



Preparing for the future

The retirement savings methods of Finnish people in the Helsinki region.

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<p>Abstract:</p> <p>Detta arbete ämnar undersöka om personerna i Helsingforsregionen använder sig av sparåtgärder eller investeringar för att komplettera sin pension, inklusive vad dessa möjliga investeringar och sparåtgärder är. Undersökningen har utförts genom en intervju av det urval av populationen som undersökningen beträffar. Som datainsamlingsmetod användes slumpmässigt urval, i syfte att få en så exakt representation av den valda populationen som möjligt, eftersom det inte är praktiskt att utföra en intervju av hela populationen då den i detta fall gäller flera hundratusen individer. Själva undersökningen utfördes via programmet LimeSurvey. Efter att insamlingen av data utförts identifierades procentuella skillnader mellan individer enligt i förväg bestämda grupper, inklusive ålder och kön. Även detta gjordes med hjälp av LimeSurvey, men också statistikprogrammet SPSS. Slutsatsen av data som undersöktes var att en knapp tredjedel av dem som svarade använde antingen sparåtgärder eller investeringar för att komplettera sin pension. Detta betyder dock att två tredjedelar inte gör det. Mellan dem som svarade ja på frågan var sparkonto den populäraste sparåtgärden, följt av aktier på andra plats och fastighetssparande som tredje. Den mest nämnda orsaken för varför individer inte sparade eller investerade var brist på pengar. Denna orsak var högst inom den yngsta undersökta gruppen, 20 - 30 åringar. Ett oroande fakta som kom fram i och med undersökningen är att flera av individerna på den yngre sidan av de som intervjuades led av brist på pengar som orsak för varför de inte investerade eller sparade, men samtidigt förväntade de sig en högre pension än vad de enligt dagens räkningar kommer att ha tillgång till. Detta tyder på en avvikelse på vad de förväntar sig</p>	

få, och vad de har gjort och är villiga att göra för att nå dessa mål. Det vore bra att fortsättningsvis undersöka i detta ämne för att i framtiden underlätta individers möjligheter att själv använda sparåtgärder och investeringar för att förbereda sig för sin pension.

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1 INTRODUCTION

This thesis seeks to shed light on the ways in which people in Finland are saving for their retirement. Retirement has often been described as the “golden years” (Forbes 2018), a time in which people who have worked for most of their lives can finally enjoy the fruits of their labor, without the constant stress and hassle that surrounds the daily chore of having to work. The image that comes to people when talking about retirement is usually either the one concerning the proud grandparent, sitting on their porches and enjoying the presence of their grandkids, or the one lying on the beach in some tropical destination. Both can be considered options worth striving for.

But what happens to this dream when the funds available are not up to par with what is expected of a dignified retirement, not to mention the lavish lifestyles that many of today’s workforce seem accustomed to? Government funds are not limitless, and the cost of living is quickly growing out of reach for those who wish to sustain the same standard of living they enjoyed pre-retirement. What is the alternative for those who can’t count on the government to provide enough for what they want? Many people seek alternatives in the form of investing. Real-estate, stocks, bonds and more are all possibilities. The trick is to know what, where and when. It pays, no pun intended, to start thinking of these things early.

1.1 Background

In 2017, the population of Finland grew by 9833, which continues a declining trend that has been prevalent since the early 2000’s (Statistics Finland 2018). The number of native Finnish people, i.e. those who speak Finnish, Swedish or Sami as their native language decreased by nearly the same amount, 9499, while the number of people who speak a foreign language increased by 19332. At the same time Finland, as well as the rest of the Nordic countries, are facing a prospect of a rapidly declining workforce on account of low birth rates and an aging population that lives longer, while also being an increasing burden on the tax paying workforce (Kauppalehti 2018). The fertility rate has been on a downward trajectory for seven years (Statistics Finland 2018), with the year 2017 being

an all-time low, even overtaking a decline in the birth rates of the hunger years that ravaged Finland during 1868.

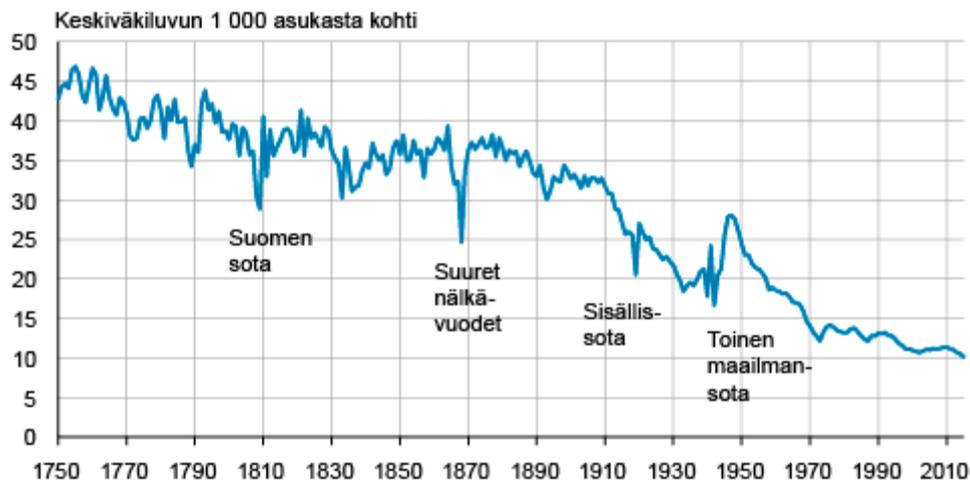


Figure: 1 Finnish Population 1750-2015. Steady decline after the baby-boomers. (Statistics Finland 2016)

A declining birth-rate, and the fact that few immigrants or refugees are likely to get high-paying jobs on the private sector in Finland, will most likely lead to a massive strain on the pension system down the line. It is highly likely that those in the workforce will be strained to a breaking-point by the increasing amount of the population dependent on pensions. The current pension system in place in Finland guarantees every citizen a minimum pension, in case the work - based pension is not sufficient for an acceptable living standard, although what constitutes a livable standard can be debated, as pensioners often have to choose between paying their bills and buying food or necessary medications (YLE 2016). The Finnish pension system will be discussed in a later chapter.

1.2 Research Objectives

The aim of this research is to establish what form of measures, if any, Finnish people living in the region of Helsinki are using to prepare for their retirement. A quantitative research was used to ensure a large enough volume of people, with the questionnaire being in the form of an online-document. The focus of this thesis was originally on Finnish people between the ages of 20 – 30. However, after some reviewing, the author decided that a narrow focus group would not be ideally sufficient in giving a reliable sample

for use in this study. Therefore, the current parameters have been decided upon in regards of this thesis.

For this reason, the research question for this thesis has been decided as the following;

- Do Finnish citizens in the Helsinki region use any forms of investments as savings measures to prepare for retirement?

Sub questions are the following;

- Which group of people is most likely to have savings? (i.e. age, gender)
- What forms of investments are prevalent for those who do?
- What level of income do they expect they will need once they retire, and do they believe that their current work-pensions and personal savings will cover this?

The results from this thesis are expected to vary greatly, with the main difference being the age of those who participate, in addition to their economic standing, i.e. yearly wages. When considered the prevalence of mortgage and house savings as the prevalent means of accumulating wealth in Finland, it is possible that, of the number of people who answered the survey, a significant portion would mention real-estate and their home as their main retirement buffer, with the added income that the state guaranteed pension provides. Other who participate in the survey would likely be a mixture of people currently without any form of retirement savings, either because they have not thought of the issue or because they have not been able to afford putting money towards said goal. However, this thesis also expects that a large quantity of the answers will show an unrealistic assumption of what the expected retirement “sum” will be, when taken into account the sort of standard of living they desire.

The author also believes that the possibility exists that differences will occur between those who participate in the survey, based on their personal background. These differences might occur between genders, ages and so on. Whether the person in question works in the public or private sector is also a possible distinction.

A study conducted by the Alexandria Investment Group, only a third of those questioned for their survey expected their pensions to be sufficient for their retirement (Kauppalehti 2013), and of those the most pessimistic were people in the lower ages, 25 – 29. Issues such as insufficient funds for healthcare related costs during retirement are also a cause of concern (Yle 2015). The same institution also conducted a study in 2014, on the ways in which Finnish people save and invest. There have been several smaller studies, conducted mainly by Banks and other financial institutions, that indicate that the people in Finland are largely lacking in either the will or knowledge of investing their savings in the stock-market (Säästöpankki 2017).

A study conducted in 2014 by Mandatum Life, a Finnish life insurance company, concluded that a majority of those questioned for the study had an unrealistic assumption of what their pension would look like. The average answer when asked what percentage of their current wage they assumed would cover the needs and wants of the retirement age was 60%. However, according to Mandatum, current work-based pensions only amount to 50% of wages. Furthermore, Mandatum estimates that people currently between the ages of 20 – 30 are likely to receive only 30 – 40% of their wages as pension.

1.2.1 Relevancy & Motivation

The average age of the Finnish people is rising, and the expected according to Statistics Finland, the number of people aged 15 or less would fall to a record low of 14 % by the year 2060, mostly due to low birth rates. This puts a strain on the public retirement system to sufficiently cover retirees, and as the American system of personal retirement savings plans, such as 401(k)'s have not yet made a significant breakthrough in Finland, it is prudent to study how the people of Finland prepare for their retirement.

The authors motivation lies in an interest towards savings methods in Finland, particularly when they are used primarily as a means to safeguard or supplement the retirement years. If the current trends of an aging population and declining birth-rates are a long-term factor, steps will likely be necessary to ensure that the Finnish State doesn't find itself in a situation in which its citizens cannot afford their retirement.

1.2.2 Previous Research

While there hasn't been research that specifically targets the authors subject, i.e. the retirement planning and/or methods of Finnish people, there have been surveys, such as the previously mentioned one conducted by the Alexandria Group, and a thesis on the subject of the Finnish Baby Boomers' Retirement Process.

1.3 Demarcation

As was previously mentioned, in choosing the subject group for this research, the choice first fell on people aged between the ages of 20-30. There are a couple of reasons for this. Firstly, the age of retirement is gradually rising, partly naturally as people live longer and are thus able to stay in the workforce longer, but also on account of the laws implemented by the Finnish government, the most recent one being the Pension Reform of 2017, which sees the age of retirement gradually rise from 63 – 65, depending on their age (KEVA 2018). This law will most likely be revised in the future, since the minimum age of retirement is only available for people born between the years 1954 – 1964. Secondly, it is likely that the continuing decrease of people able to work will lead to either higher taxes for those still in the workforce, or diminished pensions. While the issue regarding a dwindling workforce and higher taxes to support those in retirement is not exclusively a problem for the Nordic countries, as many of the member state of the European Union are facing similar issues (Eurostat 2018), the choice to use Finland as a subject for the study was done seeing as the author is a Finnish native, and of the age that this thesis subjects pertains to.

The author did however choose to change the scope of the subject group for this study, as it was determined that a subject group of people between the ages of 20-30 would not provide sufficient data to answer the questions supplied as the focus for the thesis. The author decided upon an age group of 20-60 and over. This way the age group would, in the authors opinion, more accurately depict the population that is the subject of this thesis.

1.4 Structure of Thesis.

This thesis is structured as follows; an introductory chapter states the background, research objectives and previous research for the reader. Following this there is a chapter on the literature review, in which the literature used in the thesis is examined. This is also the chapter in which the Finnish laws regarding pensions are discussed. After this the chapter regarding the method used is discussed, including bias, validity and so forth. The chapter that follows goes through the empirical data, which involves the findings of the research, followed by a chapter concluding the thesis, along with discussion and suggestions.

2 LITERATURE REVIEW

The reason behind a literature review, according to Saunders et. al (2009, pg. 24, 58), is twofold. The first reason is to generate a research ide, and then to refine it. The second reason is that, as much of research is based upon information gained from other researchers and their works, it is prudent to show knowledge of these in one´s own research. This also helps to further refine the research in question.

2.1 The Nature of savings

A common driving force behind the need and/or will to start saving, is to have a clear goal or reason behind the action. The reasons are many and varied, but it is not uncommon for people to answer the question of “why” with one or several of the following:

- Saving for the future.
- Saving for a specific purchase, such as a down-payment on a house or a car.
- Preparing for retirement.

There are likely many more options than those listed above, but they give a simplified guideline as to why people might embark on a savings method. But when asked what

form of savings they use to reach their goals the options are likely to become narrower. Some of the more obvious ones will be discussed in this chapter.

It is important to note that saving is not a “one-way-street”, where decisions are clear and there are no curveballs waiting. Several factors determine the success of one’s chosen approach towards saving. Issues such as risk-return, compound interest and more are all factors that play a prominent role in the final outcome.

Risk and return might for some be the most obvious measurement of how profitable their chosen form of saving/investment is. The fundamental idea behind risk-return is that the higher one’s risk tolerance, the higher the potential rewards. Likewise, the lower the tolerance, the lower the rewards. This also applies in reverse, since high risk can lead to high losses vs. low losses for low risk (Corporate Finance Institute 2019). This is something that all those who intend to use savings to supplement their retirement should pay close attention to, since a portfolio comprised fully of high-risk investments can quickly turn sour, resulting in the loss of most if not all of the invested capital. On the other hand, a low-risk portfolio might not lead to the desired results when the savings/investments are to be realized.

Other than risk-return, investors should be aware of the effect’s inflation can have on their savings. Inflation is when the prices go up in a country or geographical area, i.e. Europe, decreasing the buying power of that countries/area’s currency (Western & Southern Financial Group 2018). Inflation directly impacts investments, since prices may rise faster than the interest on said savings. Furthermore, if the chosen investments are stakes in companies, inflation can negatively impact those company’s performance.

Several forms of investments/savings have an interest that is paid on them. For instance, savings accounts in banks pay a small percentage in interest to the customer. Nordea currently has a regular savings account with an interest of 0,05% (Nordea 2019). On a long-term basis, savings have the tendency to accumulate interest. This is called compound interest. Merriam-Webster defines compound interest as “*interest computed on the sum of an original principal and accrued interest.*” This means that interest has the potential to grow during each scheduled payment period, as long as none of the funds are withdrawn from said savings option.

2.1.1 Savings account

The savings account is a somewhat safe and stress-free option that belongs to the basic services of several Banks. These banks usually have their own rules regarding their savings accounts, such as a specific percentage of interest, or a penalty if funds are withdrawn before the agreed upon date, (this usually only happens if the savings account is of the fixed-period variety). Savings accounts tend to accumulate interest, i.e. compound interest, as discussed before. However, since savings accounts generally have low interest rates, such as the 0,05% example of Nordea given before, they are not a viable option for those who expect a higher return on their savings. Likewise, inflation plays a key role in keeping money on a savings account with a saving/investment mentality. The effects of inflation on the value of money was discussed before and those can negatively impact the value of the funds on a savings account, as it is possible that the interest rates of the bank are not sufficient enough to counter the devaluing of the funds caused by inflation.

Two banks are given as an example regarding savings account, and these same two banks will likewise be used as examples in any forthcoming situations where examples are necessary.

Osuuspankki is a Branch of Banks in Finland, which belongs to the larger financial group, OP Financial Group (OP 2018). The bank offers a fixed-period savings account (here named as a Growth Return Account), with the following terms in short:

- Your savings are always available to you when you need them. You can withdraw money from this account free of charge four times a year.
- You can make a single deposit or individual smaller deposits.
- The deposit rate is a minimum of 0.150% and a maximum of 6.000%.
- The maximum deposit into this account is 300,000 euros

Another bank with a fixed-period savings account is Aktia. The bank has a similar savings account as the one offered by OP, but naturally they differ in some of the details. (Aktia 2018). The terms offered by Aktia in short are as follows:

- No minimum deposit amounts.
- No withdrawal limits.
- A fixed interest rate.

- Freely available withdrawals with no penalties.

The main thing to remember with savings accounts is that they seldom have an interest rate that can compete with the profit margins available from other forms of investment options, such as those found on the stock market. The main reason why savings accounts retain popularity among Finnish people is the lack of stress and the easy management that they offer (Sijoitustieto 2014).

2.1.2 Stocks / Shares

Shares are, as defined by Becket (2014 pg. 1), small pieces of the company, sold to the public or private parties as a way for the company in question to gather funds it needs. Those who purchase said pieces become, in fact, partial owners of the company. In Finland, companies that are available for public trading are traded at the Helsinki Stock Market, under the administration of Nasdaq Helsinki Oy (Financial Supervisory Authority 2018). There are also stocks that are not available for public trading, access to these are normally granted by banks and brokerage firms. There is an inherent risk to these “undocumented” shares, since they are seldomly required to disclose the information regarding the true value of their shares, and thus the risk falls on the shoulders of the investors.

Risk-return play a key role in the stock market. As was discussed before, the higher the risk the higher the rewards, and vice-versa. It should be noted that a positive growth history on the stock market does not guarantee continued success in the future. Fluctuation is often a daily occurrence. An example is the Nordea stock, which since 2017 has seen a steady decline in its value (Kauppalehti 2019). This even though the Bank has paid out a steady dividend (Nordea 2019). Investors should also pay attention to the taxation of dividends. In Finland the brokerage firms automatically deduct the tax percentage from the dividends before they are paid out (Verohallinto 2017).

Traditionally, the banks have been the main brokers for Finnish people looking to invest in the stock market. Their strong grip upon the sector was shaken with the arrival of online brokerage providers, such as the digital bank Nordnet, which came on the scene in 1996, and in addition to more traditional forms of banking services such as loans and savings, focuses primarily on trading (Nordnet 2018).

2.1.3 Mutual Funds

Alvin (2010 pg. 16-17) defines Mutual Funds a collection of resources (funds) that a group has pooled together with the intent to invest said resources in various targets, such as shares, stocks etc. The primary benefits of this is that with the collected funds at their disposal, the investors have the capacity to purchase larger amounts of the desired investment target, while also having the option to diversify, thus reducing risk for the group as a whole, i.e. the risk factor is reduced. Additionally, the large spread of different shares and investors means that the fees are significantly lower than if each individual investor was to enter similar purchases by themselves.

2.1.4 Real Estate

Investment in Real Estate primarily involves one of two things, Real Estate Investment Trusts (REIT), or individual investing. In the former, an investor buys shares in a Trust which is focused on Real Estate investments. In this form the trust does all the investing for the shareholders, which gives them a wider access to potential Real Estate markets than if the shareholders were to do the investing themselves. The latter option is just that, individual investing in Real Estate. This refers to an individual purchasing a property (apartment, house, office space etc.) with the intent to make a profit from it, by for instance renting or selling it later.

Real estate investment can also include saving for one's own home, which is the most common form of investment in Finland. For instance, in 2017 two thirds of Finnish citizen were homeowners (Statistics Finland 2018). Saving for a home can be done traditionally, by placing funds into an account on a regular basis until the sum is sufficient to warrant a loan. Another option is the BSP-Loan, a loan meant specifically for the purchase of one's first home. As an example, Aktia provides a BSP-loan with the following conditions/perks (Aktia 2019):

- The bank will grant 90% of the loan, provided that the customer has saved the remaining 10% over a period of at least 2 years.

- The time period for the loan can be up to 25 years.
- The purchased property works as collateral for the loan.
- The State pays a portion of the interest on the loan for the first 10 years.
- Interest rates on the loan may be deducted from income tax.

Conditions vary between banks, but the main portions remain the same, such as the 90% loan. The BSP-loan is a measure by the Finnish state to help younger citizens to purchase their home, as such it is not available to individuals who have already owned a home. The BSP-loan has seen a steady growth in popularity in recent years, with the amount of active accounts growing from 137 000 in 2017 to 153 1000 in 2019 (Yle 2019). The perks of owning one's own house include factors such as that one is basically accumulating wealth by paying of the loan, instead of living in a rented apartment which accumulates wealth for the owner of that said apartment. A downside is the fact that it is, based on the geographical location of the home, sometimes extremely difficult to sell the home. The value of the home might also unexpectedly decline, sometimes drastically, even such an amount that the value of the home is less than the amount of the loan still left unpaid (Sijoitusovi 2019).

2.1.5 Other

Besides the different forms of savings and investments already discussed, there are some less, traditional, for a lack of a better word, that deserve a mention. One such investment is speculating on the currency market.

2.2 Attitudes towards saving & investing

In 2017 the Finnish Bank and Insurance company Lähitapiola conducted a study into the attitudes of Finnish citizens towards saving and investing. The results were surprising. According to the survey connected with the study, only one in ten of those who participated in the survey associated investing and saving with negative experiences or attitudes.

The study also found that those who enjoyed an active and healthy lifestyle, were more likely to view investing in a positive light. The more affluent were likewise also more

inclined to have a positive outlook towards investing. Those who invested more than 50 000€ were the ones with the most positive attitude towards investing, with more than 90% of those respondents who fell into that category giving a favorable view (Lähitapiola 2017). 1509 people answered the survey.

If one disregards the people who invested more than 50 000€, which is nearly twice as much as the median income in Finland (Statistics Finland), one could argue that the attitude towards saving and investing are quite positive in Finland.

In contrast to the study done by Lähitapiola, the one done by the Finnish Bank Säästöpankki paints a more negative view of the Finnish attitudes towards investing and saving. According to their study, also conducted in 2017, Finnish people have a generally passive or negative view of investing and saving, with most people preferring to either have money tucked away at home or leaving it in the bank. The bank highlighted some different investing and savings methods used in the survey. Regarding Real Estate Investing, only 38% answered preferably, while an even smaller percentage, 35%, answered that they viewed savings account in a positive light. The smallest percentage concerned stocks and bonds, with only 28% of those who answered viewed them favorably (Säästöpankki 2017).

The main reason behind people's reluctance towards savings was reported as a lack of funds, or poor personal economic management. Of those who aimed to make investments or save some money every month, 70% reported a sum of no more than 100€. Of those who answered, 18% reported no savings or investments at all. 1 599 people answered the survey conducted by Säästöpankki.

2.3 Laws regulating pensions

The laws regulating pensions in Finland are divided depending on which category of people the law in question applies to, i.e. are they employees, businessowners, farmers and so on. With some exceptions, the power to enact laws is held by the Finnish Parliament

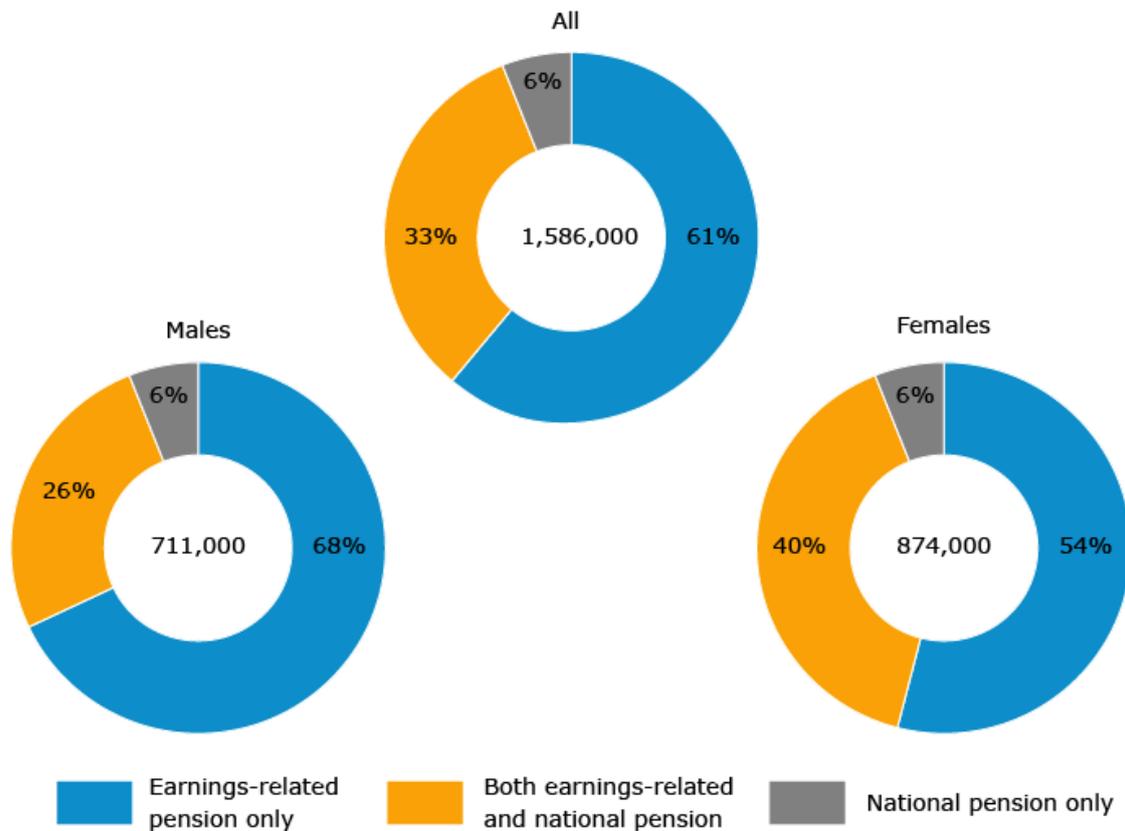
(FinLex 2018). Most of the pensions fall under a broader spectrum law called the National Pensions Law.

In Finland pensions are accrued from the age of 17 until the person in question reaches the required retirement age. Per the paragraph 65 § ([29.1.2016/69](#)) regarding the accumulation of pensions, the amount accrued is determined as 1,5% of the persons annual income earnings, as defined by statutes of paragraphs 70 § and 72 §. The Finnish Centre for Pensions (Eläketurvakeskus) defines the financing of the Finnish pensions system as a “pay-as-you-go”, or PAG system, and a partial funding principle, i.e. pensions paid out during a specific year are usually covered by payments gathered in pensions contributions. If the contributions of a specific year do not cover the pensions for that time, funds will be diverted from profits made from the investments that the Centre for Pensions has inserted funds into.

According to article 6 § ([29.1.2016/84](#)) of said law, the following sub- laws belong under it; Law Regarding Worker Pensions, Law Regarding Public Branch Workers Pension, Law Regarding Farmers Pension, Law Regarding Businessowners Pension, Law Regarding Sailor Pension, Law Regarding the Bank of Finland retirement regulations, Law enacted by the Christian Orthodox Church, Law Regarding the Retirement & adaption-pay of members of Parliament, and the Law Regarding the Right of Pension for Councilmembers.

There also exists a Law Regarding a guaranteed Pension, which according to article 1 § 20.8.2010/703 of said Law guarantees a Finnish citizen a minimum pension, if for whatever reason his or her normal pension does not cover living expenses that are reasonable, according to government standards (Finlex 2018).

All pension recipients by pension scheme and gender as at 31 Dec 2017



Source: Finnish Centre for Pensions

Figure 2 Pension Recipients by scheme and gender by December 31.2017. (Finnish Centre for Pensions)

The chart above details the recipients of pensions in Finland in the year 2017, and to which category they belong to. As can be seen, the majority were recipients of Earnings-related pensions, although when the genders were separated a clear difference can be seen between males and females. This is most likely a result from two different factors. First, women tend to take time off following the birth of a child, resulting in lost earnings and thus a diminished pension accrual. Second, female dominated fields are historically less well paid than those dominated by males. This also leads to a smaller accrued pension when the time for retirement comes around.

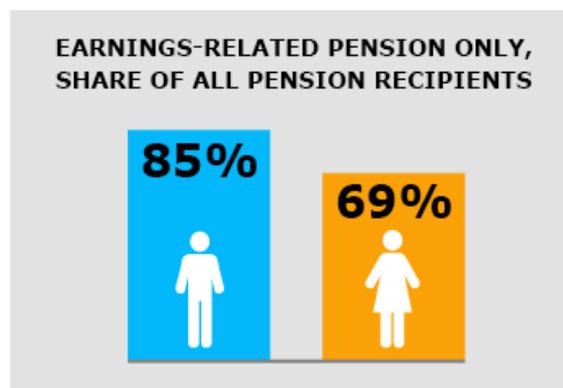
A study conducted by the Finnish Centre for Pensions (Eläketurvakeskus) in 2011, came to the conclusion that despite having one of the longest, in years, careers in Europe, Finnish women have on average 25% smaller pensions than their male counterparts. Part of this was attributed to the above mentioned lower wage female professions, and in part to

the gender gap that exists between women and men, with women only being paid 0,80€ towards 1€ being paid to their male counterparts.



Source: Finnish Centre for Pensions

Figure 3 Average pensions income by gender in 2011 (Finnish Centre for Pensions)



Source: Finnish Centre for Pensions

Figure 4 Earnings related pensions only, by gender in 2011 (Finnish Centre for Pensions)

Another difference that the study found in 2011, was one that was previously alluded to. The number of women receiving only earnings-related pensions is 16% lower than that of men. What one can gather from this is that the earnings-based income of 31% of female pensioners was/is not sufficient enough to sustain a liveable standard on its own.

These laws concerning pensions will be covered in more detail using information available from FinLex, a website owned and operated by the Finnish Justice Department, which covers in wide detail laws enacted by the Finnish Parliament. There are a few specialized laws regarding pensions that cover marginal proportions of the Finnish citizens, such as the law regarding the pensions of Seamen. The orthodox church also has unique rules regarding pensions that form their own set of rules within the Finnish legal system. While both of these are fascinating, they along with some other more specializes pension laws will not be discussed in detail.

2.3.1 National Pensions

The term national pension refers to the right of a Finnish citizen to receive a pension when he or she is forced of the job-market for an extended period of time. This can be either because on the frailties brought on by old age, or because of a temporary or chronic sickness (Finlex 2018). Also covered by the pension are instances such as the loss of a spouse or primary caretaker, i.e. parent. This according to article 1 § (11.5.2007/568) of said law.

2.3.2 Worker Pensions

According to article 1 § 19.5.2006/395 of the Worker Pension Law, the law covers employees' right to old-age-pension, a partial early old-age-pension, rehabilitation, disability pension and the right of an employees' beneficiary to a family-pension (FinLex 2018).

2.3.3 Public Branch Workers Pension

The Public Branch Worker Pension, according to paragraph 1 § 29.1.2016/81, dictates the rules under which fall people who are either members of KEVA, or who work for the state, KELA or the Lutheran Church.

2.3.4 Farmers Pension

The paragraph 1 § 22.12.2006/1280 of the Law Regarding Farmers Pension states that it covers the right of Farmers to the following: old-age-pension, partial old-age-pension, rehabilitation, disability pension, career - based pensions and the right of the farmers beneficiary to family - based pension and group life insurance.

2.3.5 Business Owners Pension

Similarly to the Law Regulating Farmers Pension, paragraph 1 § [\(29.1.2016/72\)](#) states that a businessowners rights regarding old-age pension, partial early retirement, rehabilitation, disability pension and a retirement pension, and the entitlement of a said persons beneficiary to pension.

2.3.6 Members of Parliament & Councilmembers

Members of parliament in Finland have benefits regarding their retirement that are not available to the average citizen. By this the author is referring to their retirement from parliament, as they may pursue a different career after their time at parliament comes to an end. The paragraph 1 § [\(24.4.2009/271\)](#) of the law concerning the rights of retirement and for an adaption salary for a member of the Finnish parliament states that, a member

of parliament or a councilmember has the right to be paid a pension, provided by the funds of the Finnish state, according to the statutes governed by said law (FINLEX). The payment of pensions is controlled by the municipal social insurance institutions ([4.6.2010/471](#)). Some restrictions do exist under paragraph 2 §, such as the requirements of an age of 65 for an old-age-pension ([30.12.1993/1531](#)), and minimum term limits for being eligible for an adaption salary.

2.3.7 Pension example

The following simple example aims to illustrate the pension of an average Finnish citizen. We will refer to the person as A. Born in 1980, A has a yearly wage of 44 000€ before taxes. This means that A accrues 1,5% of his gross annual earnings, which in this case would equal to 55€. Since a person starts earning pension funds from the age of 17, the annual amount will change several times during their lifetime. The monthly pension can be calculated as follows:

- Annual earnings * 1,5% / 12months (Työeläke 2019)

But as was stated, the earnings of a person will fluctuate during their lifetime, so an accurate estimate is just that, an estimate. For instance, if we continue to use A as the example, it is unlikely that the earnings for A are 44 000€ annually for A's whole working lifetime. If they were, and we estimate that A started working at 17 and retires at 68, that equals to 51 years of work, with 55€ added to the monthly retirement payment annually. This equals to 2805€ per month. This is however a highly simplified example, and as it is unlikely for someone to have the exact same wage for their whole working life, the actual accrued pension will differ for each individual.

3 METHODOLOGY

In conducting an academic research, a certain amount of thought needs to be preserved for research design. According to Saunders (2009, pg. 136-137), a clear research design helps the reader to formulate a larger picture of how the research questions of the thesis are going to be answered, while also addressing such issues as authors purpose, the source

of data gathered, limitations etc. This section will consider the methodology used in this thesis.

3.1 Quantitative Research

As this thesis considers the savings method of the Finnish population, a quantitative form of research is called for. Since conducting a study in which the whole population was to participate is impossible, the author decided to use a sample population of 107 people. A sample is, as defined by Bryman (2008, pg. 168), a portion of the population towards which the research is aimed at, i.e. a group of people from the larger mass that is chosen as a representation of the collective. The people were randomly chosen, and the questions were gathered by questionnaire, handed out by hand by the author, at Tre Smeder Square in Helsinki.

The Method that was chosen for use in the gathering of data for this thesis, based on the information that was needed, is the conducting of a social survey, in the form of sampling, or rather, a simple random sample, as described by Bryman (2008, pg. 166-167, 171). According to this method, a population is decided upon, i.e. the Finnish people. Following this, a sample is decided upon. This is a portion of the chosen population, with the intent that this sample will represent the chosen population, since using every single person that the research pertains to would be impossible, or at least extremely difficult. The sample in this case will be the people and/or customers outside the preferred area, in this case the Stockmann department store. In the random sample each unit in the population, which in this case again means the people around Tre Smeder Square in Helsinki Finland, has an equal chance of being included in said random sample. The equation for this, as described by Bryman, would be as follows:

$$\frac{n}{N}$$

In which n defines the sample size while N is the population size. In the case of this thesis only the sample size is known, since it is impossible to get an accurate count for the population size at Tres Smeder Square at any particular given time.

Normally, the third step would be to list all the units in the chosen population from which would be selected. However, since the sample of the population is randomly chosen, this part is not applicable. This is followed by the Representative sample, which in relation to this thesis research are the people who answer the survey/questionnaire.

Quantitative research, along with its equal, qualitative research, are the two main forms of social research according to Bryman et al. (2008). Both involve several more defined attributes, and as quantitative research is the one used in the thesis in question, it is the one to examine.

According to Saunders et al. (2009 pg. 481 – 482), a distinction needs to be recognized between Quantitative and Qualitative Research. These differences can be simple to some, yet they deserve clarification. Quantitative data concerns itself with numbers, and can be defined qualities as follows:

- Quantitative research is based on meaning gathered from numbers.
- Results are collected from numerical and standardized data.
- Diagrams and Statistic are used to conduct analysis.

Qualitative research is on the other hand, according to Saunders, more concerned towards what lies beneath the numbers gathered. In simpler terms, why something occurs over how many times it occurs. Following definitions can be attributed to Qualitative research:

- Bases meaning on words.
- Results from data collections usually in non-standardized form, which requires classification into new or predetermined categories.
- Conceptualization is used to conduct analysis of data.

Another option available for gathering data for conducting a social survey was by structured interview. According to Bryman (2008, pg. 192 – 193), the aim of a structured interview is for the interviewer to gain information from the interviewee, i.e. the respondent, such as attitudes, norms and beliefs. This form of research was discarded as an option for this thesis for one specific reason, which is the somewhat large portion of the population needed to answer the survey, so it can be considered valid for the purpose of this research.

3.2 Sampling

Sampling indicates the choosing of a portion of a population that a researcher is studying, with this portion thus becoming the sample. The sample is chosen as a substitute for studying the whole population, which is inherently inefficient and problematic because of the general large sizes of populations.

3.2.1 Sample Types

There are different forms of sampling for researchers to choose from, depending on what form of research they are conducting. For instance, the Probability category of sampling includes the following types of samples: simple random sample, systematic sample, stratified random sample and multi-stage cluster sample (Bryman 2008 pg. 171 – 176). Likewise, under the category of Non-Probability Sampling there exists convenience sampling, snowball sampling and quota sampling (Bryman 2008 pg. 183 – 186). Although the author of this thesis only uses one of the above-mentioned sample methods, it is prudent to briefly examine each of them.

3.2.2 Simple Random Sample

The Simple Random Sample is the most basic of all probability sample forms, according to Bryman (2008 pg. 171). It follows a straightforward path, starting with defining a population of the desired research object. Following this a sampling frame is chosen, i.e. a portion of the population will have to be excluded for various reasons. Then a sample size is decided upon, along with listing each member of the population and giving them an individual number. Lastly, using either a computer program that generates random numbers, or a table of random numbers, a selection of numbers will be chosen between a preset number frame, say 500 numbers between 0 – 10000. The members of the population whose numbers come up are then part of the sample.

3.2.3 Systematic Sample

A variation of the random sample according to Bryman, in this version the researcher chooses units straight from a sampling frame. This means that if a researcher has to choose 1 in every 40 subjects, the best way is to make a randomized start using a set of numbers in a table of random numbers, for instance numbers between 1 and 40. So if the researcher has the numbers 0 – 10000 as above, random numbers may fall on 2031, 1011, 6026, 8004 and so on. This would mean that the subject with then number 8004 would be the first sample, since he/she is the one with the lowest number between 0 – 40, i.e. 4. There is a risk of inherent ordering of the sampling frame according to Bryman, which may lead to bias. This should be mitigated by rearranging the sample frame.

3.2.4 Stratified Random Sampling

It is possible that the research conducted requires the sample population to be of a certain quality to qualify for the research in question, but a random sampling of said population is not guaranteed to include those individuals, or a large enough portion of those individuals for the research to be valid. Bryman gives Stratified Random Sampling as a solution. Using this method, the researcher chooses the sample population according to a certain standard or criteria. For instance, if this thesis was concerned with the spending habits of 20- 30 year- old females in the Helsinki, Espoo and Vantaa area, an strata would be chosen for each of those categories. This would however require a record of where each member of the sample population lives and their ages. Following this a simple random sample or systematic sample can be used from each strata. According to Bryman, using strata is only really feasible when it is relatively simple to identify and allocate units to the strata. However, it is possible to use more than one criteria in the strata, thus freeing the researcher up to several criteria or pair up different criteria.

3.2.5 Multi – Stage Cluster Sampling

Cluster Sampling is a technique used when the target population is spread out over large geographical distances. Say for instance that the above-mentioned research of females

between the ages of 20 – 30 did not confine itself to Helsinki, Espoo and Vantaa, but instead concerned itself with the nationwide spending habits of said population, and the number of individuals needed for the research to be valid is 8000. This would involve a lot of travel, and possibly then of thousands of interviews, since the researchers will most likely be forced to discard a portion of the answers because they do not fit the target. According to Bryman (2008 pg. 175), using the multi – stage cluster sampling method, instead of using the units of the population as sampling units for the research, groupings of said units are used instead. This means that areas are grouped together, say according to the different Regions (Maakunta) of Finland, thus giving the researcher 19 different clusters (Statistics Finland 2018). In each of these clusters a random sample of predetermined number of the population would then be interviewed.

3.2.6 Convenience Sampling

Bryman defines convenience sampling as a sample that is simply conveniently available to the researcher (2008 pg. 183). Imagine that a research is conducted into the general well- being of a Super -Market chains employees. The research is conducted by the regional manager. A survey is handed out at a local Super- Market belonging to that chain, and it can be reasonably be expected that most of the surveys will be handed back. This provides adequate information of the local supermarket in question, but the findings cannot be generalized to apply to all the other Supermarkets that are part of the same chain, since it is unknown what population the sample represents. It was just conveniently there. Another example is if an ice-cream seller does a survey regarding what the most popular flavor is. The seller asks people at his shop, and most people answer. Now he knows what those people at his shop like, but he cannot generalize the findings to include a larger population, such as those living in the city or in the country.

As the thesis concerns itself with the retirement savings methods of the Helsinki regions residents, the author decided that the Convenience Sampling method was the most straightforward method to use. There main reason for this choice is that the population chosen is located around Tre Smeder Square in Helsinki, and as there are people coming and going, the access to the population is convenient most times of the day, thus significantly reducing the time it takes to gather the available data, even if not everyone has the

time or willingness to participate. While this method does give an easy access to potential data, it does pose some issues that have to be taken into consideration.

The first issue that should be taken into consideration is the fact that, even if all those who participate in the study are Helsinki region residents, the study might only happen to include those who are unusually affluent, and as thus they would distort the findings of the study. The second issue that may arise, and one that is further discussed in the bias section, is the question of truthfulness, i.e. are those who participate in the study providing truthful data. If not, then the conclusions of the study are likely to be distorted, as they would be in the case of the overly affluent.

3.3 Bias

A sampling bias is likely, since the survey is distributed outside at Tre Smeder Square in Helsinki Finland, a location that is close to some of the most expensive stores in Finland, including Stockmann, a department store with Historically high prices (Kauppalehti 2016). This has most likely led to a few biases, which are collected bellow:

- **Regional Bias.** The research conducted for this study concerns itself with the preparations of Finnish citizens in the Helsinki Region for retirement. Thus the choice of conducting the data gathering via survey was chosen as the Tre Smeder Square in Helsinki. The area is known for its proximity to several stores, including Stockmann, and it is more than likely that when conducting the survey, people who are not from the area of Helsinki will be a portion of those who end up answering the survey.
- **Economic Bias.** The Tre Smeder Square is as previously mentioned situated in the capital of Finland, one of the most expensive places to live in the country. The higher cost of both the area, and of the stores themselves, might distort some of the answers, if a majority of those who answer the questionnaire happen to be wealthier than the average Finnish citizen living in Helsinki.

A likelihood also exists that some of the sample population is disingenuous in their answers in the survey, thus distorting the findings. This is a fact that is hard to combat, since the author has no reliable method to tell when it occurs. The author can only hope that, for the sake of the study, the sample population is as honest as possible.

3.4 Data Collection

Primary data is defined by Saunders et al. (2009 pg. 256) as data that is gained when while collecting new data, i.e. primary data, that is relevant to the research in question. As this thesis will concern itself with the retirement methods of Finnish people, the data gathered and used by the author will be primary data, with the intent to answer the research question and sub-questions:

- Primary data gathered by questionnaire, distributed to a random sample of people at the Tre Smeder Square in Helsinki.
- Secondary data. Defined by Saunders at al. as data that has been collected before with the intention of analysis. In this case refers to information from sources such as Statistics Finland, which of course contains relevant statistics regarding this thesis, and articles from a varied selection of sources, including the Finnish commerce orientated newspaper Kauppalehti.

3.5 Reliability

Bryman (2008, pg. 31) refers to reliability as the repeatability of the results regarding the study in question. He further elaborates that there are three concepts that should be involved when considering the reliability of a study, *Stability*, *Internal Reliability* and *Inter-observer consistency* (2008, pg. 149-150). Stability refers to the fact that a study can be repeated at a later stage without large fluctuations in the variation of the data. Internal reliability refers to the issue regarding the indicators of the study being affected by other indicators, i.e. income directly affects the amount or willingness to invest. Lastly, inter-

observer consistency relates to the fact of judgement, more specifically when there is more than one person conducting the research.

Stability is difficult to determine, at least in regards to this thesis, as the population that answers the survey and provides the data will most likely not be the same the second or third time around. This would then provide different data than before. This indirectly affects internal reliability, as a modified population would also affect the indicators. The third concept is the one that is most unlikely to provide difficulties, as the only one conducting the research is the author of this thesis.

3.6 Validity

Validity is the criteria that is used by the researcher to evaluate if the results from the research he or she conducted answer the questions stated at as the reasons for the research (Cooper & Schindler 2013, pg. 257). Regarding Validity there are two forms. The first one is External Validity, which concerns itself with the possibility to use the findings in a broader research setting (Saunders et al. 2009 pg. 158). The second form of Validity is Internal Validity. This form of Validity is concerned with how the techniques the researcher uses are able to perform or measure in the way the writer claims they do (Cooper & Schindler 2013, pg. 257).

Bryman indicates that Validity is directly contingent on reliability, as research can not be valid if it is not first reliable (2008, pg. 153). In regards to this thesis therefore, Validity has the potential to prove some difficulties. Since it can not be certain that the research would provide the same data without large fluctuations, and that the indicators likewise would not be affected by each other, two of the three validity “boxes” are not ticked. This does not however, automatically dismiss the findings of this thesis. The findings of the research can still in the authors opinion be considered valid, although perhaps only within a limited time-frame.

3.7 Limitations

Even though the author of this thesis makes a good effort of procuring relevant data to answer the questions asked, some limitations do occur. First, the fact that the survey is conducted at Tre Smeder Square leaves a possibility of a large portion of the population of Helsinki being unrepresented. This was discussed earlier as being an option for bias, however the author believes that the sample of the population is sufficient enough to give an accurate representation of the target population as a whole.

Secondly, the author is somewhat bound by the predictions that the State, Centre for Pensions and other institutions make regarding pensions and inflation. Some calculations regarding these are possible, however, they fall under the realm of speculation, as neither are guaranteed to follow predictions.

4 EMPIRICAL PART

Since the thesis requires data collected from a sample of a population, approximately 100 people, a questionnaire is the most obvious form of data collection that suits this purpose. Bryman (2008, pg. 216 - 217) describes the self – completion questionnaire, which is the form that is used by the author to gather data, as a questionnaire in which respondents answer the questions on the survey themselves. This kind of questionnaire can be distributed either directly by the interviewer or sent out by mail or electronically.

Since the interviewer is not to help or interfere with the interviewee when he or she is completing the survey, the structure and questions of the survey are to be easy to understand. That is why most self – completion questionnaires tend to follow a few basic guidelines:

- Few open questions; easier to answer closed ones.
- Designs are usually easy-to-follow. This lessens the risk that an interviewee cannot answer follow-up questions.
- Keep it short. Long questionnaires can lead to respondent fatigue, which can occur if an interviewee is forced to read and answer several questions.

4.1 The Questionnaire

The questionnaire was performed using the program Limesurvey, while the data was analyzed using the statistical analysis program SPSS. The questionnaire is as follows:

Please answer some questions regarding you background.

Gender

- *Male*
- *Female*
- *Other*
- *Prefer not to say*

Age

- *20-30*
- *31-40*
- *41-50*
- *51-60*
- *60+*

Do you work in the

- *Private sector*
- *Public Sector*
- *Self-Employed*
- *Retired*
- *Student*
- *Unemployed*
- *Prefer not to say*

Yearly salary

- *0-10 000*
- *10 000- 20 000*
- *20 000- 30 000*
- *30 000- 40 000*

- 40 000- 50 000
- 50 000- 60 000
- 60 000- 70 000
- 70 000- 80 000
- 80 000- 90 000
- 90 000+

Do you invest to supplement your retirement?

- *Yes*
- *No*

How much on average would you say you invest monthly?

- 50-500€
- 500-1000€
- 1000-1500€
- 1500€+
- *Rather not say*

If you answered no on the questions regarding investments, why?

- *Lack of money*
- *Unsure of investment options*
- *Lack of interest in investing*
- *Other*
- *No answer*

If you answered yes on the questions regarding investing, which of the following forms of investments do you use? You can pick several.

- *Stocks*
- *Bonds*
- *Savings Account*
- *Real Estate*
- *Currency*
- *Other*

How much do you expect to require monthly (before income tax) to live according to the standard you wish during your retirement?

- 1000-2000€
- 2000-3000€
- 3000-4000€
- 4000-5000€
- 5000€+

Do you believe that your pension and personal savings will cover this?

- Yes
- No

4.2 Analyzing the data

Using SPSS, it is possible to conclude different aspects of the population that answered the questionnaire. Regarding this thesis, there are specific questions that require an answer, as detailed in the chapter about thesis research objectives. The main research question is, “Do Finnish citizens in the Helsinki region use any forms of investments as savings measures to prepare for retirement?”. 107 individuals from the population were randomly chosen, and no incomplete answers were included. Using Limesurvey it is possible to gather detailed statistics on gender, age and wheatear or not individuals invest. The picture below shows the split between genders of those who answered the survey. As can

Summary for GenderSurvey		
Gender		
Answer	Count	Gross percentage
Male (A1)	53	49.53%
Female (A2)	52	48.60%
Other (A3)	1	0.93%
Prefer not to say (A4)	1	0.93%
No answer	0	0.00%
Not completed or Not displayed	0	0.00%
Total(gross)	107	100.00%

Figure 5 Gender Results from Limesurvey

be seen from the summary, the split between the traditional genders was very close, with 49,53% for male participation and 48,60% for female participation. The addition of one individual who chose another gender and one who declined to define a gender brings the total to 100%. The fact that the traditional genders are so well balanced provides good comparison between the to, regarding their preferences and/or answers in this survey.

comparison between the to, regarding their preferences and/or answers in this survey.

The second picture with information gained from Limesurvey illustrates the differences between ages of those who participated in the survey. As can be seen from the summary,

Summary for AgeSurvey		
Age		
Answer	Count	Gross percentage
20 - 30 (A1)	46	42.99%
31 - 40 (A2)	17	15.89%
41 - 50 (A3)	13	12.15%
51 - 60 (A4)	16	14.95%
60+ (A5)	15	14.02%
No answer	0	0.00%
Not completed or Not displayed	0	0.00%
Total(gross)	107	100.00%

Figure 6 Age Results from Limesurvey

100% certain, since other factors, such as time of day and the season during which the survey was conducted may also affect the age difference.

the ages vary quite evenly between those from 31 to those over 60. It is only the age group of 20-30 who stands out. That group comprises an amount of 42,99%. The significant number of individuals between the ages of 20-30 can be attributed to the fact that young people tend to move about in the area where the survey was conducted. This is not however a

Summary for SupplementSurvey		
Do you invest to supplement your retirement?		
Answer	Count	Gross percentage
Yes (A1)	35	32.71%
No (A2)	72	67.29%
No answer	0	0.00%
Not completed or Not displayed	0	0.00%
Total(gross)	107	100.00%

Figure 7 Yes/No regarding investing

their retirement. The following summary details some of the reasons given, if given, of why individuals have decided not to invest to supplement their retirement.

The third picture from Limesurvey answers the main question this thesis aims to present, do Helsinki Region residents invest to supplement their retirement? As can be seen, a bit over two thirds (67,29%) of those who answered do not invest in any way to supplement

Summary for IfYesSurvey		
If you answered yes on the question regarding investing, which of the following forms of investments do you use? You can pick several.		
Answer	Count	Gross percentage
Stocks (SQ001)	21	19.63%
Bonds (SQ002)	8	7.48%
Savings Account (SQ003)	22	20.56%
Real Estate (SQ004)	11	10.28%
Currency (SQ005)	1	0.93%
Other (SQ006)	1	0.93%
Total(gross)	64	100.00%

Figure 8 Forms of investments

The answers regarding which form of investment was most prevalent within the target population shows two forms which have a clear lead with regards to popularity when compared to the rest, stocks and savings account. One can infer two things from this. First, a savings

account is a form of investment that requires next to no management, so most people with a bank account are likely to have one. If they use it as an active form of investment, that is a totally different question. Since a savings account yields low returns, it is unlikely for serious investors to use it as their main source/tool for investing. Second, stocks are quite easy to purchase and sell, making them the somewhat obvious choice as the first step in an individual's start to investing outside the savings account. But unlike the savings account, stocks are more volatile and require more management. They also yield higher returns, provided the investor keeps a cool head and the stock market doesn't go haywire. This makes stocks a prime choice for both experienced investors and novices who are new to the investing game.

4.3 SPSS analysis

Using SPSS, it is possible to get a comprehensive view of the differences between the different sets of groups in the survey, according to the answers they have provided to said survey.

SPSS was used as follows: Analyse- compare means – means. Then different variables are chosen so that differences between gender, age, investments and so forth can be generated. It should be noted that the results given resulted in large amounts of data, and that inserting the data into the document thesis at this point would cause unnecessary clutter. Therefore, the author of this thesis has chosen to only add cropped out-takes from the data results in this chapter, while leaving the entirety of the resulting data from SPSS in the appendix section for viewer perusal.

Report

Gender	Do you work in the	Do you invest to supplement your retirement?	Mean	N	Std. Deviation
Male	Private Sector	Yes	2,00	9	,000
		No	2,00	11	,000
		Total	2,00	20	,000
	Public Sector	Yes	2,00	4	,000
		No	2,00	9	,000
		Total	2,00	13	,000
	Self - Employed	Yes	2,00	2	,000
		No	2,00	1	.
		Total	2,00	3	,000
	Retired	No	2,00	4	,000
		Total	2,00	4	,000
	Unemployed	No	2,00	3	,000
		Total	2,00	3	,000
	Student	Yes	2,00	3	,000
		No	2,00	7	,000
		Total	2,00	10	,000
	Total	Yes	2,00	18	,000
		No	2,00	35	,000
Total		2,00	53	,000	

Figure 9 Cut-out of SPSS report regarding investment.

As can be seen from this portion of the SPSS data, the answers are divided by gender, area of work, i.e. public sector, private sector etc. and yes/no answers. Yes answers regarding investments to supplement retirement was 33,96% for men, 28,85% for women and 1 each for other and rather not say, equaling a total of 32,71% who answered yes, which is the same amount reported previously by LimesSurvey. This leaves 67,29% who do not invest. The gender difference between the traditional genders is small. This does not necessarily have any significant meaning, since the population is limited to those at Tre Smeder Square, but if the answers are taken to be representative of the target population as a whole, the results would suggest that of those who do invest, both traditional genders are almost equally interested in supplementing their retirement.

Report

Gender	Age	If you answered no on the question regarding investments, why?	Mean	N	Std. Deviation	
Male	20 - 30		2,00	8	,000	
		Lack of money	2,00	9	,000	
		Unsure of investment options	2,00	1	.	
		Lack of interest in investing	2,00	4	,000	
		Other	2,00	1	.	
		Total	2,00	23	,000	
	31 - 40			2,00	4	,000
			Lack of money	2,00	6	,000
			Lack of interest in investing	2,00	1	.
		Total	2,00	11	,000	
	41 - 50			2,00	3	,000
			Lack of interest in investing	2,00	1	.
		Total	2,00	4	,000	
	51 - 60			2,00	6	,000
			Lack of money	2,00	2	,000
			Lack of interest in investing	2,00	1	.
		Total	2,00	9	,000	
	60+			2,00	3	,000
			Lack of money	2,00	1	.
			Lack of interest in investing	2,00	1	.
		Other	2,00	1	.	
	Total	2,00	6	,000		
Total			2,00	24	,000	
		Lack of money	2,00	18	,000	
		Unsure of investment options	2,00	1	.	
		Lack of interest in investing	2,00	8	,000	
		Other	2,00	2	,000	
		Total	2,00	53	,000	
Female	20 - 30		2,00	7	,000	
			Lack of money	2,00	11	,000
			Unsure of investment options	2,00	1	.
			Lack of interest in investing	2,00	4	,000

Figure 10 Reasons behind a no-answer regarding investments

In this portion the variables are gender, age and reasons behind the individuals not choosing to invest. The main reason given for not investing, one that applies to all genders and nearly all age groups was lack of money. The response here came at 34,58%, including all genders. There are a few inferences that can be made from this, although these are merely speculations and not proven facts. First, individuals genuinely do not have the means to invest even if they wanted to, which is disconcerting. Second, they might actually have the means to invest, but they are under the illusion that they do not.

The answer that came in second as the reason for not investing as a way to supplement retirement was the lack of interest in investing. Here the gender difference was still quite

close, with men giving the answer 8 times versus women, of whom 12 gave the answer, equaling 18,69%. While this proportion is in itself not disconcerting, it should be noted that an interest in investing can bring a much-needed boost to one's economy if done correctly.

Report

How much do you expect to require monthly (before income tax) to live according to the standard you wish during your retirement?					
Gender	Age		Mean	N	Std. Deviation
Male	20 - 30	2000 - 3000	2,00	11	,000
		3000 - 4000	2,00	11	,000
		4000 - 5000	2,00	1	.
		Total	2,00	23	,000
	31 - 40	2000 - 3000	2,00	2	,000
		3000 - 4000	2,00	8	,000
		4000 - 5000	2,00	1	.
		Total	2,00	11	,000
	41 - 50	2000 - 3000	2,00	2	,000
		3000 - 4000	2,00	1	.
		4000 - 5000	2,00	1	.
		Total	2,00	4	,000
	51 - 60	2000 - 3000	2,00	5	,000
		3000 - 4000	2,00	1	.
		4000 - 5000	2,00	2	,000
		5000+	2,00	1	.
		Total	2,00	9	,000
	60+	2000 - 3000	2,00	5	,000
		4000 - 5000	2,00	1	.
		Total	2,00	6	,000
Total	2000 - 3000	2,00	25	,000	
	3000 - 4000	2,00	21	,000	
	4000 - 5000	2,00	6	,000	
	5000+	2,00	1	.	
	Total	2,00	53	,000	
Female	20 - 30	2000 - 3000	2,00	13	,000
		3000 - 4000	2,00	9	,000
		4000 - 5000	2,00	1	.
		Total	2,00	23	,000
	31 - 40	2000 - 3000	2,00	4	,000

Figure 11 Retirement income expectations

Finnish pensioners had a pension of over 3000€ per month, with the majority of those being men. If those who answered with an expectation of over 2000€ per month, and they

When asked how much the individuals expect to require monthly during their retirement, before income tax, the answers had a majority in the 2000-3000 category, with 52,34%. For men the close second was 3000-4000, with 21 answers, while the second most given answer for women also equaled to the 3000-4000 range. This shows a disconnect between expectations and reality, since the Finnish Centre for Pensions estimates that the current (2019) average pension is 1,680€ per month. Only 7% of

do not have personal savings or investment to cover the difference, they may very well be in for an unpleasant surprise in the future.

When asked whether they expected their retirement to be sufficient for their needs, ac-

Report						
Gender	Age	Do you believe that your pension and personal savings will cover this?	How much do you expect to require monthly (before income tax) to live according to the standard you wish during your retirement?	Mean	N	Std. Deviation
Male	20 - 30	Yes	2000 - 3000	2,00	5	,000
			3000 - 4000	2,00	3	,000
			4000 - 5000	2,00	1	.
			Total	2,00	9	,000
		No	2000 - 3000	2,00	6	,000
			3000 - 4000	2,00	8	,000
			Total	2,00	14	,000
		Total	2000 - 3000	2,00	11	,000
			3000 - 4000	2,00	11	,000
	4000 - 5000		2,00	1	.	
	Total		2,00	23	,000	
	31 - 40	Yes	3000 - 4000	2,00	4	,000
			4000 - 5000	2,00	1	.
			Total	2,00	5	,000
		No	2000 - 3000	2,00	2	,000
			3000 - 4000	2,00	4	,000
			Total	2,00	6	,000
		Total	2000 - 3000	2,00	2	,000
			3000 - 4000	2,00	8	,000
			4000 - 5000	2,00	1	.
	Total		2,00	11	,000	
	41 - 50	Yes	2000 - 3000	2,00	2	,000
			3000 - 4000	2,00	1	.
4000 - 5000			2,00	1	.	
Total			2,00	4	,000	
Total		2000 - 3000	2,00	2	,000	
		3000 - 4000	2,00	1	.	
		4000 - 5000	2,00	1	.	
		Total	2,00	4	,000	
51 - 60	Yes	2000 - 3000	2,00	2	,000	

ording to what they had previously answered on the amount they expected to need, the traditional genders again answered fairly similarly. Yes answers including all participants equaled 49,53%. Men answered no on 30 occasion versus the 24 answers given by women. When examining the age, younger people were represented higher in

Figure 12 Will retirement funds be enough

those who did not expect their retirement to be enough for their needs. This can be explained as an awareness that the retirement system in Finland is under strain and that the future of their retirement is far from certain, or at least at the levels their parents and-or grandparents have come accustomed to.

5 CONCLUSION

This thesis has the aim to research into the retirement methods of Helsinki region resident, and if they do or do not invest to supplement their retirement. A survey was conducted in Helsinki, at the Tre Smeder Square, where the sample group was randomly chosen as a representation of the population as a whole.

The following conclusions can be inferred from the results. First, about a third of those who answered indicated that they use investments as a method to supplement their retirement. Of those who invest, 18 are men and 15 are women, with two who answered either other or rather not say. This result does not prove a significant difference between genders, since both are almost equally represented in both yes and no answers regarding investments. Second, stocks and savings accounts were the two most popular forms of savings among those who saved. When taking into the account that there were 64 answers on the forms of savings used, and 35 individuals who reported to using savings, most of those who answered used more than one form of saving/investing. Third, there is a somewhat alarming discrepancy between what people expect to need during their retirement, if they expect to reach that level and if they use investments as a means to reach this goal. If the majority expected to need somewhere between 2000-3000€ per month before income tax, about half expected to be able to reach that with their pension and savings, but only a third of those who answered actually invested/saved for retirement, a significant portion of the population is either ignorant of their retirement funds, or they seem unable/unwilling to make preparations on such a longtime scale. Even further alarming is the fact that those who seem most skeptical of their ability to make a decent retirement are those who are on the younger side. This might however also have a silver lining, since they have time on their side regarding the possibility to still make significant changes regarding their personal savings/investments.

The sample population provided sufficient answers to the research questions detailed in the beginning of the thesis. However, a larger sample population could have provided additional data for a more detailed analysis. This would however most likely have added to the time-frame set for the completion of the thesis, and as such was not undertaken.

Furthermore, the questionnaire could have been modified in such a way as to better guarantee that the participants in the survey were truly residents of the Helsinki region. As this was not the case, the validity of the research is not a 100%. Further study should be done, specifically regarding the willingness of citizens, not just in Helsinki, but in the entirety of Finland, to supplement their retirement in some form. This could also help the government prepare for a situation in which the workforce of the country is greatly outnumbered by the number of retirees, a scenario which is likely to happen if the expected life span rises or stays in the current range, and if the birth rates continue to decline.

In conclusion, from the data gathered this thesis has provided the information from which one can infer that one third of Helsinki region resident actively use investments as a form of savings to supplement their retirement.

6 REFERENCES

Aktia 2019. BSP-Lån. Accessed 7.9.2019. Available at <https://www.aktia.fi/sv/lainat/asp-laina>.

Alexandria Group 2012. Accessed 10.11.2018. Available at <https://www.slideshare.net/AlexandriaPankkiiriliike/alexandria-pankkiiriliike>.

Alvin D. Hall. *Getting Started in Mutual Funds*. John Wiley & Sons, Incorporated, 2010.

Becket, Michael Ivan H. *How the Stock Market Works: A Beginner's Guide to Investment*. Kogan Page Publishers, 2004.

Bryman, Alan. *Social Research Methods, third edition*. Oxford University Press, 2008.

Cooper, Donald & Schindler, Pamela. *Business Research Methods: 12th Edition*. McGraw-Hill Higher Education, 2013.

Corporate Finance Institute 2019. Accessed 7.9.2019. Available at <https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/risk-and-return/>.

Eläketurvakeskus 2019. Accessed 23.8.2019. Available at <https://www.etk.fi/tiedote/keskielake-1-680-euroa-kuukaudessa/>.

Financial Supervisory Authority 2015. Accessed 11.11.2018. Available at <http://www.finanssivalvonta.fi/fi/Finanssiasiakas/Tuotteita/Sijoittaminen/Osakkeet/Kaupankaynti/Pages/Default.aspx>

Finlex Data Bank 2018. Accessed 25.11.2018. Available at <https://www.finlex.fi/fi/laki/ajantasa/2006/20060395>.

Finnish Centre for Pensions 2018. Accessed 23.11.2018. Available at <https://www.etk.fi/tutkimus-tilastot-ennusteet/tilastot/elakkeensaajat/kaikki-elakkeensaajat/>.

Finnish Centre for Pensions 2018. Accessed 23.11.2018. Available at <http://www.saadospalvelu.fi/fi/lainsaadanto/etk/spelas>.

Finnish Centre for Pensions. Accessed 23.11.2018. Available at <https://www.etk.fi/en/uutinen/gender-gap-in-pensions-persist-in-spite-of-extended-working-lives/>.

Forbes 2018. Accessed 15.10.2018. Available at <https://www.forbes.com/sites/davidrae/2018/07/12/happy-retirement/#5e6bb7c0525d>.

Gustman, Alan L., and Thomas L. Steinmeier. "Integrating retirement models: Understanding household retirement decisions." *Factors Affecting Worker Well-being: The Impact of Change in the Labor Market*. Emerald Group Publishing Limited, 2014. 79-112.

Hall, Alvin D. *Getting started in mutual funds*. Vol. 84. John Wiley & Sons, 2010.

Howard A. Frank, Katherine M. Condon, Burton D. Dunlop, Max B. Rothman, (2000) "The retirement planning gap: A view from the public sector", *International Journal of Organization Theory & Behavior*, Vol. 3 Issue: 1/2, pp.235-274.

Kauppalehti 2018. Accessed 11.11.2018. Available at <https://www.kauppalehti.fi/uutiset/elake-ei-riita--sadan-tonnin-saastot-auttavat/4jJHjKZP>.

Kauppalehti 2016. Accessed 3.11.2018. Available at <https://www.kauppalehti.fi/uutiset/hintavertailun-kallein-stockmann-korostaa-laattaa-poisti-omia-merkkeja-valikoimista/b2e16ab6-54e9-33fd-98f9-e0c1a1b176a3>.

Kauppalehti 2019. Nordea Bank Abp. Accessed 7.9.2019. Available at <https://www.kauppalehti.fi/porssi/porssikurssit/osake/NDA%20FI>.

KELA 2018. Accessed 13.11.2018. Available at http://raportit.kela.fi/ibi_apps/WFServlet?IBIF_ex=NIT216AL

KELA 2018. Accessed 13.11.2018. Available at https://www.kela.fi/documents/10180/1630866/Kelan_elake-etuuksien_kk-tilasto.pdf/5a3b7c56-72fa-429d-aa16-5734bcf4c55e

Lähitapiola 2017. Accessed 9.11.2018. Available at <https://www.lahitapiola.fi/tietoa-lahitapiolasta/uutishuone/uutiset-ja-tiedotteet/uutiset/uutinen/1310390212969>.

McManus, Tom, Johan Anderberg, and Harold Lazarus. "Retirement—an unaffordable luxury." *Journal of Management Development* 26.5 (2007): 484-492.

Merriam-Webster 2019. Accessed 7.9.2019. Available at <https://www.merriam-webster.com/dictionary/compound%20interest>.

Nordea 2019. Accessed 7.9.2019. Available at <https://www.nordea.fi/en/personal/our-services/savings-investments/savings-accounts/perkaccount.html#tab=Prices-and-interest-rates>.

Nordea 2019. Yhtiökokoukset ja osingot. Accessed 7.9.2019. Available at <https://www.nordea.fi/henkiloasiakkaat/palvelumme/saastaminen-sijoittaminen/yhtiokoukset-ja-osingot.html>

Saunders, Mark, Philip Lewis, and Adrian Thornhill. *Research methods for business students*. Pearson education, 2009.

Sijoitusovi 2019. 8 asuntosijoittamisen riskiä. Accessed 7.9.2019. Available at <https://sijoitusovi.com/asuntosijoittaminen-8-yleisinta-riskia-ja-niiden-hallinta/>.

Sijoitustieto 2014. Accessed 2018. Available at <https://www.sijoitustieto.fi/sijoitusartikkelit/suomalaiset-sijoittajina>.

Sigler, Kevin. J. (1998) "Investing for retirement", *Managerial Finance*, Vol. 24 Issue: 12, pp.45-54.

Statistics Finland 2017. Accessed 9.11.2018. Available at http://tilastokeskus.fi/til/vamuu/2017/12/vamuu_2017_12_2018-02-15_fi.pdf

Statistics Finland 2017. Accessed 9.11.2018. Available at http://www.stat.fi/til/vamuu/2017/12/vamuu_2017_12_2018-02-15_tie_001_fi.html?ad=notify.

Statistics Finland 2018. Accessed 15.11.2018. Available at <https://www.tilastokeskus.fi/meta/luokitukset/maakunta/001-2018/index.html>.

Statistics Finland 2018. Rental living becoming common. Accessed 7.9.2019. Available at https://www.stat.fi/til/asas/2017/01/asas_2017_01_2018-10-10_tie_002_en.html.

Säästöpankki 2017. Accessed 10.11.2018. Available at <https://uutishuone.saastopankki.fi/pressreleases/rikastuminen-ei-kiinnosta-suomalaisia-raha-patjan-alla-on-suomalaisesta-parempi-kuin-raha-toeissae-2240345>.

Taloussanommat 2018. Accessed 29.11.2018. Available at <https://www.is.fi/taloussanommat/art-2000001656123.html>.

Työeläke 2019. Accessed 20.9.2019. Available at <https://www.tyoelake.fi/paljonko-saan-elaketta/miten-elake-lasketaan/#title>

Verohallinto 2019. Osinkotulojen Verotus. Accessed 7.9.2019. Available at <https://www.vero.fi/syventavat-vero-ohjeet/ohje-hakusivu/47901/osinkotulojen-verotus/>.

Western & Southern Financial Group 2018. Accessed 7.9.2019. Available at <https://www.westernsouthern.com/learn/financial-education/the-impact-of-inflation-on-your-savings-and-investments>.

YLE 2018. Accessed 10.11.2018. Available at <https://yle.fi/uutiset/3-7750298>.

Yle 2019. Valtion tukemat asp-lainat ovat nousseet jälleen hurjaan suosioon. Accessed 7.9.2019. Available at <https://yle.fi/uutiset/3-10950920>.

YLE 2016. Accessed 15.10.2018. Available at <https://yle.fi/uutiset/3-9348127>.

APPENDICES

Appendix 1. Yes/No question regarding investment (SPSS)

Report

Gender	Do you work in the	Do you invest to supplement your retirement?	Mean	N	Std. Deviation
Male	Private Sector	Yes	2,00	9	,000
		No	2,00	11	,000
		Total	2,00	20	,000
	Public Sector	Yes	2,00	4	,000
		No	2,00	9	,000
		Total	2,00	13	,000
	Self - Employed	Yes	2,00	2	,000
		No	2,00	1	.
		Total	2,00	3	,000
	Retired	No	2,00	4	,000
		Total	2,00	4	,000
	Unemployed	No	2,00	3	,000
		Total	2,00	3	,000
	Student	Yes	2,00	3	,000
		No	2,00	7	,000
Total		2,00	10	,000	
Total	Yes	2,00	18	,000	
	No	2,00	35	,000	
	Total	2,00	53	,000	
Female	Private Sector	Yes	2,00	7	,000
		No	2,00	5	,000
		Total	2,00	12	,000
	Public Sector	Yes	2,00	3	,000
		No	2,00	10	,000
		Total	2,00	13	,000
	Self - Employed	Yes	2,00	1	.
		No	2,00	4	,000
		Total	2,00	5	,000
	Retired	No	2,00	5	,000
Total		2,00	5	,000	

	Unemployed	No	2,00	2	,000
		Total	2,00	2	,000
	Student	Yes	2,00	4	,000
		No	2,00	11	,000
		Total	2,00	15	,000
	Total	Yes	2,00	15	,000
		No	2,00	37	,000
		Total	2,00	52	,000
Other	Self - Employed	Yes	2,00	1	.
		Total	2,00	1	.
	Total	Yes	2,00	1	.
		Total	2,00	1	.
Prefer not to say	Private Sector	Yes	2,00	1	.
		Total	2,00	1	.
	Total	Yes	2,00	1	.
		Total	2,00	1	.
Total	Private Sector	Yes	2,00	17	,000
		No	2,00	16	,000
		Total	2,00	33	,000
	Public Sector	Yes	2,00	7	,000
		No	2,00	19	,000
		Total	2,00	26	,000
	Self - Employed	Yes	2,00	4	,000
		No	2,00	5	,000
		Total	2,00	9	,000
	Retired	No	2,00	9	,000
		Total	2,00	9	,000
	Unemployed	No	2,00	5	,000
		Total	2,00	5	,000
	Student	Yes	2,00	7	,000
		No	2,00	18	,000
		Total	2,00	25	,000
	Total	Yes	2,00	35	,000
		No	2,00	72	,000
		Total	2,00	107	,000

Appendix 2. Reasons behind a no answer on investing (SPSS).

Report

Gender	Age	If you answered no on the question regarding investments, why?	Mean	N	Std. Deviation
Male	20 - 30		2,00	8	,000
		Lack of money	2,00	9	,000
		Unsure of investment options	2,00	1	.
		Lack of interest in investing	2,00	4	,000
		Other	2,00	1	.
		Total	2,00	23	,000
	31 - 40		2,00	4	,000
		Lack of money	2,00	6	,000
		Lack of interest in investing	2,00	1	.
		Total	2,00	11	,000
	41 - 50		2,00	3	,000
		Lack of interest in investing	2,00	1	.
		Total	2,00	4	,000
	51 - 60		2,00	6	,000
		Lack of money	2,00	2	,000
		Lack of interest in investing	2,00	1	.
		Total	2,00	9	,000
	60+		2,00	3	,000
		Lack of money	2,00	1	.
		Lack of interest in investing	2,00	1	.
		Other	2,00	1	.
		Total	2,00	6	,000
	Total		2,00	24	,000
		Lack of money	2,00	18	,000
Unsure of investment options		2,00	1	.	
Lack of interest in investing		2,00	8	,000	
Other		2,00	2	,000	
Total		2,00	53	,000	
Female		20 - 30		2,00	7
	Lack of money		2,00	11	,000
	Unsure of investment options		2,00	1	.
	Lack of interest in investing		2,00	4	,000

		Total	2,00	23	,000
	31 - 40		2,00	5	,000
		Lack of money	2,00	1	.
		Total	2,00	6	,000
	41 - 50		2,00	1	.
		Lack of money	2,00	4	,000
		Lack of interest in investing	2,00	3	,000
		Total	2,00	8	,000
	51 - 60		2,00	2	,000
		Lack of money	2,00	1	.
		Lack of interest in investing	2,00	4	,000
		Total	2,00	7	,000
	60+		2,00	3	,000
		Lack of money	2,00	2	,000
		Unsure of investment options	2,00	1	.
		Lack of interest in investing	2,00	1	.
		Other	2,00	1	.
		Total	2,00	8	,000
	Total		2,00	18	,000
		Lack of money	2,00	19	,000
		Unsure of investment options	2,00	2	,000
		Lack of interest in investing	2,00	12	,000
		Other	2,00	1	.
		Total	2,00	52	,000
Other	60+		2,00	1	.
		Total	2,00	1	.
	Total		2,00	1	.
		Total	2,00	1	.
Prefer not to say	41 - 50		2,00	1	.
		Total	2,00	1	.
	Total		2,00	1	.
		Total	2,00	1	.
Total	20 - 30		2,00	15	,000
		Lack of money	2,00	20	,000
		Unsure of investment options	2,00	2	,000
		Lack of interest in investing	2,00	8	,000
		Other	2,00	1	.
		Total	2,00	46	,000
	31 - 40		2,00	9	,000
		Lack of money	2,00	7	,000

		Lack of interest in investing	2,00	1	.
		Total	2,00	17	,000
41 - 50			2,00	5	,000
		Lack of money	2,00	4	,000
		Lack of interest in investing	2,00	4	,000
		Total	2,00	13	,000
51 - 60			2,00	8	,000
		Lack of money	2,00	3	,000
		Lack of interest in investing	2,00	5	,000
		Total	2,00	16	,000
60+			2,00	7	,000
		Lack of money	2,00	3	,000
		Unsure of investment options	2,00	1	.
		Lack of interest in investing	2,00	2	,000
		Other	2,00	2	,000
		Total	2,00	15	,000
Total			2,00	44	,000
		Lack of money	2,00	37	,000
		Unsure of investment options	2,00	3	,000
		Lack of interest in investing	2,00	20	,000
		Other	2,00	3	,000
		Total	2,00	107	,000

Appendix 3. Expected retirement sum needed (SPSS).

Report

Gender	Age	How much do you expect to require monthly (before income tax) to live according to the standard you wish during your retirement?	Mean	N	Std. Deviation
Male	20 - 30	2000 - 3000	2,00	11	,000
		3000 - 4000	2,00	11	,000
		4000 - 5000	2,00	1	.
		Total	2,00	23	,000
	31 - 40	2000 - 3000	2,00	2	,000
		3000 - 4000	2,00	8	,000
		4000 - 5000	2,00	1	.

		Total	2,00	11	,000
	41 - 50	2000 - 3000	2,00	2	,000
		3000 - 4000	2,00	1	.
		4000 - 5000	2,00	1	.
		Total	2,00	4	,000
	51 - 60	2000 - 3000	2,00	5	,000
		3000 - 4000	2,00	1	.
		4000 - 5000	2,00	2	,000
		5000+	2,00	1	.
		Total	2,00	9	,000
	60+	2000 - 3000	2,00	5	,000
		4000 - 5000	2,00	1	.
		Total	2,00	6	,000
	Total	2000 - 3000	2,00	25	,000
		3000 - 4000	2,00	21	,000
		4000 - 5000	2,00	6	,000
		5000+	2,00	1	.
		Total	2,00	53	,000
Female	20 - 30	2000 - 3000	2,00	13	,000
		3000 - 4000	2,00	9	,000
		4000 - 5000	2,00	1	.
		Total	2,00	23	,000
	31 - 40	2000 - 3000	2,00	4	,000
		3000 - 4000	2,00	2	,000
		Total	2,00	6	,000
	41 - 50	2000 - 3000	2,00	6	,000
		3000 - 4000	2,00	2	,000
		Total	2,00	8	,000
	51 - 60	1000 - 2000	2,00	1	.
		2000 - 3000	2,00	4	,000
		3000 - 4000	2,00	2	,000
		Total	2,00	7	,000
	60+	1000 - 2000	2,00	3	,000
		2000 - 3000	2,00	4	,000
		3000 - 4000	2,00	1	.
		Total	2,00	8	,000
	Total	1000 - 2000	2,00	4	,000
		2000 - 3000	2,00	31	,000
		3000 - 4000	2,00	16	,000
		4000 - 5000	2,00	1	.

		Total	2,00	52	,000
Other	60+	5000+	2,00	1	.
		Total	2,00	1	.
	Total	5000+	2,00	1	.
		Total	2,00	1	.
Prefer not to say	41 - 50	1000 - 2000	2,00	1	.
		Total	2,00	1	.
	Total	1000 - 2000	2,00	1	.
		Total	2,00	1	.
Total	20 - 30	2000 - 3000	2,00	24	,000
		3000 - 4000	2,00	20	,000
		4000 - 5000	2,00	2	,000
		Total	2,00	46	,000
	31 - 40	2000 - 3000	2,00	6	,000
		3000 - 4000	2,00	10	,000
		4000 - 5000	2,00	1	.
		Total	2,00	17	,000
	41 - 50	1000 - 2000	2,00	1	.
		2000 - 3000	2,00	8	,000
		3000 - 4000	2,00	3	,000
		4000 - 5000	2,00	1	.
		Total	2,00	13	,000
	51 - 60	1000 - 2000	2,00	1	.
		2000 - 3000	2,00	9	,000
		3000 - 4000	2,00	3	,000
		4000 - 5000	2,00	2	,000
		5000+	2,00	1	.
		Total	2,00	16	,000
	60+	1000 - 2000	2,00	3	,000
		2000 - 3000	2,00	9	,000
		3000 - 4000	2,00	1	.
		4000 - 5000	2,00	1	.
		5000+	2,00	1	.
		Total	2,00	15	,000
	Total	1000 - 2000	2,00	5	,000
		2000 - 3000	2,00	56	,000
		3000 - 4000	2,00	37	,000
		4000 - 5000	2,00	7	,000
		5000+	2,00	2	,000
		Total	2,00	107	,000

**Appendix 4. Will personal savings/pension cover retirement (SPSS).
Report**

Gender	Age	Do you believe that your pension and personal savings will cover this?	How much do you expect to require monthly (before income tax) to live according to the standard you wish during your retirement?	Mean	N	S
Male	20 - 30	Yes	2000 - 3000	2,00	5	
			3000 - 4000	2,00	3	
			4000 - 5000	2,00	1	
			Total	2,00	9	
		No	2000 - 3000	2,00	6	
			3000 - 4000	2,00	8	
			Total	2,00	14	
		Total	2000 - 3000	2,00	11	
			3000 - 4000	2,00	11	
	4000 - 5000		2,00	1		
	Total		2,00	23		
	31 - 40	Yes	3000 - 4000	2,00	4	
			4000 - 5000	2,00	1	
			Total	2,00	5	
		No	2000 - 3000	2,00	2	
			3000 - 4000	2,00	4	
			Total	2,00	6	
		Total	2000 - 3000	2,00	2	
			3000 - 4000	2,00	8	
			4000 - 5000	2,00	1	
	Total		2,00	11		
	41 - 50	Yes	2000 - 3000	2,00	2	
			3000 - 4000	2,00	1	
4000 - 5000			2,00	1		
Total			2,00	4		
Total		2000 - 3000	2,00	2		
		3000 - 4000	2,00	1		
		4000 - 5000	2,00	1		
		Total	2,00	4		
51 - 60	Yes	2000 - 3000	2,00	2		
		3000 - 4000	2,00	1		
		4000 - 5000	2,00	2		

			5000+	2,00	1
			Total	2,00	6
	No		2000 - 3000	2,00	3
			Total	2,00	3
	Total		2000 - 3000	2,00	5
			3000 - 4000	2,00	1
			4000 - 5000	2,00	2
			5000+	2,00	1
			Total	2,00	9
60+	Yes		2000 - 3000	2,00	2
			4000 - 5000	2,00	1
			Total	2,00	3
	No		2000 - 3000	2,00	3
			Total	2,00	3
	Total		2000 - 3000	2,00	5
			4000 - 5000	2,00	1
			Total	2,00	6
Total	Yes		2000 - 3000	2,00	11
			3000 - 4000	2,00	9
			4000 - 5000	2,00	6
			5000+	2,00	1
			Total	2,00	27
	No		2000 - 3000	2,00	14
			3000 - 4000	2,00	12
			Total	2,00	26
	Total		2000 - 3000	2,00	25
			3000 - 4000	2,00	21
			4000 - 5000	2,00	6
			5000+	2,00	1
			Total	2,00	53
Female	20 - 30	Yes	2000 - 3000	2,00	6
			3000 - 4000	2,00	2
			Total	2,00	8
	No		2000 - 3000	2,00	6
			3000 - 4000	2,00	7
			Total	2,00	13
	Prefer not to say		2000 - 3000	2,00	1
			4000 - 5000	2,00	1
			Total	2,00	2
	Total		2000 - 3000	2,00	13

		3000 - 4000	2,00	9
		4000 - 5000	2,00	1
		Total	2,00	23
31 - 40	Yes	2000 - 3000	2,00	3
		3000 - 4000	2,00	1
		Total	2,00	4
	No	2000 - 3000	2,00	1
		3000 - 4000	2,00	1
		Total	2,00	2
	Total	2000 - 3000	2,00	4
		3000 - 4000	2,00	2
		Total	2,00	6
41 - 50	Yes	2000 - 3000	2,00	3
		3000 - 4000	2,00	1
		Total	2,00	4
	No	2000 - 3000	2,00	3
		3000 - 4000	2,00	1
		Total	2,00	4
	Total	2000 - 3000	2,00	6
		3000 - 4000	2,00	2
		Total	2,00	8
51 - 60	Yes	1000 - 2000	2,00	1
		2000 - 3000	2,00	3
		3000 - 4000	2,00	2
		Total	2,00	6
	No	2000 - 3000	2,00	1
		Total	2,00	1
	Total	1000 - 2000	2,00	1
		2000 - 3000	2,00	4
		3000 - 4000	2,00	2
		Total	2,00	7
60+	Yes	1000 - 2000	2,00	2
		2000 - 3000	2,00	2
		Total	2,00	4
	No	1000 - 2000	2,00	1
		2000 - 3000	2,00	2
		3000 - 4000	2,00	1
		Total	2,00	4
	Total	1000 - 2000	2,00	3
		2000 - 3000	2,00	4

			3000 - 4000	2,00	1
			Total	2,00	8
	Total	Yes	1000 - 2000	2,00	3
			2000 - 3000	2,00	17
			3000 - 4000	2,00	6
			Total	2,00	26
		No	1000 - 2000	2,00	1
			2000 - 3000	2,00	13
			3000 - 4000	2,00	10
			Total	2,00	24
		Prefer not to say	2000 - 3000	2,00	1
			4000 - 5000	2,00	1
			Total	2,00	2
	Total		1000 - 2000	2,00	4
			2000 - 3000	2,00	31
			3000 - 4000	2,00	16
			4000 - 5000	2,00	1
			Total	2,00	52
Other	60+	Prefer not to say	5000+	2,00	1
			Total	2,00	1
		Total	5000+	2,00	1
			Total	2,00	1
	Total	Prefer not to say	5000+	2,00	1
			Total	2,00	1
		Total	5000+	2,00	1
			Total	2,00	1
Prefer not to say	41 - 50	No	1000 - 2000	2,00	1
			Total	2,00	1
		Total	1000 - 2000	2,00	1
			Total	2,00	1
	Total	No	1000 - 2000	2,00	1
			Total	2,00	1
		Total	1000 - 2000	2,00	1
			Total	2,00	1
Total	20 - 30	Yes	2000 - 3000	2,00	11
			3000 - 4000	2,00	5
			4000 - 5000	2,00	1
			Total	2,00	17
		No	2000 - 3000	2,00	12
			3000 - 4000	2,00	15

		Total	2,00	27
	Prefer not to say	2000 - 3000	2,00	1
		4000 - 5000	2,00	1
		Total	2,00	2
	Total	2000 - 3000	2,00	24
		3000 - 4000	2,00	20
		4000 - 5000	2,00	2
		Total	2,00	46
31 - 40	Yes	2000 - 3000	2,00	3
		3000 - 4000	2,00	5
		4000 - 5000	2,00	1
		Total	2,00	9
	No	2000 - 3000	2,00	3
		3000 - 4000	2,00	5
		Total	2,00	8
	Total	2000 - 3000	2,00	6
		3000 - 4000	2,00	10
		4000 - 5000	2,00	1
		Total	2,00	17
41 - 50	Yes	2000 - 3000	2,00	5
		3000 - 4000	2,00	2
		4000 - 5000	2,00	1
		Total	2,00	8
	No	1000 - 2000	2,00	1
		2000 - 3000	2,00	3
		3000 - 4000	2,00	1
		Total	2,00	5
	Total	1000 - 2000	2,00	1
		2000 - 3000	2,00	8
		3000 - 4000	2,00	3
		4000 - 5000	2,00	1
		Total	2,00	13
51 - 60	Yes	1000 - 2000	2,00	1
		2000 - 3000	2,00	5
		3000 - 4000	2,00	3
		4000 - 5000	2,00	2
		5000+	2,00	1
		Total	2,00	12
	No	2000 - 3000	2,00	4
		Total	2,00	4

	Total	1000 - 2000	2,00	1
		2000 - 3000	2,00	9
		3000 - 4000	2,00	3
		4000 - 5000	2,00	2
		5000+	2,00	1
		Total	2,00	16
60+	Yes	1000 - 2000	2,00	2
		2000 - 3000	2,00	4
		4000 - 5000	2,00	1
		Total	2,00	7
	No	1000 - 2000	2,00	1
		2000 - 3000	2,00	5
		3000 - 4000	2,00	1
		Total	2,00	7
	Prefer not to say	5000+	2,00	1
		Total	2,00	1
	Total	1000 - 2000	2,00	3
		2000 - 3000	2,00	9
		3000 - 4000	2,00	1
		4000 - 5000	2,00	1
		5000+	2,00	1
		Total	2,00	15
Total	Yes	1000 - 2000	2,00	3
		2000 - 3000	2,00	28
		3000 - 4000	2,00	15
		4000 - 5000	2,00	6
		5000+	2,00	1
		Total	2,00	53
	No	1000 - 2000	2,00	2
		2000 - 3000	2,00	27
		3000 - 4000	2,00	22
		Total	2,00	51
	Prefer not to say	2000 - 3000	2,00	1
		4000 - 5000	2,00	1
		5000+	2,00	1
		Total	2,00	3
	Total	1000 - 2000	2,00	5
		2000 - 3000	2,00	56
		3000 - 4000	2,00	37
		4000 - 5000	2,00	7

	5000+	2,00	2
	Total	2,00	107