University of Hradec Králové

Philosophical Faculty

Master Thesis

2019 LL.B. Elvin Francisco Rodríguez Fabilena

University of Hradec Králové

Philosophical Faculty

Institute of History

Social policies in the Central European countries: What could learn Nicaragua from them?

Fiscal policies, youth employment policies and pension systems in the Visegrad Group

Master's Thesis

Author: LL.B. Elvin Francisco Rodríguez Fabilena

Study programme: N6744-International Area Studies

Study form: Full-time

Branch: Central European Studies

Supervisor: PhDr. Martin Smutek, Ph.D.

2019 Hradec Králové, Czech Republic

Univerzita Hradec Králové
Filozofická fakulta

Zadání diplomové práce

Autor: **Elvin Francisco Rodríguez Fabilena**

Studium: F172

Studijní program: N6744 International Area Studies

Studijní obor: Central European Studies

Název diplomové práce: **Social policies in the Central European countries: What could learn Nicaragua from them? (Fiscal policies, youth employment policies and pension systems in the Visegrad Group)**

Název diplomové práce AJ: Social policies in the Central European countries: What could learn Nicaragua from them? (Fiscal policies, youth employment policies and pension systems in the Visegrad Group)

Cíl, metody, literatura, předpoklady:

Objectives The diploma thesis focuses on comparison of systems of youth employment policy, fiscal policy and social security coverage amongst the so called Visegrád four (Czech Republic, Hungary, Poland and Slovakia) and Nicaragua. Main objective alternative: Which are the lessons and good practices that Nicaragua could learn from the countries of the so called Visegrád four in matter of youth employment policy, fiscal policy and social security coverage? Symbolic objective: To inspire to the Nicaraguan society to implement some good practices and lessons learned by the so called Visagrád four in matter of youth employment policy, fiscal policy and social security policy. Methods of research: Consulting the data about all of the above mentioned countries, in matter of youth employment policy, fiscal policy and social security as well as interviews with experts in those matters.

EUROPEAN COMMISSION. Social protection systemS-MISSOC: What is MISSOC? Available here: http://ec.europa.eu/social/main.jsp?catId=815&langId=en EUROPEAN COMMISSION. MISSOC Comparative Table Databases. Available here: http://www.missoc.org/MISSOC/INFORMATIONBASE/COMPARATIVETABLES/MISSOCDATABASE/comparativeTableSearch.jsp GILBERT, N.; TERRELL, P. Dimensions of Social Welfare Policy. Pearson : Boston, 2005.

Anotace:

The master's thesis pursues to account for the good practices regarding the relationships among the fiscal policies, youth employment policies and pension systems in the Visegrad Group (Czech Republic, Hungary, Poland, and Slovakia). Thus, the main objective is to discover what good practices related to the aforementioned policies and systems, have contributed to ensure the fiscal sustainability of the pension systems studied. This research is based on a qualitative approach. The general research question is what good practices related to the youth employment policies have ensured the fiscal sustainability of the pensions systems in the Visegrad Group. Also the aim is to figure out which best practices could be inspirations for Nicaragua.

Garantující pracoviště: Historický ústav,
Filozofická fakulta

Vedoucí práce: PhDr. Martin Smutek, Ph.D.

Oponent: doc. JUDr. Olga Sovová, Ph.D.

Datum zadání závěrečné práce: 23.4.2018

Student's Declaration

I declare that I have written the Master's thesis independently, under the supervision of the head supervisor of the thesis, Dr. Martin Smutek, and stated all employed sources and literature.

In Hradec Králové LL.B. Elvin Francisco Rodríguez Fabilena

Thesis Anotation

Bibliographic reference:

RODRÍGUEZ FABILENA, E.F. (2019). *Social policies in the Central European countries: What could learn Nicaragua from them? Fiscal policies, youth employment policies and pension systems in the Visegrad Group* (master's thesis). University of Hradec Králové, Hradec Králové, Czech Republic.

Description of the thesis contents:

The present master's thesis pursues to account for the good practices regarding the relationships among the fiscal policies, youth employment policies and pension systems in the Visegrad Group (Czech Republic, Hungary, Poland, and Slovakia). Thus, the main objective is to figure out what good practices related to the aforementioned policies and systems, have been implemented in order to address the fiscal sustainability of the pension systems studied. This research is based on a qualitative approach. The general research question is what good practices related to the youth employment policies have been implemented in order to tackle the impact of ageing population on the fiscal sustainability of the pensions systems in the Visegrad Group. The research premise is that young people working in formal labour markets contributed to the tax system and that the progressive tax systems encouraged the labour participation of the young people in the labour market. In addition, both policies and/or systems, had a direct impact on long-term fiscal sustainability of pension systems. Therefore, this thesis also aims to examine the relationship between youth employment policies, fiscal policies and pension systems.

Key words: fiscal sustainability; pension systems; youth employment; Visegrad Group.

Acknowledgments

First and foremost, I would like to thank very much all the people who supported me during this journey. Many thanks to my mother, Alma Patricia Favilena Jarquín, my father, Elvin Francisco Rodríguez Ríos, my brother, René Ricardo Rodríguez Fabilena, and my sister, Grethel Eunice Rodríguez Fabilena, for all their loving support. This achievement would not have been possible without all of their help and love. Many thanks also to my aunts Yelba Rodríguez and Edelma Rodríguez, who have supported me and believed in me for many years.

Additionally, many thanks to Dr. Martin Smutek, for all of his valuables recommendations about literature and methodology for finishing successfully this master's thesis.

I also would like to thank the Philosophical Faculty of the University of Hradec Králové, for giving me the opportunity to advance in my professional career by granting me with the scholarship to study the M.A. programme in Central European Studies. Many thanks all of my lecturers, especially to Dr. Tomáš Hradecký, for all of his help while my studies in Hradec Králové. Thanks, Dr. Milan Hrubeš, for all of his helpful comments while he lectured me the course Methodological Aspects of Research in Central Europe.

Many thanks to the excellent team at the Central European Labour Studies Institute (CELSI) in Bratislava. Many thanks, Dr. Marta Kahancová, Dr. Martin Kahanec, Mgr. Jakub Kostolný, Mgr. Mária Sedláková, Mgr. Katarína Lukáčová, Bc. Alica Vyskocaniova, Dr. Martin Guzi, Dr. Olga Zajkowska, and Bc. Ivana Gallasová, for helping me to improve my research skills while I was working as an intern at CELSI.

Last but not least, I would like to thank Dr. Joanna Rak for all of her useful advice and feedback when she lectured me the course Designing Political Science Research, at the Faculty of Political Science and Journalism at the Adam Mickiewicz University in Poznań.

Thesis Contents

Thesis Contents

List of used abbreviations, symbols, terms and other indications

(ALMP) Active Labour Market Policies

(CSSA) Czech Social Security Administration

(CZK) Czech Crowns

(CZSO) Czech Statistical Office

(EC) European Commission

(EU) European Union

(EUR) Euro

(HUF) Hungarian Forints

(ILO) International Labor Organization ´

(IMF) International Monetary Fund

(INSS) Nicaraguan Institute of Social Security

(LFSS) Labour Force Sample Survey

(MISSOC) Mutual Information System on Social Protection

(NEET) Not in Employment, Education or Training

(OECD) Organisation for Economic Co-operation and Development

(OHP) Voluntary Labour Corps

(OP) Operational Programme

(PLN) Polish Zlotys

(SGI) Sustainable Governance Indicator

(V4) Visegrád Group

(YEI) Youth Employment Initiative

Introduction

Brief phrasing of the problem

The present research focuses on the fiscal sustainability of pension systems. Sooner or later, to some extent, every state will face or is already facing obstacles to funding their pension schemes. The fiscal sustainability of these pension systems relies, as it is indicated in the name, at least in part, on the fiscal system and at the same time, the fiscal system is closely related to the labour market, and, for the purposes of the present research, particularly the youth labour market. Therefore, the following questions are unavoidable: How the youth labour market policies, as well as the fiscal policies in the Visegrad Group, contribute to the fiscal sustainability of its pension systems? What good practices in the matter of youth employment the member states of the V4 implemented in the period 2008-2018 with the aim of achieving fiscal sustainability of its pension systems?

Description of why the given topic was selected

The given topic was selected because, taking into account the paramount importance of ensuring the fiscal sustainability of pension systems in order to guarantee decent standard of living for senior citizens and, at the same time, to present trustworthy pension schemes to the younger generations, since all of the states studied in the present research have in common a public pay-as-you-go scheme, which means that these schemes rely on the intergenerational principle of solidarity, which is that the current contributors fund the pensions of the current retirees. This solidarity itself represents at the same time strength and also a weakness in relation to the continuity of this particular welfare benefit over the next years to come, due to the impact of the aging population, low fertility rate, and migration of the high-skilled and more employable younger individuals.

Additionally, this theme was selected taking into account that the Visegrad Group "*cooperates with other regional bodies, as well as with single countries in the region and beyond on an ad-hoc or regular basis*" (Visegrad Group [no date]) . Part of this cooperation includes sharing experiences and best practices in different fields, such as public policies. This type of cooperation is a common activity included in the presidency programs of the Visegrad Group (See the 2007/2008 Czech Presidency; Programme of the Polish Presidency of the Visegrad Group July 2008-June 2009; 2017-2018 Hungarian Presidency; and 2018-2019 Slovak Presidency).

One example of a single country for future cooperation beyond the European region, might be Nicaragua, which currently has a really serious crisis in matter of youth informal labour market, regressive tax system and also is facing the imminent collapse of its social security system, which manage among other benefits, pension benefits. Nicaragua has a mostly regressive tax system, mostly informal labour market, and low affiliation to the social security system. According to Acevedo (2013), who is a renown Nicaraguan economist who has been studying the Nicaraguan social security system for a long time, per every ten retiree there are only six contributors and in twenty years there will be two contributors per retiree.

Around the world there is a crisis related with the social security systems. Nicaragua is a state that is facing the collapse of the Nicaraguan Institute of Social Security (INSS by its acronyms in Spanish). The International Monetary Fund (IMF 2017a), has pointed out that "*Nicaragua's social security system (INSS) is projected to run out of liquid reserves by 2019, several years earlier than anticipated. To avoid burdening the budget, reforms to the system are urgently needed*" (p. 4).

Thus, since the V4 share with Nicaragua some common challenges in matter of fiscal sustainability of pension systems due to the ageing population and the demographic trends such as increasing in life expectancy, which means that the states will have to pay more pension benefits during even more years; and low fertility rate, which means that there will be an increasing of economically dependent people, either because they are under 15 years old and cannot work or because they will be older than the statutory retirement age and due to issues proper of elderly such as diseases and ageing itself, and as a consequence they would have to get out the labour market. This means that the economic active population will shrink over the years causing side effects such as less tax income taxes and less pension contributions for funding the pension schemes.

In this sense, according to (Fihel & Okólski, 2019):

> "*Today, 11 post-communist countries are EU member states (EU-11): Bulgaria, Croatia, Czechia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. Since 1989, most of these countries have experienced population decline and accelerated ageing. Low levels of fertility and mass emigration of young people are primarily responsible for these adverse trends*" (p. 1).

Furthermore, for instance, even though the Czech Republic had a youth unemployment rate of 7.9 in 2017, which was the second lowest youth unemployment rate in the EU, just after Germany, and had a youth unemployment ratio of 2.5, which was the lowest youth unemployment ratio in the EU the same year (Eurostat 2019a), according to the Visegrad Group official website, " […] *more than one fifth of young people, or approximately 300,000, in the Czech Republic are threatened by poverty, representatives of the Czech Caritas organisation said […], presenting the results of a survey that the Median agency conducted*." (Visegrad Group 2018). To be threatened by poverty refers to the so-called "working poverty". This "working poverty" happens when "*when an individual's income cannot cover basic needs*" (Kordic, 2018, 19th of June). In addition, according to Dvornáková, "*[t]he at-risk-of-poverty threshold is calculated as 60% of the median equivalised disposable income*" (2009, p. 45).

Thus, as it can be observed, the aforementioned challenges and issues are not exclusive of Nicaraguan reality, but they are also present in the V4 realia, including the "*mass emigration of young people*". Therefore, it would be really interesting to find out how the V4 has addressed and are addressing those issues and challenges by implementing social policies aimed to tackle the threats to the fiscal sustainability of its pension systems. And, since Nicaragua and the V4 share a public pension scheme based, among others factors, on earnings and on the principle of solidarity, and taking into account that Nicaragua and the V4 have tax systems are based on direct taxes and indirect taxes, and that within the direct taxes there are always taxes on incomes from employments or individual profits in case of self-employed and last but not least, there are plenty of young people entering the labour market, this may be an opportunity for Nicaragua to learn and to the V4 to share good practices in these matters.

Research objectives

Main objective

To identify what good practices related to the youth employment policies, fiscal policies and social security systems, have contributed to ensure the fiscal sustainability of the pension systems in the Visegrad Group.

Applied objective

To inspire the policy makers in Nicaragua by presenting them good practices implemented in the Visegrad Group to ensure the fiscal sustainability of its pension systems.

The circle of people or organizations that are relevant, important and interesting for the topic studied in the present research, are the policy makers in the Visegrad Group as well as the policy makers in Nicaragua. Those policy makers might benefit from reading the present research paper as far as there will be an analysis of what the policy makers have done in the Visegrad Group member states, in terms of what good practices they have implemented with the aim of ensuring the fiscal sustainability of their pension systems. Furthermore, the policy makers in Nicaragua might found useful to read how other states with Pay As You Go (PAYG) schemes, have coped with the threats to the fiscal sustainability of their pension systems produced by ageing population, by implementing good practices and reforms in matter of youth labour market policies as well as fiscal policies.

Symbolic objective

The present research focuses on the issue concerning the threat that the fiscal sustainability of the pension systems are facing in the Visegrad Group member states which are the Czech Republic, Hungary, Poland and Slovakia, due to real, imminent and unavoidable events such as the ageing of society, low fertility rate, and brain drain or massive migration of their high skilled young people. This issue is not exclusive of the

Visegrad Group or Central Europe, but also it is widely extended in other states such as Nicaragua, which currently is experiencing the outputs of the failed reforms on its social security system as of April, 2018.

The Visegrad Group (also known as the "Visegrad Four" or simply the "V4") was constituted in 1991 as an effort to strengthen the European integration. The V4 member states are Czechia, Hungary, Poland and Slovakia. All of the V4 countries became member of the European Union (hereinafter EU) in 1st of May, 2004. Afterwards came the global financial crisis in 2008, crisis which started to be felt its effects in Europe in 2009. Of course, this is not the only reason why the pension systems would be threatened in terms of fiscal sustainability, but for sure this is one of the main reasons why of such a threat.

Another important reason why this topic was selected, is because, besides contributing to the knowledge from a theoretical and scientific perspective, studying how other states have tackled the menaces to the fiscal sustainability of their pension systems by implementing good practices grounded in fiscal policy reforms as well as youth labour market related reforms, is something that is worthy to look at it in detail, taking into account that the implementation of those good practices is the theory put into practice, which means that are kind of experiments itself, social experiments.

Therefore, the present research uses as one of its main research methods the case study, which according to Punch (2014, p. 120) its aims is "*to understand the case in depth, and it its natural setting, recognising its complexity and its context*." Furthermore, Punch (2014, p. 122) mentions that its main four characteristics are: bounded system, is a case of something, there is an explicit attempt to preserve the wholeness, unity and integrity of the case, and multiple sources of data and multiple data collection methods are very likely to be used. Punch (2014, p. 123) also refers that a case study can produce something that might be generalizable by conceptualising and developing propositions.

Thus, even though while analysing and studying fiscal sustainability of pension systems in relation to youth labour market good practices, as well as with fiscal policies or tax systems good practices, in principle cannot be exactly replicable taking into account the different economic, social, cultural and political backgrounds, the present research intends to shed light on how the put into practice of the theory concerning the pension systems, have rendered relatively good results in the V4 member states.

As a consequence, since this research follows the qualitative approach, the research methods to use will be the analysis of the available data and documents as well as through semi-structured interviews to selected experts in these policies, in order to figure out what should be understood by good practices in matter of fiscal policies, youth employment policies and pension systems. Therefore, it is necessary to analyse the theory concerning the topics studied and to analyse the data available, in order to confirm whether the theory is put into practice or not.

Thesis structuring

The first chapter will offer an overview about Nicaragua in terms of its reforms on its social security system and which the source of the crisis is. Besides, this chapter will look for problems of V4 countries of the same kind. The description of the issues will be focused on the young people. The second chapter will describe the V4 countries, in terms of their tax systems as well as their fiscal policies, their youth labour markets and youth employment policies, and their old-age pension systems. The third chapter will account for the specific methodological route followed to conduct the present research. And last but not least, the fourth chapter will answer the main research question by accounting for the good practices implemented in the V4 in matter of youth employment policies and fiscal policies and pension systems.

Overview of the current state of research

Since the studied theme is the public policies in Central Europe, particularly in the Visegrad Group Member States (Czech Republic, Hungary, Poland, and Slovakia), and since those public policies are specifically the ones concerning fiscal systems, youth labour markets, and pension schemes, this section will be to take an overview of the current state of research regarding the previously mentioned systems.

The present research follows particular approaches. From the legal perspective as well as from the political science point of view. Thus, this is a multidisciplinary investigation. It will be necessary to review the literature about social policies in general, as well as about the fiscal policies, youth employment policies and social security coverage, particularly pension systems.

Therefore, first of all it is necessary to define what a social policy is. This is not an easy task taking into account that there is an "*ongoing discussion among social policy, public policy, and social welfare policy*" (Gilbert, N. & Terrel, 2005, p. 2). Thus, it is necessary to define what does social policy means, since this is the focus of the present research.

Definition of social policy

Before starting to talk about the social policies, it is necessary to talk about one of the most important functions of the modern state, according to Gilbert and Terrel, which is "*raising and allocating resources for welfare purposes*" (2005, p. 12). These authors also claim as follows:

> "*So important, and so huge, is the role of public activity in this area that the modem state is often defined principally as a "welfare state." And today's polity, at least in the industrial world, is organized to support welfare. Broadly, the modem state is organized to insure economic prosperity and social stability, and, more specifically, material security, minimum standards of health, education, and housing, and protection against the contingencies of modem life that interfere with people's well-being*" (Gilbert, N. & Terrel, 2005, p. 12).

Thus, the present research will account for the research on social welfare policies. Therefore, it is necessary to define what a social welfare policy is. In this sense, Gilbert & Terrel (2005, p.1) from the very beginning of their work on the topic, refer to three approaches to understand social welfare policies, which are institutional, analytical and political, and they stress that the institutional approach is key to grasp better what social welfare policy is about. From the institutional point of view, these authors mention that community life is based on six social institutions, which do some social welfare functions, one of them is the most interesting for the present research: Government[1]. (See table 1).

Table 1: Government and its functions

Social institution:	Key Organizational Form	Primary functions	Social Welfare Functions
Government	Federal, state, and local governments	raising and distributing resources for common purposes	Economic security
Source: Based on Table 1.1: Institutions, Organizations, and Functions (Gilbert & Terrel, 2005, p. 3)			

These authors also mention as follows:

> "*Among the most important functions of the modem state, of course, is raising and allocating resources for welfare purposes. So important, and so huge, is the role of public activity in this area that the modem state is often defined principality as a "welfare state." And today's polity, at least in the industrial world, organized to support welfare. Broadly, the modem state is organized to insure economic prosperity and social stability, and, more specifically, material security, minimum standards of health, education, and housing, and protection against the contingencies of modem life that interfere with people's well-being*". (Gilbert & Terrel, 2005, p. 12).

Therefore, taking into account the previously mentioned, to the question: Are the pension systems considered a part of social welfare policies? According to Gilbert & Terrel, (2005, p. 67), yes.

[1] The other five are: kinship, religion, workplace, markets, and mutual assistance.

Once clarified what social welfare policies are, it is important to talk about public policies, which are ineludibly linked to public interest. According to Lippman (1955), cited in Potůček (2017), who is an expert on social policies and pension reforms, as follows:

> "*Living adults share, we must believe, the same public interest. For them, however, the public interest is mixed with, and is often at odds with, their private and special interests. Put this way, we can say, I suggest, that the public interest may be presumed to be what men would choose if they saw clearly, thought rationally, acted disinterestedly and benevolently*". (p. 14).

Therefore, in matter of public policies, there are public interests that concern all the society as a whole. Talking about public policies, at the same time is to talk about social policies. This terms are used interchangeably, but there is a slight difference between public policies and social policies.

To conceptualize is always a difficult task, since there are plenty of concepts about the same object, depending on the field of research. However, it is possible to find what other authors have said about the definition it is looked for. For instance, Gil (1970), claims that, a social policy is "a system of interrelated, yet not necessarily logically consistent, principles and courses of action which shape the quality of life or the level of well-being of members of society […]" (p. 413).

Undoubtedly the protection that one person can have as a pensioner, is part of the well-being. When people are no longer economically active, they might found themselves in more risk of falling under the poverty line, since their incomes mostly will rely on their pensions. At least this is what happens in most of the cases where there are not private pension funds or whenever the people do not have the capacity to have private savings.

In the present research, the most important aspect of social policies to focus on will be the distribution to individuals of specific rights, goods and services, in this case, the related to the pension systems funded by the fiscal system and the participation of young people in the labour market.

It is also important to mention another definition of social policy. Platt, professor from the Department of Social Policy of the London School of Economics and Political Science defines social policy as follows:

> "*Social policy addresses how states and societies respond to global challenges of social, demographic and economic change, and of poverty, migration and globalisation. Social policy analyses the different roles of: national governments, the family, civil society, the market, and international organisations in providing services and support across the life course from childhood to old age. These services and support include child and family support, schooling and education, housing and neighbourhood renewal, income maintenance and poverty reduction, unemployment support and training, pensions, health and social care. Social policy aims to identify and find ways of reducing inequalities in access to services and support between social groups defined by socio-economic status, race, ethnicity, migration status, gender, sexual orientation, disability and age, and between countries*" (Platt 2019).

At this point is also important to remark, that basically social policies and public policies are the same, if social policies are seen as a scientific discipline. In this regard, Potůček (2017, p. 20) has claimed that,

> "*Public policy as a scientific discipline was developed in the United States after World War II. In Europe, it started to obtain significant influence around the turn of the 1960s and the 1970s, building, in some countries, on the older disciplinary tradition of social policy. Both disciplines indeed share a multitude of research topics and some methodological instruments. In the context of the Czech Republic, public policy has been developing since 1989, inspired by both the American and the European schools of thought*".

Therefore, the only difference between social policies and public policies is the tradition which they belong to, which means, the approach. Thus, in the present research both terms will be used interchangeably.

Taking into account the previously mentioned, it is necessary to describe the general style policy process. Potůček et al (2017, p. 107), based on Howlett and Ramesh (1995), divide the policy cycle into four main stages: the first stage refers to the problem delimitation and recognition; the second stage is about policy decision-making; the third stage accounts for policy implementation; and in the fourth stage there is an evaluation of the policy. The present research will focus on the third stage, which is policy implementation.

Definition of good practices

Once stablished the definition of social policy to be used in the present research, it is also necessary to take into account that the present research pursues as a main objective to figure out what good practices in relation to the youth employment policies, the V4 has implemented in order to ensure the fiscal sustainability of its pension systems, first of all it is necessary to define what is meant by good practices. According to the International Labour Organization (ILO [no date]),

> "*A Good Practice is any successful working practice or strategy, whether fully or in part, that has produced consistent, successful results and measurable impact. It has an established and clear contribution to ILO policy goals and demonstrates how that policy or practice aligns, directly or indirectly, to the needs of relevant beneficiaries or targeted groups. Good practices contribute to the learning and knowledge sharing process, inform project design and improve programme performance*".

Following the reasoning by ILO, and following one of the key issues of the present research, which is the social security coverage, according to ILO, this is contained within one of its "*policy goals*" or "*four strategic objectives at the heart of the Decent Work agenda*" as: "Enhance the coverage and effectiveness of social protection for all". According to this objective, which is under the headline "Social protection",

> "*Only 27 per cent of the world's population has adequate social security coverage and more than half lack any coverage at all. The ILO actively promotes policies and provides assistance to countries to help extend adequate levels of social protection to all members of society. Social security involves access to health care and income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a main income earner*". (ILO [no date])

For the matter of the present research, the focus will be on social security concerning old age, which means, old-age pensions or retirement pensions.

Definition of fiscal policies

According to the Horton & El-ganainy (2009, p. 52), "*[F]iscal policy is the use of government spending and taxation to influence the economy. Governments typically use fiscal policy to promote strong and sustainable growth and reduce poverty*". Thus, the fiscal policy is a set of tools that governments use to achieve their goals. For the purpose of the present research those goals are the inclusion of youth into the labour market and the long-term fiscal sustainability of pension systems.

Definition of youth employment policy

The youth employment policies are a set of tools that pursue to include young people into the labour market. The importance of analyzing particularly the youth employment policies in the present research is based on the fact that the there is an ongoing demographic transition in the studied states. Furthermore, some of them are experiencing the best moment in terms of lowest youth unemployment rate as is in the case of the Czech Republic, which has had a youth unemployment rate even lower than the average for the whole European Union.

Demographic dividend and population ageing

According to the International Labour Conference (2012, p. 8), there are three stages of the so-called demographic transition. The first stage refers to lower mortality rates among children, which results in a larger share of young people in population. The second stage concerns about lower fertility rates, which produces more labour force. And last but not least, the third stage has to do with the increasing of older people, also known as "*population ageing*". This demographic dividend implies that the ones who are currently young, will be part of the older population within 50 years. This situation will demand more resources to support the old people who will need incomes after their retirement. Furthermore, ILO has pointed out that "the productive employment of youth remains a key to sustaining economic development, intergenerational solidarity and pension systems", however, "they are particularly disadvantaged relative to adults when it comes to their prospects of being absorbed into distressed labour markets" (p. 9).

The problem with the world economic crisis occurred in 2008, is that this was a sort of turning point for developed economies. In this regard, ILO (2012) has claimed that "*[i]n developed economies, the turning point after a period of encouraging decline in unemployment was the global financial crisis and the fear of a double-dip recession, scarring youth labour markets and raising fears of 'a lost generation'*"(p. 26). Furthermore, ILO (2012) has stressed that "*[i]t is clear that reversing these trends calls for a different policy scenario in which employment, and youth employment, in particular, are among the principal goals of macroeconomic frameworks and a priority for fiscal* *policy*". (p. 27). Moreover, the ineludible relationship between youth employment policies and pension systems is expressed by ILO (2012) as follows: "*[s]ome experiences suggest that incentivizing the hiring of young workers at the expense of their rights and social benefits, such as pensions, and health and unemployment insurance, results in increased vulnerability and insecurity on a long-term basis*". (p.61).

Following the way of thinking of the paragraph above, ILO has pointed out something key of paramount importance for the present research by claiming that

> "*In many countries, and especially, but not exclusively, in ageing OECD countries, contributory pensions are being reformed so that future pensions will strongly depend on how long people contribute and how much they contribute during their whole working careers. The later young people enter formal employment, the lower their pensions will be, and may not even prove sufficient to prevent them falling into poverty in old age*". (International Labour Conference, 2012, p. 81)

As a premonitory sentence about Nicaragua, ILO warned in 2012 that "*[t]he youth employment crisis is a threat to social cohesion and political stability. It lowers growth and development potentials, diminishes innovation and creativity in the economy, and threatens the sustainability of inter-generational solidarity and pensions schemes*". (International Labour Conference, 2012, p. 105)

Definition of Active labour market policies (ALMPs)

These policies are defined as "*a set of measures designed to ensure the maximum possible employment level*". (Ministry of Labour and Social Affairs of the Czech Republic [no date])

Definition of Social security coverage

The International Labour Organization defines the social security as "*the protection that a society provides to individuals and households to ensure access to health care and to guarantee income security, particularly in cases of old age, unemployment, sickness, invalidity, work injury, maternity or loss of a breadwinner*". Furthermore, ILO defines the social security system "*as a system of contribution based health, pension and* *unemployment protection, along with tax-financed social benefits*". (International Labour Organization [no date]).

Definition of pension systems

Pension systems are defined by the European Commission as "*the largest component of social protection*"(European Commission - Directorate-General for Employment Social Affairs and Inclusion, 2018, p. 47).

Unfortunately, in this world, once a person achieves the so-called age of economic dependency, this person lose chances to get incomes, since he or she is excluded of the labour market. This exclusion is based on the age. As Schwarz (2006, p. 1) has pointed out, "*[p]ension systems are designed to provide an income to those individuals who suffer a loss in earnings capacity through advanced age, the experience of a disability, or the death of a wage earner in the family*".

Definition of fiscal sustainability

According to Burnside (2005, p. 11) the "*concept of fiscal sustainability relates to a government's ability to indefinitely maintain the same set of policies while remaining solvent*". In the scope of the present research, that same set of policies are the fiscal policies, the youth employment policies and the social security coverage.

The fiscal sustainability of pension systems refers to the feasibility of pension schemes in the medium and long term, by funding those schemes through taxes, as in the case of public pension schemes, which will be the focus of the present research.

The European Trade Union Confederation (ETUC) has observed in the ANNEX 3. "*View of the European Social Partners and the AGE Platform Europe, a member of the Social Platform*" of the Pension Adequacy Report 2018 Volume 1 that, "*the social impact of the recent pension policy reforms, devoted largely to preserving long-term fiscal sustainability, should be recognised*". (European Commission - Directorate-General for Employment Social Affairs and Inclusion, 2018, p. 178). There is a close relationship among the fiscal policies, the youth employment policies and the pension systems. This relationship relies on the structure of the labour market. For the purposes of the present research, the focus will be on the youth employment policies taking into account the first pillar of the pension systems so-called Pay As You Go (PAYG).

The aforementioned pension system depends on the intergenerational solidarity, which means that the current active workers fund the pensions of the current pensioners. Thus, at this point it is necessary to talk about the role that the youth labour market play in the fiscal sustainability of the pension systems, once there is awareness about three unavoidable issues: ageing of the society, low fertility rate and changes in the labour markets threatening the stability and sustainability of the pension systems, such as undeclared work or insufficient wage to pay contributions to the social security entities in the V4 member states.

The opening caesura of the present research is the year 2008 taking into account the global phenomenon widely known as world financial crisis. Eurostat (2018a), which is the statistical office of the European Union and is located in Luxembourg, claims that in general the youth unemployment rates is higher than the unemployment rates for all ages and also claims that across the 28 European Union (EU) Member States the youth employment rate reached its minimum of 15.1% in the first quarter of 2008. However, (Eurostat 2017) has also referred to that year on its website as follows: "*The economic crisis, however, severely hit the young. From the second quarter of 2008, the youth unemployment rate has taken an upward trend peaking in 23.9 % in the first quarter 2013, before receding to 16.2 % at the end of 2017*". Therefore, taking the year 2008 as a turning point in matter of youth unemployment across the EU and taking into account that the V4 member states joined the EU in 2004, the opening caesura will be 2008.

Body of the thesis

1. Nicaragua and the V4: common issues

The present chapter accounts for the description of the recent situation in Nicaragua, regarding the social security package of reforms that ended up in social unrest in April 2018. Moreover, there will be a section dedicated to describe similar issues related to the social security, particularly pension systems, in the V4.

1.1. Social security crisis in Nicaragua

Besides the imminent social security issue, the Nicaraguan fiscal system is regressive, which means that it mostly relies on the indirect taxes such as Value-Added Tax or VAT, Selective Consumption Taxes (ISC by its acronym in Spanish) and Stamp Taxes (ITF by its acronym in Spanish). Even though there are direct taxes such as Income Taxes (IR by its acronym in Spanish), the Nicaraguan labour market does not allow to the State collect sufficiently direct taxes because of the high rate of informality, the low wages and the broad list of exemptions and exonerations. In this regard, the literature says that "*[w]hen social welfare programs are financed by the income tax, then, the source of funding is progressive […]*" While, on the other hand, when "*[a] primary example of a regressive tax is the sales tax under which everyone is taxed at the same rate regardless of income*" (Gilbert & Terrel, 2005, p.225).

The previously mentioned above, leads to talk about the so-called demographic dividend, which is defined by the United Nations Population Fund (UNFPA [no date]), as a the "*[…] the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)*".

In 2018, the population aged 15-64 years old in Nicaragua was 66% of the total population. The population between 10 and 24 years old the same year was 29%. (UNFPA [no date]). According to the last data available, updated to July 2018 the population aged

15-24 years was 20.67% (male 632,847 /female 624,811) in Nicaragua in the year 2016. (CIA 2018).

According to the International Labour Organization (ILO 2014) in 2014, which is the last data available, in Nicaragua there was a Youth Labour Force Participation Rate of 51.7%. It is necessary to take into account the clarification made by the ILO about this when they say that "*[t]he labour force participation rate expresses the labour force as a percent of the working-age population. Data only refers to the population of youth, which should be those persons between the ages of 15 and 24 years. In practice however, some countries applies different definitions of youth*".

Even though, according to the Law No. 392 (National Assembly 2001) "*Law of Promotion of the Integral Development of the Youth*", in Nicaragua is considered as a young person someone who is between 18 and 30 years old, it is necessary to take into account that the Youth Unemployment Rate used in the V4 member states, which are the focus of the present research, includes the young people between 15 and 24 years old. Therefore, this will be the age range to use from now on.

Unfortunately, most of the Nicaraguan young people are working in the informal labour market, which is estimated in 75.7 % (ILO, 2015, p.2). This means that only 3 out of 10 of them are contributing to the social security system and that most of them are not able to pay income taxes due their low wages. In 2017 there were only 132, 053 young people, which is about the 10.3% (INSS, 2017, p. 54).

One effort to tackle the informal labour market and the unemployment among young people in Nicaragua has been to implement programmes which were supposed to:

> "*[…] include employment promotion for socially disadvantaged youth, first job initiatives and self-employment schemes. Interventions are usually small in scale and focus on population groups facing particular problems in finding and keeping formal employment. Given the small number of beneficiaries, the overall impact of these measures remains low. For example, the internship programme (Programa de Inserción Inicial Laboral), designed for young graduates entering the labour market for the first time, serves an average of 30 recent graduates a year. Similarly, the self-employment programme (Programa de Autoempleo) provides approximately 100 candidates a year with tools or equipment to start up businesses*" (ILO 2015).

After this brief overview about these three specific public policies in Nicaragua, there is the necessity to explore options and alternatives among countries with more or less successful experiences in these matters, this is the reason why the present master's thesis will be about the fiscal policy, the youth employment policy and the social security coverage in the Visegrad Four member states which are Czech Republic, Hungary, Poland and Slovakia (or just V4).

1.2. Source of the crisis

As of 16th of April, 2018, in Nicaragua, Daniel Ortega through the Presidential Decree No. 03-2018 (Ortega 2018), approved a reform on the social security system. Afterwards, as of 18th of he published the decree in La Gaceta, which is the country official daily, No. 72. In sum, such reform was about a reduction of 5% of the pensions of the retired people in order to sponsor medical expenses and an increasing of the contributions from 6.25% to 7% from the salaries of the employees who are affiliated to the Nicaraguan Social Security System (INSS by its acronym in Spanish). Furthermore, the employers would have to pay from a current 19% to 22.5%. All of these reforms would be effective from 1 of July, 2018.

Previously, after praising the Nicaraguan economic performance in 2017, the International Monetary Fund (IMF) recommended to Nicaragua "*hastening the implementation of the international taxation law, reducing tax expenditures, rationalizing subsidies, and implementing a comprehensive reform of the Social Security [...]*". (IMF 2018). The main reason why the IMF suggested this to Nicaragua, was because in 2017 it said that "Nicaragua's social security system (INSS) is projected to run out of liquid reserves by 2019, several years earlier than anticipated."(IMF, 2017, p. 4).

As a result of the approved reforms, a series of protests started from 18th of April in different Nicaraguan cities. The Government responded such protests with repression. The police used tear gas and rubber bullets. From 18 of April to 22 of April, according to the Nicaraguan Center for Human Rights, at least 24 people were killed and other 67 were injured in those five days of protests (Feingold, 2018, 22 of April). Besides the violence, the government ordered off the air five independent TV channels that were covering the unrest (The Associated Press, 2018, 19 of April). As a consequence of the deadly riots, the president Ortega revoked the reform on 22 of April (DW, 2018, 22 of April).

Knowing the context is key to understand why the Nicaraguan were so angry about the reforms. First of all, Nicaragua is the poorest country in Central America and the second poorest country in the Western Hemisphere (CIA [no date]). Besides, according to the Nicaragua's Superior Council of Private Enterprise (COSEP by its acronyms in Spanish, 2015) about 80 percent of business operate informally in Nicaragua (in IMF, 2017, p. 6). This means that most of the current economically active population will not have pension benefits, because since they are working in the informal labour market, they are not contributing to the pension scheme.

1.3 Brain Drain in Nicaragua

The brain drain is a big issue in Nicaragua. There is a relationship between the working conditions and the so-called brain drain, particularly among young people. The young people look for higher wages and better working conditions. The young people are not studying what the labour market is demanding.

In addition, there is a diaspora of overqualified Nicaraguans emigrating mainly to the United States and to the European Union. According to the System on the International Migration in the Americas, in 2013 there were 655,117 of persons living abroad (SICREMI, 2015, p. 36), and the average number of the Nicaraguans with tertiary education who migrated to the United States between 2011 and 2013, was 45,100. (SICREMI, 2015, p. 45).

1.4 Common issues in the V4

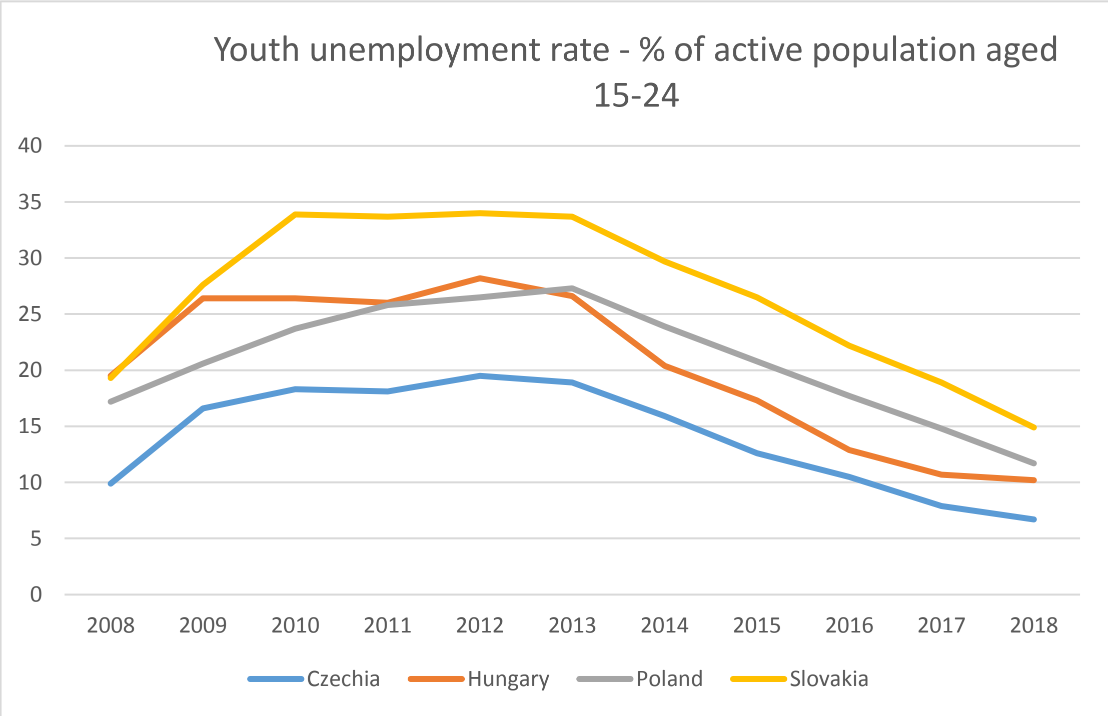
Even though the problems related to pension systems have not sparked deadly protests in the V4 as it happened in Nicaragua in 2018, this section of the present research is dedicated to describe the issues of the Visegrad Group related to the fiscal sustainability of its pension systems, particular referred to the youth employment policies, the fiscal policies and the social security coverage, specifically focused on pension schemes. Therefore, there will be a description of the Czech Republic, Hungary, Poland, and Slovakia, in terms of their tax systems, youth labour markets, and pension systems.

One of the outputs of the global economic crisis was a change in the structure of the labour market across many countries. The Czech Republic is not the exception. There is also a concern in the Czech Republic about the informal labour market, as it has been pointed out by Araújo & Maleček (2015), who refer to the issue of fake self-employment and the informal sector of the economy. (p. 6). (See Table 3). Additionally, the Czech Republic, Hungary, Poland, and Slovakia "*are all faced with difficulties in the labor market, because the departure of their highly skilled population is not compensated by a significant enough immigration of foreign population*". (Ionescu, 2015, p. 65).

The European Commission (2018), has remarked the impact of ageing population on pension systems as well as the importance of reforms to ensure long-term sustainability in terms of adequacy and accessibility to social security. Moreover, this institution has stressed that these reforms should be implemented gradually, so the people will have the chance to adapt. The European Commission has recommended further reforms to the Czech Republic and Poland (p. 8). The periodical reports from the European Commission, the OECD, the IMF, and ILO shed light over the challenges for the studied pension systems, as well as on the labour markets and tax systems.

The starting point of the following description will be the year 2008, taking into account that during this year began a global economic recession. As Grotti, Russell, & O'Reilly (2019) have pointed out, "*[t]he recession of 2008– 2009 marked the end of a period of fairly continuous growth in youth employment during the early years of the millennium*". The V4 member states are not the exception. However, as it can observed in the Graph 1, the V4 managed to decrease its youth unemployment rate in the studied period. How did they do that, is a question to be answered in the chapter about good practices.

Graph 1: Youth unemployment rate- % of active population aged 15-24

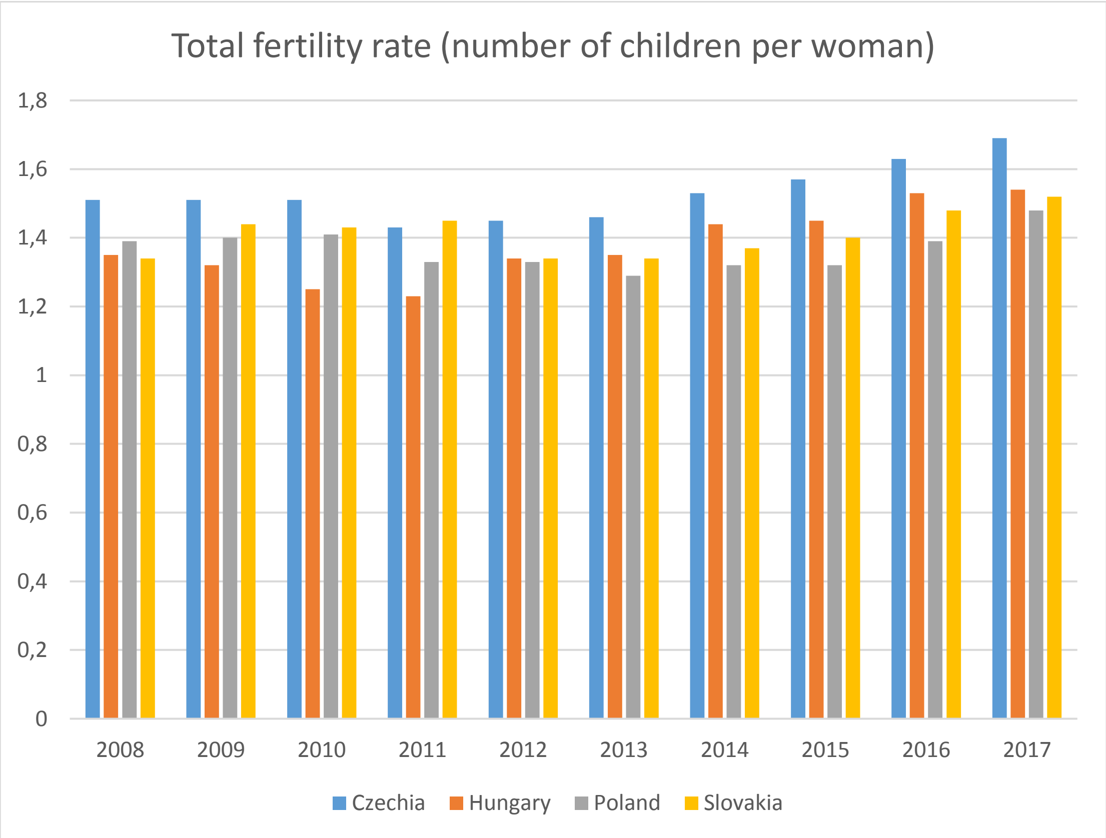


Source: (Eurostat 2019b)

However, despite of all these advancements in matter of youth employment, all the V4 member states are facing to more or less degree the ageing of their societies, the low fertility rate (see graph 2) and the brain drain of their high-skilled young people.

Moreover, according to the OECD (2018a), "*[a]geing will weigh on public finances. The Czech population is ageing more rapidly than in most European countries; the dependency ratio will rise from 28.1% in 2016 to 49.7% in 2070 with a peak at 56.1% in 2058*" (p. 4). The Ministry of Finance of the Czech Republic (2009, 2010, 2012, 2017, and 2018), has remarked several times in its fiscal outlooks the impact of ageing population on the long-term fiscal sustainability of pension systems. Furthermore, according to the 2009 Ageing Report (European Commission, 2009), in Poland "*the projections point to a situation in which by 2060, there will be as many or even more* *inactive old persons than people working"* and *"the ratio will be 90% or more"* in Hungary and Slovakia (p. 26). According to Grech (2010), the reforms implemented as a result of the transition to a market economy, lead to that in Poland and Hungary "*the number of contributors declined by 15% and 25%. Early retirement, in part, led to an increase in the number of pensioners by 10% in the Czech Republic, 20% in Hungary and a massive 50% in Poland. This put the PAYG system of financing pensions seriously under question*"(p. 89). Therefore, the demographic dividend in the V4, sooner or later will reach the age or retirement and depends on the management of all the mentioned issues, how the pension schemes will fulfill their purposes and how they will comply with the promises made by the politicians in matter of pensions such as contributions, funds and fiscal sustainability of their pension systems in the long-term.

Graph 2: Total fertility rate (number of children per woman)[2]



Source: Based on Eurostat (2018a)

[2] "*The mean number of children that would be born alive to a woman during her lifetime if she were to survive and pass through her childbearing years conforming to the fertility rates by age of a given year*" (Eurostat 2018a).

Additionally, according to the European Commission (EC, 2018, p.2), in the Czech Republic "*the costs of ageing pose a challenge for healthcare and long-term care, changes in the pension system warrant particular attention*". About Hungary, the Organisation for Economic Co-operation and Development (OECD, 2009c, p. 87), "*forecast to experience one of the largest increases in public pension spending over the next 50 years, which raises serious concerns about the financial sustainability of its pension system*". In the case of Poland, the EC (2018a, p. 4) has pointed out that "*a continuation of an increase in the average retirement age is crucial for medium-term economic growth, and to ensure the adequacy and fiscal sustainability of the pension system. However, the recent lowering of the statutory retirement age to 60 for women and to 65 for men goes in the opposite direction*". Even though in the case of Slovakia its public finances are at risk in the long term, "*the pension system has seen a gradual improvement in its long-term sustainability due to the automatic increase in the retirement age, which has reduced the projected age-related spending increases in the long term*"(European Commission, 2018b, p. 3). This last case about Slovakia is interesting taking into account that the Slovak Republic has the highest youth unemployment rate among the V4 member states.

Besides facing the ageing of their population, the V4 member states are dealing with other challenges that threat the fiscal sustainability of their pension systems. Among these challenges are the undeclared work, informal employment (see Table 2), and the unskilled young people who are not included into the labour market and, as a consequence, do not contribute to the pension system and do not have the economic capacity to save some money when the retirement age finally arrives. The increasing of the life expectancy rate and the low fertility rates have turned out to be a demographic bomb in the V4 states. Life expectancy at birth have kept a constant growing, as it can be observed in the graph 3.

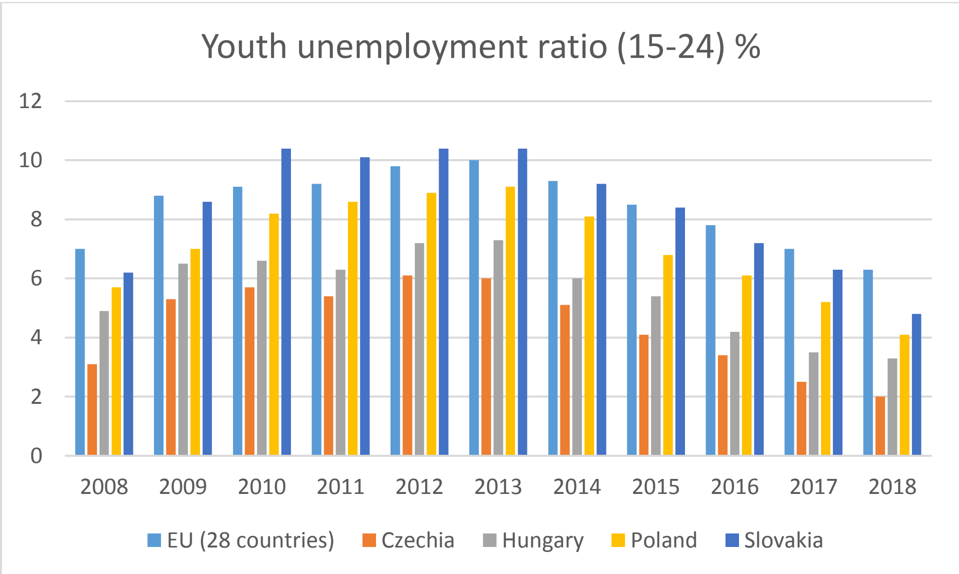
Table 2: Share of informal employment in total employment (%)

Share of informal employment in total employment (%)	
Czech Republic	9.2

Hungary	12.2
Poland	38.0
Slovakia	16.7
Source: Based on International Labour Office (2018, p. 89)	

In addition, it is important to mention also the youth employment ratio, which is a more specific indicator for measuring youth unemployment, since it is based on the percentage of unemployed young people aged 15-24. The youth unemployment ratio has decreased in all the V4 member states and if compared with the average for the EU 28 Member States, it is even lower. See the Graph 3.

Graph 3: Youth unemployment ratio (15-24) %[3]

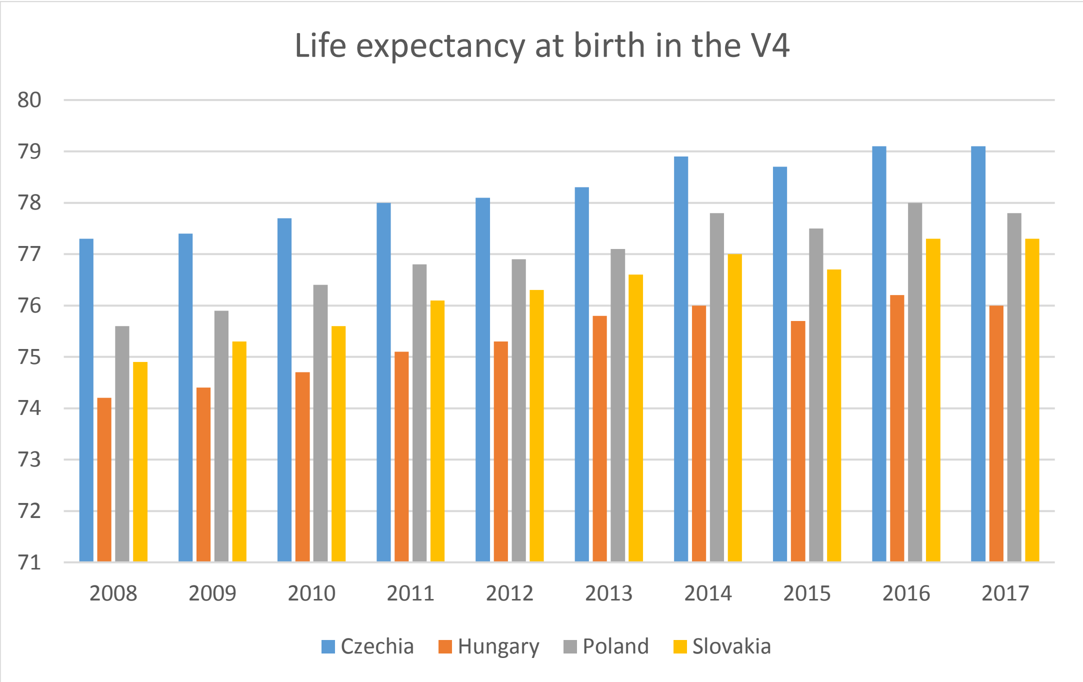


Source: Based on (Eurostat 2019a)

[3] "*The youth unemployment ratio is the percentage of unemployed young people (i.e. people aged 15-24) in the total population of this age group. […] The denominator used in this indicator consequently includes the employed, the unemployed but also the inactive young people*" (Eurostat 2019a)

In the case of life expectancy at birth, in general there has been an increasing, but in Hungary and Slovakia there was a slight decreasing in the year 2017 in comparison to the 2016, as it can be observed in the Graph 3. Increasing in the life expectancy poses risks for fiscal sustainability of pension systems, since there will be necessary to pay old-age pension benefits during even more years. This situation will require even more expenditures from public budget into pension schemes in order to fund the pension benefits. However, if the people are living longer, and women are having less and less children, and the high skilled young people are migrating and leaving the V4 member states and low skilled young people are not integrating themselves into the labour market and they are part of the youth neither in employment nor studying, then, in the long term, the V4 member states will experience difficulties with collecting more income taxes from individuals in form of salaries in case of employees and individual profits in the case of self-employed. There will be less taxes and less pension contributions. This combination of factors represent a threat for fiscal sustainability of pension systems in the V4 member states.

Graph 3: Life expectancy at birth[4] in the V4



Source: Base on (Eurostat 2018b)

[4] "*Life expectancy at birth is defined as the mean number of years that a new-born child can expect to live if subjected throughout his life to the current mortality conditions (age specific probabilities of dying)*" (Eurostat 2018b).

In addition, the European Commission has recommended to the Czech Republic to "*Improve the long-term fiscal sustainability, in particular of the pension system*"(European Commission, 2019, p. 13). In this sense, according to the Fiscal Outlook of the Czech Republic from November 2018, "*[b]y 2070, expenditure on pensions should increase by 2.8 percentage points from 8.2% of GDP to 10.9% of GDP*". (Ministry of Finance of the Czech Republic, 2018, p. 1).

Additionally, it is necessary to mention that the Czech young people are facing working poverty. To be threatened by poverty is like the so-called "*working poverty*". This happens "*when an individual's income cannot cover basic needs*" (Kordic, 2018, 19th of June). Moreover, according to the Czech Statistical Office (CZSO), "*[t]he at-risk-of-poverty threshold is set at 60% of the median equivalised disposable income*" (Czech Statistical Office, 2018, p. 287).

In 2017, Slovakia had a youth unemployment rate of 18.9% and youth unemployment ratio of 6.3%. (Eurostat, 2018). Both of these rates are the highest ones of the V4 countries. As it can be observed on the graph 3, Slovakia persists having the highest unemployment ratio among the V4 member states. In this regard, (Lubyová, Štefánik, et al. 2016, p. 99) have pointed out,

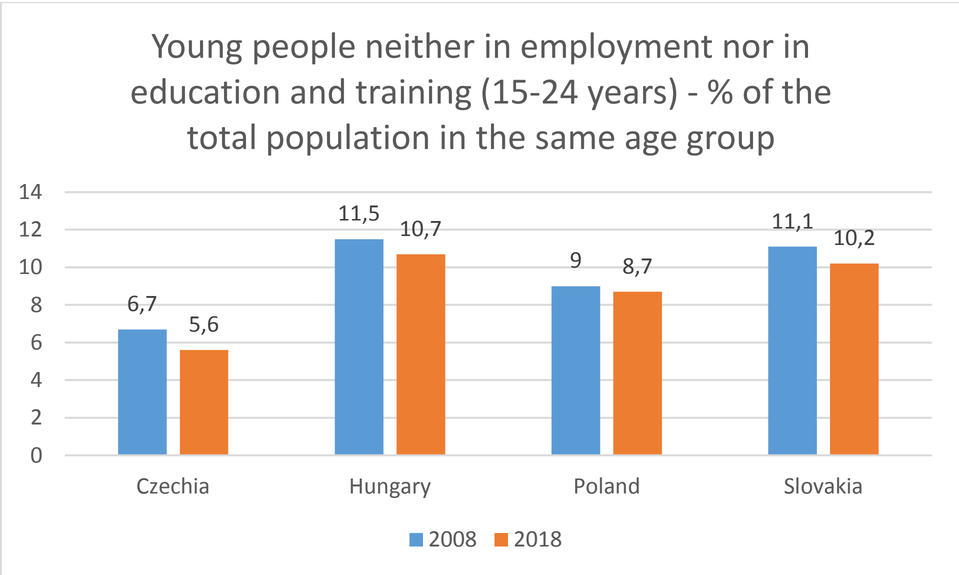
> "*The labour market prospects of youth in Slovakia continues raising concerns. The economy is and will be, increasingly confronted with structural changes on the labour demand side, and negative demographics on the labour supply side, with increasing pressures on the public education and social welfare systems. In past decades, youth unemployment rates in Slovakia rank systematically above average compared to both EU and regional, V4 levels*" (p. 99).

Besides the relatively high unemployment rate in Slovakia, this V4 member state has to deal with issues such as informal labour market. In this regard, Bednárik (2017), has pointed out that in 2014 Eurostat "*put the size of Slovakia's informal economy at a much lower level (14.6 %) than the Slovak experts*".

Following in this topic, among the V4 member states the Czech Republic is the one with the lowest share of informal employment as a percentage of total employment. Hungary has the second lowest share, Slovakia the third lowest share and Poland has the highest share. (See Table 2). There is no data about percentage of the specific participation of young people in the informal labour market.

Another issue concerning the V4 member states is the youth not in employment, education or training, known as NEET. However, the V4 member states have managed to decrease the percentage of NEET when comparing the years 2008 and 2018. (See Graph 4). One of the reasons why of such decreasing, might be the investment or expenditure on employment policy. For instance, the Czech had to increase the allocation for this policy after 2008. (See Table 3).

Graph 4: Young people neither in employment nor in education and training (15-24 years) - % of the total population in the same age group[5].



Source: Based on (Eurostat, 2019)

As it can be observed in the Table 3, in the Czech Republic in the period 2008-2012 there was more expenditure on passive employment policy rather than active employment policy. According to ILO, passive employment policies provide income replacement while active employment policies help the unemployed to find work.

[5] The indicator refers to young people who meet these two conditions: "*(a) they are not employed (i.e. unemployed or inactive according to the International Labour Organisation definition) and (b) they have not received any education or training in the four weeks preceding the survey*" (Eurostat, 2019).

Table 3: Expenditure on employment policy (CZK millions)

	2008	2009	2010	2011	2012
Employment policy total*	**15 608**	**23 132**	**22 734**	**17 837**	**19 393**
Passive employment policy	**7 114**	**15 077**	**13 354**	**10 349**	**12 480**
Active employment policy	**6 131**	**4 953**	**6 171**	**3 816**	**3 180**

Source: Ministry of Labour and Social Affairs and Act on the State Budget of the Czech Republic for 2012. In (Janicko, 2012, p. 14).

As it can be observed, the V4 member states are facing similar issues to Nicaragua. All of them have informal labour market, all of them have to some degree youth unemployment, all of them are experiencing mass migration of their youth, all of them have young people neither working nor studying. However, the V4 have managed to decrease its youth unemployment rate and youth unemployment ratio, even to be lower than the EU average of those indicators. As it could be seen, for instance in the Czech Republic they have invested on passive and active employment policies. This could be one explanation for having the lowest youth unemployment rate and ratio in the whole European Union as of 2018. Therefore, in order to have a deeper understanding of how the V4 has tackled the aforementioned issues, in the next chapter there will be an overview of tax systems, youth labour market structure as well as youth employment policies and old-age pension schemes in the V4 member states.

2. Social policies of the V4 in-depth

This chapter aims to give an overview of the social policies in the V4, particularly the fiscal policies, the youth employment policies and the pension policies. In terms of pension policies, according to the European Commission the Czech Republic and Hungary have a defined-benefit (DB) schemes, while Poland has a notional defined contribution (NDC), and Slovakia has a point system (PS). All of these schemes are publicly provided earnings-related pension systems. (European Commission Economy Series, 2015, p. 54). Therefore, their funds rely on income taxes and pension contributions. According to the European Commission - Directorate-General for Employment Social Affairs and Inclusion, (2018, pp. 166-167), the pension systems can be classified mainly in the follow schemes, see Table 4.

Table 4: Pension Schemes	
Defined benefit (DB) schemes	In this pension systems the accumulated benefits are related to incomes and the employment, which means that the future pension benefit is pre-defined and promised to the affiliate. Generally speaking, in case of public DB, the state is in charge of sponsoring this scheme as well as is the state the one who takes the risks associated, such as investment and longevity.
Defined contribution (DC) schemes	These pension schemes are the ones that work as is indicated in its name, are based on contributions and the level of those contributions is previously defined, which means that there is no promise about pension, like it happens in the case of DB.
Pay-As-You-Go (PAYG) schemes	In this scheme the current contributors fund current pensioners.
Based on: European Commission - Directorate-General for Employment Social Affairs and Inclusion (2018, pp. 166-167)	

In this section there will be more details about social policies, particularly referred to tax systems, youth labour market, and pension schemes, in every one of the four states studied.

First of all it is necessary to remember the definition of fiscal policy, which is the "*use of government spending and taxation to influence the economy*" (Horton, El-ganainy 2009). Furthermore, these authors claim that the IMF has recommended that "*countries facing medium- and long-term demographic pressures should firmly commit to clear strategies* *for health care and pension reform*" (Horton, El-ganainy 2009). Is this the case of the Visegrad Group? Yes, it is.

Besides, as the International Monetary Fund has recognized, "*[t]he design of a country's tax system plays a critical role in its economic and social development, as recognized by the United Nations: its sustainable development agenda identifies strengthened domestic revenue mobilization as a key priority*"(IMF 2017b). Therefore, in the present chapter will be analyzed similar issues in the V4 countries regarding the fiscal system.

It seems like the regressive tax system issue is not only in Nicaragua, but also in at least in three of the V4 countries, as it is possible to read in the following citation:

> "*While the shift in taxation methods towards a preferential treatment of capital income is an important issue in the West European countries where the degree of progressivity in income taxation is relatively high, many East European countries such as the Czech Republic, [...] Hungary, and Slovakia anyway adopted generally less progressive tax systems so that the top tax rates for employment income and capital income were equally low in 2015 (between 10 and 25 per cent)*" (Godar & Truger, 2017, p. 12)

Additionally, according to Godar & Truger (2017), when considering the increasing of the tax burden for lower income groups, "*[s]triking cases are the Czech Republic [...] and Hungary where the tax burden increased the most for low-income tax payers. The extreme changes in Hungary reflect the introduction of the flat tax system*" (Godar & Truger, 2017, p. 11). In this regard, (Grotti, Russell, & O'Reilly, 2019, pp. 39-40), have also claimed that "*[i]n the recent period, fiscal consolidation has led to increasing retirement ages to the detriment of employment among young people*".

2.1 Social policies in the Czech Republic

In this subchapter there will be a brief description of tax system and fiscal policy, youth labour market and youth employment policies, and old-age pension systems in the Czech Republic.

2.1.1 Fiscal policy in the Czech Republic

The first reference to the fiscal system or the fiscal policy in the Czech Republic, is in its Political Constitution (The citizens of the Czech Republic in Bohemia, in Moravia 1993). The article 11 numeral 5 states that "*Taxes and fees shall be levied only pursuant to law*".

The taxes in the Czech Republic are divided into 3 main groups: direct taxes, indirect taxes and other taxes. After the accession to the EU in 2004, the Czech tax system has been reformed in order to harmonize it with the European legislation. The focus of the present research is the direct taxes, particularly personal income taxes. The legal base of these taxes is the Czech Income Taxes Act. Other taxes of interest are the compulsory contributions into the Czech social security system.

The Czech Republic exists as an independent state as of 1993, since that moment, was stablished the present tax system. After entering the EU, the Czech Republic also had had to harmonize continuously its laws with European legislation. The personal income tax is stated in the Act on Income Taxes, which was passed on November 20, 1992, by the Czech National Council, and which became into force on the 1st of January, 1993. This Act stablished only the substantive tax law. The adjective law is regulated by other legislation.

According to Czech Invest (2019), besides the income taxes, there are property taxes, and transfer taxes, among the direct taxes. About the indirect taxes, there are Value Added Tax (VAT), excise taxes, customs duties, and ecological taxes. The personal income tax is a flat rate of 15% and the tax base in case of employees is determined based on the increasing of gross salary by the employer's health insurance and social security contributions. Either if incomes come from employment or from business, whether these incomes surpassed in 48 times the average wage, then there will an obligation to pay a 7% solidarity tax.

About either the Czech tax system is progressive or regressive, according to Guasti, P., Mansfeldová, Z., Myant & Frank (2018), "*[t]he Czech tax system broadly ensures horizontal equity*". However, they also mention one exception, which

> "*[…] is the blanket tax allowance given to the selfemployed to cover operating expenditure with no checks on what is actually spent. This leads to a lower tax*

rate on the self-employed rather than employed and an incentive to convert employment contracts into contracts for individual services. While revenues from direct taxes are low and there is a flat personal income tax, a degree of vertical equity is achieved by a tax allowance on personal income taxes, a solidarity surcharge on higher incomes and some differences in VAT rates" (pp. 7-8).

Thus, as it can be inferred from the previously mentioned, the Czech tax system is a progressive system since ensures to some degree horizontal equity, which is one of the principles of a progressive tax system.

Moreover, according to the data available on the Organisation for Economic Co-operation and Development (OECD 2018b), in 2016 the tax on personal income was the 3.79% of the GDP. The tax on personal income is defined by the OECD as "*the taxes levied on the net income (gross income minus allowable tax reliefs) and capital gains of individuals. This indicator relates to government as a whole (all government levels) and is measured in percentage both of GDP and of total taxation*" (OECD 2018b).

In addition, Pavel Mertlík, former Minister of Finance of the Czech Republic and then chief economist of Raiffeisen Bank, has pointed out that:

"*The Czech Republic has something like 13% out of total taxation coming from profit taxation, while from personal income it is about 12%. In the European Union the figures are as follows: the personal income makes 21% out of total taxation, the corporate profit tax is something around 6%. As you can see the difference is huge, and the level of corporate profit taxation is getting even higher in the Czech Republic*" (Visegrad Group [no date])

In matter of social security contributions, particularly pension insurance contributions, the employees pay a contribution of 6.5% over their salaries, employers pay 21.5% and sole entrepreneur pay 28% of their incomes. (See Table 5).

Table 5: Pension insurance contributions in the Czech Republic

Pension insurance contributions in the Czech Republic				
Contribution for	Maximum ass. base per year	Employee	Employer	Sole entrepreneur

Pension insurance	CZK 1,569,552 (approx. EUR 61,200)	6.5%	21.5%	28%
Source: Based on Accace (2019, p. 6)				

These pension contributions are used to fund the pension benefits. Among those benefits, the old-age pension benefits. In this sense, it is important to notice that the expenditure on old-age pensions has increased over the years. About the pension expenditure projections, it is forecasted an increasing from 2016 to 2070. (See Table 6).

Table 6: Pension Expenditure Projections 2016-2070 (in % of GDP) in the Czech Republic

Pension Expenditure Projections 2016–2070 (in % of GDP)							
	2016	2020	2030	2040	2050	2060	2070
Old-age pensions	8.2	8.1	8.2	9.2	10.8	11.6	10.9
Source: MF CR calculations. In Ministry of Finance of the Czech Republic (2017, p. 25)							

Furthermore, the so-called super-gross wage taxation is defined by Vostatek (2018) as "*the calculation of the employee income tax where the tax base is the gross wage of the employee plus the employer social security contributions*" (p. 175). This author also claims that "*'Social and health' insurance contributions continue to be calculated from gross wages and they are not in any way linked to wage taxation – this is basically consistent with the neo-liberal welfare regime*". (p. 176). He also mentions that "*International comparisons show that the specifics of Czechia, Slovakia and other post-communist countries are high rates of social security contributions and low rates of personal income tax*" (p. 176).

Vostatek (2018), also claims that:

> "*Employee personal income tax is collected at a rate of 15% of the super-gross employee's wages. Self-employed persons are subject to the same tax rate on the assessment base relating to their self-employed activity and representing income from their business, after deducting the costs of achieving them. The income of the selfemployed persons, after deducting their expenses, is de facto assessed in the same way as the super-gross wage of an employee*" (p. 178).

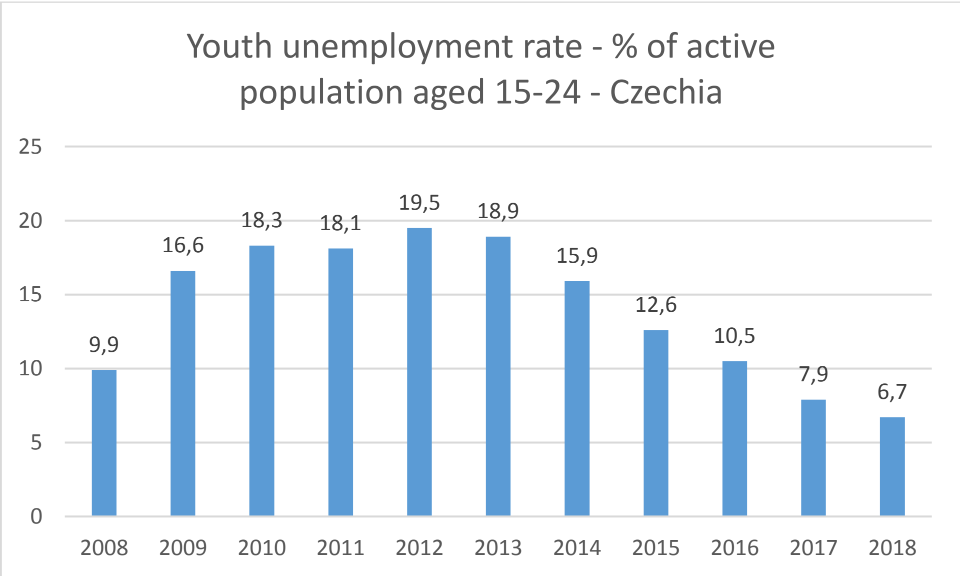
2.1.2 Youth employment policy in the Czech Republic

First of all, it is necessary to define youth unemployment rate and youth unemployment ratio. According to the Eurostat:

> "*Youth unemployment rate is the percentage of the unemployed in the age group 15 to 24 years old compared to the total labour force (both employed and unemployed) in that age group. However, it should be remembered that a large share of people between these ages are outside the labour market (since many youths are studying full time and thus are not available for work), which explains why youth unemployment rates are generally higher than overall unemployment rates, or those of other age groups. For this reason the youth unemployment ratio is often used: the percentage of unemployed young people compared to the total population of that age group (not only the active, but also the inactive such as students)*" (Eurostat 2014)

Once clarified the aforementioned, the youth unemployment rate has decreased constantly, as it can be observed on the Graph 5. There was a significant increasing in the youth unemployment rate in 2009 in comparison to 2008. This was due the global economic crisis. There was a peak almost reaching 20% of youth unemployment rate in 2012, however, it started to decrease constantly in 2013 until reaching 6.7 in 2018.

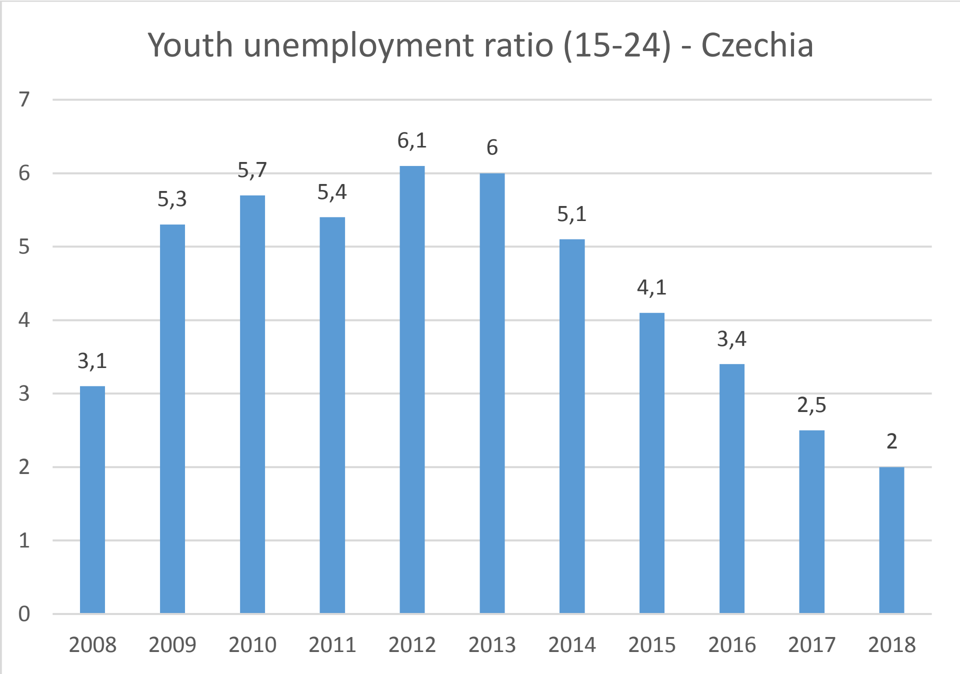
Graph 5: Youth unemployment rate - % of active population aged 15-24 - Czechia



Source: Based on (Eurostat 2019b)

Besides, taking into account that the youth unemployment rate refers to percentage of the economically active population aged 15-64, it is necessary to take a look at the youth unemployment ratio, which is a percentage of the young people aged 15-24. Therefore, it will be shown again here to look deeper inside the problem in the Czech Republic. See Graph 6.

Graph 6: Youth unemployment ratio (15-24) – Czechia

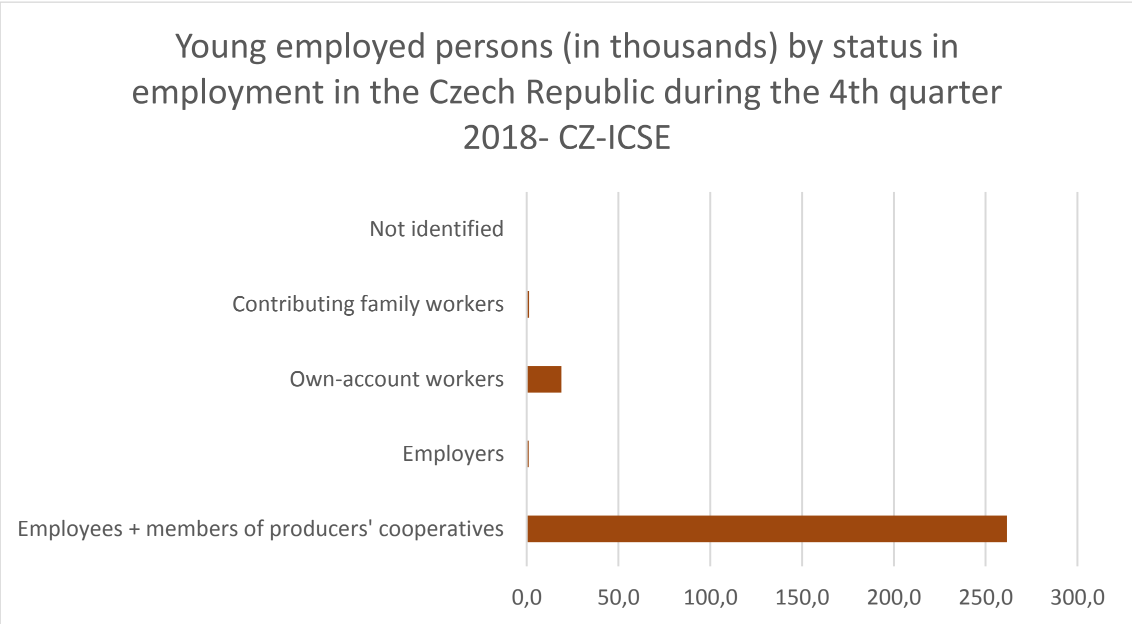


Source: Based on (Eurostat 2018c)

As it can be observed, the Czech Republic has managed to have a youth unemployment ratio of only 2 in 2018. This is a historical record for the Czech Republic. According to Guasti, Mansfeldová, Myant & Frank (2018), "*[…]the decline in unemployment has gone hand-in-hand with a decrease in long-term unemployment and youth unemployment […]*" (pp. 7-8). In order to achieve such a decrease in the youth employment rate and youth unemployment ratio, the Czech Republic had to make some reforms concerning its fiscal policy, its youth employment policy and its pension system.

For instance, according to Pavlovaite (2018, pp. 14-15), in the Czech Republic has been implemented the Czech Youth Guarantee Program. This program is divided into four type of measures for integration of young people into the labour market. The first type is focused on the young people, and the specific measures strive for increasing the employability of youth by working together with different organizations, projects, and programs funded by the European Social Fund and by the European Union, in order to test new active employment policies. Furthermore, there is vocational consultancy in order to match young people with what the labour market and employers demand. This is also an active employment policy tool. Moreover, there is promotion to acquire certified professional qualification and it is also promoted the recognition of non-formal education by employers. The second type of measure accounts for supporting employers, particularly by giving them contributions to create either permanent or temporary jobs, as well as professional traineeship and scholarship positions, among other policy tools. In the case of the third measure, this one is focused on stakeholders by sponsoring them and working with them. This cooperation is along with regional authorities and other partners, such as schools and universities. And last, but not least, the fourth measure has to do with the employment services, which provides job positions and unemployment benefits as well as traineeships. About where the Czech young people are mostly employed, a vast majority is working as employees or members of producer's cooperatives and a very tiny portion are own-account workers or employers, as it can be observed on the graph below.

Graph 7: Young employed persons (in thousands) by status in employment in the Czech Republic during the 4th quarter 2018- CZ-ICSE[6]

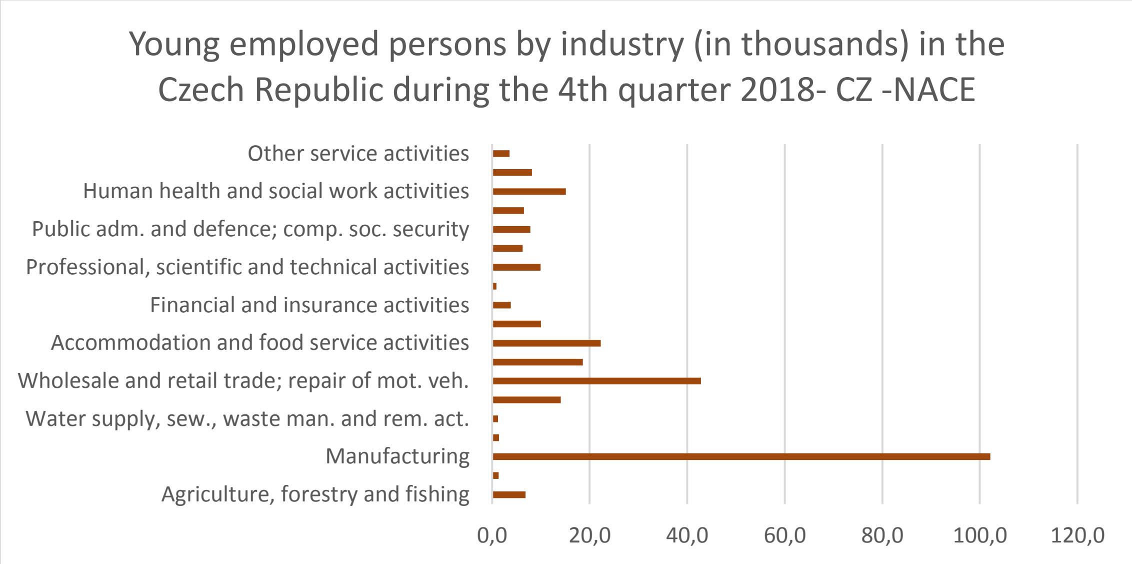


Source: Based on (Czech Statistical Office 2019)

[6] "*CZ-ICSE Status in employment is classified by the group of CZ-ICSE of 1998, which correspond to individual groups of the international classification ICSE-93*"(Czech Statistical Office 2014)

In matter of economic sectors, the Czech young people are working mostly on manufacturing, in the first place, and then in the wholesale and retail trade and repair of vehicles, as it can be observed on the graph below.

Graph 8: Young employed persons by industry (in thousands) in the Czech Republic during the 4th quarter 2018- CZ-NACE[7]



Source: Based on (Czech Statistical Office 2019)

Therefore, by providing young people with specific policies and actions to promote youth employment, the Czech Republic has achieved to have the lowest youth unemployment ration in the whole European Union, which means that the implementation and results of those policies have been effective and successful.

2.1.3 Old-age pension policy in the Czech Republic

According to the Czech political constitution, in its article 30, numeral 1, "*Citizens have the right to adequate material security in old age and during periods of work incapacity, as well as in the case of the loss of their provider […]*" (The citizens of the Czech Republic in Bohemia, in Moravia, 1993). This adequate material security is ensured by

[7] "*Figures concerning industries of activity are split by categories/divisions of the national Industrial Classification of Economic Activities (OKEČ), Rev.2, CSO, 1998. The classification is compatible with the international classification ISIC, Rev.3 and NACE, Rev.1*"(Czech Statistical Office 2014)

old-age pensions, or at least that is the purpose. According to the International Monetary Fund (IMF, 2018, p. 24), in order to get old-age pensions, elderly have to meet requirements and those requirements are connected to life expectancy, such as statutory retirement age, which at the moment of edition of the present research is 63 years, but it will be increasing until reaching 65 years by 2030. It is important to mention that, it will be possible to adjust the retirement age afterward, the purpose is to guarantee that up to quarter part of life expectancy will be for retirement. Therefore, the IMF recommended the Czech Republic to establish based statutory retirement age on life expectancy, in order to increase labor to support public finances.

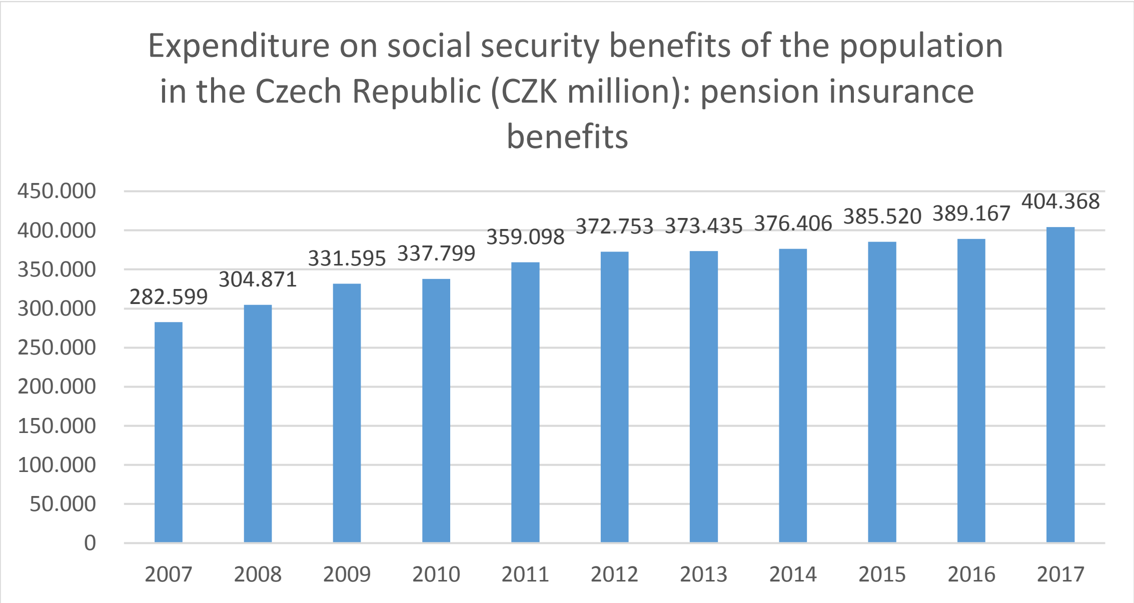
Moreover, according to the Fiscal Outlook of the Czech Republic (MFCR, 2017, p. 1), despite the demographic trends and ageing population, the future costs concerning the expenditures on pension systems may be reduced if the retirement age is increased according to life expectancy

Besides life expectancy, it is necessary to take into account other factors to determine statutory retirement age, and these factors are the demographic projections. For instance, according to IMF (2018, p. 27), even though the population in the Czech Republic is younger than the population in Western Europe, this will be not forever. This is the reason why the expectation tends to be about a decreasing in working-age population in the future, by 5 % by 2030 and 21 % by 2050.

According to the Mutual Information System on Social Protection (MISSOC) (European Commission [no date]), the old-age pensions in the Czech Republic are known as "*starobní důchod*". As it is indicated in the name, these pensions aim to protect the senior citizens by providing them resources to cover their basic needs. These pensions are paid every month since the moment of retirement to the death of the retiree. In order to get this pension, the retirees have to meet two conditions. The first one is reaching the retirement age, known as "*důchodový věk*" in Czech language. The second condition is to contribute to the pension scheme during certain number of years. The pension insurance is known in Czech language as "*důchodové pojištění*". This pension insurance is compulsory almost for all the workers. Retirement age, number of insured years and the pension amount depend on factors such as year of birth, gender, number of children and incomes. The retirement age for everybody born after 1971 is 65 years old. The minimum insured period is 35 years. There is a basic amount for everyone, which was CZK 2700 per month in 2018. The minimum percentage amount is CZK 700 at the moment of edition of the present thesis. The individual percentages are calculated based on the insured years and the average incomes. The minimum old-age is CZK 3,470. Furthermore, it is important to mention that in the Czech Republic, the people who reach the retirement age can still working either receiving no old-age pension at all, or receiving the half or entirely their old-age pensions. It is also possible to apply for early old-age pension.

Once grasped an overview of the old-age pensions in the Czech Republic, it is necessary to mention that, according to Guasti, Mansfeldová, Myant & Frank (2018) , the Czech pension system "is currently in surplus and the medium-term sustainability gap associated with the aging population is relatively limited". Furthermore, these authors claim that "*[p]ensioner poverty remains relatively low*", and that "*[t]he current average pension is about €460*". They also mention the attempts to introduce a second pillar based on voluntary private pension funds with private companies. However, this scheme was abolished in 2016. (pp. 11-12).

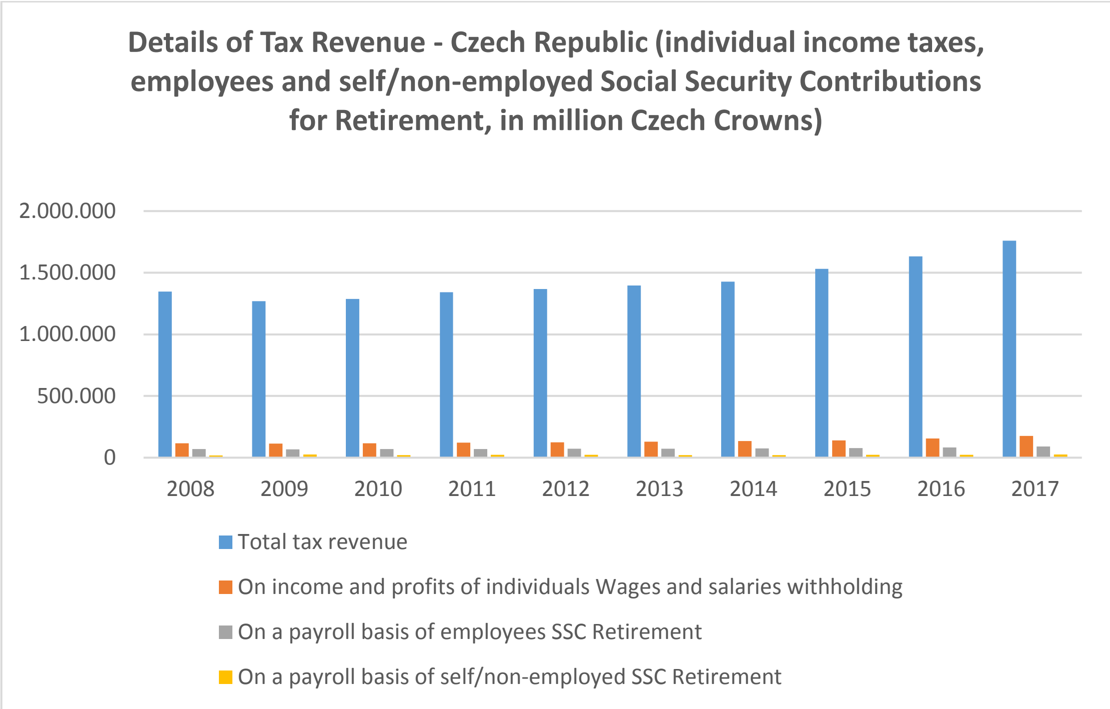
Table 9: Expenditure on social security benefits of the population in the Czech Republic (CZK million): pension insurance benefits



Source: Czech Statistical Office, 2018.

Besides the expenditures, it is also necessary to take into account the tax revenues from individual income taxes based on wages and salaries as well as from taxes on a payroll basis of employees and self/non-employed Social Security Contributions from Retirement.

Graph 10: Details of Tax Revenue – Czech Republic (individual income taxes, employees and self/non-employed Social Security Contributions for Retirement, in million Czech crowns.



Source: (OECD 2018c)

Therefore, as it can be seen, in the Czech Republic have managed to have the lowest youth unemployment ratio, because they have invested in the implementation of youth employment policies, both active and passive policies. The Czech Republic is investing in facing the future risks associated to the ageing population for the long-term sustainability of their pension systems by enlarging the tax base through including young people into the labour market.

2.2. Social policies in Hungary

In this subsection there will be presented the tax system as well as the fiscal policy, the Hungarian youth labour market as well as the youth employment policies, and the Hungarian old-age pension system.

2.2.1. Fiscal Policy in Hungary

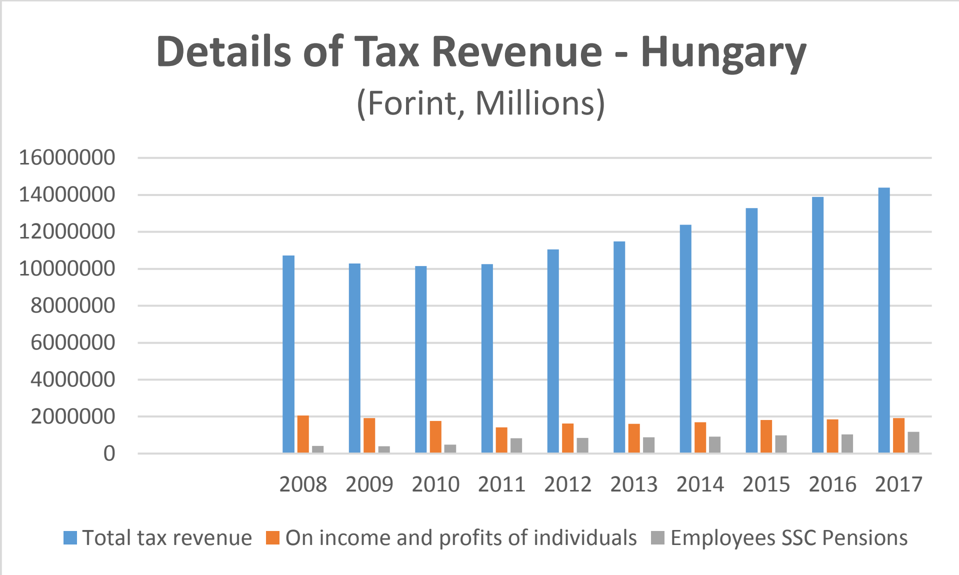
The Hungarian tax system is based, first and foremost, on the constitutional duty to "*contribute to satisfying community needs to the best of his or her capabilities and in proportion to his or her participation in the economy*", as stated in the article XXX numeral 1 of the Hungarian political constitution.

The tax system in Hungary works at the central and local levels. The most important for the present research are the taxes at the central level, which means, the ones that constitute the revenues of the state budget. Among the taxes at the central level, there are the general taxes such as the corporate income tax, the value added tax, and the personal income tax. For the purpose of the present research, the focus will be on the personal income tax. According to Doing Business (2019), in Hungary, " *the general rule applicable to taxation is the principle of self-assessment*", which means that "*enterprises and individuals are required to assess, declare and pay their taxes themselves*".

In matter of personal income taxes and social security contributions, according to Accace (2019b, p. 6), there is a flat rate for personal income taxes of 15%. Regarding social contributions, the employee pays 10% for pension fund, while the employer pays 19.5% as a social contribution tax. Therefore, the tax burden on the employee, taking into account only the flat rate income tax of 15% plus the pension fund of 10%, give as a result 25% on the gross salary. It is important to mention that, according to the European Commission (2018a, p. 13), "*[t]he share of tax revenues from the taxation of labour decreased, while the weight of consumption and other forms of indirect taxes increased*".

As it can be observed on the Graph 11, there has been a constant increasing of the tax revenues from employees social security contributions for pensions.

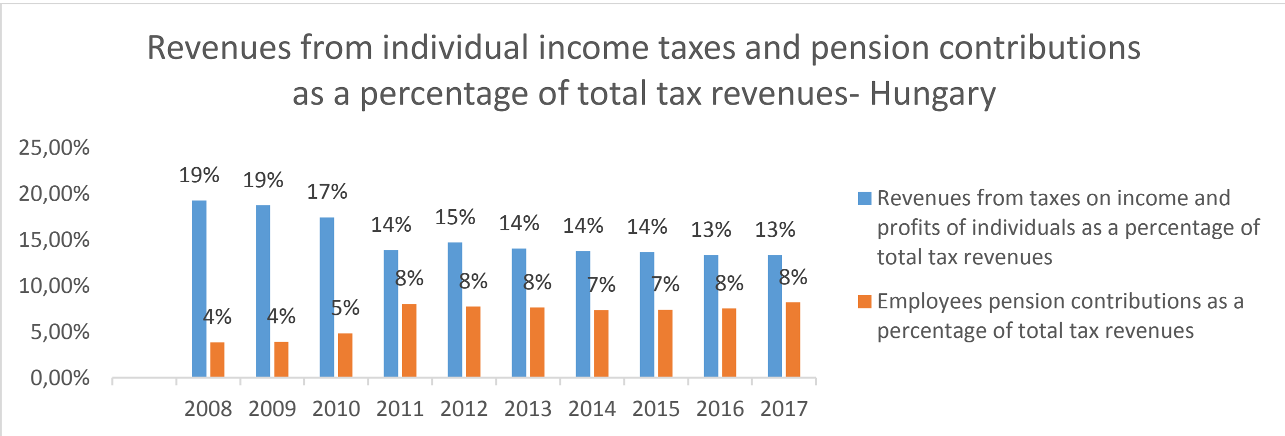
Graph 11: Details of Tax Revenue – Hungary (Forint, Millions)



Source: Based on (OECD 2018d)

As it can be observed on the Graph 11, the total tax revenues as well as taxes on income and individual profits and the pensions contributions from employees have increased in the period studied. However, as it is displayed on the Graph 12, those revenues from taxes on income and profits remained with 13 percentage of total revenues in 2016 and 2017, while the pension contributions from employees have slightly increased over the years to remain in 8% in the last two years.

Graph 12: Revenues from individual incomes taxes and pension contributions as a percentage of total tax revenues – Hungary



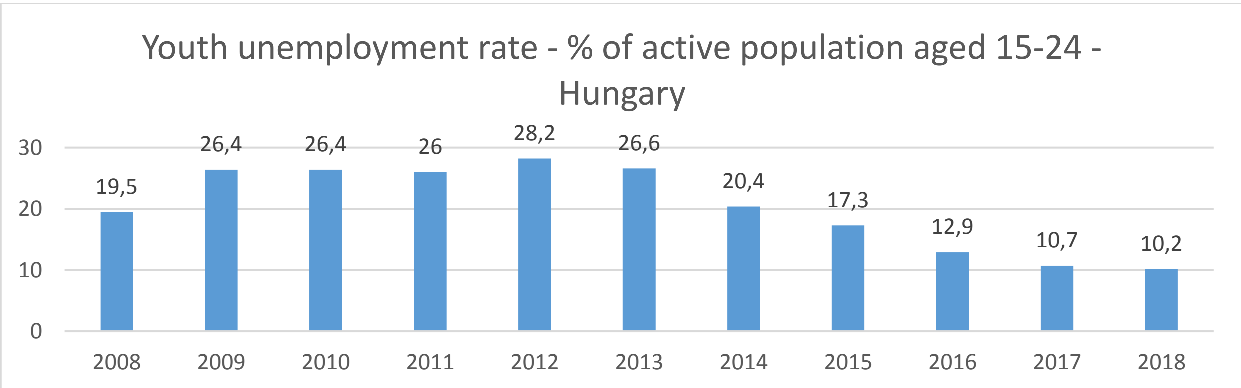
Source: (OECD 2018c)

Furthermore, according to the EC, "*[a] part of the increase in gross pension expenditures from 2007 to 2060 in Hungary is explained by the introduction of pension taxation as of 2013 and so does not reflect an increase in expenditures effectively burdening the budget. Taxes on public pensions in 2060 are calculated to be 0.7% of GDP*"(European Commission, 2009, p. 27).

2.2.2 Youth employment policy in Hungary

About the youth labour market policy in Hungary, there is the Youth Guarantee Active Labour Market Programme, along with the National Employment Service, and together they concern about addressing, registration and follow up of young people. Additionally, this programme maintain contact with partner organisations to operate the system. The purpose of this programme is to promote labour market participation of young people below 25 years old. The measures used in this programme, for instance are: "*providing wage subsidies, entrepreneurship support, trainings coupled with labour market services, such as job search assistance or mentoring*" (European Commission, 2017, p. 47). Hungary youth unemployment rate for 2017 (see Graph 13) was 10.7 and the youth unemployment ratio for the same year was 3.5. (Eurostat, 2018). According to Portfolio (2018), cited in (European Commission, 2019b, p. 24), from 300,000 to 600,000 Hungarians are estimated to live in other EU Member States, mainly in United Kingdom and Germany. About the educational attainment, Hárs (2018) in (European Commission, 2019b, p. 24), claims that the proportion of Hungarians with tertiary education graduates is the higher than other segments.

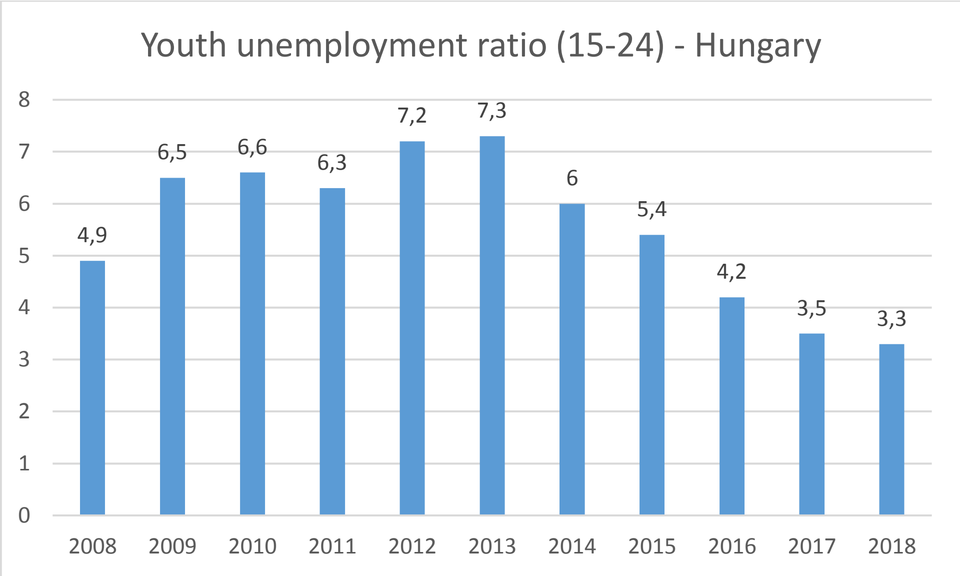
Graph 13: Youth unemployment rate - % of active population aged 15-24 – Hungary



Source: Based on (Eurostat 2019b)

As it can observed on the Graph 14, in order to take a look at Hungary in more detail, the youth unemployment ratio experienced a peak in 2013 after constantly increasing from 2008 onward. However, after 2013 it has decreased constantly until reaching 3.3 in 2018. This means that Hungary has implemented successful and effective youth employment policies.

Graph 14: Youth unemployment ratio (15-24) – Hungary



Based on: (Eurostat 2018c)

About the structure of the youth labour market in Hungary, see the Table 7. As it can be observed on the table, in 2010 and 2014, the main sector where the Hungarian young people aged 16-24 were working was accommodation and food.

Table 7: Youth employment (ages 16–24 years) as a share of total employment (ages 16–64 years) by sector in Hungary, 2010, and 2014 (%)	Years	
Sector	2010	2014
Agriculture	5.3	6.2
Manufacturing	6.4	7.4
Construction	6.6	7.1
Wholesale and retail	7.4	7.6

Transport and communication	4.8	4.3
Accommodation and food	14.2	14.6
Financial services	4.1	3.6
Real estate, professional	3.5	5.1
Public administration	6.6	6.4
Educación	2.1	2.8
Health and social work	2.8	4.1
Arts and other services	7.4	7.4
Source: Based on EU- LFS; authors' analysis (Grotti, Russell, & O'Reilly, 2019, p. 49, table 2.3)		

2.2.3 Old-age pension policy in Hungary

The first legal base of pension systems is stated in the Political Constitution, specifically in the article XIX, numeral 4, as follows: "*Hungary shall promote the livelihood of the elderly by maintaining a general state pension system based on social solidarity*". (The Members of the Hungarian Nation 2011).

According to the Ágh & Dieringer (2018), who summarized the development of pension policy in Hungary, this V4 member states implemented a three-pillar system in 1997. Among those three pillars, there was a fully funded second pillar. However, later this second pillar was abolished and the Hungarian government, during the second Victor Orbán mandate as a Prime Minister, confiscated the resources of such pillar. Furthermore, the Hungarian government eliminated some early-retirement options and the Swiss indexation, which adjusts outstanding pensions by the average of the price and wage indices, remained the same. The reforms improved the financial sustainability of the first pension pillar, but increased poverty among pensioners (p. 12).

As of 2016, according to the OECD (2017), the Hungarian pension system is compulsory, uniform and defined benefit (DB) pay as you go system, which is based on earnings and is a public scheme combined with minimum pension. In 2016 the public spending on pensions was 10.3 % of the GDP, which was higher than the OECD average that year

(8.2). In the same year, Hungary had population over 65 years of 27.9%, this as a percentage of working-age population. To qualify for a pension it is necessary to reach the retirement age, to get required the minimum service period and to cease profitable activities. The standard retirement age is increasing until reaching 65 in 2022. It is necessary to work during 20 years for getting either the earnings-related pension or the minimum pension.

2.3 Social policies in Poland

In this subchapter there will be described the tax system as well as the fiscal policy, the youth labour market as well as the youth employment policies, and the old-age pension systems.

2.3.1 Fiscal Policy in Poland

To begin with, it is necessary always to refer to the legal framework. In the first place according to the Political Constitution, in the article 84, which states: "*Everyone shall comply with his responsibilities and public duties, including the payment of taxes, as specified by statute*". Furthermore, the article 217 remarks that the imposition of taxes "*shall be by means of statute*".

According to the (European Commission [no date]), the tax system in Poland is classified in three main types: direct taxes (personal income tax, corporate income tax, and others); indirect taxes (VAT, excise duties harmonized with the EU such as: alcoholic beverages, energy products and electricity, manufactured tobacco and others); and social security contributions (from employers, employees, and others). For the purpose of the present research the focus will be on personal income taxes and social security contributions, particularly the retirement pension contributions as well as the pension contributions. The personal income tax is known in Polish language as *Podatek dochodowy od osób fizycznych.* It exists since 1992. The legal base of income taxes are the Act of 26 July 1991 on personal income tax, which is consolidated in Journal of Laws of 2012 item 361 with subsequent amendments; and the Act of 20 November 1998 on lump-sum income tax, which is in Journal of Laws, No. 144, item 930 with subsequent amendments, and is in force since 1st of January, 1999. The tax rate, tax base, and reliefs are set by central authority. The residents are taxed on their worldwide income, and the incomes from employment, the incomes from business or self-employed activities, and the pension incomes are object of taxation. The tax base is different for each category of revenue, and takes into account the net incomes, which means income after deductions, such as obligatory social security contributions.

The personal income tax 2018 was up to PLN 85,528, which is taxed at 18%. Incomes above PLN 85,528 are taxed at 32%. This tax is calculated based on net incomes from employment, business activities and independent professional activities. The tax period is the calendar year. (Accace Management s.r.o., 2018, pp. 11-12)

According to Matthes & Markowski (2018), one of the main characteristics of the tax system in Poland, is that the personal-income tax has two rates: 18% for incomes up to PLN 85,528 and 32% for the others above. Furthermore, these authors refer to the decline in unemployment rate, and to the slow, but constant increase of the employment rate. However, they also point out that despite the advances in the employment rate, this is still below the EU-28 average of 70.1%. Moreover, these authors claim that Poland has the highest rate in matter of temporary employment contracts. Additionally, these authors point out that the Polish government, ruled by the party Law and Justice, has not done enough to integrate youth in the labor market (pp. 6-7).

2.3.2 Youth employment policy in Poland

In 2017, Poland had a youth unemployment rate of 14.8% and a youth unemployment ratio of 5.2% (Eurostat, 2018). As in the case of Nicaragua, Poland has a serious problem with the youth migration. In this regard, according to Pietrzak & Wilk (2014), "[i]n some regions of Poland the population aging processes are significantly affected by migration outflows of young people" (p. 161). This phenomenon remains constant. According to Statistics Poland (2018), there is a high scale of international migration, especially temporary migration of young people (p. 11).

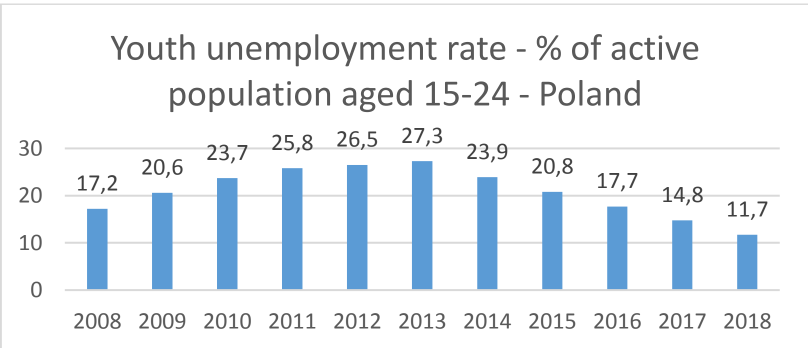
According to the Council of the European Union, in its recommendation of the 23rd of May, 2018, Poland has increased the employment rate, nevertheless, the labour market has failed in including older people. This organization also has pointed out that "the Polish social protection system provides insufficient incentives to take up work", and that "the limited support made available to people providing long-term care prevents them from entering the labour market". In this regard, the Council warned Poland that "lowering the statutory retirement age has encouraged some older workers to exit the labour force". (The Council of the European Union, 2018, p. 3).

Additionally, according to the European Commission (European Commission 2017b), in the case of Poland, the increase in youth employment has to do with the unstable employment, such as temporary contracts or civil law contracts, which means that they did not pay social security contributions. Furthermore, according to Eurostat cited by European Commission, in 2014 more than 50% of young people were employed on fixed-term contracts. There were also a plenty of young people within the category known as working poor. The European Commission also refers to the fact that the

> high unemployment rate among young people, the rise of unstable employment and the mass emigration of young people have prompted the authors of reports on youth to label them as the 'lost generation', a dreary prospect that could only be averted by decisive action through public policies. (p. 42)

One of these public policies was the so-called EU Youth Employment Package, implemented in 2012 and that aimed to promote youth employment as indicated in its name. Furthermore, the Youth Guarantee Initiative, which is expected to provide EUR 550 from European Union funds.

Graph 15: Youth unemployment rate - % of active population aged 15-24 (Poland)

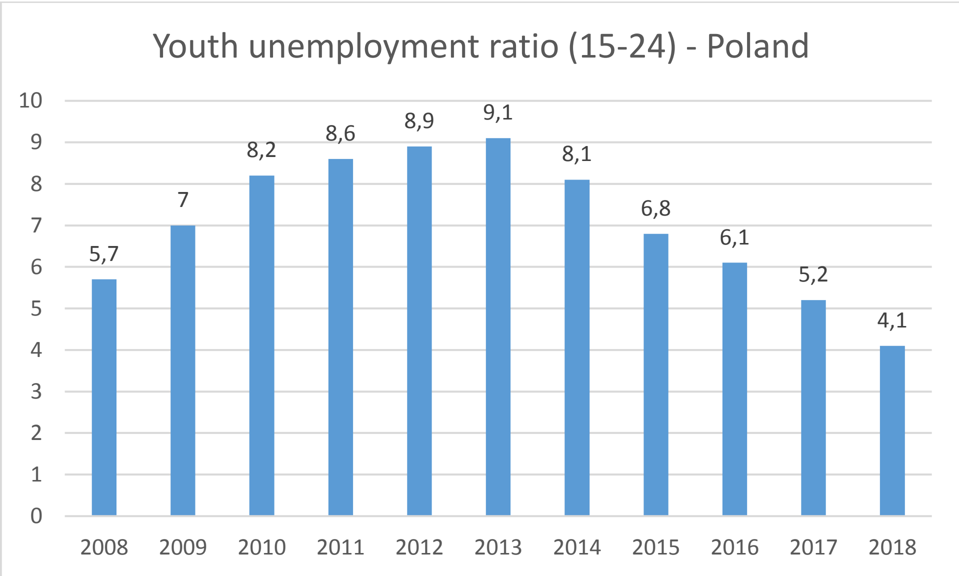


Based on: (Eurostat 2019b)

As a result, from 2013 onward to the youth unemployment rate started to decline, as it can be observed on the Graph 15.

In terms of youth unemployment ratio, Poland declined its ration and in 2018 it reached 4.1, as it can observed on the Graph 16.

Graph 16: Youth unemployment ratio (15-24) – Poland



Based on: (Eurostat 2018c)

About the structure of the youth labour market in Poland (See Table 8), as it can be observed, in 2010 and 2014, almost a quarter of young people aged 16-24 were working in the sector of accommodation and food, which mean services.

Table 8: Youth employment (ages 16–24 years) as a share of total employment (ages 16–64 years) by sector in Poland 2010, and 2014 (%)	Years	
Sector	2010	2014
Agriculture	6.8	5.5
Manufacturing	8.6	8.2
Construction	10.5	8.4
Wholesale and retail	13.5	10.9

Transport and communication	7.4	6.6
Accommodation and food	21.9	19.2
Financial services	9.4	5.0
Real estate, professional	7.4	6.4
Public administration	6.7	3.2
Education	3.6	2.5
Health and social work	3.7	2.6
Arts and other services	13.2	9.1
Source: EU- LFS; authors' analysis (Grotti, Russell, & O'Reilly, 2019, p. 49, table 2.3)		

This last part of this subsection, is based on the report Youth Policies in Poland 2017, by the European Commission (2017b, pp. 55-56), which talks about the Act of 20 April 2004 on the promotion of employment and labour market institutions, which is in the Journal of Laws (Dz.U.) of 2017, item 1065, as amended, there are some policies to support young people, such as Employment Offices and Voluntary Labour Corps. In the case of the Employment Offices, the young people up to 30 years old who are registered as unemployed at such offices, may use services such as, training, internship, intervention works, job skills training for adults, postgraduated studies, training based on contracts between the district governor, the employer and the training institution, housing vouchers, training vouchers, internship vouchers, and employment vouchers. Additionally, "*since 1 January 2016, it has been possible to reimburse the employer for part of the cost of salaries and social security contributions for full-time employment of unemployed persons under the age of 30. The refund covers a period of 12 months*" (p. 55). Moreover, Employment Offices offer financial support to start a business.

Besides the previously mentioned, there is also the implementation of the Youth Guarantee Initiative that was launched in Poland in 2014. This initiative adjust its strategies according to the need of young people based on their age and educational attainment. In 2014, Bank Gospodarstwa Krajowego (BGK) (The National Development Bank) implemented a loan scheme. In 2015 and 2016, Employment Offices cooperated with BGK within the framework of the "*First Business – Start-up Support" scheme, with the help of Voluntary Labour Corps also. Additionally, projects such as "Action Activation – YEI and ESF*" and

“*Unlock Your Potential – YEI and ESF*” are implemented. These projects include activities such as: individual psychological support; group active job search workshops; vocational courses; vocational qualification courses; language courses; European Computer Driving Licences courses; driving courses; entrepreneurship courses; job placement and mediation in the organisation of internships; and internships with employers. In 2017, the implementation of projects “*From Training to Employment – YEI and ESF*” began for 3,700 professionally inactive persons from the NEET group.

Additional actions will be taken within the framework of central competitions organised under the programme “*Young People on the Labour Market*” (Knowledge Education Development Operational Programme). The competitions, announced by the Minister of Family, Labour and Social Policy under the Youth Guarantee Initiative, concern projects supporting individual and comprehensive professional and educational activation of young people (unemployed, professionally inactive and jobseekers, especially those not registered at any Employment Office). The aim is to increase the employability of young people under the age of 29 who remain unemployed, especially those who are not in education or training (NEET youth). It is estimated that approximately 18 thousand people aged 15 to 29 will receive support within the framework of those central competitions (in 2017/2018). (European Commission, 2017b, pp. 55-56)

2.3.3 Old-age pension policy in Poland

The Polish political constitution states in the article 67.1, that “*a citizen will shall have the right to social security”, this right includes among others, “whenever incapacitated for reason of […] having attained he retirement age*”. This article also refers that the scope and forms of social security will be regulated by statute. (The Polish Nation -all citizens of the Republic 1997)

In matter of pension policy, according to Matthes & Markowski (2018), Poland introduced a three-pillar systems in 1999. In 2011, pension contributions were partially redirected from the second pillar, which is obligatory, but private and funded, to subaccounts in the first pillar, which is a public scheme. These authors also claim that the sustainability of the first pillar improved in 2011 by gradually increasing statutory retirement ages, between 2013 and 2020 for men and 2040 for women, to the age of 67 for both sexes. However, in 2017 came into force a new reform that changed the retirement age to 60 for women and 65 for men. According to these authors, this reform will cost PLN 15 billion annually, which has reduced the sustainability of the pension system and probably will increase poverty among women (p. 12).

According to the OECD (2017b), as of 2016, the Polish pension system is based on notional accounts. People born in 1969 and after must also participate in the funded scheme, however, since 2014 participation in the funded scheme is voluntary. The retirement age is 66 for men and 61 for women, however, in the long term this retirement age will decrease up to 65 for men 60 for women. The contribution is 19.52% of incomes, which will be accredited to individuals' notional accounts. There is a notional interest rate of 100% of the growth of the covered salary bill. Pension benefits are indexed according to inflation. Within the pay as you go scheme, there is a minimum pension that was PLN 1000 in 2017. Furthermore, as of 2014, workers can allocate 2.92% of their gross incomes to a defined contribution (DC) scheme. However, this scheme is managed by privates. In the same year, about the half of the assets in this scheme were transferred to the Social Insurance Institution. Furthermore, the resources of the people who stay in this private schemes, will be transferred to the public system 10 years before their retirement. The Social Insurance Institution calculates and pays the defined contribution pensions and this institution combines those benefits with the notional defined contributions.

According to the World Bank (WB), the notional defined contribution schemes:

> "*[...] are designed to mimic a defined contribution plan, where the pension depends on contributions and investment returns. (For this reason, they are sometimes called notional, defined-contribution schemes). Pension contributions are tracked in accounts which earn a rate of return. However, in notional accounts, the return that contributions earn is a notional one, set by the government, not the product of investment returns in the markets*" (World Bank, n.d., p. 1)

It also necessary to mention that this scheme is, according to the World Bank (n.d., p. 1), is publicly provided and benefits are calculated on the accumulation of assets in accounts at the time of retirement. It is called notional because it is based on individual claims on the future public budget. This scheme can be considered as a pay as you go system, since the current contributors fund the pensions of the current pensioners. Once the person reaches the retirement age, his or her pension is adjusted taking into account life expectancy.

About the contributions to the social security from employees and from employers, is a follows, (See Table 9)

Table 9: Social security in Poland		
Contribution for	Employee	Employer
Retirement pension contribution	9.76 %	9.76 %
Pension contribution	1.5 %	6.5 %
Source: Based on (Accace Management s.r.o., 2018, p. 6)		

2.4. Social policies in Slovakia

In this subchapter there will be a brief description of tax system as well as fiscal policy, youth employment policies as well as youth labour market, and old-age pensions.

2.4.1. Fiscal policy in Slovakia

Slovakia has direct and indirect taxes. The most interesting for the present research are the taxes on individual incomes. For personal incomes should be understood incomes from employment, incomes from business and professional activities as well as from art performance. The tax period is the calendar year. The rate for an income up to EUR 36,256.38 is taxed at 19%; above EUR 36,256.38 is taxed at 25%. In the case of income from capital, there is a flat rate of 19%. In matter of dividends, the rate is 7%. However, dividends paid out between 2004 and 2016, do not pay any tax. (Accace, 2019b, pp. 14-15)

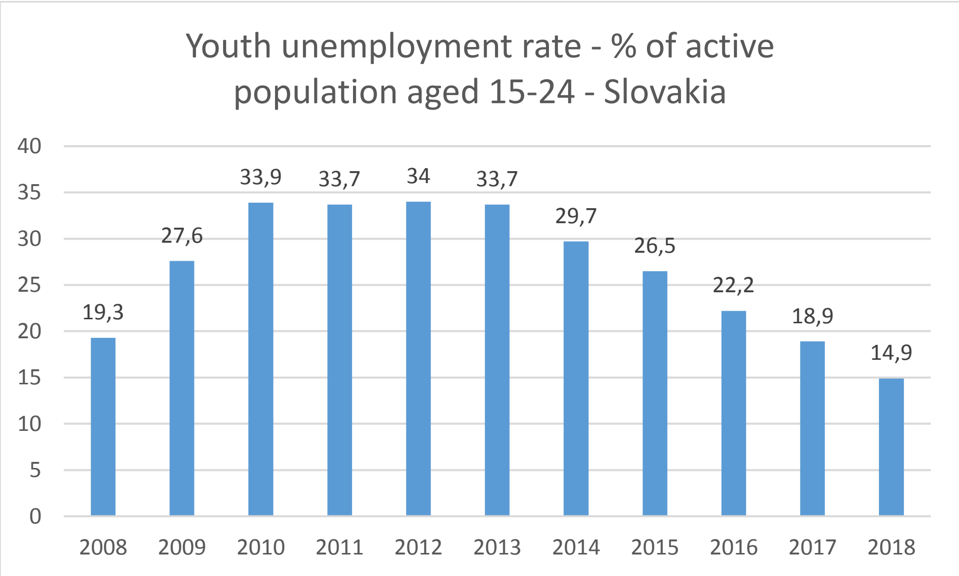
According to the OECD, "*[t]he tax wedge is a measure of the tax on labour income, which includes the tax paid by both the employee and the employer" and "[i]n the Slovak Republic, income tax and employer social security contributions combine to account for 75% of the total tax wedge, compared with 77% of the total OECD average tax wedge*" (OECD 2019).

In matter of tax policy, Kneuer & Malová (2018, pp. 5-6), point out that the Fico government implemented again in 2012 a progressive income tax, which has increased the vertical equity. They also claim that during the third Fico government, the tax policy has focused on tackling tax evasion, improving tax collection, and increasing in the caps on social insurance contributions. Furthermore, they point out that personal income tax and social insurance contributions has helped to reduce fiscal deficit.

2.4.2. Youth employment policy in Slovakia

According to Kneuer & Malová (2018, p. 5), the unemployment rate has decreased to about 8% in 2017. However, these authors argue that the third Fico government has not tackled properly the long-term unemployment, which is one of the highest in the European Union. Additionally, they claim that the labour market participation of young people is relatively low. As it can observed on the Graph 17, about youth employment rate and youth employment ratio (See Graph 18), Slovakia has also managed to decrease both rates in the studied period.

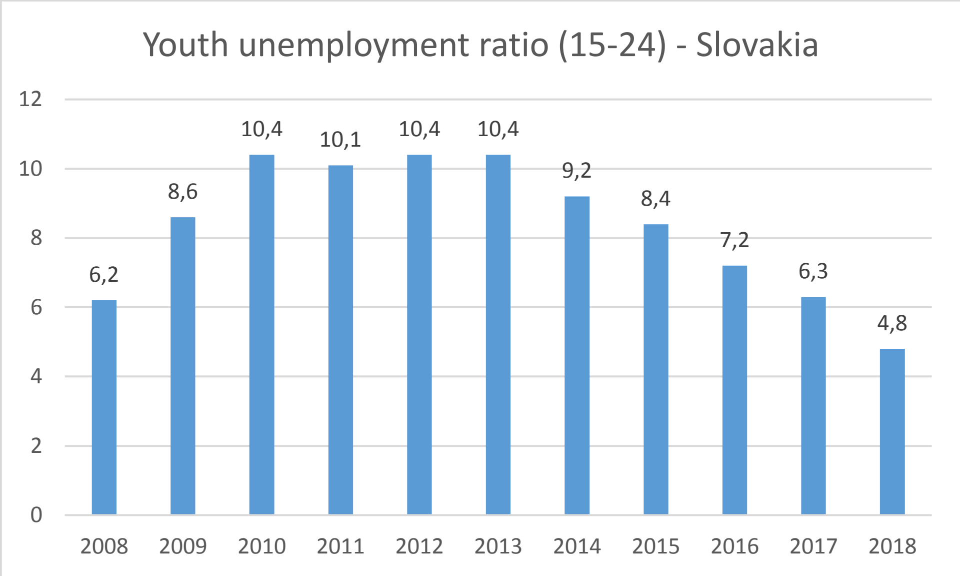
Graph 17: Youth unemployment rate - % of active population aged 15-24 - Slovakia



(Eurostat 2019b)

In order to have a deeper outlook of the youth unemployment in Slovakia, see Graph 18.

Graph 18: Youth unemployment ratio (15-24) – Slovakia



Based on: (Eurostat 2018c)

According to Kahanec & Sedláková (2016), youth employment is the aim of the so-called "*Youth Employment Initiative*", which is a priority axe of the Operational Program Human Resources. One of the measures implemented was the introduction of subsidies for students and or graduate's first paid jobs, with the aim of boosting youth employment, as part of the National Youth Guarantee Implementation Plan. This measure is implemented since January 2015, through an amendment to the Act on Employment. These subsidies are given to employers who hire young people below 29 years old, for creating job for half a year or one year. The subsidies have two financial sources: a special EU budget or specific allocation for the YEI, and from allocation of European Social Fund. This implementation plan has reached about 132,500 young people in Slovakia by the end of 2015.

2.4.3 Old-age pension policy in Slovakia

The Slovak Political Constitution states in its article 39, that "*Citizens shall be entitled to adequate material security in their old age, as well as in cases of disability, and death of the family's principal provider*" (The Slovak People 1992).

The Slovak pension scheme is related to incomes, is public and is based on points, which means that benefits depend on personal earnings in relation to the average. In the case of low income earners, the pension benefits are calculated based on a minimum amount of incomes. There are also voluntary defined contributions plans since 2005. The retirement age is 62 and it is necessary to contribute during at least 15 years. From 2017 onward, the retirement age will be indexed according to life expectancy.

About the pension policy, Kneuer & Malová (2018), claim that Slovakia introduced a three-pillar pension system in 2004. However, these authors also argue that in the period between 2012 and 2015, the Fico government has implemented a set of measures with the purpose of strengthening the first pillar, which is public and pay-as-you-go system, even if this mean weakening the initially relatively strong second pillar, which is private and fully funded. As a consequence of these reforms, the state has increased again its role in providing for the retired people, which means that the pension system has turned into a more redistributive scheme. Nevertheless, these author argue that these changes put more pressure on the first pillar due to the rapid aging Slovak population, and as a measure to alleviate this pressure, the indexation of pensions changed between 2013 and 2017. These authors also point out that the annual adjustment of pensions was based on the development of the cost of living of retirees. However, in 2017 there was an ad hoc increase of pensions by 2%, and the government promised a pension increase of at least 2% of an average pension between 2018 and 2020 (p. 11).

3. Methodological route

This thesis is mainly based on the analysis of official documents such as reports from the international organizations such as the International Monetary Fund, the European Commission, the International Labor Organization, and the Organization for Economic Co-operation Development as well as from the databases contained in the Statistical Offices official websites of the member states of the V4.

The qualitative based interview was conducted to support other data sources used. One interview to one expert was conducted at the Ministry of Finance of the Slovak Republic on the 6th of September of 2018, however, taking into account the General Data Protection

Regulation (GDPR rules), which concern about the use of personal data and that became into force as of May 2018, the researcher sent an email with the corresponding transcription of such interview as well as with a consent form to the expert interviewed, in order to get his written consent to quote his answers to the interview, as well as his full name and position at the Ministry of Finance. Nonetheless, until the moment of the present research there was not been reply. The questionnaire (without the answers of the interviewed) are in the appendix 1. The consent form is in the appendix 2.

Along with the interview, the author sent an email to the Ministry of Labour, Social Affairs and Family of the Slovak Republic, in order to arrange a meeting for an interview. This email was sent on the 16th of August, 2018. However, despite the author received several documents from this institution in the following emails on the 31st of August, 2018, and despite the author sent his questions on the 9th of September, 2019, after being told to send them in case there were further questions, to the moment of edition of the present research. The questions sent are in the appendix 3.

Furthermore, the author enrolled himself in Massive Open Online Course (MOOC) taught by the Inter-American Development Bank (IDB) about reforms to pensions systems in Latin America, in order to acquire a deeper understanding on how the pension systems work and what the main pension schemes around the world are.

Below there are the transformation steps to get the information and to figure out the answers to the research questions.

Table 10: Transformation steps

Main Goal:	Partial goals	Technique	Source	Questions/Criteria
To study the youth employment policies, the fiscal policies and the social security coverage of	Partial Goal 1 To figure out what good practices in terms of fiscal policies were implemented in the V4	Analysis of documents and databases	Fiscal Outlook of the Czech Republic	How the V4 has addressed the impact of ageing on the fiscal sustainability of pension systems.

the V4 countries, in order to figure out which best practices could be inspiration for Nicaragua	member states in order to tackle the risks against the fiscal sustainability of pension systems			Criteria: Definition of good practice by ILO, as follows: "*A Good Practice is any successful working practice or strategy, whether fully or in part, that has produced consistent, successful results and measurable impact*".
	Partial goal 2To figure out what good practices in matter of youth employment policies the V4 member states in order to tackle the risks against the fiscal sustainability of pension systems	Analysis of documents about implementation of Youth Policies in the V4 member states	Reports on Youth Employment Initiatives	Criteria: Definition of good practice by ILO, as follows: "*A Good Practice is any successful working practice or strategy, whether fully or in part, that has produced consistent, successful results and measurable impact*".

	Partial goal 3 To figure out what good practices in matter of pension system policies the V4 member states in order to tackle the risks against the fiscal sustainability of pension systems	Analysis of documents about implementation pension systems policies in the V4 member states	Pensions at a Glance: Countries Profile by the OECD MISSOC	Definition of progressive tax system Definition of fiscal sustainability
Source: Elaborated by the author.				

4. Good practices in the V4

The European Commission has pointed out that "*[p]ension reforms implemented in recent years in some Member States are having visible positive impacts (most recently in the Czech Republic, Hungary, Denmark and Portugal).*"(European Commission, 2009, p. 28). Those impacts have been already described in the second chapter.

4.1 Good practices in the Czech Republic

The Czech Republic has implemented some measures in order to tackle the widespread issue of undeclared work. One of this measure concerns about penalties. In this regard, a work will be considered illegal when is performed without an employment relationship or work contract. Regarding the penalties, the Section 139 of the Employment Act states that, there will be fines up to CZK 10, 000 for the employee, and up to CZK 2,000, 000 for the employer. (Ministry of Labour and Social Affairs [no date])

Besides, among the V4, at the Meeting of Ministers of Labour Concerning undeclared work, "*the Presidency supports the exchange of information, the sharing of good practices, the presentation of solutions and the legal background in the V4 countries, and the strengthening of V4 representation of interests in the European Platform tackling undeclared work*" (Visegrad Group, 2017, p. 24).

According to Pavlovaite (2018, p. 13), in the Northwest region there was an increasing number of staff in regional branches of the Labour Office. The Operational Programmes Human Resources and Employment have played a significant role. In 2016, 46.4 % of NEETs were reached by the Youth Guarantee measures. In the same year, the number of persons in YEI-supported actions was 754 and the number of persons who completed a YEI action was 59. The Czech Republic implemented in 2014 a Youth Guarantee Implementation Plan, which is focused on young people under 25. This plan is coordinated by the Ministry of Labour and Social Affairs. Young people can register directly to the main Youth Guarantee provider.

4.2 Good practices in Hungary

In 2016 94.2% of NEETs were reached by the Youth Guarantee measures. (Pavlovaite, 2018, p. 13).

According to Freudenberg, Berki, & Reiff (2016, p. 5), in 2009 there was an increasing of the retirement age until reaching 65 for both sexes in 2022. Furthermore, according to these authors, in 2010 the second-pillar, which was a funded scheme, was eliminated de facto, and as a consequence "*97% of second-pillar public pension rights were re-nationalized and transferred into unfunded future pension entitlements*". The previously mentioned means that, "*there was a reversal of mandatory private pension: From 1 November 2010 to 31 December 2011 all payments to the mandatory funded defined-contribution scheme were suspended, and all contributions were redirected to the public pension scheme*". (Wilmington plc 2019). However, according to Freudenberg et al. (2016, pp. 5-6), "*the pension act of 2011 closed early retirement channels for most other* *scheme members*". It is interesting to notice that Freudenberg et al. (2016), also mention a non-pension-related reform referred to the flat rate personal income tax in 2011, which increased the net earnings and, as a consequence, affected the calculation of pension benefits. Afterward, there was a reform in 2016 that merged the Pension Insurance Fund and part of the National Health Insurance Fund (Ágh et al., 2018, p. 12).

4.3 Good practices in Poland

One good practice was a public policy so-called EU Youth Employment Package, implemented in 2012 and that aimed to promote youth employment as indicated in its name. Furthermore, the Youth Guarantee Initiative, which is expected to provide EUR 550 from European Union funds.

In terms of pension system, according to Matthes et al. (2018, p. 12):

> "*[…] pension contributions were partially redirected from the second – obligatory, but private and funded – to newly created subaccounts in the first, public pillar. In addition, the sustainability of the first pillar was improved in 2011 by the adoption of an increase in statutory retirement age, which would have been phased in between 2013 and 2020 (for men) or 2040 (for women), until everyone retires at the age of 67 for both sexes. As pension age was a hot topic in the 2015 election campaign the government immediately used its parliamentary majority to suggest a decrease of the pension age again, an initiative the party had already tried to bring to parliament through a referendum before the elections. A bill allowing women to retire at the age of 60 and men at the age of 65 was eventually passed in parliament on 16 November 2016 and became effective in November 2017. It will cost PLN 15 billion annually. The lowering of the retirement age has reduced the sustainability of the Polish pension system and is likely to increase poverty among women*"

According to the European Commission (EC, 2018c), "*In Poland, almost all the self-employed declare social insurance income equivalent to the minimum threshold, i.e. 60 percent of the average wage. This is not linked to the taxable income of the self-employed*" (p. 66), and minimum pensions were increased 30 percent (p. 104).

4.4. Good practices in Slovakia

According to the European Trade Union Institute (ETUI, 2019), in the studied period there has been four main reforms that intended to improve the long-term sustainability of the pension systems. The first change was related to the self-employed, who were affected by the economic crisis in 2009, therefore, between April 2009 and December 2010, their contribution was decreased. Afterward, the amount of contributions was gradually increased. It is important to point out that such an increasing took into account the minimum assessment base and it also took into account the opinion of the self-employed, which says that there is accountability in the implementation of changes that will affect determined target groups, in this case, the self-employed. The second measure started to be implemented in 2013 and it is related to the principle of solidarity, specifically related to the replacement rate, which was increased for new pensioners who gained low wages during their economically active lives, and such a rate decreased in case of high-wage earners. In 2014, tax incentives were reintroduced for enhancing the voluntary supplementary pension scheme. Additionally, since 2013 the pension insurance contributions, also take into account "*agreements on work performed an employment relationship*", along with the taking into account the employment contracts and self-employment.

In terms of modifications to the old-age pension funded scheme, because of the economic crisis, the contribution rate was lowered to 4% of the gross wage in September 2012, and it will be increased again until reaching 6% in 2024. Moreover, since 2013 new contributors to the social security system are automatically included the first pillar, but when they reach the age of 35 years old, they will have the option to apply for membership in the second pillar, if they want. Following with the second pillar, the minimum contribution period was set at 10 years since 2012, but since 2015 there is no minimum contribution period.

In the case of the Czech Republic and Slovakia, one of the measures to tackle the undeclared work has been to increase the number of inspections conducted. Another measure implemented in the Czech Republic has been the issue of identity cards. (Williams & Renooy, 2008, pp. 20-21).

Conclusions

The V4 member states have implemented a set of measures in order to tackle the impact of ageing population on the fiscal sustainability of their pension systems. The demographic trends will represent more expenditures on pension schemes, since there is a trend to increase the age of retirement and since the life expectancy has increased, thus the retirees are living longer as well as they will need to receive pension benefits in cash longer.

The ageing of population poses an issue in terms of fiscal sustainability of pension systems. The V4 needs to take advantage of its youth labour force, in order to contribute more to the social security by paying social security contributions via taxes. However, the informal labour market might represent a problem since the young people who are working in this market are not paying social security contributions.

Nicaragua and the V4, definitely share issues in common, such as youth unemployment, mass migration of their youth that threat or will threat the fiscal sustainability of their pension systems. All the V4 member states despite of their particularities, as Nicaragua, have pay as you go funded schemes, which means that the current contributors, particularly the young people entering or already participating in the labour market, contribute a significant part of the funds required to sponsor the pension benefits of the current retirees.

By implementing active and passive youth employment policies, the V4 has managed to decrease its youth unemployment rates as well as its youth unemployment ratios. Some of those policies are transferable and might be replicated in states with similar demographic structure, such as Nicaragua.

For further discussions or research, it is recommended to explore more the youth informal labour market and the mass migration of youth as well as its educational attainment, in order to understand how they contribute to the pension systems.

List of Employed Sources and Literature

ACCACE, 2019a. *2019 Tax Guideline* [online]. 2019. Available from: https://accace.com/wp-content/uploads/2019/02/2019-02-Tax-Guideline-Hungary-EN-compressed.pdf

ACCACE, 2019b. *2019 Tax Guideline for Slovakia* [online]. 2019. Accace. Available from: https://accace.com/wp-content/uploads/2019/02/2019-02-Tax-Guideline-Hungary-EN-compressed.pdf

ACCACE MANAGEMENT S.R.O., 2018. *2018 Tax Guideline Poland* [online]. 2018. Accace. Available from: https://accace.com/tax-guideline-for-the-czech-republic/#

ACEVEDO, Adolfo, 2013. ¿A quién le interesa de verdad la suerte del INSS? *Confidencial* [online]. 9 September 2013. Available from: https://confidencial.com.ni/archivos/articulo/13715/iquest-a-quien-le-interesas-de-verdad-la-suerte-del-inssn

ÁGH, Attila, DIERINGER, Jürgen and BÖNKER (COORDINATOR), Frank, 2018. *2018 Hungary Country Report: SGI Sustainable Governance Indicators* [online]. Available from: http://www.sgi-network.org/docs/2018/country/SGI2018_Hungary.pdf

ARAÚJO, S. & MALEČEK, P., 2015. 1213: *The Czech Labour Market: Documenting Structural Change and Remaining Challenges* [online]. Available from: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2015)31&docLanguage=En

BEDNÁRIK, Rastislav, 2017. Slovakia: Combating undeclared work – views and experiences of the actors involved. *Eurofound* [online]. 2017. [Accessed 1 June 2019]. Available from: https://www.eurofound.europa.eu/publications/article/2017/slovakia-combating-undeclared-work-views-and-experiences-of-the-actors-involved

BURNSIDE, Craig, 2005. *Fiscal Sustainability in Theory and Practice: a Handbook* [online]. Washington D.C. ISBN 7562421471, 9787562421474 U6 - ctx_ver=Z39.88-2004&ctx_enc=info%3Aofi%2Fenc%3AUTF-8&rfr_id=info:sid/summon.serialssolutions.com&rft_val_fmt=info:ofi/fmt:kev:mtx:book&rft.genre=book&rft.title=%E7%A4%BE%E4%BC%9A%E7%BD%91%E7%BB%9C%E5%88%86%E6%9E%90%E6%B3%95+a+handbook&rft.au=%E6%96%AF%E7%A7%91%E7%89%B9+1949-+%28Scott%2C+John%29&rft.au=%E5%88%98%E5%86%9B&rft.series=%E4%B8%87%E5%8D%B7%E6%96%B9%E6%B3%95&rft.date=2007&rft.pub=%E9%87%8D%E5%BA%86%E5%A4%A7%E5%AD%A6%E5%87%BA%E7%89%88%E7%A4%BE&rft.isbn=756. Available from: http://documents.worldbank.org/curated/en/982251468160776282/pdf/396480PAPER0Fi101OFFICIAL0USE0ONLY1.pdf

CIA, 2018. The World Factbook. *Central America: Nicaragua* [online]. 2018. [Accessed 28 January 2019]. Available from: https://www.cia.gov/library/publications/the-world-factbook/geos/nu.html

CIA, [no date]. Central America: Nicaragua. *The World Factbook* [online]. [Accessed 28 January 2019]. Available from: https://www.cia.gov/library/publications/the-world-factbook/geos/print_nu.html

CZECH INVEST, 2019. Taxation System. *Doing Business in the Czech Republic* [online]. 2019. [Accessed 12 June 2019]. Available from: https://www.czechinvest.org/en/Doing-business-in-the-Czech-Republic/Taxation-system

CZECH STATISTICAL OFFICE, 2014. Sources and classifications used. *Labour Market in the Czech Republic* [online]. 2014. [Accessed 12 June 2019]. Available from: https://www.czso.cz/csu/czso/3104-02-1993_2001-sources_and_classifications_used

CZECH STATISTICAL OFFICE, 2019. 204 / 1 Employment in national economy by age group. *Employment and Unemployment as Measured by the Labour Force Survey - quarterly data - 4. quarter of 2018* [online]. 2019. [Accessed 12 June 2019]. Available from: https://www.czso.cz/csu/czso/employment-and-unemployment-as-measured-by-the-labour-force-survey-quarterly-data-4-quarter-of-2018

DOING BUSINESS, 2019. Taxation: 3.1. Introduction. *Doing Business in Hungary* [online]. 2019. [Accessed 24 May 2019]. Available from: https://doingbusinessinhungary.com/taxation

DVORNÁKOVÁ, Táňa, 2009. *At-Risk-of-Poverty Threshold* [online]. Available from: https://www.czso.cz/documents/10180/20550295/e-180212q2k3.pdf/2b0f314a-f037-4742-ba3d-4961249a0e0e?version=1.0

DW, 2018. Nicaragua revokes pension law that sparked violent protest. *DW* [online]. 2018. Available from: https://www.dw.com/en/nicaragua-revokes-pension-law-that-sparked-violent-protests/a-43490600

EUROPEAN COMMISSION, 2009. *The 2009 Ageing Report : Economic and budgetary projections for the EU-27 Member States (2008-2060)* [online]. Brussels. Available from: https://europa.eu/epc/sites/epc/files/docs/pages/2009_ageing_report.pdf

EUROPEAN COMMISSION, 2017a. *Youth policies in Hungary 2017* [online]. Available from: https://eacea.ec.europa.eu/national-policies/sites/youthwiki/files/gdlhungary.pdf

EUROPEAN COMMISSION, 2017b. *Youth policies in Poland 2017* [online]. Available from: https://eacea.ec.europa.eu/national-policies/sites/youthwiki/files/gdlpoland.pdf

EUROPEAN COMMISSION, 2018a. *Pension Adequacy Report - Vol.1* [online]. Available from: https://ec.europa.eu/social/BlobServlet?docId=19417&langId=en

EUROPEAN COMMISSION, 2018b. *2018 European Semester - Country-specific recommendations* [online]. Brussels. Available from: https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-specific-recommendation-commission-recommendation-communication-en.pdf

EUROPEAN COMMISSION, 2018c. *Recommendation for a Council Recommendation on the 2018 National Reform Programme of the Czech Republic and delivering a Council opinion on the 2018 Convergence Programme of the Czech Republic* [online]. Brussels. Available from: https://ec.europa.eu/info/sites/info/files/file_import/2018-european-semester-country-specific-recommendation-commission-recommendation-czech-republic-en.pdf

EUROPEAN COMMISSION, 2018d. *Recommendation for a Council Recommendation on the 2018 National Reform Programme of Poland and delivering a Council opinion on the 2018 Convergence Programme of Poland* [online]. Available from: https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-specific-recommendation-commission-recommendation-poland-en.pdf

EUROPEAN COMMISSION, 2018e. *Recommendation for a Council Recommendation on the 2018 National Reform Programme of Slovakia and delivering a Council opinion on the 2018 Stability Programme of Slovakia* [online]. Available from: https://ec.europa.eu/info/sites/info/files/file_import/2018-european-semester-country-specific-recommendation-commission-recommendation-slovakia-en.pdf

EUROPEAN COMMISSION, 2018f. *Country Report Hungary 2018* [online]. Available from: https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-hungary-en.pdf

EUROPEAN COMMISSION, 2019. *2019 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011* [online]. Brussels. Available from: https://vedavyzkum.cz/politika-vyzkumu-a-vyvoje/politika-vyzkumu-a-vyvoje/country-report-2019-ceska-veda-ma-co-zlepsovat/download/country-report-czech-republic-2019

EUROPEAN COMMISSION, [no date]. Czech Republic - Old-age pensions. *Employment, Social Affairs & Inclusion* [online]. [Accessed 12 June 2019 a]. Available from: https://ec.europa.eu/social/main.jsp?langId=en&catId=1106&intPageId=4478&

EUROPEAN COMMISSION, [no date]. Taxation and Customs Union. *Taxes in Europe Database* [online]. [Accessed 20 April 2019 b]. Available from: http://ec.europa.eu/taxation_customs/tedb/legacy/taxDetail.html;jsessionid=Kv6XFddgJB-ga0INwVIExuYJhg0j8jAVAA_2J9BYPMyABrmCJ1u-!1856370447?id=459/1388754889&taxType=PIT

EUROPEAN COMMISSION ECONOMY SERIES, 2015. *The Ageing Report 2015: Economic and budgetary projections for the 28 EU Member States (2013-2060)* [online]. Brussels: European Commission. ISBN 9789279447464. Available from: http://ec.europa.eu/economy_finance/publications/european_economy/2015/pdf/ee3_en.pdf

EUROPEAN TRADE UNION INSTITUTE (ETUI), 2019. Pension Reforms in Slovakia: Background Summary (Update April 2019). Characteristics of the Pension System. *Reforms Watch* [online]. 2019. [Accessed 23 June 2019]. Available from: https://www.etui.org/ReformsWatch/Slovakia/Pension-reforms-in-Slovakia-background-summary-update-April-2019

EUROSTAT, 2014. Glossary: Youth unemployment. *Statistics Explained* [online]. 2014. [Accessed 15 June 2018]. Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Youth_unemployment

EUROSTAT, 2015. *Young people neither in employment nor in education and training (NEET)* [online]. 2015. Available from: https://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pco

de=tipslm90

EUROSTAT, 2017. Unemployment statistics and beyond. *Statistics Explained* [online]. 2017. [Accessed 15 June 2018]. Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Unemployment_statistics_and_beyond&oldid=401470

EUROSTAT, 2018a. Total fertility rate: Number of children per woman. *Total fertility rate: Number of children per woman* [online]. 2018. [Accessed 4 June 2019]. Available from:
https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=tps00199&language=en

EUROSTAT, 2018b. Life expectancy at birth. *Life expectancy at birth by sex* [online]. 2018. [Accessed 4 June 2019]. Available from:
https://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=sdg_03_10

EUROSTAT, 2018c. Youth unemployment ratio (15-24). *Eurostat* [online]. 2018. [Accessed 13 June 2019]. Available from:
https://ec.europa.eu/eurostat/tgm/download.do?tab=table&plugin=1&language=en&pcode=tespm080

EUROSTAT, 2019a. Youth unemployment ratio (15-24). *Eurostat* [online]. 2019. [Accessed 29 January 2019]. Available from:
https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=tespm080&language=en

EUROSTAT, 2019b. Youth unemployment rate - % of active population aged 15-24. *Youth unemployment rate - % of active population aged 15-24* [online]. 2019. [Accessed 5 March 2019]. Available from: Youth unemployment rate - %25 of active population aged 15-24

FEINGOLD, S., 2018. Nicaragua scraps controversial social security reforms. *CNN* [online]. 2018. Available from: https://edition.cnn.com/2018/04/22/americas/nicaragua-scraps-controversial-social-security-reforms/index.html

FIHEL, Agnieszka and OKÓLSKI, Marek, 2019. Population decline in the post-communist countries of the European Union. *Population & Societies* [online]. 2019. No. 567. Available from: https://www.ined.fr/fichier/s_rubrique/29352/567.ang.population.societies.june19.depopulation.eastern.countries.en.pdf

FREUDENBERG, Christoph, BERKI, Tamás and REIFF, Ádám, 2016. *A Long-Term Evaluation of Recent Hungarian Pension Reforms.* [online]. Available from: https://www.mnb.hu/letoltes/mnb-wp-2016-2-final.pdf

GIL, David G ., 1970. A Systematic Approach to Social Policy Analysis. *Social Service Review*. 1970. Vol. 44, no. 4, p. 411–426.

GILBERT, Neil and TERREL, Paul, 2005. *Dimensions of Social Welfare Policy*. Sixth. Boston: Pearson. (2005). Dimensions of Social Welfare Policy: Sixth Edition, p. 225

GODAR, Sarah and TRUGER, Achim, 2017. *Shifting priorities in EU tax policies* [online]. Düsseldorf. Available from: https://www.boeckler.de/pdf/p_imk_study_55_2017.pdf

GRECH, Aaron, 2010. *Assessing the sustainability of pension reforms in Europe* [online]. London School of Economics and Political Science. Available from: http://etheses.lse.ac.uk/241/1/Grech_Assessing_the_sustainability_of_pension_reforms_in_Europe.pdf

GROTTI, R., RUSSELL, H., O'REILLY, J., 2019. Where do young people work? In: *Youth Labor in Transition: Inequalities, Mobility, and Policies in Europe* [online]. Oxford: Oxford University Press. p. 33–70. ISBN 9780190864798. Available from:

http://fdslive.oup.com/www.oup.com/academic/pdf/openaccess/9780190864798.pdf

GUASTI, Petra, MANSFELDOVÁ, Zdenka, MYANT, Martin and BÖNKER (COORDINATOR), Frank, 2018. *2018 Czech Republic Country Report: SGI Sustainable Governance Indicators* [online]. Available from: http://www.sgi-network.org/docs/2018/country/SGI2018_Czech_Rep.pdf

HORTON, Mark and EL-GANAINY, Asmaa, 2009. Back to basics: What is fiscal policy? *Finance & Development* [online]. 2009. Vol. 46, no. 2, p. 52–53. Available from: https://www.imf.org/external/pubs/ft/fandd/2009/06/pdf/basics.pdf

ILO, 2014. ILOSTAT. *ILOSTAT* [online]. 2014. [Accessed 28 January 2019]. Available from: http://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page21.jspx;ILOSTATCOOKIE=2VuSFP-giP5ek27olMwDZ7FCxmkc_SyvgdQ6BOTE0dssxkpw-U4v!526841564?_adf.ctrl-state=uz0zoouiw_13&_afrLoop=559301312207387&_afrWindowMode=0&_afrWindowId=_e_1I1E#

ILO, 2015. *Nicaragua: main characteristics and challenges* [online]. Available from: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_policy/---cepol/documents/publication/wcms_426614.pdf

ILO, [no date]. Good Practices. *Good Practices* [online]. [Accessed 15 April 2019 a]. Available from: https://www.ilo.org/gateway/faces/home/goodprac?locale=EN&countryCode=HUN&_adf.ctrl-state=qtu3kdbu6_4

ILO, [no date]. Social Protection. *Social protection* [online]. [Accessed 15 April 2019 b]. Available from: https://www.ilo.org/global/topics/social-security/lang--en/index.htm

IMF, 2017a. *Nicaragua : Selected Issues* [online]. Washington D.C. Available from: https://www.imf.org/en/Publications/CR/Issues/2017/06/27/Nicaragua-Selected-Issues-45009

IMF, 2017b. Fiscal Policy: How to Establish a Tax Policy Unit. *How to Notes* [online]. 2017. DOI 10.1001/archfacial.2011.68. Available from: https://www.imf.org/~/media/Files/Publications/HowToNotes/howtonote1707.ashx

IMF, 2018. Nicaragua: Staff Concluding Statement of an IMF Staff Visit. *Mission Concluding Statement* [online]. 2018. [Accessed 28 January 2019]. Available from: https://www.imf.org/en/News/Articles/2018/02/06/ms020618-nicaragua-staff-concluding-statement-of-an-imf-staff-visit

INSS, 2017. *Anuario Estadístico 2017* [online]. Available from: https://www.inss.gob.ni/images/anuario_estadistico_2017.pdf

INTERNATIONAL LABOUR CONFERENCE, 2012. *The youth employment crisis : A call for action* [online]. Geneva: International Labour Office. ISBN 9789221264927. Available from: https://www.ilo.org/public/libdoc/ilo/2012/112B09_39_engl.pdf

INTERNATIONAL LABOUR OFFICE, 2018. *Women and men in the informal economy: A statistical picture* [online]. Geneva. Available from: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf

INTERNATIONAL LABOUR ORGANIZATION, [no date]. *Facts on Social security* [online]. Available from: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_067588.pdf

INTERNATIONAL MONETARY FUND, 2018. *2018 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the Czech Republic* [online]. Available from:

https://www.imf.org/en/Publications/CR/Issues/2018/06/26/Czech-Republic-2018-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-46019

IONESCU, Luiza, 2015. Emigration from Eastern Europe with a focus on brain drain. *Social and Economic Statistics* [online]. 2015. Vol. 4, no. 2. Available from: http://eds.a.ebscohost.com.ezproxy.snhu.edu/eds/pdfviewer/pdfviewer?sid=d271aec6-226c-43d9-b0c1-a99868d285e5%40sessionmgr4010&vid=0&hid=4102

JANICKO, Pavel, 2012. *Youth Employment in the Czech Republic And the Standpoint of the Czech-Moravian Confederation of Trade Unions (ČMKOS)* [online]. 2012. Friedrich Ebert Stiftung. Available from: https://library.fes.de/pdf-files/id/09471.pdf

KAHANEC, Martin & and SEDLÁKOVÁ, Mária, 2016. *The social and employment situation in Slovakia and outlook on the Slovak EU Presidency 2016* [online]. Available from: http://www.europarl.europa.eu/RegData/etudes/STUD/2016/578982/IPOL_STU(2016)578982_EN.pdf

KNEUER, Marianne, MALOVÁ, Darina and BÖNKER (COORDINATOR), Frank, 2018. *2018 Slovakia Country Report: SGI Sustainable Governance Indicators* [online]. Available from: http://www.sgi-network.org/docs/2018/country/SGI2018_Slovakia.pdf

KORDIC, S., 2018. 1/5 of young Czechs at risk of poverty. *NewsMavens* [online]. 2018. [Accessed 30 January 2019]. Available from: https://newsmavens.com/news/aha-moments/1640/1-5-of-young-czechs-at-risk-of-poverty

LUBYOVÁ, Martina, ŠTEFÁNIK, Miroslav and ET AL., 2016. *Labour Market in Slovakia 2017+* [online]. Bratislava: Institute of Economic Research, Slovak Academy of Sciences (IER SAS). ISBN 978-80-970850-4-9. Available from: http://www.ekonom.sav.sk/uploads/journals/358_lubyova_stefanik_labour_market_in_slovakia_2017.pdf

MATTHES, Claudia-Yvette, MARKOWSKI, Radoslaw and BÖNKER (COORDINATOR), Frank, 2018. *2018 Poland Country Report: SGI Sustainable Governance Indicators* [online]. Available from: http://www.sgi-network.org/docs/2018/country/SGI2018_Poland.pdf

MINISTRY OF FINANCE OF THE CZECH REPUBLIC, 2009. *Fiscal Outlook Czech Republic* [online]. Available from: https://www.mfcr.cz/en/statistics/fiscal-outlook/2009/fiscal-outlook-10-2009-11709

MINISTRY OF FINANCE OF THE CZECH REPUBLIC, 2010. *Fiscal Outlook Czech Republic October 2010* [online]. Available from: https://www.mfcr.cz/en/statistics/fiscal-outlook/2010/fiscal-outlook-10-2010-11706

MINISTRY OF FINANCE OF THE CZECH REPUBLIC, 2017. *Fiscal Outlook of the Czech Republic (November 2017)* [online]. Available from: https://www.mfcr.cz/en/statistics/fiscal-outlook/2017/fiscal-outlook-of-the-czech-republic-nov-30160

MINISTRY OF FINANCE OF THE CZECH REPUBLIC, 2018. *Fiscal Outlook of the Czech Republic (November 2018)* [online]. Available from: https://www.mfcr.cz/en/statistics/fiscal-outlook/2018/fiscal-outlook-of-the-czech-republic-nov-33464

MINISTRY OF LABOUR AND SOCIAL AFFAIRS, [no date]. Employment: Penalties for Undeclared Work. *Ministry of Labour and Social Affairs* [online]. [Accessed 30 January 2019]. Available from: https://www.mpsv.cz/en/1604

MINISTRY OF LABOUR AND SOCIAL AFFAIRS OF THE CZECH REPUBLIC, [no date]. Active Labour Market Policies. *Employment* [online]. [Accessed 25 May 2019]. Available from: https://www.mpsv.cz/en/1604#almp

NATIONAL ASSEMBLY, 2001. *Ley No. 392, Ley de Promoción de Desarrollo*

Integral de la Juventud [online]. 2001. Managua: National Assembly. Available from: https://www.lagaceta.gob.ni/2001/07/126/

OECD, 2009. *Reforms for Stability and Sustainable Growth* [online]. ISBN 9789264043763. Available from: https://www.oecd.org/hungary/40415872.pdf

OECD, 2017a. *Pensions at a Glance: Country Profile-Hungary* [online]. Available from: https://www.oecd.org/els/public-pensions/PAG2017-country-profile-Hungary.pdf

OECD, 2017b. *Pensions at a Glance 2017: Country Profile- Poland* [online]. Available from: https://www.oecd.org/els/public-pensions/PAG2017-country-profile-Poland.pdf

OECD, 2018a. *OECD Economic Surveys: Czech Republic July 2018 OVERVIEW* [online]. Available from: http://www.oecd.org/eco/surveys/Czech-Republic-2018-OECD-economic-survey-overview.pdf

OECD, 2018b. Tax on Personal Income. *OECD Data* [online]. 2018. [Accessed 15 June 2018]. Available from: https://data.oecd.org/tax/tax-on-personal-income.htm

OECD, 2018c. Details of Tax Revenue - Czech Republic. *Revenue Statistics Details of Tax Revenue - Czech Republic* [online]. 2018. [Accessed 13 June 2019]. Available from: https://stats.oecd.org/Index.aspx?DataSetCode=REVCZE#_ga=2.239547908.645424449.1560386162-117821684.1548025836

OECD, 2018d. Details of Tax Revenue - Hungary. *OECD.Stat* [online]. 2018. [Accessed 13 June 2019]. Available from: https://stats.oecd.org/Index.aspx?DataSetCode=REVHUN

OECD, 2019. *Taxing Wages - The Slovak Republic* [online]. 2019. OECD. Available from: http://www.oecd.org/tax/tax-policy/taxing-wages-slovak-republic.pdf#_ga=2.125026633.2121497716.1559650895-117821684.1548025836

ORTEGA, D., 2018. *Decreto Presidencial 03-2018 de Reformas al Decreto No. 975 "Reglamento General de la Ley de Seguridad Social"* [online]. 2018. Managua: National Assembly. Available from: https://www.lagaceta.gob.ni/2018/04/072/

PAVLOVAITE, Inga, 2018. *Social and Employment Policies in the Czech Republic* [online]. Available from: http://www.europarl.europa.eu/RegData/etudes/STUD/2018/618993/IPOL_STU(2018)618993_EN.pdf

PIETRZAK, Michał Bernard and WILK, Justyna, 2014. An analysis of the population aging phenomena in Poland from a spatial perspective. *Statistics in Transition* [online]. 2014. Vol. 15, no. 1, p. 153–170. Available from: https://stat.gov.pl/en/sit-en/issues-and-articles-sit/previous-issues/volume-15-number-1-winter-2014/?pdf=1

PLATT, Lucinda, 2019. What is social policy? *What is social policy? International, interdisciplinary and applied* [online]. 2019. [Accessed 24 May 2019]. Available from: http://www.lse.ac.uk/social-policy/about-us/What-is-social-policy

POTŮČEK, M. et al., 2017. *Public Policy: A Comprehensive Introduction*. First Engl. Prague: Karolinum Press.

PUNCH, K., 2014. *Introduction to Social Research: Quantitative & Qualititative Approaches*. Third. London: SAGE Publications Ltd.

SCHWARZ, Anita M., 2006. Pension System Reforms. In: *Analyzing the Distributional Impact of Reforms: A practitioner's guide to pension, health, labor markets, public sector downsizing, taxation, decentralization, and macroeconomic modeling* [online]. Washington D.C.: The World Bank. p. 1–42. ISBN 9780821363485. Available from: http://siteresources.worldbank.org/INTPSIA/Resources/490023-1120845825946/PSIAVOLII_printed.pdf

SICREMI, 2015. *International Migration In The Americas : Emerging Issues* [online]. Washington D.C. Available from: http://www.migracionoea.org/images/sicremi/SICREMI_ENGLISH_web.pdf

STATISTICS POLAND, 2018. Poland Quarterly Statistics. [online]. 2018. No. 04. Available from: http://stat.gov.pl/en/

THE ASSOCIATED PRESS, 2018. More protests in Nicaragua, 5 TV channels ordered off air. *The Seattle Times* [online]. 2018. Available from: https://www.seattletimes.com/nation-world/more-protests-in-nicaragua-5-tv-channels-ordered-off-air/

THE CITIZENS OF THE CZECH REPUBLIC IN BOHEMIA, IN MORAVIA, and in Silesia, 1993. *Czech Republic's Constitution of 1993 with Amendments through 2002* [online]. 1993. Available from: https://www.constituteproject.org/constitution/Czech_Republic_2002.pdf

THE COUNCIL OF THE EUROPEAN UNION, 2018. *Recommendation for a Council Recommendation on the 2018 National Reform Programme of Poland and delivering a Council opinion on the 2018 Convergence Programme of Poland* [online]. 2018. Brussels. Available from: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0420&from=GA

THE MEMBERS OF THE HUNGARIAN NATION, 2011. *Hungary's Constitution of 2011* [online]. 2011. Available from: https://www.constituteproject.org/constitution/Hungary_2011.pdf

THE POLISH NATION -ALL CITIZENS OF THE REPUBLIC, 1997. *Poland's Constitution of 1997* [online]. 1997. Available from: https://www.constituteproject.org/constitution/Poland_1997.pdf

THE SLOVAK PEOPLE, 1992. *Slovakia's Constitution of 1992 with Amendments through 2014* [online]. 1992. Available from: https://www.constituteproject.org/constitution/Slovakia_2014.pdf?lang=en

UNFPA, [no date]. Demographic Dividend. *Demographic Dividend* [online]. [Accessed 28 January 2019 a]. Available from: https://www.unfpa.org/demographic-dividend

UNFPA, [no date]. World Population Dashboard Nicaragua. *Nicaragua - Overview* [online]. [Accessed 28 January 2019 b]. Available from: https://www.unfpa.org/data/world-population/NI

VISEGRAD GROUP, 2017. *Programme of the Hungarian Presidency of the Visegrad Group* [online]. 2017. Available from: http://www.visegradgroup.eu/documents/presidency-programs/hungarian-v4-presidency

VISEGRAD GROUP, 2018. One fifth of young Czechs threatened by poverty - survey Title. *Visegrad Group* [online]. 2018. [Accessed 29 January 2019]. Available from: http://www.visegradgroup.eu/news/one-fifth-of-young

VISEGRAD GROUP, [no date]. Cooperation. *Cooperation* [online]. [Accessed 17 March 2019 a]. Available from: http://www.visegradgroup.eu/about/cooperation

VISEGRAD GROUP, [no date]. ls there an Ideal Tax System? *Visegrad Parlour* [online]. [Accessed 15 June 2018 b]. Available from: http://www.visegradgroup.eu/ideal-tax-system/is-there-an-ideal-tax

VOSTATEK, Jaroslav, 2018. Reform of the Employee and Self-employed Income Taxation. In: *Proceedings of the 23rd International Conference Theoretical and Practical Aspects of Public Finance 2018* [online]. Prague: Oeconomica. 2018. p. 175–182. ISBN 9788024522838. Available from: https://kvf.vse.cz/wp-content/uploads/page/158/Sborník-TPAVF2018_final-FINAL-3_WEB-final.pdf

WILLIAMS, Colin C. and RENOOY, Piet, 2008. *Measures to tackle undeclared work in the European Union* [online]. Dublin. Available from: https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef0925en.pdf

WILMINGTON PLC, 2019. Pension System in Hungary. *Pension Funds Online* [online]. 2019. [Accessed 22 June 2019]. Available from: https://www.pensionfundsonline.co.uk/content/country-profiles/hungary/2310

WORLD BANK, [no date]. *Notional accounts: Notional defined contribution plans as a pension reform strategy* [online]. Available from: https://openknowledge.worldbank.org/bitstream/handle/10986/11244/333820ENGLISH0PRPNoteNotionalAccts.pdf?sequence=1&isAllowed=y

Appendix 1

Questions for the interview conducted at the Ministry of Finance of the Slovak Republic

Interview conducted on the 6th of September 2018

1. Is the Slovak tax system currently mostly progressive or regressive?
2. Is there vertical and horizontal equity if you compare young workers between 18 and 30 years and young executives of the same range of age?
3. How is the tax burden for the young people between 18 and 30 years?
4. Could you provide me an example of at least one good practice that the Ministry of Finance has implemented in the recent years, in order to help the young entrepreneur between 18 and 30 years to succeed in their entrepreneurships?
5. Does the Slovak tax system facilitate or stimulate the youth entrepreneurship or it is an obstacle?
6. How easy is for young entrepreneurs between 18 and years to create and registrate their enterprises in the formal economy?
7. It is common the fiscal evasion from young entrepreneurs between 18 and 30 years?
8. What is your perspective about the pension system in terms of fiscal sustainability for the next 20 years?
9. Do you think that the young people between 18 and 30 years trust the efficiency and sustainability of the pension system schemes?
10. What do you think is the importance of public investment in good quality public education in relation with more high skilled and more productive workers as well as more incomes for the tax system and as a consequence more funds for the pension schemes?
11. Do you think that fiscal policy and youth employment policy are directly related to the efficiency of the pension system?

Appendix 2

Consent form

Master Thesis: **“Social policies in the Central European countries: What could learn Nicaragua from them? Fiscal policies, youth employment policies and pension systems in the Visegrad Group”**

The present master’s thesis pursues to account for the good practices regarding the relationships among the fiscal policies, youth employment policies and pension systems in the Visegrad Group (Czech Republic, Hungary, Poland, and Slovakia). Thus, the main objective is to discover what good practices related to the aforementioned policies and systems, have contributed to ensure the fiscal sustainability of the pension systems studied. This research is based on a qualitative approach. The general research question is what good practices related to the youth employment policies have ensured the fiscal sustainability of the pensions systems in the Visegrad Group. This master thesis is an academic requirement to complete the M.A. programme “Central European Studies” at the University of Hradec Králové in the Czech Republic.

The research methods to use will be the analytical approach through the consultation of the data available as well as through interviews to experts in the policies previously mentioned above. The interviews will be semi-structured.

Therefore, to provide a complete overview of the Slovakian tax system in relation to the fiscal sustainability of pension system, I would like to ask you to answer the questions to the best of your knowledge, given your own viewpoint and judgement, based on your current position and the organisation that you represent. Your answers will be used only for the present master thesis purposes and you will be quoted only with your explicit consent.

You will be asked for your consent to record the interview. This helps to ensure that each interview is transcribed correctly. Please indicate if you do not wish to have the interview taped.

Your participation in this interview is voluntary, and whilst it is hoped that you are willing to answer all the questions, you may skip any questions that you do not wish to answer. Simply indicate this to the interviewer.

(1) I provide my consent that during the interview my answers will be recorded YES - NO

(2) I provide my consent that my answers will be used only for the present master thesis purposes and I provide my consent to be quoted YES - NO

(3) I have been informed that my participation to the interview is voluntary YES – NO

Date:

Name:

Signature:

Appendix 3

Questions sent via email to the Ministry of Finance of the Slovak Republic on the 9th of September, 2019

Questions on youth employment

Document: National Employment Strategy of the Slovak Republic until 2020

Active labour market policies and its principle changes. (p. 26)

1. Could you provide me some examples of the motivation to employers to create new jobs for unemployed?

2. How effective is the publicity of the public employment services?

3. What do you think are the main reasons why some young people are unregistered in the public employment services? (p. 29)

4. Could you provide me some examples of cooperation with local employers, educational institutions and non-governmental organizations and other relevant stakeholders? (p.29)

Strategy of changes

5. It was approved the law on first employment of young people-graduates? (p.42)

6. Are the so-called graduate practices recognized as professional or work experience by the job recruiters or the Human Resources departments at the public as well as the private sector? (p. 42)

Document: Operational Programme Human Resources for the Programming Period of 2014 – 2020

7. Taking into account the emphasis on promoting the interest of young people in working as teachers, how many young people between 18 and 30 years are working as teachers currently? (p. 9)

8. Could you provide me some examples of the obstacles in the labour market that prevent the full use of young people? (p.12)

9. About the practical training addressed to students, could you provide me some examples of the working habits for successful entering the labour market? (p. 40)

10. Is the voluntary youth work recognized as professional experience or work experience by the job recruiters or Human Resources departments in the public as well as private sector? (p. 40)

11. Could you provide some examples of young people with specific problems in finding work? (p. 47)

12. Could you provide me some examples of cooperation of employers and education providers? (p. 47)

Document: National Reform Programme of the Slovak Republic 2014

13. How much is subside to creations of new jobs for young people under 29 years? (p. 6)

Youth unemployment and connection of education and practice. (p. 17)

14. How does the cooperation between academia, research and the business sector works? Could you provide me some examples?

15. How much is the labour costs subside for employers who creates new jobs for job seekers under 29 years? (p. 17)

Questions on pension systems

Document: Pension adequacy report 2018 – Current and future income adequacy in old age in the EU (Volume 1)

16. How many of the 72.2 percent of self- employed who pays contribution based on the minimum assessment base, are young people between 18 and 30 years? (Box 8, p. 66)

17. How many of the 26.3 percent of the population who were covered by the supplementary personal pensions (15-64) in 2016, were actually young people between 18 and 30 years? (Table 6, p. 80)

Document: Pension adequacy report 2018 – Current and future income adequacy in old age in the EU (Volume 2)

Statutory funded pension scheme. (p. 240)

18. How many young people between 18 and 30 years old are currently participating in the first pillar and how many are in the second pillar? (p. 240)