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FACULTY OF ECONOMICS AND ADMINISTRATION

**Exploring the Impact of
Rising Cost of Living in
2022 on the Welfare
System and Low-
Income Households**

Master's thesis

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EXPLORING THE IMPACT OF RISING COST OF LIVING IN 2022 ON THE WELFARE SYSTEM AND LOW-INCOME HOUSEHOLDS

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Abstract

In 2022, the Czech Republic faced a significant economic shock characterized by a cost-of-living crisis. The aim of this thesis is to investigate whether the increase in household expenditures in 2022 leads to a greater use of social assistance and whether social policies address the rising cost of living for low-income households. The findings show that although households' income has increased, their subjective financial well-being has deteriorated. In addition, the cost-of-living crisis has led to a higher use of social assistance, highlighting the role of the social welfare system in mitigating risks.

Declaration

I confirm that I have independently written a Master's Thesis on the topic of Exploring the Impact of Rising Cost of Living in 2022 on the Welfare System and Low-Income Households under the supervision of prof. Mgr. Martin Guzi, Ph.D., and prof. Daniele Bondonio, Ph.D. I have cited all the relevant literature and professional sources used in my thesis following the legal and internal regulations of Masaryk University and the Faculty of Economics and Administration.

Brno June 17, 2024

.....
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Glossary

CEZ	– Czech Energy Plants
CPI	– Consumer Price Index
CR	– Czech Republic
CZSO	– Czech Statistical Office
DLUHC	– Department for Levelling UP, Housing and Communities
EBSS	– Energy Bills Support Scheme
EPG	– Energy Price Guarantee
EU	– European Union
EU-SILC	– European Union on Income and Living Conditions
GDP	– Gross domestic product
HALL	– Housing allowance
HH	– Household
HICP	– Harmonised Index of Consumer Prices
IEA	– International Energy Agency
IMF	– International Monetary Fund
ISEE	– Indicator of equivalent economic situation
MFCR	– Ministry of Finance of Czech Republic
MPO	– Ministry of Industry and Trade
MPSV	– Ministry of Labour and Social Affairs
pp	– percentage points
SEL	– Socially excluded locality
SILC	– Statistics on income and living conditions
UK	– United Kingdom
WEF	– World Economic Forum

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1 Introduction

The year 2022 was marked by a significant economic shock. There was a notable increase in the cost of living, also referred to as a cost-of-living crisis (WEF, 2023). The cost-of-living crisis was driven by several factors, including an energy crisis, geopolitical tensions, and the ongoing war in Ukraine. The resultant increase in prices of basic necessities has particularly affected low-income households. These households allocate a larger share of their income to basic necessities such as housing, energy, and food. Consequently, households became more vulnerable.

The average inflation rate in 2022 reached 15.1% (compared to 3.8% in 2021), marking the second-highest rate since establishing the independent Czech Republic (CZSO, 2023a). The inflation reduced the purchasing power of households, potentially causing low-income households to adjust their consumption patterns. Additionally, the inflation surge placed additional strain on the welfare system. Benefits provided under social programs, typically adjusted based on lower past inflation rates, lagged behind the rapid price increases of 2022, reducing their real value and effectiveness. As a result, welfare systems had to either adjust existing benefits or introduce new benefits to help households cope with the cost-of-living crisis.

This thesis aims to examine the impact of the cost-of-living crisis in 2022, focusing on low-income households. I aim to assess the effectiveness of the welfare system in supporting households and to determine whether the increase in household expenditures in 2022 leads to a higher use of social assistance. To this end, I assess how the cost-of-living crisis is reflected in households' financial stability and living standards. I analyze changes in their spending behaviour, debt accumulation and ability to meet basic needs. Based on this analysis, I evaluate the resilience and efficiency of welfare systems.

Understanding the cost-of-living crisis in 2022 is relevant for the following reasons. First, highlight the severity of the financial burden on households and the need for targeted interventions. Second, assessing the effectiveness of the welfare system in mitigating the cost-of-living crisis provides critical insights into its efficiency and adequacy. Third, analyzing changes in household spending behaviour due to increased living costs reveals patterns that can influence future economic support and assistance programs. Fourth, evaluating the ability of households to meet

basic needs during the cost-of-living crisis underscores the importance of effective social safety nets and support systems. Finally, the research findings can help policymakers create stronger social safety nets to support people in need during economic pressures.

In the thesis I use the *Statistics on Income and Living Conditions* (SILC) data for the Czech Republic. These data provide information on household income and living conditions. The analysis findings are expected to demonstrate that the cost-of-living crisis has significantly strained the financial stability of low-income households, leading to increased reliance on the welfare system.

The thesis is structured into eight chapters. The first chapter serves as an introduction to the thesis, clarifying the issues under discussion. The second chapter focuses on the development of the welfare state and discusses the responses of various states to the cost-of-living crisis in 2022. The third chapter focuses on the Czech welfare system, outlining the social benefits available to households and the system's response to the cost-of-living crisis. The fourth chapter presents an overview of the current literature on household living situations in the Czech Republic in 2022. Chapter five explains the data and establishes the research hypotheses for the subsequent empirical analysis. The sixth chapter conducts an empirical analysis of income and expenses, offering a descriptive analysis of housing affordability, income trends, and expenses across different income quintiles. In the seventh chapter, I summarize the findings of the analysis. The eighth chapter is the conclusion. Together, these chapters compose a comprehensive analysis addressing the pressing issue of the cost-of-living crisis and its effects on households in the Czech Republic.

2 Welfare states: from historical evolution to comparative analysis

Welfare states are built on the principles of social justice and aim to provide a safety net for their citizens when needed (Greve, 2022). This chapter discusses the historical context, addressability and universality of welfare provision and challenges for welfare states in the dynamically evolving economy, especially during the cost-of-living crisis in 2022.

Welfare states have evolved and transformed over time. Prominent figures such as Otto von Bismarck, William Beveridge, and John Maynard Keynes are connected with the origins of the welfare state (Greve, 2022). In the 1880s, Chancellor Otto von Bismarck introduced some of the earliest social welfare programs. Several European countries, particularly in continental Europe, have adopted the Bismarck welfare program. This program aims to provide social insurance schemes for sickness, accidents, and old-age pensions. William Beveridge, a British economist and social reformer, is known for his influential report, the Beveridge Report, which was published in 1942. The report identified “five giants” - want, disease, ignorance, squalor, and idleness - as the main problems to be addressed by the state through social insurance (Greve, 2022, p. 15). Beveridge proposed that contributions from both employers and workers could fund social insurance that would provide benefits such as sickness benefits, unemployment insurance, and pensions. The Beveridge welfare state aimed to provide universal coverage and promote social solidarity and equality. The model significantly impacted the development of welfare states globally, especially after the Second World War. Additionally, the Keynesian approach suggests that the government should take an active role in providing social safety nets, such as unemployment benefits and public healthcare, to support citizens during economic downturns and to ensure a fair distribution of resources.

During the 20th century, these welfare states were established to provide social protection and promote the well-being of citizens. To finance these programs, a combination of progressive taxation (Keynes) and social contributions (Bismarck) from workers and employers was

implemented (Morel, Palier, & Palme, 2012). Today, welfare states continue to respond to economic challenges, social risks, and changing ideas (Greve, 2022; Ocampo & Stiglitz, 2018).

Welfare states can be divided into welfare regimes. Esping-Andersen (1990) identifies four regimes: the Scandinavian or social democratic, the Anglo-Saxon or liberal, the continental or conservative, and the Mediterranean regime. These regimes are based on these key concepts: de-commodification, social stratification, and the role of the family, the market and the state and their interaction (i.e., the welfare mix) (Greve, 2022). Moreover, Eastern European countries have undergone a significant transformation. Traditionally, these countries were not categorized within established welfare regimes. However, they have now developed hybrid welfare systems that combine features of the previously established regimes. These hybrid systems combine continental social insurance, communist egalitarianism and liberal market orientation (Ocampo & Stiglitz, 2018).

The typology of welfare regimes provides insights into the differences between welfare states. We distinguish between more generous and universal (social democratic) welfare states and targeted (liberal) welfare states. According to Ocampo and Stiglitz (2018), welfare states differ in their ability to adapt to changes in socioeconomic circumstances. For instance, continental welfare states are less responsive to changes (Ocampo & Stiglitz, 2018). Welfare regimes are also characterized by the level of economic and gender redistribution and inequality. (Greve, 2022). The Scandinavian welfare regime has lower levels of inequality and poverty, while liberal welfare regimes exhibit higher levels of both (Ocampo & Stiglitz, 2018). The welfare systems in the EU reduce income inequality as measured by the Gini index by around 20 points, with the effect varying from 11 points in Cyprus to 26.5 points in Belgium (Avram, Levy & Sutherland, 2014). Several countries, including Belgium, Ireland, France, Germany, and the Czech Republic, have tax-benefit systems that effectively reduce inequality. In contrast, tax-benefit systems in Cyprus, Malta, Bulgaria, Latvia, and Lithuania have a less significant impact in reducing inequality (i.e., a smaller redistributive effect).

Table 2.1 Characteristics of welfare regimes

	Countries	Financing	Benefits
Social democratic	Denmark, Finland, Norway, Sweden	Taxation	Universal
Conservative	Austria, Belgium, France, Germany, Luxembourg	Social insurance contributions	Earnings/Contributions related
Liberal	Ireland, United Kingdom	Taxation	Means-tested
Mediterranean	Greece, Spain, Italy, Portugal	Contributions and taxes	Earnings/Contributions related
Eastern European countries	Czech Republic, Poland, Hungary, Slovakia	Social insurance contributions	Universal and means-tested

Source: Author based on Ocampo and Stiglitz, 2018

2.1 Welfare states and their approach to the cost-of-living crisis in 2022

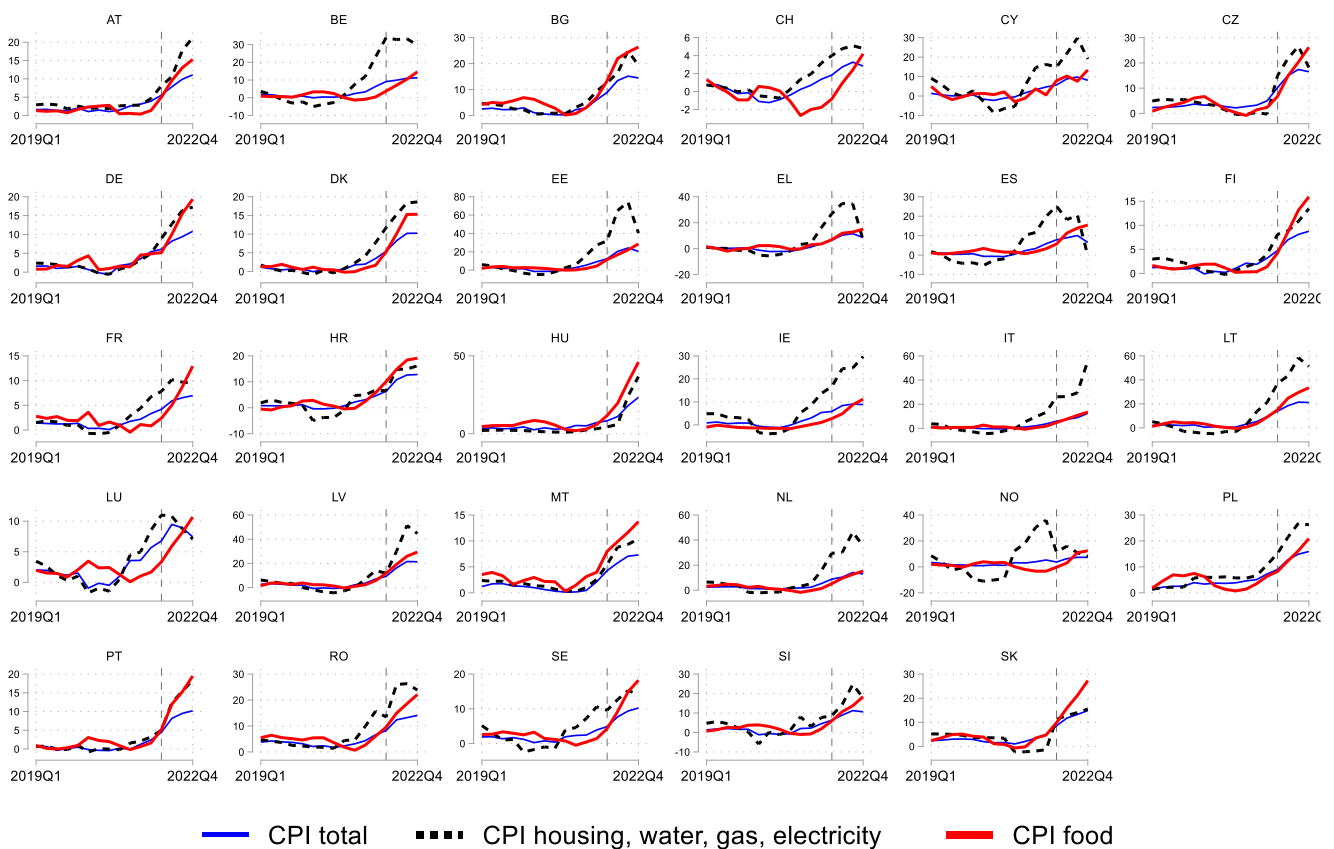
The world and welfare states always face certain risks. In 2022, these risks include the cost-of-living crisis caused by rising prices and the energy crisis. The cost-of-living crisis is the most serious short-term global risk by 2025, according to the World Economic Forum (WEF, 2023). It disproportionately impacts the most vulnerable households and contributes to a surge in poverty and inequality (WEF, 2023). In this situation, the welfare state has an essential role to play in protecting households. Understanding the differences between various welfare regimes, their approach to providing benefits, and their ability to adapt to change can help us understand how different societies tackle various challenges, including the cost-of-living crisis.

The inflation data from 2019 to 2022 shows a significant increase across the selected European countries (Figure 2.1). This period includes

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major economic events such as the COVID-19 pandemic and as well as a cost-of-living crisis, both of which have notably impacted consumer prices and inflation trends. The Consumer Price Index (CPI) has shown an increasing trend in most countries, signifying a rise in overall consumer prices during this period. Prices have notably increased in the housing, water, gas, electricity, and food categories.

Figure 2.1 Changes in CPI for selected countries from 2019 to 2022



Source: Own elaboration based on Eurostat, 2024

In response to the cost-of-living crisis, governments have either introduced new policies or adjusted existing ones. Some governments have provided benefits for all households, while others have introduced targeted benefits for low-income households. Below, I discuss the policies

through which welfare states mitigate the cost-of-living crisis (refer to Table 2.2).

The Scandinavian (social democratic) welfare system emphasises the importance of providing citizens with a decent standard of living through government intervention. Denmark is an example of a welfare system oriented toward vulnerable households. Targeted welfare systems allocate resources more effectively, ultimately minimizing socioeconomic disparities (Morel et al., 2012). In 2022, Denmark implemented policy measures to assist households to cope with increasing energy prices. The government introduced several social bonuses targeted to seniors, students, and low-income groups. For example, a means-tested¹ *heat cheque* bonus of DKK 6,000 (EUR² 807), exclusive of tax, was automatically paid in August 2022 to households with a total income in 2020 below DKK 650,000 (EUR 87,407). Around 400,000 households received this bonus (Energistyrelsen, 2022). Additionally, the government implemented a policy program to keep gas, electricity, and district heating costs under the defined price ceiling, specifically targeting vulnerable households (European Commission, 2023a).

Italy is another example of the targeted policy. To assist vulnerable households, the Italian government implemented various measures. One such measure is a *bonus of 200*. This one-off subsidy helps cope with the rise in prices of all goods, not only energy. To qualify for this subsidy, individuals must have a total gross income for the 2021 tax year below EUR 35,000. For those whose total gross income was EUR 20,000 or less, the bonus was increased by an additional 150 euros. The allowance was directly credited to the July 2022 paychecks of employees and retirees (Insurance Italy, 2022). Additionally, electricity and gas bills were discounted for low-income customers through the *electricity and gas social bonuses*. The electricity bonus amounted to approximately a 30% discount on an average household's electricity expenses, while the gas

¹ Income and wealth are used to assess eligibility for these benefits, determining either entitlement alone or both entitlement and the amount received (Eurostat, 2020).

² All calculations to EUR in this thesis are converted at the exchange rate as of 31.12.2022 (European Central Bank, n.d.).

bonus offered a 15% discount on average gas costs. Low-income households are identified based on the indicator of equivalent economic situation (ISEE³). The limit for receiving these bonuses was increased in 2022 to EUR 12,000 (IEA, 2023). According to Simone and Pianta (2023), the average rise in living expenses would have been doubled without government initiatives, while it increased by 5.4% on average. The poorest households' spending in the first decile would have increased by 15.1% due to inflation, but it only increased by 4.8% due to the government's support measures. These results indicate that the targeted policy significantly reduced the regressive effect of inflation. In addition, the government's interventions managed to counteract around 70% of the rise in purchasing power inequality caused by inflation, as measured by the Gini index (Simone & Pianta, 2022).

The United Kingdom (UK) is an example of the liberal welfare model combining targeted and universal measures. The UK government has provided benefits to all households in Scotland, Wales and Northern Ireland, but the poorest households benefited the most. The benefits increased the annual disposable income of the lowest-income households (first decile) in the regions by about 19.2%. This increase amounted to an average of GBP 2,297 (EUR 2,590), corresponding to the net income for the next two months. The average household gained approximately GBP 1,865 (EUR 2,103). This corresponds to a support of approximately 6.6% of annual disposable income (DLUHC, 2023). The following measures have been adopted in 2022 in Great Britain. The *Energy Price Guarantee (EPG)* provided a discount to all households with a gas and electricity supply contract. This discount on the unit rate was up to 34 p/kWh (0,38 EUR/kWh) for electricity and 10 p/kWh (0,11 EUR/kWh) for gas in the period October 2022-March 2023 (National Audit Office, 2023). This ensures that the typical UK household pays an average of

³ “The ISEE is the indicator used to assess and compare the economic situation of households intending to apply for subsidised social benefits. Access to these benefits, indeed, as well as to public utility services under favourable conditions (land-line telephone, electricity, gas, etc.), is linked to the possession of specific subjective requirements and the economic situation of the family.” (Ministero del Lavoro e delle Politiche Sociali, n.d.).

GBP 2,500 (EUR 2,819) per year for energy (UK Government, 2023). Another policy to help all households is the *Energy Bills Support Scheme (EBSS)*, which provides a total discount on energy bills of GBP 400 (EUR 451). Thus, between October 2022 and March 2023, suppliers reduced the amount charged on every household's electricity bill by GBP 66 or GBP 67 per month (National Audit Office, 2023).

In Germany, a one-off *energy lump sum* of EUR 300 was given to all employed individuals and pensioners, while other groups, such as those receiving social assistance, received EUR 200 (European Commission, 2023b). This payment was made in September 2022 for employees and in December 2022 for pensioners and students. The energy lump sum is also subject to income tax (German Taxes, 2022). In addition, individuals who received at least one month of housing allowance (*Wohngeld*) between October 2021 and March 2022 were eligible for a one-off *heating cost subsidy*. The subsidy amount was EUR 270 for single individuals. Additionally, an extra EUR 70 was provided for each additional person in the household. Students and trainees were also entitled to this one-off heating subsidy amounting to EUR 230. This subsidy was provided to those students who lived independently of their parents and were already receiving *BAföG* (education loan) or education allowances. The one-off heating cost subsidy was paid out automatically between June and October 2022 (Bundesregierung, 2022).

Many European governments are providing special financial aid to households who were already receiving means-tested benefits. This provides targeted assistance to already vulnerable households until social benefits are adjusted for rising living costs in 2022. The International Monetary Fund (IMF) in 2022 reports that this temporary assistance is effective and can be provided at a low administrative cost. This is done through existing social safety nets and guaranteed minimum income programmes. In addition, to compensate for the increased energy prices, countries like France and Poland have issued means-tested vouchers.

The most efficient use of public budgets is reached when the government distributes benefits to those requiring them the most. IMF (2022) estimates that the bottom 20% of households are compensated

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for the rise in prices during 2021-2022 at an average cost of 0.4% of GDP, with variations across countries. The Czech Republic, Estonia, Greece, the Netherlands, and the UK would need funding exceeding 0.5% of GDP to completely offset price increases for the bottom 20% of households. In contrast, Finland, France, Hungary, Ireland, and Sweden would require less than 0.2% of GDP to achieve the same compensation for households in this category. It is worth noting that extending support to wealthier households increases the support cost, even though the actual support for higher-income households is lower.

Table 2.2 Overview of support provided to households during the cost-of-living crisis

Country	Bonus name	Amount	Time Period	Eligibility criteria
Denmark	Heat cheque	6,000 DKK (807€) (exclusive of tax)	August 2022	Household total income in 2020 below DKK 650,000 (87,407 €)
Italy	Electricity and gas bonus	30% discount for electricity, 15% discount for gas	April 2022 - December 2022	Household, ISEE below 12,000 €/20,000€/ Pension.
	Bonus 200 €	200€ or 350€	July 2022	Gross income in 2021 below 35.000€ or 20.000€
UK	EPG	Discount on the unit rate 0.38 €/kWh for electricity and 0.11 €/kWh for gas	October 2022 - March 2024	All households with contracts with energy suppliers
	EBSS	£400 discount on energy bills	October 2022 - March 2023	All households with domestic electricity connection in the UK
Germany	Energy lump sum (one-off)	300€ or 200€ (subject to income tax)	September /December 2022	All residents of Germany
	Heating cost subsidy (one-off)	270 € (individuals) + 70 € each additional person in household	June - October 2022	Individuals who received at least 1 month of housing allowance in October

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				2021 - March 2022
		230 €		Students with education allow- ances or educa- tion loan

Source: Own elaboration based on the literature review in Chapter 2

Table 2.2 shows that selected countries provided special benefits to support households in the second half of 2022. In that period, the average inflation of the EU-27 countries was around 8% (Eurostat, 2024). Benefits provided by countries were targeted at low-income households; others were provided to all households regardless of their income. Certain bonuses were subject to income tax. The fact that social bonuses were subject to income tax may have a smaller impact on low-income families, as they have a lower overall tax liability. On the other hand, high-income families will experience a larger reduction in the net bonus amount due to their higher tax rates in some countries.

3 Czech system of social support

In this chapter, I explore the importance of welfare benefits for households in the Czech Republic. Firstly, I review the benefits provided through the State social support system and the change in these benefits during 2022. Then, I focus on the special support given to households during the cost-of-living crisis. Finally, I take a look at the expenses of the State social support system.

The Czech welfare system consists of three pillars. Each of these pillars addresses specific situations and is financed differently. The first pillar is *Social insurance*, which consists of pension insurance, sickness insurance and a contribution to state employment policy. Social insurance provides benefits for old age, loss of income, invalidity or sickness (MPSV, n.d.). The second pillar is the *State social support*. The benefits of this pillar are intended for low-income households and address situations related primarily to family care. State social support benefits are divided into means-tested (provided depending on the amount of income) benefits such as child allowance, housing allowance, birth grant and non-tested benefits (parental allowance, funeral grant) (MPSV, 2023a). The third pillar is *Social assistance*, which is a form of help for people with insufficient income. It is provided to citizens to meet their basic needs. Assistance in material need, foster care benefits and assistance to the severely disabled are provided through this system (MPSV, 2023b). I focus on the benefits of the State social support system.

3.1 Social Benefits supporting households in 2021

In the Czech Republic, the State Social Support System (amended by Act No. 117/1995 Coll.) provides targeted assistance to families with children or households and individuals with low incomes (MPSV, 2023a). Different types of social support benefits are available to households in need:

Families with dependent children⁴ may be entitled to a *child allowance*. The allowance is means-tested, meaning families whose income

⁴ Act No. 117/1995 Coll. (Act on State Social Support) considers a child who has not completed compulsory schooling or is continuously preparing for a future profession by studying up to the age of 26 to be a dependent child.

does not exceed 3.4 times the family's living minimums are entitled to it. Prior to July 2021, it was 2.7 times the living minimum. In July 2021, after eight years, the amount of child allowance also increased (see Table 3.1) (CZSO, 2023b). The family income in the previous quarter is considered when assessing eligibility. This allowance can be claimed for children from birth to 18 years of age and up to 26 years of age if the child is studying. The allowance increases with the child's age. In addition, the amount of the allowance may be basic and increased. The increased amount is allocated if someone in the family receives income from employment or certain benefits⁵ (MPSV, 2023c).

Table 3.1 Monthly amount of child allowance

The age of dependent child	Benefit paid from July 2021	
	basic	increased
0-5	630 CZK	1,130 CZK
6-14	770 CZK	1,270 CZK
15-26	880 CZK	1,380 CZK

Source: CZSO, 2023b

The living minimum is a “socially recognized minimum level of income to ensure sustenance and other basic personal needs” (MPSV, 2023d). The living minimum of a household is the sum of the living minimums of the members of the household. The government increased living minimum amounts by 10.1%⁶ from April 2022 and then by 8.8%⁷ from July 2022 (see Table 3.2).

⁵ Sickness insurance benefits, pension insurance benefits, unemployment support, re-training support, care allowance for persons under 18 years of age, and parental allowance (MPSV, 2023c).

⁶ Own calculation based on Government Regulation No. 61/2020 Coll. and Government Regulation No. 75/2022.

⁷ Own calculation based on the Government Regulation No. 204/2022 Coll.

Table 3.2 Living minimum amounts in CZK per month in 2022

	January - March	April - June	July - December
Single person household	3,860	4,250	4,620
Multi-person households:			
- first person	3,550	3,910	4,250
-another person	3,200	3,530	3,840
-dependent child:			
up to 5 years	1,970	2,170	2,360
6 - 14 years	2,420	2,670	2,900
15 - 25 years	2,770	3,050	3,320

Source: Own elaboration based on the data from Government Regulation No. 61/2020 Coll.; Government Regulation No. 75/2022; Government Regulation No. 204/2022 Coll.

Parents who take parental leave to care for their young children full-time can benefit from a *parental allowance*. This allowance can be claimed until the child reaches the age of 4, with a maximum amount of CZK 300,000 (EUR 12,400) available from 2020 onwards. For twins or multiple youngest children, the allowance is even higher (MPSV, 2023a). Before 2020, the allowance was set at CZK 220,000 (EUR 9,100) or CZK 330,000 (EUR 14,000) for multiple births (CZSO,2023b)

The low-income households are eligible for *housing allowance*. This allowance is offered to individuals or families with difficulties paying for housing costs. A household (HH) is eligible for housing allowance if its housing costs exceed 30% of the household's income and 30% of the family's income does not exceed the amount of the prescriptive housing costs (see Tables 3.3 and 3.4). These prescriptive costs are determined based on the size of the municipality and the number of household members.

The housing allowance amount is calculated as the difference between prescriptive housing costs and household income, multiplied by a coefficient of 0.30. If the real housing costs are lower than the prescriptive cost of housing, the allowance amount is the difference between these real housing costs and the household's income multiplied by a coefficient of 0.30 (MPSV, 2023e).

Table 3.3 Prescriptive housing costs for rental apartments valid from October 2022 to December 2022 (in CZK)

The number of people in the HH	Number of inhabitants of the municipality				
	Prague	over 100 000	50 000 - 99 999	10 000 - 49 999	up to 9 999
one	13,501	11,651	11,315	10,309	10,126
two	16,999	14,467	14,007	12,631	12,380
three	19,205	15,893	15,292	13,492	13,164
four and more	23,021	19,028	18,303	16,132	15,737

Source: Author based on Government Regulation No. 289/2022 Coll.

Table 3.4 Prescriptive housing costs for cooperative and owners' apartments valid from October 2022 to December 2022 (in CZK)

The number of people in the HH	In all types of municipalities
one	7,552
two	9,213
three	11,828
four and more	14,221

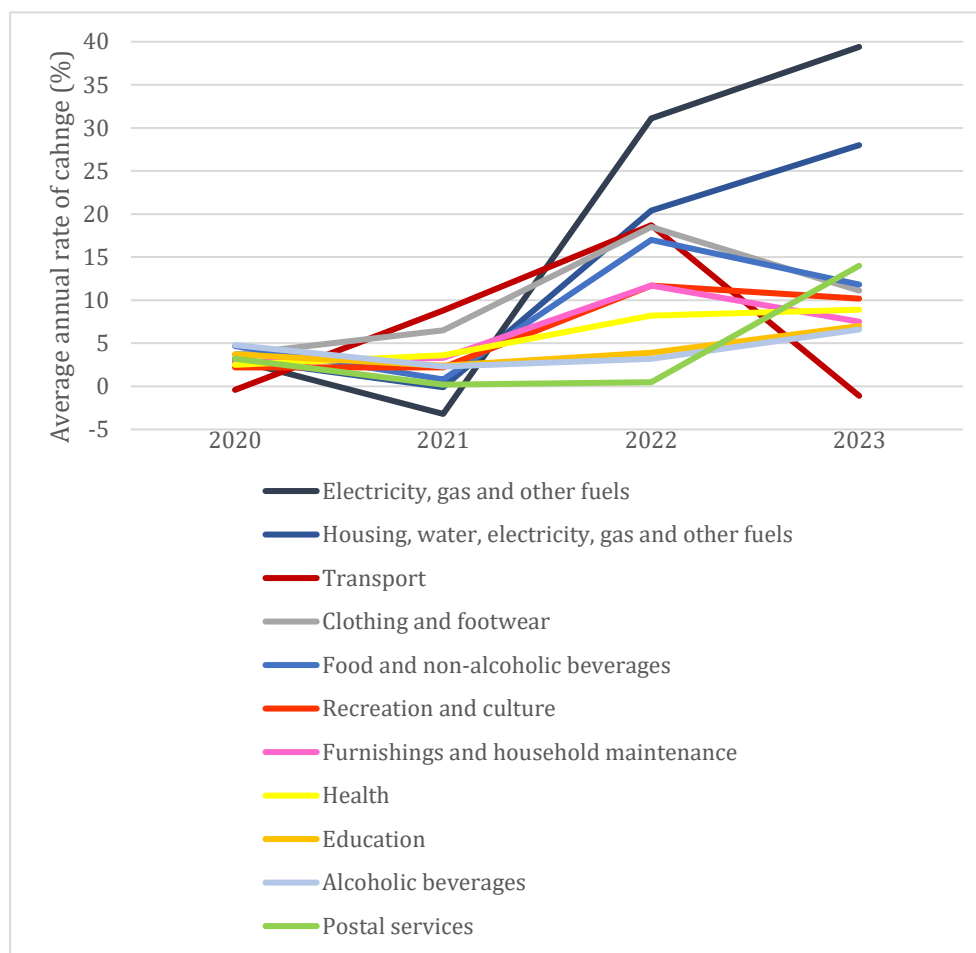
Source: Author based on Government Regulation No. 289/2022 Coll.

In addition, *birth* and *funeral grants* are also provided as part of the State social support system (MPSV, 2023a). In this thesis, however, I focus only on child and housing allowances, as these allowances can effectively help low-income families in the cost-of-living crisis (Pertold & Pleticha, 2022; Federičová, Kalíšková & Zapletalová., 2022).

3.2 Responses of the Czech welfare system to the cost-of-living crisis

On October 13, 2021, Bohemia Energy (Czech supplier of electricity and natural gas) declared bankruptcy due to rising wholesale electricity and gas prices. Bohemia Energy had been serving almost a million customers, and their sudden closure meant that households had to find a new provider. Additionally, suppliers of other companies have suddenly started to change contract conditions for households in order to profit (CEZ, 2022). Consequently, in 2022, households faced significant challenges due to sudden price increases. The average rate of inflation for 2022 was 16.8% (3.3% in 2021) (Eurostat, 2024). Particularly significant were the increases in prices observed in categories such as Housing, water, electricity, gas, and other fuels, which experienced a sharp rise from -0.1% in 2021 to 20.4% in 2022. This increase in the housing category is caused mainly by dramatic prices in electricity, gas, and other fuels, soaring from -3.2 % in 2021 to 31.1% in 2022. Also, on average, prices within the Food and non-alcoholic beverages category increased by 17% over the course of the year 2022 (see Figure 3.1).

Figure 3.1 Change in the harmonised index of consumer prices in the Czech Republic



Source: Own elaboration based on the data from Eurostat, 2024

In response, the Czech government took measures to mitigate the impact of inflation and the cost-of-living crisis (refer to Table 3.5). In August 2022, a *one-off child benefit* was provided to help vulnerable households with children. The benefit was intended for all children under 18 and families whose annual income in 2021 did not exceed one million CZK (EUR 42,000). Households eligible for a child allowance in July 2022 automatically received a one-off child benefit. The benefit amount was CZK 5,000 (EUR 207) per child (Act No. 196/2022 Coll.). This measure cost CZK 6,8 billion (MFCR, 2023), and approximately 1,25 million children were supported (MPSV, 2022).

In the radio interview, economist Pertold (Český rozhlas, 2022) argues that "the one-off child benefit does not address the long-term problem of low-income groups facing a permanent increase in spending." He claims that the allowance is not aimed at families with low incomes. As a result, the benefit goes to families with relatively high incomes, which is unnecessary. Sociologist Kostelecký (Český rozhlas, 2022) considers this benefit to be a prompt measure but also notes that it does not target household incomes, i.e. it does not distinguish between low-income and high-income households. He points out that there are few households in the Czech Republic whose annual income in 2021 exceeds one million CZK (i.e. the eligibility criteria for receiving one-off benefit). Also, sociologist Prokop (2022) argues that the one-off CZK 5,000 child benefit was a good idea, but it should have been targeted at poorer households. He suggests that families receiving housing allowance should also receive the one-off benefit, as they are already in a poor financial situation.

Additionally, in October 2022, the government introduced the *savings tariff* to assist all households with high energy expenses. As part of this measure, each household with an electricity supplier contract received a one-off benefit of CZK 2,000 or CZK 3,500 (EUR 83, EUR 145), depending on the distribution rate. The cost of this one-off benefit amounted to CZK 17.4 billion (MFCR, 2023). Moreover, households were exempted from renewable energy charges, which resulted in savings of approximately 599 CZK per MWh of electricity consumed. This measure lasted from October 2022 until December 2023 (MFCR, 2023).

During 2022, the government has increased the housing allowance (prescriptive housing costs) twice to address the rising housing costs. The first increase took place on January 1, 2022 (Government Regulation No. 507/2021 Coll.). The prescriptive housing costs increased from 2.2 to 2.8%⁸ (CZK 120 – 444). The second increase in prescriptive housing costs occurred on October 1, 2022 (Government Regulation No. 289/2022 Coll.). This increase ranged from 12 to 50%⁹ and aimed to support vulnerable households, such as single parents and pensioners. There was a substantial increase of up to CZK 4,500 for one- and two-person households. This measure increased the amount of the allowance and the number of eligible households (see Figure 3.3). In 2022, 15.3% more households received housing allowances than in 2021 (see Table

⁸ Own calculation based on Government Regulation No. 507/2021 Coll.

⁹ Own calculation based on Government Regulation No. 289/2022 Coll

3.7). An overview of the prescriptive housing costs for 2022 is provided in Appendix A.

Table 3.5 Policy measures implemented during the cost-of-living crisis in 2022

Policy measure	Amount	Time Period	Eligibility criteria
One-off child benefits	5,000 CZK	August 2022	Households with children under 18 years and annual income in 2021 below 1,000,000 CZK
Energy savings tariff	2,000 or 3,500 CZK	October 2022	All households with contracts with energy suppliers
	Saving of 599 CZK per MWh/electricity	October 2022 - December 2023	Households with renewable energy sources
Prescriptive housing costs increase	2.2 -2.8% increase	January 2022	
	12 - 50% increase	October 2022	
Living minimum increase	10.1% increase	April 2022	
	8.8% increase	July 2022	

Source: Own elaboration based on the literature reviewed in Chapter 3

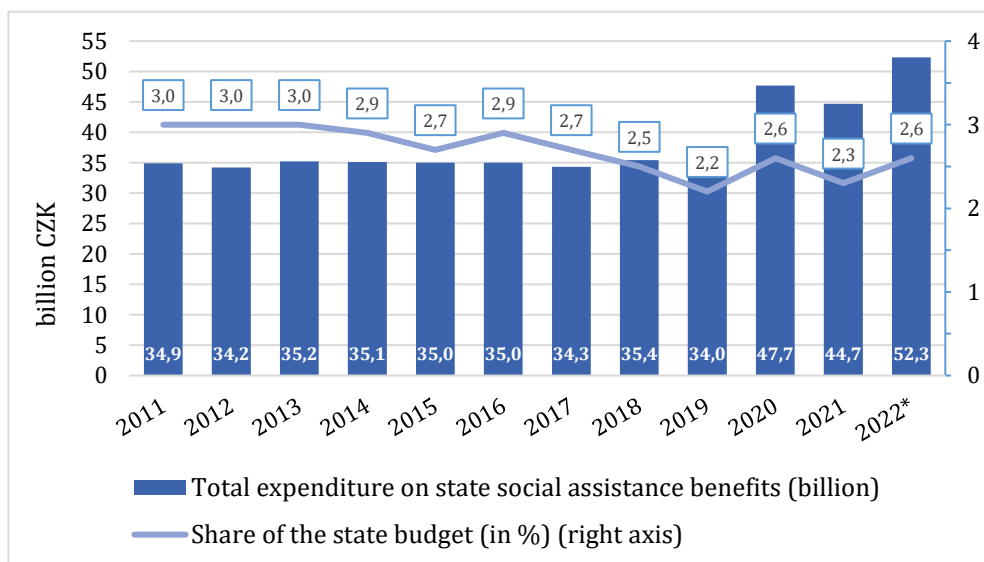
3.3 Total costs of the Czech Social support system

From 2011 to 2019, the state's annual spending on the State social support system averaged around CZK 35 billion (Figure 3.2), which was equivalent to 2.2% of GDP in 2019 (CZSO, 2023b). Measures related to COVID-19 increased the spending on social support benefits in 2020 to CZK 47,7 billion. In total, around 8,4 million benefits were paid out

(CZSO, 2021a). This increase was primarily due to a rise in parental allowances. In 2021, social support spending decreased to CZK 44,7 billion, and the number of benefits paid out also declined to 8,2 million (CZSO, 2022a). However, in 2022, due to the cost-of-living crisis and introduced changes in benefits systems, there was an increase in benefits received. CZK 52.3 billion was spent, and 10,24 million benefits were paid (including one-off child benefits) (CZSO, 2023b). In 2022, there was a 23.8% increase in child allowances paid, a 15.3% increase in households receiving housing allowance, and approximately 1,250,200 one-off child benefits were paid (refer to Table 3.7).

A well-designed welfare system can effectively support households experiencing financial difficulties. In the Czech Republic, child allowance and housing allowance can provide effective support to households in hardship (Federičová et al., 2022; Pertold & Pleticha, 2022). The significant increase in state spending on these allowances in 2022 (see Table 3.6) highlights the importance of these allowances in addressing financial challenges during crises. The rise in both child and housing benefits paid out illustrates how targeted social support measures can help mitigate the impact of economic hardships on vulnerable households.

Figure 3.2 Expenditures on State Social Support benefits in the Czech Republic



Note: *Expenditure of 6,8 billion CZK for a one-off child benefit is included

Source: CZSO, 2023b, translated

Table 3.6 Expenditures on selected State social support benefits (in mil. CZK)

	2020	2021	2022
Child allowance	2,138	2,565	3,871
Housing allowance	6,952	6,617	8,516
Child benefit (one-off)			6,800

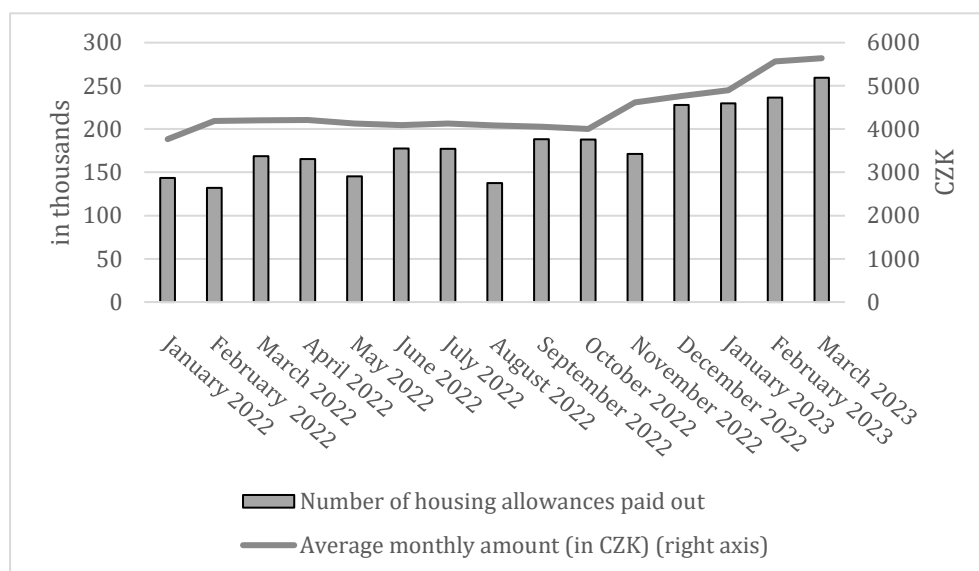
Source: Own elaboration based on the data from CZSO (2023c) and MFCR (2023)

Table 3.7 Number of selected State social support benefits paid out to households

	2020	2021	2022	Δ 2021-22 (%)
Child allowance	2,708,950	2,798,433	3,463,876	23,7
Housing allowance	1,870,989	1,752,185	2,020,656	15,3
Child benefit (one-off)			1,250,100	

Source: Own elaboration based on data from CZSO (2021b, 2022b, 2023d), MPSV (2022)

Figure 3.3 Monthly housing allowance distribution and monthly amounts paid out



Source: Own elaboration based on the data from MPSV (2022, 2023f)

4 Household financial situation during the cost-of-living crisis in the Czech Republic

The Czech Republic has experienced a significant increase in prices in 2022. According to Janský, Kolář & Šedivý (2023), prices have risen by 33% between January 2020 and March 2023. However, prices in different categories have grown at different rates. As a result, inflation has affected households in various ways, depending on their spending habits. Consequently, households, especially those with low incomes, are currently struggling with the burden of rising costs, leading to a cost-of-living crisis.

The highest increase is observed in Housing, Water, Energy and Fuels, Food and Services, and Clothing and Footwear categories. However, the category of Housing, Water, Energy, and Fuels also experienced a decrease in prices between October and December 2022, thanks to the introduction of the *savings tariff*. However, this decrease was short-lived, with prices rebounding significantly in January 2023. Spending on food and housing comprise a significant share of budgets for low-income households. In the lowest two quintiles, around 27% of expenditure goes on the Housing category and around 20% on Food and non-alcoholic Beverages. For the richest households, around 25% of expenditure goes on Housing and 15% on Food. More affluent households allocate relatively more to Household furnishings, Transport, Recreation and culture. As a result, households from the second quintile were hit the hardest by inflation, with a 33.6% price increase, while the highest-income households were the least affected, at 32.3% (Janský et al., 2023). Pensioner households were the most affected, while families with children were the least affected. Despite these differences, Janský et al. (2023) attributed disparities in the impact of inflation to variations in price growth across expenditure categories and the differing consumption patterns of households.

Moreover, in 2022, the government adopted other measures, including reducing excise duty on petrol and diesel by CZK 1,5 per litre (EUR 0,06). This action amounted to a total expenditure of CZK 4,2 billion (Sklenář, 2023). Additionally, the government approved a cap on household energy prices in October 2022, which was set at 100% of their

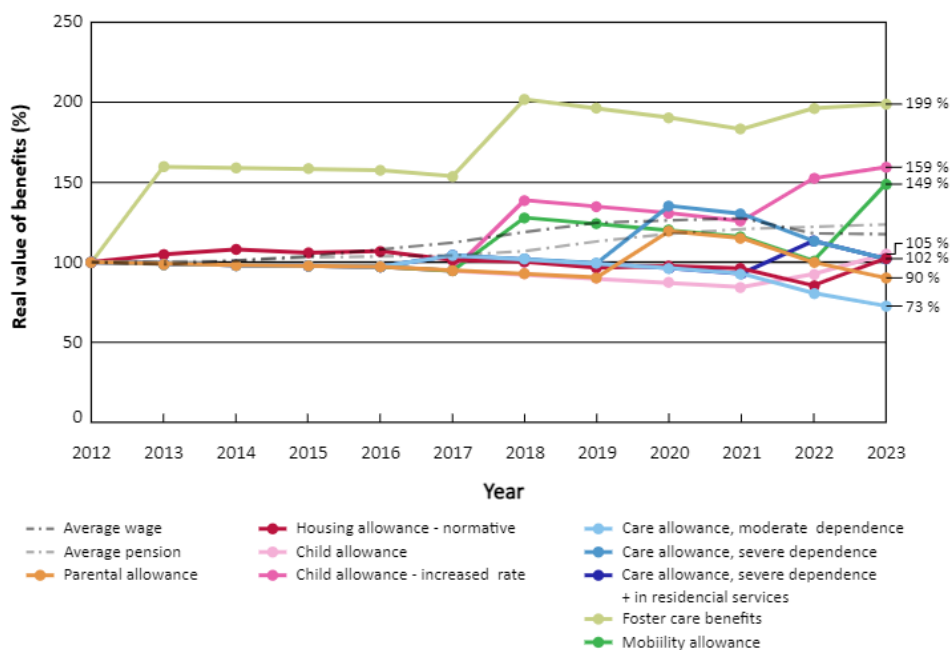
electricity and gas consumption in the previous year (MPO, 2022). This cap replaced the energy *savings tariff* for 2023. Sklenář (2023) highlights the regressive nature of the energy crisis's impact in 2022 and confirms that low-income households were hit the hardest in relative terms. Conversely, households in the highest income decile were the least affected. The economic well-being¹⁰ of households across income deciles ranges from 2.1% for the richest to 3.4% for the poorest Czech households. The rise in electricity prices had a regressive impact, particularly on low-income households who spend a larger portion of their income on electricity. On the other hand, the increase in fuel prices has hit middle-income households the hardest. These households spend an average of 2.9% of their income on fuel purchases, compared to 1.9% for households in the lowest income decile. Despite this, the increase in fuel prices had a less severe impact than the rise in electricity and heat prices (Sklenář, 2023).

The welfare system should be ready to help vulnerable households in times of crisis. Janský and Kolář (2023) emphasize the need to adjust benefit purchasing power on par with the inflation rate. Between 2012 and 2023, average wages and pensions have increased by approximately 20%, but the growth rate of most State social support benefits lagged (see Figure 4.1). As a result, the real value of many social benefits declined (Janský & Kolář, 2023). One exception is child allowance, which experienced a significant increase in the amount in 2018 and 2022. The real value of the allowance amount in 2022 was 26% higher, hence matched with inflation.

The real value of the housing allowance (prescriptive housing costs) declined until 2022. However, in 2022, the prescriptive housing costs increased twice. As a result of this increase, both the number of eligible households and the amount of housing allowance have also increased. Additionally, the living minimum is used to determine eligibility for certain benefits, such as child allowance. Despite multiple increases in the living minimum in 2022, its real value in 2023 is lower than the real value in 2012. This results in a limitation of benefit eligibility.

¹⁰ Economic well-being in this case is the difference in income/expenditure as a share of total current household expenses (Sklenář, 2023).

Figure 4.1 The development of the real value of social benefits between 2012 and 2023 (expressed as a percentage of the 2012 situation)



Source: Janský & Kolář, 2023

The housing allowance is an effective tool for supporting households struggling with reduced income or increased housing expenses (Pertold & Pleticha, 2022; Federičová et al., 2022). As noted above, the prescriptive housing costs and the amount of housing allowance increased for the first time in January 2022 from 2.2% to 2.8%. Pertold and Pleticha (2022) discuss the impact of this measure on households. The rise in energy prices during the fall of 2021 caused financial problems for a number of households. In April 2022, 16% of households were at risk of poverty, compared to only 10% in November 2021 (Pertold & Pleticha, 2022). The low-income households spend a higher portion of their income on housing, which makes them more vulnerable (Janský et al., 2023). Housing costs for low-income households increased by 13 percentage points (pp), while it was only 5 pp for high-income households. This implies that increased energy prices had the largest relative impact on disposable incomes for low-income households (Pertold & Pleticha, 2022; Sklenář, 2023).

The cost of housing was pushed by higher energy prices, which resulted in more households qualifying for housing allowance. Whereas

in November 2021, only 15% of households were eligible for the allowance, by April 2022, this had risen to 22%. Despite the increase in the number of eligible households, only 4.5% of all households in the Czech Republic were receiving housing allowance in April 2022 (compared to 4% in November 2021). Simultaneously, the share of households spending close to 30% of their net income on housing increased significantly from November 2021 to April 2022 (Pertold & Pleticha, 2022). However, these households have little incentive to apply for the allowance because the amount of the allowance would be minimal. Only 18% of eligible households apply for an allowance of less than CZK 1,000, and only 36% apply for an allowance of less than CZK 2,000. Pertold and Pleticha (2022) assess that the increase in normative housing costs in January 2022 increased the housing allowance amount but did not increase the number of eligible households.

Between 2020 and 2022, the regions with the highest number of state social support beneficiaries (per capita) were the Moravian-Silesian and Ústí regions (CZSO, 2021a; CZSO, 2022a; CZSO, 2023b). These regions are also the regions most burdened by social exclusion, along with the regions of Karlovy Vary and Olomouc (Lang, 2024). Through the process of social exclusion, households are marginalised and have limited access to resources that are otherwise available to other members of society. Social exclusion is linked to housing, education, and debt. The burden of social exclusion can be assessed using the Social Exclusion Index (Lang, 2024).

The welfare benefits are important in socially excluded localities¹¹ (SEL) and help to reduce poverty. Federičová, Kalíšková & Zpletalová (2022) show that the Czech welfare system is targeted at those at risk of poverty. In the Czech Republic, 94% of households at risk of poverty are entitled to at least one social benefit). However, not all households take up these benefits. Thanks to the uptake of social benefits, only 52% of households are below the poverty line. If all eligible households were to receive the benefits, they are eligible for, the number of households at risk of poverty in the SEL would decrease to 45.6%. Among the various benefits, housing allowance has the most potential to reduce the

¹¹ A locality is considered socially excluded if there is a cluster of more than 20 people living in unfavourable conditions and living in a physically or symbolically defined area (Federičová et al., 2022).

at-risk-of-poverty rate. Up to 50% of households in SEL are eligible for it, but only 12% of households actually receive it. Many households fail to receive this allowance because they are unaware of their entitlement or don't know how to claim it.

Findings from a research project conducted by Czech Radio and PAQ Research (Český rozhlas, n.d.), *Czech Republic 2022: A Priceless Life*, confirms that the financial condition of households is deteriorating. The percentage of “fragile and extremely vulnerable” households - those who do not save any portion of their monthly income and have minimal savings - has risen from 16% to 28% between November 2021 and November 2022. The proportion of households “losing savings” was 26% in November 2022 (9% in 2021). Although they are managing to save something each month, it is not enough to compensate against the rise in inflation. In autumn 2021, an average-income household was able to save CZK 8,400. By the end of 2022, this amount had fallen to around CZK 5,800, which is a 31% decrease. In November 2021, low-income households (60-100% of median income¹²) could save approximately CZK 5,000 monthly. By the end of 2022, this amount has fallen to only around CZK 2,600 per month (a decrease of 48%). Households below the poverty line (<60% of the median income) in November 2022 saved nothing, as did single parents with children. Savings also decreased for families with children when their average monthly savings dropped by 36% to a monthly amount (CZK 5,800) in November 2022.

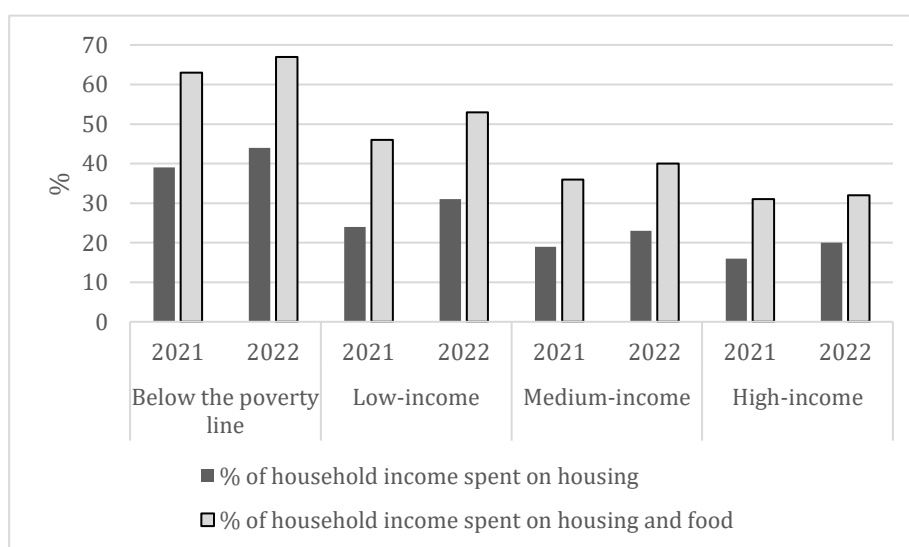
Households are primarily burdened by housing costs. In November 2021, the average Czech household spent 23% of its income on housing. A year later, this share increased to 29%. Those households below the poverty line, renters, sub-tenants, and single parents are most affected by high housing expenses. For households below the poverty line, these expenditures on housing accounted for 44% of their income in November 2022. Food and housing expenses make up 67% of their income (refer to Figure 4.2). Single parents with children allocated 49% of their income to housing expenditures at the end of 2022, compared to 37% in November 2021. Renters allocated 41% of their income to housing expenditures in late 2022, compared to 38% in November 2021 (Český rozhlas, n.d.).

¹² The median income in 2019, according to the CZSO, was CZK 21,363, and 60% of the median income, i.e. poverty line is CZK 12,818 (Český rozhlas, n.d.).

HOUSEHOLD FINANCIAL SITUATION DURING THE COST-OF-LIVING CRISIS IN THE CZECH REPUBLIC

Households with incomes below the poverty line often spend as much as or more than they earn. This is especially true for single parents and low-income households with children. These families have very little money saved, which makes them more vulnerable to price increases for goods and services. As a result, they must cut their expenses and save money. In November 2022, as many as 75% of households tried to save. Out of these, 50% focused only on saving energy, while 25% tried to save both energy and food. On the other hand, at the beginning of the year, 44% of households did not save at all, but by November, this number decreased to 24%. There are two main reasons why some households don't save: 15% of high-income households choose not to or don't need to save, and 9% of low-income households can't afford to save.

Figure 4.2 Trends in housing and food expenditure by households across income groups (2021-2022)



Note: Household income categories: below the poverty line (< 60 % of median), low-income (60 to 100 % of median), medium-income (101 -150% of median), high-income (over 150% of median).

Source: Own elaboration based on the data from Český rozhlas, n.d.

The Czech system often helps households late. Trlifajová (Česká televize, 2023), a social anthropologist, argues that when households cannot afford to pay for housing (rent), they take out loans, which they struggle to repay. Debt expert Hábl (Česká televize, 2023) claims that taking out

loans leads to people falling into a debt trap. The first foreclosure can lead to more, creating a vicious cycle. In the Czech Republic, as many as 500,000 to 700,000 people have more than three foreclosures. This situation puts households at risk of poverty, and, for some, it can lead to generational poverty (Česká televize, 2023; iRozhlas, 2022).

In summary, according to PAQ research, neither high-income nor most middle-income households face significant economic problems. Conversely, low-income households became more vulnerable.

5 Research, data and methodology

5.1 Hypotheses

In 2022, the average rate of inflation in the Czech Republic was 15.1% (CZSO, 2023a). This notable surge indicates a decline in the purchasing power of households during that period. As the prices of goods and services continue to rise, households may need to adapt their spending patterns. Consequently, this could result in an increased reliance on welfare system assistance to sustain their standard of living amidst escalating living costs.

In my thesis research, I am investigating the impact of the 2022 cost-of-living crisis on households, particularly low-income households, and the welfare system support. Based on the literature review, I have defined five hypotheses:

H1: The cost-of-living crisis in 2022 disproportionately affected low-income households compared to middle- and high-income households.

H2: The cost-of-living crisis in 2022 increased the use of social welfare benefits.

H3: Households receiving housing allowances experienced less financial strain compared to those not receiving such support amidst the rising cost of living in 2022.

H4: The increase in household incomes in 2022 was insufficient to compensate for the rising cost of living, resulting in a decrease in the purchasing power of households.

H5: Regional and socio-economic factors influence households' use of social assistance.

By examining these hypotheses, I aim to provide a comprehensive understanding of the socioeconomic impacts of the 2022 cost-of-living crisis, highlighting the disparities among different income groups.

5.2 Data

In this thesis, I compare the living situation of households in the Czech Republic. I use the SILC data from the Czech Statistical Office: *Living Conditions, 2021, Living Conditions 2022, and Living Conditions 2023*, which are a national module of the European Union survey *Statistics on Income and Living Conditions* (EU-SILC). These data provide timely cross-sectional and longitudinal multidimensional microdata on income, poverty, social exclusion and living conditions of households. Our sample consists of 3,970 households that are followed over 3 years, from 2021 to 2023. The survey was conducted from January to June in each of the years (CZSO, 2021c; CZSO, 2022c; CZSO, 2023e).

The survey was conducted in all regions of the Czech Republic. The survey unit was the household. The household included all individuals who usually resided in the selected dwelling at the time of the survey, even if they were temporarily absent for work or study but were financially connected to the household. The survey was carried out through interviews, and the results were recorded using either electronic or paper questionnaires. Trained interviewers conducted the survey. During in-person visits to the households, information about individual members and the overall household, including income data, was collected (CZSO, 2023e).

While the data provides valuable information about the living conditions of households, several limitations should be considered. The data collection relies on self-reported information, which can be subject to reporting biases. Respondents might underreport or overreport their income and living conditions. Another limitation is that housing characteristics and subjective questions about living and socio-demographic conditions are only captured around May 2021, 2022, or 2023, which might not accurately represent conditions throughout the entire year. Moreover, household incomes and social benefits are provided retrospectively for the previous year, i.e. income in 2020 is provided in SILC 2021. This limitation may not accurately reflect fluctuations or changes over a longer period. Also, non-response bias could occur if certain households chose not to participate or were unavailable during the survey period. These limitations need to be considered when interpreting the results.

5.3 Methodological notes

In the analysis, I examined the living conditions of households using household income quintiles from 2021. I divided households into five quintiles based on their equalised net income in 2021. The first quintile (q1) represents low-income households, while the second quintile (q2) includes low-middle-income households. The third quintile (q3) comprises middle-income households, and the fourth quintile (q4) denotes upper-middle-income households. Finally, households in the fifth quintile (q5) are considered high-income households. This categorization allowed me to observe how living conditions evolved within specific income groups over time.

Here is an explanation of the selected variables I used in the analysis:

Net household income represents the total year income received by the household after deducting all tax liabilities and contributions and includes the various sources of income that contribute to the overall economic well-being of the household.

Equivalised net household income is adjusted income; this adjusted income was calculated using a square root scale (OECD, n.d.) that takes household size and composition into account, providing a more comparable measure of economic well-being across households of different sizes.

Housing costs include rent (payment for the use of the dwelling) and the cost of energy (electricity, gas, central heating), water, other services and fuel.

At risk of poverty threshold indicates the proportion of households with total incomes below 60% of the median equivalised net income of households (Eurostat, 2021).

The poverty gap (relative income gap) represents the distance between the average income of households below the poverty threshold and the poverty threshold (expressed as a % of the poverty line).

6 Empirical analysis of income and costs

6.1 Descriptive analysis of housing affordability: Income and cost trends across quintiles

In 2022, the financial situation of households has deteriorated. This chapter delves into the analysis of income and expenditure patterns across various income groups. The goal is to gain insights into the diverse changes in the overall living standards of households. Understanding these dynamics is essential for developing effective policies and interventions that can mitigate the financial burdens faced by low-income households.

In the analysis, I illustrate the income situation of households on the equivalised net income per household. In 2022, the equivalised net income of households on average increased by 7.9%, reaching a monthly average of CZK 31,300. However, with the average inflation rate at 15.1% in 2022, the real household income for the average household decreased by 6.3%. This decline in real income indicates decreased purchasing power, leading to increased financial strain for households. Particularly vulnerable in this situation are low-income households.

Low-income households in the first quintile saw the largest increase in equivalised income (19.47%), as indicated in Table 6.1. These households had an average monthly equivalised net income of CZK 17,640. In contrast, high-income households in the 5th quintile saw the smallest increase in income (1.70%) but had an average monthly equivalised income of CZK 53,000 in 2022. There was a similar growth trend in the net income of households. From Table 6.1, we also observe the substantial percentage increase in net income after deducting housing costs for households from the 1st quintile, suggesting a significant improvement in their financial standing from 2021 to 2022. This rise could stem from a combination of factors such as increased income, reduced housing expenses or government assistance programs.

In 2022, households' monthly housing costs also rose significantly. These costs include rent and utilities such as electricity, gas, heating, water, fuel and other services. On average, these housing costs have risen by 10.37%. The main reason for the increase in housing costs was the rise in energy prices and, therefore, increased expenses on energy. Gas expenses rose by 18.9% on average and electricity by 16.9%. The

analysis shows that low-income households (q1) experienced the lowest increase (by 8.95%) in housing costs compared to middle and high-income households (by 12%). The lower increase in q1 may be due to lower-income households saving on energy expenses or thanks to the energy-saving tariff.

Table 6.1 Income and expenditure trends across income quintiles (2022 – 2021)

	Annual percentage change (2022-2021)				
	q1	q2	q3	q4	q5
Equivalised net income	19.47	12.89	10.22	7.53	1.70
Net income	21.47	12.62	9.32	7.18	1.21
Housing costs	8.95	10.15	10.36	10.26	11.82
Electricity expenses	14.91	17.73	15.68	24.10	16.97
Gas expenses	16.69	18.98	16.69	21.72	18.93
Net income change – housing costs change (pp)	12.52pp	2.47pp	-1.04pp	-3.08pp	-10.61pp

Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: The table illustrates the annual percentage changes in household income and housing-related expenses across income quintiles between 2022 and 2021.

Note 3: The "Net income change - Housing costs change" represents the difference in the annual percentage change of net income and the annual percentage change of housing costs, expressed in percentage points (pp).

Source: Own elaboration based on Households Income and Living Conditions Survey

To evaluate Hypothesis 2, I look at the number of housing and child allowances received by households in 2022. Tables 6.2 and 6.3 show the number of recipient households of these allowances across income quintiles, along with the minimum and maximum amounts provided. In 2022,

there was a higher uptake of housing allowance across all quintiles except the highest (q5) (see Table 6.2). The largest increase in uptake was observed in the lowest income quintile (q1), suggesting a greater reliance on social benefits due to economic pressures. Among households in the first quintile, the most frequent recipients were households with single-person, single-parent, and households with two children.

An interesting trend is the simultaneous increase in the minimum and maximum annual amounts for housing allowance. Households have also started to receive lower amounts of allowances, and at the same time the maximum amounts of housing allowances have also increased. The significant increases in recipient households and allowance amounts along income quintiles support H2.

Moreover, in 2022, I observed higher numbers of households drawing child allowances (see Table 6.3). The second quintile experienced the largest year-on-year increase in households. Also, both the minimum and maximum child allowance amounts increased for most quintiles. These results support H2 that increased living costs in 2022 led to a higher reliance on welfare benefits.

Table 6.2 Housing allowance uptake and amounts across income quintiles (2021-2022)

	q1	q2	q3	q4	q5
Annual minimum and maximum amount of housing allowance in CZK					
2021	900 – 132,000	10,500- 120,000	30,000 – 120,000	6,000 – 106,200	9,000
2022	525 – 216,000	960 - 180,000	1,140 - 156,000	6,000 - 150,000	-
Share of households receiving housing allowance (%)					
2021	9.57	2.89	0.63	0.63	0.13
2022	11.21	3.4	1.13	0.76	0
Δ (2022- 2021)	1.64	0.51	0.50	0.13	-0.13

Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: Table 6.2 details the annual minimum and maximum housing allowances and the proportion of households receiving these allowances across different income

quintiles for the years 2021 and 2022, showing a general increase in both the allowance amounts and the share of recipients, except for the highest income quintile.

Source: Own elaboration based on Households Income and Living Conditions Survey

Table 6.3 Child allowance uptake and amounts across income quintile (2021 – 2022)

	q1	q2	q3	q4	q5
Annual minimum and maximum amount of child allowance in CZK					
2021	4,200 – 53,400	1,760 – 54,000	7,560 – 34,320	1,600 – 28,800	2,520 – 150,000
2022	7,200 – 112,560	6,480 – 45,840	7,620 – 90,000	7,560 – 30,480	9,240 – 150,000
Share of households receiving child allowance (%)					
2021	4.79	2.14	1.89	0.63	1.51
2022	5.42	3.02	2.02	0.76	1.39
Δ (2022- 2021)	0.63	0.88	0.13	0.13	-0.12

Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

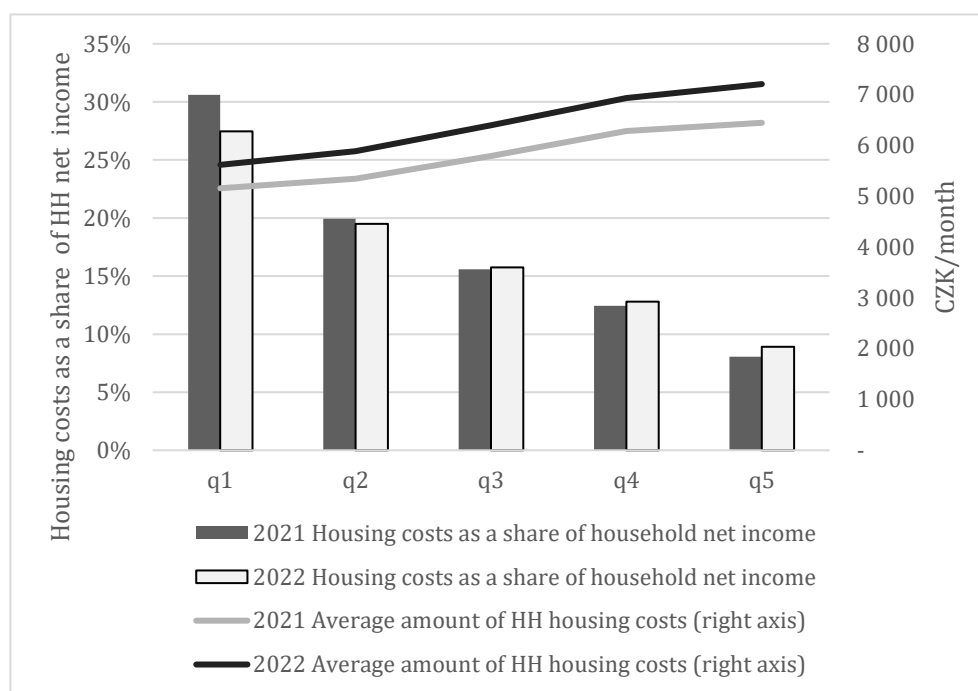
Note 2: Table 6.3 details the annual minimum and maximum housing allowances and the proportion of households receiving these allowances across different income quintiles for the years 2021 and 2022, showing a general increase in both the allowance amounts and the share of recipients, except for the highest income quintile.

Source: Own elaboration based on Households Income and Living Conditions Survey

Rising costs are burdening household incomes. Low-income households allocate most of their income to housing costs. Despite a 3 pp decrease in 2022, housing costs still represent almost 30% of their income (see Figure 6.1). The fact that the housing cost ratio to net income has decreased for low-income households can be interpreted in two ways. First, the incomes of these households increased more than the housing costs. Second, housing costs for low-income households grew less than average, as well as expenses for electricity and gas. This may also be because these households have started to save on energy. Conversely, households in the higher quintiles saw a slight increase in the ratio of housing costs to

income. However, their incomes are not affected as much as housing costs do not exceed more than 20% of their income.

Figure 6.1 Proportion of household monthly net income dedicated to housing costs



Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: Figure 6.1 shows that while the average monthly amount of household housing costs increased across all income quintiles from 2021 to 2022, the monthly share of net income dedicated to housing costs decreased for the lowest quintile and slightly changed for the others, reflecting varying impacts on household budgets.

Source: Own elaboration based on Households Income and Living Conditions Survey

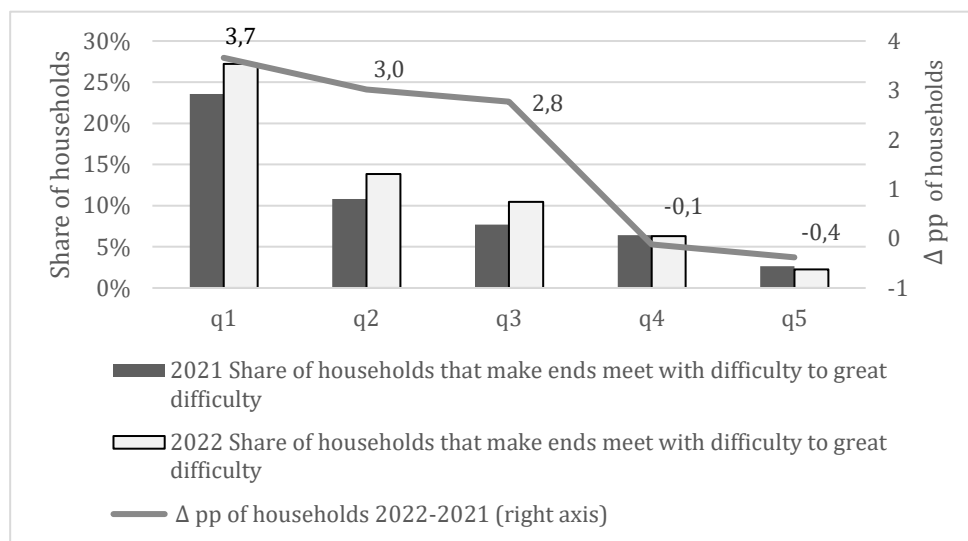
6.2 A household perspective on the perception of their financial well-being

In the first part of the analysis, I used the data to examine the trends in income and expenditure of households in the Czech Republic. To evaluate Hypothesis 1 and Hypothesis 4, I now focus on indicators for

subjective assessment of how individual households can or cannot make ends meet with their incomes. This information is obtained from the question, "How does your household get along with its total monthly income?". The focus is primarily on households that are struggling *with difficulty* to make ends meet (Option 2) and those struggling *with great difficulty* to make ends meet (Option 1).

The increase in households' income in 2022 did not match their subjective perception of income. Figure 6.2 shows an annual deterioration in the ability of households to make ends meet. Despite the objective best improvement in the financial situation of low-income households, these households continued to have the greatest difficulty making ends meet. In 2022, up to 3.7 pp more low-income households (q1), a total of 27.2% of households, reported finding it difficult to very difficult to make ends meet. Similarly, the situation worsened in the 2nd and 3rd quintiles. However, it was the low-income households that experienced the largest annual increase. These results support Hypotheses 1 and 4.

Figure 6.2 Change in proportion of households that make ends meet with difficulty to great difficulty



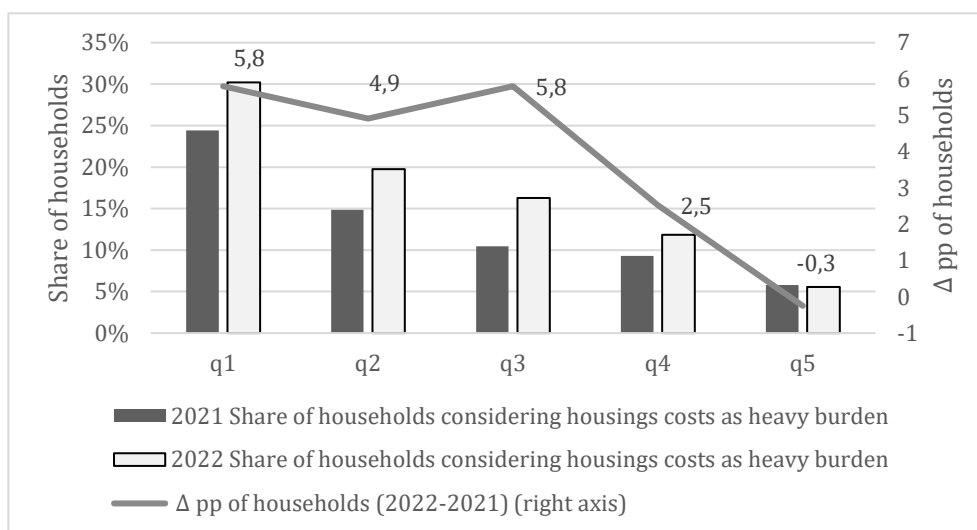
Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: Figure 6.2 illustrates the changes in the proportion of households across income quintiles that experienced difficulty in making ends meet from 2021 to 2022, showing a general increase in financial strain among lower-income households.

Source: Own elaboration based on Households Income and Living Conditions Survey

The cost of housing is a significant financial burden for many households. Figure 6.3 shows households that consider housing costs to be a heavy burden in 2021 and 2022. This information was obtained by answering the question, "How heavy a burden is the housing cost for you?" with possible answers of a *heavy burden*, *somewhat a burden*, and *no burden at all*. In 2022, on average, 3.76 pp more households (16.73% overall) considered housing costs to be a heavy burden. Similarly, the number of households that do not consider housing costs a burden has decreased by 4.8 pp (10% of households in total). Up to 30% of low-income households (5.8 pp more) in 2022 claimed that housing costs were a heavy burden for them. We observe a similar upward trend for the households in the second and third quintiles. Also, these results support Hypothesis 1 and Hypothesis 4.

Figure 6.3 Change in proportion of households considering housing costs as a heavy burden



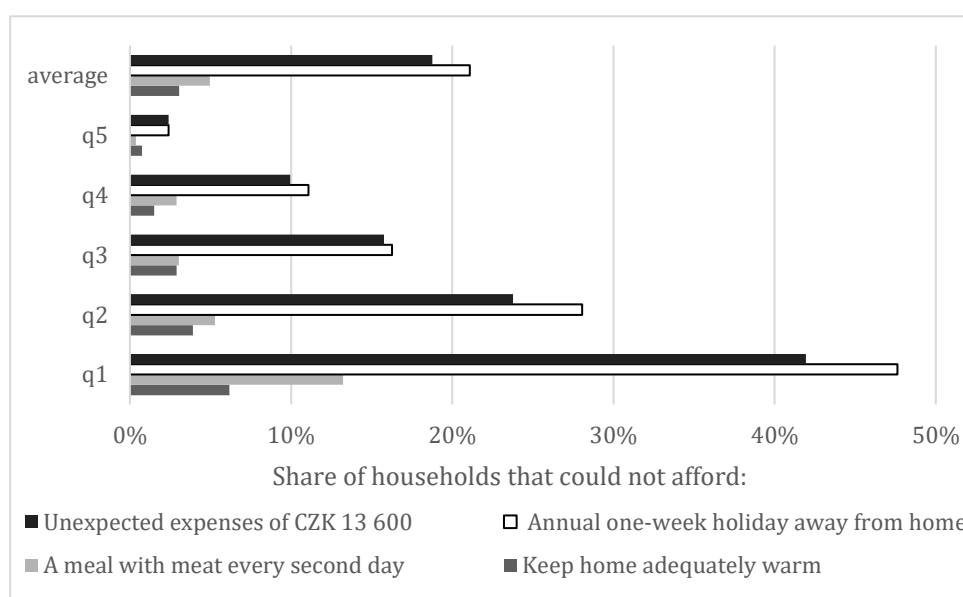
Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: Figure 6.3 indicates a share of households and a change in the share of households considering housing costs as a heavy burden from 2021 to 2022, with notable increases in the lower and middle-income quintiles and a slight decrease in the highest-income quintile.

Source: Own elaboration based on Households Income and Living Conditions Survey

I complement this information on subjective perceptions of households' living conditions with services and goods that the household cannot afford. If housing costs consume a significant proportion of a household's income, it may limit the household's financial flexibility to meet other basic needs or unexpected expenses. This can create a cycle of financial instability that makes it difficult for households to save. Figure 6.4 shows that a significant share of households face financial hardship when they have to afford a week's holiday away from home or manage unexpected expenses of up to CZK 13,600. These indicators can also be a signal of savings. If households lack savings for unexpected situations, they may accumulate debt and face foreclosures.

Figure 6.4 Share of households that could not afford selected goods and services in 2022



Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: Figure 6.4 illustrates the share of households across income quintiles that could not afford certain goods and services in 2022, including keeping their home adequately warm, having a meal with meat every second day, taking an annual one-week holiday

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away from home, unexpected expenses with higher percentages of deprivation observed in the lower income quintiles.

Source: Own elaboration based on Households Income and Living Conditions Survey

Table 6.4 illustrates the change in the share of households experiencing various financial strains and affordability changes across income quintiles between 2021 and 2022. The data show an increasing share of households across lower- and middle-income (q1, q2, q3) households facing financial strains. Increased the proportion of households that could not afford a holiday away from home, unexpected expenses or keep home adequately warm. Conversely, for higher-income quintiles (q4 and q5), the share of households with hardship declined. These findings highlight the need for targeted support and policies to address the financial vulnerability of low-income households. Ultimately, these results support Hypotheses 1 and 4.

Table 6.4 Changes in the share of households experiencing financial strains and affordability challenges across income quintiles between 2021 and 2022

Δ pp of households (2022-2021)						
	Make ends meet with difficulty to great difficulty	Housing costs a heavy burden	Household could not afford:			
			Keep home adequately warm	A meal with meat every second day	Annual one-week holiday away from home	Unexpected expenses of CZK 13,600*
q1	3,66	5,8	1,01	0,5	6,05	0,63
q2	3,02	4,91	1,51	-1,01	3,4	2,26
q3	2,77	5,8	0,88	-0,5	1,14	0,63
q4	-0,12	2,52	0	0,38	-0,88	-1,26
q5	-0,38	-0,25	0,26	0,13	-0,76	-0,88

Note 1: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Note 2: This table shows the 2022 -2021 changes in the share of households experiencing various financial strains and affordability changes across income quintiles. Each column represents a different financial strain indicator, such as difficulties in making ends meet, housing costs being perceived as a heavy burden, and the inability to afford necessities like heating, meals with meat, holidays away from home, and unexpected

expenses. The values in each cell indicate the percentage point change in the share of households facing these challenges within each income quintile.

Note 3: *CZK 13,600 in 2022; CZK 12,800 in 2021

Source: Own elaboration based on Households Income and Living Conditions Survey

Table 6.5 describes the share of households in rental housing and the share of households needing a loan to pay rent across income quintiles. The highest share of households living in rental housing is in the lowest income quintile (q1), and this share decreases across higher income quintiles. When in 2022, households faced financial difficulties and could not afford to pay rent, some of them took out loans. Between May 2022 and May 2023, over 12% of rental households in the first quintile and almost 12% in the second quintile took loans to pay rent, indicating greater financial strain in covering housing costs. These results support the Hypotheses 1 and 4. Overall, the data suggests that lower-income households are more likely to rent and require loans to meet their rental payments, highlighting financial vulnerabilities related to housing within these groups.

Table 6.5 Share of households in rental housing taking out loan to pay rent during the last 12 months in 2023

	q1	q2	q3	q4	q5
Share of households in rental housing (%)	24.69	16.23	14.93	15.37	12.09
Share of households in need of a loan to pay rent (%)	12.76	11.63	4.31	4.92	-

Note: The division into quintiles is based on equivalised household net income in 2021. The 1st quintile represents the households with the lowest income, and the 5th quintile represents those with the highest income.

Source: Own elaboration based on Households Income and Living Conditions Survey

To evaluate Hypothesis 5, I conducted a probit regression whose dependent variable is that the main reason for the increase in income in 2022 was the increase in social benefits. Regional and socioeconomic factors were included in the model as control variables.

Table 6.6 Determinants of increase in income due to increase in social benefits

VARIABLES	Increase in income due to increase in social benefits	
1.quintile	3.843***	(0.372)
2.quintile	2.524***	(0.233)
3.quintile	1.571***	(0.147)
4.quintile	1.136	(0.106)
Central Bohemia	1.234*	(0.135)
South Bohemia	1.259*	(0.152)
Pilsen	1.127	(0.145)
Karlovy Vary	1.762***	(0.302)
Ústí nad Labem	0.991	(0.121)
Liberec	2.128***	(0.315)
Hradec Králové	1.170	(0.165)
Pardubice	1.476***	(0.199)
Vysočina	1.548***	(0.208)
South Moravian	1.374***	(0.147)
Olomouc	1.525***	(0.195)
Zlín	1.274*	(0.172)
Moravian-Silesian	1.284**	(0.134)
Low level of education	1.402***	(0.163)
Medium level of education	1.042	(0.0695)
Housing cost a heavy burden in 2021	0.800**	(0.0751)
Housing costs some burden in 2021	0.885*	(0.0606)
Economic activity of the partner	0.471***	(0.0433)
Seniors	2.390***	(0.148)
Incomplete HH	0.614**	(0.116)
One - two kids in HH	0.274***	(0.0291)
More kids in HH	0.246***	(0.0718)
Constant	0.366***	(0.0401)
Observations	3,970	

Robust standard errors in parentheses

Note: Table 6.6 describes the probability (odds ratio) of an income increase due to social benefits, with statistically significant effects indicated by p-values (**p<0.01, *p<0.05, *p<0.1). The reference categories are the highest income quintile (5th), the Prague region, high education level, and housing costs as no burden at all.

Source: Own elaboration based on Households Income and Living Conditions Survey

The probit model, as shown in Table 6.6, analyzes the probability of income increasing as a result of an increase in social benefits across different income quintiles, regions, education levels, housing cost burdens, and household characteristics. The coefficients in the model represent the likelihood of income increase, with robust standard errors indicated in parentheses.

When considering other variables in the model, households in the lowest income quintile are about 3.8 times more likely to experience an increase in income compared to those in the highest income quintile. Different regions show significant differences in the likelihood of income increase due to social benefits. Specifically, regions such as Liberec (2.1), Vysočina (1.5), Olomouc (1.5), Pardubice (1.5), and South Moravian (1.4) demonstrate significantly higher probabilities of income increase when compared to the reference region, Prague. On the other hand, regions like Ústí nad Labem and Hradec Králové do not exhibit statistically significant differences.

Households with low levels of education exhibit a 1.4 times higher likelihood of income increase due to an increase in social benefits compared to those with high education levels. Additionally, households considering housing costs as a heavy burden in 2021 are about 1.25 times less likely to have increased income due to social benefits compared to those considering housing costs as no burden. Senior households are about 2.4 times more likely to experience increased social benefits. Incomplete households have 1.6 times less probability of experiencing an increase in social benefits.

Overall, the probit model findings provide empirical evidence supporting Hypothesis 5 by demonstrating that both regional and socio-economic factors significantly influence households' use of social assistance beyond the income level.

6.3 At risk of poverty households

The at-risk-of-poverty rate is determined to identify the percentage of people with incomes below a certain threshold, putting them at risk of poverty. I follow the standard of Eurostat, which sets the at-risk-of-poverty threshold at 60% of the median equivalised net income in the

population (in the dataset). Households with incomes below this threshold are considered at risk of poverty because they have significantly less income than the average household, which may limit their ability to afford basic goods and services.

I have calculated the at-risk-of-poverty thresholds to be CZK 16,445 in 2022 and CZK 15,014 in 2021. In 2022, the number of households at risk of poverty decreased by less than 1 percentage point, with 8.36% of households (332 households) being at risk overall. All of these households belonged to the 1st quintile. Households in 2022 at risk of poverty are mainly composed of individuals over 65 years (55%), individuals less than 65 years (18%), and single-parent households with children (11%).

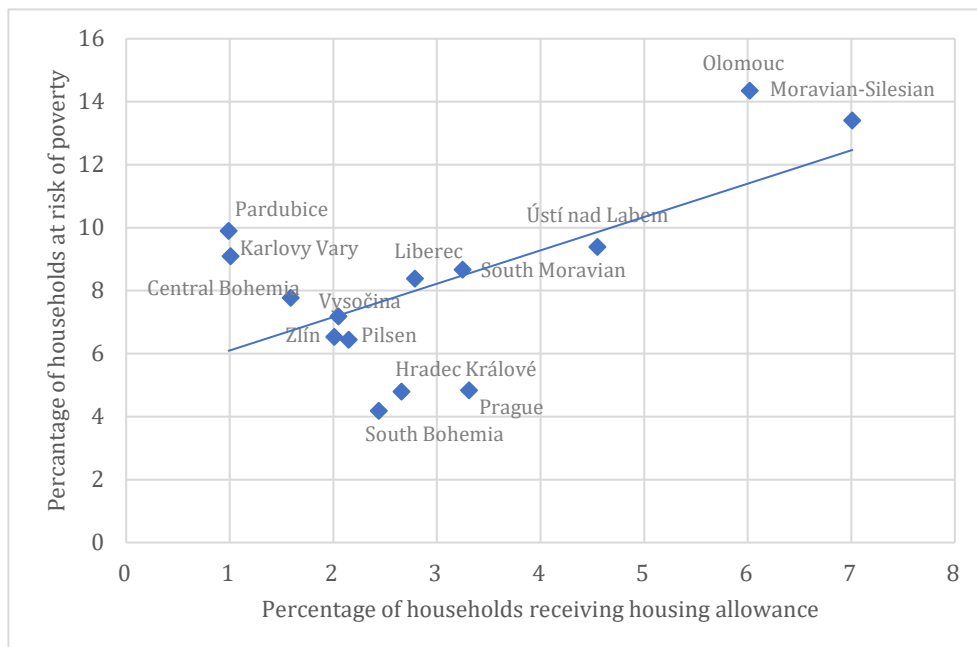
In most regions, the percentage of households at risk of poverty decreased, with the largest decrease seen in the Olomouc region (-4.63 pp). Overall, there was an increase in the proportion of households receiving housing allowance in most regions, with a notable increase in regions such as Olomouc (1.39 pp). The increase in the number of households receiving housing benefits may have contributed to the reduction in the number of households at risk of poverty in Olomouc and other regions. However, the highest number of households at risk of poverty is found in the Olomouc, Moravian-Silesian and Ústí nad Labem regions (refer to Table 6.7).

Table 6.7 Regional representation of households at risk of poverty

Regions	Share of households at risk of poverty (%)			Share of households receiving housing allowance (%)		
	2021	2022	Δ pp (2022-2021)	2021	2022	Δ pp (2022-2021)
Prague	6.36	4.83	-1.53	1.78	3.31	1.53
Central Bohemia	8.76	7.77	-0.99	1.2	1.59	0.39
South Bohemia	5.57	4.18	-1.39	2.44	2.44	0
Pilsen	7.73	6.44	-1.29	1.72	2.15	0.43
Karlovy Vary	9.09	9.09	0	0	1.01	1.01
Ústí nad Labem	11.21	9.39	-1.82	4.85	4.55	-0.3
Liberec	8.38	8.38	0	2.23	2.79	0.56
Hradec Králové	5.85	4.79	-1.06	1.6	2.66	1.06
Pardubice	8.42	9.9	1.48	1.49	0.99	-0.5
Vysočina	7.69	7.18	-0.51	2.23	2.05	0.51
South Moravian	7.36	8.66	1.3	3.03	3.25	0.22
Olomouc	18.98	14.35	-4.63	4.63	6.02	1.39
Zlín	7.04	6.53	-0.51	1.51	2.01	0.5
Moravian-Silesian	14.85	13.4	-1.45	6.19	7.01	0.82
Total CR	9.27	8.36	-0.91↓	2.77	3.30	0.53↑

Source: Own elaboration based on Households Income and Living Conditions Survey

Figure 6.5 Relationship between at risk of poverty households and receipt of housing allowance across regions in 2022



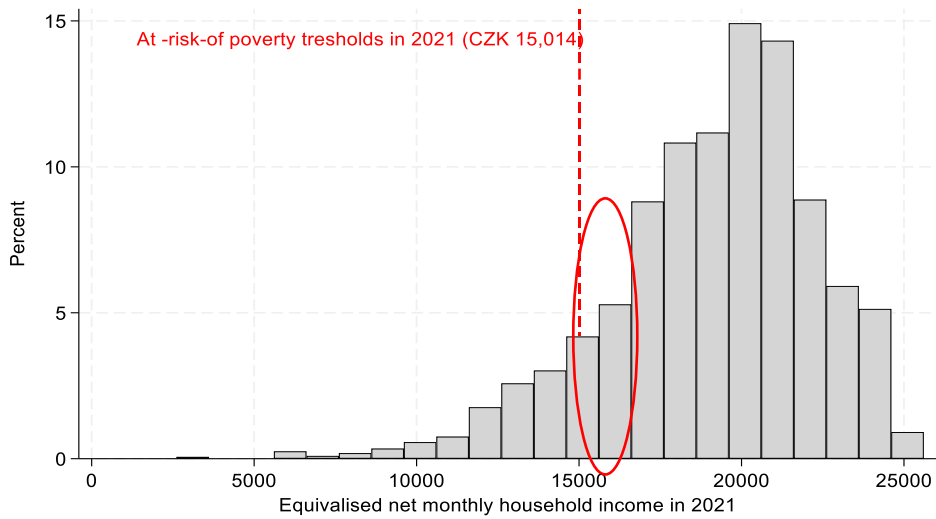
Source: Own elaboration based on Households Income and Living Conditions Survey

Based on Figure 6.5, it seems that there is a potential positive correlation between the percentage of households at risk of poverty and the percentage of households receiving housing allowance. While the relationship is not strictly linear, there is a noticeable trend where an increase in the percentage of households at risk of poverty is associated with a higher percentage of households receiving housing allowance. However, there are regions with high percentages of households at risk of poverty have low percentages of households receiving housing allowance, and vice versa. Nevertheless, it appears that, overall, regions with higher percentages of households at risk of poverty also tend to have higher percentages of households receiving housing allowance.

Additionally, the poverty gap is an important indicator of income poverty. It measures how far (in percentage) a household's income is from the at-risk-of-poverty threshold, indicating the depth of poverty. The poverty gap increased from 14.92% in 2021 to 15.49% in 2022. This indicates that although in 2022, fewer households were at risk of poverty, the incomes of poor households were smaller. We also observe an

increase in the number of households close to the poverty threshold in 2022. In 2022, there were 6.12% of households (243 households) with equivalised income up to 10% from risk poverty households compared to 5.54% (220 households) in 2021 (refer to Figures 6.6 and 6.7).

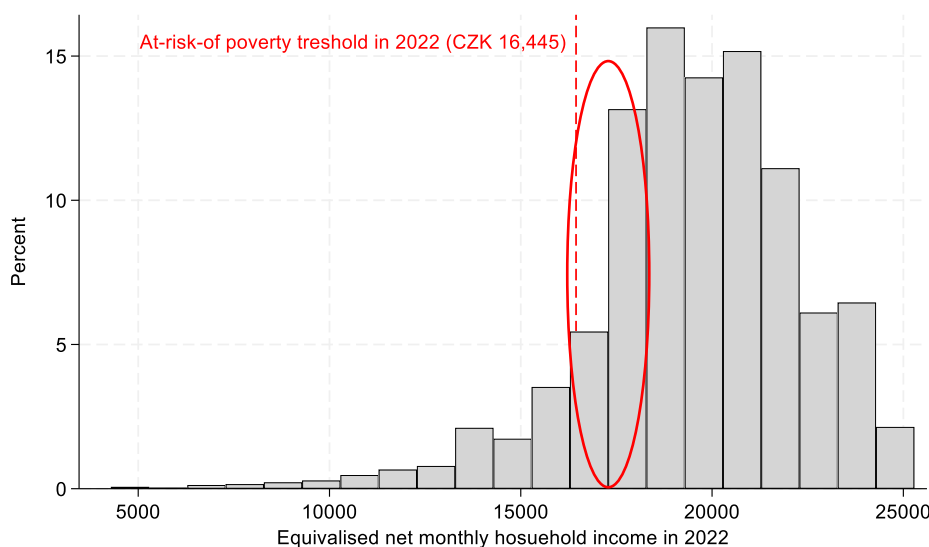
Figure 6.6 Monthly income distribution of bottom quintiles relative to the poverty threshold in 2021



Note: Net equivalised monthly income of q1 households ranges from CZK 2,608 – CZK 17,882; q2: CZK 17,899 – CZK 22,725

Source: Own elaboration based on Households Income and Living Conditions Survey

Figure 6.7 Monthly income distribution of bottom quintiles relative to the poverty threshold in 2022



Note: Net equivalised monthly income of q1 households ranges from CZK 4,285 – CZK 19,653; q2: CZK 19,665 – CZK 24,951

Source: Own elaboration based on Households Income and Living Conditions Survey

To evaluate Hypothesis 3, I am examining households that were at risk of poverty in 2022. I am comparing how the living conditions of these households changed over the years for those who received a housing allowance in both 2021 and 2022 (47 households) and those who did not receive it (294 households). Regardless of whether they received housing allowance in 2021 and 2022, households saw an improvement in their housing cost-to-income ratio year on year; those receiving housing allowance improved more (see Figure 6.8). Nevertheless, households receiving housing allowance in both years more households reported that they were struggling to make ends meet. In addition, there was an increase in the number of households who considered housing costs to be a significant burden, but this was smaller than for households not receiving the allowance. More households also reported being unable to afford to heat their homes adequately. On the other hand, the number of indebted households has not increased.

Among the households at risk of poverty that did not receive housing allowances in either year, slightly fewer households reported having great difficulty making ends meet. However, more households

indicated that they could not afford a one-week holiday away from home or unexpected expenses. The number of households with debts increased slightly. It can be argued that the quality of life deteriorated for households not receiving housing allowances compared to those that received them in both years. I conclude that H3 was confirmed.

Figure 6.8 Living Conditions of at risk of poverty households receiving and not receiving housing allowance in 2021 and 2022

Living conditions of at risk of poverty households						
	Receiving housing allowance in 2021 and 2022			Not receiving housing allowance in 2021 and 2022		
	2021	2022	Δ (2022-2021)	2021	2022	Δ (2022-2021)
Ratio of housing costs to net income	51,16	45,87	-5,29	33,30	28,71	-4,59
Share of households						
Make end meet with great difficulty	40,43	44,68	4,25	9,18	8,50	-0,68
Housing costs burden	59,57	61,70	2,13	25,85	29,59	3,74
Rent debt	17,02	14,89	-2,13	0,68	1,36	0,68
Energy debt	17,02	14,89	-2,13	1,70	2,04	0,34
Repaying loan is a heavy burden	10,64	8,51	-2,13	3,74	2,04	-1,7
Share of household that could not afford:						
Keep home adequately warm	6,38	17,02	10,64	7,82	8,16	0,34
A meal with meat every second day	36,17	38,30	2,13	12,24	12,93	0,69
Annual one-week holiday away from home	85,11	82,98	-2,13	44,22	51,02	6,8
Unexpected expenses of CZK 13,600*	85,11	80,85	-4,26	45,58	47,96	2,38

Note: *CZK 13,600 in 2022; CZK 12,800 in 2021

Source: Own elaboration based on Households Income and Living Conditions Survey

6.4 Effectiveness of housing allowance in reducing the risk of poverty

Receiving a housing allowance can reduce the at-risk of poverty rate (Federičová et al., 2022). Housing allowance should provide protection for households with high housing costs compared to low incomes.

Table 6.8 compares two scenarios regarding households at risk of poverty in 2022: the observed scenario and a counterfactual scenario where households do not receive housing allowance (HALL). In the observed scenario, 8.36% of households are at risk of poverty, with a poverty gap of 15.5% and an average absolute gap of CZK 2,557. Additionally, the average equalised monthly net income for these households is CZK 13,888. In contrast, in the counterfactual scenario without households receiving housing allowance, the share of households at risk of poverty increases to 9.07%, and the poverty gap widens to 17.8%. Consequently, the average absolute gap also increases to CZK 2,925, while the average equalised monthly net income decreases slightly to CZK 13,520.

Table 6.8 Impact of housing allowance on risk poverty scenarios in 2022

	Share of at-risk of poverty HHs	Average poverty gap	Average Absolute poverty gap	Average equalised monthly net income
Observed scenario	8.36%	15.49%	2,557 CZK	13,888 CZK
Counterfactual scenario (without receiving HALL)	9.07%	17.79%	2,925 CZK	13,520 CZK
Δ	0.71pp	2.3pp	368 CZK	368 CZK

Source: Own elaboration based on Households Income and Living Conditions Survey

This simulation highlights the impact of housing allowance on poverty alleviation. Without housing allowance, more households would fall into risk of poverty, a wider poverty gap.

7 Discussion of results

This chapter discusses the results of our research in connection with the hypotheses outlined. The thesis combines descriptive and probit regression analysis to offer a thorough insight into the effects of the increasing cost of living in 2022 on different household groups, particularly focusing on low-income households and the impact of social benefits in mitigating risks.

H1: The rising cost of living in 2022 disproportionately affected low-income households compared to middle- and high-income households.

The thesis confirmed the hypothesis that low-income households in the 1st and 2nd quintiles were more affected by the cost-of-living crises compared to middle and high-income households. Despite an improvement in the financial situation of low-income households, their subjective well-being has deteriorated. The share of low-income households (q1) struggling to make ends meet with difficulty increased by 3.7 pp (3 pp in q2), while the share increased by 2.8 pp for middle-income households (q3) and decreased by 0.4 pp for high-income households (q5). Up to 30% of low-income households in the 1st quintile (5.8 pp more) consider housing costs as a heavy burden, compared to 16% of middle-income households and 5% of high-income households.

The living standards of low-income households have worsened. The share of households unable to afford to keep their home adequately warm increased by pp in the 1st quintile (making up 6% of households) and by 1.5 pp in the 2nd quintile (making up 4% of households). The share of households unable to afford a meal with meat every second day increased by 0.5 pp in the 1st quintile (in total 13% of households), while those unable to take a one-week annual holiday away from home increased by 6pp in the 1st quintile (making up 48% of households) and by 3.4 pp in the 2nd quintile (in total 28% of households). The share of households unable to afford unexpected expenses increased by 0.63 pp (making up 42% of households), with the largest increase among all quintiles occurring in the 2nd quintile, by 2.26 pp (in a total of 23% of households). These results indicate that households are losing their savings or do not have sufficient savings.

Additionally, in 2022, almost 13% of low-income households in the 1st quintile and 12% in the 2nd quintile who rented apartments took out a loan to pay their rent, while only 4% of middle-income and high-income households needed a loan to pay rent. Moreover, the 1st and 2nd quintiles have the largest share of single parents with kids (i.e. incomplete households) at 35% and 21% (see Appendix B), respectively, confirming that these households are particularly at risk.

In terms of the living standards of middle-income households (q3), the proportion of households unable to afford to adequately warm their homes increased by 0.88 pp to reach 3% of households. The proportion of households unable to afford an annual one-week holiday away from home also increased by 1.1 pp (a total of 16% of households). Additionally, the proportion of those who couldn't afford unexpected expenses increased by 0.6 pp (a total of 16% of households). However, the share of households unable to afford a meal with meat every second day decreased by 0.5 pp (a total of 3% of households).

In 2022, in high-income households (q5), there were minimal changes or even improvements in living standards. The share of households unable to afford to keep their home adequately warm increased slightly by 0.3 pp (reaching a total of 0.8% of households), and the share of households unable to have a meal with meat every second day increased slightly by 0.1 pp (totalling 0.4% of households). On the other hand, the share of households unable to afford a week's holiday away from home decreased by 0.8 pp (a total of 2.4% of households). Also, the share of households that couldn't afford unexpected expenses also decreased by 0.9 pp (a total of 2.4% of households).

H2: The cost-of-living crisis in 2022 increased the use of social welfare benefits

The results of the analysis confirmed Hypothesis 2. Overall, the number of housing allowance recipients increased by 19% annually (a total of 3.3% of households from the sample). The biggest increase in housing allowance recipients was for the first quintile, rising by 1.6 pp, reaching 11.2% of households in total. In terms of housing allowance receipt by region, the number of recipients increased the most year-on-year in Prague (by 1.5 pp) and Olomouc (by 1.4 pp).

In 2022, the regions with the highest uptake of housing allowances were Moravian-Silesian (7% of households), Olomouc (6% of

households), and Ústí nad Labem (5% of households). These regions also had the highest share of households at risk of poverty in 2021 and 2022. In 2022, Moravian-Silesian had 13.4% of households at risk of poverty, Olomouc (14% of households), Ústí nad Labem (9% of households) and Karlovy Vary (9% of households). These findings are consistent with the Social Exclusion Index, which identifies Ústí nad Labem, Moravian-Silesian, Karlovy Vary, and Olomouc as the most affected by social exclusion (Lang, 2024). Furthermore, between 2020 and 2022, the highest per-capita state social support benefits were paid in the regions of Ústí nad Labem and Moravian-Silesian (CZSO, 2021a; CZSO, 2022a; CZSO, 2023b).

Likewise, the number of households receiving child allowance increased by 15% annually, totalling 2.52% of households from the sample. The largest increase in recipient households was seen in the 2nd income quintile, with an increase of 0.8 pp (in total, 3% of households). In the 1st income quintile, recipients of this allowance increased by 0.63 pp, totalling 5.4% of households. Additionally, the amounts of child allowances received by households also increased.

H3: Households receiving housing allowances experienced less financial strain compared to those not receiving such support amidst the rising cost of living in 2022.

The data analysis confirms Hypothesis 3. In general, households receiving housing allowance in both years experienced improvement or less deterioration in their living conditions compared to households not receiving housing allowances.

Households at risk of poverty who received housing allowance experience a larger fall in the ratio of housing costs to net income between 2021 and 2022, indicating a relative improvement in housing affordability. There has also been a reduction in the number of households with debt. However, this positive trend was counteracted by an increased proportion of households reporting severe difficulties in making ends meet in 2022 compared to the previous year. In addition, there were significant issues, such as a marked increase in the percentage of households unable to afford to keep their homes adequately warm.

Conversely, households not receiving housing allowances saw a smaller fall in the ratio of housing costs to net income. In addition, there was a slight decrease in the proportion of households reporting great difficulty in making ends meet. Nevertheless, there was an increased share

of households facing challenges, considering the housing costs burden and an increase in the share of households that could not afford holidays away from home or unexpected expenses.

H4: The increase in household incomes in 2022 was insufficient to compensate for the rising cost of living, resulting in a decrease in the purchasing power of households.

Hypothesis 4 was confirmed. In 2022, a greater number of households experienced significant challenges in making ends meet with difficulties. Also, there was a notable increase in the share of households identifying housing costs as a heavy burden. The share of households that could not afford to keep their homes adequately warm or to eat a meal with meat every second day increased. Furthermore, more households could not afford unexpected expenses to go on a one-week holiday. The living conditions have primarily deteriorated within the first three income quintiles.

H5: Regional and socio-economic factors influence households' use of social assistance.

The results of the probit model confirm that regional and socioeconomic factors significantly influence households' use of social assistance. Specifically, households in areas such as Liberec, Karlovy Vary, Pardubice, Vysočina, South Moravian, and Olomouc are more likely to experience an increase in income due to social benefits compared to those in Prague. Socioeconomic factors also play a crucial role. Households in the lower income quintiles (1st and 2nd) have significantly higher probabilities of income increase due to social benefits, which highlights the targeted impact of the social benefits on lower-income groups. Additionally, seniors and low-educated households rely more on social welfare benefits. Out of the low-educated households in the analysis, 60% are in the 1st quintile, and 20% are in the 2nd quintile. Seniors account for less than 5% in the 1st quintile and over 30% in the 2nd quintile.

Moreover, the results of the analysis are consistent with the previous research findings (see Table 7.1). This consistency reinforces the recognition that low-income households in the Czech Republic are disproportionately affected by the cost-of-living crisis. Particularly, single-parent households are highly vulnerable. Moreover, the percentage of

households unable to cover unexpected expenses, indicating insufficient savings, has also risen.

Table 7.1 Summary of findings from previous research

Reference	Findings
PAQ Research (Český rozhlas, n.d.)	<ul style="list-style-type: none"> - Increase in the financial vulnerability of households - Increase in household spending on housing - Households are “losing savings” - Households started to save on energy - Most affected: low-income households
Pertold (2022)	<ul style="list-style-type: none"> - Most affected: households with kids, single parents, seniors (low-income households)
Janský et. al. (2023)	<ul style="list-style-type: none"> - The most affected by the cost-of-living crisis were low-income households
Sklenář (2023)	<ul style="list-style-type: none"> - Energy crisis affected the most low-income households
Pertold & Pleticha (2022)	<ul style="list-style-type: none"> - The most affected households by rising prices are low-income households
CZSO (2021a, 2022a, 2023b)	<ul style="list-style-type: none"> - The highest number of beneficiaries (per capita) of state social support benefits in (2020-2022) are Moravian-Silesian and Ústí regions
Lang (2024)	<ul style="list-style-type: none"> - Regions most burdened by social exclusion are Moravian-Silesian, Ústí, Karlovy Vary and Olomouc regions

Source: Own elaboration based on literature review in the thesis

8 Conclusion

In 2022, households faced significant economic challenges due to a rise in the cost of living driven by an energy crisis, geopolitical tensions, and war in Ukraine, resulting in a cost-of-living crisis. Rising prices have deteriorated the financial stability and the overall well-being of households, especially those with lower incomes. The aim of this thesis was to analyze the impact of the cost-of-living crisis on low-income households in the Czech Republic and whether the increase in household expenditures leads to a higher use of social assistance.

The analysis of the cost-of-living crisis in 2022 revealed several key findings. The financial situation of low-income households did not worsen as anticipated. Instead, their incomes increased more than their housing costs, improving the ratio of housing costs to income. This positive outcome is likely due to increased and more widespread housing and child allowances. However, subjectively, the household situation has worsened. More households were struggling to make ends meet or found housing costs a heavy burden. Rising energy costs significantly impacted the living standards of low-income households, as evidenced by an increase in the number of households unable to keep their homes adequately warm.

The data also showed that the cost-of-living crisis led to greater reliance on social welfare benefits, with low-income households receiving the most. Households receiving housing allowances saw improvement in their living conditions; however, they also reported severe difficulties in making ends meet. Conversely, those households not receiving housing allowances faced smaller improvements in their living conditions. These findings highlight the critical role of targeted social welfare benefits in mitigating financial strain during crises. By addressing the gaps in the system, policymakers can create stronger and more resilient social safety nets that better support vulnerable households during times of economic hardship.

To conclude, the 2022 cost-of-living crisis in the Czech Republic has posed significant challenges for low-income households, increasing their financial vulnerability. Furthermore, the cost-of-living crisis highlights the importance of strong social safety nets and the need for proactive social policies. The government can establish a more resilient social welfare system by drawing lessons from this crisis and implementing

targeted measures. Through proactive and targeted policies, the government will provide better support to vulnerable households, ensuring their financial stability and well-being in the face of future economic challenges. The insights from this thesis contribute to a better understanding of the link between increasing living costs, household financial stability, and the effectiveness of social welfare programs.

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Appendix A Prescriptive housing costs

Table A. 1 Prescriptive housing costs for rental apartments valid from January 2022 to September 2022 (in CZK)

The number of people in the HH	Number of inhabitants of the municipality				
	Prague	over 100 000	50 000 - 99 999	10 000 - 49 999	up to 9 999
one	9,001	7,151	6,815	5,809	5,626
two	12,499	9,967	9,507	8,131	7,880
three	16,705	13,393	12,792	10,992	10,664
four and more	20,521	16,528	15,803	13,632	13,237

Source: Author based on Government Regulation No. 507/2021 Coll.

Table A. 2 Prescriptive housing costs for cooperative apartments and privately owned apartments valid from January 2022 to September 2022 (in CZK)

The number of people in the HH	Number of inhabitants of the municipality				
	Prague	over 100 000	50 000 - 99 999	10 000 - 49 999	up to 9 999
one	5,052	5,052	5,052	5,052	5,052
two	7,213	7,213	7,213	7,213	7,213
three	9,828	9,828	9,828	9,828	9,828
four and more	12,221	12,221	12,221	12,221	12,221

Source: Author based on Government Regulation No. 507/2021 Coll.

Table A. 3 Prescriptive housing costs for rental apartments valid from October 2022 to December 2022 (in CZK)

The number of people in the HH	Number of inhabitants of the municipality				
	Prague	over 100 000	50 000 - 99 999	10 000 - 49 999	up to 9 999
one	13,501	11,651	11,315	10,309	10,126
two	16,999	14,467	14,007	12,631	12,380
three	19,205	15,893	15,292	13,492	13,164
four and more	23,021	19,028	18,303	16,132	15,737

Source: Author based on Government Regulation No. 289/2022 Coll.

Table A. 4 Prescriptive housing costs for cooperative apartments and privately owned apartments valid from October 2022 to December 2022 (in CZK)

The number of people in the HH	Number of inhabitants of the municipality				
	Prague	over 100000	50 000 - 99 999	10 000 - 49 999	up to 9 999
one	7,552	7,552	7,552	7,552	7,552
two	9,213	9,213	9,213	9,213	9,213
three	11,828	11,828	11,828	11,828	11,828
four and more	14,221	14,221	14,221	14,221	14,221

Source: Author based on Government Regulation No. 289/2022 Coll

Appendix B Descriptive characteristics of income quintiles

Table B. 1 Descriptive characteristics of income quintiles

	Share of households (%)				
	q1	q2	q3	q4	q5
Prague	12.21	16.79	15.27	18.32	37.40
Central Bohemia	20.52	18.13	18.13	21.51	21.71
South Bohemia	19.16	17.77	25.09	23.69	14.29
Pilsen	17.17	20.60	24.03	17.60	20.60
Karlovy Vary	30.30	32.32	11.11	7.07	19.19
Ústí nad Labem	22.12	21.52	21.21	18.79	16.36
Liberec	22.35	24.02	19.55	21.79	12.29
Hradec Králové	18.09	22.87	20.74	19.15	19.15
Pardubice	19.80	22.77	16.83	17.33	23.27
Vysočina	15.38	17.44	21.54	23.08	22.56
South Moravian	18.61	19.48	21.21	21.00	19.70
Olomouc	29.63	19.91	15.28	18.06	17.13
Zlín	17.09	22.61	21.11	22.61	16.58
Moravian-Silesian	24.12	18.97	22.68	20.62	13.61
Low level of education	63.77	21.13	9.43	4.15	1.51
Medium level of education	20.56	22.98	22.19	20.41	13.86
High level of education	6.05	11.04	16.45	23.25	43.21
Housing costs no burden at all in 2021	11.84	18.61	18.44	18.61	32.49
Housing costs some burden in 2021	18.51	19.80	20.98	21.30	19.41
Housing cost a heavy burden in 2021	37.67	22.91	16.12	14.37	8.93
Senior	4.97	30.62	35.14	18.42	10.85
Incomplete HH	35.16	20.88	20.88	17.58	5.49
One -two kids	11.40	13.57	23.02	29.57	22.26
More kids	15.38	23.08	17.58	18.68	25.27

Source: Own elaboration based on Households Income and Living Conditions Survey