POVERTY OF SENIORS IN THE CZECH REPUBLIC

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Abstract

The transition from the economically active to the economically inactive (retirement) life phase represents a time of substantial change for seniors involving inter alia a reduction in income and financial dependence on the social (pension) system. Consequently, this group is potentially at risk of poverty. Moreover, it is essential that a solution be found to this problem, especially with respect to the fact that the proportion of persons aged 65+ in the Czech Republic is predicted to increase steadily to around 32.2% by 2050. The main source of data for the analysis of the poverty of seniors in this paper consisted of the EU-SILC international survey, according to which the Czech Republic exhibits particularly good results with respect to all the internationally monitored indicators, for example the AROP (60) rate for the households of seniors in the Czech Republic stands at just 5.9% as compared to the EU28 average of 15.9%. However, the article aims to highlight the poverty of seniors from the multidimensional perspectives.

I. Introduction

The transition from the economically active to the economically inactive (retirement) life phase is a time of substantial change, sometimes involving dramatic changes to the daily routine and influencing the level of motivation to perform certain activities; however, in most cases retirement is accompanied by a significant fall in the income of the individual and the household. Thus, if seniors do not prepare for this situation in advance, they may well find themselves facing complicated life situations (Hrast et al., 2012; Sýkorová et al., 2014) once the individual/household becomes fully dependent on the social welfare system. In this respect, the main threat in the future both for the Czech Republic and other countries consists of the inappropriate setting of the social (especially retirement) and health systems which were established under completely different demographic and economic conditions than those that prevail today (as pointed out in a 2012 European Commission white paper). If these settings are not adapted so as to reflect current social developments, the increasing number of seniors may lead to the significant distortion of these systems and place a heavy burden on the public budget.

Seniors, however, do not constitute a homogenous group as is often suggested. Statistical data has consistently confirmed relatively significant differences between the living conditions of members of the elderly cohort, which is made up of groups with widely differing lifestyles and priorities. The life situations of seniors in the Czech Republic vary according to gender, place of residence, retirement age/conditions and other socio-economic characteristics (Czech Statistical Office, 2016, EU-SILC data). It is, therefore, important that the threat of poverty be perceived from the decompiled perspective (e.g. Tammy, 2013, Lee and Chou, 2016) while adopting a multidimensional standpoint (e.g. Mohd et al., 2018, Trani et al., J. 2016, Vavrečková and Janata, 2014).

The degree of poverty depends on the selection of the poverty concept to be applied, the determination of suitable and valid indicators and the options presented by the available data. It is important that we measure not only the extent to which seniors are poor, but also determine why they become poor and for how long they remain in a state of poverty.

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Mareš (1999) distinguishes:

- **The Direct versus Indirect concept**: poverty measured by means of consumption versus measured by income (the purchasing power of money),
- **The Absolute versus Relative concept:** a fixed threshold value versus the relative value compared to society (the state) as a whole,
- **The Objective versus Subjective concept**: the determination of poverty by means of social consensus or political decision versus the perception of the situation by individuals/households,
- **The Prescriptive versus Consensual concept**: the determination of the extent of life necessities (the basic needs of households/individuals) by experts versus according to public opinion or political power.

While individual countries apply a combination of approaches, **the main objective of this paper is to demonstrate the multidimensionality of the poverty of seniors and the monitoring thereof in the Czech Republic including by means of an international comparison.** The poverty of seniors exerts a significant impact on public policy and perceived well-being. Poverty leads to exclusion from participation in mainstream society and the marginalisation of certain groups of the population (on the basis of race, area, social class, age, etc).

II. Methods and data

The paper makes use Czech EU - SILC data (years 2005, 2010, 2015) in the analysis of the extent of poverty in the Czech Republic. The data allowed for the use of basic descriptive statistical methods concerning the poverty situation in the Czech Republic. In addition, the paper also employs unified international EU-SILC data collection methodology in the comparison of the poverty of seniors in individual EU countries. The poverty of the households of seniors will be monitored employing internationally-based indicators applying the various poverty concepts listed above:

- AROP (60)[2] - the relative concept of indirect poverty (methodology as established by experts);
- material and housing deprivation - the objective concept of direct poverty (methodology as established by experts);
- the assessment of the financial situation by seniors themselves - the concept of subjective poverty.

The data reflects the economic and social conditions of households in a given country. The Czech Statistical Office (2016) states that: *"the purpose of the survey is to obtain representative data on the income distribution of individual types of households, data on the manner, quality and cost of housing, household facilities, long-term use, and the working, material and health conditions of adults living in households"*. The EU-SILC 2015 [3] survey covered approximately 8,000 Czech households (approximately 18,000 individuals).

While the EU-SILC survey contains predefined options for the categorization of senior households, they are not necessarily appropriate with concern to the Czech Republic, i.e. the use of these options would have resulted in the exclusion of certain types of senior households. Thus, the following indicators were employed in the definition of senior households (Table 1):

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[2]AROP (60) - the at-risk-of-poverty rate describes the share of persons with an equivalised disposable income (after social transfers) which is below the at-risk-of-poverty threshold which is set at 60% of the national median equivalised disposable income after social transfers. Alternatively, the threshold is set at 50% or 70%.

[3] EU-SILC 2010 covers approximately 9,000 households while EU-SILC 2005 covered a sample size of less than 4,000 (the first year in which the EU-SILC survey was conducted in the Czech Republic).

- DOM_EA - distinguishes households according to occupational activity where senior households (economically non-active - retirees) include no economically active or unemployed persons and at least one member is a non-working pensioner. According to this methodology, households with working seniors and multi-generational households in which a senior lives with his/her children in a shared household would be excluded;
- DOM OECD – distinguishes households by economic activity and the age of the persons living in the household according to OECD methodology. A senior household is defined as a household in which no member is economically active and which features only persons older than 65 years of age. According to this approach, households with economically active retirees as well as those containing younger retirees (the average retirement age in the Czech Republic currently ranges between 60 and 63 years – in the case of women, the retirement age depends on the number of children raised) would be excluded;
- EU_DOM – distinguishes households according to the number of persons, age and the presence of dependent children and is based on EU methodology. Senior households are identified as containing individuals aged 65 and over or couples at least one of whom is over 65. According to this classification, mixed extended families, families in which a senior lives with dependent children and persons who retire below the age of 65 (see Czech retirement age details above) would be excluded.

Table 1 Number of senior households in the Czech Republic (according to various criteria, 2015)

	EU-SILC 2015 respondent sample	weighted to the whole population
according to occupational activity (DOM_EA)	2,991 households	1,273,606 households
according to OECD methodology (DOM_OECD)	2,250 households	941,313 households
according to EU methodology (EU_DOM)	2,830 households	1,210,778 households
in receipt of a retirement pension	3,903 households	1,759,456 households
1 - person household	1,615 households	691,065 households
2 - person household	1,822 households	801,754 households
…3+ - person household	466 households	266,637 households

Note: a senior is identified as a person receiving a retirement pension; the internationally declared age for seniors is 65 years; however, if this retirement age were applied to the Czech Republic, it would mean excluding a relatively significant proportion of real retirees (the average retirement age ranges from 60 to 63 years).
Source: Author based on EU-SILC 2005, 2010, 2015 data

When working solely with data on the Czech Republic, the definition of a senior household was based on the receipt of a retirement pension[4] (Godarová et al., 2017). This definition is broader than those outlined above and includes those households containing economically active seniors and those living in an extended family arrangement (i.e. multi-generational households) in which the senior(s) is not necessarily the main person in the household. The EU-SILC 2015 data (Table 2) includes almost 4,000 households with respect to which a retirement or widow/widower pension is received which, when weighted for the whole of the population of the Czech Republic, results in a total of 1,759,456 households, i.e. 40.7% of the national total. The number of senior households increased slightly during the monitored period from 39.0% in 2005 to 40.7% in 2015.

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[4] The definition of senior households according to EU methodology was applied for international comparison purposes.

Table 2 Number of senior households based on EU-SILC survey data (2005, 2010, 2015)

|	2005	2010	2015
senior households	1,565,053 (39.0%)	1,652,150 (39.8%)	1,759,456 (40.7%)
non-senior households	2,447,642 (61.0%)	2,497,515 (60.2%)	2,565,193 (59.3%)
total	4,012,695 households	4,149,665 households	4,324,650 households

Note: a senior is identified as a person receiving a retirement pension.
Source: Author based on EU-SILC 2005, 2010, 2015 data

III. Development of the senior population in the Czech Republic

In 2015, the Czech Republic had a population of over 10.5 million inhabitants, of which those over 65 totalled 1.9 million, i.e. over 17.8% of the total population (Eurostat, 2017a). While the various predictions of the future development of the over-65 population agree with an overall upward trend, they vary in terms of the likely future number of seniors. As Figure 1 illustrates, the Czech Statistical Office (2013) considers three alternative scenarios with respect to the expected number of seniors. According to the medium scenario, over 20.5% of the total population of the Czech Republic will be aged over 65+ in 2020[5] and by 2050 the proportion will have increased to almost one-third, i.e. 32.2% of the country's total population.

Figure 1 Forecast of the Czech population aged 65+ up to 2101
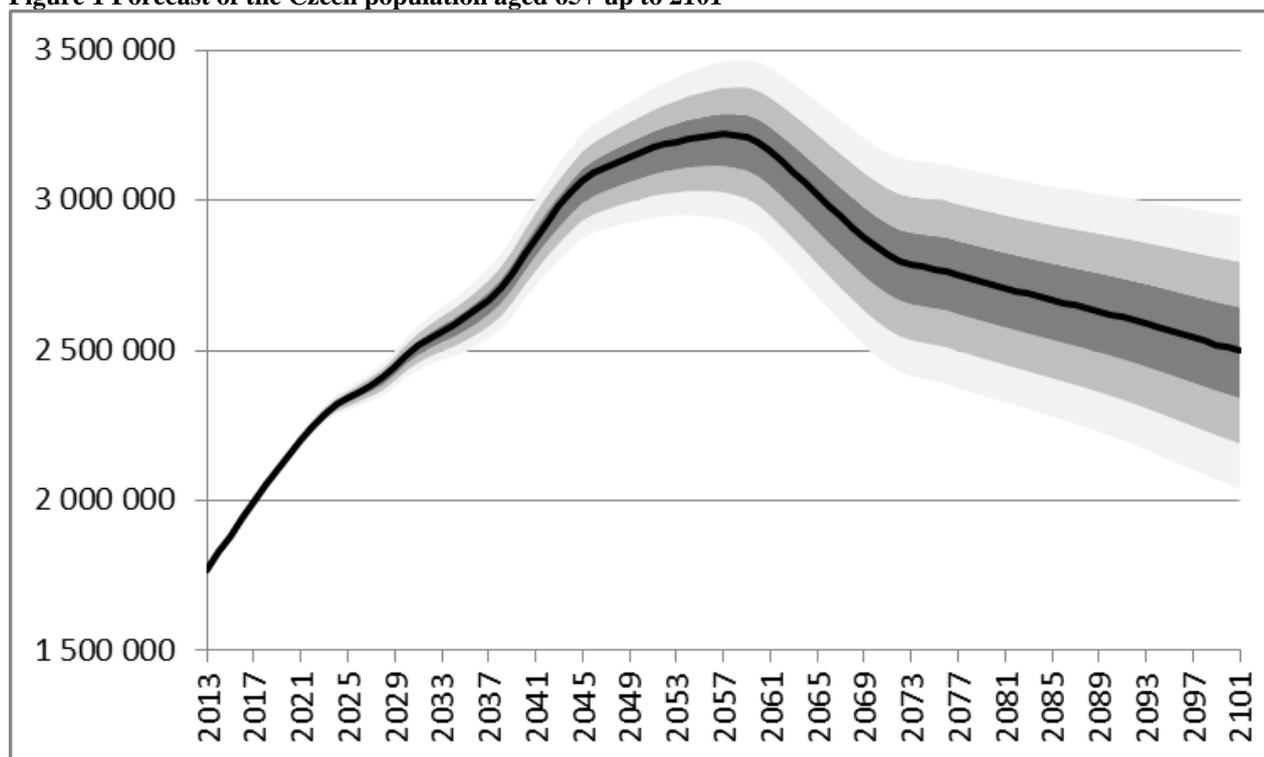
*Source: Author based on Czech Statistical Office data (2013)*

The shift from an economically active to an economically inactive life is often associated with a decrease in the net disposable income of senior households and if such households fail to prepare for this development in advance, they become fully dependent on the public welfare system (Andrews and Phillips, 2005). The various aspects that influence the real level of income (predominantly the

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[5] The proportion of senior households as defined by the receipt of a retirement pension will be even higher.

pension) differ significantly from those that determine the overhead costs of senior households which, moreover, depend significantly on local price levels.

The afore-mentioned trend towards population ageing is by no means unique to the Czech Republic. Over the last ten years, the EU28 has recorded an increase in the old-age dependency ratio[6] of an average of in excess of four percentage points, i.e. from 25% in 2005 to 29% in 2015 (Eurostat, 2017a). During this period, the Czech Republic witnessed an increase in this indicator of 6.7 percentage points, thus ranking in the top three growth rate countries in the EU behind Malta with an increase of 8.3 percentage points and Finland with an increase of 7.4 percentage points. That said, it is also important to note that the old-age dependency ratio in the Czech Republic stood at 26.6% in 2015, i.e. lower than the EU average. However, as shown in Figure 2 below, the position of the Czech Republic is steadily intensifying, and the rate of increase in the old-age dependency ratio is accelerating; indeed, the country moved from 23rd position in the EU28 in 2005 to 21st position in 2015. Moreover, according to Eurostat forecasts (2017b), the Czech Republic will occupy 15th position in 2020 and 11th position in 2050. Similar growth trends are being seen in the other V4 countries, such as Poland, which will move 16 places to 9th position in 2050 and Slovakia 14 places to 13th position.

Figure 2 Old-age dependency ratio in the EU (2005, 2015, 2020, 2050)
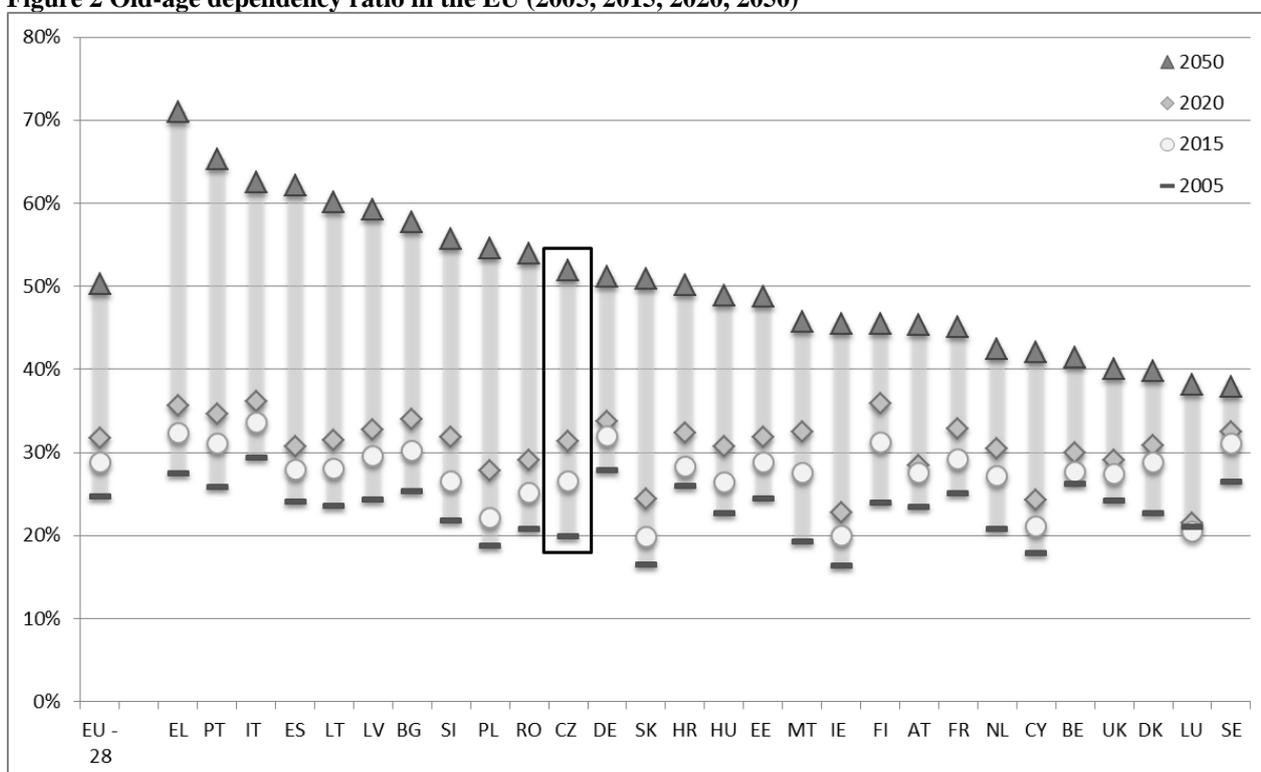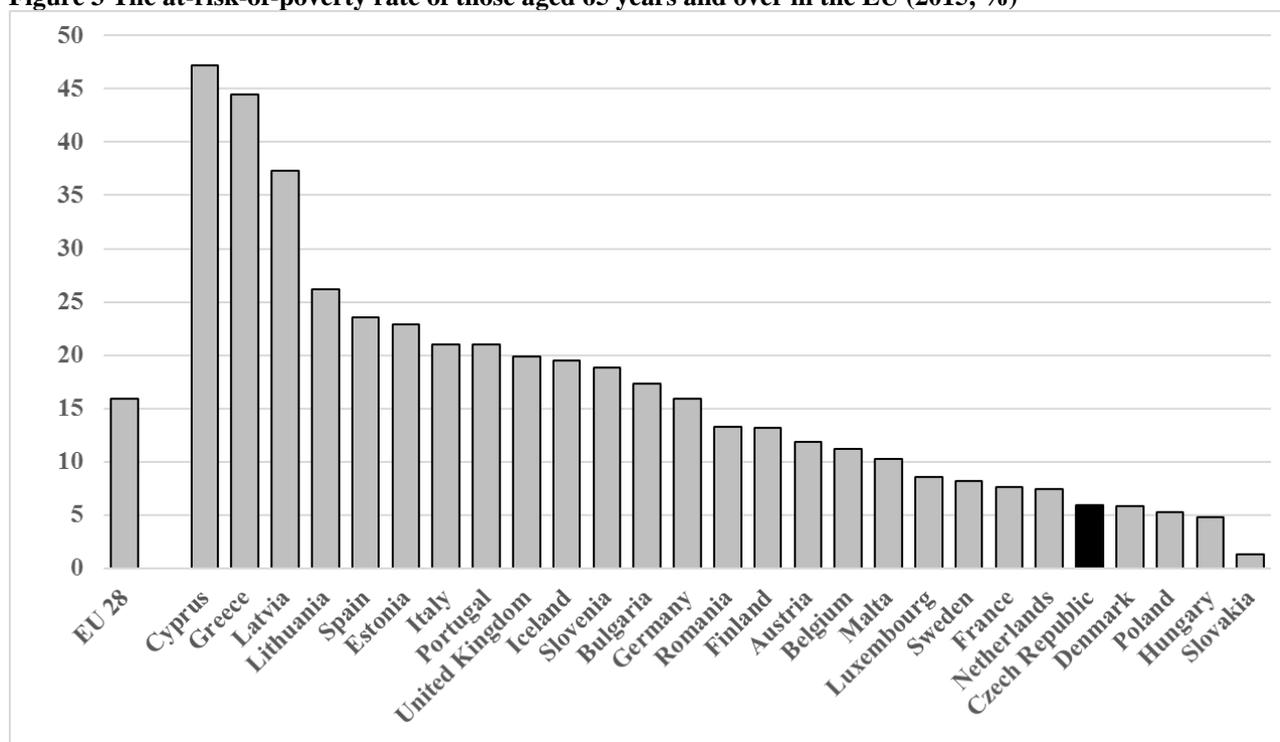

Source: Author based on Eurostat (2017a, b) data

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[6] Old-age dependency ratio - percentage of the population aged 65 and over relative to the population aged 15–64 years.

IV. The poverty of senior households in the Czech Republic

According to international statistics (European Commission, 2015), the Czech Republic has long ranked amongst those countries with respect to which the senior population is least vulnerable to income poverty (Figure 3). In 2015, approximately every sixth pensioner (15.9%) was considered to be at-risk-of-poverty in the EU28 as a whole. A rate of at least double the EU28 average was recorded in Cyprus (47.2%), Greece (44.5%) and Latvia (36.7%) while Slovakia recorded the lowest value (1.3%). Social protection measures usually serve as a means of reducing poverty and social exclusion, e.g. via the payment of social benefits. One approach to evaluating the success or otherwise of the introduction of social protection measures consists of comparing poverty and social exclusion indicators prior to and following social transfers. In 2015, social transfers reduced poverty rates in the EU28 from 26.0% before transfers to 17.3% following transfers, thus moving almost 8.7% of the EU28 population above the poverty level. The poverty of seniors exerts a significant impact on both public policy measures and overall well-being.

Figure 3 The at-risk-of-poverty rate of those aged 65 years and over in the EU (2015, %)

Source: Author based on European Commission (2018) data

The determination of a low poverty rate is typical following the application of the internationally used AROP indicator (60), with respect to which a functioning pension system that provides most retirees with a pension that exceeds the income threshold defined by Eurostat makes up a positive factor (Table 3). On average, social incomes comprise the primary source of income for 64% to 68% of senior households (pensions and other social benefits account for more than 80% of the total household income), while 90% of one-person senior households live predominantly on social incomes.

Table 3 Average retirement pension (2005, 2010, 2015; per month, in CZK)

	2005	2010	2015
total	7,648	11,252	11,346
men	8,207	12,075	12,551
women	7,306	10,397	10,299
poverty line	6,749	9,329	10,220
living minimum	2,360	3,126	3,410

Note: the poverty line and the living minimum are determined by the number of persons in the household; the table shows values for one-person households
Source: Author based on EU-SILC 2005, 2010, 2015 data; Czech social security administration (2018) data; Czech legislation

However, following the application of the AROP indicator (70), the income poverty rate of seniors increases from 9.4% to 24.3% (Czech EU-SILC 2015 data). A breakdown of senior households reveals that the most vulnerable group consists of one-person senior (predominantly female) households (in 2015: AROP (60) 20.8 %, AROP (70) 53.7 %). The monitored period saw increases in both the number of seniors and the rate of income poverty (by around three percentage points) (Table 4).

Table 4 At-risk-of-poverty of senior households in the Czech Republic (2005, 2010, 2015, %)

	2005	2010	2015
AROP (60)	6.4%	8.7%	9.4%
AROP (70)	18.2%	19.7%	24.3%
1 - person household – man	27.2%	26.7%	32.2%
1 - person household – woman	**45.6%**	**49.4%**	**53.7%**
2 - person household	5.6%	6.2%	9.0%
3+ - person household	7.4%	6.5%	7.9%

Note: a senior is considered to be a person receiving a retirement pension.
Source: Author based on EU-SILC 2005, 2010, 2015 data

The analysis of Household Budget Survey data (senior household consumption) revealed that more than 50% of the total income of seniors is used to pay for essential commodities: Food and Non-Alcoholic Beverages and Housing, Water, Electricity and Gas and other Fuels (Beran and Godarová, 2017), i.e. the concept of secondary poverty[7] does not apply.

Since 2009 the EU-SILC survey has also monitored the material deprivation indicator which expresses the inability to purchase those goods and services that most of the population views as being desirable or even necessary in terms of leading a satisfactory life. The distinguishing line with respect to this indicator is whether the household cannot afford or does not want/need the given service or goods[8]. In 2010 the EU-SILC survey began to monitor the housing deprivation indicator[9]. In 2015 every eighth pensioner (around 13.2% of total pensioners) in the EU28 suffered from material deprivation (they could not afford 3 or more items) (Figure 4), with a rate of at least twice that of

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[7] The concept of secondary poverty refers to poverty which is caused by poor income management rather than by inadequate income.

[8] The material deprivation indicator considers the following nine items: has a problem with meeting payments (rent, regular payments, mortgage or other loans); cannot afford to pay for a one-week holiday away from home, cannot eat meat every day; cannot afford to heat their accommodation; cannot pay for unexpected expenditure (i.e. CZK 9,700 according to EU-SILC 2015); cannot afford a washing machine; cannot afford a colour television; cannot afford a telephone; cannot afford a car.

[9] The housing deprivation indicator considers the following items: has a problem with damp in the accommodation; has no bathroom in the accommodation; has no flushing toilet in the accommodation; has a problem with a lack of light in the accommodation.

the EU28 average recorded in Bulgaria (61.1%), Romania (41.4%), Lithuania (36.9%), Greece (34.9%), Latvia (34.8%) and Croatia (29.4%). The lowest values of this indicator were recorded with respect to Sweden (1.9%), Iceland (2.0%), Luxembourg (2.3%) and Denmark (2.8%).

Figure 4 Material deprivation rate of those aged 65 years and over in the EU (2015, %)
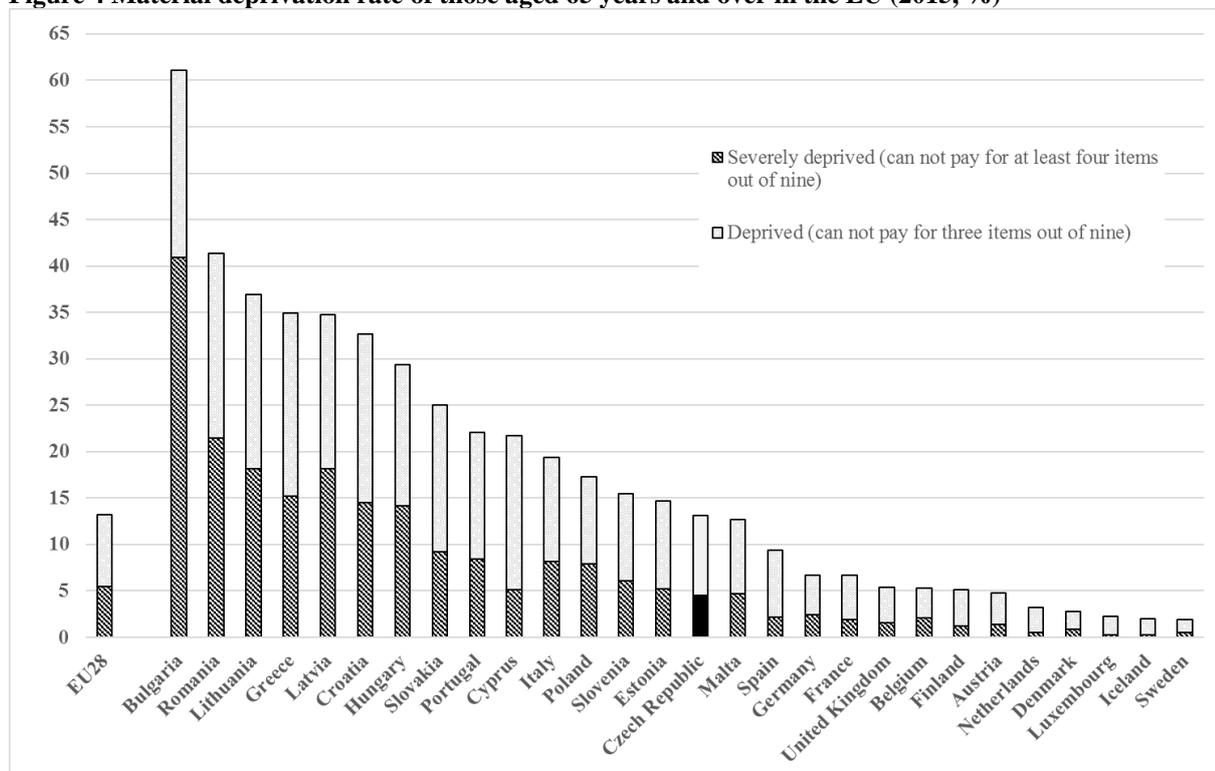
Source: Author based on European Commission (2018) data

In 2015, 118.8 million persons in the EU28 were at risk of income poverty or social exclusion (23.7%). The Europe 2020 Strategy (European Commission, 2010), adopted by the European Council in June 2010, set out as one of its main objectives with respect to social inclusion the requirement that the number of persons in the EU at risk of income poverty or social inclusion (AROPE[10]) be reduced by 20 million by 2020 compared to the number in 2008.

Table 5 Material and housing deprivation of senior households in the Czech Republic (2005, 2010,2015; %)

	2005	2010	2015
severe material deprivation (four and more items)	n/a	5.5 %	5.5 %
a one-week holiday	51.6 %	47.9 %	39.1 %
unexpected expenditure	45.3 %	40.7 %	37.3 %
housing deprivation (0 items)	n/a	85.6 %	89.5 %

Note: a senior is considered to be a person receiving a retirement pension;
unexpected expenditure stood at CZK 6,000 (2005), CZK 8,500 (2010), CZK 9,700 (2015).
*Source: Author based on EU-SILC 2005, 2010, 2015 data*

With respect to the Czech Republic, the highest value material deprivation items: inability to afford a one-week holiday (52% - 39%) and unexpected expenditure (45% - 37%). A breakdown according to household size revealed once again that the highest occurrence of these items related to one-person

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[10] AROPE = at-risk-of-poverty-or-social-exclusion figure (combination of income poverty (AROP), severe material deprivation (four or more items) and the proportion of persons living in very low work-intensity households).

female senior households. On the positive side, Table 5 reveals that the total number of households experiencing either housing or material deprivation is steadily declining.

The enumeration of poverty indicators is concluded by a subjective question on the household financial situation. The EU-SILC survey poses the question: *"How does the household make ends meet on their income?"* to which respondents are required to select an answer on a scale of $1 - 6$[11].

Figure 5 Subjective indicators of senior household poverty in the EU (2015, % making ends meet "with great difficulty")
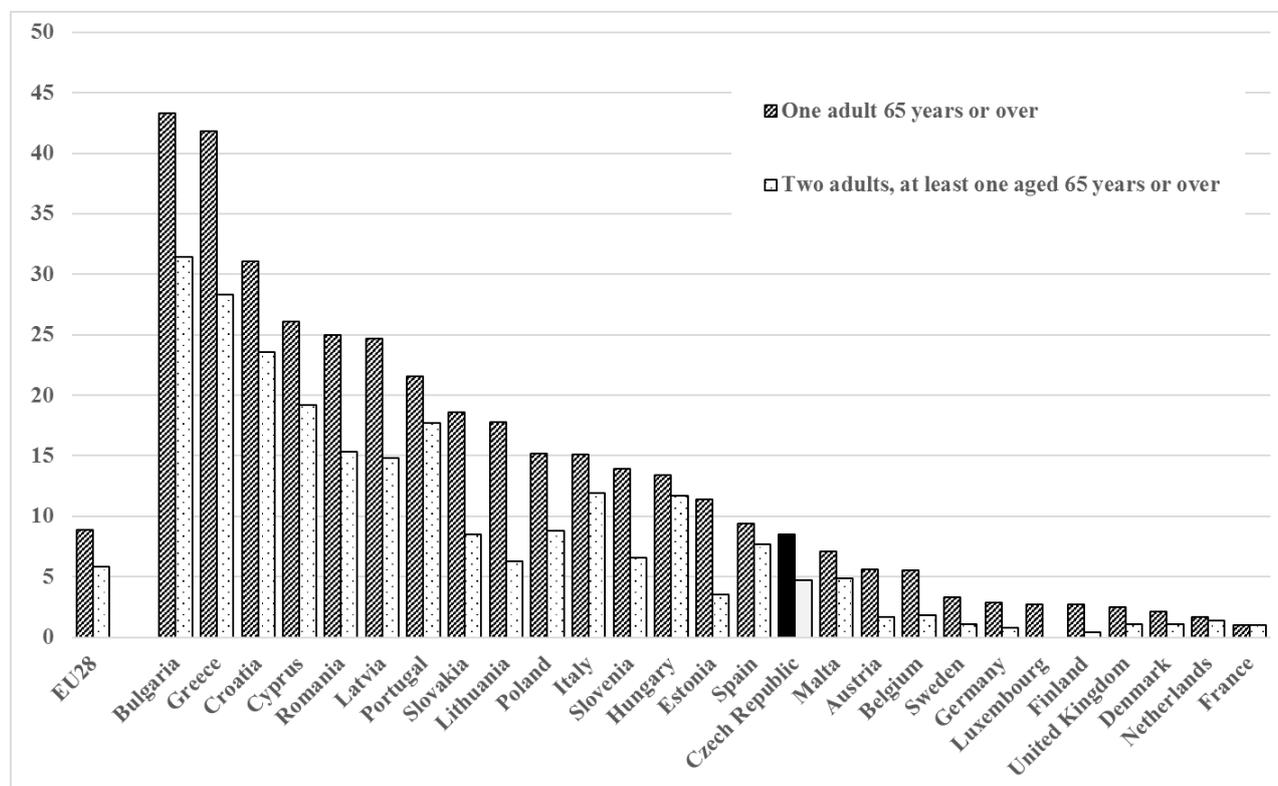
Source: Author based on European Commission (2018) data

In 2015, 8.9% of EU28 senior households (5.8% of households with at least one person aged 65 years and over) opined that they made ends meet (Figure 5) with "great difficulty". The highest values with respect to this indicator were recorded in Bulgaria (43.3% of senior households), Greece (41.8%) and Croatia (31.1%), and the lowest values in France (1.0% of senior households) and the Netherlands (1.7%).

The Czech Republic recorded approximately the EU28 average in this respect. Interestingly, on average, non-senior households subjectively expressed great difficulty making ends meet more frequently than did senior households (Table 6). A breakdown of senior households once again revealed that the highest occurrence of this factor related to one-person female senior households. Thus, both the objective and subjective indicators suggest that this group of seniors is most in danger of poverty.

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[11] Households making ends meet: with great difficulty, difficulty, little difficulty, quite easily, easily and very easily.

Table 6 Subjective indicators of senior household poverty in the Czech Republic (2005, 2010, 2015, % making ends meet with "great difficulty")

	2005	2010	2015
non-senior household	12.9 %	9.3 %	9.1 %
senior household	5.9 %	6.5 %	6.5 %
1 - person household - man	4.6 %	5.2 %	6.4 %
1 - person household - woman	**7.2 %**	**10.7 %**	**9.9 %**
2 - person household	4.7 %	4.4 %	4.9 %
3+ - person household	7.1 %	6.1 %	5.2 %

Note: a senior is considered to be a person receiving a retirement pension.
Source: Author based on EU-SILC 2005, 2010, 2015 data

With respect to individual interview research, the Czech Republic also participated in the DIPEx survey which, in contrast to the EU-SILC research, is geared particularly towards senior respondents and their life experiences. The research concluded that seniors are aware of the need to create a financial reserve which, in most cases, is complemented by reducing spending in old age, following a modest life style and securing part of their food supply outside the commercial market, i.e. by means of growing their own vegetables and the rearing of domestic animals. The most significant problems faced by seniors include high housing costs, costs associated with health issues and the onset of financial problems following the death of a partner (Social Health Institute, 2016).

V. Conclusion

One of the most significant achievements of the last few decades consists of the prolongation of life expectancy as the result of significant advances in health care and the general raising of the standard of living (World Health Organization, 2002). For many countries, however, this development has resulted in the emergence of a number of significant challenges. Moreover, it is important to note that increasing attention will have to be devoted to the ageing population and senior issues in the future. Thus, it is essential that all EU countries, including the Czech Republic, prepare for this unavoidable development.

As mentioned in the introduction to this paper, the poverty of seniors can be considered from a number of different angles and the determination of the poverty rate is influenced significantly by the choice of concept and the criteria monitored. Consequently, most countries employ a combination of indicators to monitor the financial situation (poverty) of at-risk groups. Moreover, in addition to objective indicators (AROP, AROPE etc.), it is important that subjective indicators, i.e. the reports provided by elderly persons also be considered. The poverty of senior households exerts a significant impact on the formation of public policy and overall well-being. Consequently, the analysis of EU-SILC supplementary modules which monitor well-being (EU SILC 2013, 2018[12]) could well provide a valuable extension to this study.

The Czech Republic currently performs well in terms of internationally monitored indicators:

- the AROP (60) indicator for senior households in the Czech Republic stands at 5.9% versus the EU28 average of 15.9%;
- the proportion of severely deprived senior households in the Czech Republic stands at 4.5% versus the EU 28 average of 5.5%;
- the proportion of senior households in the Czech Republic making ends meet with "great difficulty" (one-person senior households) is 8.5% versus the EU average of 8.9%.

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[12] The data from EU-SILC 2018 will be available for research purposes in 2019.

However, it is important to note that (1) the analysis of household financial management revealed that the average senior household spend more than 50% of its income on essential items (food and housing) and (2) as with other sectors of society, seniors do not make up a homogenous group, i.e. it is necessary to study the poverty of seniors in terms of age, gender, type of housing, etc. Finally, the study identified those seniors most at risk of poverty as women living in one-person households.

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