure current asset price by predicting all risks and returns which happen in the future. However, this does not work because fundamental analysis requires a company that is better than what other investors think. If investors think that this specific company is great, the asset price will change, making it not so great an investment. (Nikkinen et al. 2002, 83; Anderson & Tuhkanen 2004, 98.)

Strong form happens when the asset's market price is affected by all the information both from public and insider sources. Insider information means corporate secrets and unannounced information.

If all this information were available to the general public there would be no use for insider trading. (Nikkinen et al. 2002, 83-84; Anderson & Tuhkanen 2004, 98.)

Efficient market hypothesis presumes that no one can use more information than others in order to receive better profit. This does not however work as there are analysts whose work is to find more information and patterns to find assets which are under-priced. If markets were truly efficient, their job would be pointless as all the information would be available for everyone. On the other hand, these analysts can also be the reason why markets work somewhat efficiently as they are the ones who actively seek and give out information. (Nikkinen et al. 2002, 82.)

Efficient market hypothesis has also received a lot of criticism based on several research studies which have spotted anomalies. These anomalies are situations where securities or several securities do not follow efficient market hypothesis but performs completely different way. Efficient market hypothesis inability to answer to these anomalies has been one major reason for the born of behavioural finance. (Baker et al. 2017, 4.)

2.2 Investment plan

Investing should be continuous process and it should start with investors' creating their own investment plan. This plan is used to get information about the financial market as well as the investor's own personal situation. The personal situation should be covered realistically by determining current debt, funds that are available for investing, funds that the investor receives in the future, what are the goals and why to invest. If the person has a stable income it is easier for them to invest because there is no fear for unexpected lack of funds. An investment plan is also a great tool to supervise one's own investing and in the long run it will be easy to determine whether the plan was successful or not. (Anderson & Tuhkanen 2004, 15-17.)

Puttonen and Repo (2011, 18) states that there are four important questions each investor should consider when making their investment plan as these questions help to decide what kind of financial instruments should be acquired. These four questions are:

- How long is their investment horizon?
- How much money is going to be invested?
- Do they have time and knowledge to follow the markets?
- What is their risk tolerance and how much they want profit?

All these questions answers change between investors due to their age, desires, knowledge, and ambitions. Anderson and Tuhkanen (2004, 17-18) states that investors in their twenties and investors in their seventies have huge differences in their investing plans because of investing horizon, risk tolerance and desire for profit.

For investors, one of the most important subjects in an investment plan is the risk and the expected return. All investments include risk, so it is vital that investors understand their own risk tolerance. Risk tolerance means the ability to withstand possible losses. Risk tolerance is a personal trait and must always be considered when choosing investments. This also applies to investment advisors as well since they must know their clients background and take responsibility for the advice they give. As risk and return are correlated, investors who seek high return from their investments must have a good risk tolerance as risk increases when the expected return is higher. (Kallunki et al. 2019, 12.)

Investors should not get confused between risk tolerance and risk-bearing capability. Risk-bearing capability is based on the investors age and their income whereas risk tolerance is a psychological trait. If the investor is young, he or she can receive more income for a longer period of time and cover losses which might occur when investing thus having higher risk-bearing capability unlike older investor who might have just retired and has only pension as income. (Malkiel 2011, 349-350.)

The second highly important subject investors need to understand is how long they are going to invest for. This is called an investment horizon. Investment horizon can vary from few days to even decades depending on when the invested money is needed elsewhere. Investment horizon is important part when measuring expected returns as the time goes on, investments expected return increases. (Anderson & Tuhkanen 2004, 32-33.) With an investment horizon it is easier to choose investments as some investments risk decreases when the investing period is long. With a long investment horizon, it is suggested to pick more shares since shares have a higher expected return compared to bonds or funds but have a higher volatility in a short period. Investment horizon is also affected by current state of life. People have very different perspectives towards financial investing and investment horizon depending on their current situation. For example, young investors have time to wait for their investments' value to increase but may lack the money to invest or they are saving for a car or a house and are not able to invest whereas old people may not have the time to wait for profit. (Anderson & Tuhkanen 2004, 17-18; Elo & Saarhelo 2018, 130.)

As investors work in a digital world nowadays there are countless ways to receive information about investments. Understanding this flow of information helps investors to make better decisions and thus make better investments. For some the amount of information can be too much or they lack time to research it, so they should ask themselves is it viable to handle all the information alone or to outsource this to investment advisors. (Puttonen & Repo 2011, 25.)

A good investment plan includes an idea on how much money is going to be invested and how these are allocated. If the invested amount is only few thousand Euros, it is not beneficial to diversify them because its costs are higher than the achievable benefits. Depending on the person, the amount of money can be big or small portion from their total wealth. If the invested money is large portion of the total wealth, investor should be more careful and allocate money more to safer investments. (Puttonen & Repo 2011, 19.) Allocation means dividing the invested money between several different financial instruments which have different risks and returns. For example, investors with a low risk tolerance want to allocate most of the money into safe investments such as different

funds. Investors with a higher risk tolerance can choose both funds and shares so that the risk and the expected return is higher. Allocating funds into different financial instruments create a more balanced portfolio. (Erkkilä 2018; Kallunki et al. 2019, 27.) According to studies over 90% of the expected return is determined by allocation so it is one of the most important decisions investor will make. (Malkiel 2011, 339.)

Investing plan also includes investing strategy. When choosing investing strategy, it is important to know whether it is going to be active or passive. Active investing strategy means that investor tries to achieve profits higher than average. This is done with active surveillance of the market and with active trading of financial instruments. Active strategy has limits though as trading includes trading fees. To avoid excessive trading fees, it is possible to choose passive strategy. Passive strategy idea is to hold financial instruments for long time and try to achieve average returns. As passive strategy idea is to avoid active trading, investor must choose in advance, what kind of assets portfolio contains and sell or purchase assets only when they need to reallocate some assets. (Parviainen & Järvinen 2015, 13-14.)

When discussed about overall financial investing strategy Saario (2016, chapter 6) suggests that young investor who have little capital and possibility for long investment horizon, should keep their portfolio somewhat centralized and look for financial instruments which are reliable and from profitable companies while older investors should focus more on diversifying investments as it is more important to avoid losses. If the investors are not sure how to allocate money in their portfolio, investors age can also be used as risk meter and to determine how much shares should contain in the portfolio by deducting their own age from 100. This means that if investor who is 20 years old, uses this calculation, his or her portfolio should contain 80% shares. If 70 years old would do the same calculation it would result 30% shares in portfolio. (Anderson & Tuhkanen 2004, 18.)

3 DIFFERENT INVESTMENTS

As we are looking at financial investing, we must understand different financial instruments and how they work. There are countless ways to invest so we are only going to cover the most common ones. These different investments include low to high-risk investments, physical and non-physical and investments that have different entry levels.

When choosing specific investments, it is important to understand how they work. Investments can differ in terms of expenses, features, risk and expected return. Most used are interest investments, shares, funds, and real estates. Less popular investments such as commodities have only a small client base. An important thing to remember when investing in new investments is to find out information about the company more than the securities as shares for example do not tell everything about the company. (Elo & Saarhelo 2018, 225; Kallunki et al. 2019, 60-61.)

Financial instruments can also be classified to different categories. One of the most practical categories are debt and equity as well as derivatives and contingent claims. This classification is defined by methods which are used to detect value of financial instrument inside the category. Another practical classification is maturity. Financial instruments that have maturity of over one year are called capital market instruments and those which have maturity of less than a year are call money market instruments. (Nikkinen et al. 2002, 11.)

Different investments yield different amount of profit over time. According to Jeremy Siegel's study about historical return of American stocks, gold, and bonds we can see that stocks are superior investments in the long run when compared to other investments. Figure 3 shows total return index of 1 US Dollar from year 1802 to 1997. (Saario 2016, 49.)

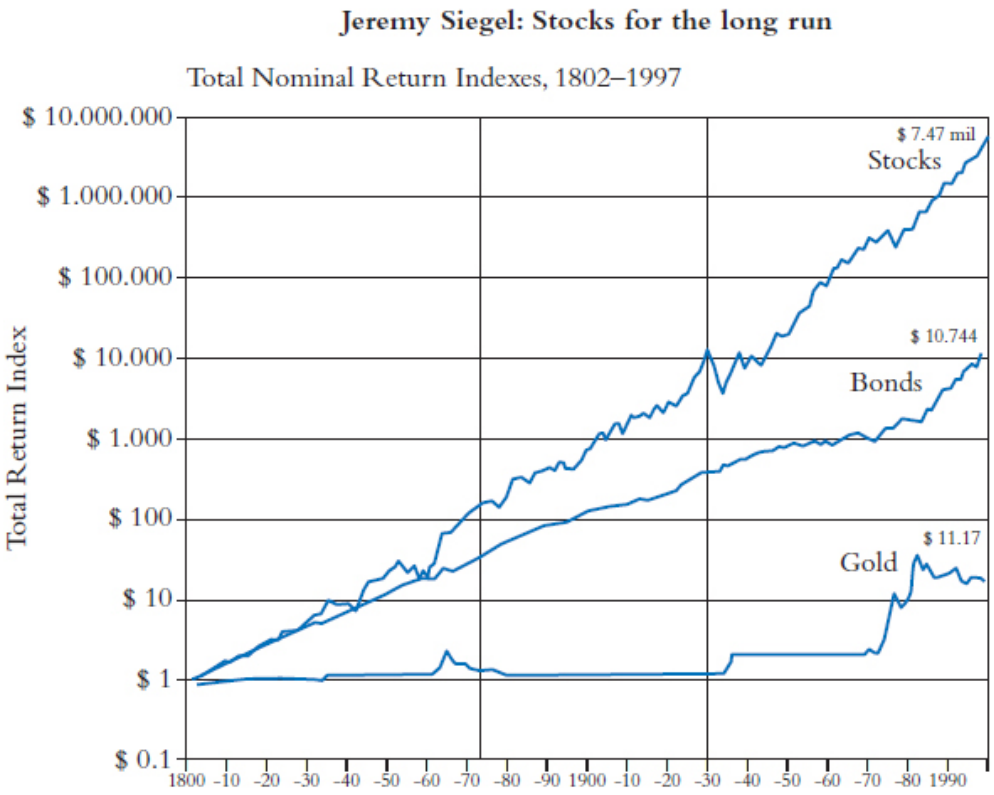


FIGURE 3: Total nominal return indexes (Saario 2016).

3.1 Shares

Shares are securities of the company, which the company itself has put to sale. When investors purchase these shares, they purchase a part of the company and are then called shareholders. The amount that the shareholders own of the company is determined by the number of shares they own out of the total number of shares. For example, if a company releases 1,000,000 shares and an investor purchases 50,000 of those shares, the purchased shares provide a 5 percent ownership of the company. (Saario 2016, 18; Elo & Saarhelo 2018, 21; Kallunki et al. 2019, 76.)

Shares are traded at a stock market. A stock market is a place where everyone who is registered can buy or sell shares which are listed to the stock market. Normal interaction at the stock market happens between investors and not with the companies. This means that the companies will not receive any money from these transactions. The companies gain money only when they list to the stock market for the first time or issue new shares later. When the companies issue these shares, they can have series of different shares. These shares can have different rights which can affect their market price. Shares are marked with numbers or letters to clarify what type they are. These markings are not however standardized, and companies can have their own marking method which is why it is important to find out first what these markings mean before purchasing. (Saario 2016, 18; Elo & Saarhelo 2018, 22; Kallunki et al. 2019, 78.)

As shareholders, investors have certain rights in the company. These rights can be divided into two main categories, economic rights, and administrative rights. Economic rights grant the right to receive dividend which companies pay after a specific period, usually annually. The other economic right is pre-emptive right. Pre-emptive right means that when a company issues new shares to stock market, owners can use their pre-emptive right to purchase these shares before the general public, allowing them to keep their ownership percentage of the company same as before. The administrative right that the shareholders possess allows them to participate in shareholders' meeting where they can choose the board of directors for the company. (Nikkinen et al. 2002, 12; Elo & Saarhelo 2018, 22; Kallunki et al. 2019, 76.)

Shares yield investors profit in two ways which are dividend and increase of the shares' value. Dividend means profit distribution that is collected from the profits that the company has made during that year. Dividends are distributed annually but depending on the company, dividends can be given twice or even four times per year. This is decided at a shareholders' meeting where all the shareholders are invited. In a shareholders' meeting it is also decided how much dividend is given per share. Sometimes some of the dividend is not distributed but rather used for investments, which increase the value of the company, thus increasing the value of the shareholders shares. (Saario 2016, 20; Naukkarinen 2017, 9; Elo & Saarhelo 2018, 22; Kallunki et al. 2019, 78.)

Shares have a high expected return. Depending on the company shares can have 4-5 percent better return than interest investments. Finding these companies can be difficult since there are hundreds of possible shares. As Saario (2016, 21) says in his book that only a truly successful company increases its dividends every year. These types of companies create better return both in shares and in dividends. As mentioned before, with high return, comes high risk. Shares are a risky investment for short-term due to their volatility. Reasons for high volatility are usually economic factors and investor's own perspectives. Therefore, shares are preferred to have when the investor's investing horizon is long. History has shown that shares create better profit in the long run than other financial instruments. Investors can decrease risk by having a long investing horizon and by diversifying the shares in their portfolio. (Knüpfer & Puttonen 2014, 162; Naukkarinen 2017, 4; Elo & Saarhelo 2018, 35, 134.)

3.2 Bonds

Bonds are financial instruments which businesses, banks, governments, and even local states can issue when they want to borrow money from public investors. Bonds are long-term investments as bonds have a long loan period or in other words, maturity. Maturity of the bond can vary between three years to ten years and sometimes beyond that. Bonds are usually low risk investments but there are also very risky versions. The risk level depends on the bonds issuer's financial situation. (Nikkinen et al. 2002, 12; Knüpfer & Puttonen 2014, 86; Vaihekoski 2018, 10; Sijoittaja 2020.)

When the bonds are issued, they must declare terms of the loan to the public. For the investor most important information of the terms are usually maturity and coupon rate. As mentioned earlier, maturity can vary significantly from three years to ten years and sometimes beyond it. Coupon rate is the rate of interest which the company pays to the investor. Coupon rate is usually fixed but it can be linked to follow inflation or reference rate. Coupon rate can also have minimum and maximum interest rate depending on if the bond is variable rate loan. Other important information provided are the payment method for the coupon rate and for the loan. Coupon rate can be paid once per year to the investor or several times per year. The former method is called European style and the latter United States style. The loan itself can be paid annually or fully after maturity. Full payments after maturity are called bullet loans. (Knüpfer & Puttonen 2014, 86; Vaihekoski 2018, 10; Kallunki et al. 2019, 163-164; Sijoittaja 2020.)

As mentioned earlier, bonds can be a risky investment. Biggest risk usually comes from uncertainty towards the company's or the government's financial situation and ability to pay back everything. Governments usually have a lower risk rating than companies. To lower this risk, bond issuers can get banks to guarantee bond payback if they are unsure that they are able to repay the investors. Another method is to get credit rating which guarantees investors that the company can pay back loan and interest. Credit ratings are rare and are included in the terms of the loan. Bonds can also suffer from interest rate which is related to the decrease of market value and inflation especially in the long run as value of the money decreases. Bigger risk means the bond issuer has to promise a higher interest rate for the bond. (Vaihekoski 2018, 13.)

For investors, bonds can be little bit more difficult than for example shares. Investors cannot get bonds straight from the stock market but mark them when companies issue them by using an intermediary such as a broker or a bank. Bonds can also be used for trading during their loan period. This method allows investors to invest into different bonds which might not have been available before. Bonds are usually big investments as their minimum investment costs 1000 € - 10,000 € depending on the bond and the bank. A bond's price is not however measured in euros but in percentages of the nominal value. Normal value is 100%. If the number increases, the bond's purchasing price increases. (Knüpfer & Puttonen 2014, 89; Vaihekoski 2018, 12.)

Bonds bring profit to the investors in forms of interest and when bonds are purchased or sold during the loan period. Selling can be profitable when bonds price has increased and purchasing when bonds price is below nominal value. These actions include some risk such as prices shifting and transaction fees, so to avoid any risk it is easiest to wait until the end of loan period. (Vaihekoski 2018, 12.)

Bonds which have a loan period of less than a year are called money market instruments. These differ from long-term bonds as money market instruments do not receive any interest. Their profit is measured simply by reduction of purchasing price from selling price. (Nikkinen et al. 2002, 12; Knüpfer & Puttonen 2014, 86.)

3.3 Mutual funds

Mutual fund or Open-end Fund is a financial instrument in which organizations, companies and individual investors can invest in. It is a so-called collective institution in which all the money invested is put together into a pool and is then re-invested into different kind of assets. Depending on the fund and its policy, a fund portfolio may include several types of assets such as shares, bonds or even cash. (Puttonen & Repo 2011, 30.)

When investors invest in a fund, they become an owner of that fund. Because there are usually several investors, funds' ownership is shared between everyone. The portion of ownership is equal to the proportion invested in the fund. This also applies to the returns as a larger portion of the fund yields a bigger return. (Puttonen & Repo 2011, 30.)

Funds are managed by management companies and at least one portfolio manager. Portfolio managers are responsible for investment decisions and making sure that they are profitable. Management companies and portfolio managers cannot access funds however since they are owned by investors. As portfolio managers survey funds and their performance, investors do not need to monitor their funds as actively as for example with shares. (Puttonen & Repo 2011, 30; Kallunki et al. 2019, 116; Fasoúlas et al. 2019, 177.)

Funds profit is determined by the financial instruments each fund possesses. These can include dividends, interests, and value increase of the financial instrument. Some funds have different fund units to yield profit. These are called return shares and growth shares. Investors who own the former receive annual returns which are subtracted from fund units thus decreasing funds value. Investors who have growth shares receive no annual payments but instead have their own proportion of the fund value increased. (Kallunki et al. 2019, 117.)

Investing in funds is beneficial for investors who seek to diversify their wealth immediately or seek financial instruments which they have little knowledge about or no access to alone. These unavailable instruments can include real estates and bonds which have high prices. Funds also possess good liquidity meaning that investors can sell of their portion of the fund rather easily. Since funds have low risk due to diversifying, they have low expected return. This can, however, vary between different funds. (Puttonen & Repo 2011, 36; Kallunki et al. 2019, 117.)

3.3.1 Exchange-traded funds

Exchange-traded funds or ETF for short are listed index funds which means that these funds can be purchased and sold at the market like shares. These funds invest their money to shares, interest funds, commodities, and real estates. Exchange-traded funds are governed by portfolio managers who passively survey the fund and let the fund follow a specific index. This means that investors only worry about purchasing and selling exchange-traded funds. Because exchange-traded funds

are bought and sold at the market, their price changes all the time due to supply and demand of the fund. (Kaartinen & Pomell 2012, 7-9; Kallunki et al. 2019, 117; Fasoúlas et al. 2019, 188-189.)

Exchange-traded funds can be divided into two categories, which are physical and synthetic. Physical ETF is the traditional fund which invests in shares and commodities by following the target index as closely as possible. Synthetic ETF are swap based funds which do not directly own shares but derivatives. This allows synthetic ETF to follow target index without owning any physical shares. These derivatives are put together and are then used to make a swap with the counterpart. (Kaartinen & Pomell 2012, 33.)

Exchange-traded funds are a valid option to all kinds of investors as these funds are well diversified. This eliminates the unsystematic risk with relatively low price. ETF's advantage is low management fees and possible dividends which come from ETF's with stocks. (Saario 2016, 258.)

3.3.2 Index funds

Index funds are passively managed funds. They were created because average active funds could not beat benchmark indexes because of their management costs. Therefore, index funds most important objective is to follow the chosen index with as little management cost as possible. That is why index funds progress is usually checked once per quarter of the year and then adjusted if necessary. (Elo & Saarhelo 2018, 57.)

When index funds are set to follow a specific benchmark index, index fund passively invests its capital to a variety of shares, mainly following the weight of the shares instead of the value thus creating a portfolio. These shares are then checked quarterly and weights adjusted if necessary. (Elo & Saarhelo 2018, 57.)

Because index funds are passively managed, they have low management costs and are thus a good investment choice for long-term investing. There can be however some costs and terms when investors purchase or later sells their portions of the funds due to the transaction fees. Some management companies even require a minimum amount of money to be allowed to invest. After all these index funds are still well decentralized and provide investors a good chance to reach benchmark index. (Elo & Saarhelo 2018, 58.)

3.4 Commodities

Commodities are materials which are rare or vital for the world. These include precious and industrial metals such as silver, gold, aluminium, palladium, platinum, agricultural products like coffee, cocoa, energy such as crude oil, gasoline and livestock for example cattle and pork. Commodities have a small client base as for example rare metals are usually expensive and hard to get. (Taulli 2011, 1-3; Kallunki et al. 2019, 107.)

Commodities can be traded in three different ways. First one includes buying commodities in a physical form. Many of these commodities are large and hard to store so it is recommended to buy gold and other precious metals as they do not require a lot of space or go bad like cocoa. In physical form precious metals do not suffer from precious metal funds or derivatives. (Lönnqvist 2015; Kallunki et al. 2019, 105-106.)

Second way to invest in commodities is by using ETF and ETC. Exchange-traded funds and exchange-traded commodities do not usually buy commodities in physical form but instead invest into derivatives such as swaps, forwards, and futures. Usually, these funds are used to purchase futures which are sold before physical commodity delivery. Then these funds purchase new futures and repeat the process. These contracts specify the type of commodity, the purchase price and the delivery date. As these contracts can be traded their price is determined by demand and supply. (Kallunki et al. 2019, 106.)

Third option to invest in commodities is to purchase shares from companies whose business is guided by the price of commodities. These kinds of companies can be mining industries, gas, and oil industries as well as agricultural companies. This method differs from the other two significantly as investors are not purchasing any commodities but rather ownership of the company and that is why it is important to understand the company as well as the commodity. This method however can provide return for the investment in other ways than just commodities price change. (Kallunki et al. 2019, 106-107.)

Since commodities expected return is based on price fluctuation, they are not very useful for trading. That is why commodities are preferred to use to reduce risk in portfolios as they do not correlate with normal stocks and funds. Problem for this is however that when the price of shares and other financial instruments increases, the price of commodities usually decrease. Good example of this is gold. (Kallunki et al. 2019, 107.)

3.5 Real estate

Purchasing real estate means purchasing land. This land can include buildings or forest. Acquiring real estate can also mean purchasing only the building or a part of it. When purchasing a part of it, it usually means purchasing an apartment. It does not matter however what kind of real estate is acquired because rules of acquiring, selling and profit are usually same. Profit from real estate usually comes from rent and possible increase of the value of the property. (Fasoúlas et al. 2019, 79-80.)

Purchasing property is nowadays simple as it can be done in two ways. First one is direct ownership of the property. For this it is required to make a contract of sale. This contract is usually straightforward as it only needs the participants' information and signatures, property which is sold, why it is sold, price of the real estate and other information regarding real estate. Other method of gaining

real estate is an indirect way which includes purchasing funds which have been invested in real estates. (Kallunki et al. 2019, 87.)

Property can be acquired both by purchasing or for free. When purchased it means trade or exchange and when it is given free it can be a gift or inheritance. If property is given out free, the new owner must pay inheritance tax. The amount of tax depends on the value of the real estate. (Fasoúlas et al. 2019, 80.)

Real estate includes various features which makes them a unique investment and often quite tempting for investors. The positive features of owning real estate directly include the ability to make profit both by getting rent and the hope that the property's value increases. Real estate are good investment to add into a portfolio as they diverse risk and increase profit with rent. Real estate are also a great investment for those who fear inflation. Problems with investing directly in real estate is that they are usually very big investments in size and therefore expensive which makes them impossible to invest in for the majority of the investors. Real estate also require considerable amount of knowledge and resources to manage them properly. Finally, real estate's liquidity is low as they can be hard to sell depending on demand and their trade fees can be high because of several third-party members such as analytics and consultation services. (Roininen 2018, 64; Kallunki et al. 2019, 89-91.)

Real estate are efficient financial instruments to portfolio thanks to their ability to hold value and bring profit in form of rent. Biggest problem for the real estate is that it includes various risks which other financial instruments do not possess. These can be political risks such as tax raises or geological risks where real estate is not in viable position thus losing potential tenants. On some occasion tenants can destroy property or do not pay rent which can cause considerable losses to the owner. (Orava & Turunen 2016, chapter 5.)

3.6 Derivatives

Derivatives are financial instruments whose value is determined by its underlying assets value. Derivatives are contracts made by two or more parties. Derivatives are used for risk management and can be utilized to protect portfolio from losses. These derivatives include options, forwards, futures, and swaps. (Nikkinen et al. 2002, 13; Kallunki et al. 2019, 101.)

3.6.1 Options

Options are agreements which grant option holder also known as buyer, the right to buy or sell certain assets with pre-determined price in pre-determined time. This predetermined price is called exercise price. However, these holders are not obliged to do so if the investment brings them losses instead of profit. These options can include securities which can include shares, currency, real estate or pretty much everything with a noted market price. (Nikkinen et al. 2002, 179–180; Knüpfer & Puttonen 2014, 225; Kallunki et al. 2019, 103.)

There are two sides in options. Holders, which have the choice to buy or sell their options if they want to and writers who are obliged to buy or sell the option. Writers are the ones who create options and then are obliged to sell them if the holder wishes so. Because writers are obliged to such transaction, they receive compensation in form of premium which comes from the price of option which the holder pays. (Knüpfer & Puttonen 2014, 225; Kallunki et al. 2019, 103.)

Options can also be separated into two categories in both how they work and when they work. These are called call and put options and European or American option. Call option means purchasing option which grants the holder the right to purchase a certain security from the writer at announced date. Put option is the opposite of this and means that the holder has the right to sell certain assets to the writer again at an announced date. These options can be done at an announced date or during a certain period called time to expiration. European options follow only the expiration date and can be bought or sold only during that day as American options can be bought or sold during a certain period which is marked to the option. Even though they have European and American names, both options can be bought and sold on both continents. (Nikkinen et al. 2002, 179-181; Knüpfer & Puttonen 2014, 225.)

3.6.2 Forwards and futures

Forwards are contracts made by two parties where a specific underlying asset for example a share is to be sold at a set date for a set value in the future. The contract is binding and both parties agree to the transaction. These two groups are the buyer who has the "long position" and the seller with the "short position". (Nikkinen et al. 2002, 171.)

Objective of the forwards is to lower or eliminate the risk of the investment. As the market prices shift constantly, a contract to sell a specific asset at a set price and date reduces risk because the price is fixed. Because of the fixed price there is however still a chance to make loss if the market price is better than the fixed price. Forwards are a good choice for investors who seek to lower their portfolio's risk. (Nikkinen et al. 2002, 177; Knüpfer & Puttonen 2014, 224.)

Futures are standardized financial instruments which can be used to trade in derivatives market unlike forwards. Another difference between forwards and futures are that a future contract's value is checked daily. Because of this, contract parties have a constant cash flow. This is called mark to market. Since futures have daily cash flow their theoretical price is not the same as forwards. However, futures price is mainly same as forwards and are priced same as forwards. (Nikkinen et al. 2002, 177; Kallunki et al. 2019, 103.)

3.6.3 Swaps

Swaps are agreements in which two participants exchange cash flows over a number of periods of time. The most common swap is interest swap in which participants exchange fixed and floating interest rates specific amount. The counterpart who agrees to receive a floating rate and pay a fixed rate is called long interest rate swap position. Short interest rate swap position receives a fixed rate and pay a floating rate. (Gottesman & Bossu 2016, 252.)

Swaps contracts agree that neither participants pay nor receive any premium when beginning a swap so that both participants cannot have any value at initiation. This happens by fixing a fixed rate to a stage where both participants agree that it is fair. Only one fixed rate is equal, and it is the same rate as floating rate. After initiation, floating rate starts to follow specific benchmark rate. Common ones are Euribor or LIBOR (London Interbank Offered Rate). After initiation the floating rate will start to increase or decrease. This will be positive to one participant and negative to the other. (Gottesman & Bossu 2016, 253.)

Payments in swap agreements can happen more than once per year. In United States fixed rate side will pay semi-annually whereas floating rate side will pay quarterly. Maturity of these swaps are usually five to ten years. Swaps maturity is called tenor. (Gottesman & Bossu 2016, 253.)

4 FINANCIAL BEHAVIOUR AS PART OF INVESTING

Behavioural finance is one of the major branches in finance which focuses on studying psychological factors of decision-making process for individual investors, groups, organizations, and markets. Its origin was founded in 1960s and 1970s by theorists in cognitive psychology, economists, and finance. Over the past 50 years, behavioural finance has become an important field in academia and has provided several developments in behavioural finance such as prospect theory, framing effects, heuristics, and biases as well as mental accounting. (Baker et al. 2017, 5.)

Behavioural finance was found since traditional finance theory only expects investors to make rational decisions based on the assumption that investors have perfect information and can process it without any cognitive or emotional biases with self-interested manners and that they are risk averse. Many traditional finance theories such as portfolio theory and efficient market hypothesis are based on these assumptions that investor always think and act rationally. This argues with reality as investors rarely have all the information available nor do they make rational decisions every time because their judgements are affected by cognitive and emotional biases. (Baker et al. 2017, 3-5.)

Behavioural finance examines investors decision-making process from cognitive and emotional perspective as well as from a traditional perspective to create more profound understanding how investors act. According to several tests, surveys and data, investors are not always rational, and their decision-making is affected by cognitive and emotional factors, lack of information and previous experiences which further prove the flaws of traditional finance theory and need for behavioural finance. (Baker et al. 2017, 3-5.)

Another reason why investors do not always think rationally is because individuals are also bound to choose an outcome which brings satisfaction rather than is optimal according to bounded rationality. Bounded rationality means that investors reduce their number of choices to a selection of smaller options based on their past experiences, values, and emotions. This approach can cause oversimplifying of the final decision, thus making the decision satisfactory, rather than optimal. This is called satisficing. (Baker et al. 2017, 5, 25.)

Psychological traits and heuristics play a huge part in understanding investors' decision-making process. These factors include social factors such as social relationships which investors face in their daily lives as well as their own psychological perceptions such as emotions and life experience. (Baker et al. 2017, 5-6.)

4.1 Status quo

Status quo means a state of mind in which investors choose to prefer options which support their current status or have little effect on anything. This psychological state comes from the investors own psyche as a safety measure to protect the investor's mind from critique or remorse in case they make bad decision. Status quo can be lifted by active decision-making, but studies have shown that

the more there are possible decisions, the more likely the investor is not going to choose anything. (Hammond, Keeney & Raiffa 1998.)

Status quo is a classical trait for people who inherit investments. There are several motives that can affect this. First one is that an investor who inherits investments may be unaware what kind of risk the inherited portfolio contains. Second can be an emotional motive such as personal attachment towards the portfolio as it was given by someone important for example from father to son. Finally, the son who inherits portfolio may not want to sell investments due to aversion to taxes or other transactional fees associated with unloading the portfolio. (Pompian 2012, 225.)

4.2 Loss aversion

As some investors are scared to make decisions, they may start to have loss aversion. In this psychological state, investors only see the bad signs of the investment such as risk and choose to ignore the possible returns they may get from the investment. Surveys have shown that some people are ready to choose option A which gives 7000$ without any kind of risk rather than option B which has an 80 percent chance to get 10,000$ and a 20 percent chance to get nothing. Another survey shows that people are much more likely to pay more to decrease their risk level but pay less to increase their chances of success. This argues with traditional finance as traditional perspective sees both as equal. By looking at Figure 4, we can see that people are much keener to ensure that they do not lose instead of increasing their changes for winning. (Thaler 2015, 30.)

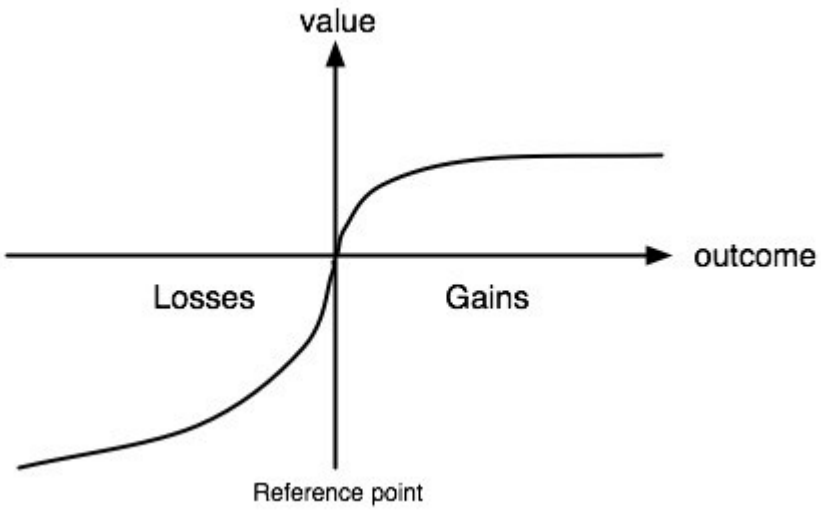


FIGURE 4. Loss aversion graph (Cohen 2015).

Loss aversion is a dangerous trait as it can prevent people from selling unprofitable investments and redirect those assets to profitable ones. Loss aversion also makes investors' judgement biased as they only look for minimizing risk rather than evaluating possible profits. In the end, loss aversion

makes investors hold on to their losing investments and sell their profitable ones in fear of losing. (Pompian 2012, 192.)

4.3 Overconfidence

Overconfidence is an emotional bias which can be summarized as unwarranted faith in one's own judgments, intuitive reasoning, and cognitive abilities. This means that people tend to think they are smarter, better and have more information than they actually have. Overconfidence is usual when people face uncertain situations such as an unstable market. (Pompian 2012, 199.)

Overconfident investors tend to make too narrow predictions when evaluating their investments. This is called prediction overconfidence. This type of overconfidence can cause investors to estimate future value of investments incorrectly as they give too little leeway for possible profits and belittle possible risks. Investors also tend to be too certain about their decisions. This is called certainty overconfidence. This type of overconfidence makes investors blind towards losses when they are sure that a specific asset is a good investment. Certainty overconfident people tend to trade too much and may hold portfolios which are not diversified enough. (Pompian 2012, 200.)

According to Barber and Odean, (2001) overconfidence shows in investors who tend to trade financial instruments too much and may even end up having inferior returns because of transaction fees. Overly optimistic investments mark possibility for overconfident investor. Because of this, overconfident investors have bigger risk tolerance partially because they have no idea how much risk they are taking. Overconfident investors believe that they can beat the market and thus speculate and trade much more than an average investor. (Malkiel 2011, 224-227; Baker et al. 2017, 8-9; Pompian 2012, 199.)

Investors who tend to think they can beat the market and believe their investing skills to be superior may sometimes have hindsight bias. This happens when investor only remembers previous successes and not failures. It is easy for the investors to convince themselves that if specific stock in which they have invested in, rises they believe the success is because they knew it was going to happen. People tend to believe that all successful actions happen because of their skills. If something fails, investors blame external factors. Hindsight bias increases overconfidence and creates illusion that the world and market is predictable when it is not. (Malkiel 2011, 226-227.)

4.4 Herd behaviour

Studies show that groups can make better decisions than a singular person. This happen because groups consist more wider field of information and can make conversation with other group members and bring their own point of view about the subject. Studies about herd behaviour have also brought up a subject called groupthink. Groupthink is a phenomenon that happens when people in the group make themselves think of the wrong answer instead of the right one. (Malkiel 2019, 218.)

Groupthink phenomenon happens when social pressure causes people in the group to avoid conflicts. This was studied by Solomon Asch in 1950's where he showed that social pressure made people in the group choose a wrong answer to a simple question which even a small child should know the answer to. (Malkiel 2019, 219.)

Groupthink also happens among individual investors and investing managers. Some investors start to invest because other people around them start too. Investors tend to also choose same investments as others which can cause them to lose their money if the investment is bad. Mutual fund managers have tendency to do the same as they follow same strategies and choose same assets. This was studied by Harrison Hong, Jeffrey Kubik and Jeremy Stein and in their study, they showed that mutual-fund managers were more likely to invest into same assets as other mutual fund managers in the same city. This might come because of reputational concerns. According to Scharfstein and Stein (1990) and Trueman (1994) some institutional investors would rather be wrong together than alone. (Malkiel 2019, 221; Baker et al. 2017, 71.)

4.5 Biased judgements

Psychologists have long identified that people have illusions in which they have control of a specific situation when in truth they never had any kind of control. Investors tend to believe they can control the market and their own assets performance. This belief happens with investors who think they can define the future by evaluating previous prices of assets. Illusion of control makes investors see trends or stock patterns which do not exist as markets are unpredictable. (Malkiel 2019, 215-216.)

4.6 Attitudes

Mood and emotions are part of daily lives and are present at every decision-making process. Together with previous experiences and information, they create attitudes. These attitudes can vary between strong, weak, positive, and negative and are crucial for humans, as these define their perspective considering decision-making. For example, bad attitude and negative experiences make humans avoid certain decisions such as purchasing shares if previous investments have failed. On the contrary positive experiences and attitudes increases the possibility to choose specific investment and take more risk. (Honkanen 2016, 75-91; Baker 2017, 52.)

For a human to change their perspective and attitudes they must be motivated to do it. Motivation comes from desires and needs which guide decision-making process. Motivation affects what humans likes to do and how long they wish to do it. For example, if humans see financial investing as an interesting and important subject, they most likely study it and choose to do it more frequently than others who are not interested. These motivators can come from external or internal factors. These factors can be negative like punishment or positive such as reward. Some people can be influenced by other humans and create herd culture. Internal factors such as excitement boost motivation. Internal factors are also less likely to cause stress and psychological pressure than external factors as external ones are often forced. (Hakonen & Nylander 2015, 136.)

5 RESEARCH

In this chapter we look at the different research methods and how these were used in creating and conducting the research for this thesis. Chapter will start by covering quantitative and qualitative research methods and survey as a data gathering tool. After research methods chapter continues with the research idea, planning and execution of the research.

5.1 Research methods

Quantitative research is used to understand questions which include percentages or numbers. For this to be effective, quantitative research requires a numerically large number of answers. These answers are gathered with standardized surveys usually with pre-fixed answer options. Quantitative research is useful when asking questions such as when, where, and how much, but it cannot answer questions such as why or how. Quantitative research can be used to understand a current situation, but it cannot answer why such a situation has developed. (Heikkilä 2014, 15.)

Qualitative research does not focus on finding how much or how often certain things happen but instead on understanding why these things happen. Qualitative research is based on understanding human's perception on subject matters. That is why it is important that the researcher has a lot of knowledge about the studied subject. (Tuomi & Sarajärvi, 2017, 85; Puusa & Juuti 2020, 57.) Qualitative research is used for individual studying. Essential to this individual studying are the perspectives of studied people and the interaction between researcher and single observation. Typical qualitative research includes several viewpoints about the subject and different methods for research. (Puusa & Juuti 2020, 75.)

Survey is a data gathering method used to gain information about a specific subject from a predefined group. A survey must be the same for all in the group. Surveys can be viewed both from qualitative and quantitative perspectives. (Valli 2018, 81; Jyväskylän yliopisto 2020.)

5.2 Creation and execution of the research

Even though there is a lot of information online and in the books how people should invest, there is not that much information about how students invest and even less information as to how students differ from each other when investing. I wanted to find out how students all over Europe invest as it can give insight to how similar or different a client base the market has. This information could then be used to analyse different market strategies towards students and encourage them to invest.

I conducted my research to find answer to this question:

- How many students invest, what are their motivations for their decisions and how students differ from each other in terms of financial investing?

Apart from the main question there are also several sub questions which are used to understand how much participants differ from each other. These sub questions are:

- How many students invest?
- How much have they invested?
- What is their overall experience with investing?
- How active they are with investing?
- What kind of investments do they prefer and why?
- If they do not invest is there specific reason why?

The research was carried out using both quantitative and qualitative methods. Quantitative method was chosen for the research so it could study large number of respondents and the data could be compared between countries by using numbers and percentages. Qualitative methods were used on written answers to get more insight on quantitative answers.

The thesis survey (Appendix 1) was an internet survey, and it was conducted to students in Finland and other EU member countries. The survey was anonymous and standard for all participants and it was sent to universities and universities of applied sciences by using email. Survey was sent to 11 different countries and into 15 different schools which were chosen as these were thought to be the most efficient schools to gather data. The survey answer time was from 1st of April until 6th of November. The reason for the long time period was that the number of participants was low at the beginning due to the Covid-19 and shutdown of schools. The survey received total of 103 answers from 550 students from which five answers were not analysed because these respondents did not meet the requirements leaving the sample size to be 98. As survey participants were based around Europe, the survey was conducted by using the internet as it was the most efficient and cheapest method to reach everyone.

The survey was created with Webropol 3.0 and all the answers received were analysed by using Webropol 3.0 analysing tools and in some cases Microsoft Office Excel as Webropol 3.0 was unable to create certain charts from the data. The analysed data was used to compare the participants.

6 RESEARCH RESULTS

In this part we go through the research results. The results are first presented in general without comparison to give overall understanding how all the participants have answered. After general overview results are presented country-specific and compared to each other. The results are in both written and with figures with one question at a time. Figures include bar charts and tables. Four of the questions required a written answer. The survey questions are separated into two main categories: basic information which cover participants' gender, age, country of origin and education; and a second category including questions about investing habits. Investing habits are further split between people who invest and people who do not invest. Questions 1-5 are about basic information, question 6 will separate participants into two main categories, questions 7-17 are for investors and 18-21 for people who do not invest. Numbers inside brackets shown in the figures present number of answers for specific answer.

6.1 Information questions

The survey was sent to 550 students, from which 103 answered. The respondent's total number of nationalities were 11. Response rate was 18.7%. Five of the answers were from participants who are not from a European country but are studying in Europe. However, their answers are not counted as they do not represent a European country. This means that 98 answers from 7 different nationalities were analysed out of those 103 leaving the response rate as 17.8%.

From the total of 98 respondents, 39.8% (n=39) people answered from Finland, 26.5% (n=26) people from France and 20.4% (n=20) from Germany. Other countries which had fewer answers were Netherlands with 6.1% (n=6) respondents, Belgium with 3% (n=3) followed by Italy and Spain which both had 2% (n=2) respondents. Because of the low number of answers from these last four countries, these are merged together as 'Others' to give more clarity for charts and brought up separately only if there is a serious difference compared to other countries.

The first question considering basic information was gender. Of the total of 98 participants, 39.8% are males and 60.2% females. Figure 5 demonstrates percentages of gender from different countries. As we can see, women participated the most from all countries and there were no huge differences between percentages.

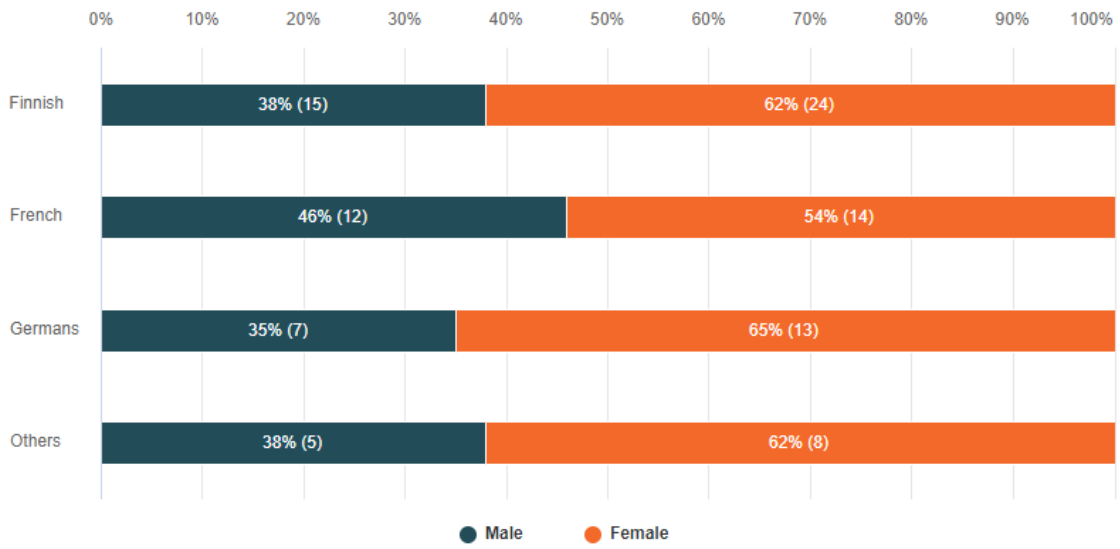


FIGURE 5. The participants gender.

The second question was about the participant's age. Answer options began from "18-20" and went up all the way to "30 or more". From the total of 98 respondents 53% were 21-23 years old, 21.4% were 24-26 years old and 15.3% were 18-20 years old. The last two options, 27-29 and 30 or more had both 5.1% of the respondents. Figure 6 presents participants' age country specific.

Finnish students were the oldest on average but were also most numerous which can increase the spread. French, German, and other nationalities had no students over 26 years old. French students were the youngest on average.

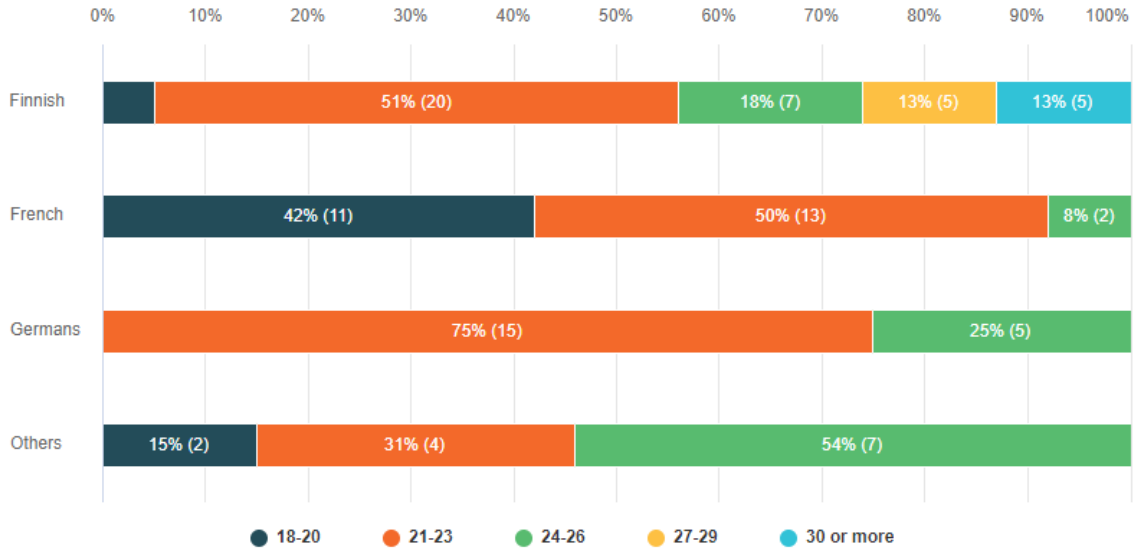


FIGURE 6. The participants age.

The third question investigates where the participants are from. This question required a written answer as the survey was sent to various countries. Webropol 3.0 could not create chart from the data so it was replaced by Excel (Figure 7). From the total of 98 participants, 39.8% of them are from Finland, 26.5% from France, 20.4% from Germany, 6.1% from Netherlands, 3% from Italy, 2% from Spain and 2% from Belgium. As mentioned before, the last four represented were merged so their percentage together is 13.2%. As Finnish, French and German made up the most of respondents, their answers are more influential in this study when results are examined in general without comparing and may not represent countries which had only a few participants.

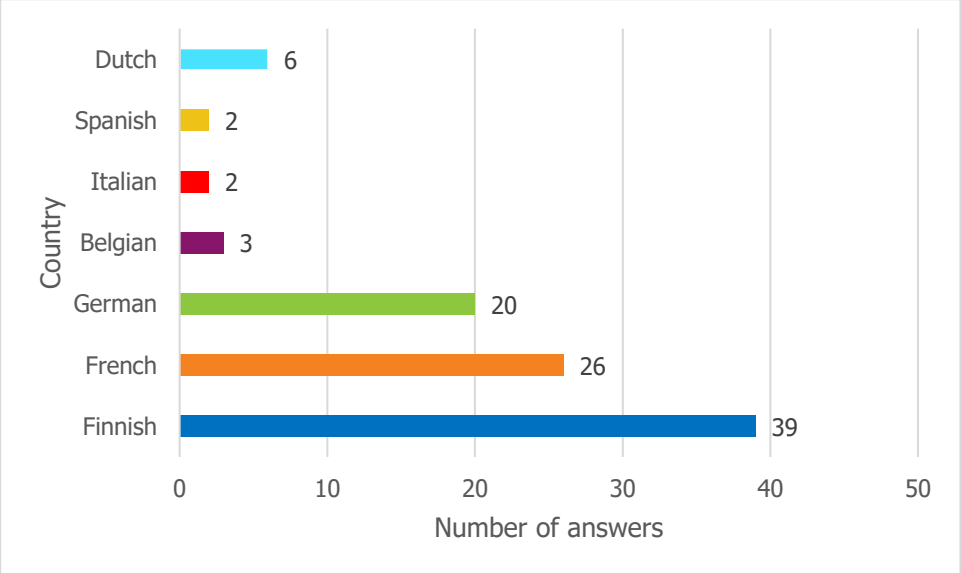


FIGURE 7. The participants nationality.

In the fourth question participants were asked where they study. From 98 respondents, 62.2% answered university of applied sciences. 35.7% answered university and last two of the respondents answered "Fachhochschule" and "College" meaning they only cover 2% of all respondents.

From Finnish respondents 79.5% study in university of applied sciences (UAS) and 20.5% in university. From French students, 76.9% study in university and 23% in UAS. 80% of the Germans study in UAS, 10% in university and final 10% in fachhochschule and college. 61.5% students from other countries study in UAS and 38.4% in university. (Figure 8.) The survey was sent to different universities and universities of applied sciences across Europe with no intention to choose specific schools as the survey was intended to get responses from random students to give variety to the results.

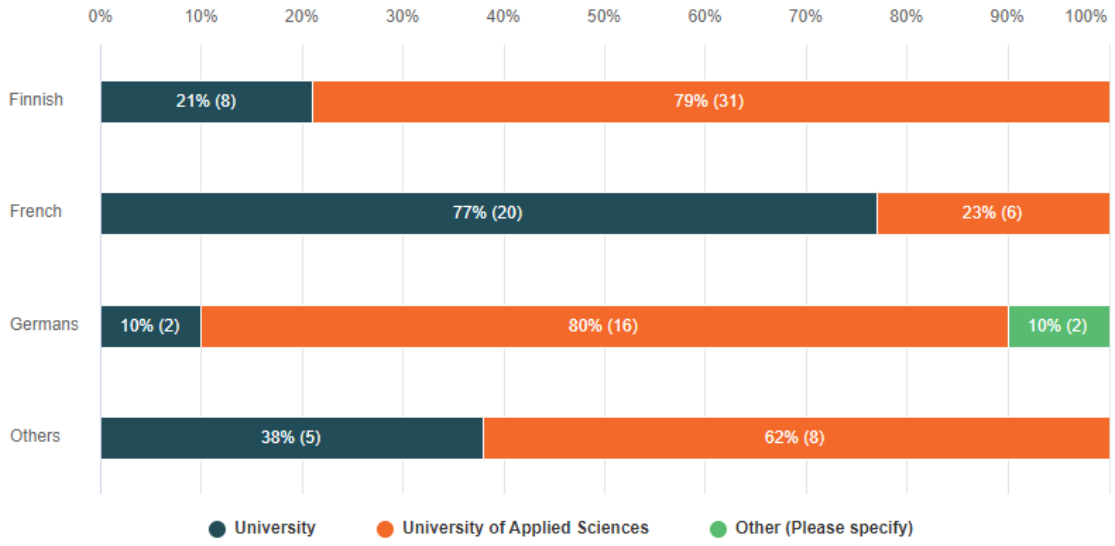


FIGURE 8. The participants school.

The final informative question was about field of study. None of the participants study law, music or natural resources. From the 98 respondents the majority (59.2%) are studying economics and business. 16.3% of the respondents' study engineering and technology. 5.1% of the participants study social sciences. Natural sciences and health care both are studied by 3% of the respondents. 2% of the respondents' study human sciences and tourism and hospitality. Only one studied education. 8.2% of the participants chose the option 'other' from which three of them studied data science, two studied communications, two business intelligence and one business psychology.

When compared between countries, economics and business had the majority of students with percentages of 74.4% from Finland, 60% from Germany and 84.6% from others. Almost half of the French students (46.2%) study engineering and technology and it was followed by economics and business with 23.1% and 'other' option with 23.1% with most people answering data science and business intelligence. Table below show rest of the fields of studies and their percentages in country-specific manner (Figure 9). Major differences arise with French students who have far less economics and business students than other countries but more students from engineering and technology and studies where computers are more present.

	Finnish		French		Germans		Others		
	n	Percent	n	Percent	n	Percent	n	Percent	Total
Economics and Business	29	74,36%	6	23,08%	12	60%	11	84,62%	58
Tourism and hospitality	1	2,57%	0	0%	0	0%	1	7,69%	2
Engineering and Technology	3	7,69%	12	46,15%	1	5%	0	0%	16
Health Care and Social Services	3	7,69%	0	0%	0	0%	0	0%	3
Music and Dance	0	0%	0	0%	0	0%	0	0%	0
Natural Resources	0	0%	0	0%	0	0%	0	0%	0
Law	0	0%	0	0%	0	0%	0	0%	0
Human sciences	0	0%	2	7,69%	0	0%	0	0%	2
Social sciences	2	5,13%	0	0%	3	15%	0	0%	5
Natural sciences	1	2,56%	0	0%	2	10%	0	0%	3
Education	0	0%	0	0%	1	5%	0	0%	1
Other (Please specify)	0	0%	6	23,08%	1	5%	1	7,69%	8
Total	**39**		**26**		**20**		**13**		**98**

FIGURE 9. The participants field of study.

6.2 Investing questions

Investing questions include questions 6-17 and are used to learn and understand participants investing habits. Question number six asked whether participants invest in any kind of investments. Depending on a participant's answer they were separated into two main categories: People who invest and people who do not invest.

From 98 respondents, 42.8% answered that they do invest in some kind of financial investment and 57.1% of the total respondents answered that they do not. When compared within country, Finns had more people that invest with 61.5% of the answers. From German students only 35% invest. The biggest difference came from the French participants where the majority (88.4%) do not invest in any kind of investments. From other countries none of the Belgians invest. Both participants from Italy and Spain invest. From the Dutch students 66.7% invest. (Figure 10.)

The reasons for French low investor rate could be their young age as many of them were 18-20 years old (Figure 6) or educational background (Figure 9) since most of them studied engineering and technology and have no financial studies whereas economics and business students do. This might be the case as many students from other countries invest and they had larger population of economics and business students. Finnish respondents had the greatest number of investors (24) possibly because of their age as Finnish students were older or simply because Finnish students participated the most to this survey. This can mean that future questions will bring more truthful data about Finnish students than from other countries.

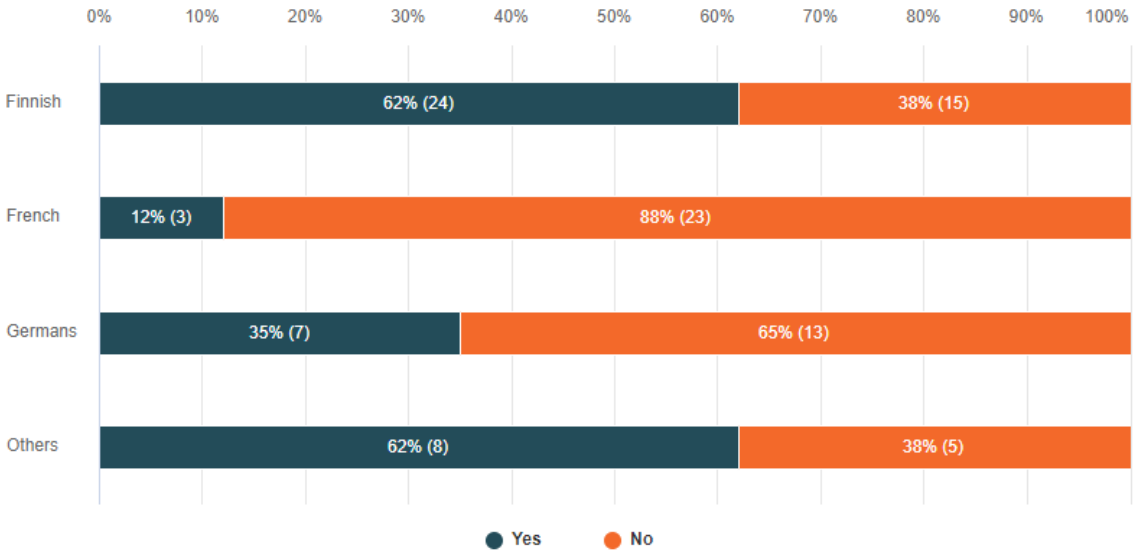


FIGURE 10. The participants who invest in investments.

Question seven was about what kind of investments participants have. This was multiple answer choice which meant that 41 participants from 42 who answered to previous question yes, answered 67 times meaning that some of the participants invest in one or more investments. Reason why one of the participants did not answer is unknown. From 41 participants 43.9% invest in index funds making them the most popular type of investment. 39% have invested in stocks, 31.7% in exchange-traded funds and 29.2% in mutual funds. 7.3% invest in real estate and 4.9% in commodities. None chose options. 7.3% invest in other investments. These included one respondent to invest into cryptocurrencies and two investing into themselves. By investing into themselves they most likely mean developing themselves. From 67 answers the Finns provided 62.6% of all the answers as they are the majority.

Finnish participants invest most in different assets by choosing six financial instruments from eight categories. From 24 Finns, 56.6% invest in index funds, 39.1% have exchange-traded funds, 34.8% invest in mutual funds and 34.8% in stocks. 13% invest in real estate and they are the only ones from all participants. The Germans who invest chose five of eight categories with 57.1% of them investing in stocks marking them as their favourite financial instrument. 42.8% of them invest in exchange-traded funds and 42.8% in mutual funds. 28.5% invest in index funds and only 14.3% in commodities. Three French students were the riskier ones as one chose stocks, one cryptocurrency and one choose commodities. From other countries both Spanish students chose stocks. Dutch chose only index funds and exchange-traded funds. From Italians one chose stocks, and one chose mutual funds. (Figure 11.) From these results we can conclude stocks and funds are most common financial instruments and that the Finnish and German participants have more investments on average when compared to other countries. The French participants prefer riskier investments than others.

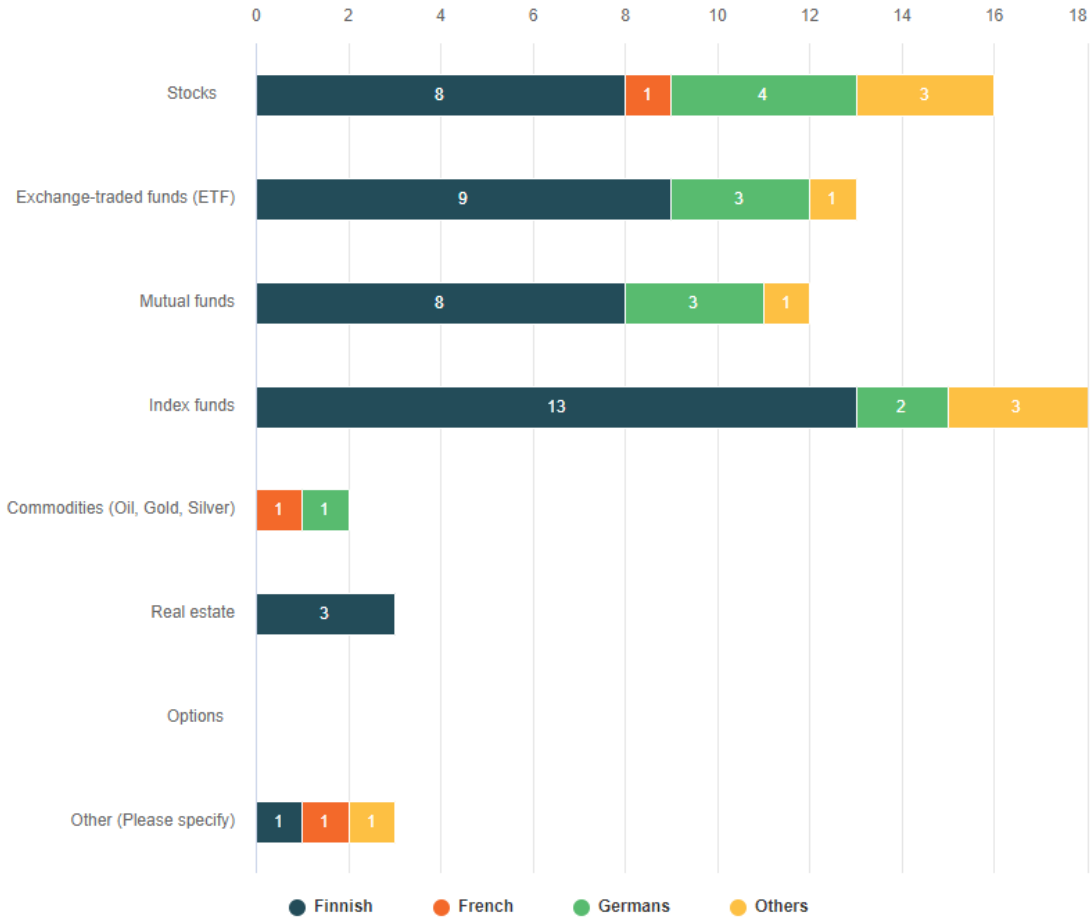


FIGURE 11. Investments the participants possess.

The participants were also asked why they chose their financial instruments. Answer options were "easy", "difficult", "cheap", "expensive", "low risk", "high risk", "short-term", "long-term", "effortless", "time consuming", "centralized" and "decentralized". It was possible to select more than one answer to this question and therefore the question received 120 answers from 42 participants.

From total of 42 participants, 71.4% have chosen their investments based on long-term. 54.7% want low risk investments and 52.3% want investments which are easy to manage. 40.4% of the respondents want effortless investments. 21.4% chose their investments because they were cheap and 21.4% chose their investments as these were diversified. From the participants small fraction (11.9%) wanted high risk investments and only 7.1% have chosen short-term investments. Only one participant chose difficult investments and one centralized. From 120 answers, Finns yet again were majority and provided 72.1% of all the answers.

From 24 Finns 87.5% of them have chosen their investments based on long-term. 75% want easy investments and 70.8% prefer low risk. From the Germans 71.4% want long-term investments. 57.1% chose low risk and 42.9% easy investments. From other countries 37.5% wanted long-term investments, 25% low risk and 25% effortless. From French participants one wanted short-term investments, one centralized and one long-term. Rest of the percentages are shown in table below (Figure 12).

The majority of participants have chosen their investments because of same reasons. They want long-term investments with low risk and that they are easy to manage. Long-term suggests possible investment plan as they want to invest for long time. Only differences were the Finns from which 37.5% wanted cheap investments when other participants did not and the French participants who have risky investments and one even wanted them as short-term.

	Finnish		French		Germans		Others		
	n	Percent	n	Percent	n	Percent	n	Percent	Total
Easy	18	75%	0	0%	3	42.86%	1	12.5%	22
Difficult	0	0%	0	0%	1	14.29%	0	0%	1
Cheap	9	37.5%	0	0%	0	0%	0	0%	9
Expensive	0	0%	0	0%	0	0%	0	0%	0
Low risk	17	70.83%	0	0%	4	57.14%	2	25%	23
High risk	3	12.5%	0	0%	1	14.29%	1	12.5%	5
Short-term	1	4.17%	1	33.33%	1	14.29%	0	0%	3
Long-term	21	87.5%	1	33.33%	5	71.43%	3	37.5%	30
Effortless	12	50%	0	0%	3	42.86%	2	25%	17
Time consuming	0	0%	0	0%	0	0%	0	0%	0
Centralized (Focus in one investment)	0	0%	1	33.33%	0	0%	0	0%	1
Decentralized (Focus in many investments)	7	29.17%	0	0%	1	14.29%	1	12.5%	9
Other (Please specify)	0	0%	0	0%	0	0%	0	0%	0
Total	**88**		**3**		**19**		**10**		**120**

FIGURE 12. Reasons why the participants have chosen their investments.

Question nine was about how long participants have invested. From the total of 42 participants 41 answered to this question with 21.9% answering 4 or more years. 19.5% of the participants have invested 1-2 years. Same number of participants (19.5%) have invested 2-3 years. 12.1% of the participants have invested 6-12 months. Options 3-4 years and 3-6 months received equally as many answers (9.7%). Only 7.3% of the respondents have invested less than 3 months. These results are however very biased as most answers came from Finnish students.

Finnish students responded to every answer option, but progressively had more people who chose longer timespans with 25% of the participants investing 4 or more years. The ones who invested the least amount of time were the French, from which two out of three have invested less than 3 months. The third one skipped this question, but it is unsure whether it was accidental or did he or she prefer not to say. 42.8% of the Germans have invested 4 or more years. Other nationalities had balanced relation where the time used to invest was from at least 6 months until 3 years. From other nationalities, Spanish students have invested for longest with one having invested for 2-3

years and the other 1-2 years followed by Italians with two participants who have invested for 1-2 years. 75% of the Dutch have invested 6-12 months and only one student 1-2 years. (Figure 13.)

Curious about these answers is that French investors have only invested for less than three months but are already investing in stocks which are risky in short-term and cryptocurrency which is extremely volatile and can change rapidly. Other noticeable thing is that as 88.4% of all the French students do not invest and these two respondents have just started, there might be people in those students who start to invest in near future.

Biggest differences are French students who have just began investing when compared to Finnish and German students out of which many of them has invested for more than 4 years already. (Figure 13.) This can be affected by participants age as French were youngest on average compared to Finns who were oldest on average (Figure 6).

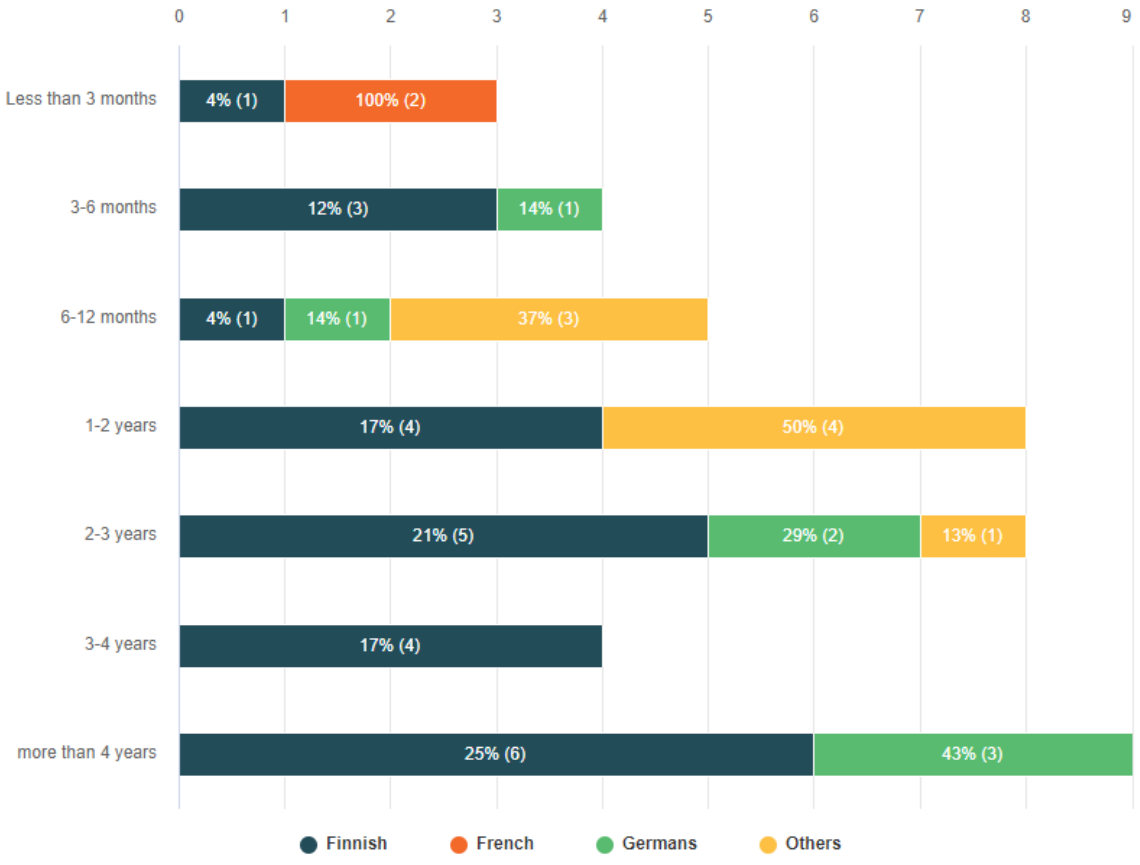


FIGURE 13. Time the participants have invested.

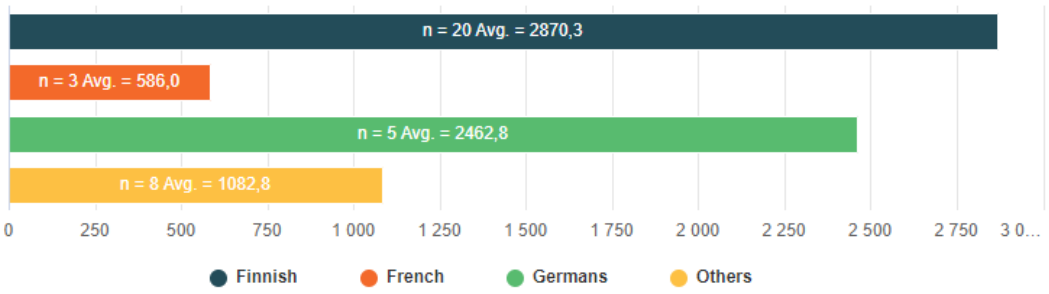
Question ten was about how much money the participants have used to invest. Question answer method was a slider which allowed the participants to put an exact amount of money they wanted between the range of 1 – 5000 Euros or more. All this was put in a chart which shows minimum and maximum value as well as investors average, median and sum of invested money. This chart does not represent individual invested money but the whole country as one. Individual invested money is

mentioned if deemed necessary. From the total of 42 participants, 85.7% answered to this question as 14.3% of the participants did not want to tell how much money they have invested.

Finnish and German students have invested by far the most money when compared against other students. The Finnish students have invested 2870€ on average and the German participant 2463€ on average. As the French students have just started investing, they have only invested 586€ on average. In other countries the amount of money invested is low as well with only 1083€ on average. Spanish students invested most from the other countries followed by Dutch. Italians invested the smallest amount of money. (Figure 14.)

Students have surprisingly big difference with money used to invest both within country and when countries are compared together. This can be seen from average and standard deviation which measures dispersion between answers. 25% of the Finnish students have invested 5000 Euros or more but after them many have invested far less than that. Germans have even bigger gaps between them as only one has invested 5000 Euros or more but next two has invested 3001-3500 Euros and final two 1-500 Euros. These gaps increase their standard deviation a lot compared to other countries whose students has invested the same amount of money.

Differences between students and their use of money to investing can be many. These differences may be explained by individual spending to employment situation and student financial aid provided by government. As we have not studied how much individual students receive money per month it is pointless to start to compare countries' policies or employment between each other. What can be however studied is their activity of adding more money to their investments which we are going to cover next.



	n	Min value	Max value	Average	Median	Sum	Standard Deviation
Finnish	20	217	5000	2870,3	2956	57406	1691,91
French	3	450	683	586	625	1758	121,3
Germans	5	331	5000	2462,8	3050	12314	2032,4
Others	8	100	1808	1082,75	1103	8662	577,46

FIGURE 14. Amount of money the participants have invested.

Question eleven was about understanding whether people who invest, continuously add more money to investing. From 42 responders 66.6% add more money for investing whereas 33.3% of the participants do not. It can be concluded that majority of the respondents are active in investing.

60% or more of the participants from every country are active investors. Between all nationalities there is not a huge difference except for Germans participants from who 85.7% actively add more money. (Figure 15.) Investing activity and intensity can be measured better in next question.

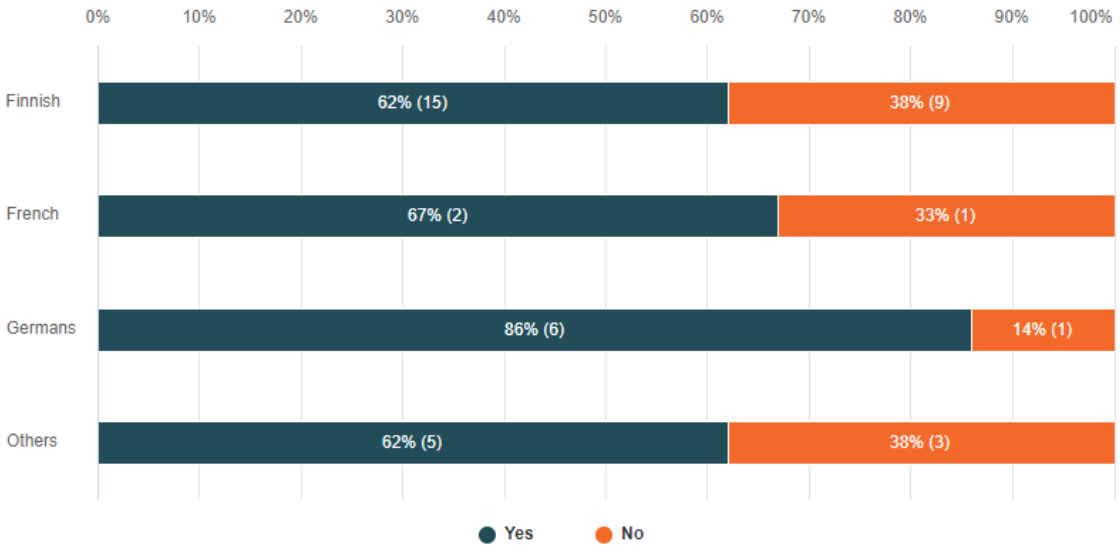


FIGURE 15. The participants who add more money to investments.

The objective of question 12 was to find out the intensity of how often people add more money and how active they are with investing. Because the previous question was separating question, only 28 of the participants who said yes answered this question. The majority of the respondents (57.1%) add more money once per month. 32.1% of the respondents add more less than once per month. Finally, 10.7% of the respondents add money more than once per month. Most of the respondents chose once per month meaning that investing is a monthly habit. This could indicate a potential systematic monthly investment plan with bank in which specific amount of money is used to investments once per month.

Finnish respondents are most active on average when compared to other countries. From the Finnish students 20% add more money more than once per month. This could indicate individuals who seek investments more actively and purchase them more often than others hinting for possible active portfolio. French and German respondents act similarly when compared to each other and from the other countries 80% add more money once per month (Figure 16).

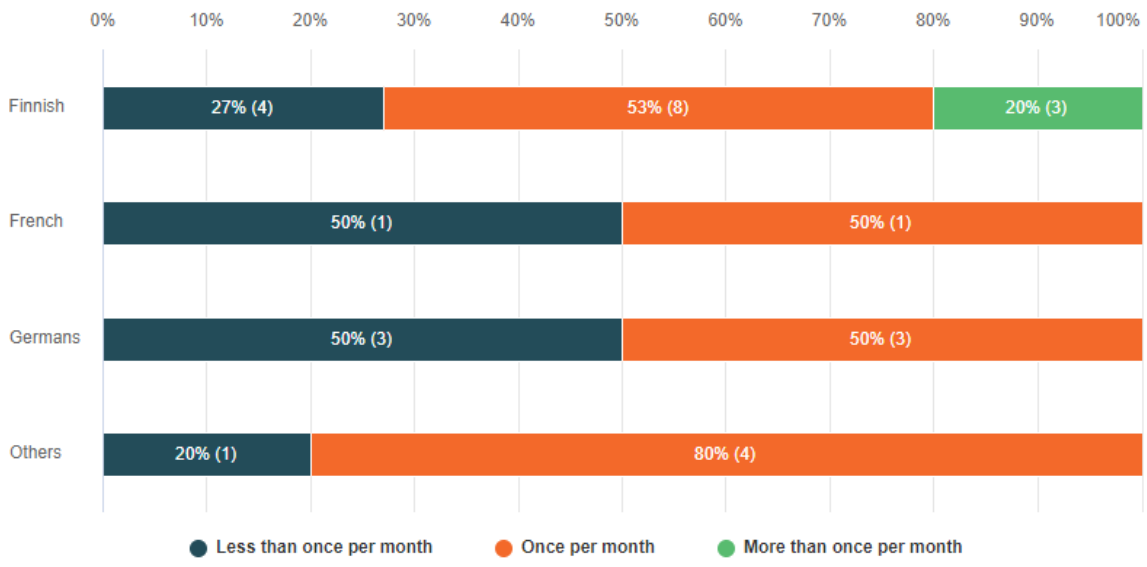


FIGURE 16. The participants frequency how often they add money to investing.

Question 13 asked how much money they add at a time to their investments. This was also a follow-up question meaning that the previous 28 participants answered to this one. Answer options started from "50 Euros or less" and began to rise with 50 Euro increases all the way to "200 Euros or more". All participants answered a certain amount of money and none chose "I prefer not to answer".

From 28 respondents, 35.7% of them add 51-100 Euros to their investments at a time. Second most favourite option was 50 Euros or less which gathered 25% of all the answers from all participants. 21.4% of the respondents invest 101-150 Euros at a time. 14.3% of the participants chose 200 euros or more and only one participant invests 151-200 Euros. As Finnish students had the most answerers, total percentages are heavily affected by their decisions.

When compared against each other only 13.3% of the Finnish and 33.3% of the German students invest 200 Euros or more at a time. Germans add most money to their investments at a time but previously 50% of them said that they add money to their investments less than once per month so, it is possible that they add bigger amounts of money with bigger timespans. Finnish students add smaller amounts of money but do it more regularly. As only two French students answered to this one it is easy to see that both add 101-150 Euros at a time, but one does it once per month and one less than once. Other nationalities put least amount of money but add them regularly.

From these questions we can see that the participants add money to investing in similar timespan but differ from each other more when compared how much they add at a time. The Finnish and German students add most amount of money when compared to others.

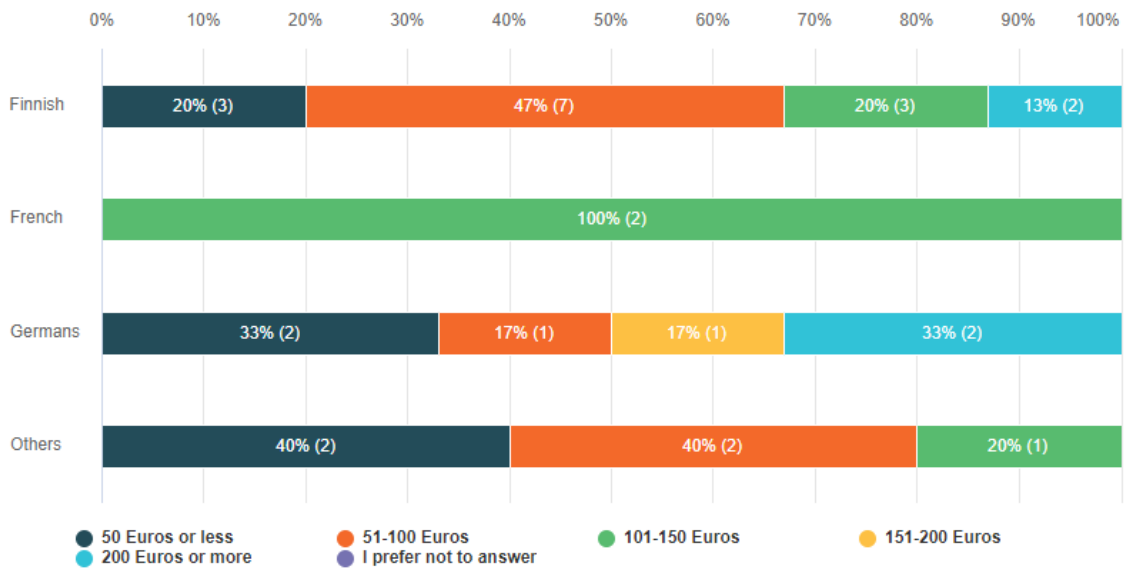


FIGURE 17. Amount of money the participants add at a time.

Question 14 was available again for all 42 participants who invest. Because it had a multiple answer option, question 14 received 75 answers from 41 participants. Once again one of the participants did not answer to the question. 61% of the participants answered that family was biggest influence to start investing. 34.2% stated that friends made them start investing, 24.4% of the participants were influenced by online. 19.5% started because of banks, 17.1% was influenced by social media and 14.6% news. School influenced only 7.3% of the participants. 4.9% reported other. Both answers stated 'Me' which most likely means that no external factor had impact on their choice to start investing.

Once again, Finnish students had most variety when it comes to influencers. Family was one of the biggest influencers amongst Finnish respondents as 69.6% of the Finnish participants answered it. From Germans 85.7% answered family. 75% of the Dutch students answered family and they were the only ones who chose it from other nationalities. School was a small influencer since only two Finnish and one German student chose it. Friends was a popular factor amongst every country as it was chosen by 30.4% of the Finns, 33.3% of the French, 28.6% of the Germans and every Dutch. News have affected 17.4% of the Finnish students, 14,3% of the Germans and both Spanish students. Social media influenced 17.4% of the Finns, 14.3% of Germans and 25% of other nationalities. 21.7% of the Finns started investing because of online internet as well as one French, one German and 37.5% from other nationalities. Biggest difference came from bank which could imply that Finnish banks market investing more or are more effective at marketing than other European banks since only one Spanish chose it alongside 30.4% of the Finns.

When compared we can see that family and friends are primary influencers for students followed by online, news and social media. This means that there is very little difference between countries on how students start investing. Only difference was seven Finnish students and one Spanish student that seems to be influenced by banks (Figure 18.)

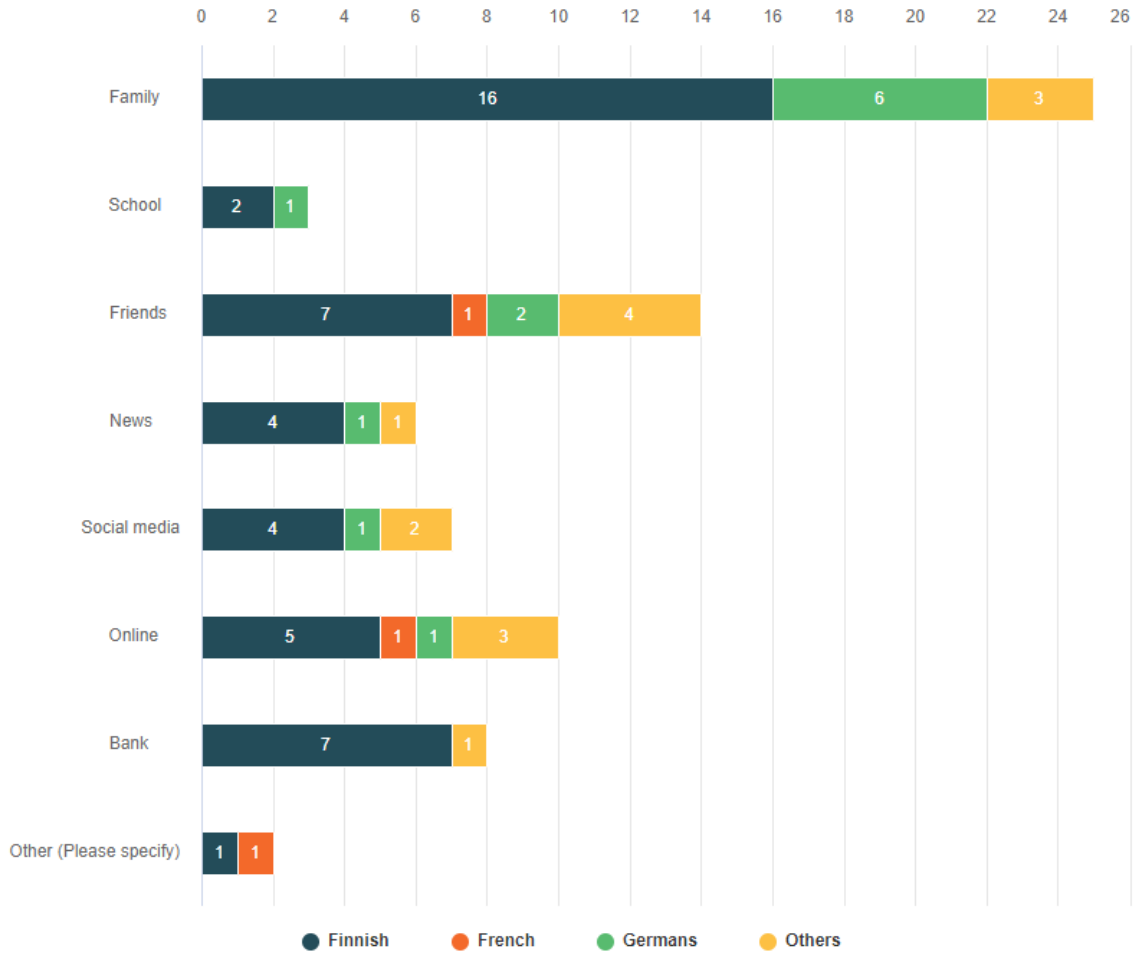


FIGURE 18. Influencers which caused the participants to start investing.

Question 15 asked that have any participants had any sort of investing education previously. This question did not specify in where they have possibly learned investing. From 42 participants, 33.3% of the participants have received education regarding investing.

37.5% from the Finnish participants have received some education. From the German students 57.2% have had education about investing. From others only one Spanish student has received education (Figure 19.) Rest of the students have not received education. When looked individually results show that participants with economics and business as their field of study has received most education about investing. All the Finnish participants who answered yes to this question are economics and business students. This same applies to German participants and Spanish participant. It appears that the student's field of study is a major factor when looking at whom has received education about investing. From countries perspective, country has no difference with education which is understandable as investing is a personal subject.

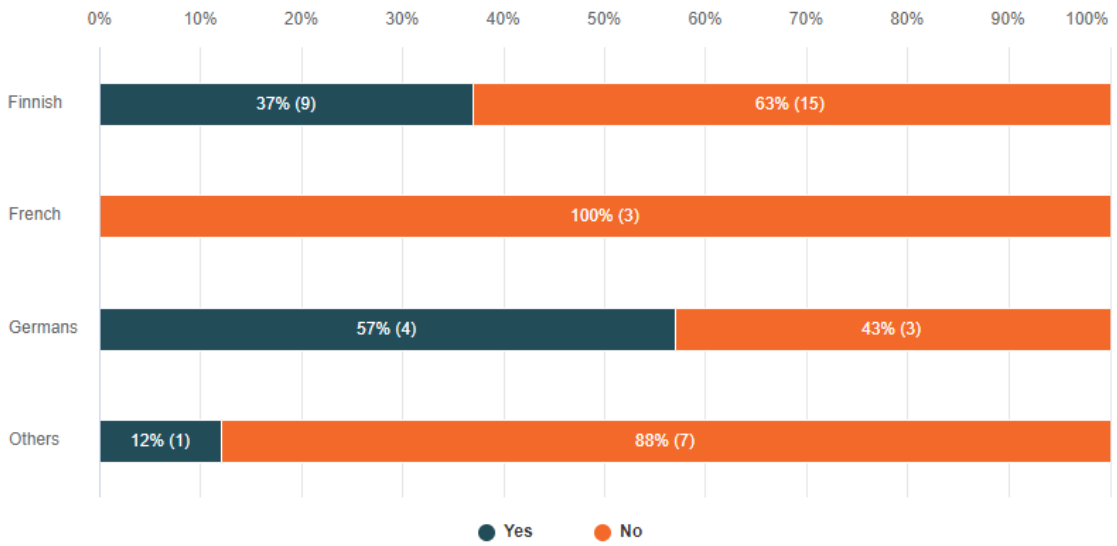


FIGURE 19. The participants who have received education about investing.

Question 16 asked the participants' overall experience about investing. The participants could express their experiences from very negative to very positive. From 42 respondents none of them felt negative or very negative feelings about investing. 23.3% of all the respondents felt neutral about investing while 66.6% of the answers were positive and 10% very positive.

Students show very similar reaction towards investing as none of them have negative feelings about this no matter where they are from. Over 60% of the participants have positive or very positive experience from investing in all countries (Figure 20.)

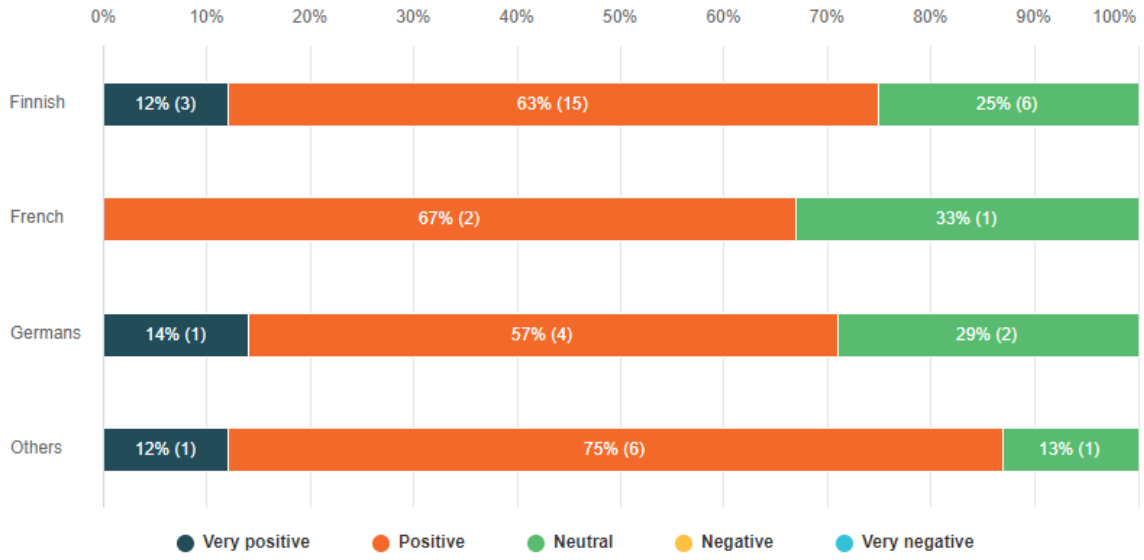


FIGURE 20. The participants overall experience about investing.

In question 17 the respondents had to write down why they invest. Some of the students did not answer to this question as question stated, "Free word". This was meant as possibility to say what you want but some must have considered it as an optional question meaning that from 42 students who invest, 76.2% of them responded to this question. 21 written answers came from Finnish students, zero from French, four from Germans and seven from other countries. As answers were written, there was no possible way of creating charts, instead most common answers are covered why people invest and look if there are similar answers and possible patterns.

The most common reason was saving for the future. Many of the respondents from all countries felt that they want to save for the future and have money for retirement, achieve financial independence or for backup if they face unexpected expenses in the future. Saving for the future was said at least once per country and by over 50% of the Finnish students with variations for which they want to save. For many investing was considered as a useful hobby where they could learn about financial market and gain more money.

Differences between students from different countries were few. Two German students brought up low interest rates on their bank accounts and even inflation which causes them to lose money if they just save. This has activated them to invest which was a different reason than anyone else's. One student stated that he invests as his friends invest.

6.3 Question for the students who do not invest.

Question 18 starts the question set for the participants who do not invest. This question further separates the participants depending on their answer. From total of 56 responders, 66.1% said that they have considered starting investing and 33.9% said that they have not considered investing.

From all countries over 50% of the students have considered investing with Finnish students having an overwhelming 93.3% support. The most (52.2%) of the French students have thought about starting to invest and as the ones who already are investing have just began, it might be possible that some of these students will start in near future. In other countries all Belgians have considered investing and from two Dutch only one. Overall, all countries show that over 50% of the participants have considered starting investing with biggest peaks in Finland (93.3%) and in Belgium (100%) (Figure 21.) From this we can conclude that investing is an interesting topic for students, but they have just not started it for some reason.

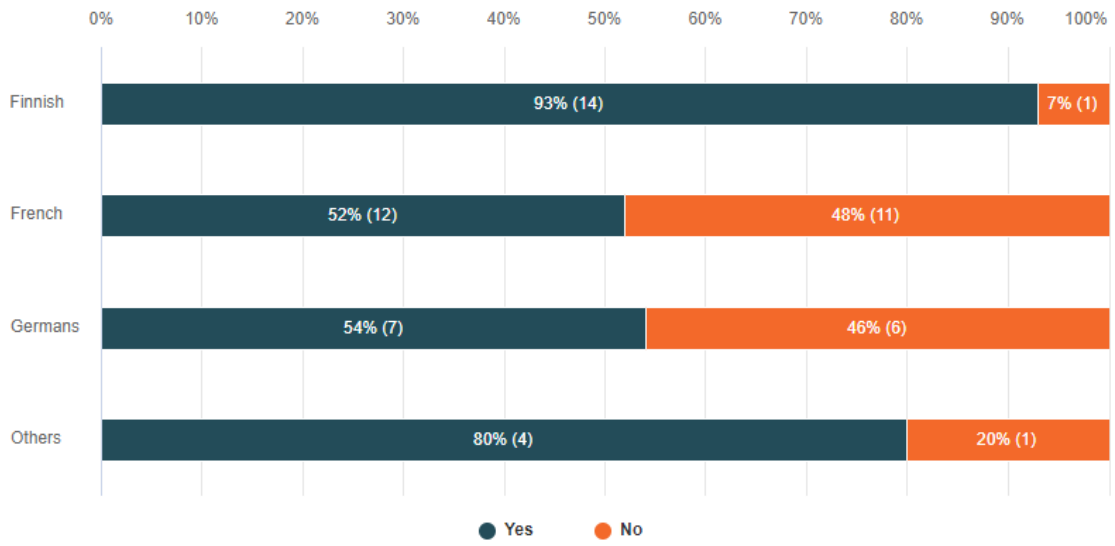


FIGURE 21. The participants who have considered investing.

Question 19 asks the same question as question 8 only this time the question is asked from people who do not invest but have considered it. Multiple choice question got 145 answers from 37 participants. The most popular answers were the same as in question 8. 78.4% of the participants chose low risk, 64.9% of the participants chose easy investments and 62.2% long-term. 46% want cheap investments, 43.2% want diversified investments and 37.8% effortless. Expensive and centralized investments were both chosen by 10.8% of the participants. The least popular investments were high risk and time-consuming investments as they were both chosen by 5.4% of the participants. From these answers we can already draw the conclusion that most people no matter whether they invest or not have the same mindset and want to have safe and long-term investments.

The majority of the Finnish participants (85.7%) would choose low risk investments. The same applies to majority of French participants (66.7%) and German participants (85.7%). 75% from other countries would choose low risk investments as well. Long-term investments would also be popular choice as all Germans chose them followed by 71.4% of the Finns, 33.3% of the French and 50% of the participants from other countries. Third popular option was easy investments. 78.6% of Finns chose them, 58.3% of the French, 42.9% from Germans and 75% of the participants from other countries. Other options were also popular but had significantly less participants choosing them. All percentages are shown below. (Figure 22.)

When compared between countries once again there are no huge differences. The only recognizable difference is that Finnish students seem to be a bit more towards riskier investments than others by picking high risk and centralized investments. Latter was also chosen by two French students. Belgians and Dutch would choose safe investments. Even though the number of answers for different options vary between countries, we can see that the majority of the respondents from the same country focus on the same option (Figure 22.) An example of this is the option low risk.

	Finnish		French		Germans		Others		
	n	Percent	n	Percent	n	Percent	n	Percent	Total
Easy	11	78.57%	7	58.33%	3	42.86%	3	75%	24
Difficult	0	0%	0	0%	0	0%	0	0%	0
Cheap	5	35.71%	7	58.33%	4	57.14%	1	25%	17
Expensive	1	7.14%	2	16.67%	1	14.29%	0	0%	4
Low risk	12	85.71%	8	66.67%	6	85.71%	3	75%	29
High risk	2	14.29%	0	0%	0	0%	0	0%	2
Short-term	6	42.86%	3	25%	1	14.29%	0	0%	10
Long-term	10	71.43%	4	33.33%	7	100%	2	50%	23
Effortless	8	57.14%	4	33.33%	2	28.57%	0	0%	14
Time consuming	1	7.14%	1	8.33%	0	0%	0	0%	2
Centralized (Focus in one investment)	2	14.29%	2	16.67%	0	0%	0	0%	4
Decentralized (Focus in many investments)	6	42.86%	2	16.67%	7	100%	1	25%	16
Other (Please specify)	0	0%	0	0%	0	0%	0	0%	0
Total	**64**		**40**		**31**		**10**		**145**

FIGURE 22. Investments the participants who do not invest would make.

In question 20, respondents who answered to question 19 were asked to write down why they would choose those types of investments. Question 20 received 22 responses. Eight of the responders were from Finland, four from France, six from Germany one from the Netherlands and three from Belgium. A possible reason for the low number of answers was once again "Free word" text in the question which some respondents may have felt as optional.

The most common points which the participants expressed were the lack of money which could be used to invest and the lack of experience or knowledge about investing. These reasons were expressed in all countries. Two of the students stated that they do not want to observe their investments all the time meaning that they want something that is easy to control. One French student wrote that he would choose long-term investments because his family has said that they are good hinting possible herd behaviour.

Question 21 was free word question for people who answered no to question 18 "Have you ever considered starting investing". The question received 11 answers from 19 participants. Reason for low response rate was most likely again due to the respondents thinking that question was optional. Therefore, we only view the received 11 answers.

The participants have many same opinions as many of them state that they lack money to invest and consider investing to be far too dangerous. A Finnish student fear that investing bears too much risk and is not comfortable with investing and trusts more in saving. This same kind of problem troubles one French student as he or she feels investing is hard and dangerous. Four students fear

that losing even little bit of money is too much for them hinting for possible risk aversion. Two students have never considered investing but say that this is because they have never studied investing.

7 THOUGHTS AND CONCLUSION

In this chapter we study the results of the survey and compare the research results to the theoretical part of the thesis. We will discuss about the reliability of this thesis and possible topics for future research. After these there will be a self-evaluation.

7.1 Results from the research

For this thesis research, a survey was created to find out if European students invest and depending on their answer, find out what the motivations are for their decisions. The objective was also to find differences and similarities with students investing habits and find out if students from a specific country invest differently.

In chapter six we covered all questions included in the survey and the answers provided by the respondents. The results are presented in written and with tables and charts. Based on the answers received we can make conclusions about European students investing habits and answer to the questions on how many European students invest, what are their motivations and how do they differ from each other.

The results show that from 98 accepted responders, 42.86% of them invest in some sort of investment. From responder's nationality we can see that Finnish, Dutch, Spanish, and Italians have 50% or more students investing when others have less than 50%. Biggest difference was with French where only 11.54% invest. (Figure 10.) From 56 students who do not invest, 66% of them have considered starting investing. This means that from total of 98 responders, 80.6% of the participants either invest or have considered it marking that most of the participants have interest towards investing. Last 19 respondents have not considered starting investing at any point. When we compare these answers between countries, we can see that Finnish, Spanish and Belgian students are most interested about investing as 90% or more of their total students invest or have considered it. In France, Germany, Netherlands and Italy, the number of students who invest and have considered it, is lower but shows very similar percentages between them around 50% - 60% respectively.

The objective was also to find differences and similarities between students investing habits. The research proves that there are many similarities and differences between them. In chapter 2 we look at different theories of financial investing and how to create investment plan. We also look different financial instruments in chapter 3 to understand what kind of assets should be picked in given situation. Most of the participants who invest show large similarity between each other when we look at question 7 and question 8 and what kind of investments they make and why they make them. The participants prefer index funds, mutual funds, exchange-traded funds and stocks more than other assets. Many of the participants have chosen both funds and stocks meaning that they have diversified and allocated their capital and created themselves portfolio. (Figure 11). This show that the participants understand concepts of risk and return and can create themselves investing

plans. In question 8 the participants provided similar reasons why they have chosen their investments. Many of them prefer low risk and long-term investments which implies that they want to play safe and invest for long time. This is further proved at question 17 where many stated that they want to save money for the future and achieve financial independence meaning that they have long-term investing plan already established. Only participants who differ from others were the French. They invested only to stocks, cryptocurrency and commodities and stated that the reason why they chose these were high risk and short-term. They might be using active investing strategy and seek higher than average profits. Unfortunately, they did not explain their investments or reasons in question 17.

The participants started to show large differences when it came down to money and time. Finnish participants alongside German participants have invested more money on average than students from other countries. Results from this may have been impacted by the fact that there were more Finnish and German investors than investors in other countries (Figure 10). Another reason is that the Finns and Germans are the oldest participants when measured average age between countries (Figure 6). Finnish and German students also have invested for far longer on average than other countries students meaning that they have had the time to add more money (Figure 13). The least amount of time used to invest were seen with the French and it was seen also from the amount of invested money as they had invested only 586 Euros on average. (Figure 14.)

Intensity of adding more money to investing was however similar between the participants as over 50% of them from every country put more money on investments at least once per month. The amount of money varied significantly between students within countries but not so much on average between countries. 33,3% of the Germans and 13,3% of the Finnish students add 200 Euros or more at a time marking them as the ones who add the most amount of money to investing but all of them do not do it every month. Other participants add less money, usually 51-100 Euros but do it more often. (Figure 17.) As many invest in funds it is possible that they have a systematic monthly investing plan with a bank.

When we compare possible influences at question 14 that made the participants start investing, we can clearly see that family and friends are the largest influential factors in all countries excluding Spanish students, who were influenced by online and social media. Friends influence is even further explained by one student who tells that he started investing because his friends did. This type of influence also refers to herd behaviour which is covered in chapter four.

There are many motivations as to why students invest. Majority of the students felt that investing for the future was the best option. Many considered investing as a chance to gain financial independence and help them when they retire. This same reason was found from Nordea's survey for Nordic countries (Nordea 2019). For some investing is a hobby and an excellent way to learn about investing and markets in general. Some students even showed some overconfidence in their answers by saying investing to be easy and that they know how to invest well. In overall, students

show very similar mindset towards investing in every country as most of them want financial independence and save for future.

When we look at the students who do not invest but have considered it, we can see that they are choosing same the kind of investments as the ones who invest. They also seem to choose easy, low risk, long-term and decentralized investments which implies that the students have very similar mindset no matter where they come from or if they invest or not. The reasons for these types of investments were lack of money and experience about investing. Many felt that even small loss was big problem suggesting for possible loss aversion. Herd behaviour was also possibility as one student chose long-term investments because her family suggest her to take long-term investments. From these answers we can conclude that many would probably start investing if they would receive education or financial support which they could use to invest.

Finally, we look at the students who do not invest and have never considered it. Results show that almost half of them fear too much to start investing and four others say that they lack money to start investing so they have never considered investing as possibility. These reasons can be reflected to students who have considered starting investing. As both state these reasons it is obvious that student's biggest problem is lack of money to begin investing or they are lack knowledge about investing which can cause loss aversion.

In summary, less than half (42.86%) of the students invest but most of them (80.6%) are interested about investing and would act very similarly if all of them would invest. Students who invest show large similarity when measured between countries especially when choosing investments and explaining why they invest. The majority of the participants have same reasons which include investing for future and doing it as a hobby. Few participants show signs of herd behaviour and overconfidence but that would need further study to evaluate their situation better. Differences arise when asked about amount of money used to invest, timespan and education about investing. Finnish students show that they have invested the most amount of money in the most amount of time (Figure 14) and possess many who have education about investing (Figure 19). French students are on the other end as they have invested shortest amount of time and least amount of money. Germans and other nationalities are mostly balanced between these two extremes. Reasons for these differences can possibly be explained with age of the participants and field of study as many economics and business students invest but from other fields far less. Students who have considered investing and those who have not also show similarity between each other. Biggest problems why they do not invest is lack of capital to begin or they are inexperienced and lack knowledge to know how to invest well. Few of the participants who do not invest show loss aversion as even a little loss is big for them. Results of the research indicate that many could be potential investors if they would get education about investing or stable income.

7.2 Reliability of this thesis

Validity means that research studies correct subjects which are related to research problem. Reliability stands for permanence meaning that if this same research would be conducted again it would yield the same answers as when done previously. (Kananen 2008, 79.)

Reliability of research can be described with three concepts. These are liability, reliability, and ethnicity. Liability means how believable the research is and whether the audience who read the research believe the results to be true. Reliability means that the researcher can convince the audience that he or she has completed the research with specific methods and has successfully analysed the data. Finally, ethnicity means that research is conducted with respect towards the participants and have caused no offence or harm towards other people and that the researcher has used methods which are suitable for any kind of research. (Puusa & Juuti 2020, 167.)

This thesis research can be considered as valid as its studies problems which are suited to the theoretical part of this thesis. Reliability of this thesis was reduced by the number of respondents from different countries. Many of the countries had less than ten respondents, thus heavily reducing variety in answers. Because of low number of participants, it is difficult to reflect their answers to all students in their country or even in their school. Current events and circumstances affect participants answer rate and type, but research is possible to do again as this thesis does not limit it in any way. Research execution and data evaluation was done objectively. This means that the researcher had no effect on the results.

7.3 Possibilities for further studies

Research showed that the students show large scale of differences in certain things such as the amount of money used for investing. This creates possibility for further studies to find out reasons why this happens. This can be studied from personal spending all the way to governments student aid. This same research can also be conducted on a different scale. In this thesis, the survey received only 98 responses and increasing that number can increase or decrease differences between countries.

The students are also very interested about investing which could be studied more. Especially now as Covid-19 has possibly affected their opinions about financial investing and investing behaviour. These points make research vital as there is a possibility to learn something completely new about financial investing market and its behaviour under global crisis and how it is viewed by people.

7.4 Self-evaluation

I started searching for a thesis subject in late 2019 when I was still an exchange student in Ireland. I found my subject in early 2020 and presented it to my supervisor. Even though I had plans early on to make my thesis about investing I figured out the final thesis subject around February. I started my thesis with creating the survey. When I was making the survey, I had ideas about what I

wanted to ask from students who were going to be part of it, but I lacked the skills to create a survey as it was the first one ever for me. Despite this, it was approved by my supervisor, so I believed it is well done and went with it.

I finished creating the survey around March and then the real problems began. Because of Covid-19 most schools in Europe shut down making collecting answers difficult as people did not check their emails as often as normal. This was however not vital because I was writing the theoretical part for the thesis at that time and I believed that I could collect the data later as I was planning to finish my thesis in autumn.

As pandemic got worse, so got my school. As the school and the city libraries closed, I lacked the material for the theoretical part. I had access to E-books but not nearly as much as in other schools. In addition to writing the thesis, I had to look for internship positions at the same time which were scarce due to the virus. Because of this I had to reschedule pretty much everything, and it made me put the thesis on hold until I found a suitable internship position. This decision caused the thesis to be on hold for most of the summer with the only exception of sending the survey link to different schools.

In September I finally got myself an internship position, and I could finally focus on the job and on the thesis as well. I continued to write the theoretical part, but I was lacking a solid idea what to include in it. After some time, I finally worked it out and was able to write down my theoretical part allowing me to continue to research.

The research part was the most difficult because as I created the survey in early March and continued the thesis in September, I had developed a different vision of what I wanted to ask from the students, and I started to see many flaws in the survey. I could not change it however since I only had a couple of months left and I feared that I would not receive enough data in time as last time it took many months. Because of this I decided to continue with the old survey and look for alternative viewpoints which could be valuable. Working with the data itself however proved to be simple as I had done it previously on many occasions. It was easy to analyse the results even though there was not as that much to analyse as I had hoped for.

Overall making this thesis was quite enjoyable as the subject was picked by myself. The only downside was that I could not create a new survey as the time was limited and the current survey was not well made, and it had too many flaws in my own opinion. This thesis also made me understand how unprepared and unready I was when I started this thesis. I believe that if I would start a new thesis now, I would perform a lot better due to better understanding of time management, survey creation and overall idea on how to conduct a research. Writing this thesis also greatly improved my language skills and ability to find new viewpoints and write a more extensive text. Research and studying about the subject also made me understand what kind of an investor I am and how could I improve myself with investing. Finally, I believe that I have gained invaluable experience about working under extreme conditions because of Covid-19.

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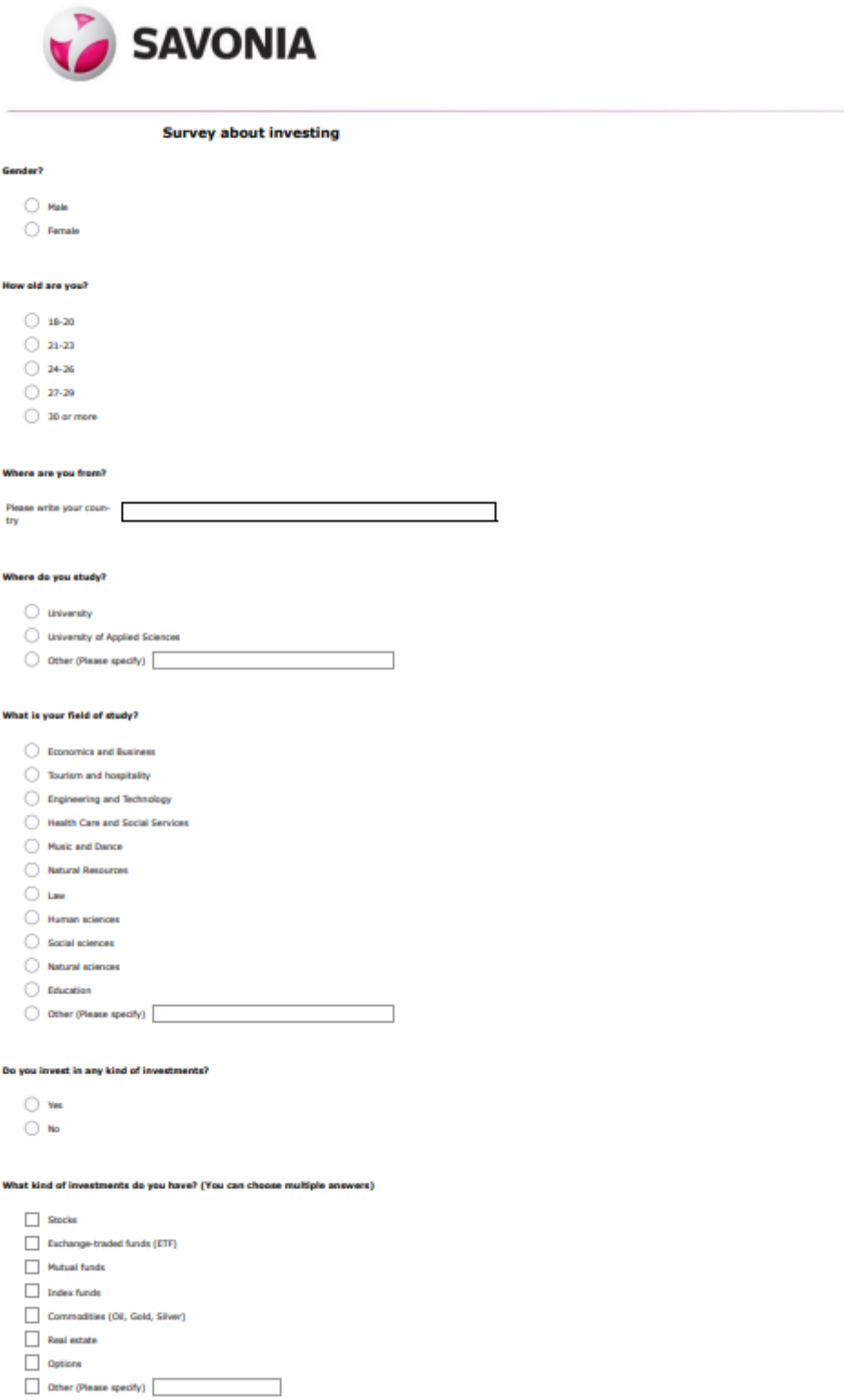
APPENDIX 1: THE QUESTIONNAIRE: SURVEY ABOUT INVESTING



SAVONIA

Survey about investing

Gender?

- ○ Male
- ○ Female

How old are you?

- ○ 18-20
- ○ 21-23
- ○ 24-26
- ○ 27-29
- ○ 30 or more

Where are you from?

Please write your country: _____

Where do you study?

- ○ University
- ○ University of Applied Sciences
- ○ Other (Please specify) _____

What is your field of study?

- ○ Economics and Business
- ○ Tourism and hospitality
- ○ Engineering and Technology
- ○ Health Care and Social Services
- ○ Music and Dance
- ○ Natural Resources
- ○ Law
- ○ Human sciences
- ○ Social sciences
- ○ Natural sciences
- ○ Education
- ○ Other (Please specify) _____

Do you invest in any kind of investments?

- ○ Yes
- ○ No

What kind of investments do you have? (You can choose multiple answers)

- ☐ Stocks
- ☐ Exchange-traded funds (ETF)
- ☐ Mutual funds
- ☐ Index funds
- ☐ Commodities (Oil, Gold, Silver)
- ☐ Real estate
- ☐ Options
- ☐ Other (Please specify) _____

Why have you chosen these type of investments? (You can choose multiple answers)

- ☐ Easy
- ☐ Cheap
- ☐ Low risk
- ☐ Short-term
- ☐ Effortless
- ☐ Centralized (Focus in one investment)
- ☐ Other (Please specify) ☐
- ☐ Difficult
- ☐ Expensive
- ☐ High risk
- ☐ Long-term
- ☐ Time consuming
- ☐ Decentralized (Focus in many investments)

How long have you invested?

- ○ Less than 3 months
- ○ 3-6 months
- ○ 6-12 months
- ○ 1-2 years
- ○ 2-3 years
- ○ 3-4 years
- ○ more than 4 years

How much money have you invested?

0 € | 0 Euros | Amount of Euros | 5000 or more | ☐ I prefer not to answer

Do you add more money to your investments actively?

- ○ Yes
- ○ No

How often do you add money to your investments?

- ○ Less than once per month
- ○ Once per month
- ○ More than once per month

How much do you add at a time?

- ○ 50 Euros or less
- ○ 51-100 Euros
- ○ 101-150 Euros
- ○ 151-200 Euros
- ○ 200 Euros or more
- ○ I prefer not to answer

Where did you get the idea to start investing? (You can choose multiple answers)

- ☐ Family
- ☐ School
- ☐ Friends
- ☐ News
- ☐ Social media
- ☐ Online
- ☐ Bank
- ☐ Other (Please specify) ☐

Have you ever received any education about investing?

- ○ Yes
- ○ No

What is your overall experience about investing?

- ○ Very positive
- ○ Positive
- ○ Neutral
- ○ Negative
- ○ Very negative

Free word: Why do you invest?

Have you ever considered starting investing?

- ○ Yes
- ○ No

What kind of investments would you make? (You can choose multiple answers)

- ☐ Easy
- ☐ Cheap
- ☐ Low risk
- ☐ Short-term
- ☐ Effortless
- ☐ Centralized (Focus in one investment)
- ☐ Other (Please specify)
- ☐ Difficult
- ☐ Expensive
- ☐ High risk
- ☐ Long-term
- ☐ Time consuming
- ☐ Decentralized (Focus in many investments)

Free word: Why would you choose those type of investments?

Free word: Why you do not want to invest?