

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economics**



**Bachelor Thesis**

**Assessment of Universal Basic Income**

**Daniel Cosimo Di Munno**

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## BACHELOR THESIS ASSIGNMENT

Daniel Cosimo Di Munno

Economics and Management

Thesis title

**Assesment of Universal Basic Income**

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### Objectives of thesis

Aim of the bachelor thesis is to discover the concept of universal basic income, present its many conceived versions and find the most suitable for implementation in the Czech Republic. In the theoretical part of the bachelors' thesis I define what basic income is, its history and the way it has been implemented or experimented around the world. In the practical part my aim is to find a suitable solution for the possible implementation in the Czech Republic, compare and analyse the benefits through freely accessible statistical data.

### Methodology

Theoretical part of the thesis will focus on the basic concepts of universal basic income, its history and pilot projects that have been started around the world.

In the practical part I will compare the Finnish experiment and a possible implementation to the Czech economic environment by comparison of economic and social factors. As part of the analysis I used the time series methodology and showed the trend. Time series are factually and spatially comparable observations (data) that are unambiguously arranged in terms of time in the past – present direction.

Trend is the general tendency of the researched phenomenon to develop over a long period. It is the result of long-term and permanent processes. The trend may be increasing, decreasing, or there may be a number without a trend.

## **The proposed extent of the thesis**

40 – 60 pages

## **Keywords**

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## **Recommended information sources**

- Kela (2016). From idea to experiment. Report on universal basic income experiment in Finland. Helsinki.
- Koistinen, P. and Perkiö, J. (2014). Good and Bad Times of Social Innovations: The Case of Universal Basic Income in Finland. *Basic Income Studies*, 9(1-2).
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- Van Parijs, P. and Vanderborght, Y. (2017). *Basic income. A radical proposal for a free society and a sane economy*. Cambridge: Harvard University Press.

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Prague on 15. 03. 2019

### **Declaration**

I declare that I have worked on my bachelor thesis titled "Assessment of Universal Basic Income" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on March 15<sup>th</sup>, 2019

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I would like to thank Ing. Jiří Mach, Ph.D. for his help and guidance during my work on this thesis.

# Assessment of Universal Basic Income

## Abstract

Universal basic income has been an increasingly discussed topic in recent years amidst increasing job automation. Many manual jobs could be entirely replaced by machines in the next 20 years. Universal basic income should guarantee a certain level of financial security to the citizens that might be affected by those changes. This thesis will focus on the latest projects on universal basic income and will try to adapt a form of basic income to the Czech economic environment. Its aim is to describe the impacts on the population of the Czech Republic and the impact on the fiscal policy of the state. Methods used are mostly theoretical, comparing the Czech Republic and Finland. The results show that at this point in time the existence of the universal basic income in the Czech Republic is unrealistic. The resulting amount would be too low, under the current poverty line in the Czech Republic, making universal basic income a downgrade for certain groups in our society, namely pensioners.

**Keywords:** basic income, universal basic income, welfare, Czech economy, comparison, pensions, pilot experiments

# Zhodnocení Univerzálního Základního Příjmu

## Abstrakt

Univerzální základní příjem byl v posledních letech stále více diskutovaným tématem uprostřed rostoucí automatizace pracovních míst. Řada manuálních pracovních míst by mohla být v následujících 20 letech zcela nahrazena stroji. Všeobecný základní příjem by měl občanům zaručit určitou úroveň finančního zajištění, které by tyto změny mohly ovlivnit. Tato práce se zaměří na nejnovější projekty v oblasti všeobecných příjmů a bude se snažit přizpůsobit formu základního příjmu českému ekonomickému prostředí. Jejím cílem je popsat dopady na obyvatelstvo ČR a dopad na fiskální politiku státu. Použité metody jsou většinou teoretické, srovnávající Českou republiku a Finsko. Výsledky ukazují, že v současné době je existence univerzálního základního příjmu v ČR nereálná. Výsledná částka by byla příliš nízká, pod současnou hranicí chudoby v České republice, což by učinilo univerzální základní příjem zhoršením situace pro některé skupiny v naší společnosti, a to důchodců.

**Klíčová slova:** základní příjem, všeobecný základní příjem, sociální zabezpečení, česká ekonomika, srovnání, důchody, pilotní experimenty

## Table of content

<b>1 Introduction .....</b>	<b>11</b>
<b>2 Objectives and Methodology .....</b>	<b>12</b>
2.1 Objectives .....	12
2.2 Methodology .....	12
<b>3 Theoretical Part .....</b>	<b>14</b>
3.1 Definition of Income .....	14
3.2 Definition of Welfare .....	15
3.3 Definition of Basic Income.....	15
3.4 Definition of Consumer Price Index .....	19
3.5 History of Basic Income .....	19
3.5.1 Predecessor negative income tax .....	19
3.5.2 Implementation and experiments with Basic Income .....	20
3.6 Alaskan State dividends .....	21
3.7 City of Utrecht .....	22
3.8 Finnish experiment .....	23
<b>4 Practical part .....</b>	<b>24</b>
4.1 Description of the Finnish model.....	27
4.2 Comparison of Finish and Czech economic data.....	29
4.3 Price index comparison of Finland, Czech Republic and other EU countries..	29
4.4 Comparison of social expenditures in Czech Republic and Finland.....	33
4.5 Average wage in Finland .....	35
4.6 Calculation of the Czech Universal Basic Income.....	36
4.7 Benefits coming from UBI implementation .....	38
4.8 Negative impact of UBI.....	38
<b>5 Discussion and conclusion .....</b>	<b>39</b>
<b>6 References .....</b>	<b>41</b>
<b>7 Appendix .....</b>	<b>43</b>

## List of pictures

Figure 1 Share of the global population living in poverty.....	20
Figure 3 UBI pilot programmes around the world.....	21
Figure 4 Labour market comparison .....	25
Figure 5 State budget expenditures in year 2018.....	32
Figure 6 Social Protection Expenditures in Relation to GDP Czech Republic Comparison vs Finland.....	34
Figure 7 Development of average wage - Finland .....	35



## List of tables

Table 1 Table for determining the size of the statistical sample.....	26
Table 2 Impact of different basic income levels on other social expenditure items (million euro).....	28
Table 3 Price level index .....	30
Table 4 Total general government expenditure on social protection, 2016 (% of GDP)....	31
Table 5 Detailed figures of Table 4.....	31
Table 6 Detailed figures of Figure 5 .....	32
Table 7 Progress of expenditures in years by branch - Groups (in millions CZK).....	33

## List of abbreviations

UBI.....	Universal Basic Income
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# 1 Introduction

In recent years there has been a growing interest in an idea that is quite old and has been debated over for decades. This idea would assure citizens a safety net if they ever encounter financial trouble, it could help find a person's career without them worrying about money, it might even lead people to a more colourful and creative life. That is the idea of a guaranteed basic income. Basic income is a state sponsored stipend given to every citizen of the state unconditionally, regardless of the citizens employment, wealth, age or gender. Giving every citizen a monthly stipend would assure a dignified survival or even a decent livelihood for most citizens. Being a replacement for the welfare system, that is by many thought to be broken, unfair or ineffective. It is a tool that could finally redistribute wealth more fairly and evenly in the society. The welfare system in its current form sometimes excludes certain groups of people from society, labelling them as poor, or it discourages them from finding work, since sometimes it is more beneficial to stay on welfare than to find work. Basic income aims to deal with all the problems with the welfare system mentioned above. If everyone is a recipient of basic income, no one is excluded from society or social circles and since employed citizens could think of basic income as a bonus in addition to their pay check, it motivates people to find a job, because they will not lose the benefits like with welfare.

There are many advocates for the implementation of basic income around the world. Basic income is mostly popular with politicians and political parties that lean to the left of the political spectrum. Although the biggest challenge for basic income to be implemented is, that there is no single definition of basic income agreed by all parties involved. Implementation ideas vary from basic income assuring a living minimum to being the equivalent of a minimum wage salary. Then there is the question of financing, where will the state take the resources necessary to implement basic income, ideas include higher taxation or redistributing wealth from natural resources. Problems like these clearly show why basic income is not widely implemented. Handful of states have implemented it, most notably Alaska with the dividend fund financed by vast natural resources found in Prudhoe Bay. European countries and cities are also conducting experiments with basic income on a micro scale, where very few citizens are selected into these programs.

## **2 Objectives and Methodology**

### **2.1 Objectives**

Aim of the bachelor thesis is to discover the concept of universal basic income, present its many conceived versions and find the most suitable for implementation in the Czech Republic. In the theoretical part of the bachelors' thesis I define what basic income is, its history and the way it has been implemented or experimented around the world. In the practical part my aim is to find a suitable solution for the possible implementation in the Czech Republic, compare and analyse the benefits through freely accessible statistical data.

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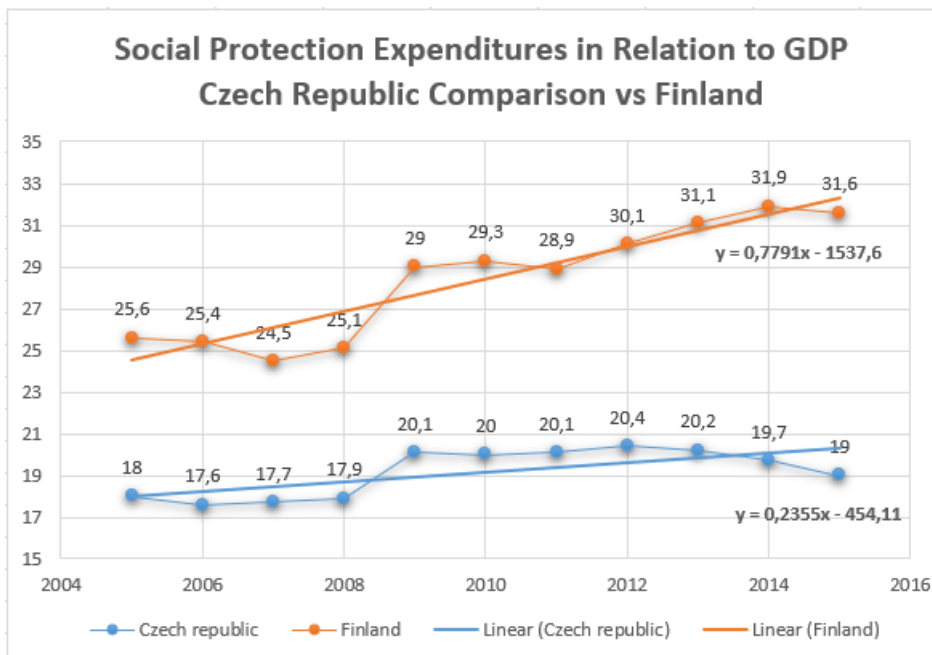
Time series and linear trends

Trend analysis by default uses the linear trend model:

$$Y_t = b_0 + b_1 t + e_t$$

In this model,  $b_1$  represents the average change from one period to the next.

Trend is the general tendency of the researched phenomenon to develop over a long period. It is the result of long-term and permanent processes. The trend may be increasing, decreasing, or there may be a number without a trend.



## 3 Theoretical Part

### 3.1 Definition of Income

Income is money that people, or organizations get as a by-product of either selling products or services, or through capital speculations. Most people, under the retirement age in any nation receive income as their wage or dividend from invested stocks or bonds or any other financial asset. For pensioners, pensions and their savings are the main source of their income. Many types of income are taxed.

Income tax is the second largest tax paid after VAT in any government budget. Income tax is paid both by individuals and businesses, although the percentages are different for each. For individuals, the income is taxed by 15% in the Czech Republic and for businesses by 19%. (Zákon č. 586/1992 Sb.)

Disposable income is used by individuals to buy necessities like food, clothing, housing and other goods and services to improve their life such as movie tickets, hobbies, traveling. Many also choose to save a certain part of income either for retirement or simply for „worse times”. Businesses use their disposable income to pay their employees, pay rent and utilities and invest it to grow.

The material compensation everyone receives is determined by their skills. Some skills are valued higher than others and individuals with those skills receive a higher income on average. Another factor in determining someone's income is market value, if the skill the individual possesses is scarce, the individual's market value rises contributing to a higher income.

Other factors determining an individual's income might include: negotiation skills, how well can an individual negotiate his/her contract, also sometimes unfortunately discrimination plays

### **3.2 Definition of Welfare**

A social welfare system provides assistance to individuals and families in need of financial help. In different countries, it takes many forms and pays different amounts of money, amounts are based on the prices in each country, the richer a country is, the more the state pays on welfare.

Most common programs of welfare systems assistance are health care, unemployment compensation, housing assistance, food stamps and child care. Welfare is not limited to poor people either, giving assistance to the disabled and elderly.

There are two distinct welfare models in Europe. The first is the Nordic model, which relies on high taxes and redistributes a lot of income. High standard of living, prominent level of participation of women in the workforce. Exemplary states are Denmark, Norway, Iceland, Finland and Sweden.

### **3.3 Definition of Basic Income**

The definition of an unconditional basic income differs from author to author and there is no precise, and especially unified, definition of what the unconditional basic income is and should be.

One of the definitions is the European Citizens' Initiative, which in 2013 sought to collect enough signatures on petitions sheets in the EU countries to call on the European Commission to submit a regulation that would, after appropriate adjustments, introduce unconditional basic income in the European Union. This income was defined in the registration proposal as an unconditional basic income (Hrubec et al., 2013):

"The unconditional basic income does not replace the welfare state, but it complements and transforms it from a compensatory to an emancipatory welfare state. Emancipatory unconditional basic income is defined by the following four criteria: general, individual, unconditional, and high enough to ensure dignified existence and participation in society. "

At least 1 million signatures in total and at least some predetermined number by population were to be collected for at least 7 countries in a year. However, in the final, the European Citizens' Initiative failed to get enough signatures to make an unconditional basic income debated.

Furthermore, the proposal specified the conditions of this income. Generality means that any person, regardless of colour, age, sex, profession or place of residence, is entitled to this financial benefit. Individuality ensures this income for every individual, so income is not limited to the household, but to the individual. Unconditional-ness ensures independence from any conditions. The last condition is sufficient of this income, which means that it should provide a standard of living that is in line with the country's social, economic and cultural standards. Generally, proponents of basic unconditional earnings suggest that they amount to around 60% of the median wage. The exact relationship between the amount of basic unconditional earnings and the median wage will be given in specific proposals later in your work. It should also be the prevention of poverty and the importance of the type of work (creative work in culture, spending time with children, care for the elderly, etc.), which is not valued today by wages. Sufficient income should also give citizens the opportunity to focus, for example, on what they enjoy or on supporting the family.

Due to the just-mentioned definition, I should not forget to explain the different variations in the names of unconditional earnings. The definition uses the word "unconditional", which we will consider being synonymous with the unconditional word. Abroad is the most commonly used expression for unconditional basic income. Phillippe Van Parijs (2017) uses "unconditional basic income", which is still the same in our case. However, Daniel Raventós (2007) in his articles mentions "proto basic income", a previous version of basic income (primary basic income), which still does not have all the right elements. In recent years, the subject of basic unconditional earnings has been shown in academic circles under various names, such as "state bonuses", "social dividends", "civil wages", "citizenship", "universal grant" or "guaranteed income". From the point of view of the whole concept of unconditional basic income, there is still one and the same idea, but the specific proposals differ (Van Parijs and Vanderborght, 2017).

In his book, Daniel Raventós also questions the basic income (Raventós, 2007):

"The basic income is the income the state pays to every fully-fledged member of the society or to the permanent establishment therein, even if it does not want to perform paid work, regardless of whether it is wealthy or poor or - otherwise say - no matter what its potential sources of income are, and no matter who lives in a common household. "

What, is hidden under this definition? The State may be considered a national state, such as the Czech Republic, or a larger unit, as may be the European Union, or, on the contrary, it could be a smaller unit. Here, in our case, he could represent a county. As well as the income level, it is necessary to distinguish between the household and the individual who is entitled to this income of this definition highlights the difference between work and paid employment. The concept of work may hide classic paid labour on the labour market, domestic work, or volunteer work. The next part of the definition is quite understandable, but I still mention that the income is not conditioned, for example, by any level of poverty or the amount of income. The only importance is citizenship or documented residence, which in this case are the only conditions of unconditional basic income. The last part relates to the fact that the form of coexistence is not affected by this income. Another basic resource, which has its own definition, is Basic Income Earth Network, which reads as follows: "Basic income is a periodic cash payment unconditionally delivered to each individual, without any demanding tests or labour requirements." (McFarland, 2017) of the minimum income, which differs from income in the current European countries in three fundamental differences: it is paid to individuals and not to households, is paid independently of any other source of income it is paid without any working conditions and regardless of whether the individual wants to work, or not. The basic income also has the following basic characteristics according to BIEN (McFarland, 2017): Periodic - Not paid at one and the same time, but in regular doses. Cash payment - Can be paid in a different form, such as a bill of exchange or a check. It also allows those who received it to handle it as they see fit. The important thing is that it is not paid in any material form, or in any vouchers for a specific use that might be meal vouchers. Individual - Not paid to households, but individuals. Universal - Basic unconditional earnings are paid to all without any testing or limitations. Unconditional - Paid without any work requirements or willingness to work.

A similar definition of basic income can also be found with Philippe Van Parijs:



"Universal basic income means income paid by the government at the same level and at regular intervals to every adult member of society. The grant is paid out and the amount is the same regardless of whether the person is rich or poor, lives alone or with someone willing to work or not. In most versions of this proposal, as well as in mine, this grant is provided not only to citizens but also to all those who live permanently in the territory. "(Van Parijs and Vanderborght, 2017)

According to Van Parijs, the unconditional basic income can be supplemented by additional income, which may be in kind, may be a reward for some work, or may be from savings or from the state. Interestingly, this definition does not show any connection with the provision of basic living needs, which one could draw from the basic word in the title of our income. We cannot find continuity here because, according to Van Parijs, the basic income can be determined above and below basic life needs. However, given that Van Parijs's basic income should ensure the existence needs of people, it should be noted that Van Parijs is content with starting a lower amount simply because he expects problems with the political endeavour to live up to basic living needs (Van Parijs and Vanderborght, 2017).

According to previous literature, we can, therefore, infer the definition of unconditional basic income and mention its characteristic features. The unconditional basic income should, in the true sense of the word, secure the existence needs of people. It should not be conditional, as it follows from the title. This means that everyone, regardless of his or her religion, race, gender, and so on, should receive the same amount of this financial benefit. Conditional should also be no contribution to the system, whether in the form of a paid job or any contribution. In a sense, it can be considered the only condition of citizenship in that state. It is important that you can make a financial payment the individual will receive another salary, but most of the proposals will come at any other lower rate than the unconditional basic income itself.

### **3.4 Definition of Consumer Price Index**

The consumer price index reflexes the change in the price of goods and services which are bought by households. The measuring of the price index with this index is based on comparison of expenses purchase of a typical consumer basket of goods and services between the two compared periods. Consumer basket is a compilation of goods and services consumed by a typical household.

(Jurečka et al., 2017)

### **3.5 History of Basic Income**

#### **3.5.1 Predecessor negative income tax**

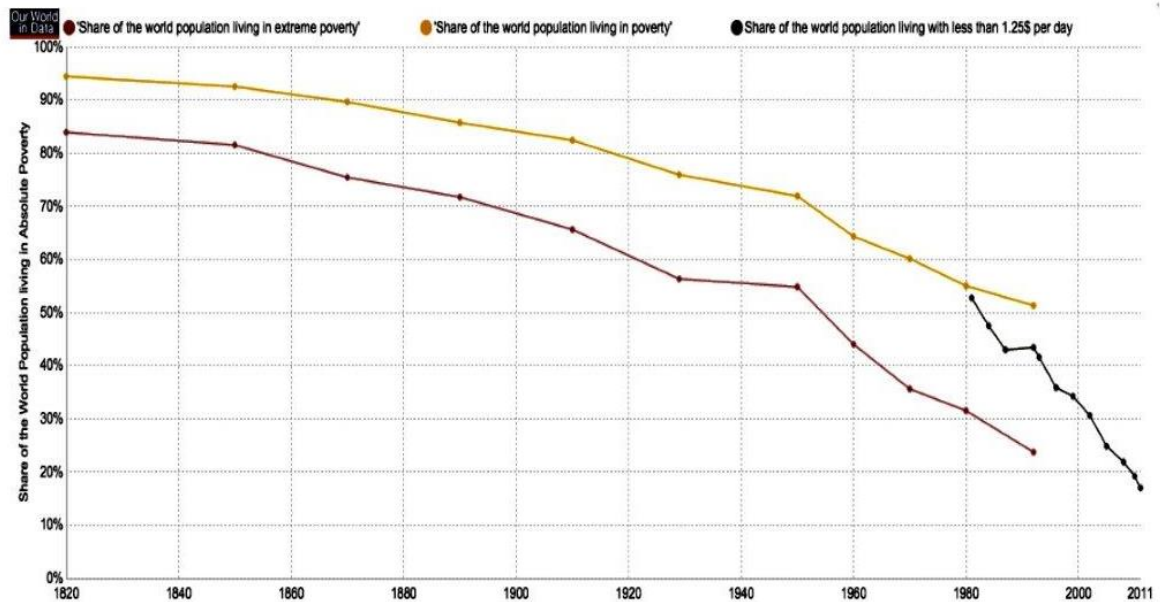
Some may compare basic income to negative income tax, they have the same goal, to reduce poverty but there is a key difference between them. Basic income is a regular payment by the state, where you receive the money instantly and are free to spend it that very day. Negative income on the other hand is tied to deductible taxes, it only applies when tax deductibles, like children, are not enough to keep a household in a situation with enough money to afford necessities. In this case Milton Friedman proposed that a part of the taxes paid are to be given back. (Friedman and Selden, 1976)

“The proposal for a negative income tax is a proposal to help poor people by giving them money, which is what they need. Rather than as now by requiring them to come before a governmental official, detail all their assets and their liabilities and be told that you may spend x dollars on rent, y dollars on food, etc., and then be given a handout. “– Milton Friedman

Milton Friedman thought that simply giving people money would make them lazy, they would not have any incentive to work, go back to school and get a higher education. Under this system people working minimum wage would still have to go the same workplace, work the same hours for the same pay, but only at the end of the month they would see a difference in money earned. Basic income tries to improve the life of people by giving them a choice, to work the same job and receive more money as a bonus, or have the liberty to pursue higher education, or anything else they find meaningful in their life, without having to fear

starvation or loss of shelter. Negative income tax is a tool to give poor working people more money, basic income is a tool for increasing people's happiness.

**Figure 1 Share of the global population living in poverty**

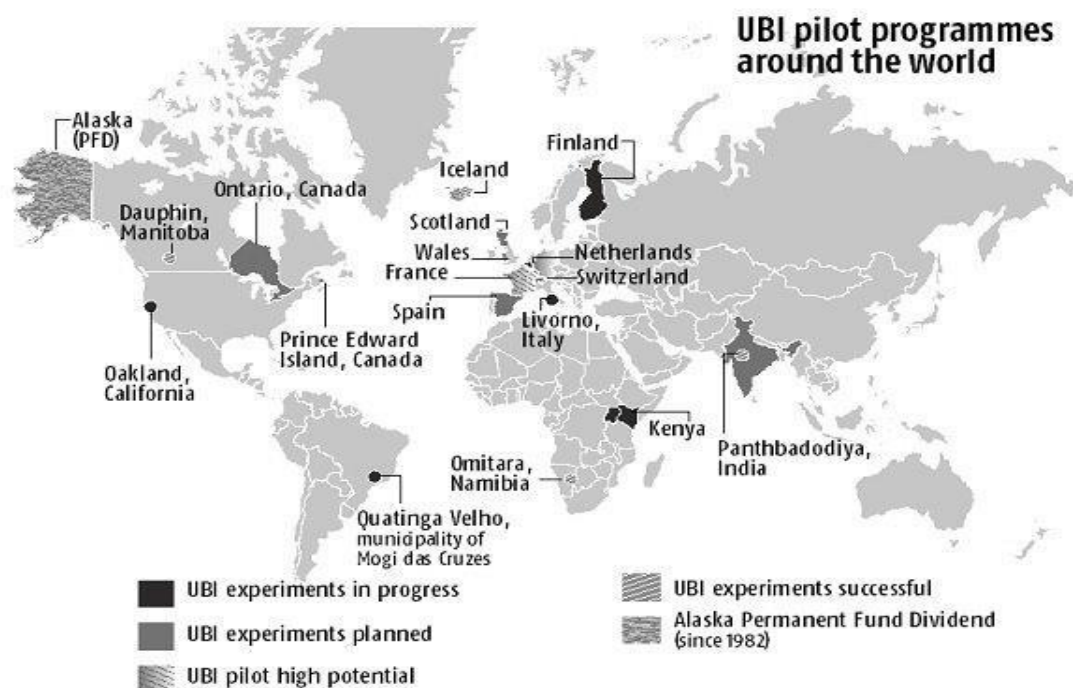


Source: *Sevenpillarsinstitute.org*

### 3.5.2 Implementation and experiments with Basic Income

In the 1970's an experiment was held in a small town of Dauphin located in Manitoba, Canada. It ran from 1974 to 1979 and it included 12 000 people. Unfortunately, the research was not concluded, but it was archived until someone from the University of Manitoba dug it up from the archives. That someone was Ms. Forget and she found out some impressive things, like that working hours fell only by 10% (which were mainly mothers to stay at home with their kids), that hospitalization rates fell by about 8.5 percent and that many more young men stayed in school to complete their education, instead of finding a fulltime job at 16. (Forget, 2011)

**Figure 2 UBI pilot programmes around the world**



Source: *business-standard.com*

### 3.6 Alaskan State dividends

As I have mentioned in the introduction, Alaska is the only state of the United States of America, and the first place in the world to implement a guaranteed basic income for its citizens. Anyone who is staying legally in Alaska for at least six months has the right to earn Alaskans basic income. More than 700 000 people live in Alaska today and 658 661 people applied to receive the basic income in 2017 (PFD, 2017). The amount given out by the Alaska’s Permanent Fund Dividend in 2017 was \$1 100 which was slightly below the PFD’s historical average of \$1 150.

The Alaskan Permanent Fund was created with the concern that future generations of Alaska could not profit from its natural resources. In the mid-1970’s, the Republican governor of the state of Alaska, Jay Hammond (1922 – 2005), acquired the ownership of the biggest North American oil field, Prudhoe Bay, for the citizens of Alaska, instead of all citizens of the US. The concern was, that the oil extraction would benefit only the current generation of Alaskan citizens. An amendment of the State Constitution in 1976 had to be made for the Alaska Permanent Fund to be created. Alaskan Constitution states that the vast natural resources of Alaska are held by the Alaskan people, not the State, that was the basis for the

dividend system (Van Parijs and Vanderborght, 2017). The program officially started in 1982 since then the fund evolved from investing into the Alaskan economy into a worldwide portfolio. The dividend first peaked in 2008 at \$2069, then due to the worldwide economic crisis dropped and in 2015 reached its maximum \$2,072. Since then there was a 49 percent drop in the amount paid in 2016, citizens cashing in at \$1,022, this is caused by the fund's reflection of the previous years in average financial return of Alaska's oil sales. The Alaskan oil dividend is paid out every year and the amount paid to the Alaskan citizens is not enough to cover their basic individual needs. At its peak, the dividend came close to Alaska's 4 percent of GDP per capita.

Despite being the only basic income system in existence, giving an unconditional obligation-free cash payment to its citizens, it is not an ideal system to be implemented anywhere else. A once a year cash payment of a thousand dollars to its citizens is not enough to cover an individual's basic needs for the entire year. Ideally, basic income should be paid monthly, like a normal salary, in order to cover the basics like food and shelter and the amount should reflect the living minimum of each state. (Van Parijs and Vanderborght, 2017)

### **3.7 City of Utrecht**

In the Dutch experiment, the city of Utrecht and the University of Utrecht cooperate. A group of people who are currently receiving benefits will receive monthly amounts of nine hundred euros per adult, for couples or families a few hundred higher. Of the three hundred participants in the experiment, fifty will still receive the same amount regardless of whether they find a job or another type of income during the experiment. The other three groups will each be subject to a different set of rules, and the control group will be part of the experiment and will be covered by the current parameters of the Dutch welfare state. „Each group is set up differently some receive 960 € without obligation to work, some receive extra money for volunteer work and lastly there are groups where participants receive their usual benefits says Loek Groot.“(Hamilton, 2016)

### **3.8 Finnish experiment**

Finland has been giving 2,000 of its citizens an unconditional income for the last five months and some are already seeing the benefits, reporting decreased stress, greater incentives to find work and more time to pursue business ideas.

Finland's experiment is a variation on the idea of a universal basic income: an unconditional income paid by the government to all citizens, whether or not they're in work. The Finns have long been perceived to be at the cutting edge of social innovation, so this is a fitting setting for the first national experiment of its kind. Its main goal is to determine whether the basic guaranteed income is viable as a replacement for the welfare system.

The scheme is the first of its kind in Europe and sees participants receive €560 every month for two years. The trial is one measure introduced by the centre-right government to tackle Finland's unemployment problem.

Not everyone is impressed by the pilot scheme, however. Finland's biggest union said the experiment was unaffordable and would encourage some people to work less while driving up wages in undesirable professions. (Koistinen and Perkiö, 2014)

## 4 Practical part

The practical part of this bachelor's thesis consists of the detailed description of the model used in the Finnish experiment and a conversion of this model for the use on the Czech Republic. There are many differences between the Czech Republic and Finland, for which the model will have to be adjusted, population, the economic situation, costs of living, minimal and average salary are all things to be considered when deciding the UBI for the Czech Republic. It must guarantee the same economic benefits as Finland has done in the experiment.

This can be narrowed to a few points:

- Gross domestic product
- Consumer price index
- Average salary

Unlike the Czech Republic, Finland does not have a minimum wage law making the comparison harder.

In my work I tried to build on the most up-to-date data in view of changes in economy and pilot time in Finland 2016-2018. Unfortunately, not all data for 2018 were available, so I always based on the latest updates available on the statistic office Finland, Czech Republic and Eurostat.

**Figure 3 Labour market comparison**

<b>Finland labour market vs Czech labour market</b>	
<b>Population</b>	
Finland 5 513 130 (2017)	Czech republic 10 610 055 ( as of 1.1.2018)
<b>Unemployment rate</b>	
Finland 5.4 % (2017)	Czech republic 2.4 % (4Q2017)

*Source: Czech and Finish Statistical Office*

Universal basic income is also disputed by the Czech politic parties. How to find a balance between the costs of the state in the social sphere and to ensure a decent level for citizens in different life situations.

The first discussion in connection with the basic income was at the instigation of the social scientists Marek Hrubec and Martin Brabec.

The people who are interested by ideas of unconditional basic income in the Czech Republic support the European initiative in 2013. At the same time, they have created websites that acknowledge the general public on this topic.

Website: vseobecnyzakladniprijem.cz



UBI has many supporters in the Czech Republic, for example, it is included in programs of political parties such as the Green Party, the Czech Pirate Party or the Communist Party of Bohemia and Moravia.



On Idnes, in March 2016, an article explaining the UBI was published and a vote was organized under it, "Would you have guaranteed income for all instead of social benefits in the Czech Republic?"

Readers voted till March 22, 2016 with the result

**Yes 3171**

**No 665**

**Total number of respondents 3836**

Source: idnes.cz

**Table 1 Table for determining the size of the statistical sample**

<b>Population</b>	8657869	<i>For population above 1000</i>	
<b>Confidence level</b>	0,01	9593	← <b>Sample size</b>
<b>Confidence interval</b>	1,96	$n = \frac{N \times Z^2 \times 0,25}{[d^2 \times (N-1)] \times [Z^2 \times 0,25]}$	

Source: author

If we look at the result of the survey via data from the Czech Statistical Office, in 2017 there were 8 657 869 citizens older than 18 years old, ie those who could vote in a referendum, similar to what was done in Switzerland. (Gimein, 2016)

Determining the size of samples helps us in a situation where there is a very large base, in this case citizens of the Czech Republic.

Because with a 95% confidence level, only a sample of 384 respondents would need to be asked, in a such serious issue a higher confidence level is better and could give us more accurate result.

With a level of reliability of 99% we would need 9583 respondents.

In this case, the result of a survey for informational purposes only, however, suggests trends in society.

## 4.1 Description of the Finnish model

The Finnish experiment decided to use the Partial Basic Income, which isn't meant to fully replace all the welfare systems in place, but it is meant to increase the level of benefit for the unemployed. Some social benefits, like housing allowance and others would be outside partial basic income. The tables show a 40% flat tax, that would supposedly help with the financing of the Partial Basic Income but at the same time the micro simulations in the KELA report shows that Partial Basic income could be funded by the existing tax system or by other means. The microsimulation also shows a difference between current taxation and a proposed flat tax.

“Leaving the population aged between 18 and 24 outside basic income would reduce the cost neutral tax rate by about one (at a basic income of 550 euros) to two percentage points (at a basic income of 750 euros).” (Kela, 2016)

- “Basic income is paid to all individuals aged 18 and over but not to pensioners (old-age pensions, disability pensions)
- Basic income is reduced from taxable social insurance based social benefits (earnings related to unemployment allowance, basic unemployment allowance, labour market subsidy, sickness allowance, parental allowance, child home care allowance); adjusted unemployment allowance will be retained.
- Study grants will be replaced by basic income but students' housing supplements will be simulated
- A simple flat-tax model: earned income and capital income are taxed in the same manner with no tax-exempt dividends, basic income is taxable earned income but a tax deduction corresponding to basic income will be directed at earned income
- Basic income is considered as income reducing housing allowance and social assistance “(Kela, 2016)

**Table 2 Impact of different basic income levels on other social expenditure items (million euro)**

	Current legislation	Basic income (euros/month)			
		450	550	650	750
Unemployment expenditure	3,928	1,740	1,546	1,357	1,184
Health insurance	1,402	989	898	815	741
General housing allowance	603	547	513	482	407
Social assistance	586	373	238	147	92
Flat tax	0	37,459	40,123	43,243	46,870
Additional financing requirement		12,018	15,066	18,169	21,294
Other taxes	32,638	5,981	5,981	5,981	5,980

*Source: Kela, 2016*

From the table we can see that unemployment expenditure, health insurance, general housing allowance and social assistance are being reduced significantly, despite this, depending on the amount paid the total costs rise from the current legislation by 50% for the lowest category to more than 95% in the highest category of the proposed Basic Income amount.

The final amount was settled to be 560 euros a month. This amount I used in my UBI model. (Kela, 2016)

„Disability benefits, child benefits, child maintenance allowance, students’ housing supplement and the pension benefits paid by Kela would remain unchanged as there are no changes directed at them in the calculations. “(Kela, 2016)

„Basic income models have high flat tax rates if they are solely financed by a flat rate tax. “(Kela, 2016)

Replacing the housing benefits entirely with the Basic Income is very difficult since regional differences must be accounted for. This would lead to an imbalance between cities and rural communities, where housing costs are generally more affordable.

## **4.2 Comparison of Finish and Czech economic data**

In my work based on the finish experiment model I am setting the equivalent amount of UBI for the Czech Republic. To compare both states, I used economic data from Eurostat. Price index and government expenditure on social protection.

Other metrics that I used from the Czech statistical office, the Finnish statistical office and Eurostat

- Expenditure of the Czech budget on the social sector
- Expenditure of the Finnish budget on the social sector
- Total general government expenditure on social protection

## **4.3 Price index comparison of Finland, Czech Republic and other EU countries**

Comparison The Consumer Price Index of the Czech Republic and Finland I mentioned in my work because the regular analysis of its value is one of the wage valorization attributes, such as minimum wages, social benefits and pensions.

The price index in Finland is above the average of the 19 countries of the EU whose value was 119 points for 2017.

In Finland, it was 122 points while the price index in the Czech Republic was 68.

As highlighted Eurostat the highest price level for consumer goods and services among the EU Member States was observed in Denmark (39 % above the EU average) and lowest in Bulgaria (50 % below the average) in 2017. Data from December 2018.

Detail in the table below.

### Table 3 Price level index

Price level index for food, beverages, clothing and footwear, 2017, EU-28=100

	HFCE	Food and non-alcoholic beverages	Alcoholic beverages and tobacco	Clothing	Footwear
Iceland	166	155	226	171	181
Switzerland	160	169	127	153	121
Norway	149	166	234	129	128
Denmark	<b>139</b>	<b>132</b>	115	130	<b>140</b>
Ireland	127	124	<b>178</b>	108	104
Luxembourg	126	124	91	106	105
Sweden	125	123	136	<b>134</b>	128
Finland	122	119	140	121	125
United Kingdom	116	94	157	87	91
Netherlands	112	101	106	111	117
Belgium	111	113	103	113	114
France	109	114	109	105	98
Austria	109	125	94	105	105
Germany	104	101	95	105	105
EA19	103	106	98	104	103
Italy	101	111	95	106	103
Spain	92	96	86	92	98
Cyprus	89	110	95	100	101
Portugal	86	100	94	98	97
Greece	85	107	97	100	102
Slovenia	84	96	79	97	94
Malta	82	111	101	98	102
Estonia	78	94	89	115	113
Latvia	73	94	83	105	106
Slovakia	70	92	75	105	99
Czechia	68	83	72	99	93
Croatia	67	97	77	101	97
Lithuania	65	81	75	105	105
Hungary	63	85	69	84	101
Poland	57	68	71	88	83
Montenegro	56	78	65	102	112
Turkey	53	84	82	54	59
Romania	53	<b>66</b>	71	92	103
Kosovo (*)	52	75	58	97	108
Bosnia and Herzegovina	52	77	54	88	87
Serbia	52	76	54	93	92
Albania	50	73	60	97	88
Bulgaria	<b>50</b>	76	<b>58</b>	<b>80</b>	<b>78</b>
Former Yugoslav Republic of Macedonia	48	62	45	81	87
Variation coefficients:					
EA-19	19.4	11.4	23.6	6.4	7.1
EU-15	13.6	10.4	23.4	11.5	12.0
EU-28	27.3	17.0	28.1	11.9	12.1
All 38	37.1	25.3	43.1	19.2	18.6

(\*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

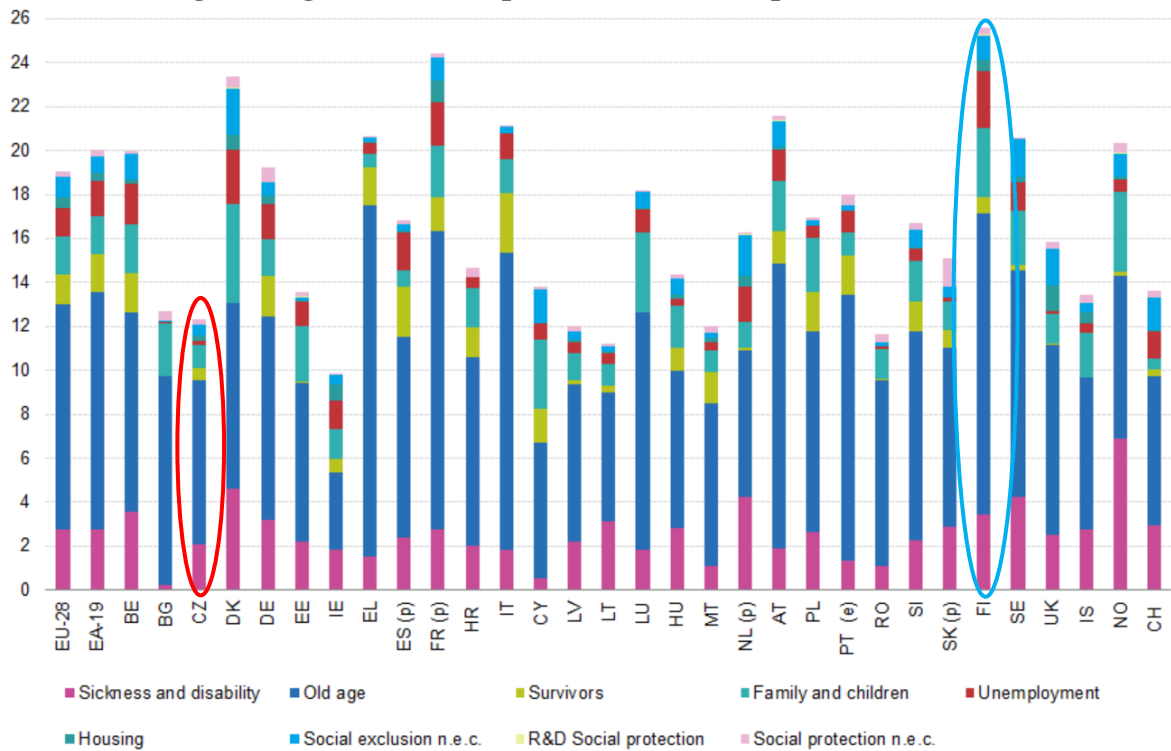
Notes: The shaded fields indicate the highest and lowest PLIs among all 38 participating countries. The highest and lowest PLIs per product group among the 28 EU Member States are marked in bold.

Source: Eurostat (online data code: prc\_ppp\_ind)

eurostat 

Source: Eurostat

**Table 4 Total general government expenditure on social protection, 2016 (% of GDP)**



Source: Eurostat

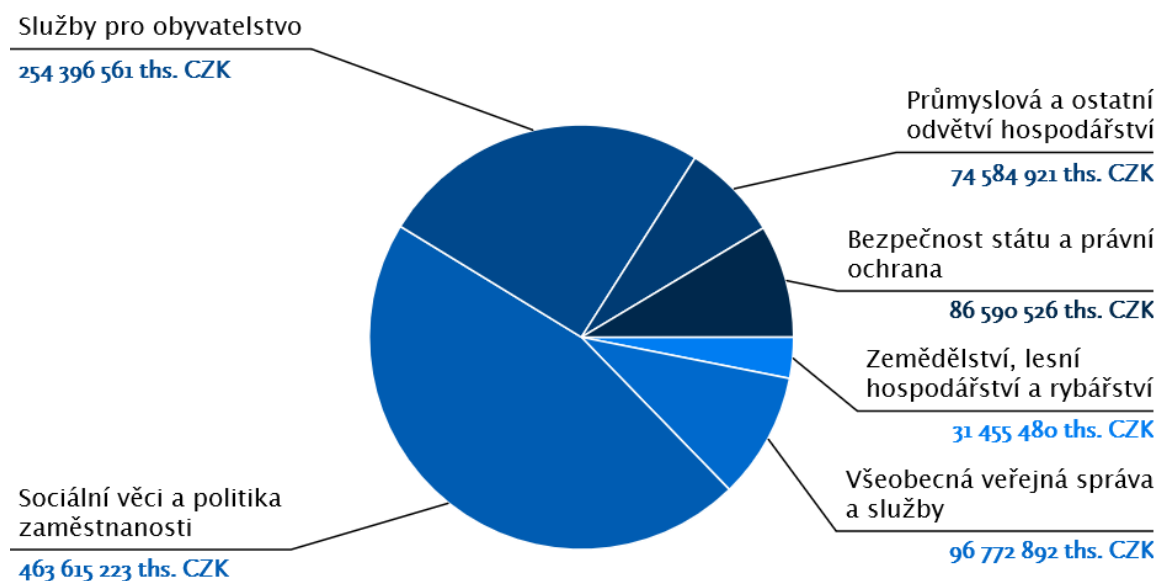
When compared to the countries in the European Union, how many % of GDP spent on social issues, the difference between Czech Republic and Finland almost 14% points.

From the chart we can also read the different percentage distribution of doses. In particular, unemployment expenditures in Finland are significant due to half of the smaller population than in the Czech Republic, Finland 2.6% GDP and CR 0.2 GDP. Similar GDP% both states issue on housing issues.

**Table 5 Detailed figures of Table 4**

	Social protection	Sickness and disability	Old age	Survivors	Family and children	Unemployment	Housing	Social exclusion n.e.c.	R&D Social protection	Social protection n.e.c.
EU-28	19.1	2.7	10.2	1.3	1.7	1.3	0.5	0.9	0.0	0.3
EA-19	20.0	2.7	10.8	1.7	1.7	1.6	0.4	0.7	0.0	0.3
CZ	12.3	2.1	7.4	0.6	1.1	0.2	0.3	0.5	0.0	0.2
FI	25.6	3.4	13.7	0.7	3.2	2.6	0.5	1.1	0.0	0.4

**Figure 4 State budget expenditures in year 2018**



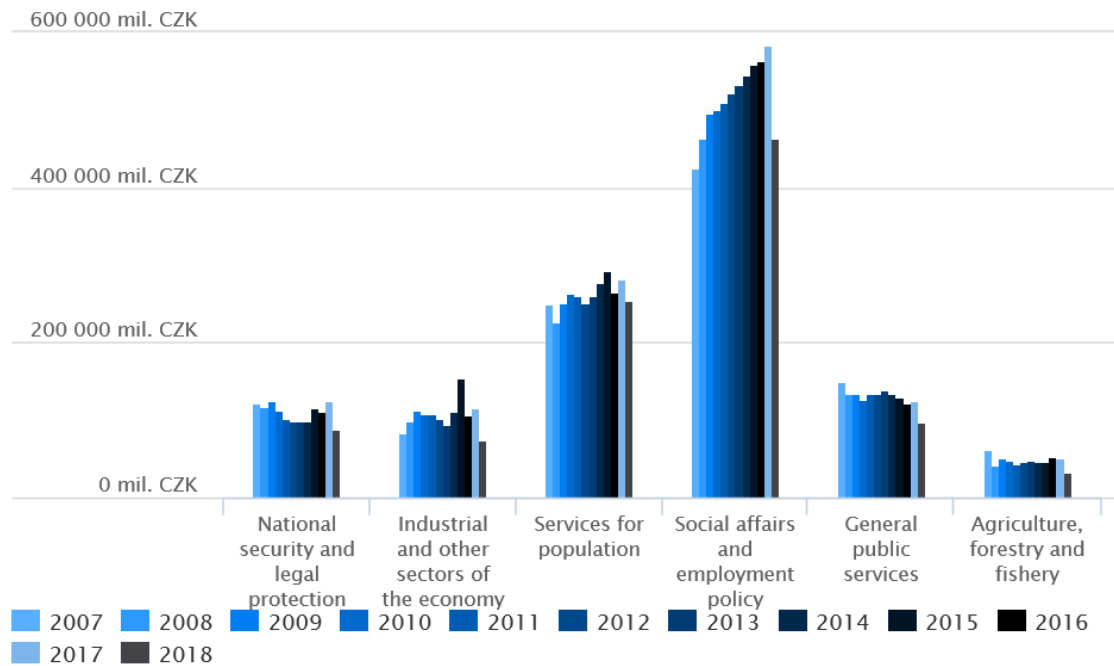
Source: Czech Ministry of Finance

**Table 6 Detailed figures of Figure 5**

Chapter of the state budget	Expenditures	%
Social affairs and employment policy	463 615 223,43 Kč	46,0%
Services for the population	254 396 561,07 Kč	25,2%
General public services	96 772 892,23 Kč	9,6%
National security and legal protection	86 590 525,90 Kč	8,6%
Industrial and other sectors of the economy	75 584 921,00 Kč	7,5%
Agriculture, forestry and fishery	31 455 479,73 Kč	3,1%
Total budget	1 008 415 603,36 Kč	100,0%

The graph shows the development of each branch of the state budget, expenses of the state budgeted from 2018 (463 615.22 million CZK) were similar to the year 2008 (464 0004 .65 million CZK), the highest expenditure was recorded in the year 2017 (584 029.30 million CZK)

**Table 7 Progress of expenditures in years by branch - Groups (in millions CZK)**



Source: Czech Ministry of Finance

#### 4.4 Comparison of social expenditures in Czech Republic and Finland

Expenditure of the Czech Republic for the social sphere represent, at the exchange rate set by the Ministry of Finance for the year 2018, a value of about 18 053 552 314 EUR. Data from the Finnish Statistical Office for 2018 is not yet published as of 1.3.2019, the most recent data update was on 31st May 2018, and shows the value of expenditure for 2016.

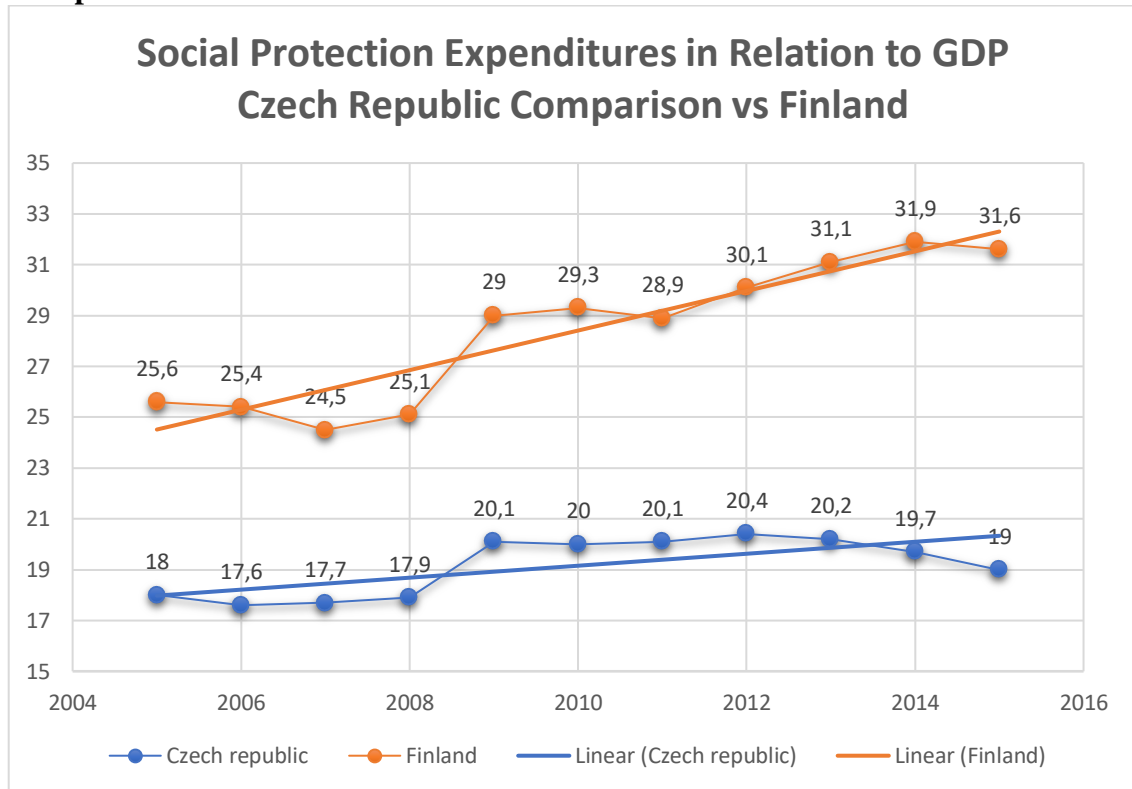
In 2016, Finland allocated € 69,058 million to the social sphere, which equals to 1 773 409 440 000 CZK.

Expenditure on the social sphere in the Czech Republic in the year 2016 amounted to CZK 563,185.77 million, 32% of Finland's expenditures

Exchange rate set by the Ministry of Finance for the year 2018 1 EUR = 25.68 CZK



**Figure 5 Social Protection Expenditures in Relation to GDP Czech Republic Comparison vs Finland**



Source: According data from Eurostat chart prepared by author

Based on information from Eurostat, I prepared a chart 7 comparing the development of social spending in relation to GDP for Finland and the Czech Republic.

Since 2008, when the global crisis prevailed, Finland has increased its spending by almost 4% and continues to rise.

the Czech Republic has also increased its expenditure by 2.2% percentage points since 2008, but since 2014 we have seen a decline. I explain this development through the growth of the economy and the low rate of unemployment.

## 4.5 Average wage in Finland

The model was based on a simulation based on a UBI of € 560. In my work I draw the value of UBI to the average wage in Finland so that I can apply this assessment to the situation in the Czech Republic

The average wage in Finland is rising at roughly 2% per annum, at a time when the Kela analysis was generated in 2016, 3300 EUR, in 2018 on the basis of the information see Table 9 is 3470 EUR, I used this value for comparison with the average wage in CR for 2018

**Figure 6 Development of average wage - Finland**



*Source: Tradingeconomics.com*

This is the development of average in Finland from January 2016 to July 2018

## 4.6 Calculation of the Czech Universal Basic Income

In the 4th quarter of 2018, the average monthly nominal wage of employees was 33 840 CZK, median wages CZK 29 247 according to the Czech statistical office.

By analogy, I calculated a percentage of UBI of 16.1% in relation to the average wage in Finland.

By using similar methodology, the UBI in the Czech Republic at the average wage for the 4th Quarter of 2018 dated 31.12.2018 would be 5461 CZK.

	<b>Finland</b>	<b>Czech Republic</b>
<b>Average wage in EUR</b>	3470	1318
<b>Average wage in CZK</b>	89110	33840
<b>UBI in EUR</b>	560	
<b>% of average wage</b>	<b>16.1%</b>	<b>i.e. 5461 CZK</b>

The rate for conversion 25.68 CZK = 1 EUR

The amount I have reached in my numbers corresponds to the values that the Czech Pirate Party, for example, in their initiative.

According to Jakub Michálek from the Pirate Party, with regard to the economic reality of the Czech Republic, the UBI should be a maximum of one quarter of the average wage. The value of 5461 CZK is 60% higher than the minimum subsistence level. The living minimum in 2018 was 3410 CZK for individuals.

But this figure is below the declared poverty line, the most commonly used 60% median equalized disposable income. The analysis of income and living conditions of households in 2017 of the Czech Statistical Office shows that the Czech Republic belongs to countries with the lowest European indicator at risk of poverty or social exclusion. The rate in Czech Republic is 12.2% in Finland the share of persons at risk of poverty in the household population was 11.8 %

In addition, this threat is diminishing, as confirmed by Michaela Jirková from the CSO (2018) Household Survey: "Income poverty was threatened by roughly every eleven inhabitants. These are people living in households whose incomes have not reached the specified limits. These vary according to the composition of the household. E.g. for an

individual's household is CZK 11,195 per month. In the case of parents with two younger children, it amounts to 23,509 crowns. "

The calculated value of UBI in the context of the poverty line would only account for 48.8% of the household income within the poverty line limit.

This calculation shows that the calculated value of the UBI derived from the Finnish model is below the poverty line.

The minimum wage was 12,200 CZK, in end of 2018. If UBI calculated value was 5461 CZK, i.e. 44.7%, the minimum wage is still motivating. To work, even for a minimum wage, should guarantee employees a higher standard of living. Conversion of universal income for the whole population over 18 years of age should receive income we will get an annual amount of cost of 567 miliard of CZK.

State social budget for 2018 was only 463,62 mld. CZK (Table 4) , in this case we would have to find resources for 104 mld CZK.

This could be achieved by reducing the costs of government and tolerating the number of officials.

<b>Universal income value</b>	<b>basic Yearly per person</b>	<b>Number of beneficiaries as of 2017</b>	<b>Social Expenditures per year</b>
<b>5,461 CZK</b>	<b>65, 532 CZK</b>	<b>8, 657 869 CZK</b>	<b>567, 367 471 308 CZK</b>

Source : author

#### **4.7 Benefits coming from UBI implementation**

Guaranteed basic income should help people to make their work decision according their wish of added value work or meaningful work instead of solving cost of living problem and doing job just for money.

The basic income would provide the funds for livelihoods for those who would choose to do the jobs that are needed in society, which are very few or not at all appreciated.

Especially in the social area or the single mothers, or women on maternity leave. The Czech population addresses the existential dilemma also with regard to the number of children that the family will or may have.

Some types of occupations seem to have never existed from point of the labour market.

For instance, child care, elderly and sick, household care most women practice in our society is largely performed as unpaid work.

#### **4.8 Negative impact of UBI**

Labour and income arising from it motivates people to job performance, if people will obtain unconditional monthly income, it will decrease their work involvement. The Finnish pilot did not confirm the increased will to work.

If we set up the UBI system, so the money was to provide everyone with the same, it would happen that those who we still do not get enough to increase poverty.

## 5 Discussion and conclusion

In my thesis I described the UBI used in the pilot project in Finland and applied it to the situation in the Czech Republic.

The amount paid in Finland in the 560 EUR pilot I related to the average wage and reached the resulting ratio that UBI in the stock corresponds to 16.1%.

I applied this percentage to the current average wage in the Czech Republic and reached the result of CZK 5461, paid universal income.

This sum coincides with the prediction of Jakub Horák (2017) published in April 2017 in the economic newspaper *Hospodářské noviny*. The value approaching his model calculation came directly on the basis of state budget expenditures on social care and pension benefits. Quotation “If we calculate expenditures, the annual state social care costs are about CZK 550 billion, of which CZK 400 billion goes to pensions. If we would like to give equal income to all (workers, retirees, children), it would be possible to give CZK 55,000 per year to every citizen per year, i.e. less than five thousand CZK per month.” (Horák, 2017)

If UBI were to replace all currently paid social benefits, the value would have to be higher because 5461 CZK is below the current poverty line.

At present, for example pensioners are primarily dependent on pensions provided by the state. In the future a good pension reform could support to implement UBI.

IF UBI was paid to people are who still actively working, they could have sufficient income to secure savings for old age. Then in retirement, they could continue to receive a flat-rate unconditional income while retirement without going under the poverty line. I can imagine this model being applied to a future generation so that they would have time to secure savings through their adult life and have

In the social area, there is a shortage of long-term workers and one of the reasons is the amount of the financial reward, UBI could help to alleviate this problem. According to sociological research, many people want to find a deeper meaning or added value in their jobs.

UBI may, under certain conditions, significantly help the state budget by reducing administrative costs associated with social benefits. It cannot be expected to be a substitute for the entire social system, but it would definitely bring a significant simplification of the system and transparency in the provision of benefits and reduce duplication.

Expected expenditure on salaries for state employees in 2019 is estimated at CZK 209.7 billion and the total number of jobs should amount to almost 470 thousand.

(Týdeník Ekonom, 2018)

To find the correct value of UBI and to identify the total economic impact on the state budget and other areas requires very detailed and in-depth analysis.

If I asked myself whether I am personally for or against a universal basic income, I do not think that I could answer clearly. There is a lot of unknown information whether this model is more economically efficient than the simultaneous payment of official benefits.

In any case, it would be more transparent and would reduce the abuse of the social system. Based on the information I incline to the opinion that Jakub Horák (2017) said "basic income is a good idea, but now is utopian."

In the upcoming years, robotics could eliminate manual labour without added value, and new work skills will be required, especially in the areas of social intelligence, collaborative and communication skills.

From my point of view, it would be nice to have a secure basic income and to be able to plan and manage life paths without permanent worries about paying for living costs. But at this point in time it is unrealistic.

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## 7 Appendix

Finland in Figures

### Social protection expenditure by function

	2010		2015		2016	
	€ million	%	€ million	%	€ million	%
Sickness and health	13 468	24,6	15 684	23,4	15 450	22,4
Disability	6 427	11,7	6 752	10,1	6 741	9,8
Old age	19 171	35,0	26 314	39,2	27 693	40,1
Survivors	1 724	3,1	1 754	2,6	1 789	2,6
Family and children	5 845	10,7	6 618	9,9	6 632	9,6
Unemployment	4 370	8,0	5 561	8,3	5 588	8,1
Housing	923	1,7	1 450	2,2	1 644	2,4
Other social protection	1 425	2,6	1 849	2,8	2 374	3,4
Administration	1 480	2,7	1 153	1,7	1 147	1,7
<b>Total</b>	<b>54 832</b>	<b>100</b>	<b>67 133</b>	<b>100</b>	<b>69 058</b>	<b>100</b>
<b>% relative to GDP</b>	<b>29,3</b>		<b>32,0</b>		<b>32,0</b>	

Source: National Institute for Health and Welfare