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Well-Being of Older Persons in Central and Eastern European Countries

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Abstract

Central and Eastern Europe is a unique region in terms of its social, economic and demographic trends, particularly because of legacy of the communist system and transformation to a market system. The transition coincided with a rapid demographic change in which younger generation was able to reorganise themselves relatively easily whereas older people found this change much more difficult. This paper builds a picture of well-being of older population in eight Eastern European countries: Albania, Armenia, Georgia, Moldova, Montenegro, Serbia, Turkey and Ukraine and compares it to eight other European Union (EU) member States of the same region. We used the Global AgeWatch Index – an analytical framework of Zaidi (2013) offering comparative analysis of older people's well-being across the world. It is extended by gender-specific analysis for two domains: health status and capability. The results show that the combined Index value of eight Eastern and South-Eastern non-EU countries is considerably below the average observed for eight EU member States, however, in some individual indicators, some of the non-EU states performed better than the EU countries. The evidence summarised can be used to assess the position of the region and points to areas where policy changes are necessary.

Bienestar de las Personas Mayores en los Países de Europa Central y Oriental

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Resumen

Europa Central y Oriental es una región única en términos de tendencias sociales, económicas y demográficas, en particular debido al legado del sistema comunista y la transformación a un sistema de mercado. La transición coincidió con un rápido cambio demográfico en el que la generación más joven pudo reorganizarse con relativa facilidad, mientras que en los mayores este cambio fue más difícil. Este artículo construye una imagen del bienestar de la población mayor en ocho países de Europa del Este: Albania, Armenia, Georgia, Moldavia, Montenegro, Serbia, Turquía y Ucrania y lo compara con otros ocho Estados de la Unión Europea (UE). Utilizamos el Global AgeWatch Index, un marco analítico de Zaidi (2013) que ofrece un análisis comparativo del bienestar de las personas mayores en todo el mundo. Se amplía mediante análisis de género para dos campos: estado de salud y capacidad. Los resultados muestran que el valor combinado del Índice de ocho países del Este y Noreste de la UE es considerablemente inferior al promedio de los ocho Estados miembros de la UE, sin embargo, en algunos indicadores individuales, algunos de los estados no pertenecientes a la UE obtuvieron mejores resultados que los países de la UE. La evidencia resumida se puede usar para evaluar la posición de la región y señalar áreas donde los cambios de política son necesarios.

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Population ageing is not a recent phenomenon. The share of people aged 60 years and over has been increasing since mid-1980s across the world. Between 1950 and 1980 this share was stable and accounted for circa 7.5% of the world' population. In 1985, it increased to 7.9% and has been growing since then constantly, reaching to 12.3% in 2015. Further growth of population aged 60 and over is forecasted in the next years. In 2050, older people will account for 21.3% of world's population and the growth will continue, albeit on a smaller pace. Absolute number of older persons look even more striking: the number of people aged 60 and over will increase from 900 million in 2015 to 2,08 million in 2050 (United Nations, 2017). Also, the median age of world's population will increase from 26.6 years in 2000 to 37.3 in 2050, when not adjusted for longevity increase (Lutz, Sanderson, & Scherbov, 2008). Such significant demographic changes will take place within the life of two generations.

Alongside the increased longevity, years spent in good health also increased, though at a slower pace. In years 1990-2010, with 1 year increase in life expectancy, healthy life expectancy (HALE) increased by 10 months. Life expectancy was strongly and positively related to number of years lost to disability (Salomon et al., 2012). Hence, the longer people live, both years in good health and in bad health have been increasing.

The consequences of population ageing are multidimensional, especially on public pension systems, consumption and savings, medical services, labour market (see, e.g. Bongaarts, 2004, Faruqee, 2002, Zweifel, Felder, & Meiers, 1999). In developed countries, this process can have adverse effect on the economic growth due to decreasing working age population and savings. However, in developing countries it is said to have a limited influence (Bloom, Canning, & Fink, 2010).

Central and Eastern European "CEE" Countries

Central and Eastern Europe is unique in terms of demographic trends due to three main facts: sharp fertility decline; increasing male mortality in certain countries (especially in the Former Soviet Union Countries), and rapid net emigration. These demographic changes have been happening alongside the

political, economic and social transformation, e.g. fall of communism, and the opening of the global economy (Botev, 2012).

In particular, Eastern European societies went through significant changes during the 1990s. People were exposed to new socio-economic challenges, such as unemployment, poverty, limited access to healthcare, or consumerism. This rapid demographic change and the shock of political, economic and social transformations have led to generational divides. The fall of communism affected younger people differently, as they were able to reorganise themselves relatively easily (say, to move abroad for a better future, or delay starting a family). Older people found this far more difficult, and they were considered net losers of the transition (Botev 2012; Hoff, 2008).

As discussed in detail elsewhere (see, e.g., Zaidi & Rejniak, 2010), very many of these CEE countries experienced an impressive economic growth around 2006, matched by a similarly impressive contraction during the crisis in 2009. However, there is a concern that population ageing will undermine future development. The reason is that demographic transition in these countries is different from that in Western Europe and other parts of the world due to incomplete economic transition (Chawla et al., 2007). This uniqueness was summarized by Hoff (2008, p. 22), that "Western Europe became rich before it was growing old – Central and East Europe is growing old before it had the chance to become rich."

As a result of social and economic changes, we observe in Central and Eastern Europe an increasing share of older persons in populations and an increasing old-age demographic ratio. However, demographic changes in Eastern Europe varied significantly: the proportion of older people increased significantly in Bulgaria and Romania and only slightly in Bosnia and Turkey (Alexandrova &Velkova, 2003).

Why Focus on Well-Being of Older People?

Well-being is a multidimensional concept, hence most of the work in this area focus on what constitutes different domains of well-being and what are the determinants of well-being. In this paper, we follow the approach drawn from welfare economics, which defines well-being in terms of adequate

standards of living (Zaidi, 2008). Other concepts underline the importance of capability to achieve certain standard of living as well as health (Nussbaum & Sen, 1993).

There are several factors making life of older people in CEE countries harder than older people in Western Europe, including:

- lack of equivalent social welfare systems (therefore less security when the market economy fails, such as in the case of unemployment and/or retirement),
- a poorer (material well-being) starting position following four decades of breakdown of 'communism',
- sacrifices (in terms of mental well-being, financial security etc.) made during the transformation process to become market oriented societies,
- a constantly changing overall context of growing global competition,
- the rapidness of population ageing,
- the persistence of partly very negative stereotypes about older people (Hoff, 2008).

Therefore, the measurement of well-being of older people in the CEE countries is of great importance. On the one hand, this group is more vulnerable due to exposition to dramatic economic, political and social changes during their life. But there is also macro perspective: in the absence of active and healthy ageing, a growing share of older people will undermine financial sustainability resulting in increasing the risk of intergenerational conflicts.

Empirical Methods

The global evidence on well-being of older people can be provided by the Global AgeWatch Index "GAWI". Since its launch in October 2013, it has served as a tool aimed at delivering insights on well-being of ageing population across the world (Zaidi, 2013). It uses international database put together by the United Nations Department of Economic and Social Affairs (UNDESA), the World Bank, the World Health Organization, International Labour Organization, the UNESCO and the Gallup World Poll. The Global

AgeWatch Index is a composite measure, developed along the lines of the Active Ageing Index (Zaidi et al., 2017a), using the methodology similar to the Human Development Index (HDI) of the United Nations Development Programme (United Nations, 1990).

The GAWI comprises 13 indicators grouped in four domains: 1) Income security (with indicators on pension income coverage, poverty rate in old age, relative welfare of older people, GDP per capita), 2) Health status (Life expectancy at 60, Healthy life expectancy at 60 and Psychological wellbeing), 3) Capability (Employment rate among people aged 55-64 and Share of older people with at least secondary education) and 4) Enabling environment (Social connections, Physical safety, Civic freedom, and Access to public transport).

Although the ambition of the Index is to cover the global population, due to data availability, at the moment it comprises only 96 countries. For the fact that it included most populous countries of the world, such as China, India and Brazil, it covered 91% of world's older population (aged 60 and over).

The indicators chosen for the Index have a number of important features. Firstly, they provide a view of the current generation of older people. Secondly, it uses only outcome indicators, i.e. direct measures of older people's wellbeing. It is based neither on process indicators (such as legislations) nor on input indicators that measure a country's efforts to deliver a desired outcome (such as social protection expenditures on pension and healthcare). Thirdly, the Index uses data from publicly available international data sets, so as to obtain internationally comparable data. In many countries, the national level data sources will provide richer and more comprehensive information about how older people are doing. Finally, in most instances, the Index makes use of absolute level indicators, thus taking a perspective on quality of life and well-being of older people that is not relative to the rest of the society (except for psychological well-being and relative welfare of older people).

The methodology used in the aggregation of indicators to the domain-specific indexes and then to the overall Index is the same as that used for the latest HDI. It can be divided into four steps. First, all indicator values are expressed as positive values, so that the higher the value, the higher the

ranking of the country. Second, each indicator value is then expressed in "normalised" terms. Minimum and maximum values are used to normalise each of the indicators to fall between 0 and 100, using this equation: Normalised indicator = (actual value – minimum value) / (maximum value – minimum value). The choice of the minimum and maximum values is made on the basis of the 96 countries covered in the Index. Third, the geometric mean of the individual indicator values is calculated within each domain. These results give us the four domain-specific indexes. Finally, the overall aggregated Index is calculated as the geometric mean of the four domain-specific indexes (using their normalised values) with equal weights.

The objective of this paper – with the use of Global AgeWatch Index - is to build the picture of well-being of older population in eight Eastern and South-Eastern European countries: Albania, Armenia, Georgia, Moldova, Montenegro, Serbia, Turkey and Ukraine (the EU acceding and Eastern partnership countries – abbreviated as ESE non-EU) as compared to eight EU member States from the same region: the Czechia, Estonia, Hungary, Lithuania, Latvia, Poland, Slovakia, Slovenia (abbreviated as CEE EU). Both groups of countries share historical similarities (political and economic system), but differs in terms of recent economic development (e.g. higher GDP per capita in Eastern Europe EU members) and political influence status due to the EU membership. In the process, the paper also examines the so-called gender paradox, i.e. that women report worse health, but live longer than men.

The analysis is based on the results of the Global AgeWatch Index for its latest year, 2015. We applied three-step analytical approach in order to identify the performance of the Central and Eastern European countries. Firstly, we analysed the overall Index values. Next, the analyses are undertaken within each of the four domains of the Index. In the third step, detailed indicators are analysed within each of the four domains. In every step we used index values as a main measurement tool as well as mean values for two groups of Central and Eastern European countries: non-EU and EU member States.

Furthermore, where possible, the gender breakdown of the indicators provide us a sense of differences between older men and women in the countries in question.

Results

Demographic Trends

Population ageing is occurring worldwide, yet the pace of population ageing is diverse, though. The share of people aged 60 and over in Europe was already 23.9% in 2015 and will grow to 34.5% in 2050, making it the oldest continent in the world (United Nations, 2017).

The share of population aged 60+ for eight ESE non-EU countries is lower than average for Europe. However, it will grow rapidly from 18.6% in 2015 to 31.8% in 2050. This will still be below European average, but the gap will drop significantly as compared to 2015. The share of older people in eight CEE EU member states is already above European average and will continue to grow reaching 36.3% in 2050.

This high share of older people is currently quite similar across CEE EU countries, with the lowest values in Slovakia (20.7%) and Poland (22.6%). In the rest of these CEE countries, it is close to 25%. The increase of share is projected in all countries, but on a different scale. The highest growth of the share is expected in Poland, Slovakia and Slovenia, and the lowest in Lithuania and Latvia. In 2050 in Poland and Slovenia the share of older population is expected to be close to a staggering 40%.

Among ESE non-EU countries, currently (2015) the highest share is observed in Serbia (23.8%) and Ukraine (22.5%), and the lowest in Turkey (11.5%), followed by Armenia and Moldova (see Table 1). The share of older populations will grow, though, in all countries, with the highest increases in Moldova, Armenia and Turkey (countries with low share in 2015). By 2050, in all ESE non-EU countries the share of older populations will reach 33% or close to this figure (with Georgia and Turkey being outliers). Additionally, we can see the convergence in shares projected for 2050; the coefficient of variation for eight non-EU countries will drop from 21.5% (std. dev. 4.0) to 8% (std. dev. 2.6). It means, the populations of these countries are expected to be alike, on the contrary to the CEE EU countries, where the coefficient of variation will maintain its value.

Following the growing proportion of people aged 60+, the population of the oldest old (80 years and over) will also grow. The average for Europe

will double to achieve 10% in 2050. In eight CEE EU member-States it will be more than 9% (increasing from 4.4%), and in eight non-EU countries will amount to 6.8% (increasing from 2.7%). This rising share of the oldest age in the population suggests significant challenges for healthcare and pension systems and a rising burden for state budgets.

Table 1
Share of older populations in 2015 and projections for 2030 and 2050 (medium variant).

Region / country	Population aged 60+			Population aged 80+		
	2015	2030	2050	2015	2030	2050
World	12.3	16.4	21.3	1.7	2.4	4.3
Europe	23.9	29.6	34.5	4.7	6.3	10.1
Eastern Europe	21.5	26.0	32.8	3.5	4.3	7.0
Western Europe	25.8	32.1	34.8	5.6	7.6	12.1
Albania	17.8	26.6	34.1	2.3	4.2	9.6
Armenia	15.8	22.5	31.6	2.6	3.0	6.7
Czechia	24.9	28.7	36.7	4.0	6.6	8.8
Estonia	25.1	29.6	36.6	5.0	6.8	10.0
Georgia	20.3	24.7	29.4	3.2	3.6	6.3
Hungary	25.0	28.3	34.7	4.0	5.8	8.0
Latvia	25.4	30.3	35.3	4.9	6.3	9.0
Lithuania	24.5	29.9	32.6	5.1	6.1	9.4
Moldova	16.5	22.6	34.5	2.2	2.2	5.3
Montenegro	20.4	25.9	32.1	3.1	4.1	7.7
Poland	22.6	28.9	39.5	4.0	5.9	9.8
Serbia	23.8	26.9	32.1	3.6	4.7	6.9
Slovakia	20.7	26.8	36.2	3.1	4.6	8.0
Slovenia	25.1	32.7	39.1	4.9	6.9	12.2

(continued)

Table 1
Share of older populations in 2015 and projections for 2030 and 2050 (medium variant) (continued).

Region / country	Population aged 60+			Population aged 80+		
	2015	2030	2050	2015	2030	2050
Turkey	11.5	17.0	26.6	1.5	2.3	5.4
Ukraine	22.5	26.3	33.6	3.4	4.3	6.8
average						
8 CEE EU	24.2	29.4	36.3	4.4	6.1	9.4
8 ESE n-EU	18.6	24.1	31.8	2.7	3.6	6.8
std dev						
8 CEE EU	1.65	1.72	2.25	0.71	0.74	1.35
8 ESE n-EU	3.99	3.33	2.64	0.77	0.95	1.37

Note. Adapted from *"*Population Division World Population Prospects: The 2017 Revision", retrieved from https://esa.un.org/unpd/wpp/Download/Standard/Population/

The next indicator of population ageing we are using is old age demographic ratio, i.e. the ratio of older populations to working age populations within a country. This share amounted to 12.6% worldwide and will be doubled to 25.2 in 2050 (see Table 2). It means that for every 100 persons of working age, there will be almost 25 persons who will be aged 65+. In Europe, this share is already much higher and it is forecasted to reach almost 50% in 2050.

The combined rate of old age demographic ratio in eight ESE non-EU countries equals 18% in 2015 and will reach 39% in 2050 – high level though still lower than the average for whole Europe and for Central and Eastern Europe EU member states.

Table 2
Old age demographic ratio (the ratio of population 65+ to population 15-64 years old) in 2015 and projections for 2030 and 2050 (medium variant) (continued).

Ratio 65+/15-64	2015	2030	2050
World	12.6	18.0	25.2
Europe	26.4	37.4	48.7
Eastern Europe	21.4	31.9	42.2
Western Europe	30.4	42.0	50.5
Albania	18.1	32.4	46.6
Armenia	15.8	26.3	36.9
Czechia	26.9	35.8	54.0
Estonia	28.9	38.5	51.5
Georgia	21.9	29.8	37.7
Hungary	25.7	34.2	48.1
Latvia	29.4	38.6	48.0
Lithuania	28.0	38.4	43.7
Moldova	13.4	25.0	37.3
Montenegro	20.5	31.7	42.6
Poland	22.5	36.1	56.3
Serbia	24.3	32.8	41.3
Slovakia	19.9	32.4	49.6
Slovenia	26.8	42.5	61.1
Turkey	11.7	18.0	32.8
Ukraine	23.0	31.5	43.0
average			
8 CEE EU	26.0	37.1	51.5
8 ESE n-EU	18.0	28.0	39.3
std dev			
8 CEE EU	3.27	3.12	5.47
8 ESE n-EU	4.60	5.34	4.52

Note. Adapted from *"Population Division World Population Prospects: The 2017 Revision"*, retrieved from https://esa.un.org/unpd/wpp/Download/Standard/Population/

In 2015, the highest rate of old age demographic ratio is observed in Serbia, and the lowest in Turkey and Moldova. In 2050 the ratio in all eight non-EU countries will exceed 35% (except Turkey), with particularly high ratio in Albania and Serbia (close to 47%).

Non-EU countries from Eastern and South-eastern Europe have younger populations than CEE EU countries, but the gap will be closing in the next thirty years, alongside the growing old age dependency ratio, hence the development of those relatively poor countries will face the challenge of rapid population ageing.

Well-Being of Older People

The combined performance of eight ESE non-EU countries in terms of overall well-being of older people, measured by Global AgeWatch Index, is below the worldwide average and below the average of eight CEE EU member states. The average value of the Index achieved the level of 43.3, which is 77% of the average of CEE EU countries and 87% of the average for the world. However, this position varies when analysing individual domains of well-being of older people (see Table 4).

Relatively better position of non-EU countries can be observed in the area of income security (above world's average and 89% of CEE EU average). It is slightly below world's average in the domain of 'capability' (proxied by employment and education), though it is well below CEE EU average. In the enabling environment domain, the result for ESE non-EU countries is below average, but the gap is not big. The worst situation is observed in the domain of 'health status': 77% of world's average and 79% of the average of the CEE EU countries.

The ESE non-EU countries are less diversified than all 96 countries included in GAWI (which is close to stating the obvious), but more diversified than the CEE EU member states (standard deviation to mean). They are least diverse in the domain 'enabling environment', and they are most diverse in the domain 'capability'.

Table 3

Descriptive statistics: mean, standard deviation and coefficient of variation (CV) for Global AgeWatch Index (overall) and its domains (continued)**.**

	World (96)		CEE EU (8)		ESE non-EU (8)	
	mean	*std dev.(CV)*	*mean*	*std dev.(CV)*	*mean*	*std dev.(CV).*
Global AgeWatch Index (overall)	49.9	19.7 (39%)	56.4	7.5 (13%)	43.3	8.4 (19%)
Income Security	59.1	23.3 (39%)	74.7	5.6 (7%)	66.3	7.8 (12%)
Health Status	53.1	19.1 (36%)	51.5	6.6 (13%)	40.7	10.2 (25%)
Capability	36.3	16.7 (46%)	45.6	14.2 (31%)	35.1	18.8 (54%)
Enabling Environment	66.0	9.3 (14%)	64.4	8.2 (13%)	60.0	5.0 (8%)

Note. Adapted from *"*Global Age Watch Index results", retrieved from
http://www.helpage.org/global-agewatch/

On a global scale income security is the advantage of ESE non-EU countries (112% of the average for the world), whereas health status is lagging behind (77%). Comparing to CEE EU countries, the situation of older people in non-EU countries is disadvantageous, especially in the 'capability' and 'health status' domains.

Although generally ESE non-EU countries fall behind EU countries from the region, there are some exceptions. Georgia exceeds the average level of CEE EU countries, and Armenia is not far from the average. Those are the only two countries with the index value above the worldwide average. In the rest of the non-EU countries, the situation of older people is worse than the global average. The exceptionally poor results are noted for Moldova, Turkey and Ukraine – for all of them the total GAWI score is lower than 75% of world's average. They are ranked in the bottom quartile of countries' distribution according to the GAWI score.

More detailed overview can be obtained when analysing the results for each of the four domains of the Index and indicators within each domain.

The approach we use is to examine the results for the domain, with explanation of the country's position using indicators from the domain.

Income Security

Income security is the only domain where ESE non-EU countries scored as a group above the global average, though below the average for the CEE EU countries. Good situation of older people can be noted in Armenia (above the average for the CEE EU) and also Turkey. Both countries achieved the higher score than Hungary, Estonia or Lithuania which are surprisingly below most of the non-EU countries. Armenia achieved its good score thanks to 100% pension income coverage and despite Gross National Income (GNI) per capita indicator below the average for the region. Armenia is the only country in the region with complete coverage of pension income. Turkey has also good coverage of pension income (88%) and the highest GNI per capita among the eight non-EU countries.

On the other side, older people in Montenegro and Moldova are confronted with low income security. These are the only two countries in the region with the income security below world's average. In Montenegro pension income covers only 51% of older populations (the lowest share among non-EU countries) and the indicator of relative welfare of the elderly is also very low. Moldova has the second lowest score for the pension income coverage (72%) and the lowest in the region scores for relative welfare of the elderly and GNI per capita.

Health Status

Health status of older people is a weak point of the whole region of Central and Eastern Europe. Despite the increase in life expectancy, it is still below the corresponding values in Western Europe. For example, in 2015 men in this region are expected to live 67 years (3 years more than in 1985), in Georgia - 71 years (increase of 4 years), in Turkey – 72 years (12 years increase), in Czechia – 75 years (7 years increase). Life expectancy of women increased accordingly. Nonetheless, in Western Europe between years 1985 and 2015, life expectancy of men increased from 72 to 79 years

and for women: from 79 to 84 years (United Nations, 2017). Both values are higher than the life expectancy observed in any of the CEE countries.

In the health domain, all ESE non-EU countries score below world' average. It is relatively good in Turkey – the only country with the score above the average for CEE EU countries. Turkey has the highest life expectancy at the age of 60 and the highest healthy life expectancy among non-EU countries. The second highest health score is noted for Montenegro due to high life expectancy at the age of 60 and the highest mental well-being of older people among all ESE non-EU and CEE EU countries.

The health disadvantage is observed in Armenia, Ukraine and especially Moldova (90th position out of 96 countries included in the ranking). The position of Armenia is the effect of the lowest life expectancy at the age of 60 among non-EU countries, although healthy life expectancy and mental well-being are higher than average for eight non-EU countries. In Ukraine, the life expectancy and healthy life expectancy are very low (2nd from the bottom), but the mental well-being is significantly the lowest in the region and 2nd lowest in the world (only higher than Belarus – also from the same region). The relatively worse position for Ukraine is confirmed by the detailed analysis for this country included in Antczak and Zaidi (2017). The very low score for Moldova is the result of the lowest values for two indicators included in the health domain: life expectancy and healthy life expectancy and the score of mental well-being is only better than that observed for Ukraine.

Capability

In the capability domain, the situation of ESE non-EU countries is most diverse. Armenia, Georgia, and Albania are all above world's average and above the average for the CEE EU countries. In Armenia the employment rate for people aged 55-64 is the highest among non-EU countries and higher than all but one (Estonia) CEE EU countries. The rate of Armenian aged 60 years and over with secondary or higher education is also higher than other non-EU countries, though lower than most CEE EU members. Georgia has also very high employment rate, but much lower share of older people with secondary or higher education (but still better than average for non-EU).

Albania has also high employment rate, but average score on education indicator.

Very poor capability for older people are observed in Serbia, Montenegro and especially in Turkey (ranked 93 out of 96 countries included in GAWI). In Serbia the employment rate of people aged 55-64 is one of the lowest in the world, though the share of older people with secondary or higher education is on average level. The position of Montenegro is the result of low scores (not the lowest) on both indicators. In Turkey both employment and education indicators achieved definitely the lowest levels in the region.

Enabling Environment

The level of enabling environment is on a very similar level across ESE non-EU countries (contrary to the situation observed in the capability domain). Two of the countries perform well, slightly above world's average: Georgia and Turkey. Those countries already exceeded the average for eight CEE EU countries. Georgia has the highest in the region score on the physical safety indicator and satisfaction with public transport, but the lowest in region in social connectedness indicator. Turkey's position is the result of very high score on social connectedness indicator, with three other indicators (safety, freedom, satisfaction with public transport) being above the average for non-EU countries.

The worst performing countries in this domain are Ukraine and Albania. Ukraine scored very low in two indictors: personal safety and freedom in life, but social connectedness in Ukraine is the highest in the region. Albania, on the contrary, scored very low in social connectedness, but achieved the highest value in freedom in life indicator.

Table 4

The value of the Global AgeWatch Index – overall and by domains - for 8 ESE non-EU and 8 CEE EU countries.

	Global AgeWatch Index values				
	Overall	Income security	Health status	Capability	Enabling environment
Armenia	51.1	75.1	34.0	62.1	58.9
Georgia	58.8	66.4	46.2	53.9	67.1
Moldova	35.1	53.4	25.8	32.0	57.7
Montenegro	39.7	56.3	49.1	20.6	58.9
Serbia	41.7	65.8	45.3	21.2	60.2
Turkey	36.3	73.6	52.5	7.0	67.6
Ukraine	37.0	70.9	27.3	34.8	54.8
ESE EU countries					
Czechia	65.6	81.8	56.1	56.4	65.8
Estonia	64.9	70.7	50.0	64.8	68.1
Hungary	52.2	73.2	47.4	35.8	63.1
Latvia	55.2	74.5	44.1	57.0	60.1
Lithuania	43.2	63.8	44.2	50.0	52.6
Poland	57.4	77.6	55.3	31.1	69.2
Slovakia	52.1	78.7	51.4	45.6	56.8
Slovenia	60.6	77.7	63.2	23.9	79.2

Note. Adapted from *"Global Age Watch Index results"*, retrieved
http://www.helpage.org/global-agewatch/

Additionally, we examined the relationship between total GAWI scores and main economic indicators for whole set of Central and Eastern Europe countries. A significant positive relationship between Global AgeWatch Index results and GDP per capita ($R^2 = 0.44$) is found. However, no significant relationship between the GAWI results and Gini coefficient ($R^2 = 0.00$) or unemployment rate ($R^2 = 0.04$) was observed.

Gender Differences

Gender is an important dimension of ageing. Due to different cumulative life experiences, especially related to cultural roles connected with childcare and other family responsibilities, well-being in old age differs between men and women (for a discussion, see Bennett & Zaidi, 2016). The most documented fact is female-male health-survival paradox, stating that women in general experience longer life expectancy and at the same time report poorer health than men. There are several explanations for that fact, including genetic factors, behavioural differences (such as risk-taking and reluctance to seeking medical help), but also methodological differences (such as under-reporting of health problems) (Oksuzyan et al., 2008).

Some research show that in countries with high life expectancy of women, they also experience higher prevalence of disability, and therefore in those countries the differences between men and women in Healthy Life Years are negligible (Van Oyen et al., 2013). In Eastern Europe longevity of men and women is lower than in Western Europe, but gender gap still exists, with extreme case being Russia, with the largest gender gap in the world. Most possible explanation of this gap is reported to be stress and un-healthy lifestyles (Cockerham, 2012). Following these research, we also examined gender differences in well-being of older people in non-EU countries, using data that is yet to be included in the calculations of the Global AgeWatch Index.

The gender-specific data is available on two domains: health status and capability. For this exercise, we use raw data (e.g. life expectancy in years), not standardised index data as it is clearer in presenting gender gap.

A gender gap in both health status and capability is observed for the countries in question, though with different direction within each domain. On average, women in ESE non-EU countries live longer than men and can expect longer healthy years. This is in line with worldwide trends and with the average for the CEE EU countries.

However, the gender gap in the non-EU countries is smaller than in the CEE EU countries (the average life expectancy for men is 83% of life expectancy of women – in CEE EU countries this value amounts to 77%), though it is bigger than that observed worldwide. The biggest gender gap in

life expectancy can be observed in Ukraine (75%) and the smallest in Albania and Montenegro (90%). In healthy life expectancy, the biggest gender gap is observed in Georgia (74%), and the smallest in Montenegro (88%). The difference between the smallest and the biggest gender gap is the result of men's life expectancy, which in Ukraine is the lowest among non-EU countries and the highest in Montenegro.

In capability domain, the gender gap has opposite direction: both employment rate and the share of older people with secondary or higher education is higher among men than women. The gender gap for employment and education in non-EU countries is much higher than for the CEE EU countries. The employment rate for men achieved 155% of women's employment rate (in CEE EU – 126%), and educational attainment for man 123% of those for women (106% in CEE EU). The highest gender gap – both in employment and education – is observed in Turkey and the lowest in Georgia (employment) and Armenia (employment and education). Although we analysed only two domains: health and capability, we confirmed the existence of gender gap in old age. High gender gap could undermine health and capability in old age, as the high index of well-being in old age (GAWI) is observed in countries with low gender gap, i.e. Montenegro or Turkey (health), and Armenia or Georgia (capability) and low value of well-being in countries with high gender gap, i.e. Ukraine (health) or Turkey (capability). Therefore, ageing strategies in the CEE region should target narrowing gender gap in different domains of well-being of older people.

Table 5
Health and capability indicators of Global AgeWatch Index in non-EU countries.

Country	2.1 Life Expectancy at 60		2.2 Healthy Life Expectancy at 60		3.1 Employment rate of older people		3.2 Educational Attainment of Older People	
	Male	Female	Male	Female	Male	Female	Male	Female
Albania	18	20	13.8	16.7	63.5	41.2	72.4	48.7

(continued)

Table 5
Health and capability indicators of Global AgeWatch Index in non-EU countries (continued).

Country	2.1 Life Expectancy at 60		2.2 Healthy Life Expectancy at 60		3.1 Employment rate of older people		3.2 Educational Attainment of Older People	
	Male	Female	Male	Female	Male	Female	Male	Female
Armenia	15	19	13.0	17.1	71.9	54.1	86.5	82.0
Georgia	18	22	12.9	17.3	83.6	66.9	n/a	n/a
Moldova	15	19	11.8	15.0	68.4	47.0	83.6	70.9
Montenegro	19	21	13.9	15.7	49.0	26.7	n/a	n/a
Serbia	17	20	14.3	17.0	45.0	24.6	70.3	52.8
Turkey	19	23	14.2	17.0	45.6	17.5	21.3	9.1
Ukraine	15	20	11.6	15.4	51.4	31.4	89.5	80.4
average ESE non-EU countries	17.0	20.5	13.2	16.4	59.8	38.7	70.6	57.3
CEE EU countries	18.1	23.5	13.6	17.6	55.3	44.0	90.0	85.0
world	18.2	20.9	13.7	15.8	68.5	42.5	42.1	32.9
ESE non-EU countries vs CEE EU	93.8%	87.2%	96.9%	93.1%	108.1 %	87.9%	78.5 %	67.5%
vs world	93.6%	98.2%	96.2%	103.7%	87.4%	91.0%	167.8%	174.2%

Note. Adapted from *"Global Age Watch Index results"*, retrieved
http://www.helpage.org/global-agewatch/

The performance of ESE non-EU countries as regards to well-being of their older populations, though generally worse than the performance of Central and Eastern European EU countries, is very diverse when taking into account particular domain and indicators measuring well-being.

Discussion

The GAWI is a comparative quantitative measure providing insights about how countries are placed with respect to the well-being of older persons. The analysis of the GAWI for the Central and Eastern European (CEE) countries offers unique insights into how these countries differ with respect to well-being of older people and what policies and programmes may have been successful in improving the lives of older people and what mutual learnings countries of the region can draw from each other.

The challenges associated with population ageing are across the CEE countries. Although the share of people aged 60+ is lower than that in the whole of Europe, it is higher than the world's average. More significantly, it is projected to rise in great speed in the next 35 years, the share of older persons aged 60+ will reach almost one-third of the total population in each of the eight non-EU CEE countries. This speed of demographic change is raising serious concerns given the challenges linked with the transition and the economic development of these countries in comparison to the other, Western countries of Europe.

The situation of older people observed in the non-EU CEE countries is worse than that observed for EU countries of the CEE region: the synthetic index of well-being of older populations (the combined GAWI value) in eight non-EU countries is lower than that observed for eight EU member States. Low position of eight non-EU countries in this region is observed in all four domains, especially, in the area of employment, education and health status.

The non-EU CEE countries are also observed to be more diverse in terms of well-being of older people than the EU countries of the same region. For example, Georgia - the best performing country – has exceeded the average level of the CEE EU countries and only Slovenia, Estonia and Czechia (three best-performing CEE EU members) achieved better overall scores than Georgia. On the other hand, Moldova, Turkey, and Ukraine – three bottom countries according to overall GAWI scores – performed significantly lower, even less than the worldwide average.

The analysis of particular domains of well-being revealed different approaches to building enabling environment for older people. Armenia

exceeded level of the CEE EU countries in income security and capability, but older Armenians have very poor health status. In Turkey health status is better than in most of the CEE EU countries, but capability of older people is one of the lowest in the world. Georgia scored above average on all dimensions, despite not achieving the best score in any domain.

There is no relationship between the GAWI score and the share of older population (C-Pearson correlation coefficient = 0.07) or the welfare of the country (C-Pearson correlation coefficient for GDP per capita and overall GAWI score = -0.17) among eight non-EU states. It means the actual level of well-being of older people is not driven by the challenge of the population ageing or budget capacity, but is probably the result of historical and cultural context. All the analyses presented in this paper are based on a synthetic measure of well-being of older people (namely, the Global AgeWatch Index), which consists of indicators selected. The other choice of the indicators may draw a different picture of the researched topic.

The unique feature of this region, namely a rapidly declining fertility, net emigration, and dramatically accelerated population ageing and even population decline, begs for more policy interventions than anywhere else. Family policies that support parents with benefits and childcare beyond the child's first birthday have shown particular success in OECD countries. In particular, childcare policies help promote not only higher fertility but also higher participation in the labour force amongst working age adults, especially for mothers. Furthermore, analyses coming from other countries of the region show that low gender equality across their societies continue to see declining fertility. Thus, a focus on supporting young families and promoting better rights for women will help CEE countries to recover their fertility rates (Zaidi et al., 2017b).

Reversing migration trends is likely to present an even greater challenge, and will require creation of economic opportunities: employment as well as investment opportunities that may entice some return migration. A focus on addressing the lifestyle factors contributing to the excess mortality and morbidity in later life is also required. Gains in healthy life expectancy at 60 have been modest in this region since 2000. Curbing the risk factors across the life course will help build on this progress, in particular to raise outcomes for men but also to tackle the emerging challenge of unhealthy

lifestyles and associated health risks amongst women. As countries in the region increasingly urbanise, supporting older populations in the urban as well as rural environments will be an increasingly important area of focus.

It is also essential that countries of this region take a good stock of what age-disaggregated data is available in their country, from the population and housing censuses, and from household surveys and administrative registers. They need to assess what longer term investments are required in the survey, census and use of administrative data instruments. By closing data gaps, they can break down the negative stereotypes associated with older people and ageing and collect evidence for effective policy making.

Limitations

Study limitations are related mainly to the data used to assess the well-being of older people. GAWI uses the set of a selected set of indicators, therefore selection of other indicators may result in different conclusions. The index combines objective (e.g. life expectancy) and subjective indicators (such as self-perceived safety) and imply equal weights for each domain. It does not adjust for cultural differences that may affect the position of a single country on the global scale. Additionally, the study analyses a snapshot at a certain point of time, longer time series and the life course analysis will improve the robustness of the results.

Conclusions

This research provides insights on how well non-EU countries perform in comparison to the EU member states of the Central and Eastern European region in addressing the needs and aspirations of their older populations. The evidence presented can be used to assess the position of the region as a whole and for each country within the region. The analysis also helps point out particular areas where further improvement is necessary to ensure older populations will fulfil their potential.

References

Aleksandrova, S., & Velkova, A. (2003). Population ageing in the Balkan countries. Folia Med (Plovdiv), 45(4), 5-10. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/15272808

Antczak, R., & Zaidi, A. (2017) Monitoring progress of Madrid International Plan of Action on Ageing, Case studies of Eastern European and Central Asian countries: UKRAINE. Report Produced for UNFPA's Regional Office for Eastern Europe and Central Asia, Istanbul.

Bennett, R., & Zaidi, A. (2016). Ageing and development: putting gender back on the agenda. *International Journal on Ageing in Developing Countries, 1*(1), 5-19. Retrieved from https://www.inia.org.mt/wp-content/uploads/2016/07/Complete-Issue.pdf

Bloom, D. E., Canning, D., & Fink, G. (2010). Implications of population ageing for economic growth. *Oxford Review of Economic Policy, 26*(4), 583-612. doi: 10.1093/oxrep/grq038

Bongaarts, J. (2004). Population aging and the rising cost of public pensions. *Population and Development Review, 30*(1), 1-23.

Botev, N. (2012). Population ageing in Central and Eastern Europe and its demographic and social context, *European Journal of Ageing, 9*(1), 69-79. doi: 10.1111/j.1728-4457.2004.00001.x

Chawla, M., Betcherman, G., & Banerij, A. (2007). *From red to gray, the "third transition" of aging populations in Eastern Europe and the former Soviet Union*. Washington DC: World Bank.

Cockerham, W. C. (2012). The intersection of life expectancy and gender in a transitional state: the case of Russia. *Sociology of Health and Illness, 34*(2*)*, 943-957. doi: 10.1111/j.1467-9566.2011.01454.x

Faruqee, H. (2002). Population aging and its macroeconomic implications: a framework for analysis. *IMF Working Paper*, International Monetary Fund. Retrieved from https://www.imf.org/external/pubs/ft/wp/2002/wp0216.pdf

Hoff, A. (2008). Population ageing in Central and Eastern Europe as an outcome of socio-economic transition to capitalism. *Socialinis Darbas, 7*(2), 14-25. Retrieved from https://www.mruni.eu/upload/iblock/adc/2_hoff.pdf

Lutz, W., Sanderson, W., & Scherbov, S. (2008). The coming acceleration of global population ageing. *Nature, 451*, 716-719. doi: 10.1038/nature06516

Nussbaum, M., & Sen, A. (1993). *The quality of life*. Oxford University Press.

Oksuzyan, A., Juel, K., Vaupel, J. W., & Christensen, K. (2008). Men: good health and high mortality. Sex differences in health and Aging. *Aging Clinical and Experimental Research, 20*(2), 91-102. doi:10.1007/BF03324754

Salomon, J. A., Wang, H., Freeman, M. K., Vos, T., Flaxman, A. D., Lopez, A. D., & Murray, C.J.L. (2012). Healthy life expectancy for 187 countries 1990–2010: a systematic analysis for the global burden disease study 2010. *The Lancet, 380*(9859*)*, 2144-2162. Retrieved from http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)61690-0/fulltext?_eventId=login

United Nations, Department of Economic and Social Affairs, Population Division. (2017). *World Population Prospects: The 2017 Revision*. Retrieved from https://esa.un.org/unpd/wpp/Download/Standard/Population/

Van Oyen, H., Nusselder, W., Jagger, C., Kolip, P., Cambois, E., & Robine, J. M. (2013). Gender differences in healthy life years within the EU: an exploration of the „health-survival" paradox. *International Journal of Public Health, 58(1)*, 143-155. doi:10.1007/s00038-012-0361-1

Zaidi, A., Bennett, R., & Sumner, R. (2017a). *The Madrid International Plan of Action on Ageing: Where is Eastern Europe and Central Asia region fifteen years later?*, Report produced for UNFPA's Regional Office for Eastern and Central Asia, Istanbul (forthcoming)

Zaidi, A., Gasior, K., Marin, B., Rodrigues, R., Schmidt, A., & Zolyomi, E. (2017b). Measuring active and healthy ageing in Europe. *Journal of European Social Policy, 27*(2) 138–157. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/0958928716676550

Zaidi, A., & Rejniak, M. (2010). Fiscal policy and sustainability in view of crisis and population ageing in Central and Eastern European countries. *European Centre for Social Welfare Policy and Research,*

Policy Brief August 2010. Retrieved from
http://www.euro.centre.org/data/1280321139_73341.pdf

Zaidi, A. (2008). *Well-being of older people in ageing societies*. Farnham:
Ashgate.

Zaidi, A. (2013). *Global AgeWatch Index 2013: purpose, methodology and
results*. Retrieved from http://www.helpage.org/
download/52949b561453d/

Zweifel, P., Felder, S., & Meiers, M. (1999). Ageing of population and
health care expenditure: a red herring? *Health Economics, 8*, 485-496.
doi: 10.1002/(SICI)1099-1050(199909)

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