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SILVER ECONOMY, POVERTY AND SOCIAL EXCLUSION IN THE EUROPEAN UNION COUNTRIES

Abstract:

Ageing society and the development of silver economy run a greater risk of poverty and social exclusion. Rapid demographic changes are not only a major challenge of public spending, workforce and consumptions patterns but also a major opportunity for new jobs and growth. The aim of this article is to assess the level of advancement in the realization of the silver economy concept in European Union countries and its influence on poverty and social exclusion. The concept of silver economy in the European Union and challenges related to ageing in the area of public finance were discussed. The silver economy index was built using the old dependency ratio, active ageing index and age-related public spending. The conducted research shows that it is difficult to indicate a statistically significant relationship between the level of advancement of the silver economy concept and the level of people at risk of social exclusion rate. The study indicates that the silver economy ratio is the highest in Nordic countries and France, and in the countries of Central and Eastern Europe this concept is much less developed. At the same time, countries accepted to the European Union after 2004 are characterized with higher level of at-risk-of poverty and social exclusion rate, as well as relatively low age-related spendings and relatively high old dependency ratios.

Keywords:

silver economy, poverty and social exclusion, old dependency ratio, ageing, Active Ageing Index

JEL Classification: J14, J11, I32

1 Introduction

The currently observed ageing of society in developed countries has a dimension that is not just demographical, but also economical (Clark, 2004). The increase in the number of seniors is of key importance for the situation on the labor market – in parallel with the ageing of societies, the share of people of working age among economically active people is decreasing. The qualitative change in labor resources affects not only innovation and competitiveness in the micro- and macroeconomic dimension, but above all the level of individual income and consumption. What is more, people aged 65 and above relative to those aged 15 to 64 in the EU are projected to increase from 29.6% in 2016 to 51.2% in 2070. Most of this increase is driven by the very old-age dependency ratio (people aged 80 and above relative to those aged 15–64) which is rising by 14pps (8.3% to 22.3%) over this horizon (The 2018 Ageing…, 2018).

The growing share of elders in economy is associated with an increase in the value of paid out social benefits, increase of medical care expenditures and senior care services, and most of all benefits funded from public social security systems. The result of the above processes will be unavoidable increase in public expenditure above the level that can be sustained over a longer period. Thus, the level of fulfillment of needs of seniors may be insufficient. Inability to find sources of financing for increased expenditures can lead to poverty and, as a consequence, social exclusion of this group of households.

The aim of this article is to assess the levels of advancement of the realization of silver economy concept in countries of the European Union. We have also hypothesized that the ageing process of society affects the increase in the rate of people at risk of social exclusion.

In the first part of this paper, the silver economy concept and its relation to the problem of poverty has been discussed. The empirical part includes an analysis of chosen characteristics connected to silver economy. Next, using linear ordering, a silver economy synthetic measure was calculated for EU-28 countries. The article contains an analysis of dependence between the degree of advancement of the silver economy concept, risk of poverty and social exclusion rate. The paper ends with conclusions to be drawn from the research.

2 Conceptualization of silver economy

In a broad sense, "silver economy" is a sector of the economy focused on satisfying the needs emerging from an ageing population (OECD, 2014). Silver Economy is defined as the sum of all economic activity serving the needs of those aged 50 and over including both the products and services they purchase directly and further economic activity that this spending generates (Borzaga et al., 2017). Thus, Silver Economy comprises a large part of the general consumer economy, but with considerable differences in spending priorities and patterns, as well as specific niche markets. Silver economy is an abstract concept, which is to impress the scale of socio-economic transformations caused by ageing of societies and the related possibilities and limitations of the development of economic systems (Urbaniak, 2016). Kryńska (2012) emphasizes that the concept of silver economy is rather a bottom-up initiative to tackle the conventional approach to ageing modern societies of highly developed countries. Silver economy is one of the contemporary megatrends and may be recognized as the third world economy after USA and China (Gordon, 2017).

The European Commission (2007) has defined silver economy as a "combination of good supply conditions (high levels of education, R&D, responsive and flexible markets) and the growing purchasing power of older consumers that offers a huge new potential for economic growth". Such an approach indicates towards the complex character of this phenomenon – it is not, therefore, a single sector of economy, but rather as a cross-section market, in which numerous industrial sectors are involved. In the past two decades consumer spending among those aged 60 and over has grown 50% faster compared to those under aged of 30 (Growing..., 2015). For example, Eitner et al. (2011) name 14 segments (markets) which may be recognized as "silver". In this approach, silver economy is analyzed as a topic of production (user-friendly design) and marketing (Kohlbacher, Herstatt, 2011). In the literature one may find terms related to silver economy, such as gerontechnology (see, e.g., Boumaet al., 2007; Klimczuk, 2012; Cornet, 2015) or active ageing (Boudiny, 2013).

The concept of silver economy is associated directly with developmental challenges of countries that are ageing demographically. An attribute of this type of economy is a significant share of older people in the population, which is presented as a burden (dependency) ratio of working age population by the retirement age population. It should be emphasized that silver economy should not be seen only through the prism of the demographic situation. Another determinant of silver economy is also relatively large expenditures for social purposes. Among expenses related to the necessity to meet the needs of the ageing population, one can indicate, among others, pensions and other social benefits for older people as well as healthcare expenses. The professional activity rate, employment of older people and some indicators of the education sector (e.g., number of elderly people participating in lifelong learning programs) can be indirectly used to define the silver economy.

Though according to the authors, the emergence and development of silver economy should be considered in the category of economic difficulties and challenges, source literature includes elaborations which emphasize the positive aspect of the society's ageing (Urbaniak, 2016). The need to remodel the economy associated with its adjustment to a new, different than before demographical structure may be considered as a specific developmental goal.

The scope of impact of ageing processes in societies is very wide. This creates new challenges that must be addressed at the micro- and macroeconomic level. The spectrum of economic issues connected with elders is very big: income, net wealth, housing, debt and reverse mortgages, poverty, emergency funds, labor force participation, consumption and spending patterns.

3 Poverty and silver economy

One of the key problems in silver economy is the matter of poverty among elders. Fulfillment of needs in this social group is particularly difficult. On the one hand, in the period of inactivity, one has to face limited income, on the other hand, there are a number of additional expenses.

Literature review points to the lack of separate economic theories regarding management of older people's household budgets (DeVaney, 2016). The existing empirical studies do not consistently confirm life-cycle or permanent-income theories, which assert that consumers attempt to maintain their lifetime consumption levels by saving during periods of high income (working age) and by dissaving when incomes are low (retirement age). Contrary to the life-cycle hypothesis, several studies have found that older Americans maintain their wealth by reducing consumption, and that this reduction is attributable to uncertainties regarding health, life expectancy, and ability to maintain household independence (Seonglim et al., 2014). At the same time, the research of French et al. (2006) indicates, that difficulties in fulfilling basic needs will appear in the few years before death, as there is growth of out-of-pocket medical expenditures related to increased drug costs, doctor visits, and hospital and nursing home stays.

Phenomena linked to the demographic ageing process such as: old-age feminization and singularization and double ageing (increased share of people aged 80 and more in population) cause that satisfying the needs of persons of non-working age is particularly difficult. An ageing society runs a greater risk of poverty and social exclusion (Growing…, 2015). Research shows that the relationship of poverty over the age distribution is U-shaped. Poverty tends to be highest in the tails of the age distribution – at the youngest and oldest ages, and lowest in the middle of the distribution. In other words, probability of an individual after age of 60 years old being in poverty increases with age over one’s own life cycle (Marchand, Smeeding, 2016). Poverty rates are higher for those aged 75 and over compared to those aged 65–74. Also, there were higher percentages of older women living in poverty than older men (West et al., 2014), which is related to a growing population of widows in older age groups.

The problem of poverty and social inequality has become extremely important as a consequence of the 2008 financial and economic crisis. The European Union has included it as one of the objectives of the Europe 2020 strategy (European Commission, 2010). It has been assumed that the basic indicator aimed to monitor progress in the realization of actions targeted at fighting poverty or social exclusion will be a complex indicator, considering three partial rates. People at risk of poverty or social exclusion refers to the situation of people either at risk of poverty, or severely materially deprived of living in a household with a very low work intensity (Eurostat, 2014).

4 Silver economy as a one of European Union policies

Europe is going through a major societal challenge in the form of a rapidly ageing population, due to increased longevity combined with stagnating or falling birth rates.

The European Commission is focusing its policies on the key challenges ahead for the European Union economies and for societies, and the ageing of population is identified as one of them (Growing…, 2015). Rapid demographic ageing is not only a major societal challenge (in terms of public budgets, workforce, competitiveness and quality of life) but also a major opportunity for new jobs and growth, also referred to as the Silver Economy. The European Commission supports development of the Silver Economy in Europe. The main objective is to foster economic growth in Europe by focusing on technological and labor markets relevant to an ageing population, as well as exploit opportunities and tackle the societal challenge of demographic change (The Silver Economy…, 2018). The ageing population can be divided in 3 groups, each with their own need-patterns: active, fragile and dependent. Thus, the Silver Economy comprises a large part of the general consumer economy, but with considerable differences in spending priorities and patterns (European Commission, 2015).

The first activities in the area of the Silver Economy were taken in 2007 (Resolution..., 2007). Actions were assumed aimed at creating suitable framework conditions for opening new “silver” markets and making better use of the opportunities for economic growth. Since then, an increasing number of studies and initiatives have been launched of relevance to the Silver Economy which is currently driven both by the emergence of products and services tailored to the ageing population and by the need to improve sustainability of public expenditure linked to ageing.

The European Commission is conducting activities that are aimed at the development of silver economy through the promotion of independent living, creating sustainable long-term care systems and social protection systems services; and also, on innovation at EU-scale for active and healthy ageing (Growing..., 2015). This is favored by the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) and the Active and Assisted Living Joint Program (AAL JP) as well as other EU programs.

From the point of view of the development of the silver economy concept and public expenditures, long-term forecasts are particularly important; they are used in analysis of the impact on the economy of the labor market. Separate budgetary projections were run for age-related expenditure items (pensions, health care, long-term care, education and unemployment benefits). Due to the fact that unemployment benefits are more affected by cyclical fluctuations, two different scopes of age-related expenditures in the 2018

Ageing Report… (2018) are considered. The results of baseline (reference) and risk scenarios are presented with inclusion of those benefits (total age-related spending) as well as their exclusion (strictly-age-related spending) (Table 1).

Table 1. Changes in projected EU age-related public spending in the years 2016-2070 (as p.p. of GDP)

Specification		Pensions	Health care	Long term care	Education	Strictly-age-related items	Unemployment benefits	Total age-related items
EU 27[a]	baseline scenario[b]	-0.5	0.7	1.1	0.0	1.4	-0.2	1.1
	risk scenario[c]	-0.5	1.4	2.9	0.0	3.8	-0.2	3.6
EU 28	baseline scenario[b]	-0.2	0.9	1.2	0.0	1.6	-0.2	1.7
	risk scenario[c]	-0.2	1.6	2.7	0.0	4.1	-0.2	4.0

[a] All EU Member States except the UK

[b] The Baseline scenario focuses on the budgetary impact mostly due to demographic developments.

[c] The risk scenario, in addition to the impact of demographic changes, reflects the impact of additional non-demographic drivers of costs for health care and long-term care expenditure.

Source: The 2018 Ageing Report… (2018)

Current projection results indeed confirm, overall, that population ageing is posing a major challenge for public finance sustainability. There is considerable uncertainty as to future developments of age-related public expenditure, in particular related to the challenge to cope with trend increases in public spending and especially on health care and long-term care. Therefore, the study includes a baseline (reference) scenario and risk scenario. Strictly age-related public expenditure in the reference scenario is projected to increase on average by 1.4 p.p. of GDP by 2070 in the EU-27. Most of the projected increase in public spending over the given period will be on long-term care (+1.1 p.p.) and health care (+0.7 p.p.) in the EU-27. In EU-27, spending on long-term care will be higher. In the risk scenario, the overall increase in strictly age-related expenditure by 2070 would be about 3.8 p.p. of GDP in the EU-27 (4.1 p.p. in the EU-28). This higher projected increase is mainly due to public expenditure on health care and long-term care rising.

5 Data, method and research results

To analyze the influence of the development of silver economy concept on poverty in EU-28, data from Eurostat database, Active Ageing Index (AAI) was used, produced by the United Nations Economic Commission for Europe (UNECE) as well as data from reports of the European Commission (*The 2012 and 2018 Ageing Report*). The analysis period covers years 2010-2015 (the latest complete data for all EU-28 countries). Variables that were considered as characteristics of the silver economy and ageing society concern three main dimensions:

- demographic aspects described by old dependency ratio – this is the ratio between the number of persons aged 65 and over and the number of persons aged between 15 and 64. The value is expressed per 100 persons of working age (15-64) (Eurostat, 2018),
- public spending aspects described by age-related public spending (mostly sum of social benefits (pensions, health care, long-term care, education and unemployment benefits) as a % of GDP,
- actual experiences and active ageing described by the Active Ageing Index (AAI). This indicator measures the untapped potential of older people for active and healthy ageing. The level to which older people live independent lives, participate in paid employment and social activities as well as their capacity to age actively. The index is constructed from 22 individual indicators that are grouped into four domains: employment, participation in society, independent and secure living, capacity for active ageing (UNECE, 2015).

Analyzing the dynamics of these variables, in 2010-2015 we can observe an upward trend (2-26%) of the old dependency ratio applicable in each of the EU countries (the exception is Luxemburg), which clearly confirms the fact of the population's ageing (table 2).

Due to the growing number of ageing persons, an increase in public expenditure may be expected. However, in the analyzed period, in many countries one can notice a decline in the age-related public spending as a % of GDP.

However, a significant increase of the AAI is noticeable. In some countries, it has more than tripled in the surveyed years (Bulgaria – 4.1, Spain – 3.54, Greece – 3.26, Portugal – 3.19, Croatia – 3.16). The smallest increase of the analyzed indices was noted in Italy (by 47%) and Netherlands (by 58%).

Table 2. Level and dynamics of silver economy selected characteristics in EU countries

Specification	Old dependency ratio		Age-related spending (as a % GDP)		Active Ageing Index	
	2015 level	2015/2010	2015 level	2015/2010	2015 level	2015/2010
Austria	27,43	1,05	28,50	1,02	34,93	2,74
Belgium	27,84	1,07	27,60	1,09	37,12	1,81
Bulgaria	30,24	1,14	18,50	1,02	30,77	4,10
Croatia	28,31	1,06	20,70	.	29,30	3,16
Cyprus	21,18	1,19	19,50	1,14	34,15	2,30
Czech Republic	26,65	1,23	18,20	0,90	34,81	2,57
Denmark	28,83	1,16	27,60	0,93	41,94	1,67

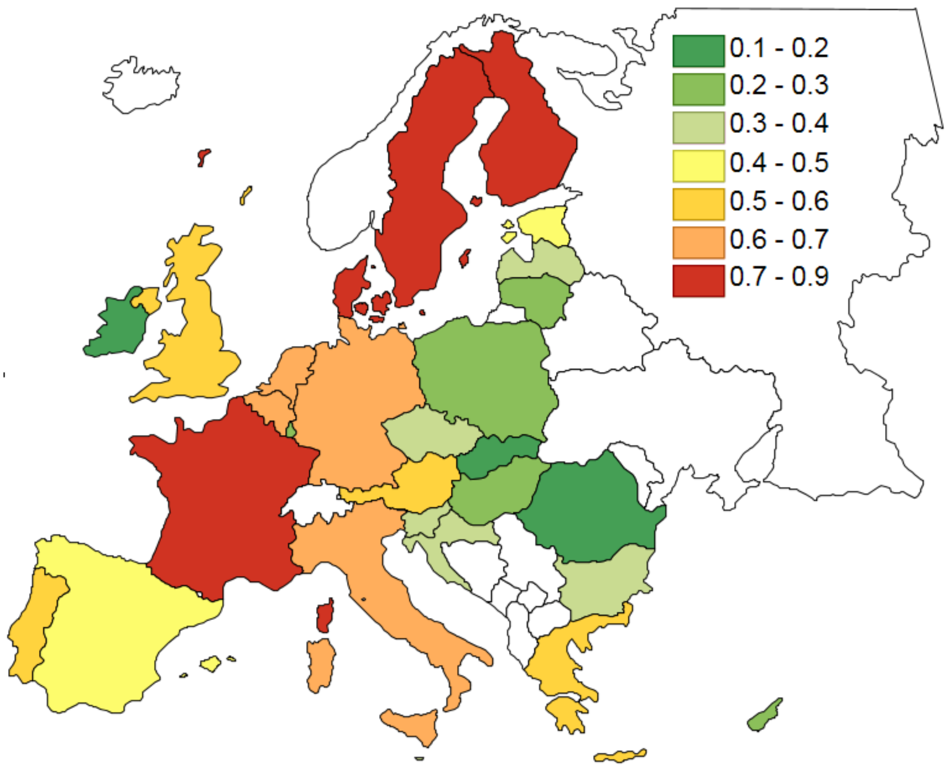
Estonia	28,73	1,11	19,30	0,98	36,18	2,67
Finland	31,33	1,22	29,80	1,12	40,53	1,82
France	29,21	1,14	31,00	1,04	37,94	1,85
Germany	31,99	1,02	23,50	0,97	37,56	2,06
Greece	32,36	1,13	25,80	1,02	26,98	3,26
Hungary	26,47	1,09	19,00	0,86	28,76	2,36
Ireland	19,69	1,19	15,20	0,68	37,81	2,78
Italy	33,73	1,08	28,00	1,00	32,74	1,47
Latvia	29,55	1,10	16,40	0,89	33,64	2,81
Lithuania	28,08	1,10	16,00	0,83	31,61	2,53
Luxembourg	20,50	1,00	18,10	1,06	36,62	2,01
Malta	26,87	1,26	20,20	0,94	34,23	2,55
Netherlands	27,18	1,19	23,60	1,03	42,18	1,58
Poland	22,17	1,16	20,40	0,95	29,92	2,26
Portugal	31,05	1,13	25,40	1,03	32,44	3,19
Romania	25,16	1,06	15,10	0,86	30,36	2,96
Slovakia	19,74	1,14	18,90	1,07	30,72	2,38
Slovenia	26,59	1,12	21,90	0,93	31,34	1,85
Spain	27,89	1,13	24,00	1,11	32,49	3,54
Sweden	31,09	1,12	24,40	0,89	46,98	2,23
United Kingdom	27,47	1,12	22,50	1,03	40,41	2,25

Source: own calculations based on: (Eurostat, 2018; UNECE, 2015; The 2018 Ageing Report... , 2018; The 2012 Ageing Report... , 2012)

Characterizing the possibilities for the development of the silver economy, variables described in the introduction of this section were used to create a synthetic measure. Variables tested were normalized. Applying linear ordering with the unpatterned method using the arithmetic mean, the value of synthetic measure was determined for each country. The division of countries as per silver economy indes is presented in Figure 1.

The highest level of the determined measure was reached by: Sweden, Finland, Denmark and France, and the lowest in Slovakia, Romania and Ireland. Differentiation in the implementation of the silver economy concept confirms that countries with socio-democratic regimes cope relatively better with population ageing than regimes in transition (new EU members). This division is in line with previous findings of Klimczuk (2016).

Figure 1: Silver economy index by EU countries

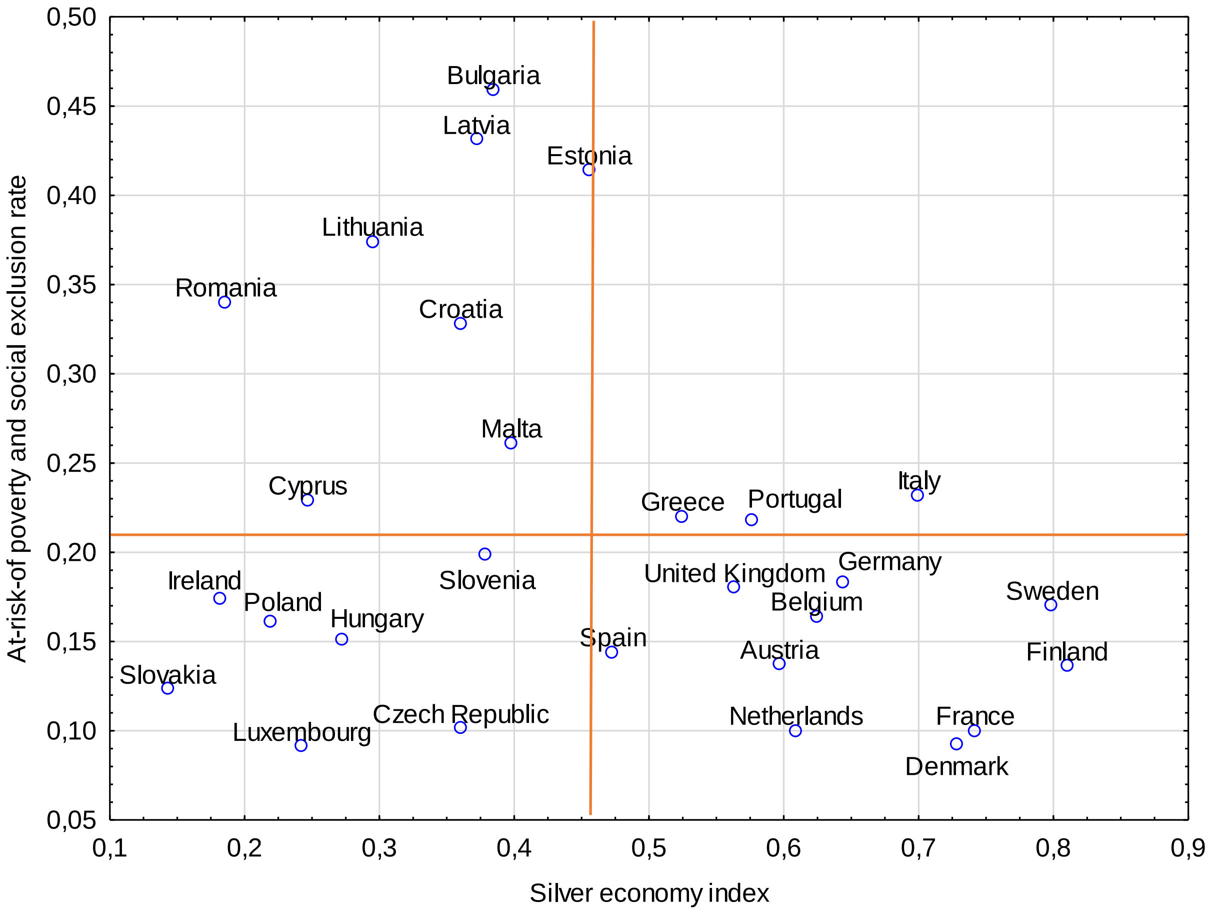


Source: author's own study

Figure 2 shows the dependence of at-risk-of poverty or social exclusion rate on the constructed silver economy index. The calculation result – the value of Pearson's linear correlation coefficient (-0.28) indicates an insignificant (at the level of 0.05) negative relationship between the examined features. This means, therefore, that the development of silver economy does not linearly influence the level of poverty in elders. Comparing these two ratios considering the mean value of both these variables (respectively: 0.46 and 0.21), three main groups of European Union countries may be distinguished:

- group I – high level of poverty and low level of silver economy,
- group II – low level of both poverty and advancement of silver economy,
- group III – significant advancement of silver economy and low level of poverty.

Figure 2: Silver economy index and at-risk-of poverty or social exclusion rate by EU countries in 2015



Source: author's own study

Group I comprises countries accepted to the EU during the last two extensions and part of the countries accepted to the EU in 2004. They characterize with significant participation of people at risk of poverty and social exclusion, which may be associated with relatively low age-related spendings. The second group includes countries with a relative lower at-risk-of poverty and social exclusion rate than the first group. The silver economy index in this group is diverse, which reflects the differences in the dependency ratio in these countries. The third group comprises highly-developed EU members. High expenditures on age-related public spending result from the high share of older people in the economy, but – what is important – it allows to keep the risk of poverty at a relatively low level.

6 Conclusions

The concept of silver economy may be analyzed from many points of views. In the context of the society's ageing process, which is one of the most important challenges for contemporary economies, it will be particularly important to improve the efficiency of public spending, especially in areas such as the healthcare system and long-term care. In the public sector, the development of silver economy requires treating public spending on active and healthy ageing as investments that aim at social inclusion, supporting new markets and increasing growth potential. In this meaning, silver economy may limit the risk of poverty and social exclusion.

The conducted research indicates that in countries of East-Central Europe, silver economy is significantly less developed. At the same time, these countries are characterized by a higher at-risk-of poverty and social exclusion rates, as well as relatively low aged-related spendings and a relatively high old dependency ratio. In general, it is difficult to indicate a statistically significant relationship between the level of advancement of the silver economy concept and at-risk-of poverty or social exclusion rate. The analysis suggests that countries with relatively higher standards of living generate better capacity for limiting poverty and coping with silver economy challenges. The difference in capacity for active ageing are determined not only by country economic situation, but also historical background, infrastructure and social capital.

The solution to the problem of poverty among elders requires a complex package of social programs, which should regard delaying retirement, increased community activities, improved lifestyles, healthcare systems (Oxley 2009). It seems that the main area which should be paid attention to is - apart from financial matters - health aspects or more specifically active healthy ageing.

Despite the outlined problems, it should be emphasized that the income potential of older people is high. This results not only from an increase of the community itself, but also from the fact that people who retire are better educated and thus have relatively high income from past work. Relatively high benefits and collected property (in the most part, not burdened by debt) comprises a buffer that limits poverty in the silver economy.

The linkages between silver economy and poverty require further research. It seems reasonable to consider other, more detailed indicators related to the consumption, production and R&D of goods and services, social spendings to better explain the economic consequence of ageing societies.

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