

# THE EFFECTS OF RISING LIVING COSTS TO FINNISH CITIZENS

Haapajoki Aki-Veikka  
Vääräkoski Jertta

Thesis

International Business  
Bachelor of Business Administration

2023

International business  
Bachelor of Business Administration

---

<b>Author(s)</b>	Aki Haapajoki, Jertta Vääräkoski	<b>Year</b> 2023
<b>Supervisor(s)</b>	Adrian Braun	
<b>Commissioned by</b>	-	
<b>Title</b>	The effects of rising living costs to Finnish citizens	
<b>Number of pages</b>	67 + 10	

---

The aim of this thesis was to find out what the effects of rising living costs have on Finnish households. The objective was to find out why living costs are increasing and how it has impacted Finnish citizens and Finnish society. Various literature sources together with a standardized survey was used to collect the information for this thesis. The method used in this research is quantitative research, causal comparative analysis and survey. Increasing living costs were very topical at the time of writing this thesis and the survey raised interest granting us large amounts of statistics and opinions of the people answering. Causal comparative analysis was used when defining the cause-and-effect relationships between chosen variables, in this case the, the relationship between increased living costs and Finnish citizens and society.

This thesis was completed in the timeline of February 2023 to May 2023 and all the data has been found during that timeline. The data used in this thesis is from the 21<sup>st</sup> century, a substantial portion of it even within just a few years. Some references are made to the financial crisis of 2008 and other instances when prices have increased in a noticeable manner.

In the beginning of the thesis, reasons behind why the living costs are increasing are given and then the connection to how it is impacting individuals and society. This thesis includes information for everyone interested in the subject of rising living costs and it could even be used to prevent new crises from occurring, and in case of happening, dealt with the right way.

In the discussion part of this thesis are ideas and suggestions made by the authors of this thesis, which could be used in solving present and upcoming energy, food and interest crises and hopefully prevent them from turning into crises at all. These suggestions are based on previous crises and governments reactions to those.

**Key words:** Costs of living, Energy costs, Price indexes, War in Ukraine, Price development

Kansainvälinen liiketalous  
Tradenomi

---

<b>Tekijä(t)</b>	Aki Haapajoki, Jertta Vääräkoski <b>Vuosi</b> 2023
<b>Ohjaaja(t)</b>	Adrian Braun
<b>Toimeksiantaja</b>	-
<b>Työn nimi</b>	Nousevien elinkustannusten vaikutus suomalaisiin
<b>Sivumäärä</b>	67 + 10

---

Tämän opinnäytetyön tarkoitus oli selvittää, mitä vaikutuksia elinkustannusten nousulla on suomalaisiin kotitalouksiin. Tavoitteena oli löytää tietoa siitä, miksi elinkustannukset nousevat ja miten se on vaikuttanut suomalaisiin ja suomalaiseen yhteiskuntaan. Tämän opinnäytetyön tiedon keräämiseen käytettiin erilaisia kirjallisuuslähteitä sekä standardoitua kyselyä. Tässä tutkimuksessa käytetty menetelmä on kvantitatiivinen tutkimus, tarkemmin määriteltynä kausaalinen vertaileva analyysi sekä kysely. Elinkustannusten nousu oli opinnäytetyön kirjoittamishetkellä erittäin ajankohtainen aihe ja kysely herätti kiinnostusta antaen meille suuren määrän tilastoja ja vastaajien mielipiteitä. Valittujen muuttujien välisiä syy-seuraussuhteita, tässä tapauksessa kohonneiden elinkustannusten ja suomalaisten ja yhteiskunnan välistä suhdetta määriteltäessä käytettiin kausaalista vertailevaa analyysiä. Tämä opinnäytetyö valmistui aikajanalla helmikuusta 2023 toukokuuhun 2023. Tässä opinnäytetyössä käytetty aineisto on 2000-luvulta, suuri osa siitä jopa muutaman vuoden sisältä kirjoitushetkestä. Joissakin tapauksissa viitataan vuoden 2008 finanssikriisiin ja muihin tapauksiin, joissa hinnat ovat nousseet tuntuvasti.

Opinnäytetyön alussa esitetään syitä elinkustannusten nousuun ja sitten luodaan yhteys siihen, miten se vaikuttaa yksilöihin ja yhteiskuntaan. Tämä opinnäytetyö sisältää tietoa kaikille elinkustannusten noususta kiinnostuneille ja sitä voitaisiin käyttää jopa uusien kriisien syntyminen ehkäisyyn ja niiden tapahtuessa oikealla tavalla toimimiseen.

Opinnäytetyön keskusteluosassa on tämän opinnäytetyön tekijöiden ideoita ja ehdotuksia, joita voitaisiin hyödyntää nykyisten ja tulevien energia-, ruoka- ja korkokriisien ratkaisemisessa ja toivottavasti estää niiden muuttuminen kriiseiksi. Nämä ehdotukset perustuvat aikaisempiin kriiseihin ja hallitusten reaktioihin niihin.

Avainsanat: Elinkustannukset, energiakustannukset, Ukrainan sota, hintakehitys

# CONTENTS

1. INTRODUCTION.....	7
1.1 Research background.....	7
1.2 Motivation.....	8
2. RESEARCH QUESTIONS AND METHODOLOGY.....	9
2.1 Objectives of thesis.....	9
2.2 Research questions.....	9
2.3 Methodology.....	10
2.4 Ethics.....	12
3. LITERATURE REVIEW.....	13
3.1 Why are living costs increasing and how it impacts Finnish people?... 13	
3.1.1 Price of food.....	15
3.1.2 Interest rates.....	20
3.1.3 Energy prices.....	24
3.1.4 Other costs related to living.....	27
3.2 Finnish municipalities and differences in living costs.....	28
3.3 How do increased living costs show on individual level?.....	29
3.3.1 Concern and trust in Finnish economy.....	30
3.3.2 Work traveling expenses.....	32
3.3.3 Consumption and weakened purchasing power.....	33
3.3.4 Need of support from outside.....	34
3.3.5 Taking loans.....	34
3.3.6 Saving money and investing.....	36
3.4 How increased living costs show on a societal & economical level? ...	36
3.4.1 Public and private consumption.....	36
3.4.2 Recession and employment.....	37
3.4.3 Businesses and their financial statements.....	38
3.4.4 Gross domestic product.....	38
4. ANALYSIS OF THE SURVEY.....	40
5. DISCUSSION.....	51

5.1	Summary of the key finding on the literature review and survey .....	51
5.2	Limitations and further future studies for the subject .....	56
5.3	Forecast into future .....	56
6.	CONCLUSION.....	58
	REFERENCES .....	59
	<b>APPENDIXES</b> .....	68

## List of Figures

Figure 1.	The effects of The Black Sea Grain Initiative to cereal price.....	17
Figure 2.	The prices of agricultural productional input as of February 2023. ....	18
Figure 3.	Euribor-rates from 1st January 2000 to 13th of March 2023 .....	21
Figure 4.	(HICP) inflation rate of the European union. ....	22
Figure 5.	Inflation rate and Federal Reserve interest rate monthly in US.....	22
Figure 6.	The average prices of different liquid fuels .....	28
Figure 7.	The consumer confidence month to month from 10/2023 to 3/2023..	31
Figure 8.	Where Finnish citizens had noticed the price increase.....	41
Figure 9.	How Finnish citizens feel about increasing living costs impacts. ....	42
Figure 10.	Where Finnish people feel that they have less money to use. ....	44
Figure 11.	What Finnish citizens think is behind the rising living costs .....	46
Figure 12.	What Finnish citizens wish the Finnish government to do.....	48

## SYMBOLS AND ABBREVIATIONS USED

European Union	EU
Value Added Tax	VAT
Gross Domestic Product	GDP
Quarter 1, Quarter 2	Q1, Q2
Harmonized Index of Consumer Prices	HICP
European Central Bank	ECB
Federal Reserve System	FED
International Monetary Fund	IMF
Pellervon Taloustutkimus	PTT
The Social Insurance Institution	Kela

## 1. INTRODUCTION

### 1.1 Research background

This is not the first time that living costs are increasing in Finland, but it is the first time as an aftermath of a world-wide pandemic. Rising living costs are a relevant factor that impact almost everyone, no matter the industry or household size, this is what makes the topic interesting to all. It is something that is hard to ignore no matter who you are. There is a lot of data in the form of statistics about how the effects show in everyday life for Finnish citizens, for example in lower disposable income to use and therefore possibly lower demand for products. In this study data about rising living costs and the impact it has on Finnish citizens will be analyzed and the relationships between chosen variables are explained. The connection between rising living costs and its effects on Finnish citizens is looked from the point of view of general living costs like food, electricity, gasoline etc. Comparisons on how these costs were “before” and now are used to clarify the difference. The focus is on why the prices are increasing and how it is impacting Finnish citizens and how they are coping with it. These impacts are looked at personal level by conducting and analyzing a standardized survey on the subject. The bigger societal impacts and how those are showing are gathered from publications from different well-known official sources like The Finnish National Bank (Suomen Pankki), and other national authorities that collect and compile statistics on various fields of society and economy. This way the text will give a comprehensive picture of the situation.

The information needed for this research is scattered around and there is an opening to gather that information into one source. There is already information on how this kind of a phenomenon has affected Finnish people in the past and how people have dealt with it then. People learn from the ways that have worked in the past, but this situation has its own new difficulties. In the beginning of 2020 when the global Covid-19 pandemic reached Finland, future sights were unclear. There are and were many new factors that made this situation even more complex and that caused the living costs and other prices to increase rapidly. The market reactions were somewhat unseen and that caused the chain reaction in

prices increasing. All this adds challenge and gives an opportunity to gather the research and see how Finnish people feel about this situation. The data used for this thesis will primarily be from the 21st century.

## 1.2 Motivation

This subject at hand is both relevant and something that has a lot of direct or indirect effects on the life of Finnish citizens. This is why the reasons behind the increase and its impacts on Finnish citizens were chosen to be the main point of views for this text. The increase in living costs is still happening which makes the subject even more striking because there is new information coming weekly. The timeline of the price increase so far is a short period, only mainly covering a few years that all the topic information is available mostly online and still in many cases being updated. The personal interest both writers have toward this subject and the presumption that this is a subject that a lot of Finnish people are talking and thinking about right now is the reason why this topic was chosen.



## 2. RESEARCH QUESTIONS AND METHODOLOGY

### 2.1 Objectives of thesis

The objective of the research is to find out why living costs are increasing and how those impact Finnish citizens and the economy. The situation now after 2019 and the global pandemic is important to be kept in mind when looking at statistics from 2019-2023. Statistical data about the impact on Finnish society is researched and analysed. Following the main focus of the study, the correlation between why the living costs are increasing is connected to events happening in Finland and around the globe. The relationship between living costs increasing and the impacts it has on Finnish households are examined. Personal opinions on the subject are collected by survey and analysed. In the end the literature review findings and the survey results are discussed together to see if there are major differences in the written data from statistics and the personal opinions from survey respondents.

The main and sub questions will be answered to help explain the cause-and-effect relationship between rising costs affecting Finnish households. A connection is made how the impact is seen and felt on Finnish households and on societal level.

### 2.2 Research questions

The main research question for this thesis is: What are the effects rising living costs have on Finnish citizens?

Sub questions formulated to help with the main question are as follows:

Q1 What are the reasons behind the rising costs of living?

Q2 What are the effects rising living costs have on individuals?

Q3 What are the effects rising living costs have on society?

In this study the main emphasis is on the current living costs crisis that is happening right now. The answers are connected to how the rising costs are still changing and seen right now, as of May 2023.

For the sub questions, certain terms are defined here to fit them into the context of the study. Living costs are defined as certain costs that Finnish citizens must use a part of their income to and that are related to living, like buying food, buying electricity, heating households, buying gasoline, taking a loan, and paying it off. Other related costs will be explained in detail in the literature review. Individuals are defined as people living in Finland, these can be addressed for example how single income households or dual-income households feel the impact of the increase in living costs. How rising living costs are shown in their consumption or other statistics is investigated as well. Society is defined as how the rising costs show on societal level, if by statistics there are more poor people after the costs have increased and if those figures can be related through data that there is a cause-and-effect relationship between those. Survey and research are performed to find out people's own opinions on what government's actions in the recent years have been useful and what citizens hope that the government could perhaps do to help individuals.

### 2.3 Methodology

This thesis follows quantitative research methods, more precisely causal comparative analysis method which is used simultaneously to examine relationships between different variables (Oppenhimer 2023). The cause-and-effect relationship between chosen variables is examined and connections are made based on the data found. The connection between independent variables and the depending on variables is researched to see if there is a causal relationship between them. (Heikkilä 2014, 197.) The independent variable is living costs and the change in that being that they are increasing, the depending variable is the effects it has on Finnish citizens. The depending on variable therefore is how has the life of Finnish citizens changed since the effects of the independent variable came to be. These variables are relevant for the research because this research aims to find out if there is a direct influence between these

two. This method was chosen because the reasons and relationship between why living costs are increasing and how it is impacting Finnish citizens has one independent variable and multiple depending on variables as in the different effects it has. Quantitative data is to be used for the research, and it is statistical data that Finnish statistical institutions have provided or data that can be found from other reliable sources. Scientific information is to be found on different national authorities' pages as well. To support the scientific data, there is going to be a survey to collect more personal opinions on the subject on how this phenomenon has impacted Finnish citizens. The writers collect this data. This data will be analysed by using excel and answers are compared according to genders and ages, to see what kind of differences there are in the way different people perceive this situation.

Data, either scientific or academic, will be analysed on its reliability so that there should be multiple sources supporting the found information. Statistical analysis and comparison on certain values or numbers is to be performed on a timeline from 2020-2023. This thesis will overall offer information about the subject of rising living costs and their effects to Finnish citizens and Finnish economy.

These methods were chosen because they are most fitting to offer the most relevant information about the subject. The relevant nature of this topic causes the problem that there is not a lot of information in printed or book form, so electronic sources will be the main source for this study. Following these principles, the main and sub questions get the most suitable information and through the survey bit of a real life touch out of statistics.

The standardized survey consists of multiple-choice questions and a couple of open-ended questions to collect the opinions of Finnish citizens on the subject. The survey results will be first treated as all the answers together. Then the answers will be compared to each other, and the basic information collected from the respondents like age, gender, and occupation will be used to group the answers and compare them to find differences or similarities. The results will be shown in the form of charts and graphs, in addition to the writing. The survey got 1127 responses and those answers will be opened in chapter five.

## 2.4 Ethics

Responsible conduct of research was followed when doing this survey. A set of principals from Finnish National Board of Integrity were taken into consideration to make sure that the research integrity is not damaged. Good scientific practices are followed in this study. (Finnish National Board of Research Integrity 2012.) Considering the survey conducted the results are purely used only in this process and will have no further use. When there is no more need for the survey results, the survey results will be removed from the survey tool used and from computers completely. The information collected by the survey is anonymous. Participants of the survey know how the results will be used. Participants took part in the survey voluntarily to answer the questions presented. No offensive or discriminatory language was used in the survey or in any parts of the study.

The sources used and cited in the text are clearly marked and follow the recommendations of Lapland University of Applied Sciences. Other ideas are not presented as our own. Research is done in full honesty, and writers are aware of their own biases regarding the subject. Those biases are avoided in the text.

### 3. LITERATURE REVIEW

#### 3.1 Why are living costs increasing and how it impacts Finnish people?

To understand what the effects rising living costs have on Finnish citizens, it's important to know why the costs of living are increasing in the first place. There are several reasons for the increase in living costs and in historical context there have been different crises that have caused different living costs to fluctuate to extremes and result in changes.

One good example could be that in 1968-1970 over 132 000 Finns moved to Sweden (Tilastokeskus 2023g). There are multiple reasons for this, like relatives living there, but the main reason was Finland's increasing unemployment due to Finland's economy's rapid growth and the population moving from the countryside into cities, which meant that there were not enough jobs for everyone. In 1967 there were over 100 000 new unemployed people in Finland, and at the same time open jobs were reduced by over 32 000 jobs. In 1966 the unemployment rate was 1,6%, in 1967 2,9% and in 1968 4%. These percentages seem small compared to later decades percentages, but the increase was huge at that time. (Korkiasaari 2001, 3-6.)

Some contexts to the overall idea in this case about how big the increase in overall costs was is that in June 2020 inflation in Finland was -0,0 %, two years later in June 2022 it was 7,8% (Tilastokeskus 2022). The consumer price index for the commodity group of housing, water, electricity, gas, and other fuels was 105,5 in 2020 and in 2022 the same group index was 118,9. For every other commodity group the price indexes have also increased in the period of two years. (Tilastokeskus 2023b.) This large of a difference in such everyday costs was certain to have a big impact on many Finnish households, and that cause-and effect relationship is researched in this text.

There are several reasons why the prices of several commodities started to increase, and it started a chain reaction. One example of the chain reaction is that cost inflation started to hike up the prices in supply chains, when raw material sources needed to be replaced or changed, because of difficulties in getting them

or other reasons (Boxberg 2022). This kind of changes or difficulties in the supply chains have impact on the later stages of the process and it can reflect on other costs in a negative way.

One element that cannot be ignored was the covid pandemic that caused new difficulties. It was an unexpected situation that markets had not faced before and the responses were unpredicted. No one knew what could follow and uncertainty affected supply and demand in Finland. Price levels increased in many commodities and services. The increase did not only affect one industry, but it also impacted many. This phenomenon is called inflation. Finnish citizens were getting less value with the same amount of money they did a year ago. The ultimate reason behind why all the living costs are increasing is therefore inflation, since it means that overall price levels increase and the value of money decreases. The consumer price index is used in the text as a common measure of inflation. The consumer price index describes the development in price of goods and services bought by households in Finland. The consumer price index shows impacts of the increase in living costs. The consumer price indexes are provided by Statistics Finland. (Tilastokeskus 2023a.)

There are 4 categories in the consumer price indexes, which are Consumer Price Index, Cost-of-Living Index, Harmonized Index of Consumer prices (HICP) & Fixed Taxation Harmonized Index of Consumer prices. The consumer price index is the most common inflation indicator from those, and it is around 85% of all the Consumer price indexes. The Cost-of-Living index is used when calculating, for example, child or pension benefits, to keep up to date on the price levels. HICP is produced by all the EU member states, more about HICP below. The Fixed Taxation Harmonized Index of Consumer prices measures inflation in a way that the tax rate is kept the same and always compared to last January. (Tilastokeskus 2022f.)

Harmonized index of consumer price is used to measure consumer price inflation, which means the change of prices in the euro area for EU citizens. All the European Union countries follow the same method, therefore making it harmonised and allowing trustworthy comparison between countries. HICP is put together by Eurostat & national statistics institute. Stable inflation is a necessity

to join The European Union. (European Central Bank 2023d.) Difference to the regular Consumer Price Index is that in HICP there are no owner-occupied housing costs, interest costs, gambling expenses or tax-related payments. This is to keep it comparable to other countries, as for example gambling is not allowed in every EU country and would different the numbers. (Tilastokeskus 2022f).

Employees from Statistics Finland gathers the information from 50 000 grocery products from over 500 commodities from 2700 stores. With this number of products approximately 50% of the Finnish grocery consumption can be examined. The indexes are published monthly on the 14th day of the next month. If 14th is not a working day, they are published in the next working day. When they are published, they are only edited or withdrawn on special occasions. (Tilastokeskus 2022f.) More about changes in the consumer price index later in chapter 3.1.1 price of food.

Overall inflation caused all the prices to increase but, in this text, the main emphasis is on living costs and few expenses that are closely linked to the survey made. This is because housing is the biggest expense item for households. In 2021, in household consumption funds, the share of housing expenses was approximately 30% (Kangasniemi 2022).

### 3.1.1 Price of food

This is not the first time that prices have increased in Finland. There has been a similar crisis in history. For example, from January 2007 to September 2009 price of groceries increased in the eurozone average of 5.8%, but in Finland the increase was 10.7% (Kivistö 2009, 40). During October 2009, Finnish government executed a VAT reduction, which lowered the VAT on food to 12% from the previous 17%. This transferred directly into the price of food, lowering the price of groceries by an average of 5.7% from September 2009 to October 2009. (Peltoniemi & Varjonen 2010, 1.)

The increase in food prices has already started in 2021-2022 due to a large increase in agricultural means of production, and when combined with the huge increase in energy, it is most certain that the production cost of food will increase.

For example, in Quarter 4 of 2022 the price of fertilizer increased by 46% compared to Q4 of 2021. In Q4 of 2022 the electricity cost 46% more to farmers than in Q4 of 2021. In Q4 of 2022 Fuel cost 45-52% more than in the Q4 of 2021. In Q4 of 2022 the price of fodder increased by 35% compared to Q4 of 2021. Also, the increase in plant protecting agents was 13% and repair costs of machinery increased by 6%. Investing in new machinery was over 13% more expensive than a year ago and the price of transport equipment increased by 11%. (Tilastokeskus 2023g.) These increases transfer into the cost of food and lower the profit of stores and the farmer, which affects the overall economy and Gross Domestic Product (GDP).

There are support packages from the EU & Government for these increases to help farmers. For example, in 19th of January 2023, Finnish Government decided that there will be 354,6 € million euros worth of assistance to farmers. That is 30 € million euros more than in 2022. The assistance can be divided to the three different areas, northern Finland assistance, 93% of the whole package, Southern Finland assistance 5% and the remaining 2% is for other products, mainly to sugar beet. (Valtioneuvosto 2023b.)

From the northern Finland assistance over half is paid to milk producers, and the amount of assistance has increased by 12 million € euros compared to 2022. In South Finland the assistance is mostly paid to pork and poultry, but also to horticulture. South Finland assistance has stayed at the same levels than 2022. (Valtioneuvosto 2023b.)

The war in Ukraine affects food prices as Ukraine is one of the biggest wheat and corn producers in the world, with over 41 million metric tons of corn produced in 2021 and 33 million metric tons of wheat produced in 2021. In the periods of 2018/2019, 2019/2020 and 2020/2021 Ukraine's corn exports were over 15% of the whole world's exports and over 10% of worlds wheat exports. It is estimated that in 2023 the amount of corn exported is only about 26 million metric tons and the amount of wheat exported only to be about 21 million metric tons. The war caused indirectly over 36,2 billion \$ worth of losses to Ukraine's agriculture and therefore results into higher cost of wheat and corn for the indeterminate time, even when eventually peace is settled between Russia and Ukraine. (Janzen &

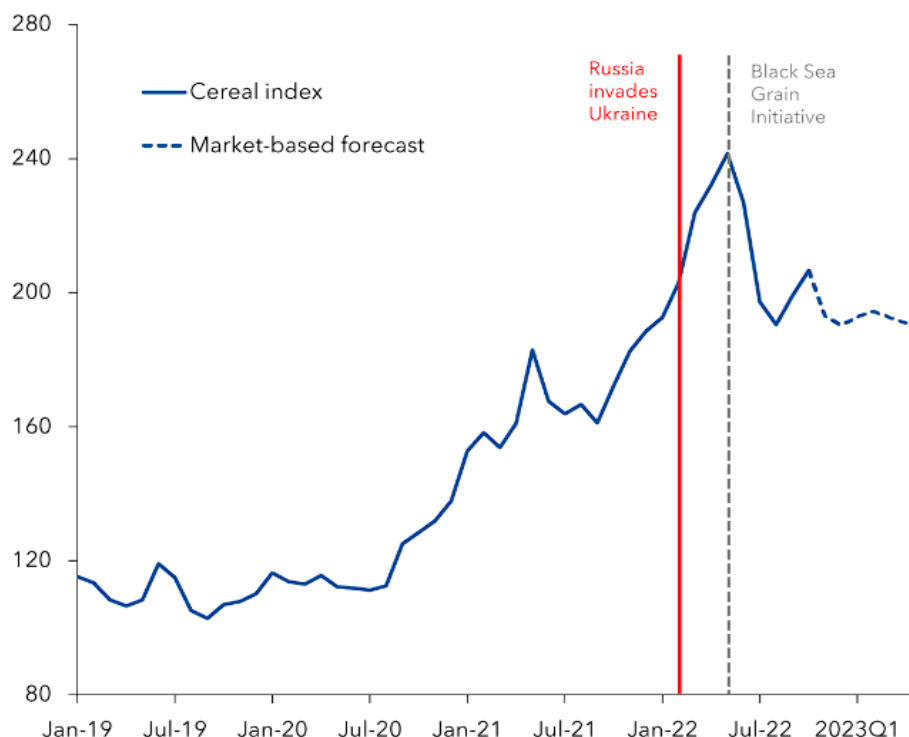


Zulauf.) Even though Finland is not the biggest importer of Ukrainian or Russian corn or wheat, it shows in the global price of corn and wheat, that then affects Finnish food prices due to laws of supply and demand.

### Trade price effects

The Black Sea Grain Initiative helped bring down cereal prices.

(cereal price index, 2016 = 100)



Source: IMF Primary Commodity Price System and GAS databases.  
Note: The last actual value is October 2022.

IMF

Figure 1. The effects of The Black Sea Grain Initiative to cereal price (Bogmans, Pescatori & Prifti 2022).

As can be seen from figure 1 the price of cereal was increasing already before the war in Ukraine. As already explained earlier, the amount of cereal produced by Ukraine is huge and the effects of Ukraine not being able to produce and export it properly, can be seen from the prices. From figure 1 can be seen the increase of cereal price after Russia invades Ukraine and quick decrease of cereal price after the Black Sea Grain Initiative. It can be seen that the price level return back to pre-war levels. (Bogmans, Pescatori & Prifti 2022.)

The Black Sea Grain Initiative is an agreement signed on 22nd of July in 2022 by Ukraine, Russia, Turkey & United Nations to open a corridor in which civilian ships carrying mostly grain, but also other food are allowed to leave the ports of Ukraine. So far ships carrying food have been leaving three ports, Odessa, Chornomorsk & Pivdennyi. As of 6 of March 2023 already 900 ships full of food have left the ports. The corridor is especially important to developing countries, because for example 65% of wheat and 49% of maize is going to developing countries. (Consilium Europa 2023.) As of 13 April 2023, over 27,750,000 tonnes of cargo have left through Black Sea Grain Initiative. The 3 biggest importers of cargo from Ukraine are China with 6,3million metric tons, Spain with 4,8 million metric tons and Turkey with 3 million metric tons. (United Nations 2023a.)

In May 2023, Bulgaria, Hungary, Poland, Romania, and Slovakia have banned imports of Ukrainian wheat, maize, rapeseed, and sunflower seed, but together with European Union mentioned countries have made a deal that they will not limit the products that are just passing by these countries. The ban started in 2nd of May 2023, and will last to 5th of June 2023. (European Commission 2023b.)

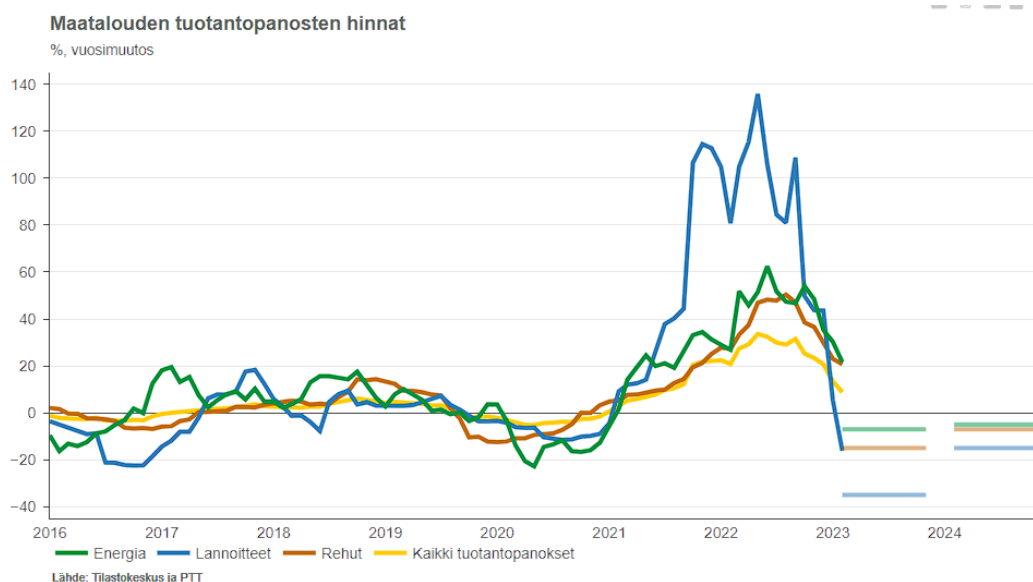


Figure 2. The prices of agricultural productional input as of February 2023. Green being energy, blue being fertilizers, orange being fodder and yellow being all the production inputs. (PTT 2023.)

As can be seen from the figure 2 above, the prices of agricultural production inputs are decreasing and this should show in the price of food, it is estimated by PTT (Pellervon Taloustutkimus) that the price of fertilizer has dropped 40% from the all-time high of last December. PTT estimates that the price of energy would drop over 20% during 2023. This affects the production cost of food, affecting the overall price of food. Even though the production input costs are decreasing, construction material costs and interests are still high, halting many of the upcoming investing's, therefore possibly stretching out this crisis even more. (PTT 2023.)

Statistics Canada also pointed out that Covid-19 pandemic had a major role in the increase of global food costs, because due to covid quarantines many producers were not able to produce food, which led to shortages which then led to increasing prices. Also, as restaurants were closed, takeaway food and regular grocery store food were the only options, this increased the sales of take-away and regular food from the grocery stores, and this rapid increase in demand then led to shortages in production, which made the price increase even more. (Fradella 2022.)

Statistics Canada also points out that there was bad weather in production regions. This explains the increase in the price of fruits, as they are imported from these regions. (Fradella 2022.)

In 2020 February, the consumer price index made by Statistics Finland was 103,67 and in 2023 February it was 118,98, a big 14,76% increase in there. When examining consumer price index closer and looking only into groceries and non-alcoholic beverages the index was in 2020 February 103,34 and in February 2023 it was 125,35, the difference being 21,29%. Crop and bread prices increased by 21,66%. A big 38,19% increase was in flour products. The price of meat increased by 26,02% Price of fish and shellfish increased by 28,01%. The price of dairy products, cheese & eggs increased by 23,95%. Fruits and berries increased by 13,87%. The price of vegetables increased by 22,12%. (Tilastokeskus 2023j.)

These are daily needs for most of the Finnish people, but big increases were also in the “luxury goods” like coffee, tea and cocoa price increased by 44,75%. Repair and upkeep costs of apartments increased by 15,3%. (Tilastokeskus 2023j.) If the EU-directive about energy efficiency goes through, this could mean big renovations for many Finns that are living in houses that do not match those energy efficiency regulations, meaning more loans, and more trouble for many people (European commission 2023a). Especially during times like this, there is a risk that it might even risk their creditability.

### 3.1.2 Interest rates

The European central bank makes sure prices are stable and that there are not sudden periods of high inflation or deflation. The European central bank uses a variety of tools to support the economy, by controlling interest rates and buying assets. Supervising the banks of Europe is also done by The European central bank, as well as keeping an eye on the financial system. And of course, the practical activities of making euro-bank notes and making sure that electronic payments are made safely. (ECB 2021.)

Similarly, to food, this is not the first time that interest rates are high. Euribor is the base of the interest rates. Euribor stands for Euro Interbank Offered Rate. It is the rate of prime banks loaning money to each other in the Euro zone. In Finland the daily Euribor rate is announced at 12 am Finnish time every day. (Suomen Pankki 2023e.)

In September 2000, the 12-month Euribor was 5,219 %. From the beginning of the 21st century, the first 35 months were over 3% 12-month Euribor rate. July 2008 (5,393%) was the highest point of the 12-month Euribor for the 21st century. Quickly after that the 12-month Euribor started to decline and already in one year the 12-month Euribor was only 1,412%. In 2016 February the 12-month Euribor fell into negative interest rate. Europe was in negative interest rates for 73 consecutive months. Negative interest rates ended in April 2022, with the 12-month Euribor rate rising to 0,013%. From there it only took 11 months for the 12-month Euribor to climb as high as 3,524%, which is the 12-month Euribor rate of

February 14th of 2023. (Suomen Pankki 2023a.) As of 2nd of May in 2023, the 12-month Euribor was already at 3,822% (Suomen Pankki 2023f).

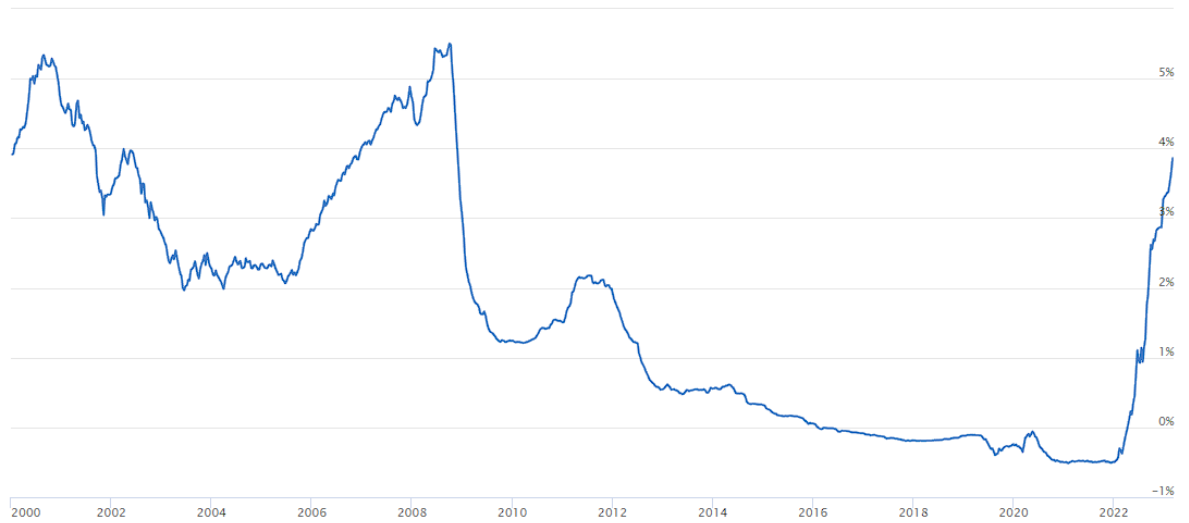


Figure 3. Euribor-rates from 1st January 2000 to 13th of March 2023 (Euribor-rates 2023).

Clearly noticeable from figure 3 is the rapid fall of the 12-month Euribor rate in 2008-2009 and the rapid increase in 2022. Similarly, to the Figure 4 underneath about HICP (Harmonized index of consumer prices) inflation. It is easy to see how inflation is increasing first, and the rise in 12-month Euribor rates follows, as the European central bank is trying to control inflation by increasing interest rates. (European Central Bank 2023a.)

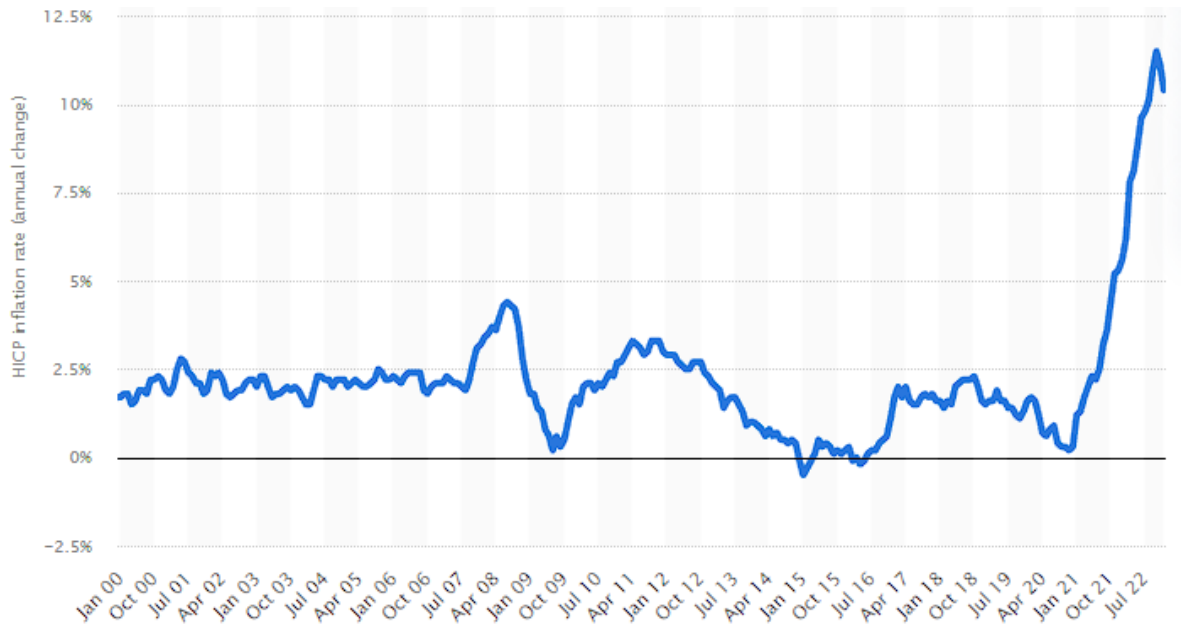


Figure 4. Harmonized index of consumer prices (HICP) inflation rate of the European union from January 2000 to January 2023 (Statista 2023a).

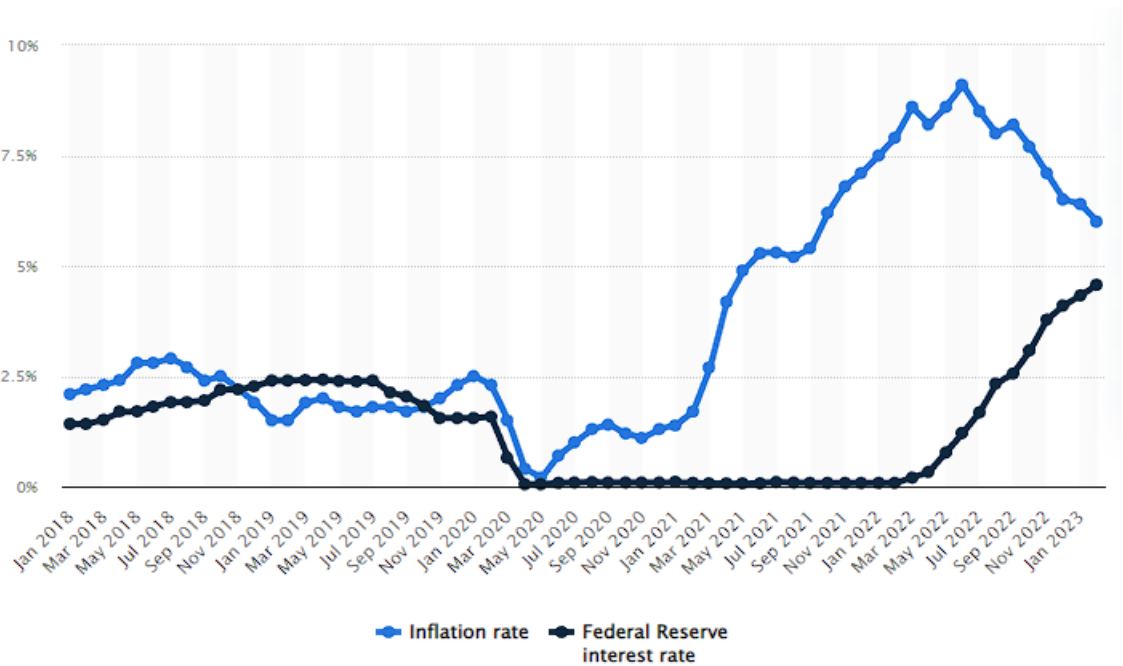


Figure 5. Inflation rate and Federal Reserve interest rate monthly in the United States from January 2018 to February 2023 (Statista 2023b).

From figure 5 the effects of increasing interest rates on the inflation rate can be seen. In June 2022 Inflation rate in the US was 9.1% while Federal Reserve interest was 1.68%. In February 2023 the inflation rate is declined to 6%, but the interest rate has climbed up to 4.57%. (Statista 2023b.) In the eurozone the inflation rate is higher than in the US, and the interest rates are lower. As the

European Central Bank has stated, they will be increasing the interest rates to fight inflation (European Central Bank 2023a). United states of Americas Central Bank FED is chosen here because it is serving similar role as in European Central Bank in Europe. Its role is similar to ECBs, even though FED is increasing interests much higher and more ambitiously.

Preston Caldwell, a senior US economist from Morningstar Research services LLC, estimates the interest rate in the US will be 4.75% in the end of 2023, and under 2% by the end of 2024 (Caldwell 2023). The European Central Banks main refinancing operations (MRO) conducted a survey of Professional forecasters (SPF), that forecasted interest rate to be 3% in the Q1 of 2023, something that already by March has realized. It was forecasted that in Q2 interest rate would be 3.5%, which also already happened in March. It is estimated that these kinds of interest rates stay for the whole of 2023. It is estimated that a small decline will happen in 2024 and in 2025 the interest rate would be under 3%. But as these rates have already been exceeded, it could be possible that the interest rates would not drop under the 3% estimate in 2025. (European Central Bank 2023c.)

In free markets, such as the eurozone, credit interest rate is also affected by supply and demand. Supply and demand work in a similar way than anywhere else in the economy, for example when there is a high supply of milk, the price of milk tends to decrease, and vice versa. This also applies to interest rates. When there are more people willing to spend money, but they can't get enough credit, interest rates increase, because there is not enough money left. Loaning money becomes more expensive, and this limits the amount of people willing to take loans. (European Central Bank 2022.) This way central banks can cool down the economy and prevent overheating the economy (Central Bank of Ireland 2023).

In an overheating economy one big problem is that the supply cannot keep up with the demand. Overheating economy can also lead to so called "wage-price spiral", in which the high prices lead to higher wages and vice versa. This impacts mostly on imports and exports as if the prices are higher, not that many firms are willing to trade, they would rather trade with someone with smaller prices. Another problem with an overheating economy is that individuals and companies might think too optimistic about their future and make more risky investments than what

they are capable of. This can then lead to bankruptcies, job losses, lay-offs, and wage reductions. (Central Bank of Ireland 2023.)

### 3.1.3 Energy prices

The markets for electricity follow the simple rule of demand and supply, when there is more demand than what the markets can offer the price goes up, the situation can overheat if there is no replacement for another supplier to cover the demand.

Since autumn 2021 there has been a shortage of energy in the markets, causing the price to go up. The reasons behind this energy crisis are complicated. One starting point for the crisis was when the price of natural gas went up because at the end of 2021 the world was starting to open up and function at full capacity after the covid-pandemic. The price went up because suddenly again there was more demand. (Nasdaq 2023). Another reason is that the European union wants to decrease the use of fossil fuels and move into greener energy (European Commission 2022a). Innovation and transitions to greener sources alone takes time and money, and when other difficulties are added the reasons become even more complicated.

The most recent reason, that together with the ones already mentioned gave the last push to EU, and therefore for Finland to end up in an energy crisis was Russia's attack to Ukraine in February 2022. After that there was a most significant increase in price of electricity in Europe because European energy-markets were highly dependable on cheap Russian energy. It was as if the whole system was built on the idea that there is always cheap energy coming from Russia (Romanova 2021). Russia was a big supplier of energy and after their attack, European countries used sanctions to show their disapproval of Russia's actions and as a response to that Russia stopped exporting cheap natural gas to Europe. In the December on 2022 larger sanctions came into effect when EU-countries prohibited bringing Russian crude oil into Europe. (Simola 2023.) All this caused European countries to face an energy crisis when a huge part of their energy source was cut out. This provided an opportunity to European Union to reduce their dependency of Russia in the energy markets. This also provided an



opportunity to find new better, possibly greener sources to replace Russian energy (European commission 2022b).

Energy is essential commodity, especially for Northern European countries like Finland that can have a cold and harsh winters. Energy usage goes up in winter months because the need for heating and lighting is increased, the speculations about there not being enough energy and possible power outages caused people to ration their electricity use and in general to be more considerate of the amount of energy they were using. Such a sudden increase in the price of energy had a big impact on Finnish households, people were worried about their ability to keep their houses warm and to be able to afford electricity in general. Especially low-income households had trouble with the high price, because now they needed to spend bigger part of their disposable income to the costs of energy. Rise in energy prices did not impact everyone, if they had their electricity deal lasting over the peak price season. This was however a small part of Finnish people who had their old deals still active. For houses the electricity price on average rose 46,2% from March 2022 to March 2023 (Silander 2023). This percentage includes heating and other normal uses of electricity inside households. Since a big part of disposable income had to be used on energy costs, this resulted for some Finns in a way, that they were not able to pay other bills on time (Ahlvik et al 2023.) Some energy companies offered longer terms of payment for their customers, so that the situation would not be so difficult. The possibility of granting a longer payment period with energy bills became a right by law in the beginning of 2023. The law states that if a customer asks for a longer credit period the energy company must give it to them. This was something the government thought might help Finnish people with their ability to pay the bills. (Valtioneuvosto 2023a.)

Due to the high price and the difficult situation of winter coming in the autumn of 2022 government decided to act on easing the burden on individuals and companies. Finnish government did this by lowering the value added tax (VAT) of electricity momentarily, they also decided on household deductions on household electricity bills, so that people would not need to use their whole disposable income on electricity. The government agency Kela was also utilized

to offer benefits to help pay for electricity. The funds that Kela offered could not be used simultaneously with the household deductions. There were certain rules that people could apply for the deductions from tax administration if their electricity usage was high enough, and if not then they could apply for the funds that Kela offered. (Ahlvik et al 2022; Kela 2023.)

These actions offered Finnish people some support with the high prices. In the end of January 2023 government presented to the parliament a proposal of a law about retroactively paid electricity refund to Finnish people. This subsidy would be a one-time refund and it would not intervene with other electricity funds, and you would not need to apply for it, the electricity company would refund it on the electricity bill. This refund would be based on electricity bills from November 2022 to the end of January 2023. If your contract price would have been more than 10 cents per kilowatt hour or if your contract was based on stock market price you could receive a refund that could be maximum of 700€ per month. (Valtioneuvosto 2023a.)

Energy inflation was the biggest factor causing inflation in 2022. Other commodities and services had inflation as well but not as much as the energy sector. Indirectly high energy prices show in increased prices in other commodities as well because the input costs increase, this is why it can be called cost inflation. This causes a need to increase price because the making, storing or transportation of the product gets more expensive. The pricing chain works so that when prices increase in lower levels like energy in this case, it has impact on everything that needs energy to be produced and in this case that is almost everything. (Nickel, Koester & Lis 2022.)

In the fall of 2022, Finnish electricity companies let Finnish people know that in the busiest hours of electricity use there might be a possibility that there is not enough electricity for everyone and that they might have to implement controlled power outages lasting around two hours at a time. This possibility was introduced because energy production and consumption need to be in balance in every moment, so that the whole electrical system does not crash. Electricity companies also asked Finnish citizens to look closely at their electricity use so that there would not be electricity used for unnecessary things. This and the high price of

electricity together showed in Finnish citizens' lowered electricity consumption in the winter of 2022, so the planned power outages did not happen. (Fingrid 2023.)

#### 3.1.4 Other costs related to living

The increase in prices is seen in other living expenses as well, not so drastic as ones mentioned before but still adding up to the final costs of living. These costs include for example water – and waste fee. On average municipality specific payments on water fee went up 4,1 % from March 2022 to March 2023, on the same timeline the waste fee went up 6,7%. These basic expenses did not escape from the increase in costs. Other mentionable increased payment is real estate tax that also went up 6,3% from 2022 to 2023. (Silander 2023.)

Big increases could also be seen in the fuel prices in Finland, in the end of 2020 the prices of diesel and gasoline started to go up after people started to move and travel more after lockdowns. The demand for oil grew in a short while and the situation was shown in the prices of liquid fuels. Now the prices increase because there is more demand, but the supply is limited because there is scarcity in the oil markets especially after the invasion to Ukraine. Even in a normal situation the price of liquid fuels is higher than in some other countries because of the high tax rate in Finland. For example, in January 2023, in gasoline the share of the value added tax and excise tax was on average 56 percent, and for diesel the value added tax was on average 44 percent. (Nieminen 2022.) The high excise taxes are there to try and moderate the use of fossil fuels to promote the transition into renewable fuels like biofuel in the coming years. The reason why the taxes on diesel are a bit lower than for gasoline is because diesel contains a small part of renewable diesel fuel that has a lower tax rate. The prices of liquid fuels differ a lot depending on where around Finland a person lives because local competitive situation has an impact on it as well as the high taxes. (Autoalan tiedotuskeskus 2023.)

## Average prices of liquid fuels by Commodity, Information and Month

Average prices of liquid fuels by Commodity and Month. Average price.

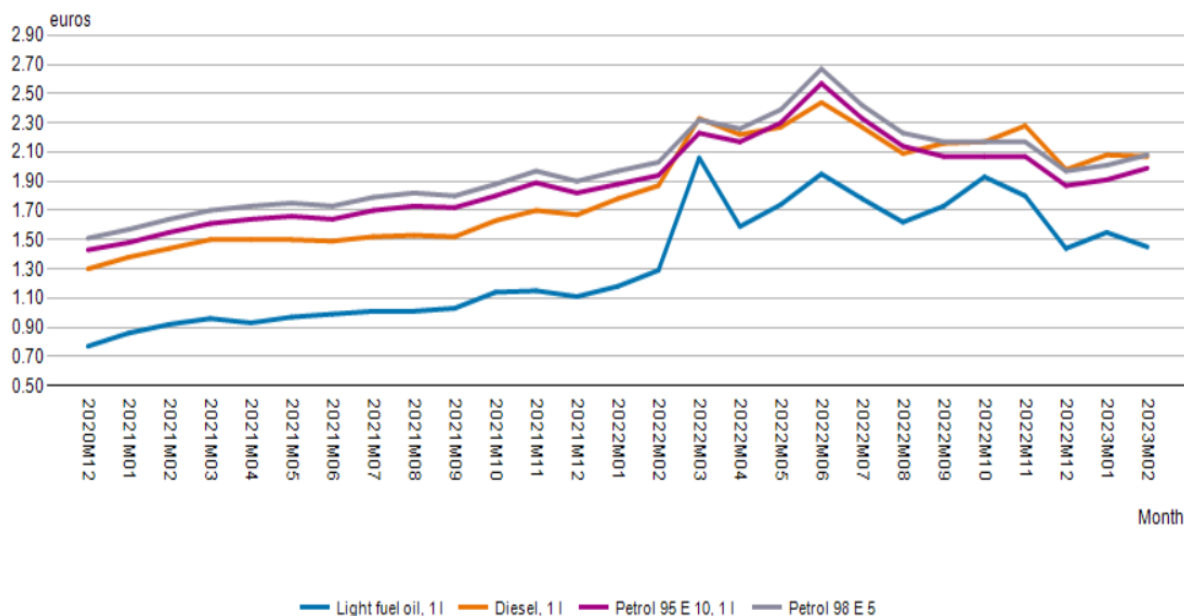


Figure 6. The average prices of different liquid fuels from February 2020 to February 2023.

A clear rise in all the liquid fuel prices is seen in February of 2022. This rise happened because Russia started their attack on Ukraine on 24th of February 2022 and that invasion and its impacts was straight away seen in the oil markets (Tilastokeskus 2023c.) The liquid fuel prices and their increase caused other prices related to fuels to increase as well. The rising haulage costs had a direct connection to transportation companies increasing their prices of transporting these goods.

### 3.2 Finnish municipalities and differences in living costs.

Even though living costs have increased for everyone in Finland, some areas have it worse than others. There are drastic differences in living expenses in Finnish municipalities because the increase of costs also to some degree depends on municipalities. For example, the biggest increase in living expenses in the beginning of 2023 happened in the city of Kalajoki, that is located in northern Ostrobothnia. There the expenses went up by 3 673 euros from the year

before. The figure includes electricity, water, and waste fees as well as real estate tax. That number means that people in the municipality of Kalajoki must spend an even bigger part of their disposable income on necessities of living. The most expensive municipality overall, from the viewpoint of living expenses, was Laukaa, which is located in Jyväskylä. There these expenses were 8 466 euros in 2023. The cheapest municipality to live in was Kittilä, that is located in Lapland. Their living costs were only 4681 euros that year. The difference between these two municipalities in these four living expenses was 3 785 euros. This makes it clear that there are real differences between municipalities when it comes to living expenses. (Silander 2023.)

Differences in living costs depending on where someone lives means that in some areas other costs being increased cause bigger problems than others. For example, in areas where public transportation is not offered as much, high price of fuel is a bigger problem, because there more people own their own cars and distances are longer, therefore they must first-handedly deal with the rise in fuel prices. Whereas in the areas where there is a lot of public transport the prices usually increase with a delay and not as much as if you have to personally pay the fuels.

### 3.3 How do increased living costs show on individual level?

Increased living costs have affected the life of Finnish people on an individual level as well as in the bigger scale. The cause-and-effect relationships between certain variables can be difficult to connect tightly so that all the following impacts would only have happened because of the rise in living costs. There are multiple reasons behind a phenomenon that is shown on an individual and societal level. The following effects, however, can be linked partly or mostly to be happening because of the increased living costs. If by statistics the connection cannot be proven yet because there is so little correlation between the variables or the measuring period is not long enough yet to show any correlation, the connection will not be discussed here unless it can be linked through some other reliable measures.

### 3.3.1 Concern and trust in Finnish economy

Finnish people are worried about the rising living costs and the sufficiency of money on daily needs. Career prospects are also something especially young people are worried about. The rising expenses also show in the choice of workplace, because in 2022 many people changed their jobs because of low pay. Younger generations also think longer and harder about big financial purchases like buying a house. The economic uncertainty has an impact on all ages, and people are not just worried about their own personal finances, but also their confidence in Finnish economy has suffered. (Hintsanen 2022.)

The trust that Finnish people have on economy is measured by using a consumer confidence indicator. The consumer confidence includes expectations of how the Finnish economy will change in 12 months, how their personal financial situation will change in 12 months and how those finances are right now. It also includes information about consumers' intentions to buy differently categorized products for consumption. (Tilastokeskus 2023e.) In October 2022 the expectations for the future of Finnish economy had never been as low as then. However, the citizens had expectations for the future that in 2023 the situation would get better. (Tilastokeskus 2022e.)

Consumer Confidence by Month. A1 Consumer confidence indicator, CCI = (B1 B2 B4 E1)/4.

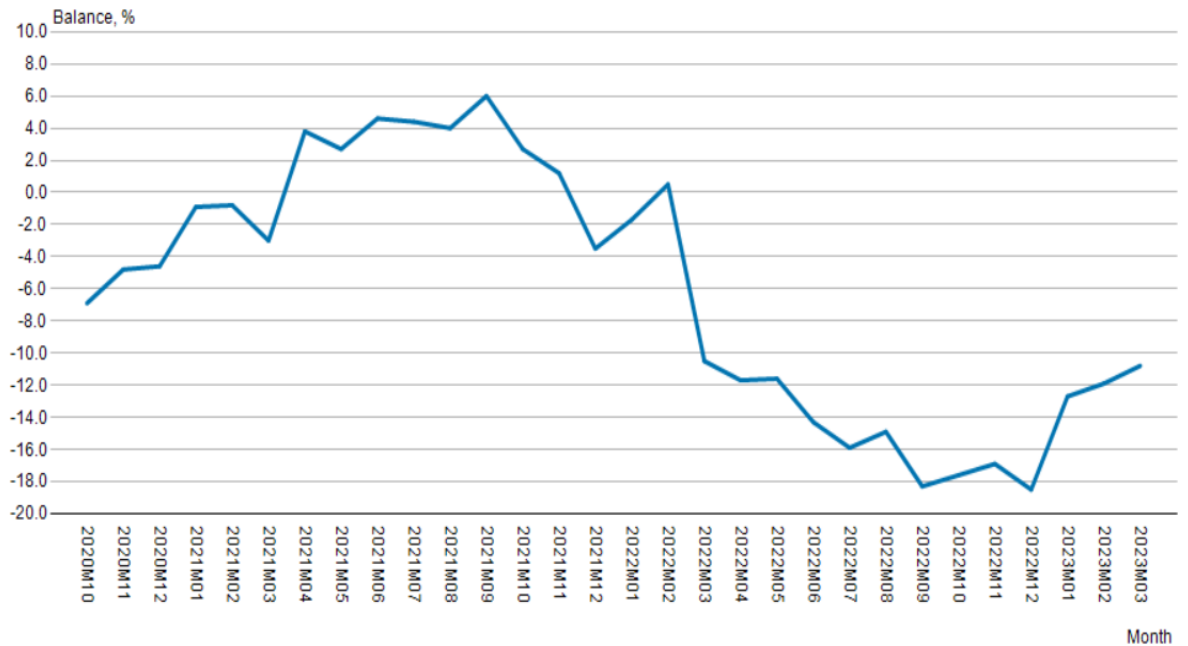


Figure 7. The consumer confidence month to month from October 2020 to March 2023.

It's possible to see that consumer confidence was growing in the end of 2020, and even in the beginning of 2021. This trend changed in September of 2021 and the figure started to go down to the negative side. Confidence was at its lowest in the end of 2022 but started an upright trend in the beginning on the new year of 2023. One possible explanation for this could be that according to Statistics Finland, in the end of 2022 Finnish people felt that the time was considered worst ever for buying any kind of commodities, even durable products. The expectations on how the Finnish economy would go forward were more negative than they had been year before. The idea about consumers' own economy at the moment was also very negative. The expectations however for the future about consumers own financial situation were more positive and it is possible to see that in the figure in the beginning of 2023. (Tilastokeskus 2023d.)

When asked about purchasing plans for next year, 46% of consumers were planning on lowering their consumption of products. Plans to buy a car or a house in the next year were considered clearly less than on long-term average. Intentions to build or renovate houses were also down statistically. (Tilastokeskus

2022e.) In March 2023 the situation is a bit better because the consumer trust is around 7% better than it was in October 2022, now being -10.8%. The expectations Finnish people had in October, did come through in the sense that the situation got a bit better, but it is still in the negative side. In March 2023 the trend of not consuming as much and not planning on big purchases like buying a house is still seen. (Tilastokeskus 2023f.)

### 3.3.2 Work traveling expenses

In Finland traveling to work took on average 46 minutes in 2019. More than half of Finns used a car to commute, which of course means a lot of gasoline consumption yearly. (Tilastokeskus 2020.) That totals on average 38,35 kilometres per workday, calculated with the speed of travel being 50 km/h at all times. There were 253 workdays in 2022, if working full-time. That means that a citizen drives to work on average 8951,14 kilometres yearly. In May of 2020, when the price of fuel was the lowest within the period of 2020–2023 the fuel price per litre was 1,16 € for diesel fuel, 1,28 € for 95 E10 gasoline and 1,36 € for 98 E5 gasoline. (Tilastokeskus 2023h.) Assuming that the average yearly distance travelled to work is 8951,14 kilometres and the consumption of the car is 8.5 litres per 100 kilometres, the average consumption of gasoline or diesel to work traveling yearly is 760,13 litres.

With the May 2020 fuel prices, a yearly average cost of travelling to work for people with diesel cars was 881,75 €, people with cars that use 95 E10 972,96 € and people with cars that use 98 E5 1033,77 €. In March 2023, just within 3 years, the price for Diesel fuel per litre was on average 2,02 €, the price of 95 E10 gasoline was on average 1,98 € per litre and 98 E5 was on average 2,08 € per litre. (Tilastokeskus 2023h.)

With these prices the yearly average cost of travelling to work for people with diesel cars was on average 1535,46 €, with cars that use 95 E10 1482,25 € and with cars that use 98 E5 1581,07 €. The price of traveling to work has increased for people driving diesel cars by 653,71 € yearly, for 95 E10 drivers the increase is 509,29 € yearly and for 98 E5 drivers by 547,3 € yearly. (Tilastokeskus 2023h.) That is an enormous amount of money used to just going to work. As a big portion



of fuel prices are taxes, it could be potentially lowered for a moment, to help car driver's through this crisis. Fortunately, in Finland, you can get tax deductions from travelling expenses to work and from work to home.

### 3.3.3 Consumption and weakened purchasing power

On the individual level many people have had to change their habits because the increased costs of products and services have been noticed by Finns and it has started to impact their ability to buy commodities. The weakening of purchasing power has become concrete, when before it was more of a speculation. The rise in general price level causes Finnish consumers to lose trust and therefore cause lower consumption. This weakening can be seen in statistics and in financial statements of businesses. Good example is a Finnish retail shop Verkkokauppa.com that in the beginning of 2023 gave a negative profit warning regarding their income from last year. In the statement Verkkokauppa.com said that the consumers' weak confidence in the economy and high inflation is weakening their results. As a result, they will adapt their business to meet the lowered demand and make a write-down of 1,6 million euros in their warehouse. (Verkkokauppa.com 2023.)

In 2022 the consumer prices were around 7% higher than in 2021. Wage earners' purchasing power was lowered by 4% because statistically real wages did not grow enough in 2022 and it is forecasted that they will also not grow fast enough in 2023. The real wages will only grow marginally which will not be enough (Valtioneuvosto 2022). The growing percentage of wages can still not keep up with the rising costs of living. This means that the weakening of purchasing power will be felt long into 2023. (Suomen Pankki 2023d.)

For over 5 years the prices of houses have been increasing, there are many reasons for that, but the most mentionable ones are very low interest rates, meaning low loan costs and increasing remote work that came with Covid-19 pandemic, meaning people buy better houses in order to increase the enjoyability to work from home. Within the last two years the interest rates have been increasing by a lot (q.v. 3.1.1 interest rates), this then affects new loans being taken and therefore new houses bought. Decreasing demand for houses

decreases the price of houses, as people are dropping the selling price to get the house sold. In the long run the price increase in houses has been the same as people's wage increase. (Ahoniemi & Putkuri 2023.)

#### 3.3.4 Need of support from outside

On individual level there is data that the rising living costs are causing worry to many families with children and that those families are by statistics been looking for more support in their everyday lives, for example, in the year 2021 SOS-lapsikylä (SOS Childrens' Villages) and Pelastakaa Lapset Säätiö (Save Children Foundation) received more applications from families that were struggling and in need of a help with their living costs. In 2023 there was also a rise in children aged 7-15 reaching out and talking in a chat provided by SOS lapsikylä foundation about their family's financial distress. (Virtanen 2023.) There has been a rise in people needing food aid in recent years from Suomen Punainen Risti foundation (Red Cross Foundation). This foundation also states the reason behind people needing more support with food donations is because of the rise in living costs. (Punainen Risti 2022.)

#### 3.3.5 Taking loans

Other effects rising living costs have had on Finnish people is also that the increased interest rates have slowed down people taking loans like mortgages. Finnish people are unsure about how high the interest rates are going, and this uncertainty has curbed their enthusiasm of taking new loans. Many people are worried about their current situation with their loans and their rising interests. Statistically speaking, in 2020 when living costs and interests were low because of the pandemic, taking a loan was financially more appealing. In the end of 2022 Finnish people took out mortgages one third less than year ago. The same kind of low numbers in new mortgage statistics were last seen in 2004. (Suomen pankki 2022b.)

Mortgages aren't the only types of loan where this kind of a trend can be seen. Other types of loans are also down in statistics. Finnish people think more about making big financial decisions like taking a loan for things that can be postponed.

The decrease in taking loans was not as noticeable in student loans as it was in mortgage statistics. In January 2023 the amount of student loans taken out was only 4% less than the year before. For student loans the average interest rate in January 2022 was only 0,09% when in January 2023 it was 2,24%. Even this big of an increase and the uncertainty of future rates did not lower the number more than 4%. The reason for this could be that loans like student loans are the type of loans that are used for general living. The rise in interests did not have as big an impact on the statistics of taking student loans because students have to use that loan to support their living in any case. (Suomen Pankki 2023b.)

The interest rate for these new mortgages was on average 3,07% on regular mortgages and 3,34% for investing purpose mortgages (Suomen Pankki 2022b). In Q1 of 2020 the average interest rate for mortgages in Finland was 0,71% (Statista 2022).

Using a loan calculator by Nordea the effect of increasing interest can be seen clearly. The amount of loan used in this calculation is 200 000€ and self-financing for that is 10 000€. Time of loan is 20 years and there are no instalment-free periods. The interest rate mentioned in the calculation consists of 12-month Euribor + marginal of the Bank. For example, in Q1 of 2020, the average mortgage interest rate for Finnish person was 0,71%. (Statista 2022). Estimated monthly costs would be 852€ per month. If the interest rate doubled into 1,4%, the monthly cost would be 913€ per month. If that doubled again into 2,8%, the monthly cost increases to 1042€ per month. The interest rate being offered as of 2nd of May by Nordea is estimated to be 4,62% and with that the monthly costs are 1225€. In just 3 years the amount of money going to pay back loans increased from 852€ to 1225€, which totals 373€ per month less money for everyday life. If the interest increased to for example 6%, that would be 1374€ monthly into paying loans. With the 0.7% interest rate the amount of interest from the payment was 111€ per month and with the 6% interest rate that would be already 955€ per month, with just the interest. (Nordea 2023.)

### 3.3.6 Saving money and investing

Saving money and investing it has also been impacted by the rising living costs. In the year 2022 the funding capital of investment funds shrank significantly. There are many reasons why the funding capital shrunk, main emphasis being on devaluation of the securities, redemptions from the funds and rising interest rates. Especially interest funds saw the most redemptions away because of the uncertainty in the rates. (Suomen Pankki 2023c.) Investments in the housing market are also taking a hit from the uncertainty. People are not keen on buying houses for themselves or otherwise investing in the market. Economic uncertainty can show so that Finnish people postpone investments. In the end of 2022 around 62 % of Finnish people felt that it was not possible to save money at this moment in this economy. (Tilastokeskus 2022e.)

## 3.4 How increased living costs show on a societal & economical level?

### 3.4.1 Public and private consumption

Private consumption is divided into three different sections that are durable, semi-durable and short-lived goods and services. How people buy these differently categorized goods and services determines the amount of private consumption. Consumption in societal level has changed a lot in the recent years, for example in 2020 consumption of private and public sectors decreased the most but in 2021 it started an upward trend, because Finns were starting to consume more after the pandemic, even if it is not at the same level as before 2020. However, in the end of 2022 private consumption was lowered again because Finnish people started decreasing their consumption on semi-durable products like clothing and shoes as the prices had started to hike up on those as well. The consumption of short-lived goods like food and liquid fuels has been decreasing since mid-2021 because those prices were the first to be increased. Private consumption is an important source of growth in the Finnish economy, and it shows in the GDP. (Tilastokeskus 2022b; Tilastokeskus 2022c.)

Public consumption expenditures include education, health, culture, transport, social, administration and other public expenses. Public consumption was forecasted to decrease in 2023 and so far, the forecast has been true (Valtionvarainministeriö 2022).

### 3.4.2 Recession and employment

Recession is often referred to when there are two continuing quarters of declining real GDP (q.v. chapter 3.4.4 difference between Real and nominal GDP) (Claessens & Kose 2023). Finland was slowly going into recession in the Q3 of 2022, because of the energy crisis and high prices. Slow development of the economy continues in 2023 because the rapid increase in inflation and growing interest rates have impacts on the society with a delay. In the early 2023 Finland finally drifted into recession. This recession was caused by all the factors like lowered private consumption and the low amount of public and private investment into the economy. The biggest risks to Finnish economy seen in 2023 were overall inflation, the increasing interests, and the political security of Finland. (Berg-Andersson, Kaitila, Kangasharju, Lähdemäki & Puonti 2023.) This recession is forecasted to be short and the upward trend in consumer prices should start to pass. As already mentioned, the weakened purchasing power of consumers and rising interest rates together with high inflation and uncertainty about the future are slowing the growth of Finnish economy. (Suomen Pankki 2023d.) Employment expectations weakened in all main industries in 2022 according to Suomen Pankki because of the rising living costs. However, the employment rate has risen above expectations and is at historical high in end of 2022. (Suomen pankki 2022a.) In 2023 employment growth is forecasted to stagnate (Berg-Andersson, Kaitila, Kangasharju, Lähdemäki & Puonti 2023). The effects of employment statistics cannot be only strictly linked to rising living costs because there are other factors as well impacting those statistics, however in academic literature and some other sources give a hint that rising living costs have an impact on employment numbers. However, it is good to keep in mind that employment figures like employment rate do not talk about the well-being of economy or about the situation in labour market (Tilastokeskus 2019.)

### 3.4.3 Businesses and their financial statements

Already in 2021 when the increases in living costs started it showed uncertainty in the fair value calculations on increment value in different industries. This is a problem because the data about companies' ability to defend themselves against rising costs is not yet available and therefore cannot be analysed. The information is not available because the prices keep still increasing. (Tilastokeskus 2022d.) Many businesses felt pressure to raise prices when the price of certain raw materials (materials that are difficult to replace) increased in their supply chains. Once the situation cools down the prices should decrease almost to the same level as before the cost pressure. (Suomen pankki 2023d.) Mainly the energy and fuel prices increasing impacted Finnish businesses the most because they added large costs to the companies that had not been there before and were not expected to go so high. The increase had a straight impact on the businesses profitability and some companies had to reorganize their operations to cut costs. (Valtionvarainministeriö 2022b.) It was speculated that some businesses might be closed due to the energy crisis, but it is mentionable that in November 2022 this had not happened. Some companies dealt with the suddenly increased cost so that they lowered their consumption of energy or by starting to use more energy efficient methods. No important key value chains in terms of security or competitiveness of supply were broken. Key value chains breaking could have caused another crisis in the supply of food or other necessary needs. (Valtionvarainministeriö 2022b.)

### 3.4.4 Gross domestic product

The financial value added to the economy through production of products and services is called Gross Domestic Product (GDP). There are two ways to inspect GDP. Those are nominal GDP and real GDP. Nominal GDP uses current market prices as a comparison and is not adjusted for inflation. On the other hand, real GDP is adjusted for inflation and uses base year market prices as a comparison. Real GDP is more accurate and therefore usually the one being used. GDP is usually measured annually, but it can also be measured quarterly. GDP gives a

good understanding about the performance and size of the economy and points out whether it is shrinking or increasing. (Callen 2023.)

However, not everything is included in the GDP like voluntary work, because it does not technically generate any money as a product or service. Also not included are illegal black-market activities like drugs, due to it being hard to accurately measure and value. This also applies to so-called non illegal grey-economic processes like baking a cake or repairing a car and paying with cash. (Callen 2023.) GDP is a number that gives a directional outlook on the situation of economy. GDP is a great tool to inspect different economies all around the world, but it does not reveal everything. Like the wellbeing of citizens inside an economy or the standard of living within a country. One big downside for GDP is that it doesn't consider the environmental damage, and the financial growth might come with the cost of environment. To measure wellbeing and standard of living there is the Human Development Index made by the United Nations. (Callen 2023.) Finland ranked 11th from all of the 191 countries in the Human Development Index in 2022 (UN 2023b).

Finland's GDP in 2022 was 281 050 million \$ US dollars. That is a 5,3% decrease to 2021. In 2021 Finland's GDP was 296 580 million \$ US dollars. In 2020 Finland's GDP was 271 670 million \$ US dollars, so the Covid-19 pandemic did not affect Finland's economy that hard. It is estimated by Statista that in 2023, Finland's GDP would be 301 670 million \$ US dollars and will keep on growing steadily to 2028 when it is estimated that Finland's GDP would be 343 240 million \$ US dollars. (Statista 2023c.)

#### 4. ANALYSIS OF THE SURVEY

The standardized survey conducted for this study consisted of 13 questions, where most were multiple-choice-questions and three open-ended questions. In the open-ended questions participants were able to share their own thoughts on the subject. The survey was made for Finnish citizens, therefore the language chosen for the survey was Finnish. The results were translated to English and can be seen here. The questions were about where Finnish consumers see the impact of rising living costs and are they worried about this phenomenon. The survey answers and the already existing literature will be compared to each other in the discussion chapter. In the appendixes part sample of the survey outlook is shared.

The survey was conducted as an internet survey and the link was shared on different social media platforms. The survey got 1127 responses and most of the answers came in the first two days it was open. 89% of the answers came from women and 9% from men. 2% of the answers were from respondents that did not want to mention their gender or other reasons. As a disclaimer most of the answers came from women because the link was shared in a popular women's group in Facebook, called Naistenhuone. The age of participants in the survey varied from 15-74. Most active age groups in that age range were from 20-38.

From the 1127 people who answered 69% were employed, 21% were students, 6% were unemployed and 4% were retired. Therefore, the representation in majority of the answers comes from employed people.

When asked if Finnish citizens had noticed the rise in living costs in their everyday life, 0,3 %, that is 3 people from 1127 said that they had not noticed at all. 1% answered that they had not paid attention to notice such thing. 13% had noticed it some costs and 56% had noticed it in multiple costs. As a final answer 30% answered that they had noticed it in all costs. It is clear from these answers that rising living costs is something most people see and feel in their everyday lives no matter what age or gender. However, something interesting in the statistics was that if the answers are divided by the status of the answer into students, unemployed people and employed people. The percents go as follows, 57% of



unemployed citizens have noticed it in multiple elements and from students only 25% have noticed it in multiple elements. The same goes to employed people for whom the percentage on the same answer is 28%. If inspected the other answer choice where it states that the increase is seen in some things, the percentages turn around. Unemployed citizens have 40% while students chose this option 59% and employed citizens 57%. It's possible to see that from those groups unemployed people have noticed the increase in almost everything whereas students and employed citizens have noticed it only in some things.

According to the survey Finnish citizens have noticed the increase in living costs, for example in food or electricity, the answers were clear from that part. Food, electricity, and fuels were the top 3 elements that the price increase had been mainly noticed. From the 1127 participants 98%, that is 1108 participants, had noticed the price increase in food. Below the other percents can be seen.

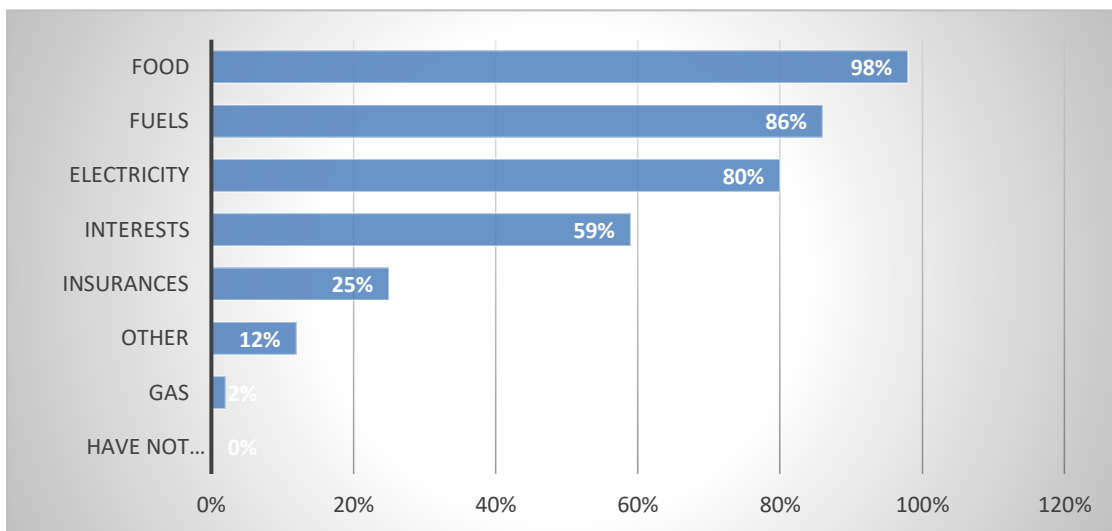


Figure 8. Statistics of when asked where Finnish citizens had noticed the price increase, this is how the results were divided.

Only 2 people from the whole survey answered that they had not noticed the increase in anything. Under the option other many participants had added other things they had noticed the increase in price as well. These included subjects like services in general sense for example going to a barber or cosmetologists, rent for housing, clothing, food for animals and household supplies like detergents,

hygiene products and toilet paper. Public transportation was also mentioned. Some answers were simply that everything related to living and beyond.

So far according to the survey Finnish citizens have noticed the price increase especially in living costs and other related costs. It's possible to assume that there must be a connection between this many people noticing this phenomenon and it is having some kind of effects on them. This connection between these two variables is supported by the survey findings where 58% of the respondents feel that it has had some kind of impacts on their life and 35% feel that it has had big impact on their life. This impact or the effects can be many but at least lowered quality of life, anxiety, and more worries as an example. If the answers are again divided into groups of students, unemployed and employed citizens, it's possible to see that unemployed citizens feel that this phenomenon has had a big impact on their life. Students and employed citizens feel more that it has had only some impact on their life. More precise numbers can be seen below.

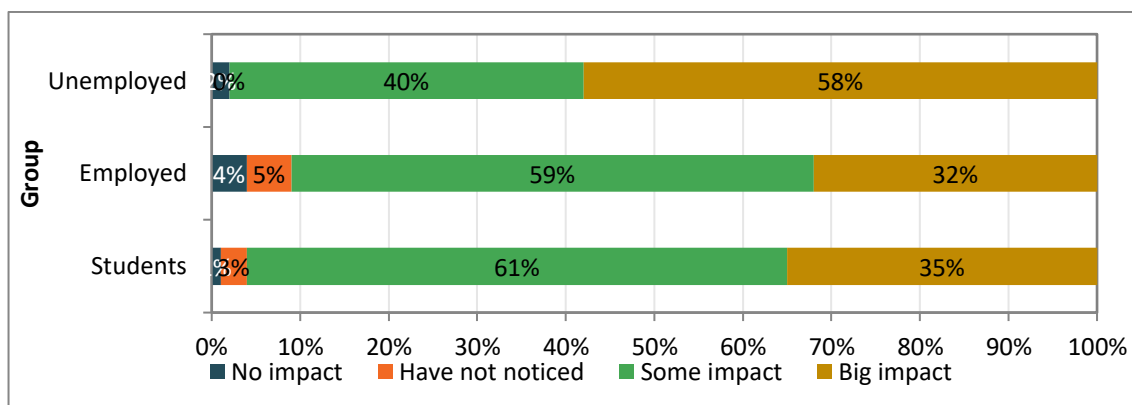


Figure 9. Statistics on how Finnish citizens who took part in the survey feel about how rising living costs had an impact on their life.

After it was seen that increases in prices have had a big impact on Finnish citizens it can be assumed that those impacts are negative. This is confirmed by the survey because when asked if the living cost increases had caused anxiety or lowered quality of life the answers supported the fact that the impacts have been negative. Respondents were again divided into answers of unemployed, employed citizens and students. Only 0.2% from students said that they had not noticed at all, 4% from employed said the same and 1.5% from unemployed citizens felt the same. When looking at the whole survey as a one group, only 26% of all respondents

felt that rising costs has not impacted their mood in a negative way. Whereas 52% felt that it had impacted their mood in a negative way and caused anxiety. 14% felt that it had caused major decrease in quality of life and anxiety. 8% did not know if it had caused negative impacts. These numbers again show how much of a negative impact rising living costs are having on Finnish citizens and how strongly and easily respondents of the survey link that their lowered quality of life is the result of this phenomenon.

When on the subject of rising living costs, it important to pay attention to the wages and other sources of income as well because essentially that is how citizens are supposed to cope with the rising living costs. In the past two years (2021-2023) 32% of the respondents said that their wages or other sources of income had not risen at all. 58% answered that their income levels had increased, but not in the same proportion as living costs. This proves what is told in the text before that for most the wages are increasing but only marginally, and that the increases are not enough to keep up with the faster rising living costs. 4% of respondents said that their income has increased with the same speed as living costs have. 6% told that their level of income has increased more than living costs. This makes a total of 10% of all the respondents that feel that their income level is same or better compared to the level of living costs.

At this point it is clear that Finnish citizens are worried about rising living costs altogether but especially about some commodity groups like food. When asked which product's price increase is the most worrisome, 64% of respondents answered food. In this question respondents could only choose one option, so that is good to keep in mind. 14% said interests, 10% said electricity, 9% said liquid fuels, 2% said that they are not worried about anything and 1% said something else. Under the choice of something else, there were answers like everything, rent, services, all invoices, medicines and living altogether. One answer said that it is impossible to choose between food and interests, because the price increase has already impacted their life a lot, but they are most worried about interests in the future.

It is obvious that most respondents have less money to use on everything, but it is interesting to see on what Finnish citizens are decreasing consumption so that

they have enough to cover for the living costs. 72% of all respondents say that they have less money to put into savings, which means that most feel that they cannot save efficiently at the moment. This is something that was already seen in the end of 2022 in the statistics of Tilastokeskus that is mentioned before in the text. In those statistics 62% felt that it was not possible to save in this economy (Tilastokeskus 2022e).

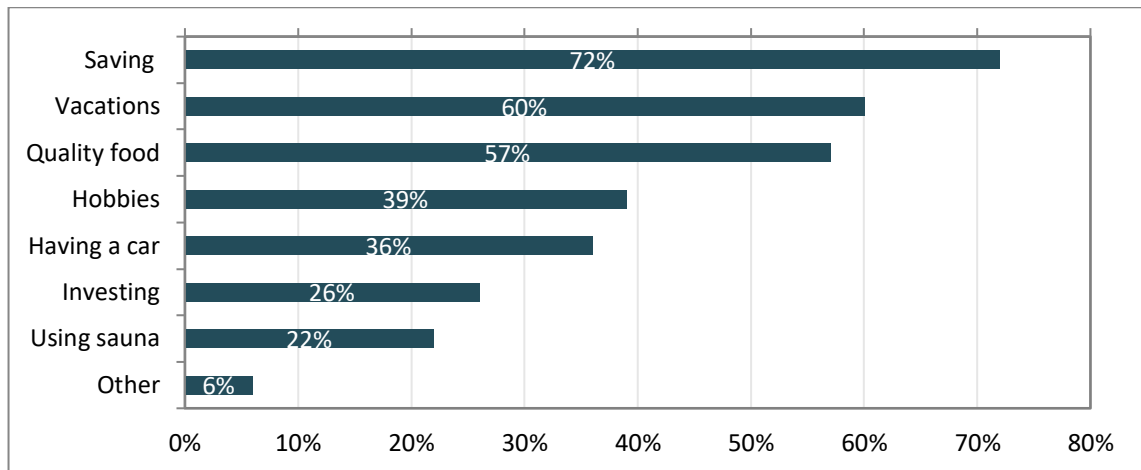


Figure 10. Where Finnish people say that they have less money to use.

In the table above it is possible to see in which groups Finnish people say that they have less money to use on. In this question the respondents had the option to choose multiple choices, meaning that they could choose all the elements that they had less money for. The top three is saving, vacations and buying quality food. The food part is already something that has been made clear before that the increase in that has been noticed and citizens are most worried about it. Vacations and going to hobbies are linked to the money that is used on free-time activities, therefore according to this Finnish people are spending less on their leisure activities to be able to afford living. During the pandemic it was seen that when people are limited from taking part in their hobbies it can cause negative impacts on mental health (Larivaara & Parkkonen 2022). Now the limitation is not that there would be lockdowns but simply that citizens cannot afford going to those activities. It is already shown in this survey that citizens feel that rising living costs cause lowered quality of life and considering this it can also cause difficulties with mental health.

Having a car is related to the high fuels costs and using a sauna is related to electricity use. In the section other, which 6% of respondents chose to tell for which activities or products they have less money to use, there are many similar answers to what has been mentioned already. Most common answer there is that respondents feel that they don't have money for anything extra. Multiple respondents said that they have less money to use on leisure time activities and services related to relaxation like massages and beauty care. Buying clothes is also something that is mentioned many times. Related to healthcare few mention dentist services and the price of medicines as something they have less money on. Cultural events like theatres and museums were also mentioned.

The participants were given a chance to answer with their own words and to write down what they think is behind the rising living costs and 623 participants gave their answer to that. The answers vary a lot but considering that there were over 600 answers there were only around 20 different categories of answers given. When used text mining from the answers the most frequently used words in order were war in Ukraine, inflation, the general situation in the world, Finnish government, covid-19, and greed. These words already give a strong idea what Finnish people think is to blame for the situation. The most common answer was the war in Ukraine that Russia started, that answer was mentioned 318 times and that is only counting when respondents used the word war. Many answers mentioned the general world situation and some specified that with that they meant for example, the war in Ukraine, so only those were counted in the 318 answers. Finnish government was mentioned 149 times as a reason to why the prices are rising. Overall, there was a lot of dissatisfaction with the Finnish government, because many of the answers had a very negative tone towards it. When looking at the answers more closely there are of course a lot of other explanations as well as the ones mentioned before. These answers include subjects like capitalism, ongoing green transition, greedy companies, bureaucracy, climate crisis, aging population structure, too much debt taken by Finland, companies, EU, and overconsumption. Multiple answers also mentioned that prices are only being increased because of greed. Many respondents feel that the general world situation and crises like war and covid-19 are used as an excuse to hike up prices when it really is not necessary. The respondents feel

that in some cases companies increase the prices just because others are doing it and that they can reason with it by saying that they had to do so to avoid financial difficulties.

In figure 11 all the answers were divided into groups that they represented. Only 58 answers were not able to be put into these big categories. These answers include ideas about how it is impossible to tell why prices are increasing or that there are so complicated things behind that it's hard to say, some were simply empty or had just the "I don't know" as an answer. The answers were put into categories so that for example every answer that had the words government, state, Marin (Finnish Prime Minister 2019 ->), politician etc. was counted in the category of Finnish government. After this the answers containing the key words were gone through to see that they were indeed supposed to be in that category. For example, some people might have had answers that said that the government was not to blame for the price increase. That kind of answers were taken out of the category even if they contained the key words. The Muut in the chart means others.

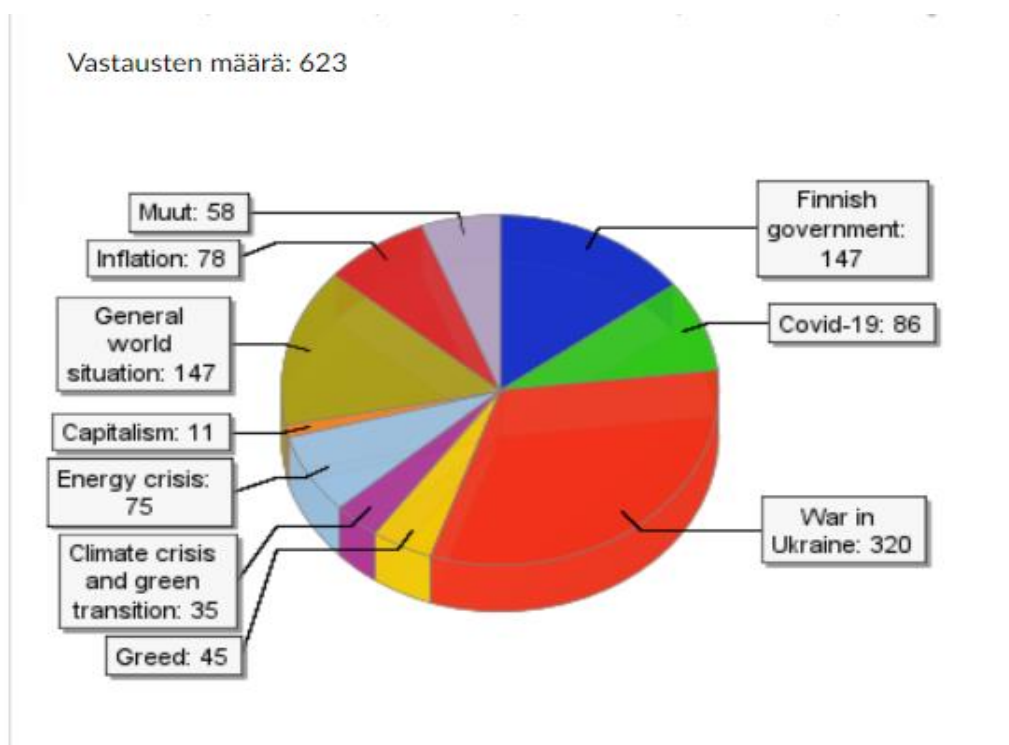


Figure 11. All the answers about what Finnish citizens think is behind the rising living costs in their assigned categories.

Participants were given an opportunity to tell what they think the Finnish government should or could do to help citizens cope with the rising costs. This question was not mandatory for the participants, but it still got 623 answers. These answers were put into categories using text mining and forming word groups because many had the same ideas. Most common answers had something to do with lowering taxes, either for electricity, liquid fuels or value added tax. Not all of the answers fit into the assigned groups because there were a lot of answers that were against any kind of aid in this situation because citizens were worried about the fact that if more money is put to the market, it will only accelerate inflation and cause Finnish economy some other problems if more money needs to be borrowed into our economy. Some answers also said that this is only normal that that since in the beginning of covid-19 the prices were so cheap that now we have to pay for that. This shows that there were many understanding respondents that felt that in this world situation it is understandable that the prices need to be increased so that businesses stay profitable and keep the economy running and that key value chains are not broken.

Many respondents felt that the government should do something about the electricity and fuel prices because that is something they could control easily. In the bigger scale many answers also brought up that there is nothing the Finnish government alone can do about inflation and that this is not only Finland's problem, so it is difficult for the government to do anything big. It was also brought up that the reason why prices are going up is to some extent because Finland is doing the green transition too fast and in too ambitious way and that the government should ease on climate goals because it's causing the prices to go up. Multiple respondents also felt that there should be more benefits for the lower income households because the benefits are not at the same level as the costs are right now. For students some suggested that there should be more study benefit from Kela because students are usually not working so their only income might come from the student loans and student benefit. Ideas about taking the income limit away from students altogether were also mentioned, so that students would not be punished if they went to work to try and support themselves.

In figure 12 it's possible to see again how the answers were divided in the pie chart. In the 114 answers that did not fit into any categories there were a lot of answers that mentioned that no more support from the government is needed at all or that they do not know what could be done, but that something should be done.

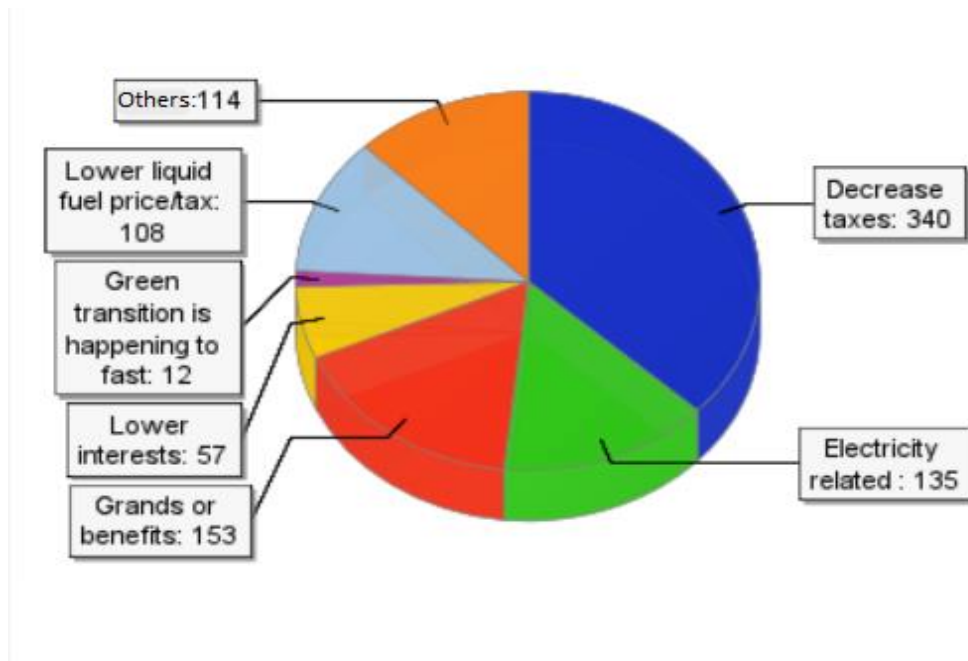


Figure 12. How the answers on what Finnish citizens wish the Finnish government would do to help individuals with the increased living costs.

Other suggestions or opinions made by the respondents were that by giving tax deductions on certain products it could support the strengthening on purchasing power of Finnish consumers or that too much of extra benefits should not be given because it will just accelerate inflation. Other opinions were against tax deductions because society needs the money that comes from taxes. All in all, the answers to this question came from many points of view.

In the end of the survey respondents were given the opportunity to talk more about how the increased living costs have impacted their life in other ways that have not yet come up in the survey or other things they want to mention regarding the subject. The answers to this part had a wide scale of results, mostly about where the respondents had personally noticed the increase and how much it had impacted their life. There were 518 answers. To give examples on things that



were told in this section, here are few different situations told: many of the participants told how they have had to stop using services that are not 100% necessary, one respondent said that they feel bad that even with decent income they cannot support local small businesses or entrepreneurs. Many mentioned that they have had to change their diet because they cannot afford to eat meat as much as before. Many people mention that saving money is not possible and that it causes a lot of unnecessary stress, one participant even said that they have not been able to save money at all for over a year even as they are working full-time. One participant says that once the prices started to increase, they got into more debt that keeps on building up now that they can afford food and living. One respondent gives out an example that their mortgage interest went up by so much that they have to pay 350 € more every month and that is only the interest. These are only a few of the perspectives given to us. One thing that is the same in all of the answers is that they all talk about negative impacts.

By using text mining, it is possible to see that 220 of the answers had something to do with food. Mostly in the answers Finns tell how they have had to change their food buying habits and how much less food they get for the same amount of money compared to a few years back. Some say that they only eat at home nowadays and that they are not eating balanced meals because they have had to leave fruits and vegetables away because of their high prices. Sometimes respondents need to choose between buying food and paying bills on time. Sadly, many tell that they no longer can support Finnish food products because they buy the cheapest ones that are usually foreign.

164 people say that they have had to stop doing something because of the high prices. Examples include things like going to the gym, going to hairdressers, going for a coffee with friends, going to therapy. Most answers tell the same story about how negatively these impacts are felt by the respondents and how much anxiety it causes. Other big groups in the answers were related to owning a car, saving money and high electricity costs. Mainly the answers about owning a car were about how expensive it is to drive, how saving is not possible and what citizens have had to do to cope with high energy prices.

Few examples that show how bad the situation really is in some cases. Few respondents say that they stopped going to work because driving there is more expensive than what they make in a day, couple respondents reveal that the heating of the house has had to be lowered to 14,5-19 degrees Celsius to save energy. More than one respondent says that they cannot afford their medication and therefore have to be without it, which lowers their quality of life.

All in all, the survey results gave different and real perspectives to the subject of rising living costs and their impact on Finnish citizens. The survey had a wide sampling of Finns because of the large number of respondents.

## 5. DISCUSSION

The objective of the thesis was written into three research questions and the findings in this text form a solid background on the underlying reasons and impacts rising living costs have on Finnish citizens and Finnish society. Together with the conducted survey and review on already existing literature the material used for answering the research questions was both statistically meaningful and offered personal opinions.

Those three questions were:

Q1 What are the reasons behind the rising costs of living?

Q2 What are the effects rising living costs have on individuals?

Q3 What are the effects rising living costs have on society?

These three questions crystallize the content of the whole thesis and the answers to these questions are not short. Here however it is possible to see a summary of the content.

### 5.1 Summary of the key finding on the literature review and survey

The results indicate that there are many reasons why the costs of living are increasing and that increase has major impact on Finnish citizens and the whole society. Together with literature, statistics and the survey, the cause-and-effect relationships between the different variables is the same no matter what viewpoint is taken, there are rarely, if any, disagreements with the results between different sources. There are no glaring contradictions because the findings are found the same from different literature sources and by the survey. The results strongly suggest that many of the findings in literature review are in line with what the survey answers provided. The variables of living costs now and, depending on the example, 1-3 years ago, and the effects it had and is having on Finnish citizens provide a complicated picture of the situation. There are many negative impacts seen and those impacts are linked to be because of the rise in living costs, but in this text, it is also taken into consideration that statistically not

everything can be blamed on only this phenomenon. It is clear that there is a cause-and-effect relationship between those variables, but that relationship is not the only thing effecting the end results.

The results suggest that the costs of living have increased before and this time around many of the reasons are the same. However few reasons make this situation different like the war in Ukraine and the covid-pandemic. The increase has also happened in a short period of time that showed fast and boldly in statistics related to living costs. Overall inflation, the chain reaction in the supply chains, and difficulties in getting certain raw materials or the energy crisis started by the war in Ukraine are the biggest reasons behind living costs increasing rapidly.

Increase in food is a sum of many things like increasing energy prices, increasing interests, the war in Ukraine and increase in agricultural means of production. According to the survey, 1108 people, 98% of the whole survey, have noticed price increase in food. Also, you can read almost weekly from Finnish newspapers about increase in food, so it is definitely topical at the moment.

There are some predictions that the price of food would decrease. And for example, the S-group has said to decrease the price of over 400 "xtra" product family products (S-ryhmä 2023). This is of course welcome for the consumers who are trying to save money, but for the overall economy it might be bad. Xtra products could be the only food some people might be able to afford, but Xtra products are manufactured by coop, which is Swedish company, meaning tax money into Sweden (Coop 2023). Every cheap Xtra product sold in Prisma, is one product less from Finnish food industry, this might even lead to bigger companies like Atria to get into serious trouble. Competition is great for consumers, as Atria for example, is now more likely to lower the prices of their products, if even possible.

On a global scale between 2007 and 2008, food prices over doubled. Back then the reasons for increasing prices were unfavourable weather conditions which decreased the supply, therefore increasing prices. On top of that, rising energy costs and the rising price of fertilizer were big factors in the increase in food. This

proves that the same reasons have increased prices then as they are now, and likely also in the future. In the Article made by Kirikkaleli & Darbaz was also studied the causal linkage between energy prices and food prices. The research showed that there is a bidirectional causality with energy and food prices. (Kirikkaleli & Darbaz 2021.) As seen already in few years, increasing energy prices can increase the price of food and living overall.

(Q.v chapter 3.1.1, Bulgaria, Hungary, Poland, Romania and Slovakia banning imports of Ukrainian wheat, maize, rapeseed and sunflower seed). According to laws of supply and demand, as the supply of wheat, maize, rapeseed and sunflower decrease, the price should rise, but it is hard to forecast it (Asmundson 2023). This deal is only up to June 5th and possibly the ban is retracted then.

Key findings from interests are that the interest rate had to be increased by the FED and ECB, and other central banks due to the increasing inflation. Interest rates have been increasing radically during the last years, because so has inflation. Increasing the cost of loaning money is one of the best ways for central banks to control inflation as the amount of loans taken decreases.

(Q.v. chapter 3.3.3 decreasing housing prices.) For an individual's finances it could be catastrophic if the prices of houses decrease beneath the amount of loan taken for the house. If living costs increase too much, many Finns could be forced to sell their houses with a loss and risk their own creditability. This would then in the long run turn against the banks, as the supply of loan income decreases. (Ahoniemi & Putkuri 2023.)

In the U.S the interest crisis has already reached another level as three huge banks have collapsed in 2023. These banks were Signature bank with 110 \$ billion dollars market value, Silicon Valley Bank with 209 \$ billion dollars market value and First Republic Bank with 213 \$ billion dollars market value. (Lopez 2023.) It is hard to estimate how this affects the economy, but according to CNN article, FED economists have said it to drive the U.S into recession (Mena & Goodkind 2023). There is no certain reason why this would not happen in Europe and therefore in Finland.

The energy crisis caused by the situation in Europe that started in early 2022 had complicated reasons behind it. Main reasons being the post pandemic time and the increased need for energy sources, the war in Ukraine and the ongoing transition from fossil fuels to greener sources (q.v. chapter 3.1.4, energy prices). In the survey some citizens feel that the hurried green transition is behind all of these reasons. Food and energy costs were not the only ones that increased but those two together with interest rates and fuels had the most attention, being something most citizens deal with. Other costs increased as well but those did not get as much attention as the main four.

The increased living costs show both on individual and societal level. On individual level statistically Finnish citizens are more concerned about the economy and losing trust for its success as the consumer confidence indicator shows (q.v. chapter 3.3.1, concern and trust in Finnish economy). Citizens are delaying big purchases and lowering their consumption. This being the trend at the moment, the actions of individuals have an impact on the bigger scale. Weakened purchasing power is causing problems for businesses and therefore for the private sector (q.v. chapter 3.3.3, consumption and weakened purchasing power). Citizens are taking less loans than before because of the high interest rates and because they are worried about their own personal finances not being as stable as before (q.v. chapter 3.3.5, taking loans). Finnish citizens according to statistics and the survey feel that saving money and investing is something that is difficult at the moment because wages are not increasing at the same speed as the prices are increasing. More of their disposable income is lost on necessary everyday needs and there is nothing left to save. Even in some cases citizens being forced to take short loans to be able to afford everyday needs (q.v. chapter 4, analysis of the survey).

On an economical level the lowered consumption is noticed by statistics and the Finnish National Bank. Among other reasons, the lowered private consumption and the low number of investments caused the Finnish economy to go into recession in the beginning of 2023 (q.v. chapter 3.4.2, recession and employment). Businesses felt the weakened purchasing power in their financial profitability (q.v. 3.4.3, businesses and their financial statements). The individual

impacts rising living costs have one Finns reflect the impacts that are seen on higher levels than just the individual. Finnish citizens are looking for more support from outside to help cope with the phenomenon (q.v. 3.3.4, need of support from outside). The employment numbers are looking fine, but citizens are switching jobs for better wages to support themselves. Finnish citizens are not using as much money on commodities. The biggest impact being recession that is impacting the whole Finnish economy (q.v. 3.4.2 recession and employment).

Main findings from GDP (q.v. chapter 3.4.4. Gross domestic product) are that Finland's GDP did not suffer from the Covid-19 pandemic that bad and recovered quite easily. But in 2022 the effects of Covid-19 and other already mentioned reasons in living costs started to increase, in a way it also affected GDP. It also shows that already in 2023 and 2024 there should be an increase in GDP, meaning that based on this estimation the recession is going to be short. It is estimated by Statista that in 2028 Finland's GDP would be 343 240 million \$ US dollars. Finland's GDP in 2022 was 281 050 million \$ US dollars.

Main findings from the survey suggest that living costs increasing is something many citizens have noticed in their own personal finances. It is clear that when people are forced to use more of their disposable income on basic needs that this creates anxiety and lowers their views on future of their own economics and even their view of the country's economy. This was both shown in the survey results and in the consumer confidence indicator (q.v. chapter 3.3.1, concern and trust in Finnish economy and chapter 4, analysis of the survey). The survey highlighted the fact that Finnish consumers have decreased their purchases and that they are waiting on the prices to decrease but at the same time they do not feel very confident that that will happen anytime soon. This is also confirmed by the publications of Suomen Pankki (q.v. chapter 3.4.1, public and private consumption). The survey results prove that Finnish citizens have been paying attention to the living cost increases and that they have strong opinions on the subject. This considered many respondents still were understanding of the situation when looked from a wider perspective (q.v. chapter 4, analysis of the survey). Many people however felt that some price increases were done because of greed and that there was not actual need to do so. This claim would have been

interesting to look more into but finding actual research to stand behind it was difficult. The findings in the survey proved to be in line with the findings from literature survey, many citizens think that the reason behind living cost increases is because of the current world situation.

Something that the Finnish Government could do is to decrease taxes especially in the crucial matters like food and energy. (Q.v. vat reduction in food in 2009). In 2009 the vat reduction transferred directly into the price of food, it could be implemented for a short period of time, to ease the crisis. This could also be used in fuel as big portion of fuel price is taxes. Also, an interest cap could be done to limit the interest rate under certain percentage, either by Finnish Central Bank, or by European Central Bank.

## 5.2 Limitations and further future studies for the subject

Limitations to the research were that, not all relevant data is yet published when writing this text, there are possible connections between variables that cannot be seen on such a short period, or those connections cannot be proven in reliable manner in this time period. Other limitations were that literature on the subject is work in progress and as it is seen right now, and some parts may get more attention because they are more media friendly resulting in having more text written about it. There is always the possibility that something unexpected happens, but these are the results as of May 2023. In the future when more literature is available, and the impacts can be seen in a longer timeline, there is a possibility of conducting some kind of research on the subject then to see if the results differ.

## 5.3 Forecast into future

The European central bank believes that Europe has seen the highest inflation and it is believed that inflation will steadily fall back into the 2% target inflation of the European central bank. It is estimated that the inflation will be 5.3% in 2023, 2.9% in 2024 and 2.1% in 2025. These are estimations from March 2023. The European economy is not looking great at the moment, but it's better than



expected. It is estimated that the economic growth of 2023 is going to be just 1%, in 2024 it's estimated to be 1.6% and in 2025 1.6% as well. (European Central Bank 2023c.)

There is no exact forecast for when the war in Ukraine might end, or what kind of effects it might have. Even if the war would end, there wouldn't likely be any quick changes. The lack of wheat would keep some of the food prices high and the same goes with metal, as Ukraine is big exporter of metals (Kammer, Azour, Selassie, Goldfajn & Rhee 2022). Ukraine will likely be in a bad debt-crisis as EU has loaned Ukraine 18 billion € euros and on top of that the rebuilding process will take years and it will probably take decades for Ukraine to start processing metals and wheat at the same level than pre-war (European Parliament 2022). This loan is crucial for Ukraine, but at the same time it will have negative effects in the future. It is likely that the bans to Russian products wouldn't be removed instantly, so the energy crisis wouldn't ease that way.

## 6. CONCLUSION

The findings of the thesis suggest that the reasons behind why the living costs are increasing are complicated and mostly related to each other, causing the living costs to increase in a chain reaction. This is possible to see for example in a situation described in the text that when the price of transportation costs of goods increases, it usually follows up with the product becoming more expensive. This happens because the costs in the supply chain have increased and for the company to keep the margin at the same level, they need to react with price increases. This is something that is possible to see with the living costs like food becoming more expensive because of the price increase in fuels and electricity that results in the transportation and storage cost increasing in the supply chain of said food. The bigger and global reasons behind cost increases is the result of overall inflation because of the uncertain situation in the European and the world markets. The war in Ukraine and the globally felt covid-19 pandemic before that increased inflation that started to work its way through different markets and prices. The price increases are partly reason of the ongoing green transition that is there to replace the use of fossil fuels with more sustainable sources.

The impacts rising living costs have on Finnish households and economy are many and again related to each other. Individually living costs increasing have the biggest impact on low-income households that have had their money already tight before the increases. That said massive increases are felt with others as well because the increases are not only limited to certain commodity groups that could be avoided. As the price of overall normal food has increased it is almost impossible to avoid the increased when buying food. It's statistically proven that Finnish citizens are not feeling brightly about the situation of Finnish economy or even about their own personal economies. On individual level increased living costs cause negative impacts on the quality of life and it causes worry on citizens' own finances and on the future sights of the Finnish economy. On a societal level the private consumption is on the low and citizens do not feel confident on doing bigger purchases in this situation.

## REFERENCES

- Asmundson, I. 2023. Supply and demand: why markets tick. Accessed 4 May 2023  
<https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Supply-and-Demand>
- Autoalan Tiedotuskeskus. 2023. Bensiinin ja dieselin hintakehitys. Accessed 28 March 2023  
[https://www.aut.fi/tilastot/verotus\\_hintakehitys\\_ja\\_liikennemenot/bensiinin\\_ja\\_dieselin\\_hintakehitys](https://www.aut.fi/tilastot/verotus_hintakehitys_ja_liikennemenot/bensiinin_ja_dieselin_hintakehitys)
- Ahlvik, L., Ahola, S., Blauberg, T., Laasonen, H., Liski, M., Malinen, O., Mattila, M., Nokso-Koivisto, O., Sahari, A., Seppä, M., Toikka, M., Valkonen, A. & Vehviläinen, I. 2023. Sähkön hinnannousun ja sähkötukien arvioidut vaikutukset kotitalouksiin. Accessed 1 March 2023  
<https://datapilotti.fi/wp-content/uploads/2023/02/Datahuone-raportti-1-2023-sahkon-hinnannousun-ja-sahkotukien-arvioidut-vaikutukset-kotitalouksiin.pdf>
- Ahoniemi, K & Putkuri, K. 2023. Asuntojen hinnat laskussa – miksi ja mihin kaikkeen se voi vaikuttaa? Accessed 5 May 2023  
[https://publications.bof.fi/bitstream/handle/10024/52747/ET\\_20230427\\_Ahoniemi-Putkuri.pdf?sequence=1](https://publications.bof.fi/bitstream/handle/10024/52747/ET_20230427_Ahoniemi-Putkuri.pdf?sequence=1)
- Boxberg, K. 2022. Raaka-aineindeksit äkkijyrkässä nousussa Ukrainan sodan takia – ”Kaasuputkille ei ole korvaavaa infrastruktuuria”. Accessed 3 April 2023  
<https://www.talouselama.fi/uutiset/raaka-aineindeksit-akkijyrkassa-nousussa-ukrainan-sodan-takia-kaasuputkille-ei-ole-korvaavaa-infrastruktuuria/fb1655e1-35ea-40f5-a19d-e15ba3f77adb>
- Berg-Andersson, B. Kaitila, V. Kangasharju, A. Lähdemäki, S. Puonti, P. 2023. Taantuma jää lieväksi, mutta niin jää sitä seuraava kasvukin – ”Nousukausi jää kokematta”. Accessed 1 May 2023  
<https://www.etla.fi/ajankohtaista/uutiset-ja-tiedotteet/taantuma-jaa-lievaksi-mutta-niin-jaa-sita-seuraava-kasvukin-nousukausi-jaa-kokematta/>
- Caldwell, P. 2023. When Will the Fed Start Cutting Interest Rates? Accessed 19 March 2023  
<https://www.morningstar.com/articles/1106505/when-will-the-fed-start-cutting-interest-rates>
- Callen, T. 2023. Gross Domestic Product: An Economy’s all. Accessed 16 April 2023  
<https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/gross-domestic-product-GDP>

Central Bank of Ireland. 2023. Explainer - What does overheating in the economy mean? Accessed 19 March 2023  
<https://www.centralbank.ie/consumer-hub/explainers/what-does-overheating-in-the-economy-mean>

Consilium Europa. 2023. Infographic - Ukrainian grain exports explained. Accessed 13 April 2023  
<https://www.consilium.europa.eu/en/infographics/ukrainian-grain-exports-explained/>

Claessens, S & Kose, M, A. 2023. Recession: When bad times prevail. Accessed 15 May 2023  
<https://www.imf.org/en/Publications/fandd/issues/Series/Back-to-Basics/Recession>

Coop. 2023. Products & brands. Accessed 4 May 2023  
<http://www.cooptrading.com/products-brands/>

Euribor-rates. 2023. 12 months Euribor rate. Accessed 14 March 2023  
<https://www.euribor-rates.eu/en/current-euribor-rates/4/euribor-rate-12-months/>

European Central Bank. 2021. What the European Central Bank does and what it means for you. Accessed 7 March 2023  
<https://www.ecb.europa.eu/ecb/educational/explainers/tell-me-more/html/anniversary.en.html>

European Central Bank. 2022. We have raised interest rates. What does that mean for you? Accessed 19 March 2023  
[https://www.ecb.europa.eu/ecb/educational/explainers/tell-me-more/html/interest\\_rates.en.html](https://www.ecb.europa.eu/ecb/educational/explainers/tell-me-more/html/interest_rates.en.html)

European Central Bank. 2023a. Monetary policy decisions. Accessed 16 March 2023  
<https://www.ecb.europa.eu/press/pr/date/2023/html/ecb.mp230202~08a972ac76.en.html>

European Central Bank. 2023b. Our monetary policy statement at a glance - March 2023. Accessed 16 March 2023  
[https://www.ecb.europa.eu/press/pressconf/visual-mps/2023/html/mopo\\_statement\\_explained\\_march.en.html](https://www.ecb.europa.eu/press/pressconf/visual-mps/2023/html/mopo_statement_explained_march.en.html)

European Central Bank. 2023c. Summary. Accessed 19 March 2023  
[https://www.ecb.europa.eu/stats/ecb\\_surveys/survey\\_of\\_professional\\_forecasters/html/ecb.spf2023q1~af876c4cfb.en.html](https://www.ecb.europa.eu/stats/ecb_surveys/survey_of_professional_forecasters/html/ecb.spf2023q1~af876c4cfb.en.html)

European Central Bank. 2023d. Measuring inflation – the Harmonised Index of Consumer Prices (HICP). Accessed 3 April 2023  
[https://www.ecb.europa.eu/stats/macroeconomic\\_and\\_sectoral/hicp/html/index.en.html](https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/hicp/html/index.en.html)

European Commission. 2022a. REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. Accessed 2 March 2023  
[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_22\\_3131](https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131)

European Commission. 2022b. Commission steps up green transition away from Russian gas by accelerating renewables permitting. Accessed 28 February 2023  
[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_6657](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6657)

European commission. 2023a. Energy efficiency directive. Accessed 17 April 2023.  
[https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en)

European Commission 2023b. Commission adopts exceptional and temporary preventive measures on limited imports from Ukraine. Accessed 3 May 2023  
[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_2562](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2562)

European Parliament. 2022. Parliament approves €18 billion loan for Ukraine for 2023. Accessed March 2023.  
<https://www.europarl.europa.eu/news/en/press-room/20221118IPR55713/parliament-approves-EU18-billion-loan-for-ukraine-for-2023>

Fingrid. 2023. Sähkön kulutus ja tuotanto. Accessed 24 March 2023  
<https://www.fingrid.fi/sahkomarkkinainformaatio/kulutus-ja-tuotanto/>  
 Finnish National Board of Research Integrity. 2012. Responsible conduct of research and procedures for handling allegations of misconduct in Finland. Accessed 2 April 2023  
[https://tenk.fi/sites/tenk.fi/files/HTK\\_ohje\\_2012.pdf](https://tenk.fi/sites/tenk.fi/files/HTK_ohje_2012.pdf)

Florkiewicz, P. 2023. Poland, Hungary ban grain and food imports from Ukraine. Accessed 16 April 2023  
<https://www.reuters.com/world/europe/polish-government-bans-grain-food-imports-ukraine-2023-04-15/>

Fradella, A. Behind the Numbers: What's Causing Growth in Food Prices. Accessed 17 April 2023  
<https://www150.statcan.gc.ca/n1/pub/62f0014m/62f0014m2022014-eng.htm>

Greenall, R. EU rejects Ukraine grain bans by Poland and Hungary. Accessed 17 April 2023  
<https://www.bbc.com/news/world-europe-65292698>

Heikkilä, T. 2014. Kvantitatiivinen tutkimus. Accessed 19 March 2023  
<http://www.tilastollinentutkimus.fi/1.TUTKIMUSTUKI/KvantitatiivinenTutkimus.pdf>

Henley, J. Slovakia joins Poland and Hungary in halting Ukraine grain imports. Accessed 17 April 2023.

<https://www.theguardian.com/world/2023/apr/17/slovakia-joins-poland-hungary-halting-ukraine-grain-imports>

Hintsanen, L. 2022. The Deloitte Global 2021 Millennial and Gen Z Survey. Accessed 28 March 2023 <https://www2.deloitte.com/fi/fi/pages/about-deloitte/articles/millenniaalien-ja-z-sukupolven-tutkimus-2022.html>

Bogmars, C . Pescatori, A & Prifti Ervin. Global Food Prices to Remain Elevated Amid war, Costly Energy, La Niña. Accessed 13 April 2023 <https://www.imf.org/en/Blogs/Articles/2022/12/09/global-food-prices-to-remain-elevated-amid-war-costly-energy-la-nina>

Janzen, J. & Zulauf, Carl. 2023. The Russia-Ukraine War and Changes in Ukraine Corn and Wheat Supply: Impacts on Global Agricultural Markets. Accessed 3 April 2023 <https://farmdocdaily.illinois.edu/2023/02/the-russia-ukraine-war-and-changes-in-ukraine-corn-and-wheat-supply-impacts-on-global-agricultural-markets.html>

Kangasniemi, J. 2022. Elinkeinoelämän keskusliitto. Kulutus. Accessed 24 March 2023 <https://ek.fi/tutkittua-tietoa/tietoa-suomen-taloudesta/kulutus/#:~:text=Yksityinen%20kulutus%20palautui%20vuonna%202021,yli%208%2C5%20%25%20edellisvuodesta>

Kammer, A. Azour, J. Selassie, A, A. Goldfajn, I & Rhee, C, C. IMF-blog. How War in Ukraine is Reverberating Across World's Regions. Accessed 16 March 2023 <https://www.imf.org/en/Blogs/Articles/2022/03/15/blog-how-war-in-ukraine-is-reverberating-across-worlds-regions-031522>

Kela. 2023. Väliaikainen sähkötuki. Accessed 2 March 2023 <https://www.kela.fi/sahkotuki>

Kirikkaleli, D & Darbaz, I. 2021. The Causal Linkage between Energy Price and Food Price. Accessed 3 May 2023 [https://mdpi-res.com/energies/energies-14-04182/article\\_deploy/energies-14-04182.pdf?version=1625976042](https://mdpi-res.com/energies/energies-14-04182/article_deploy/energies-14-04182.pdf?version=1625976042)

Kivistö, J. 2009. Elintarvikkeiden hintakehitys Suomessa. Euro & talous 4/2009, 40. Accessed 2 March 2023 <https://urn.fi/URN:NBN:fi:bof-2014081211>

Korkiasaari, J. 2001. Suomalaisten Ruotsiin suuntautuneen siirtolaisuuden yhteiskunnalliset syyt 1900-luvulla. Accessed 3 April 2023 [https://arkisto.org/wp-content/uploads/2017/08/005\\_Korkiasaari.pdf](https://arkisto.org/wp-content/uploads/2017/08/005_Korkiasaari.pdf)

Larivaara, M., Parkkonen, J. 2022. Lasten ja nuorten harrastukset tärkeitä mielen hyvinvoinnille. Accessed 5 March 2023 <https://mieli.fi/uutiset/lasten-ja-nuorten-harrastukset-tarkeita-mielen-hyvinvoinnille/>

Lopez, G. 2023. Another Bank Failure. Accessed 5 May 2023.  
<https://www.nytimes.com/2023/05/02/briefing/bank-failures-first-republic-bank.html>

Mena, B & Goodkind, N. 2023. The banking crisis will tilt US into recession, say Fed economists. Accessed 5 May 2023  
<https://edition.cnn.com/2023/04/12/economy/fed-march-minutes-banking-crisis/index.html>

Nasdaq. 2023 Natural gas market. Accessed 2 March 2023  
<https://www.nasdaq.com/market-activity/commodities/ng:nmx>

Nordea. 2023. Asuntolainalaskuri. Accessed 2 May 2023  
<https://www.nordea.fi/henkiloasiakkaat/palvelumme/lainat/asuntolainat/mita-asuntolaina-maksaa.html#/>

Nickel, C. Koester, G & Lis, E. 2022 Inflation Developments in the Euro Area Since the Onset of the Pandemic. Accessed 13 March 2023 *Intereconomics* 57, 69–75 (2022).  
<https://doi.org/10.1007/s10272-022-1032-y>

Nieminen, K. 2022. Tieto ja trendit, Tilastokeskus. Polttonesteiden hinnat nousevat – mistä tarkempaa tietoa? Accessed 28 March 2023  
<https://www.stat.fi/tietotrendit/blogit/2022/polttonesteiden-hinnat-nousevat-mista-tarkempaa-tietoa/#:~:text=Molemmat%20kriisit%20ja%20entist%C3%A4%20tiukemmat,kysynn%C3%A4n%20ja%20supistuneen%20tarjonnan%20vuoksi.>

Oppenhimer, J. 2023. Causal Comparative Research. Accessed 28 February 2023  
<https://www.questionpro.com/blog/causal-comparative-research/#:~:text=Causal%2Dcomparative%20research%20is%20a,between%20different%20groups%20of%20people.>

Peltoniemi, A. & Varjonen, J. 2010. Elintarvikkeiden alv-alennus ja hintakehitys: Hintaseurannan tulokset ja katsaus kuluttajahintaa määrittäviin tekijöihin. Helsinki: Kuluttajatutkimuskeskus. Accessed 2 March 2023  
<http://hdl.handle.net/10138/152358>

Punainen Risti. 2022. Punainen Risti vastaa ruoka-avun tarpeen kasvuun. Accessed 28 March 2023  
<https://www.punainenristi.fi/tyomme/ruoka-apu/punainen-risti-vastaa-ruoka-avun-tarpeen-kasvuun/>

PTT. 2023. Ruuan hinnannousu hidastuu – korkea kustannustaso kurittaa yhä maataloja. Accessed 3 May 2023  
<https://www.ptt.fi/ennusteet/maa-ja-elintarviketalous-kevat-2023/>

Reuters. 2023. Ukraine says Black Sea grain initiative "at risk of being shut down". Accessed 17 April 2023

<https://www.reuters.com/article/ukraine-crisis-blacksea-corridor-idAFL8N36K2WM>

Romanova, T. 2021. Russia's political discourse on the EU's energy transition (2014–2019) and its effect on EU-Russia energy relations. *Energy Policy*, Volume 154, ISSN 0301-4215. Accessed 28 February 2023  
<https://doi.org/10.1016/j.enpol.2021.112309>

Silander, M. 2023. Kunnalliset maksut omakotitaloissa 2023. Accessed 13 March 2023  
[https://www.omakotiliitto.fi/files/10985/Kunnalliset\\_maksut\\_omakotitaloissa\\_2023.pdf](https://www.omakotiliitto.fi/files/10985/Kunnalliset_maksut_omakotitaloissa_2023.pdf)

Simola, H. 2023. Venäjän öljy- ja kaasutulot ovat supistumassa jyrkästi tänä vuonna. Accessed 28 February 2023  
<https://publications.bof.fi/bitstream/handle/10024/52613/bpb2302.pdf?sequence=1&isAllowed=y>

Suomen pankki. 2022a. Talouden näkymät synkkenevät – rahapolitiikan normalisointi etenee. Accessed 19 March 2023  
<https://www.suomenpankki.fi/globalassets/fi/media-ja-julkaisut/puheet/budjettiriihi-slides-semifinal-2--31-08-2022.pdf>

Suomen pankki. 2022b. Asuntolainoja nostettiin poikkeuksellisen vähän lokakuussa 2022 Accessed 21 March 2023  
[https://www.suomenpankki.fi/fi/Tilastot/rahalaitosten-tase-lainat-ja-talletukset-ja-korot/tiedotehistoria/2022/asuntolainoja-nostettiin-poikkeuksellisen-vahan-lokakuussa-2022/#:~:text=Uusista%20nostoista%20omistusasuntolainojen%20osuus%20oli,Asuntolainakannan%20\(107%2C7%20mrd.](https://www.suomenpankki.fi/fi/Tilastot/rahalaitosten-tase-lainat-ja-talletukset-ja-korot/tiedotehistoria/2022/asuntolainoja-nostettiin-poikkeuksellisen-vahan-lokakuussa-2022/#:~:text=Uusista%20nostoista%20omistusasuntolainojen%20osuus%20oli,Asuntolainakannan%20(107%2C7%20mrd.)

Suomen Pankki. 2023a. Euriborkorot kuukausittain. Accessed 14 March 2023  
[https://www.suomenpankki.fi/fi/Tilastot/korot/kuviot/korot\\_kuviot/euriborkorot\\_kk\\_chrt\\_fi/](https://www.suomenpankki.fi/fi/Tilastot/korot/kuviot/korot_kuviot/euriborkorot_kk_chrt_fi/)

Suomen pankki. 2023b. Opintolainoja nostettiin yhä runsaasti koronnoususta huolimatta. Accessed 29 March 2023  
[https://www.suomenpankki.fi/fi/tilastot2/tilastotiedotteet\\_fi/rahalaitosten-tase/2023/opintolainoja-nostettiin-yha-runsaasti-koronnoususta-huolimatta/](https://www.suomenpankki.fi/fi/tilastot2/tilastotiedotteet_fi/rahalaitosten-tase/2023/opintolainoja-nostettiin-yha-runsaasti-koronnoususta-huolimatta/)

Suomen pankki. 2023c. Sijoitusrahastojen pääomakanta supistui tuntuvasti vuonna 2022. Accessed 21 March 2023  
[https://www.suomenpankki.fi/fi/tilastot2/tilastotiedotteet\\_fi/historia/2023/sijoitusrahastojen-paaomakanta-supistui-tuntuvasti-vuonna-2022/](https://www.suomenpankki.fi/fi/tilastot2/tilastotiedotteet_fi/historia/2023/sijoitusrahastojen-paaomakanta-supistui-tuntuvasti-vuonna-2022/)

Suomen Pankki. 2023d. Suomen talouden väliennuste – Maaliskuu 2023. Accessed 3 March 2023. <https://www.eurojatalous.fi/fi/2023/artikkelit/talous-talviharoksessa/>

Suomen Pankki. 2023e. Kuvaus. Accessed 17 April 2023  
<https://www.suomenpankki.fi/fi/Tilastot/korot/kuvaus/>



Suomen Pankki. 2023f. Euribor rates, daily values. Accessed 2 May 2023  
[https://www.suomenpankki.fi/en/Statistics/interest-rates/charts/korot\\_kuviot/euriborkorot\\_pv\\_chrt\\_en/](https://www.suomenpankki.fi/en/Statistics/interest-rates/charts/korot_kuviot/euriborkorot_pv_chrt_en/)

Statista. 2022. Mortgage interest rate in Finland from 4th quarter 2014 to 1st quarter 2022. Accessed 26 March 2023  
<https://www.statista.com/statistics/614985/mortgage-interest-rate-finland-europe/>

Statista. 2023a. Harmonized index of consumer prices (HICP) inflation rate of the European Union from January 1997 to January 2023. Accessed 16 March 2023  
<https://www.statista.com/statistics/685943/cpi-inflation-rate-europe/>

Statista. 2023b. Inflation rate and Federal Reserve interest rate monthly in the United States from January 2018 to February 2023. Accessed 18 March 2023  
<https://www.statista.com/statistics/1312060/us-inflation-rate-federal-reserve-interest-rate-monthly/>

Statista. 2023c. Gross domestic product (GDP) in current prices in Finland from 1988 to 2028. Accessed 16 April 2023  
<https://www.statista.com/statistics/328308/gross-domestic-product-gdp-in-finland/>

S-Ryhmä. 2023. Nyt laskee ruoan hinta – S-ryhmän myymälöissä uudet halvemmat hinnat lähes 400 Xtra-tuotteelle.  
<https://s-ryhma.fi/uutinen/nyt-laskee-ruoan-hinta-s-ryhman-myymaloissa-uudet-4nHnt50xtAnCE90h7koW7F>

Tilastokeskus. 2019. <https://www.stat.fi/tietotrendit/> Työllisyysaste mittaa työllisten osuutta väestöstä – ei enempää, ei vähempää. Accessed 22 April 2023  
[blogit/2019/tyollisyysaste-mittaa-tyollisten-osuutta-vaestosta-ei-enempaa-ei-vahempaa/](https://www.stat.fi/tietotrendit/2019/tyollisyysaste-mittaa-tyollisten-osuutta-vaestosta-ei-enempaa-ei-vahempaa/)

Tilastokeskus. 2020. Työajan kirjaaminen itse on yleistä palkansaajilla. Accessed 10 April 2023  
[https://www.stat.fi/til/tyti/2019/17/tyti\\_2019\\_17\\_2020-08-31\\_tie\\_001\\_fi.html](https://www.stat.fi/til/tyti/2019/17/tyti_2019_17_2020-08-31_tie_001_fi.html)

Tilastokeskus. 2022a. Inflaatio kiihtyy edelleen Suomessa – ja globaalisti. Accessed 18 March 2023  
<https://www.stat.fi/uutinen/Inflaatio-kiihtyy-edelleen-Suomessa-ja-globaalisti>

Tilastokeskus. 2022b. Talouden tilannekuva on nyt hämärä: vetääkö yksityinen kulutus talouden laskuun? Accessed 28 March 2023  
<https://www.sttinfo.fi/tiedote/talouden-tilannekuva-on-nyt-hamara-vetaako-yksityinen-kulutus-talouden-laskuun?publisherId=69818838&releaseId=69951442>

Tilastokeskus. 2022c. Bruttokansatuote kääntyi heinä-syyskuussa laskuun – yksityinen kulutus väheni. Accessed 29 March 2023  
<https://www.stat.fi/uutinen/bruttokansatuote-kaantyi-heina-syyskuussa-laskuun-yksityinen-kulutus-vaheni>

Tilastokeskus. 2022d. Bruttokansantuote pieneni kolmannella vuosineljänneksellä viennin ja investointien kasvusta huolimatta. Accessed 29 March 2023  
<https://stat.fi/julkaisu/cktvf5pqqo21ff0b55o7s09jdn>

Tilastokeskus. 2022e. Kuluttajien luottamus pysyi synkissä lukemissa lokakuussa. Accessed 30 March 2023  
<https://stat.fi/julkaisu/ckta4y2xs7er70b56ckf7kdex>

Tilastokeskus. 2022f. Laatuseloste: Kuluttajahintaindeksi. Accessed 11 April 2023  
[https://www.stat.fi/til/khi/2022/01/khi\\_2022\\_01\\_2022-02-18\\_laa\\_001\\_fi.html](https://www.stat.fi/til/khi/2022/01/khi_2022_01_2022-02-18_laa_001_fi.html)

Tilastokeskus. 2023a. Kuluttajahintaindeksi. Accessed 15 March 2023  
<https://www.stat.fi/meta/til/khi.html>

Tilastokeskus. 2023b. Hinnat ja kulutus. Accessed 20 March 2023  
[https://www.tilastokeskus.fi/tup/suoluk/suoluk\\_hinnat.html](https://www.tilastokeskus.fi/tup/suoluk/suoluk_hinnat.html)

Tilastokeskus. 2023c. Average prices of liquid fuels, monthly data. Accessed 28 March 2023  
[https://pxweb2.stat.fi/PxWeb/pxweb/en/StatFin/StatFin\\_\\_khi/statfin\\_khi\\_pxt\\_11xx.px/chart/chartViewLine/](https://pxweb2.stat.fi/PxWeb/pxweb/en/StatFin/StatFin__khi/statfin_khi_pxt_11xx.px/chart/chartViewLine/)

Tilastokeskus. 2023d. 11cc -- Kuluttajien luottamus: Saldolukujen ja vastausjakaumien aikasarjat. Accessed 30 March 2023  
[https://pxdata.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin\\_\\_kbar/statfin\\_kbar\\_pxt\\_11cc.px/chart/chartViewLine/](https://pxdata.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin__kbar/statfin_kbar_pxt_11cc.px/chart/chartViewLine/)

Tilastokeskus. 2023e. Kuluttajien luottamus. Accessed 30 March 2023  
<https://www.stat.fi/tilasto/kbar>

Tilastokeskus. 2023f. Kuluttajien luottamus hyvin heikkoa – hidas nousu jatkui maaliskuussa 2023. Accessed 30 March 2023  
<https://stat.fi/julkaisu/cl7q2erok3n7s0cw3gb0fjykc>

Tilastokeskus. 2023g. Maatalouden tuotantopanosten hinnat jatkoivat nousussa vuoden 2022 viimeisellä neljänneksellä. Accessed 26 March 2023  
<https://www.stat.fi/julkaisu/cl7rfnijrde110bvzgiqsixw8>

Tilastokeskus. 2023h. Kuluttajahintaindeksi, polttonesteiden keskihintoja, kuukausitiedot, 2002M01-2023M03. Accessed 10 April 2023  
[https://statfin.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin\\_\\_khi/statfin\\_khi\\_pxt\\_11xx.px/table/tableViewLayout1/](https://statfin.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin__khi/statfin_khi_pxt_11xx.px/table/tableViewLayout1/)

Tilastokeskus. 2023i. Kansantalous. Accessed 16 April 2023

[https://www.stat.fi/tup/suoluk/suoluk\\_kansantalous.html](https://www.stat.fi/tup/suoluk/suoluk_kansantalous.html)

Tilastokeskus. 2023j. Kuluttajahintaindeksi (2015=100), kuukausitiedot, 2015M01-2023M03. Accessed 17 April 2023.

[https://pxdata.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin\\_\\_khi/statfin\\_khi\\_pxt\\_11xb.px/](https://pxdata.stat.fi/PxWeb/pxweb/fi/StatFin/StatFin__khi/statfin_khi_pxt_11xb.px/)

The World Bank. 2023. Finland. Accessed 16 April 2023

<https://data.worldbank.org/country/FI>

Valtioneuvosto. 2023a. Energiatilanne ja sähkötuot. Accessed 2 March 2023

<https://valtioneuvosto.fi/sahkotuet>

Valtioneuvosto. 2023b. Hallitus vahvisti vuoden 2023 keskeiset kansalliset maataloustuet. Accessed 7 April 2023

<https://valtioneuvosto.fi/-/1410837/hallitus-vahvisti-vuoden-2023-keskeiset-kansalliset-maataloustuet>

United Nations. 2023a. Vessel Movements. Accessed 13 April 2023

<https://www.un.org/en/black-sea-grain-initiative/vessel-movements>

United Nations. 2023b. Human Development Insights. Accessed 16 April 2023

<https://hdr.undp.org/data-center/country-insights#/ranks>

Valtiovarainministeriö. 2022. Talouskatsaus. Accessed 3 April 2023

[https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164334/VM\\_2022\\_58.pdf?sequence=7](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164334/VM_2022_58.pdf?sequence=7)

Valtionvarainministeriö. 2022b Tilannekuva: Energian hinnan nousu painaa yritysten kannattavuutta ja lisää riskejä, vaikka talous- ja työllisyystilanne on vielä suhteellisen hyvä. Accessed 1 May 2023.

<https://valtioneuvosto.fi/-/1410877/tilannekuva-energian-hinnan-nousu-painaa-yritysten-kannattavuutta-ja-lisaa-riskeja-vaikka-talous-ja-tyollisyystilanne-on-viela-suhteellisen-hyva>

Verkkokauppa.com. 2023. Tulosvaroitus. Accessed 19 March 2023

<https://investors.verkkokauppa.com/fi/releases/2022/stock-exchange/2612116>

Virtanen, J. 2023. Maailman epävakaus huolestuttaa lapsia – huonoa oloa puretaan Suomen suurimmassa lasten chatissa. Accessed 19 March 2023


<https://www.sos-lapsikyla.fi/blog/2023/03/17/maailman-epavakaas-huolestuttaa-lapsia-huonoa-oloa-puretaan-suomen-suurimmassa-lasten-chatissa/>

## APPENDIXES

### Survey Sample



### Opinnäytetyökysely

 Pakolliset kysymykset merkitty tähdellä (\*)

Nousevat elinkustannukset ja niiden vaikutus suomalaisiin.

Nousevien elinkustannuksien vaikutus suomalaisiin on ajankohtainen ja moniin vaikuttava ilmiö, tämä kysely on luotu kartoittamaan vapaaehtoisten vastaajien mielipiteitä siitä mitä vaikutuksia arkeen sillä on ollut.

Tämä kysely on osa Lapin ammattikorkeakoulututkinnon opinnäytetyötä. Kyselyn tuloksia tullaan käyttämään vain opinnäytetyössä, ja tuloksien avulla pyritään ymmärtämään paremmin suomalaisten mielipiteitä tilastojen ulkopuolella. Kysely pysyy täysin anonyyminä ja vastaaminen on vapaaehtoista. Yksittäistä vastaajaa ei voi tunnistaa vastauksista. Kysely on avoinna

tunnistaa vastauksista. Kysely on avoinna  
31.3.2023 asti.

Jos sinulla herää kysymyksiä kyselystä tai sen  
tuloksista, voit ottaa yhteyttä meihin  
lähettämällä sähköpostia osoitteeseen  
jertta.vaarakoski@edu.lapinamk.fi tai  
aki.haapajoki@edu.lapinamk.fi

Kiitos jos valitset käyttää hetken ajastasi  
kyselyyn osallistumiseen!

### 1. Sukupuoli \*

- Nainen  
 Mies  
 Muu  
 En halua kertoa

### 2. Ikä? \*



### 3. Status \*

- Opiskelija
- Työtön
- Työllinen
- Eläkeläinen

Seuraava

4. Oletko huomannut elinkustannusten nousun päivittäisessä elämässä?

\*

Vähän/ei ollenkaan vaikutusta

- En ole huomannut
- En ole kiinnittänyt huomiota
- Olen huomannut jonkin verran
- Olen huomannut monissa asioissa
- Olen huomannut kaikissa asioissa

Erittäin paljon vaikutusta

5. Missä seuraavista olet huomannut nousseet kustannukset? (Valitse kyseiset)

\*

- Ruoka
- Sähkö
- Kaasu
- Polttoaine

Polttoaine Korot Vakuutukset Muu En ole huomannut

6. Kuinka paljon elinkustannusten nousu on vaikuttanut elämääsi?

\*

Ei ole vaikuttanut ollenkaan

 Ei ollenkaan En ole huomannut



- En ole huomannut
  - Jonkin verran
  - On vaikuttanut paljon
- On vaikuttanut paljon

7. Onko hintojen nousu aiheuttanut henkistä elämänlaadun heikkenemistä? (alakuloisuutta, ahdistusta tms.)

\*

Ei ole aiheuttanut

- Ei ole aiheuttanut
- En osaa sanoa
- Jonkin verran
- On aiheuttanut erittäin paljon

8. Ovatko tulosi nousseet viimeisen 2 vuoden aikana? (tuet tai palkka) \*

- Eivät ole nousseet
- Ovat nousseet, mutta eivät samassa suhteessa elinkustannusten kanssa
- Ovat nousseet, samassa suhteessa elinkustannusten kanssa
- Ovat nousseet, enemmän kuin elinkustannukset

9. Minkä päivittäisen kulun nousemisesta olet eniten huolissasi? (valitse 1/tärkein) \*

- Ruoka
- Sähkö
- Kaasu
- Polttoaine
- Korot
- Vakuutukset
- En ole huolissani

En ole huolissani

Muu

10. Minulle on jäänyt vähemmän rahaa seuraaviin asioihin nousseiden elinkustannusten takia? (valitse kyseiset)

\*

Harrastuksissa käyminen

Autoilu

Lomailu

- Saunominen
- Laadukas ruoka
- Sijoittamiseen
- Säästämiseen
- Muu

11. Kuka/mikä on nousevien elinkustannuksien takana omasta mielestäsi?

12. Mitä toivot että hallitus tekisi auttaaksesi sinua nousevien kuluerien kanssa? (esim. alennettu arvonlisävero tai tukipaketit, kuten sähkötuki)

13. Miten hintojen nousu on näkynyt arjessa, kerro halutessasi lisää, tai kerro lisätietoja johonkin kysymykseen.