PRACE NAUKOWE

Uniwersytetu Ekonomicznego we Wrocławiu

RESEARCH PAPERS

of Wrocław University of Economics

Nr 435

Quality of Life.

Human and Ecosystem Well-being

Copy-editing: Rafał Galos Layout: Barbara Łopusiewicz

Proof-reading: Barbara Łopusiewicz

Typesetting: Adam Dębski Cover design: Beata Dębska

Information on submitting and reviewing papers is available on websites: www.pracenaukowe.ue.wroc.pl www.wydawnictwo.ue.wroc.pl

The publication is distributed under the Creative Commons Attribution 3.0 Attribution-NonCommercial-Noderivs CC BY-NC-ND



© Copyright by Wrocław University of Economics Wrocław 2016

ISSN 1899-3192 e-ISSN 2392-0041

ISBN 978-83-7695-590-2

The original version: printed

Publication may be ordered in Publishing House Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu ul. Komandorska 118/120, 53-345 Wrocław tel./fax 71 36 80 602; e-mail: econbook@ue.wroc.pl www.ksiegarnia.ue.wroc.pl

Druk i oprawa: TOTEM

Contents

Introduction
Ewa Frątczak, Teresa Słaby: Life course – paradigm shift – quality of life. At the meeting point of social sciences and management / Cykl życia – zmiana paradygmatu – jakość życia. Na styku nauk społecznych i zarządzania
Jerzy Śleszyński: Human Development Index revisited / Nowe spojrzenie na
Wskaźnik Rozwoju Społecznego
Hanna Dudek, Wiesław Szczesny: Subjective perception of quality of life – multidimensional analysis based on the fuzzy sets approach / Subiektywne postrzeganie jakości życia – wielowymiarowa analiza na podstawie podejścia wykorzystującego zbiory rozmyte
Anna Sączewska-Piotrowska: Clusters of poverty in Poland / Klastry ubóstwa Polsce
Teresa Slaby: The quality of life of the aboriginal rural people 60+ in Poland.
Selected research results, 2014 / Jakość życia rdzennych mieszkańców wsi w wieku 60+ w Polsce. Wybrane rezultaty badań, 2014
Katarzyna Ostasiewicz, Adam Zawadzki: Students' expectations about
future jobs as a factor influencing their quality of life / Oczekiwania studentów odnośnie przyszłej pracy jako czynnik wpływający na jakość
życia
children in Europe / Gdzie żyją najszczęśliwsze dzieci? Jakość życia dzieci w wieku szkolnym w Europie
Alena Kascakova, Luboslava Kubisova: Social and economic potential of silver population in Slovakia / Społeczny i ekonomiczny potencjał seniorów na Słowacji
Karina Fraczek, Jerzy Śleszyński: Carbon Footprint indicator and the
quality of energetic life / Ślad węglowy a energetyczna jakość życia 13
Michał Pająk: Natural dynamics of common-pool resources in experimental
research – current state and prospects / Naturalna dynamika wspólnych zasobów w badaniach eksperymentalnych – obecne badania i perspekty-
wy
Maria Zuba-Ciszewska: The contribution of the cooperative movement to
the CSR idea – the aspect of ethical responsibility / Wkład idei spółdziel- czości w koncepcję CSR – wymiar odpowiedzialności etycznej

Introduction

On September 21-22, 2015, 6th International Scientific Conference "Quality of Life 2015. Human and Ecosystems Well-being" was held in Wrocław.

The conference was a part of the cycle of the conferences on the topic of quality of life that have been organized by the Department of Statistics (Wrocław University of Economics) since 1999. The aim of the cycle is to participate in the still rising all over the word wave of scientific studies on quality of life: ethical background and definitions of quality of life, investigating (how to measure it), presenting the results of differences of quality of life over time and space, its interdependences with natural environment, mathematical methods useful for the methodology of measuring quality of life and finally – possible methods of improving it. The conferences are meant to integrate the Polish scientific community doing research on these topics as well as to make contacts with foreign scientists.

This year our honorary guest was Professor Filomena Maggino, past President of International Society for Quality-of-Life Studies (ISQOLS), who presented a plenary lecture.

We hosted about 30 participants, among them scientists from Spain, Romania, Italy and Japan. We had 24 lectures on such a variety of topics as carbon footprint and mathematical properties of some estimators. The common background of all of them was to better comprehend, measure and possibly to improve the quality of humans' life.

The present volume contains the extended versions of some selected lectures presented during the conference. We wish to thank all of the participants of the conference for co-creating very inspiring character of this meeting, stimulating productive discussions and resulting in some potentially fruitful cooperation over new research problems. We wish also to thank the authors for their prolonged cooperation in preparing this volume, the reviewers for their hard work and for many valuable, although anonymous, suggestions that helped some of us to improve their works.

Finally, we wish to thank the members of the Editorial Office of Wrocław University of Economics for their hard work while preparing the edition of this volume, continuous kindness and helpfulness exceeding their duties of the job.

Katarzyna Ostasiewicz

PRACE NAUKOWE UNIWERSYTETU EKONOMICZNEGO WE WROCŁAWIU RESEARCH PAPERS OF WROCŁAW UNIVERSITY OF ECONOMICS nr 435 ◆ 2016

Quality of Life. Human and Ecosystem Well-being

ISSN 1899-3192 e-ISSN 2392-0041

Alena Kascakova, Luboslava Kubisova

Univerzita Mateja Bela, Banská Bystrica

e-mails: alena.kascakova@umb.sk; luboslava.kubisova@umb.sk

SOCIAL AND ECONOMIC POTENTIAL OF SILVER POPULATION IN SLOVAKIA

SPOŁECZNY I EKONOMICZNY POTENCJAŁ SENIORÓW NA SŁOWACJI

DOI: 10.15611/pn.2016.435.08

Summary: Demographic ageing gradually increase in the group of the oldest population in the advanced countries of the world. Seniors have their typical habits concerning consumption, savings, and investments as their income and expenditure have been changing alongside their social, professional and family roles. In Slovakia, the income and expenditure situation of seniors can be characterised by low income levels and high expenditure on necessary items and health. Silver households live on lower incomes and they are not able to sustain the same standard of living as when they were professionally active. Their members perform more unpaid work within the households and their subjective feeling of happiness is getting lower. The aim of the article is to use the statistics of Household Budget Survey, EU SILC data and ISSP Slovakia sociological survey to characterize and evaluate the social and economic situation of the silver population in Slovakia.

Keywords: silver economy, ageing, healthy ageing, unpaid work.

Streszczenie: Społeczeństwa krajów rozwiniętych stopniowo starzeją się. Seniorzy mają swoje zwyczaje dotyczące konsumpcji, oszczędzania oraz inwestowania z racji tego, że ich dochody i wydatki zmieniały się wraz z rolą, jaką pełnili w społeczeństwie, pracy i rodzinie. Na Słowacji sytuacja seniorów charakteryzuje się niskimi dochodami oraz wysokimi wydatkami na konieczne towary i opiekę zdrowotną. W związku z tym seniorzy nie są w stanie utrzymać poziomu życia z okresu, kiedy byli aktywni zawodowo. Wykonują oni więcej nieodpłatnych prac w swoich gospodarstwach domowych, a ich subiektywne odczucie szczęścia obniża się. Celem artykułu jest wykorzystanie danych Badania Ankietowego Budżetów Domowych, systemu gromadzenia danych, a także danych socjologicznego badania ISSP Słowacja do scharakteryzowania i oceny społecznej i ekonomicznej sytuacji seniorów na Słowacji.

Slowa kluczowe: srebrna gospodarka, proces starzenia sie, zdrowe starzenie się, praca nieodpłatna.

1. Introduction

The UN estimates that by 2050 those over 65 will outnumber children under five for the first time in human history. The effect of this demographic shift will be felt differently among affected countries. In most developed countries of the world, their residents have become wealthy before getting old, so the older generation have considerable purchasing power. However, in many countries of the world, e.g. emerging economies such as China and South Korea, people will get old before they get rich enough to compensate the economic power of the fewer and consumers. Governments have largely responded to population ageing by changing the policy on pensions and healthcare, increasing the retirement age and shifting more responsibility for pensions and health on individuals [Cohen 2014].

The population in EU is ageing rapidly due to increasing longevity and low birth rates. The Commission's Ageing Report predicts that the ratio of four people of working age (15-64) per every 65+ person in 2013, will decrease to just two by 2060. This trend brings both challenges and opportunities. In 2012, the annual old age related government expenditure for social protection represented 8% or more of the GDP or at least 40% of total government expenditure on social protection in the EU27. This is set to rise by 4.1 percentage points of GDP by 2060. Health care expenditures for the EU27 are expected to increase from 7.1% GDP in 2010 to 8.3% in 2060 in the EU as a whole. These estimates pose serious challenges to the current health and social care systems. The negative demographic trends will inevitably result in a shortage of workers and the adverse "support ratio", defined as the ratio of producers to effective consumers [Commission of the European Communities 2012].

At the same time, the ageing population gives rise to the so called "silver economy", defined by EU Commission as representing "the economic opportunities arising from the public and consumer expenditure related to population ageing and the specific needs of the population over 50." This concept tries to tackle ageing holistically, including a broad range of policies, such as those on the built environment, 50+ employment, life-long learning and preventative healthcare. It also counts on the development and use of new technologies to lower the costs of ageing and improve the lives of older citizens while creating new business opportunities thanks to an expected substantial volume of global spending power of those aged 60+. The silver economy also supports efforts to promote active and healthy ageing, increase the employment and employability rate of older (e.g. aged 55-64) workers and employment opportunities in elderly care and the health sector [EC 2015].

Slovakia, like the other EU member states, needs to deal with similar trends related to demographic change, alhough it has younger society than the EU average. On the other hand, the standard of living in Slovakia is still well below the one in the "old Member States", so it is clear sound policies tackling population ageing should be introduced as early as possible, using the experience and good practices employed abroad.

2. Demographic and economic situation of the Slovak silver population

With the demographic trends as they are, the age cohorts that are growing the fastest both in Europe and Slovakia are those aged 50+. This is the result of lower fertility rate (1.55 in Europe (EU 28) in 2013, 1.34 in Slovakia) and a rising life expectancy, with 77.4 years for men and 83.1 for women in 2012 (72.9 for men and 80.1 for women in Slovakia, in 2013). In addition, post war baby boom resulted in a high increase of the population that is now reaching retiring age. In spite of growing, the old-age dependency ratio in Slovakia is still considerably lower than in some other EU countries and the EU average.

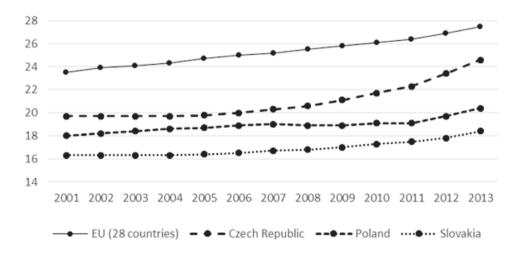


Figure 1. Old-age-dependency ratio in 2001-2013

Source: own calculation based on data from Eurostat.

In 2012, the share of the 50-64 age group in the Slovak population was 20.3%, while the 65-79 age group accounted for 10.5% and the 80+ year olds was 3.1% for the Slovak population. These subgroups have their specific needs and preferences which, along with the lower income levels, will determine the extent of their consumption in different expenditure categories.

The data from the Household Budget Survey for 2005 and 2012 inform us that the incomes of Slovak households were continually rising in the given period. When recalculated for the constant prices of 2012, we can see the growth of real income in a more detailed structure in relation to the age category of the reference person in the household. As Figure 2 shows, the highest incomes were in the age group of 25-49 years, but they grew the least, only by 11.3%. The fastest income growth was

recorded in the categories of 65+ years of age and it was related to the increase of old age pensions. The more populous age group of 65-79 recorded a 30% increase in incomes, whereas the incomes of the age group of 80 and over increased by 26.7%. We have to account for the fact that the incomes rose also due to the increased number of people in the older age categories.

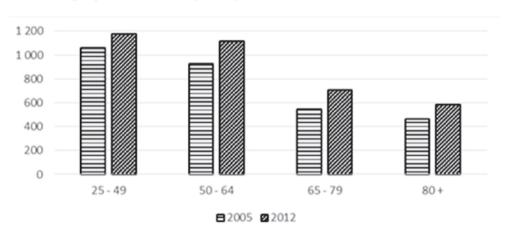


Figure 2. Net money income per household by age category of reference person in Slovakia Source: own calculation based on the Household Budget Survey.

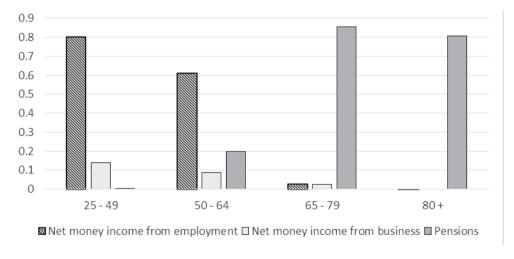


Figure 3. Structure of income items from total money income by age groups in 2012 Source: own calculations based on EU SILC.

When we look at the structure of incomes at different age groups, we can see that already at the age group of 50 - 64, the incomes from employment and business

activities drop in favour of the income from pensions and that in the age groups 65+, almost all income comes from pensions. This should be taken into consideration when projecting the silver economy potential in the future.

As for the expenditure patterns, the average expenditure per household member rose from 2,935 euros in 2005 to 3,950 euros in 2012. However, the expenditures rose more slowly than income, which allowed for the accumulation of savings. In 2012, the highest monthly savings were created in the age group of 50-64 year olds with 181 euros per household, followed by 65-79 cohort with 103 euros and the group of 25-49 year olds with 97 euros per household. The lowest savings were created in the age group of 80+ with approximately 80 euros a month per household. The different income levels and consumption patterns of individual age categories also resulted in a different structure of their expenditures.

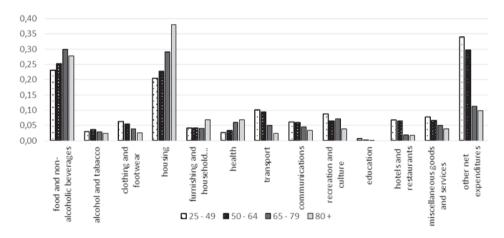


Figure 4. Overall structure of consumption expenditure by detailed COICOP level by age category in 2012 in Slovakia

Source: own calculation based on Household Budget Survey.

We can see in the figure above that spending that is positively correlated with age belongs to the category of the so called obligatory expenses, i.e. expenses for food and housing, and health, which amounts to as much as 72.7% of the 50+househoulds' expenditure. Naturally, in almost all other categories of consumption the expenditure drops quite sharply with age. Compared to other EU countries, namely the "old" EU members, most Slovak silver households do not represent a considerable potential demand in terms of their buying power. Some potential can be seen in the fact that as of 2006, there has been a positive difference between the incomes and expenditures representing savings that could be used by the retired in the future. On the whole, our findings correspond to the prognosis that the potential demand of silver generation will only rise slowly in Slovakia [Pauhofova, Palenik 2013].

As EU countries are considered to have aged after they got rich [Steinberg et al. 2006], the challenges and opportunities of ageing in the rich countries may offset each other provided that the sound public policies are introduced and the attitudes towards active ageing change both in policies and practice. Given the economic situation of the current silver population in Slovakia, though, the challenges may outweigh the opportunities to a large extent in near future.

3. Productive output of the silver economy and active ageing

In its wider interpretation, silver economy deals with ageing from several different perspectives, not only from the standpoint of creating a demand for specific goods and services. As mentioned above, it also supports policies that concern built environment, employment and employability of the 50+ generation, life long learning and preventative healthcare. The aim of these policies is to promote active and healthy ageing, counting on the assumption that the economies will soon lack the skilled workforce, so it will be important not to lose the potential that older workers represent. In the words of the Global Coalition on Ageing, the "aging populations can be drivers of productivity and wealth creation by remaining active, engaged and working. Capturing this workforce engine will necessitate workplace adaptations, new definitions of retirement and savings, and investment in lifelong training and education" [Ageing Population 2015].

World health organisation defines "active ageing" as a process of optimising opportunities for health, participation and security in older age to enhance quality of life as people age. Active ageing allows people to realize their potential for physical, social, and mental wellbeing throughout the life course and to participate in society according to their needs, desires and capacities, while providing them with adequate protection, security and care when they require assistance [World Health Organisation 2002].

Apart from its productive potential, it is evident that active ageing is linked to better health status and the reduction in diseases connected with ageing, which leads to reduction of healthcare costs. Some authors even propose that as staying active through social, physical and cognitive engagement contributes to continued health and independence in later life, it should be considered as a positive contribution to society as it minimizes the dependency of the old on the health and social service systems [Caro, Bass, Chen 1993, [in:] Dosman et al. 2006]. The EU has launched some initiatives that support active and healthy aging and increase healthy life expectancy. Some of the proposed solutions could be implemented also with the help of EU financial instruments, mainly by the European Social Fund, Health for Growth Programme, and other EU instruments, e.g. for research and innovation, cohesion funds, educational support and programmes on employment, social policy and inclusion [Ahtonen 2012]. Slovakia has the lowest healthy life expectancy

in all EU28 countries, so this is clearly one of the biggest areas for public policy interventions aimed at coping with the new demography.

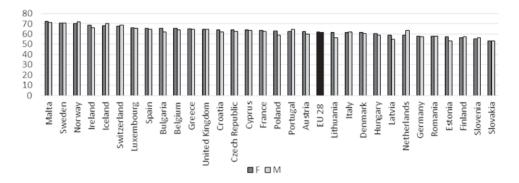


Figure 5. Healthy life expectancy (in years) in European countries in 2012

Source: own calculations based on data from Eurostat.

Data show that there is a link between the health status of an individual and their feeling of happiness. It is interesting to see, however, that the correlation coefficients vary quite substantially across a range of countries. In Slovakia, the feeling of happiness correlates with health status quite strongly, which is another reason why increasing the healthy life expectancy should become a policy priority.

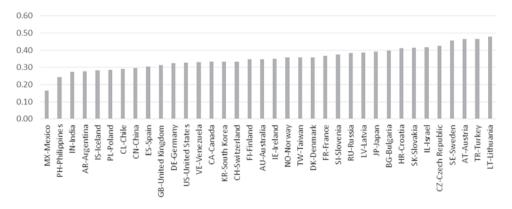


Figure 6. Spearman's correlation between the health status and feeling of overall hapinness in different countries

Source: own calculations based on ISSP 2012 data.

Active and healthy ageing is not a new phenomenon, though. Many old people continue to be productive long after they have stopped working in paid jobs or having their own businesses. The general perception that the people who retire are

unproductive from the economic point of view has been challenged by recognizing the fact that it is not only in the labour market where one can contribute to the economic output. On the whole, the value of unpaid work has been estimated to account for 20 to 60% of the GDP, depending on a country [OECD 2011]. Indeed, the results of the research on retirement and productive activity [Dosman et al. 2006] show that people who stop going to work do not stop working and they simply substitute paid work for unpaid work activities. Thus, their productivity may not diminish substantially. The authors claim that the retired and seniors seen as a burden to the society, expressed by the calculation of dependancy ratio, are thus to be challenged as assumptions of the current policy debate on population ageing. The definitions of productive activities cited by the authors focus on the fact that they comprise the activities producing the good or service that has value and that is provided to another person. Such activities naturally include unpaid work activities. A common way of measuring unpaid work activities is through the expenditure of time. Four broad domains of productive activity are distinguished: paid work, household work, help provided to others (child care and adult care) and volunteer work. Studies show that older people do take part in productive activities and even more so after they retire, in the form of unpaid work. This means that even when retired, they "continue to make economically and socially valuable contributions to the society" [Dosman et al. 2006, p. 406].

When we look at the amounts of time spent on household work and care of family members in different European countries, we can see that in all of the newer and "poorer" EU countries seniors spend more time on these activities weekly than the average, up to over 35 hours (in Croatia). The distribution patterns of the hours among the three senior age categories differ, with some being most active in the age of 50-64, others in 65-79. As we can see in the figure, in the countries with more hours spent on household work and family members care, the number of hours drops considerably in the last age category 80+. This could be affected by the lower healthy life expectancy than in the countries in which healthy life expectancy is higher.

Based on the data in Figure 7 above we may suggest that seniors in the poorer countries of Europe make up for their lower consumption spending by producing more economic output and thus balancing their contribution to the economy. However, this needs to be confirmed by a more rigorous analysis of the data about unpaid work activities, as the ISSP data do not include volunteering time and some studies show that people in Central and Eastern Europe spend less time on volunteering than in the old EU member states [Plagnol, Huppert 2010]. This could mean that the longer hours spent on household work and family members'care in the C&E countries could be offset by more volunteering work in the countries of Western and Northern Europe.

Whereas many countries collect data on unpaid work through regular national surveys, e.g. Time Use Surveys, in Slovakia there was only one pilot of such a survey, which was performed in 2005. Apart from this, incomplete data on unpaid

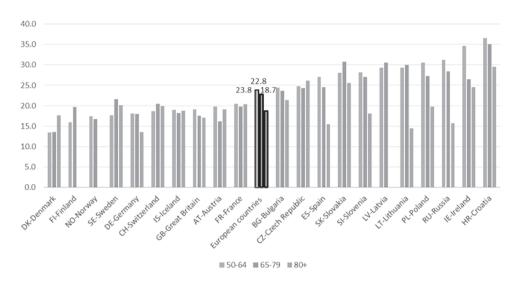


Figure 7. Unpaid work comprising household work and care of family members done by the seniors in different countries

Source: own calculations from ISSP 2012.

work could be obtained from the results of ISSP (International Social Survey Program) Slovakia, module Family. In 2012, this shortage of data led researchers from Matej Bel University to execute primary research into the subject supported by the VEGA grant "The Labour Market in the Specific Context of the Unpaid Work, the Measurement of Unpaid Work Value and its Impacts on Households, the Business Sector and the Economy" followed by the VEGA supported project "Unpaid work as a potential source of social and economic development and determinant of individual well-being". The aim was to obtain the data on unpaid work in Slovakia of an appropriate scale and structure [Kascakova, Nedelova 2014]. Apart from the data on unpaid work, the survey provided data on the motivations to do unpaid work as well as the satisfaction of respondents with their social life and some other sociological characteristics. From the survey carried out in 2015 we know that there is a statistically significant negative correlation between age and satisfaction with one's social life, i. e. the older people get, the less satisfied they are with their social life. This confirms the unfavourable situation of Slovak silver population with regard to active ageing. The data on unpaid work including volunteering for senior households from this survey are yet to be processed and analysed.

In some countries, such as Australia, the policymakers focus on strategies for service provision to future cohorts of older people that incorporate the understanding of how social capital may benefit communities. Within the research on social capital, considerable attention has been paid to "the important role that social networks play in later life, particularly in supporting older people to remain independent in their

community, despite the onset of chronic disease and disability" [Barr, Russel 2006, p. 211]. The authors emphasise that it is important for older people to be able to access economic, social and political institutions and services that are available for them in order to stay independent in their own homes. Understanding the nature and preconditions for formation of the social capital within a community is supposed to be important for drafting government policies related to seniors in such areas as urban and social planning, or community capacity building.

4. Conclusions

Demographic changes will not only affect economic growth and fiscal sustainability. but also individual, family and social structures and their functioning. Slovakia has not yet reached the same level of ageing as other, richer EU countries yet it will face the same demographic shifts in the near future. In general, countries whose older populations have become rich during their working life can benefit from their accumulated wealth by growing business opportunities responding to their needs for new products and services. However, even in countries with low pensions, the silver economy is bound to grow as seniors substitute their paid work with unpaid work and contribute to the economic output. The public policies supporting the silver economy, namely promoting active and productive ageing and increasing healthy life expectancy may help to address the impact of the new demography on the economy. The panel of experts from various fields invited by OECD to discuss the opportunities of the silver economy as a response to population ageing¹ have proposed that policy reforms should also concern traditional views of ageing, technology solutions to support new work practices and connect communities, new and flexible models for caregivers and pensions to help people work longer, social entrepreneurship enabled by public policy frameworks and lifelong learing through both formal and informal education, and new ways of financing pensions.

As for Slovakia, data show that the silver economy is more likely to be driven by working rather than consuming seniors, even if their work is not longer done within the market and included in the GDP. However, low healthy life expectancy and low participation of the old in activities outside their homes, demonstrated by low rates of volunteering and decreasing satisfaction with one's social life with age, will need to be addressed by appropriate public policies based on new concepts, such as active ageing, lifelong learning and social capital.

Acknowledgements

The research was supported by the Grant Agency APVV project APVV – 0309 – 11 and by the Grant Agency VEGA, project VEGA 1/0935/13.

¹ Expert Consultation on "The Silver Economy: Facts, Challenges and Opportunities", 26 June 2014, http://www.oecd.org/sti/silver-economy-facts-challenges-and-opportunities.htm.

References

- Ageing Population: projections 2010-2060 for the EU27, epthinktank.eu, statistical spotlights, (accessed 26. October 2015, available at: http://epthinktank.eu/2013/12/19/ageing-population-projections-2010-2060-for-the-eu27/.
- Ahtonen A., 2012, *Healthy and active ageing: turning the "silver" economy into gold. Policy Brief*, European Policy Centre, http://www.epc.eu/ documents/uploads/pub_1426_healthy_and_active_ageing.pdf.
- Barr F.M., Russel Ch.A., 2006, Social capital a potential tool for analysis of the relationship between ageing individuals and their social environment, Ageing International, summer, Vol. 31, No. 3, pp. 203-216.
- Cohen N., *The Silver Economy: Healthier and wealthier*, 2014, Financial Times, October 19, available at: http://www.ft.com/intl/cms/s/2/08bff556-52c7-11e4-a236-00144feab7de.html#slide0.
- Commission of the European Communities, 2012, Economic and budgetary projections for the 27 EU Member States (2010-2060), The 2012 Ageing Report, European Economy No. 2, 2012 [joint report prepared by the European Commission (DG ECFIN) and the Economic Policy Committee (AWG)].
- Dosman D., Fast J., Chapman S.A., Keating N., 2006, Retirement and productive activity in later life, Family Economics Issues 27, pages 401-419, DOI 10.1007/s10834-006-9022-y Springer Science+Business Media.
- European Commission, 2015, Growing the Silver Economy in Europe (background document, European Commission, February 2015, available at: http://ec.europa.eu/research/innovation-union/pdf/active-healthy-ageing/silvereco.pdf#view=fit&pagemode=none.
- Kascakova A., Nedelova G., 2014, *The amount of unpaid work in Slovakia comparison of surveys*, Acta aerarii publici: vedecký časopis Ekonomickej fakulty Univerzity Mateja Bela v Banskej Bystrici, Banská Bystrica, Vol. 11, No. special issue (2014), pp. 50-55.
- OECD, 2011, Society at a Glance OECD Social Indicators, available at: http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/society-at-a-glance-2014_soc_glance-2014-en#page26.
- OECD, 2012, Expert Consultation on "The Silver Economy: Facts, Challenges and Opportunities", available at: http://www.oecd.org/sti/the-silver-economy-as-a-pathway-to-growth.pdf.
- Pauhofova I., Palenik M., 2013, *The realization of the silver economy concept in EU countries*, Ekonomicky casopis, Vol. 61, Iss. 8, pp. 861-876.
- Plagnol A.C., Huppert F.A., 2010, Happy to Help? Exploring the Factors Associated with Variations in Rates of Volunteering Across Europe, Social Indicators Research 97, pages 157-176, Springer, DOI 10.1007/s11205-009-9494-x.
- Steinberg M.A., Kearns P.B., Reghenzani D.M., Peel N.M., 2007, *Harnessing the New Demographic: Adult and Community Learning in Older Populations. An Australian Focus with General Implications*, PASCAL Observatory, 2006, available at: http://eprints.qut.edu.au.
- World Health Organisation, 2002, Active Ageing: A Policy Framework, Geneva.