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# University students' attitudes towards investing: A comparison between the United Kingdom and Finland

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This dissertation is investigating the attitudes of university students towards investing. The objective is to form a better understanding of what students think about investing, what is their risk tolerance and what has affected their investing attitudes. In addition, comparing the findings of the research to the literature on the subject.

The theoretical part concentrates on risk and return and on the most common investment classes available for students. It also explains investment behaviour by introducing behavioural finance and considers what earlier studies have said about investing and attitudes towards it. The earlier studies have been focusing more on households and young adults and specifically students have been left with limited attention.

The data was gathered by close format online questionnaire where a total of 87 responses were gathered from the two countries. The quantitative research was then analysed and interpreted. The results suggest that less than half of the students invest but their attitude towards investing is quite positive. The risk tolerance is leaning towards risk averse rather than risk seeking and most of the students have been encouraged to invest.

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| Keywords | attitude, behaviour, investing, investing behaviour, psychology, student, young adult |

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# 1 Introduction

The dissertation focuses on students and their attitudes towards investing. The chosen topic dives into the context of investing from an individual perspective where university students are at the focus of the study. The investigation of the dissertation is to seek answers whether students at universities are investing and how do they see it and is it negative or positive activity in their viewpoint. Many people invest but they might not stop to think what is their attitude towards it, or if they don't invest do they feel it is wrong in some way and what has influenced their attitude. The research included one university from the United Kingdom and another from Finland to form comparison and keeping the study interesting. The reason to choose university students is that they haven't been researched that much in the current literature and terms of investing, rather households are the typical group researchers focus their attention to or individuals in a more general sense.

The dissertation has been divided into five different chapters, each of them contributing to the work. After the introduction of the dissertation, the literature review looks at what does investment and attitude as words mean to us and identifies the theories of risk and return by introducing portfolio theory and the CAPM model. Risk and return must be understood to better acknowledge their relationship and why they are so important part of the investment literature. Investment asset classes and possibilities that are available for students are explained after risk and return with identification of the characteristics of each investment class. After identifying the investment classes the focus is turned on to investigate what psychology and behavioural finance have said about investing. Behavioural finance studies the psychology of decision-making. Human behaviour is often biased and emotions play a role in investment decisions, behavioural finance examines these flaws of human behaviour (Byrne and Utkus, 2013). Continuing from the behavioural finance, the final part of the literature review identifies earlier studies of investing and investment behaviour. The third chapter outlines the research methodology used in the research. The research was conducted by an online questionnaire to best reach the respondents and to collect answers in a short period. The chapter identifies the methodologies used in the research phase, evaluates the chosen research approach and solidifies the relevance of the study. It will also discuss limitations concerning the conducted research.

The fourth chapter of the dissertation is presenting and analyzing the data gathered during the study. In this chapter the descriptive questions as well as other research questions are analysed and contrasted with the existing literature presented in the second chapter. As will be seen some interesting findings were made between the countries. The chapter is then summarized and the last chapter will conclude the whole work. Investors and people should understand their attitude and level of risk they are willing to take. This has been done traditionally through financial advisers but could be done by asking similar questions on risk by yourself (Murray-West, 2014). This implicates we should examine and research how different groups feel about investing and would they be ready to shift from the traditional way of financial institutions controlling the field to new way of self-management of the investments. Students are an interesting group in this regard as they are more technologically oriented than the older generations and are at the start of their financial independency so their attitudes are particularly interesting and valuable to know and study.

The research questions that were studied were:
Do university students invest and if yes, where do they invest?
What are students' attitudes towards investing and who or what has affected the attitude.
What is students risk tolerance?
And have students received encouragement to invest and if they have who or what has encouraged them to do so.
These questions were asked from one university in the UK and another in Finland to have an element of comparison and see whether the attitudes differ between the two countries. The questions were expected to provide answers for the desired topic. Hopefully this paper inspires further research of students in higher education.

# 2 Literature review

## 2.1 The meaning of the words investment and attitude

The word investment can mean the production of goods that produce other goods from the economist perspective. In the popular usage investment is thought of as purchasing of for example stocks and bonds. Investment can also mean nonphysical investment, human capital investment whereby by studying you invest into yourself (Hassett, 2008). The definition of investment is described as an action or buying something that will make possible profit in the future (Oxford Dictionaries, 2017). From an individual's perspective investment is often seen as profit making activity and is applied to the financial markets. This means putting money aside and investing it in the assumption it will make profit in the future for the person who made the investment.

Attitude has had numerous definitions and one of them, attitude is "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" is simple and understandable (Eagly and Chaiken, 1993 in Fiske, Gilbert and Lindzey, 2010). Although this definition has been challenged by others, especially the word tendency that implies to fixed things in our memory (Gilbert and Lindzey, 2010). Despite the criticism the abovementioned definition of attitude is seen accurate and good.

## 2.2 Risk and return

The stock and options markets have been in existence at least from the year 1602 but until the 1960s only a little was understood about the risk associated with investments and their returns. Theories of risk and decision making emerged only in 1940s and 1950s (Perold, 2004). The portfolio theory by Harry Markowitz (1952) showed how investors could create portfolios of individual investments to trade off risk versus return. His theory showed that some of the risk could be decreased by holding a diversified portfolio, but not all because the assets held in the portfolio are correlated to each other to a degree. For example, if the whole market portfolio moves 1 point and the individual stock moves 0,6 points the two are positively correlated. Some of the risk of a portfolio is decreased by having investments that are imperfectly correlated to each other. The portfolio theory

shows how risk can be diversified by holding assets that aren't perfectly correlated with each other but the expected return of the portfolio is the weighted average return of assets held in the portfolio. Diversification leads to a reduction in risk but not in the expected return. For example, you have a choice to invest in risky assets M and H having different expected returns and risks, standard deviations. For asset M the expected return is 10 and standard deviation is 20 and for asset H the expected return is 12 and standard deviation is 40. The risk-free rate is 5 with a standard deviation of 0. Standard deviation differs for different investment options. When you form a portfolio from the risky assets you get a curve where you can see all the different weightings between the assets M and H (Figure 1). In the spot where the portfolio has the highest Sharpe ratio the weightings are 74% of asset M and 26% of asset H (Perold, 2004). This spot is called the tangency point. Sharpe ratio measures the additional return over the risk-free rate you get with the added volatility of the risky asset (Investopedia, 2017b). To combine the assets M and H with the risk-free rate of lending and borrowing we get an efficient frontier of the portfolio. In the efficient frontier, we can plot the optimal portfolio weighting of assets M and H and we can either lend or borrow at the risk-free rate to move up or down on the line. The efficient frontier demonstrates as a line where there is highest possible expected return for a certain risk level of the assets in question and where the Sharpe ratio is highest (Perold, 2004).

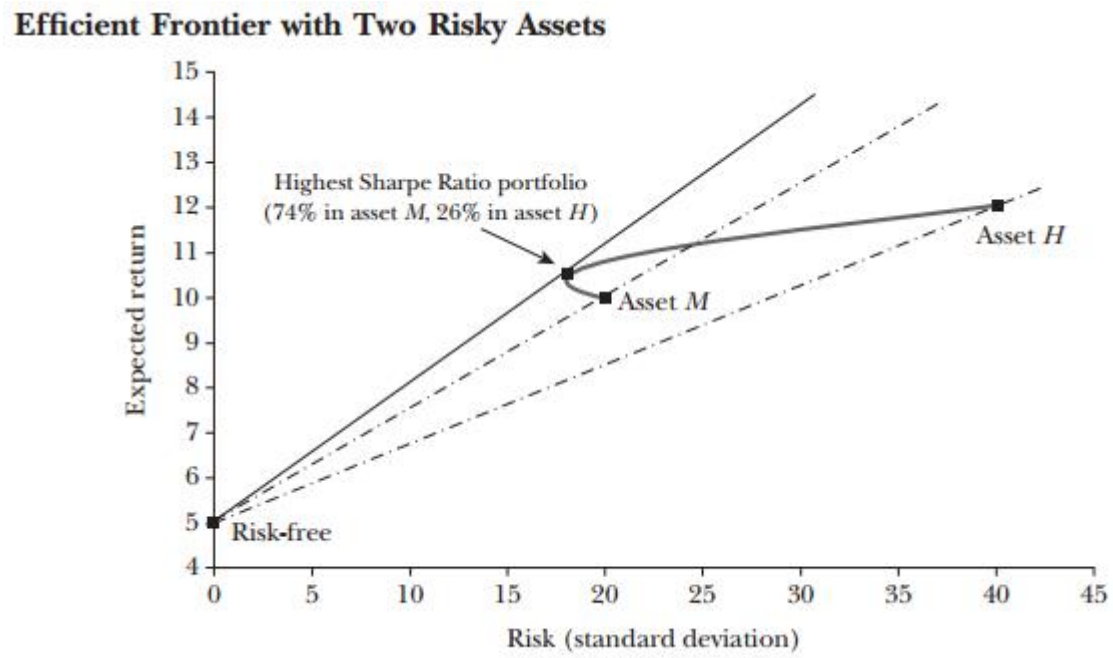


Figure 1. Efficient frontier with two risky assets from the portfolio theory (Perold, 2004).

The portfolio theory showed that with combining assets having imperfect correlation to form an investment portfolio investors can reduce the overall risk without sacrificing expected returns. It also shows that by adding risk-free rate we can optimize the risk and return of our portfolio. The portfolio theory and its discovery of the relationship between risk and return of assets has been widely accepted. One must bear in mind it is a theory and for example risk-free borrowing for individual investors in the real world is not possible.

From the portfolio theory, we get to another important model called the capital asset pricing model, CAPM. The CAPM assumes four things: First, investors are risk averse and they evaluate their portfolios in terms of expected return and standard deviation of return measured over a single holding period. Second, capital markets are assumed to be perfect in several terms such as there are no transaction costs, taxes or short selling restrictions, information is available to everyone and is cost free and all investors can lend and borrow at the risk-free rate. Third, investors have the same access to investment opportunities. Fourth, investors make the same estimates of individual assets expected returns, standard deviations and correlations among asset returns (Perold, 2004). In equilibrium, the portfolio of risky assets with the highest Sharpe ratio is the market portfolio. The CAPM formula is shown below:

$$E_s = r_f + \beta(E_m - r_f).$$

The formula shows the expected return of an asset $E_s$ by adding beta $\beta$, the sensitivity of the asset's return to the return of the market portfolio, to the risk-free rate. The equation is then multiplied by the excess return the market portfolio earns over the risk-free rate. The CAPM's determining factor is the beta that measures the sensitiveness of an asset's return to the return of the market portfolio. The (Figure 2) shows that in equilibrium all securities lie on a single line which is called Securities Market Line, SML. If a security is not on the line investors can improve their portfolio against the market portfolio and obtain a higher Sharpe ratio (Perold, 2004). The securities will get back into the SML, eventually. The CAPM was created in early 1960s by William Sharpe (1964), Jack Treynor (1962), John Lintner (1965a, b) and Jan Mossin (1966). Both the portfolio theory and the capital asset pricing model are profound theories in investment world and have been the cornerstones for further research and debate.

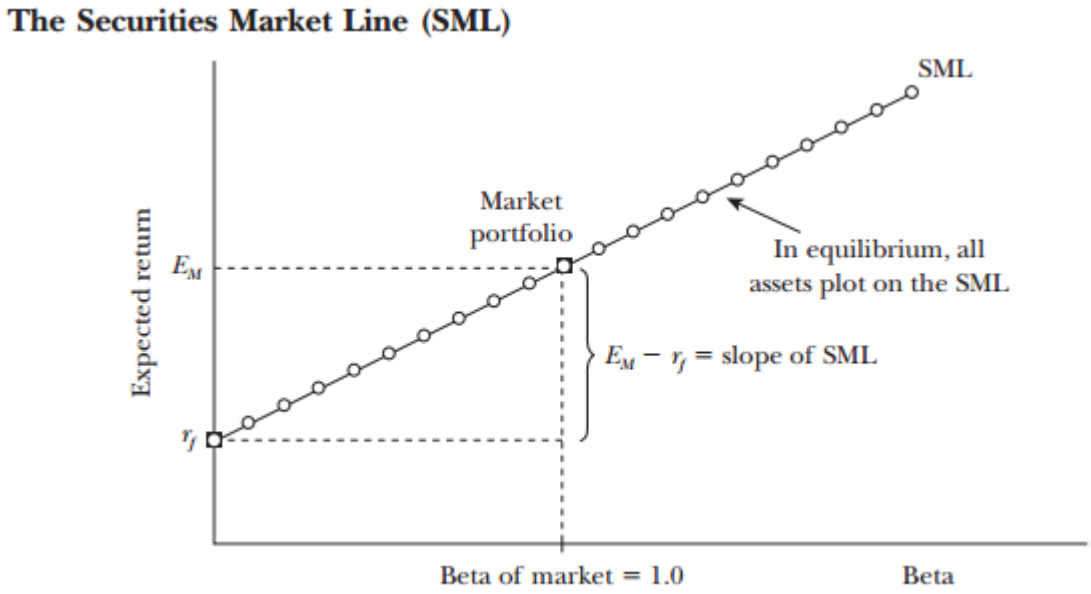


Figure 2. The Securities Market Line, SML (Perold, 2004).

The CAPM has been criticized after it was first introduced. It is argued that testing the CAPM formula with different measures have been showing the beta doesn't capture the expected returns in the way the model shows it would (Fama and French, 2004). The criticism especially is aimed at the market beta explaining the expected return of assets. The model has been empirically proven not to be holding. There are two different schools of criticism. Behaviouralists that believe investors are time to time over or undervaluing stocks and second school where researchers believe a more complicated asset pricing model should be created to better explain average returns (Fama and French, 2004). Propositions to make CAPM better have included intertemporal capital asset pricing model, ICAPM from Merton (1973) and Fama and French's (1993, 1996) three-factor model for expected returns. It is obvious the CAPM is relying heavily on theory and the complexity of investors and their behaviour interrupts the simplicity of the model's assumptions. It is arguably a good theory and starting point for comparing risk and return but sould not be blindly followed (Fama and French, 2004).

## 2.3 What are the different investment options?

The theories on risk and return indicate an investor should be able to obtain an optimal portfolio, although theory assumes the world is ideal. Portfolio theory explains the importance of diversification and is widely accepted but the CAPM has been heavily criticised, among them Fama and French (2004). In reality we live in a complex world and there are a wide variety of asset classes and investment options available for investors with country specific differences in taxation and legal rules. The available amount of information for investors is overwhelming and comes from multiple sources. Individual investors have a possibility to invest through insurance providers, banks, brokerage firms and other investment service providers. This part will outline and explain the different investment asset classes available to individual investors.

### 2.3.1 Pension, bank accounts, insurance and real estate

Most countries have a pension system that includes a state pension. Countries like the United Kingdom has a system where employees can enroll to pension schemes where a portion of their salary will be invested to grow and it will be paid out in a lump sum or in smaller portions once the person retires. The benefits of pension schemes are tax related (Pension Funds Online, 2016). The UK has a state pension system where people will get a portion of the maximum pension depending on their years at work. Similarly, Finland has a state pension system funded by taxes and this type of pension is guaranteed for everybody. People that have worked in Finland will get employment pension proportionate to their income while they were working which will come on top of the state pension that is guaranteed for everybody (Tyoelake.fi, 2017). The difference between the UK and Finland is that in Finland the proportion will be automatically put aside for retirement but in the UK people have an option to choose to opt out of pension schemes.

A very common investment and saving option are bank accounts. They are relatively safe way to deposit and invest money as bank accounts are often insured up to a certain amount. There are different types of accounts to choose from. Checking accounts are those most people are familiar with and are used to handle daily transactions. Checking accounts have low interest rates. There are other account options such as savings accounts with possible withdrawal limitations but higher interest rates or certificates of deposits where the whole amount is deposited once and can’t be withdrawn before the end

of the deposit period. Certificates of deposits accounts pay interest rates, fixed or variable to a period most often between 6 months and 5 years (Finra, 2017).

Insurance companies might offer life insurance products such as an annuity type of insurance where the insured pays a lump sum and will get regular income until his or her death. In the annuity, the insurance company invests the lump sum to the financial markets to enable the payments to the insured (Arnold, 2012). There can be also insurances where the insured pays an annual fee and after predetermined number of years will start to get money out of the insurance contract.

Real estate is an investment option for individual investors. An investor buys the property and rents it out to tenants who will pay rent, often monthly rental payments creating a steady stream of income. The investor or landlord will be responsible of paying the mortgage loan, taxes and maintenance of the property. Another way of making profit from the real estate is by appreciation in price of the property. The location, condition of the property and price should be all carefully considered before investing in real estate and a paid property manager can be hired to manage the property. The risks involve bad tenants, the property being empty for several months and potential depreciation in price of the property (Investopedia, 2017a).

### 2.3.2 Bonds, stocks, funds and other exchange-traded instruments

Companies, governments and other organisations lend money and one way they do it is by issuing bonds. Bonds are an investment option where the borrower will promise to make predetermined payments, most often regular interest payments to the lender and at the end of the loan period will pay the principal amount back. Because bond investors are promised a return, they are bearing less risk than equity investors thus the expected return is lower. An exception to lower returns are high-yield bonds. There are primary and secondary markets for bonds and individual investors usually trade bonds in the secondary markets. The most widely known bond types are government bonds, corporate bonds and other organisation’s bonds such as municipal bonds (Arnold, 2012 and Finra, 2017).

Stocks or equities are an investment where investors invest their money to a company. By investing into a company the investor becomes owner of the company proportionate

to the invested capital. Company shares are listed in stock exchanges all over the world, for example in the London stock exchange. Stocks are regarded riskier than bonds as investors are not guaranteed any payments. When companies are making profitable business, investors are compensated by increase in the share value or by dividend payments. Dividends are paid to the shareholders from the profit the company has made. Companies can buy back their own shares decreasing the number of shares outstanding, thus increasing the value of the remaining shares (Arnold, 2012 and Finra, 2017).

Mutual funds are a type of investment provided by banks and other financial institutions for investors. A mutual fund pools money from many investors and invests the money to a pool of securities. Every investor that has invested to the fund will hold fund shares proportionate to their invested capital. Mutual funds can be actively or passively managed, where active management trades more frequently and tries to beat the benchmark the fund is denominated against. Passive mutual funds are trying to replicate the benchmark. The fees investors must pay for the management vary and there are funds investing solely on bonds, stocks, different sectors, money markets or balanced funds that invest in a mixture of assets. The advantage to hold a mutual fund is they can be diversified to hundreds of securities (Arnold, 2012 and Finra, 2017).

Exchange-traded funds (ETFs) are tracking an index or a sector and are set up as companies issuing shares. The money is raised from investors to buy the securities in an index, for example the Standard & Poor's 500 index. ETF shares can be cancelled or created depending on the demand and the advantage compared to traditional mutual funds is that ETFs are trading in stock exchanges and may have lower fees. The prices of ETFs are quoted similarly to stocks during the trading hours. ETFs can be physical or synthetic in replication, meaning that the physical ETF buys actual shares but synthetic ETFs are using derivative instruments and are seen riskier (Arnold, 2012).

Options are contracts where one party has the right but not the obligation to buy or sell a financial instrument at a given price, at or before a specified date (Arnold, 2012). For example, companies can issue call options where the buyer of the option has the right to buy the underlying shares. The advantage of options is you buy the quantity stated in the contract but you only pay a premium to have the right to exercise the option. You can also be a holder of a put option which gives you the right to sell the underlying asset at a specified date. There are secondary markets for options contracts (Arnold, 2012).

Futures contracts and derivatives are deriving the performance from the underlying assets such as stocks or commodities. There are many underlying assets in the derivatives markets. These investment instruments don't have a limit on losses and thus they are risky and dangerous if the investor doesn't understand the investment product and the underlying asset thoroughly. Futures can be used to mitigate risk by hedging other investments or to speculate on market movements. These instruments can make large profits but they can incur unlimited losses too (Arnold, 2012).

## 2.4 Psychology and behavioural finance explaining investing behaviour and attitudes

As we are trying to understand how human beings behave and what are their attitudes towards investing, we need to look at psychology. Psychology is a field of study that tries to understand people. In the past 150 years, different areas of psychological research have emerged to study specific areas of our mind and complex lives. Investing or even thinking about investing is inevitably linked with our minds and thus it can be studied by using psychology. Many different things in the present and past influences our decision making and behaviour. We are all affected for example by the culture we live in, our childhood and education. Humans are unique as we can learn from the very start of our life throughout our whole life. We differ from animals as we can learn more complex things and we can actually use our thinking to our advantage (Hayes, 2010). We are all individuals and we have our own unique set of experiences affecting our behaviour and attitudes to any given aspect. The quest of trying to understand what affects our attitudes and behaviour of different investment decisions and investing itself is not easy and straightforward. However, without psychology and behavioural finance we would be less equipped of knowing individual investors attitudes and behaviour.

Behavioural finance explores the theory and evidence from standard finance and replaces parts of standard finance. The message behavioural finance sends is that individual investors are sometimes irrational. Investors are swayed by overconfidence, misleading emotions and hindsight. People often believe they can beat the market and retain above average returns but fail to acknowledge that often on the other side of the trades there are professionals (Statman, 2014). The problems arising in investing are from cognitive errors, psychological biases and emotions. These are affecting us and can turn rational well informed decisions to irrational panic-like decisions (Nofsinger, 2016). For

example, the anchoring on a certain price level in stock purchases comes from the psychology of knowing the historical prices of a particular stock and anchoring your mind to a certain price level which is irrational. In the (Figure 3) we can see the inputs on the decision-making system, our brains. The decision-making is affected by facts, probabilities, anticipation of outcomes and our mood. Systematic cognitive errors are coming from the reason side of the brain whether the emotions are playing a role or not (Nofsinger, 2016).

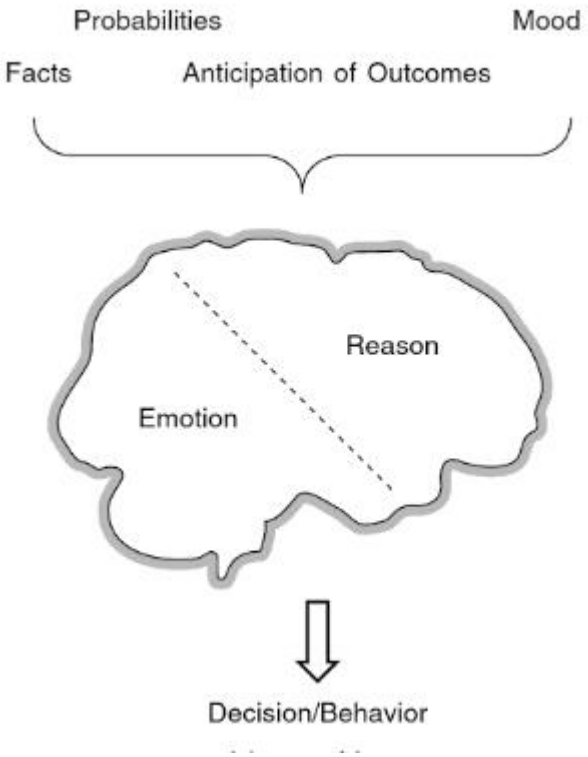


Figure 3. Decision-making process (Nofsinger, 2016).

The realization of errors produced by our mind, reasons and emotions, helps to understand the investing behaviour of people. Understanding our limits can help to avoid mistakes and errors others are making. The prospect theory describes how we frame and value decision involving uncertainty. In the (Figure 4) we can see that investment gains are not affecting us as strongly as the losses. The gains part is called to be concave and the losses convex. If you lose or gain £100 you don't feel twice as strongly anymore about losing or gaining £200 (Nofsinger, 2016). The studies show individual investors hold on to losing stocks and sell winning stocks too early. This could be partly explained

by the prospect theory and the belief of turnaround even if the odds to the different outcomes haven't changed. People seem to prefer to avoid situations where they would have to confront difficult psychological situations in the future (Shiller, 2003). Shiller (2003) argues that efficient markets theory can give false interpretations of for example stock market crashes or bubbles. The stock market boom and crash around the year 2000 had its origins in arbitrary feedback relations and human weaknesses generating misallocation of resources in a large scale (Shiller, 2003). The behaviour leading to market crashes can be better understood by studying behavioural finance.

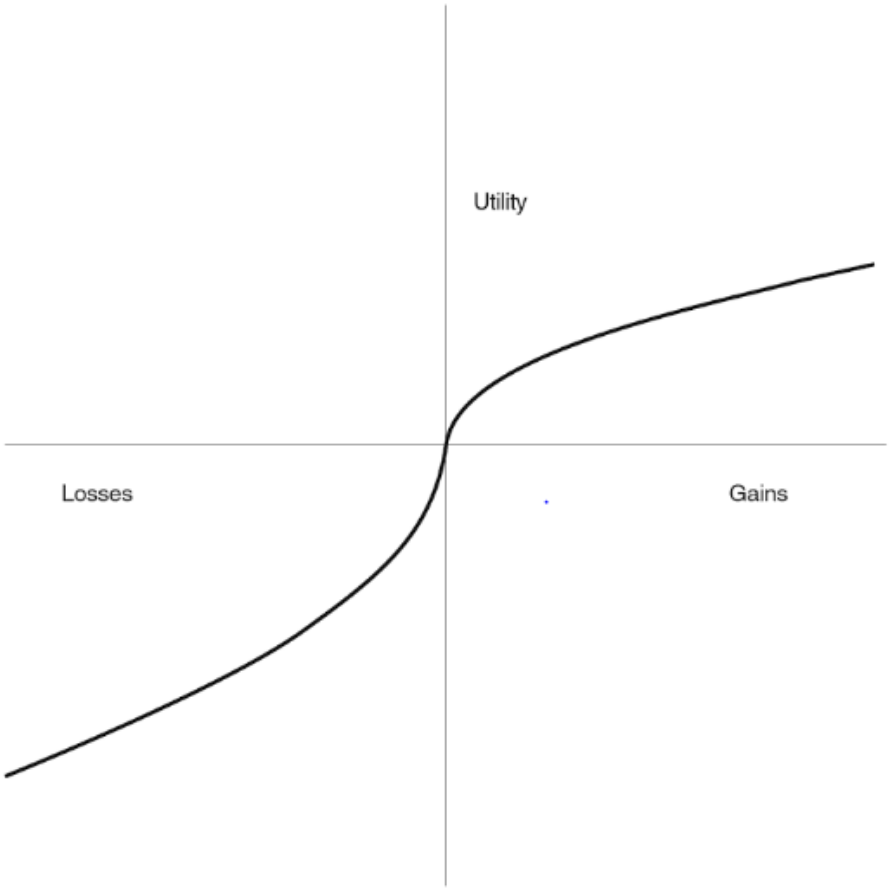


Figure 4. The prospect theory value function (Nofsinger, 2016).

We are affected by these cognitive errors and it would be useful to acknowledge them. The behavioural finance and psychology of investing are important when looking at the attitudes of investing often impacted by many sources of inputs in our brains and past experiences. The theories often expect investors to be rational but it's clear we have flaws to overcome and stimulus from multiple sources including media, education, relatives and friends. Thaler (2010) points out that even if behavioural finance cannot explain

or theorize all of the investor behaviour, it's certainly useful to try to study and know more about it. By understanding the behavioural aspect of investing it will help individuals but also politicians and the whole financial system to work better. When we look at investing, it's hard to ignore humans and human behaviour as a growing number of investments are done by individuals with varying levels of knowledge and risk tolerances.

## 2.5 Earlier studies of investment behaviour and attitudes

A study of Finnish investors investing behaviour measured by using distance, language and culture suggest that the three factors do influence trading and holding stocks. Grinblatt and Keloharju (2001) are suggesting that Swedish speaking Finns are more likely to invest in companies where the financial information is only presented in Swedish. That suggests language has a role in investors decision-making when choosing between investment options. This sounds logical when thinking of investing money, the investors want to know the story and figures behind the company. Although in today's globalised world the language bias isn't probably as strong as it was at the time Grinblatt and Keloharju (2001) presented their findings. Another factor that was studied, culture, had signs that when investors have similar background with the company CEOs they tend to invest in those companies. Investors preferred companies that were headquartered closer to where they lived but the significance was only in the range of 100 kilometers or less. Grinblatt and Keloharju (2001) noted that these behavioural factors might not be true in larger financial markets in the United States or the United Kingdom. However, they point out that companies publishing material exclusively in English might lose out on investors from elsewhere (Grinblatt and Keloharju, 2001). The home bias seems to be rather strong at least in a small market like Finland. The study was made in 2001 and it could be argued the home bias has decreased during the past years of more globalized and technologically developed world. Individual investors are now more equipped to invest all around the world than at the time of the study thus decreasing the effect of the three factors Grinblatt and Keloharju studied.

Individual investors often underperform due to various aspects. For example, individual investors have relatively high transaction costs, they might need their investments for liquidity purposes, taxes or rebalancing their portfolio. The needs can lead to more trading and subpar returns. Investors have tendency to overconfidence, especially the younger and unexperienced individuals but also investors trading very frequently have

been studied to be overconfident about their abilities to trade and make profit. Investing can be related to gambling and sensation seeking and the investors trading frequently are looking for skewed returns (Barber and Odean, 2011). Individual investors overweight stocks that they are familiar with through work relations or because they live near the company headquarters. This familiarity can have implications to the diversification which is kept important when investing to avoid being imposed to idiosyncratic risk. Investors are also affected by the media, the stocks recently in the news are often the most bought stocks. The paper notes most empirical studies show that average individual investors would be better off by holding a low-cost index fund (Barber and Odean, 2011). By holding an index fund the investor would be well diversified and had low transaction costs. The literature on individual investors and their performance suggests that it's very difficult to earn above average, superior returns. Individual investors are in a disadvantaged position. Although, studies show that it might be some individual investors do earn on average abnormal returns but at the same time the worst performing investors underperform significantly (Coval, Hirshleifer and Shumway, 2005).

A study of final year high school students in Italy measured the financial knowledge by dividing the students into two groups. The first group had a 16-hour course of financial education and the second group only answered to the questionnaire in the beginning and in the end of the survey period. The researchers found that the course improved students' financial literacy and understanding of economic issues. They also found the course affected the students' virtual investment attitudes but the peer student group without the course didn't have similar improvement. The students that only filled out the two questionnaires did improve their financial literacy. The researchers noted the most improvement was made by female students and students from poorer background and with poorer mathematics and Italian grades (Becchetti, Caiazza and Coviello, 2011). This study signals that attitudes and even behaviour might change after a course of financial education acting as a stimulus. Expanding the knowledge about finance could improve people's understanding of investing.

A thesis focused on researching how much young adults in Finland know about investment instruments, where they want to invest and how they prefer banks to contact them. The research found that young adults in Finland had the best knowledge of bank accounts such as deposit accounts. They had much less knowledge of stocks, retirement insurance or index loans. The interest to invest was highest for bank accounts and stocks followed by mutual funds. The least interesting was the index loan (Aakula, 2010). There

seems to be a clear correlation of investing to products the respondents knew and understood best. The research found that people were funding their investing with saved money or earned salary. The respondents with a higher degree such as a university degree had more knowledge of different investment instruments and were more interested to invest than those with lower level of education (Aakula, 2010). It's positive most of the respondents told to invest with earned or saved money as statistics show that people have financial debt. In the UK, especially students have a large amount of debt compared to their income levels (Office for National Statistics, 2016). In Finland households have 126% of debt compared to their income, although most of it as debt for a mortgage (Suomen Pankki, 2017 and Tilastokeskus, 2016). Young adults under the age of 24 had large amounts of debt in Finland (Tilastokeskus, 2016). This research seems to suggest that not just financial education but more education will lead generally to greater knowledge of investing and perhaps greater interest and likelihood towards investing.

This chapter identified what the key words attitude and investment mean to us. Risk and return, their relationship and key theories of portfolio theory and the CAPM model where critically explained. Different investment options available for students and individual investors were explained. Then psychology and behavioural finance identified that emotions and other factors affect our decision-making processes and the last part went through studies on investing behaviour and attitudes of individual investors. The next chapter will outline the research methodology used to gather the data for the research.

# 3 Research methodology

## 3.1 Research strategy and problem

The research strategy and problem must be identified in order to have a good research. The subject of this research is to study the investing attitudes of university level students in the United Kingdom and in Finland. As a university student myself I found it interesting to know about the attitudes towards investing of people in a similar life situation as me and a comparison of these two countries could reveal significant differences caused by various country specific factors. The earlier literature hasn't really been focusing on young adults or students and their investing but instead it has studied the household level of investing. This indicates there is possibility to make new findings in the subject

area and the relevance for a study about investing attitudes of individual university students is valid.

The research methods deployed in this study will follow a clear structure. After establishing the research problem and identifying the area of research we must focus on how the data will be collected. The research method to gather data is primary research and will be collected by using an online questionnaire format. The questions will be closed format questions with answer options to choose from and some of them have an “other” option to specify the answer if it’s not found in the given answer options. The data can be quantified to numbers which means the study is quantitative in nature (Walliman, 2011). The aim has been to keep the questionnaire fairly short in length to keep it relevant and interesting for the respondents. The questionnaire was sent to the supervisor before sending it out to the sample group. After the formulation of the questionnaire, checking its relevance and validity and distributing it, it will be necessary to be able to analyse the findings by using appropriate tools. This enables comparing and contrasting to the existing literature and for drawing on conclusions and any new findings from the research. When the research is analysed, the results can reveal could there be further research done or did new questions arise from the research.

## 3.2 Evaluation of the chosen research approach

The conducted research must be reliable, which means it must be repeatable. The questions in the research are done so that other researchers could use them and replicate the questionnaire if they would find the need to study the same subject. Another important criterion of business research is validity. The research must measure what it is supposed to measure, in this dissertation that is attitudes towards investing among university level students (Bryman and Bell, 2007). The approach to choose a quantitative research and an online questionnaire are often used for research made in social sciences (Walliman, 2011). This type of research enables carrying out the research quickly and it can be distributed to a sizeable sample. It’s convenient to analyse and draw conclusions on. Although, some researchers might find qualitative research applicable on the study of attitudes but in this case the quantitative study is less time-consuming and reaches a larger sample size than what qualitative study would do. Qualitative study would tease out more in-depth answers than quantitative research. When researching

investing attitudes a questionnaire format seems appropriate method to gather responses as the study is related to money. This way the research can be easily kept anonymous and confidential. Although, it's hard to be sure that every single answer came from a university student due to distribution by email with a link to the questionnaire but the study is interpreted in a way assuming all the responses came from university students.

## 3.3 Limitations of the research

The conducted research is subject to limitations. It aimed to gather data of the investing attitudes in the UK and Finland measured by asking the questions from only one university in both countries. This limits the reliability of the study and sampling error is possible because of the sample size is representing quite large population of students and probability sampling wasn't used (Walliman, 2011). Instead, the sampling was done by sending an email to a pool of university students in each university and the reliability of the findings and their generalization is thus limited. This approach was decided to apply in order to gather a reasonable number of responses in a reasonable time. It would have been difficult to send the questionnaire to every single student in both universities and thus a sample in these universities was selected to answer the questionnaire. The research questions are formed to try and capture the attitudes of the respondents towards investing but if further studies are conducted a better format or wording could be obtained. In the question where the respondents were asked where do they invest their money, it came obvious that it should have been an optional question because the previous question asked do the respondents invest or not. At least a "I don't invest" option should have been provided. The research has been done in a certain time period and thus outcomes of similar surveys may differ in another time and place and when asked from different people in different or same region. The questionnaire might have excluded more detailed questions and answers due to its quantitative nature and short format. The total responses from the UK was very low, affecting the possibility to generalize reliably to a wider population.

The research is conducted in English for both countries which might affect the results as the UK has English as a native language but Finland has Finnish and Swedish as native languages. The interpretation of the questions, albeit made as simple and understandable as possible, can have an impact due to different native languages. The research was

chosen to be made in English to have the best possible comparison between the two countries so that the wording would be the same and not affected by translation. The research strategy has been chosen to best suit the gathering of data considering the research problem.

The research strategy uses a questionnaire format with closed format questions to gather a large enough sample in a reasonable amount of time. The questionnaire should be repeatable and valid which criterion the research quite well fulfills. The research is subject to limitations such as sampling error. The next chapter will present and analyse the research data.

# 4 Data presentation and analysis

## 4.1 Analysis of the descriptive questions

The research was conducted in two countries, the United Kingdom and Finland. In both countries one university was chosen as a representative sample and the online questionnaire was distributed through email to the respondents (see Appendix A). The results have been analysed and presented using Microsoft Excel -tool. In the questionnaire (see Appendix A) the first three questions were descriptive to identify the respondents gender, level of studies and the programme they were studying. There was a significant difference between the number of responses from the UK and Finland. From the UK only 9 responses were recorded but from Finland 78 responses were gathered. This impacts the reliability and generalizability of the study especially for the UK.

From the total of 78 responses in Finland 41% were male and 59% female (Figure 5). From the UK the division of 44% male and 56% female respondents is similar to Finland's gender distribution in the research. The distribution of the two genders is quite equal and serves well the purpose of the study of investigating investing attitudes as both genders have contributed almost equally with their answers.

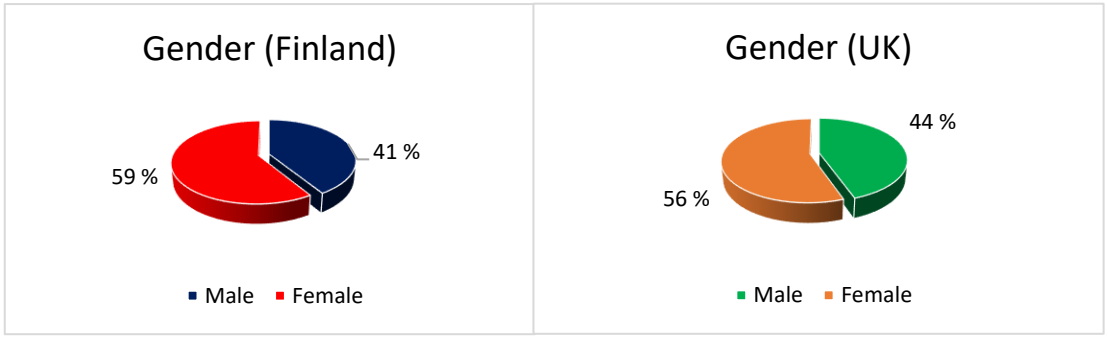


Figure 5. Respondents gender (Original).

From the respondents, all but one were studying in Finland at the undergraduate level and in the UK all respondents studied at the undergraduate level. We can see from (Figure 6) that most of the respondents in both countries are studying either in business and management or in other business related programmes. There was one respondent in Finland studying bioscience and environmental science and another one studying mathematics and statistics. The respondents that chose the option “other” were asked to specify the answer and all the answers featured business related programmes such as international business and logistics or european business administration. Now that we have analysed the descriptive part of the questionnaire, we can quite confidently say this doesn’t represent either of the countries whole student population but instead could well indicate how business students in the respective countries feel about investing and what are their investing attitudes.

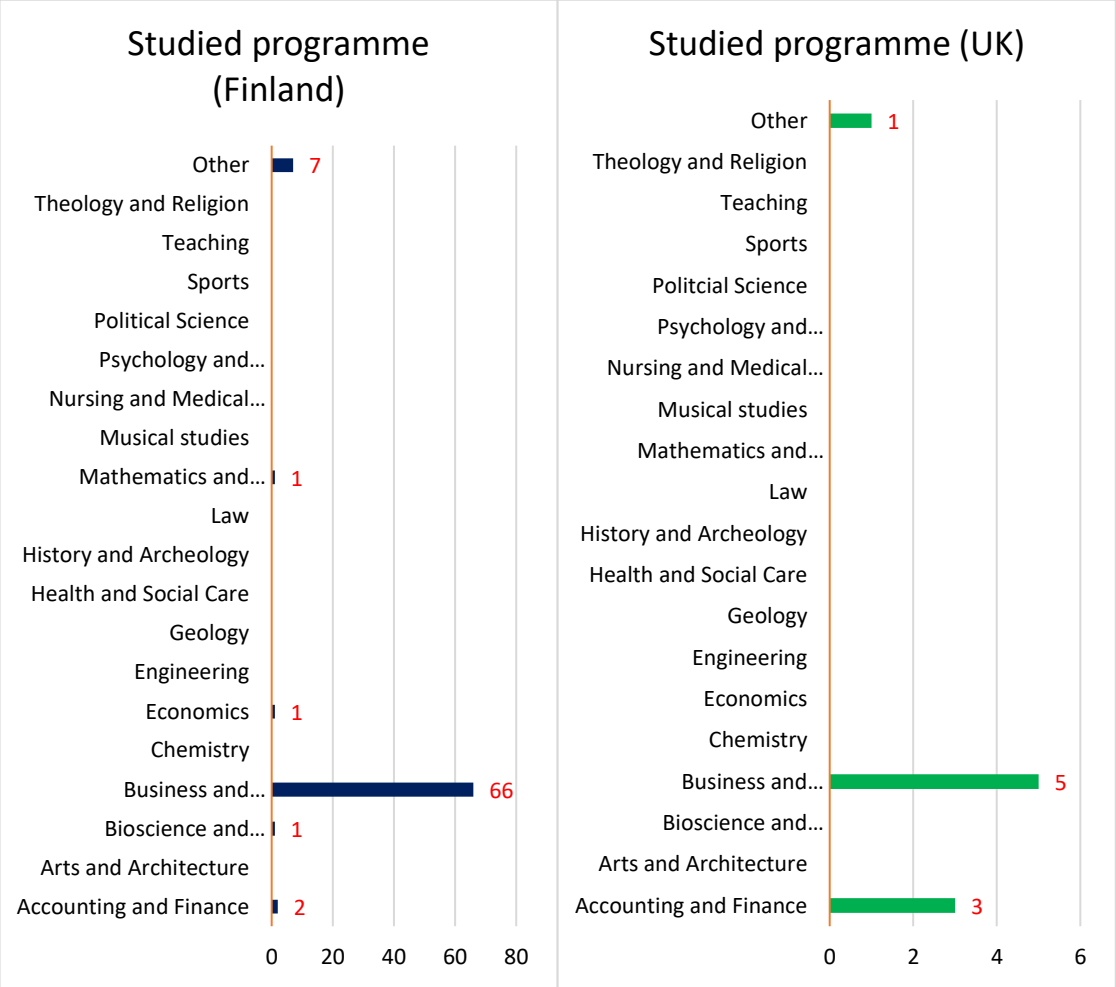


Figure 6. The programmes studied by the respondents (Original).

## 4.2 Analysis of risk tolerance and investment activity

The eighth question asked the respondents to select the statement that best described their tolerance of risk. The theories on risk and return describe individual investors as rational decision makers and risk averse (Perold, 2004). From the (Figure 7) can be seen that in Finland most of the respondents tolerated moderate amount of risk and only 9% or 7 respondents did tolerate a substantial amount of risk or were risk seeking. This is somewhat in line with the theory of risk averse behaviour. With smaller sample from the UK we can still plot that the responses are between risk averse to good amount of risk tolerance and no responses for the most risk tolerant statements. The results show that only a small number of students are risk seeking and ready to take on substantial financial risks. This could be the result of the life situation, irregular income and possible stu-

dent debt. Knowing your risk level is central in investing so that the capital can be allocated without taking on excessive risk and possibly losing the money invested (Thoma, 2017). It is useful to know risk tolerance for investors but also for individuals who are not investing.

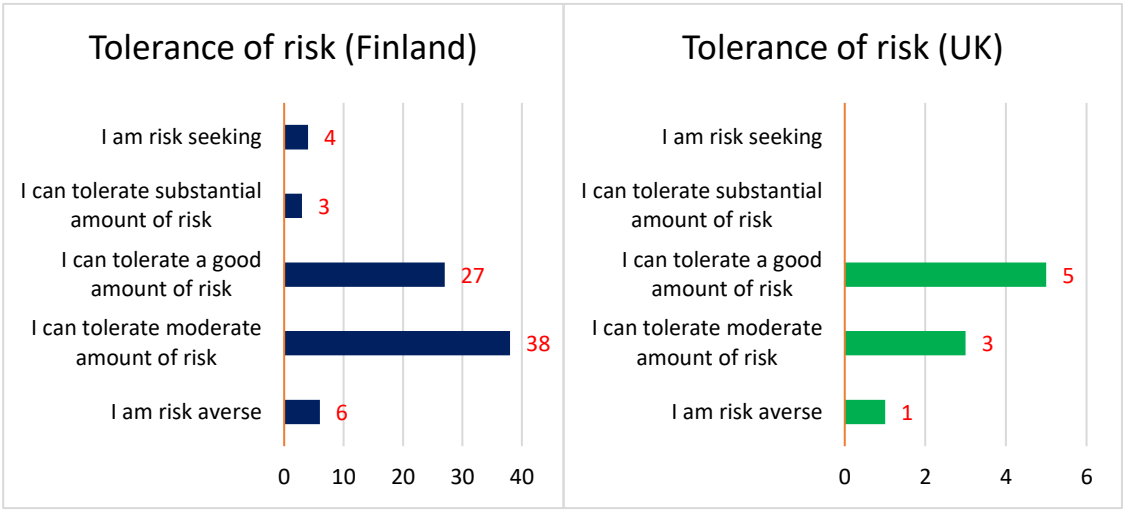


Figure 7. The risk tolerance of the respondents (Original).

The fourth and fifth questions were asking did the respondents invest their money to financial markets and where did they invest their money. Although the risk tolerance question was presented later in the questionnaire than these two questions we can compare the investment activity with the risk tolerance. It's striking to see that less than half, 46% in Finland and only 11% in the UK had invested money into the financial markets (Figure 8). This is interesting because as identified in the (Figure 6) most of the students who responded are studying in business related programmes. You could expect a higher percentage of students to have invested money to financial markets from this group. On the contrary the low percentage of students investing might be due to irregular and uncertain income during studies. It would have been interesting to ask whether the students invest with earned or borrowed money which was studied in the thesis of Aakula (2010). The relatively low level of investing activity is matching the risk tolerance levels as many students who don't invest have a low risk level. In the future studies, students could be asked why they have decided to invest or why they have decided not to invest.

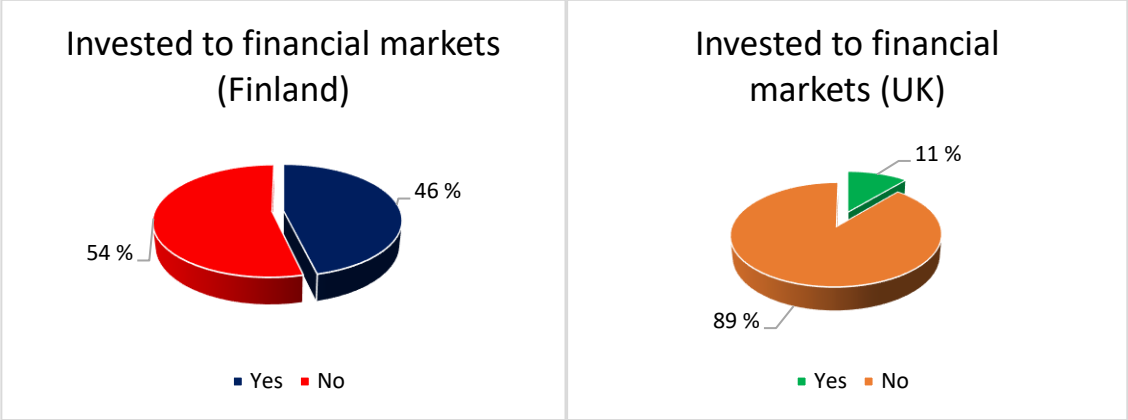


Figure 8. The results of have the respondents invested money to financial markets (Original).

After asking whether the respondents invest into financial markets or not, the next question asked about where the money is invested. This question might have caused some confusion because this was marked compulsory and over half of the respondents answered they didn't invest their money into the financial markets. However, here multiple options could be chosen. Instantly (see Figure 9) we can conclude that money is primarily invested to different bank accounts which are relatively safe way to invest as bank accounts are often insured up to a certain amount (Finra, 2017).

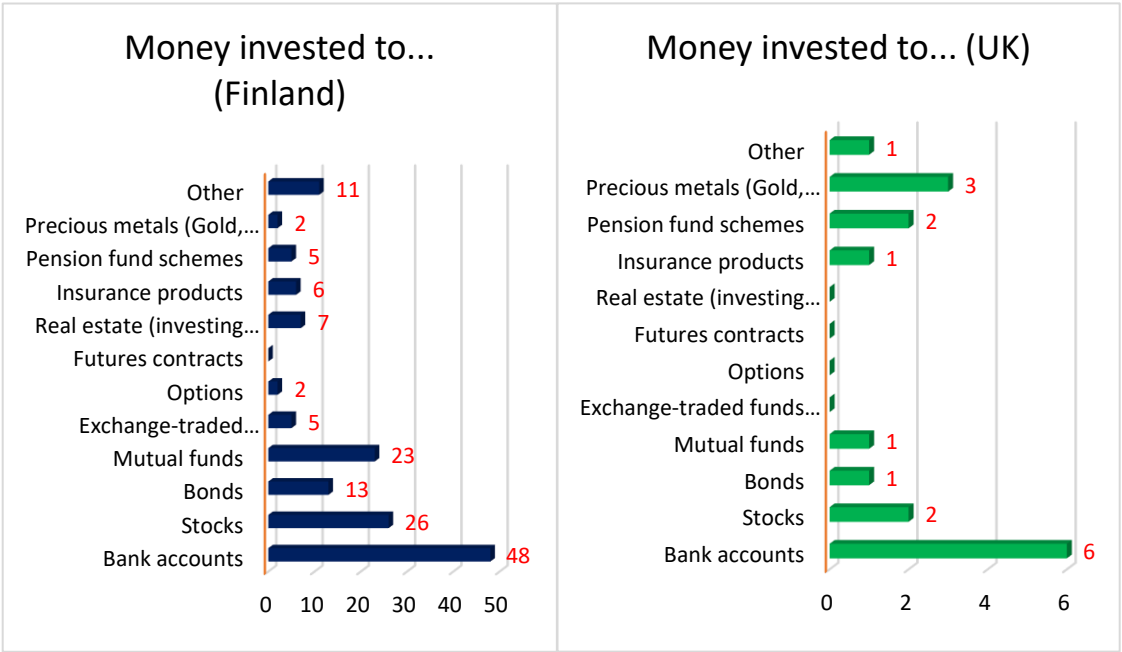


Figure 9. The investment options money is invested to by the respondents (Original).

Bank accounts are the most popular investment option in both countries. This translates to relatively risk averse investment behaviour among students and is consistent with the

risk tolerance of the respondents. The second most chosen investment category were stocks and mutual funds in Finland and precious metals in the UK. No respondent was investing into futures contracts which is a high-risk investment option. Rightfully, the respondents noted in the "other" option that there should have been an option to choose "I don't invest" or the question should have been optional. The answers from Finland are similar that Aakula (2010) found young adults invest their money in. The result indicates students are investing in products they know or are familiar with. Large number of responses to bank accounts also indicates that during studying money is handy to be available immediately without high level of risk of losing parts of it.

## 4.3 Analysis of students' attitudes towards investing

Now that we have identified the risk tolerance the students are comfortable with and their investment activity, let's look at their attitude towards investing. The attitude was measured by asking what was the respondent's attitude towards investing and who or what has affected the attitude.

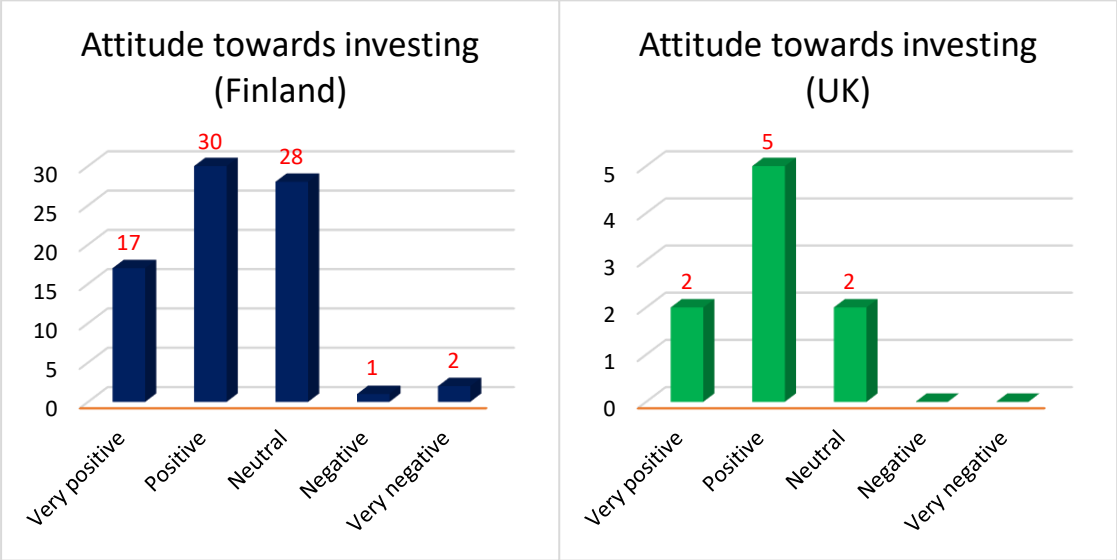


Figure 10. Students' attitudes towards investing (Original).

Most of the respondents from Finland have a positive or neutral attitude towards investing. Also, the very positive option was chosen by quite many and the both negative options were chosen only by a total of three respondents. From the UK, a similar response graph is pictured as most of the responses are positive and no responses to the negative answer options (Figure 10). The result indicates investing is seen as a positive acitivity

among students even though less than half of the students actually invest. They don't see it as a negative activity overall. Could the positive attitude be fed further by action taken by governments and other organisations in Finland and the UK? The next question asked what affected the students attitude towards investing. In this question, multiple options could be picked. The results in (Figure 11) show that knowledge about the subject and personal beliefs are influencing students' attitudes towards investing the most. This indicates that despite the not so high level of investing among students, their attitude towards it stems from their personal feelings and general knowledge about investing. We don't know do the respondents have a lot or only a little knowledge of investing but they view it mainly positively. The financial crisis and news about investing in the media hasn't affected the attitude as strongly as the personal feeling about it. The option of complexity of investing gathered quite high rate of responses in both countries indicating that more could be done to educate and simplify basics of investing. Religion and culture were chosen the least from the answer options. This shows that they are not significant factors in shaping the attitudes of students and religion is not as powerful in shaping attitudes as it has been earlier as the younger generation is not as religious anymore (Masci, 2016). People close to the respondents such as friends scored quite high in both countries indicating their opinions matter for many students.

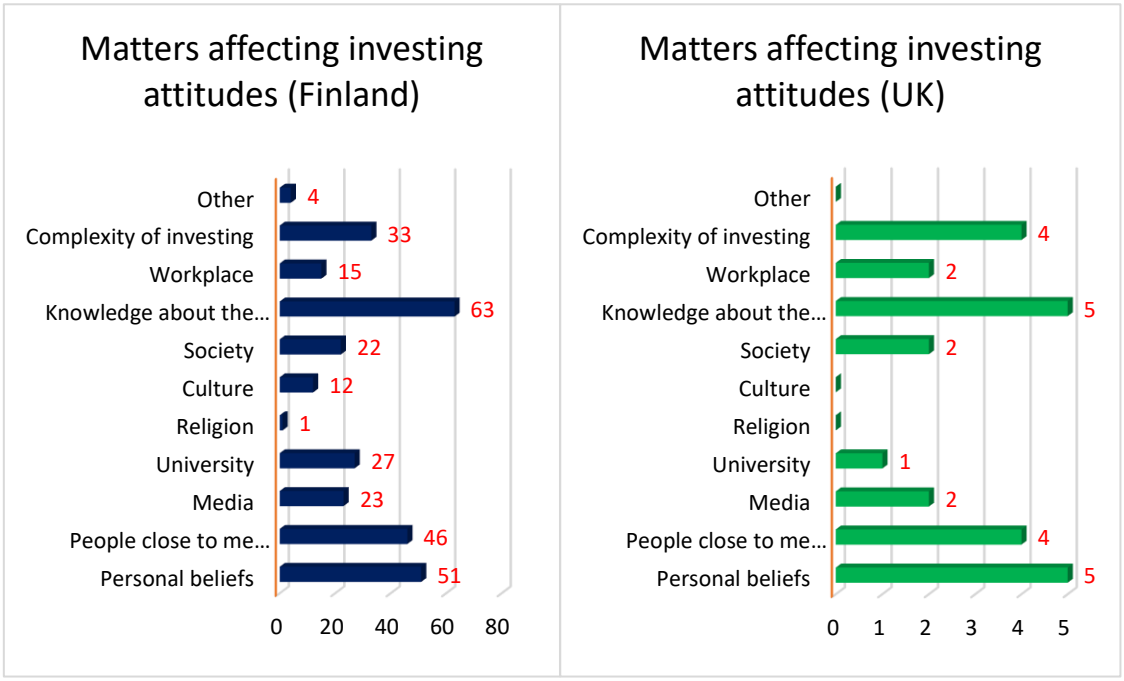


Figure 11. The matters affecting respondents investing attitudes (Original).

## 4.4 Analysis of encouragement to invest

The last two questions asked about have students received encouragement to invest and if they answered yes, where did they receive encouragement from. We can obtain (see Figure 12) that majority of the respondents in Finland 68% and the UK 89% had received encouragement to invest. In the Italian study of high school students, the finance course improved their understanding and attitude towards investing (Becchetti, Caiazza and Coviello, 2011). The result of the survey indicates that clearly most of the respondents have had encouragement to invest which could have an effect on their investment attitude. Knowledge about investing was mentioned to affect the investing attitudes and possibly the encouragement has increased the knowledge for students. Still less than half do actually invest so from the encouragement and being knowledgeable of investing to actually invest is not just a straightforward course.

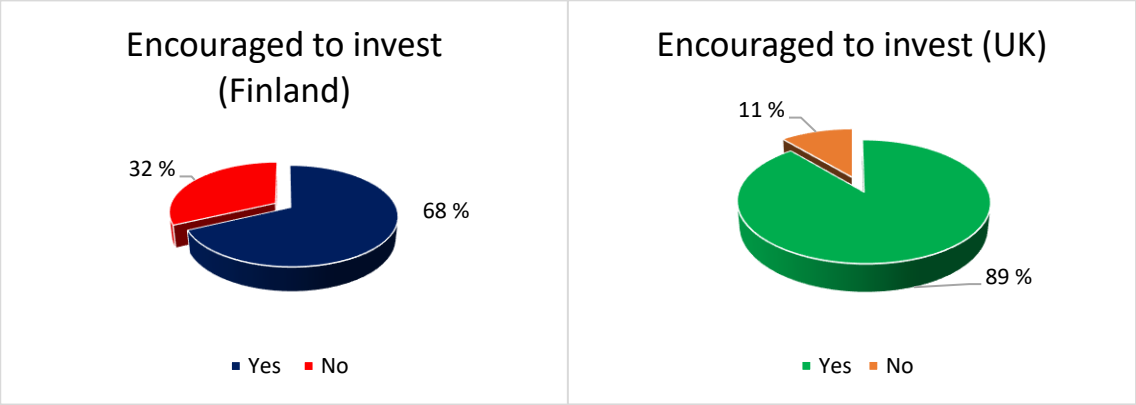


Figure 12. Where the respondents encouraged to invest (Original).

The respondents who answered they had received encouragement to invest where asked as an optional question who or what had encouraged them to invest. Multiple options were allowed to choose in this question. From the (Figure 13) we can see what the respondents kept as most encouraging towards investing. In Finland, it has been educational institutions and financial institutions followed by parents and friends. In the UK, friends have been the main source of encouragement and the other answer options had almost equal responses. It's quite interesting that in Finland institutions are seen to be the most encouraging towards investing. It fits however into the picture of education that corresponds to better knowledge and more positive attitude towards investing. In the "other" section were told that lecturers, books and boyfriend have had an encouraging effect. So, a variety of factors usually encourage people to invest.

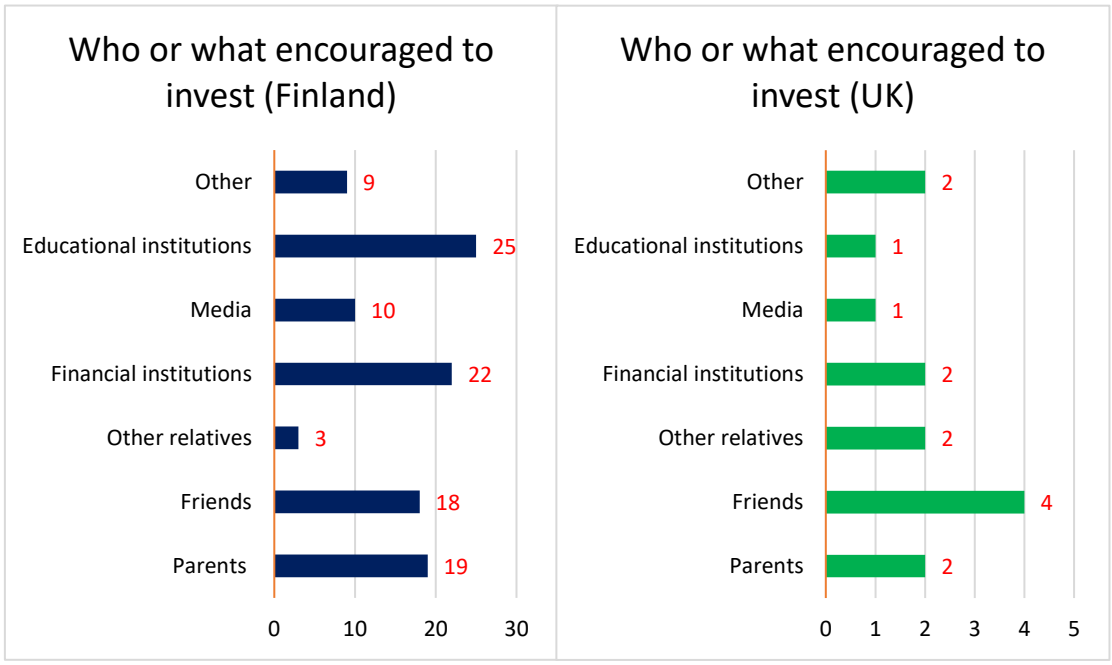


Figure 13. Responses to who or what had encouraged the respondents to invest (Original).

From the conducted research we can see the differences and similarities between Finland and the UK. The risk tolerances are similar in both countries with a moderate to good amount of risk tolerance. The investment activity is lower in the UK than in Finland but in both less than half of the students are investing into the financial markets. From the different investment options bank accounts were the top pick in both countries but behind bank accounts there were differences as in Finland stocks and mutual funds were the next favoured but in the UK precious metals were picked as second. The attitude towards investing was positive in both countries and main influences for the attitude were personal beliefs and knowledge about investing. Majority have been encouraged to invest and in Finland educational and financial institutions have been the greatest encouraging bodies whereas in the UK friends have been the main source of encouragement. The study depicts a picture of how university students in the business related programmes view investing attitudes, risk and the level of encouragement to invest. The results from Finland could be generalized with a higher certainty than from the UK because the number of responses was much lower from the UK respondents.

# 5 Conclusion

This dissertation and its research have focused on investing attitudes and specifically has tried to investigate this issue by using existing literature and a research that was conducted in the UK and in Finland. The focus was on university students' attitudes and their take on investing. The literature spanned through risk and return, identifying the terms investment and attitude and explaining what are the investment options available for people. The other part of the literature review explained and analysed how psychology and behavioural finance could explain the attitudes and behaviour of individual investors and what might be behind different decisions we decide to make. Earlier studies were presented to try and capture what has been investigated in the field of investing attitudes and behaviour among individual investors.

Risk and return and the relationship between the two have been studied by many and Markowitz (1952) created the portfolio theory explaining the importance of diversification. Another remarkable theory has been the CAPM which introduced a model to measure the expected return of investments. There has been critique for the CAPM theory and alternative solutions have been presented to replace it. There are various asset classes and investment opportunities such as stocks and bonds with their specific characteristics and differences. Psychology and behavioural finance have been explaining why investors aren't always rational and make their decisions influenced by emotions, facts and other factors. The earlier studies have realized it is difficult for an individual to gain above average returns on the market and investment decisions are affected by language or languages the company uses and some level of home bias has been identified. The education on finance has increased the knowledge and risk taking found in a study made in Italy and young adults in Finland have preferred to invest in products they know best. These products have been bank accounts and stocks and the more complicated instruments seem to be avoided. In addition, the study found that people in higher education or highly educated people have more knowledge of investing.

The methodology used in the research phase was quantitative and an online questionnaire was distributed to one university in both the UK and Finland. In the universitites a specific sample was targeted with the questionnaire. The research was quantitative in nature and the results were quantified to ensure easy interpretation. The research had limitations among them sampling method might have excluded relevant respondents and

limit the reliability of the study and the quantitative format and the questions in the questionnaire could be challenged and improved by other researchers.

The research was analysed and it was realized that number of responses from the UK were low with only 9 responses limiting the reliability and generalizability of the study but from Finland a good 78 responses were gathered. The gender distribution was quite equal and most of the respondents in both countries studied at the undergraduate level. Majority of the programmes were business related and so the study reflects quite well the business students attitudes on investing and could be generalized, but indeed doesn't apply to the whole population of university students. Students in both countries were leaning towards risk averse tolerance of risk which is more in line with the theories of risk and return explaining individuals risk than behavioural finance. Less than half of the respondents invested into the financial markets in both countries and this could partly explain the risk averse behaviour. The students in Finland invested mostly in bank accounts, stocks and mutual funds whereas in the UK the top two were bank accounts and precious metals. Investing was seen as a positive activity by the majority of the respondents in both countries and the attitudes were mainly influenced by personal beliefs and knowledge about the subject. The answers were quite similar in both countries and the least influential were religion and culture. Most of the respondents have been encouraged to invest. In Finland encouragement has come from educational and financial institutions but in the UK friends were the number one source for encouragement.

The topic of the study was a good area to be researched as students haven't been under the focus of researchers earlier but the questionnaire could be even better formatted. The amount of responses from the UK has been disappointing but the results have been interpreted to the best ability to take into account this. There is definitely possibility for further research around the topic of investing, attitudes and behaviour and especially about students in higher level education and their investing behaviour and preferences. A more in-depth study could be conducted with a possibility to gather more sensitive information or at least questions and analysis on income and how students fund their investing could be added to the questionnaire or in the future researches. The author has been positively surprised of the attitudes students have towards investing but on the contrary was amazed to see that less than half do actually invest into the financial markets. This was interesting as the respondents study programmes were mostly business related. The research process has been interesting and beneficial for the author.

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# Appendices

## Appendix A. The questionnaire: A research of investing attitudes.

**A research of investing attitudes.**

This questionnaire aims to gather information about university students investing attitudes and factors affecting on the attitudes. The questions are provided with different options to answer to and all the answers are anonymous and will be used only for research purposes.

* **Gender?**

- ◯ Male
- ◯ Female

* **Level of university studies?**

- ◯ Undergraduate
- ◯ Postgraduate

* **What is your studied programme?**

If you don't find the applicable programme from the list, please specify it in the option "other".

* **Have you invested money in financial markets?**

- ◯ Yes
- ◯ No

* **Where do you invest your money?**

Please tick all the boxes that apply to you. Provide all other products that you invest in that are not captured by this list in the "other" box.

- ☐ Bank accounts
- ☐ Stocks
- ☐ Bonds
- ☐ Mutual funds

- [ ] Exchange-traded funds (ETFs)
- [ ] Options
- [ ] Futures contracts
- [ ] Real estate (investing in a house to live or in a house to be rented to others)
- [ ] Insurance products
- [ ] Pension fund schemes
- [ ] Precious metals (Gold, silver)
- [ ] Other (please specify)

* **How would you evaluate your personal attitude towards investing?**

- ◯ Very positive
- ◯ Positive
- ◯ Neutral
- ◯ Negative
- ◯ Very negative

* **What would you identify as affecting your attitude towards investing?**

Please select the relevant boxes and if there is something you feel isn't in the list, could you please identify it on the "other" box.

- [ ] Personal beliefs
- [ ] People close to me (friends, relatives, family)
- [ ] Media
- [ ] University
- [ ] Religion
- [ ] Culture
- [ ] Society
- [ ] Knowledge about the subject
- [ ] Workplace
- [ ] Complexity of investing
- [ ] Other (please specify)

*** Which of the below statements best describe your tolerance of risk?**

- ◯ I am risk averse
- ◯ I can tolerate moderate amount of risk
- ◯ I can tolerate a good amount of risk
- ◯ I can tolerate substantial amount of risk
- ◯ I am risk seeking

*** Have you received encouragement to invest?**

- ◯ Yes
- ◯ No

# Appendix B. The questionnaire in text format

**A research of investing attitudes.**

This questionnaire aims to gather information about university students investing attitudes and factors affecting on the attitudes. The questions are provided with different options to answer to and all the answers are anonymous and will be used only for research purposes.

**Gender? ***

Male

Female

**Level of university studies? ***

Undergraduate

Postgraduate

**What is your studied programme?***

If you don't find the applicable programme from the list, please specify it in the option "other".

Accounting and Finance

Arts and Architecture

Bioscience and Environmental Science

Business and Management

Chemistry

Economics

Engineering

Geology

Health and Social Care

History and Archeology

Law

Mathematics and Statistics

Musical studies

Nursing and Medical Studies

Psychology and Philosophy

Political Science

Sports
Teaching
Theology and Religion
Other (please specify)

**Have you invested money in financial markets? ***
Yes
No

**Where do you invest your money? ***
Please tick all the boxes that apply to you. Provide all other products that you invest in that are not captured by this list in the "other" box.
Bank accounts
Stocks
Bonds
Mutual funds
Exchange-traded funds (ETFs)
Options
Futures contracts
Real estate (investing in a house to live or in a house to be rented to others)
Insurance products
Pension fund schemes
Precious metals (Gold, silver)
Other (please specify)

**How would you evaluate your personal attitude towards investing? ***
Very positive
Positive
Neutral
Negative
Very negative

**What would you identify as affecting your attitude towards investing? ***
Please select the relevant boxes and if there is something you feel isn't in the list, could you please identify it on the "other" box.

Personal beliefs
People close to me (friends, relatives, family)
Media
University
Religion
Culture
Society
Knowledge about the subject
Workplace
Complexity of investing
Other (please specify)

**Which of the below statements best describe your tolerance of risk? ***

I am risk averse
I can tolerate moderate amount of risk
I can tolerate a good amount of risk
I can tolerate substantial amount of risk
I am risk seeking

**Have you received encouragement to invest? ***

Yes
No

**If you have received encouragement to invest, who or what has encouraged you?**

Parents
Friends
Other relatives
Financial institutions
Media
Educational institutions
Other (please specify)