1

Demographic change and its economic and social consequences

This document represents an analytical basis for the preparation of a comprehensive response by the Government of the RS to demographic change in Slovenia.

Institute of Macroeconomic Analysis and Development May 2016

Summary

2

The age structure of Slovenia's population is changing, as is the case in the majority of developed countries. The key feature of the changes is a contraction in the share of the working age population and an increase in the number of elderly people. According to the demographic projections from EUROPOP2013, the process of population ageing, which is already ongoing, will be more intense in Slovenia than other EU countries. The projections are conditional on the realisation of the key assumptions (change in the number of births, deaths and net migration), but all demographic indicators show the ageing of the population is inevitable. The consequences of these trends will particularly affect the following: (i) the labour market; (ii) education; (iii) public expenditure; and (iv) housing, spatial planning and regional policy.

On the labour market the decline of the working age population in the next ten years will impede economic growth. Assuming migrations remain modest, even higher employment among young and elderly people will not suffice to meet the increased recruitment demand driven by stronger economic activity. An altered age structure of the reduced supply of labour could also slow down productivity growth and affect the structure of consumption. Demographic change requires different capacities in the education system as the demand for lifelong learning and the teaching of skills for life and work grows.

Demographic change will reduce financing sources and increase expenditure on social protection. Assuming the current social protection systems are preserved, the smaller working age population will put limits on sources for the financing of social protection systems, whereas the increasing share of the older population will increase the pressure on age-related general government expenditure. The most tangible outcome will be a significant increase in expenditure on pensions, which are already partially financed from the budget, as well as expenditure on health care and long-term care services.

Population ageing also changes the demands on housing, spatial planning and regional policies. An aboveaverage share of elderly people already experience social exclusion; as the elderly population continues to swell, the problem could become even more acute. Among the elderly population there is a high share of owner-occupied housing and an above-average share of people living on farms or in detached houses. Their housing deprivation is severe and the provision of some long-term care services rendered difficult. Demographic change increases the need for planning, construction and transport policies adapted to elderly people. Regional population projections indicate that the regionally uneven ageing of the population will become even more pronounced.

1. Demographic trends in Slovenia

In Slovenia the demographic transition to a society with an increasing share of elderly people is ongoing and this trend will accelerate in the coming decades. This is evident from demographic projection scenarios which factor in various combinations of key assumptions: changes in the number of births, deaths and net migrations.

Since independence Slovenia's population has been hovering at around two million, but the share of elderly people has been increasing. The trend has been driven by the declining number of births, which dropped after 1992 and sharply reduced the rate of natural increase. At the same time life expectancy has been increasing, with the share of those over 65 increasing in 1990–2015 from 10.6% to 17.9%. These trends indicate that the demographic transition is already under way in Slovenia and will intensify in the coming years.



Figure 1: Projected demographic picture – main scenario EUROPOP2013

Source: SORS, after 2013 Eurostat EUROPOP2013.

According to the main scenario of the EUROPOP2013¹ population projections, the size of the population will not change significantly in the next decades, but elderly people will account for almost a third of the population by 2060. The main scenario assumes that Slovenia's population will be 2.041 million in 2060, a figure similar to 2013, the baseline year of the projections. However, the age structure will be significantly different. Less populous generations entering the working age population (20–64) coupled with larger generations of elderly people and increasing life expectancy will increase the age dependency ratio² from 57.1 in 2013 to 98.0 in 2060. The main scenario assumes a relatively high migration increase in the future, despite modest migration flows in recent years, and envisages birth rates that exceed the averages of the past 30 years towards the end of the projection period.

Assuming the migration increase is smaller than in the main projection scenario, the population would shrink in the coming decades, most notably in the 20–64 age group. The net migration increase, the most uncertain factor in the projections, has been strongly contingent on the structure of Slovenia's economic growth over the past ten years. When economic growth peaked in 2007–2009, driven by construction activity, it was high; in the last three years, however, it has been almost non-existent. The main EUROPOP2013 scenario assumes a migration growth of 4,700 persons per year, an assumption that has not been borne out in recent years, which have been marked by weak economic growth and an unsuitable migration policy. In the absence of migration growth in the future, the population would shrink, especially the 20–64 age group, which represents the working age population. By 2060 the working age

¹ The projections are made by Eurostat in collaboration with national statistical offices.

 $^{^{2}}$ The age dependency ratio is the ratio between the number of young people (0–19 years) and the over 65s relative to the size of the working age population (20–64).

population would be as much as half a million smaller than in 2013. The age dependency ratio would therefore increase to 110.9 by 2060, meaning that the number of elderly people would exceed the size of the working age population.

In the event that the fertility rate is lower, the population size would also be smaller than under the main scenario. The decline of the number of births since 1980 has led to a sharper decrease in the number of women of childbearing age in recent years, a trend that will continue in the future. The main projection scenario already assumes an increase in the fertility rate from the average of 1.56 in recent years to 1.75 by 2060, but given the smaller number of women through 2060 the average annual number of child births would be around 2,000 less than in recent years. This assumption is also subject to risks since it is unlikely that the current family policy and related measures, which are relatively favourable in international comparisons, would increase the birth rate. Under the low fertility scenario, which assumes a decrease in the fertility rate to 1.40 by 2060, around 2,000 fewer children would be born annually in 2014–2060 compared to the main scenario.



Figure 2: Expected size of 20–64 population under different assumptions of migration increase and fertility compared to the main scenario of EUROPOP2013 projections

Source: SORS, Eurostat EUROPOP2013. Note: The main scenario assumes that by 2060 the fertility rate will have increased to 1.75 children per woman of childbearing age, average life expectancy will be 84.3 years for men and 88.9 years for women, and an average of 4,675 persons will immigrate each year in the period 2013–2060. The lower fertility scenario assumes that the fertility rate will drop to 1.40 children per woman of childbearing age by 2060. The reduced migration scenario assumes that net migration to Slovenia will average 3,744 persons per year in 2013–2060. The no migration scenario assumes zero net migration throughout the entire period covered by the projections.

2. The impact of demographic change on the labour market and education

Demographic change is already reducing the supply of labour. Assuming migrations remain modest, even higher employment among young and elderly people will not suffice to meet the increased recruitment needs required by stronger economic activity. The altered age structure of the shrinking labour force could also slow down productivity growth and reduce the potential for economic growth. Demographic change raises the required capacities in the education system by increasing the demand for lifelong learning and the teaching of skills for life and work.

Demographic change is already reducing the supply of labour. The shrinking size of the working age population has been reducing the supply of labour for the past few years; however, since demand was modest during the crisis

period, it had not yet become a limiting factor to employment growth. The assessment of the demographic effect³ shows that by 2020 the labour force could contract on average by 8,000 persons per year. Both the number of employed and unemployed persons would drop.⁴



Figure 3: Scenarios of changes in the size of the working age population, labour force and active population

Source: Eurostat, EUROPOP2013; IMAD calculations.

Note: *The simulation is based on the EUROPOP2013 population projections. The assumptions used for the labour force: (i) continuation of the growth of the share of the highly educated; (ii) equalisation of the (lower) activity rate of women with the (higher) activity rate of men by 2030; and (iii) a 20 p.p. increase in the activity rate of elderly people by 2030. For a detailed description of the methodology, see Peschner and Fotakis (2013, 2015).

A limited supply of labour will become a drag on economic growth. A sufficient supply of labour is an important factor in maintaining economic growth as a key precondition for the prosperity of the population. Based on the scenarios of the labour force trends, we made an assessment of how long employment can increase before demographic pressure curbs its growth. The optimistic scenario of the labour force growth is based on the increased employment of women as well as young and elderly people, groups which have thus far encountered employment rates below the overall rate. Assuming the expected demographic pressures materialise, this scenario would at best allow for the preservation of the existing size of the labour force. Assuming a 1% annual growth in employment, which Slovenia has recorded in the past, labour force growth would come to a halt in the next ten years and then start dropping. Additional participation of non-active persons in the labour market would be limited in this period given the already high activity rate. In the absence of net migration, employment growth would become negative approximately a year earlier than under the assumed positive net migration scenario. Such a hypothetical scenario would mean that in the next ten years the economy would absorb all unemployed persons through recruitment. Since this is highly unlikely, not least due to the structural imbalances between labour demand and supply, the pressure on employment would occur several years earlier and escalate as unemployment gradually dropped.

In comparison with the EU, the activity rate in Slovenia is high among the adult population, but is below the average among young and elderly people. Activity among adults (30-54) is among the highest in the EU, one significant factor being the highest female activity rate in the EU.⁵ The below-average employment rate of young people

³ The demographic effect is estimated as the impact of the change of the size of the age groups in the working age population on the labour force (employed persons and the unemployed according to LFS data). The process involves keeping the shares of the various age groups of employed (and unemployed) people in the population unchanged from the baseline year into the future. This methodology does not factor in all interactions between the supply of and demand for labour on the labour market; instead, it assumes a stagnant economy with a constant share of employed and unemployed persons in the population. Given the population projection assumptions, all changes in the labour force consequently stem from structural demographic changes in the age groups. A similar method for assessing the demographic effect was also used by Peschner and Fotakis (2013, 2015) to simulate population activity.

⁴ The most significant change in the labour force is among employed persons, but unemployment drops as well. The unemployment rate drops as a result of the ageing of the workforce, the transition to inactivity and the fact that older workers are less likely to be unemployed than younger workers since they change jobs less frequently and have higher employment security (Sneddon Little and Triest, 2001).

⁵ We estimate that one of the reasons for the high employment rate among women is the relatively high availability of pre-school education, which is also borne out by data showing the participation of children aged 3–5 in kindergarten being above the EU average.

(20-29) is a consequence of the above-average rate of participation in education; however, due to structural imbalances and a shortage of experience, their transition from education to employment is not necessarily rapid. The absence of a dual vocational system, which in other countries has proved to be a significant factor in the successful transition to employment, is a downside. Against the backdrop of modest demand for labour, the result is the relatively late entry of young people into the labour market. The employment rate among the older population (55–64), on the other hand, is among the lowest in the EU, which is mostly a consequence of early retirement due to the low retirement age of those with the required statutory years of pensionable service and insufficient incentives to remain in employment. Other factors include: (i) undeveloped age management in companies; (ii) a failure to adapt work conditions to older workers; and (iii) an active employment policy and educational policy that does not promote lifelong learning among the older population and fails to equip them with the right skills.



Figure 4: Activity rate and employment rate by age group, EU countries, 2014

Source: Eurostat.

Age management is poorly developed in Slovenian companies. The findings of the MEET Change project show that 42% of companies do not carry out activities to adapt to an ageing workforce.⁶ Furthermore, most of Slovenian companies do not plan measures to encourage older workers to work longer or are not interested in the following: (i) implementation of training programmes for older employees in the context of lifelong learning; (ii) implementation of programmes to change opinions and stereotypes about older employees; and (iii) promotion of intra-company active ageing strategies.⁷

The migration policy has thus far not helped attract workers into bottleneck professions. Even though the employment rate of young and elderly members of the population can be increased, there will be increasing demand for more migration given the growth of the economy and the demand for labour. The inflow of foreign labour into Slovenia in the past ten years was hardly the result of a comprehensive strategy or measures to attract bottleneck professions; it was instead a consequence of the rapid growth of individual sectors of the economy. Moreover, Slovenian citizens have been emigrating in recent years.⁸

The ageing and shrinking of the workforce is a process that could slow down productivity growth. The level of productivity (expressed in purchasing power standards) reached 82% of the EU average in 2014, a similar level to ten

⁶ Ackermann, G. et al (2014).

⁷ Žnidaršič, J. (2008).

⁸ On average 8,000 citizens emigrated per year in 2012–2014.

years ego. Given the limited employment growth, demographic change could also affect productivity growth⁹ and the long-term capacity to provide and increase prosperity as it could reduce the economic growth potential.

Demographic change has already resulted in decreased enrolment at the secondary and tertiary levels, whereas the skills imbalance has increased the need to strengthen lifelong learning capacities. EC projections¹⁰ show that enrolment in primary schools will continue to increase until 2020, whereas the number of students enrolled in secondary schools and tertiary programmes will continue to drop. Population ageing also accentuates the need for an increase in the currently relatively low participation of adults in lifelong learning, in particular of the older population. A study by the EC¹¹ shows that over three-quarters of Slovenian respondents believe those over 55 often lack the skills for the workplace. The same share believe that people are more likely to be excluded from training in the workplace as they get older. Both shares are above the EU average. As the share of persons with tertiary education increases, there is already an imbalance of skills: almost a third of companies¹² have difficulties finding staff with the right skills.¹³



Figure 5: Participation of adults (aged 25-64 and 55-64) in lifelong learning, EU countries, 2014

Source: Eurostat.

¹³ Cedefop (2015).

⁹ Empirical studies are not unanimous on the impact of population ageing on productivity: some studies emphasise that the effects of the ageing of the workforce are either negligible or even increase productivity due not only to older workers being more experienced but also the promotion of new innovations and organisational improvements (e.g. Romer (1987), Cutler et al. (1990), Sneddon Little and Triest (2001)). Skirbekk (2004), on the other hand, concludes that individual productivity decreases with age, whereas Feyrer (2007) finds that aggregate productivity declines as the share of the older population increases.

¹⁰ EC (2015).

¹¹ EC (2012).

¹² Third European company survey: first findings (2013).

3. Problems faced by social protection systems and the impact of demographic trends on age-related expenditure

Demographic trends will affect fiscal sustainability. The shrinking size of the employed population will restrict financing sources, whereas the growing share of elderly people will increase the pressure on age-related public expenditure: pensions expenditure and expenditure on health care and long-term care.

Provided that the current social protection systems are preserved, demographic change will increase public expenditure. Long-term projections by the European Commission¹⁴ show that, in a no-policy-change scenario, Slovenia's age-related public expenditure would reach about a third of GDP by 2060. This increase, and the headline share, would be among the highest in the EU, hence the European Commission calculations showing that Slovenia is the only EU country which faces a high long-term risk regarding its fiscal sustainability, and it also ranks among the group of countries with a high risk over the medium-term.¹⁵ These projections are based on the baseline demographic projection scenario in EUROPOP2013; in the event that the risks to the underlying assumptions are realised, the pressure on public expenditure would be even stronger. The demographic factors which represent risks regarding expenditure growth are compounded by non-demographic factors in some areas (health care and long-term care).



Figure 6: Long-term projections of age-related public expenditure, reference scenario, Slovenia

Source: EC (2015).

Note: For health care and long-term care, the AWG reference scenario primarily factors in the effects of ageing and includes the assumption that half the additional years of life are spent healthily; non-demographic factors are taken into account to a lesser extent. Public expenditure on health care is included on the basis of the methodology of the System of Health Accounts (SHA), including capital investments but excluding expenditure on long-term nursing care. The projections include public expenditure on long-term care according to SHA methodology (0.98% of GDP in 2012) and selected cash receipts under the ESSPROS methodology (disability allowance) amounting to 0.4% of GDP.

In Slovenia the effect of ageing on public expenditure is particularly acute with regard to pensions, which represent the bulk of age-related expenditure. This is a reflection of early exiting from the labour force, itself largely a consequence of pension legislation in the past and the retirement of the most populous generations, which will also enjoy a longer retirement due to their increased longevity. Coupled with the ongoing decrease in the working age population, this has resulted in the last pension reform managing to only defer the increase in pension expenditure as a share of GDP, as spending will start to increase ten years after the reform was adopted.

¹⁴ EC (2015).

¹⁵ EC (2016).

The budget transfer to the pension fund (ZPIZ), which has exceeded a billion euros annually in recent years, shows that the pension system is already unsustainable. In the last twenty years the key forces driving the increase of the budget transfer for the coverage of pension expenditure included the reduction to the employer contribution for pension and disability insurance (1996), the progressively worsening ratio between insured persons and pensioners since 2001 (2000: 1.80; 2015: 1.37) owing to the increasing number of pensioners (mass retirement in the early 1990s), and the shrinking size of the generations entering the labour market. The stabilisation of the ratio between insured persons and pensioners in 2015 after a long period of deterioration is transitional given the increased intensity of demographic change in the future. According to European Commission projections,¹⁶ the number of pensioners will exceed the number of insured persons in about two decades. In the current system this would exert significant pressure on the active population and increase the share of pension expenditure not covered by contributions. One of these sources of the budget transfer to the ZPIZ, which is estimated to fall until 2017, whereupon it could rise again assuming a continuation of the indexation of pensions, is an increase in the annual allowance for pensioners to the previous level, and the continued deterioration of the ratio between ensured persons and pensioners.¹⁷



Figure 7: Budget transfer to the ZPIZ

Source: Ministry of Finance (2016), Ministry of Labour, the Family, Social Affairs and Equal Opportunities (2016). Note: 1993–2015 actual data, 2016–2020 ZPIZ projection. Current RS liabilities involve the settlement of the liabilities of compulsory insurance arising from the recognition or assessment of pension and disability insurance rights under special conditions or due to default in the payment of contributions (Article 161 of the ZPIZ-2). Additional liabilities comprise funds for the settlement of the gap between ZPIZ expenditure and revenue from contributions and other sources (Article 162).

The health care system will demand an ever greater share of GDP, whereby the projections already factor in *improvements to some of the assumptions.* Demographic as well as non-demographic factors affect the growth of health care expenditure. The basic EC projections for health care expenditure, which assume an increase from 5.7% to 6.8% of GDP, mainly reflect the effects of demographic factors;¹⁸ non-demographic factors are included to a lesser extent. These projections already come with the built-in assumption that the health of the population will improve, and the assumption that some measures will be taken to manage expenditure growth and improve the efficiency of the systems. According to several studies conducted on Slovenia, the efficiency of the health care system is average,¹⁹ but with a gradual improvement in efficiency, it would be possible to significantly slow expenditure growth over the long term. Several basic health status indicators reveal the current situation in Slovenia to be favourable;²⁰ however, the number

¹⁶ EC (2015).

¹⁷ Assuming the contributions base expands as projected in the Spring Forecast, IMAD (2016).

¹⁸ Health care expenditure starts to grow rapidly after the age of 60 and more than doubles by the age of 80, from just over EUR 1,000 per individual at 60 to around EUR 2,400 by the age of 80; ZZZS (2015).

¹⁹ Medeiros and Schwierz (2015); Beatriz in D'Avo Luis (2015); Hribernik and Kierzenkowski (2013); IMF (2015); EC (2014). For possible effects of improved efficiency on expenditure projections, see also Majcen (2015) and IMAD (2016a).

²⁰ E.g. infant mortality and the indicator of life expectancy.

of healthy life years is very low compared to other EU countries. This wide gap is largely attributed to unhealthy lifestyles and a high burden of chronic diseases. In terms of long-term sustainability, the population's health is crucial not just for slowing expenditure growth, it also plays a significant role in increasing revenue: various studies have proved a strong correlation between the population's health and the share of employed persons, and the positive impact of health on economic development.²¹ The EC's risk scenario, which assumes a greater impact of non-demographic factors, shows that the pressure on the growth of health care expenditure will escalate in the future and could result in spending increasing to 6.8% of GDP as early as 2030, growing to 7.5% of GDP by 2060. One of the key non-demographic factors, aside from the population's growing expectations about health care, is new health technologies which expand treatment possibilities and improve the quality of service. This in turn expands the health benefits basket and increases the demands on long-term care due to the growing number of persons with chronic conditions that depend on foreign assistance in the long term. The projections suggest it will be difficult to preserve the currently broad health benefits basket and highlight the need for a flexible adjustment thereof to the altered demographic circumstances (more chronic diseases, palliative care, long-term nursing care).

Figure 8: Public expenditure on health care and long-term care, scenarios of long-term projections depending on scope of inclusion of non-demographic factors



Source: EC (2015).

Note: Figure includes reference AWG scenario and AWG risk scenario. Public expenditure on health care is included on the basis of the methodology of the System of Health Accounts (SHA), including capital investments but excluding expenditure on long-term nursing care. Included are public expenditure on long-term care according to the SHA methodology (0.98% of GDP in 2012) and also selected cash receipts under the ESSPROS methodology (disability allowance) amounting to 0.4% of GDP.

In Slovenia there is no comprehensive system for long-term care; as a result of the fragmentation of financing

it is non-transparent and the sources are not used efficiently. The right to services and cash receipts for those who depend on assistance of others are determined by multiple laws, which do not have the same eligibility standards. In some segments there is an overlap between services and receipts; in others, many needs remain unmet. Consequently, in the past ten years out-of-pocket payments have been increasing rapidly, much faster in fact than in health care, which exacerbates the accessibility issue. The need for long-term care can therefore strongly reduce the disposable income of individuals and their families. In the long term this can become a heavy burden on informal caregivers in the family

²¹ EC (2010), Figueras et al. (2008); Suhrcke and Urban (2010). The same studies warn that the correlation between health and economic activity is neither unidirectional nor linear, as a higher level of economic development improves the health of individuals and the entire population.

circle,²² which reduces their productivity and availability on the labour market, leads to early retirement, increases poverty, and leads to excessive use of the more easily available health services.²³





The demand for long-term care will start increasing at a brisker pace after 2025, when the most populous generations start turning 80. The main driving force behind growing expenditure on long-term care is the size of the population in need of assistance in basic activities of daily living, the share of which expands significantly with age.²⁴ EC projections assume that elderly people will be healthier in the future and less limited, which means that the share of the population dependent on assistance of others at a certain age will gradually decrease. Notwithstanding this assumption, public expenditure on long-term care will more than double (to 2.9% of GDP) by 2060, even under the assumptions of the reference scenario. The pressure on expenditure growth will be further compounded by non-demographic factors, especially the coverage of the formal care network and the growing cost of long-term care will more than triple (to 4.2% of GDP) by 2060. This scenario assumes that the transition from informal to formal care will accelerate in the future, as the coverage of the formal care network is below the EU average given the estimated size of the severely limited population.²⁵ Slovenia lags behind in particular with regard to formal home care. The projections under this scenario also assume that expenditure on long-term care could grow further owing to the shortage of available staff, which is already very severe in several more developed European countries that have a higher share of formal care.

Source: SORS (2015), IMAD calculations.

²² Informal caregivers are typically partners, especially women, and other family members, relatives or friends who provide assistance, mostly with instrumental activities of daily living. The EC estimates that informal caregivers outnumber formal caregivers by a factor of almost two. According to the SHARE study results for Slovenia, approximately 48,000 persons aged 50+ provided personal care or practical household help outside their own household in 2013 and approximately 37,000 provided regular personal care assistance in their own household (Nagode in Srakar, 2015). The estimate is even higher in the study by Ramovš et al. (2013), which shows that over 55,000 persons over 50 take care of their parents and over 50,000 take care of their partners.

²³ Normand (2015); EC, 2016a; Dominkuš et al. (2014).

²⁴ The share pf the population rises from 3.5% in the 16–44 age group to 40% in the group over 85 (Eurostat, 2015). The figures are based on the EU SILC survey question "Has the surveyed person been limited in ordinary activities in the past six months or more due to health problems and, if so, to what extent?" when the answer is "Yes, severely limited".

²⁵ SI: 28%; EU: 31%; EC (2015).

Other areas where adaptation to demographic change will be required 4.

An above-average share of the elderly population already experience social exclusion; as it continues to swell, the problem could become even more severe. Among the elderly population there is a high share of owner-occupied housing and an above-average share live on farms or in detached houses. Their housing deprivation is nevertheless severe and the provision of some long-term care services difficult. Demographic changes increase the need for spatial planning, construction and transport policies adapted to elderly people. The projections indicate increased unevenness of population ageing across regions.

The prevalence of social exclusion among the elderly in Slovenia is above the EU average. Slovenia ranks among the countries where the at-risk-of-poverty rate among the over 65s is significantly higher than in the 18–64 population.²⁶ It is also above the EU average, especially among elderly women.²⁷ Pensions are the principal source of income for elderly people and they are frequently below the poverty line. In 2015 the average net old age pension amounted to EUR 610, whereby almost a half of pensioners received less than EUR 600. A low degree of social inclusion is also evident from the SHARE study, where the social inclusion of the over 50s is measured with additional indicators of housing deprivation, health, community participation and interpersonal relations. The proportion of those excluded from three or more areas at the same time stands at 15%, the second highest share among the participating countries.²⁸



Figure 10: Indicators of social inclusion of the over 50s, comparison between Slovenia and the average of countries participating in the SHARE study

Source: SHARE study, wave 4, summarised from Filipovič Hrast, M. and Srakar, A. (2015).

Slovenia places among the countries with a high share of owner-occupied housing among its elderly population. Among the elderly population there is a high share of owner-occupied housing²⁹ and an above-average share live on farms or in detached houses.³⁰ The rate of housing deprivation³¹ of the over 65s is also significantly above

12

²⁶ In 2014 the at-risk-of-poverty rate in the over-65 age group was 3.4 p.p. higher than in the 18–64 age group; in the EU, on the other hand, the average at-risk-of-poverty rate among the elderly was 3.3 p.p. lower than in the 18-64 age group.

²⁷ In 2014 the at-risk-of-poverty rate of the over 65s was 17.1% (EU: 13.8%), but it stood at 21.6% (EU: 15.8%) for older women.

²⁸ Filipovič Hrast and Srakar (2015).

²⁹ As many as 87% of elderly Slovenian households own their dwelling, the third highest share among the countries participating in the SHARE study (Mandič, 2015).

³⁰ According to the SHARE study, 64.5% of those older than 50 live on farms or in detached houses in Slovenia, the second highest share among the countries participating in the SHARE study and significantly above the average of the participating countries (34,7%).

³¹ The rate of housing deprivation measures the share of persons exhibiting at least one of the deprivation measures: (i) poor housing condition (leaking roof, moist walls or floors, rotten window frames), (ii) lack of bath or shower in the dwelling, (iii) lack of flushing toilet for own use, (iv)

the average. This can also result in: (i) problems due to excessive housing consumption, which limits the elderly in terms of meeting their other needs; and (ii) the high costs of providing home services given the dispersion of settlements. On the other hand, there are advantages to this way of living; owner-occupied housing, in particular, is an asset that can be drawn upon to secure social protection. Nevertheless, elderly people are characterised by their very poor housing mobility³² due to their "attachment to real estate". There is also a lack of non-profit rental housing, and the market value of the "housing" assets of elderly people is often low.







Source: SHARE, calculations by Mandič (2015).

Demographic change increases the demand for spatial planning, construction and transport policies adapted to elderly people. Ensuring that the elderly remain independent for as long as possible increases the demand for functional housing renovation, elderly-accessible housing and sheltered housing. The dwelling location is inextricably linked to urban concept, the efficient use of services of general interest, and population mobility. The elderly also have different needs in the use of public transportation, and the accessibility thereof makes it possible for them to stay more independent for longer.

dwelling too dark. Eurostat data show that the deprivation rate for the over 65s in Slovenia was 33% in 2014 compared to the EU average of 13.1%.

³² The SHARE study shows that the over 50s have lived in their current dwelling the longest among all participating countries, on average for 32 years.



Figure 13: Share of the population over 65 by region

Source: SORS, Eurostat EUROPOP 2013, IMAD calculations.

Demographic projections show increased unevenness of population ageing among regions. Regional demographic projections through to 2050 assume the population will increase in only three regions – Osrednjeslovenska, Obalno-Kraška and Gorenjska, which indicates that the population will continue concentrating in the urbanised, mostly central part of the country. Accordingly, the populations of all the other regions would contract, the sharpest contraction projected in Zasavska, where the share of the over 65s would increase the most. These changes will affect diverse areas of development and regions with shrinking populations, the working age population, in particular, will have significantly worse prospects for development, which could further widen regional differences.

Literature and sources

Ackermann, G.; Budai, A.; Calabrese, M.; Kamburova, N.; Kovachev, L.; Penko Natlačen, M.; Sever, A. (2014). Motiviranje starejših delavcev za usposabljanje in spremembe (Motivating older workers for training and change). Ljubljana: Chamber of Commerce and Industry of Slovenia.

Beatriz, A. D'Avo Luis, M. (2015). Health Systems Efficiency after the Crisis in the OECD. Nova – School of Business and Economics. Pridobljeno na https://run.unl.pt/bitstream/10362/15090/1/Lu%C3%ADs_2015.pdf.

Cedefop. (2015). Skills shortages and gaps in European enterprises. Striking a balance between vocational education and training and the labour market. Cedefop reference series 102. Obtained at http://www.cedefop.europa.eu/en/publications-and-resources/publications/3071.

Cutler, D. M., Poterba, J. M., Sheiner, L. M., Summers, L. H. (1990). An Aging Society: Opportunity or Challenge? Brookings Papers on Economic Activity, 1. Washington: The Brookings Institution.

Dominkuš, D., Zver, E., Trbanc M., Nagode, M. (2014). *Long-term care – the problem of sustainable financing.* Host country paper. Peer review on financing of long-term care. Ljubljana, 18–19 November 2014. Obtained at: http://ec.europa.eu/social/main.jsp?catld=1024&langld=en&newsld=2097&moreDocuments=yes&tableName=news.

EC – European Commission. (2016). Fiscal sustainability report 2015. Institutional paper 018. Obtained at http://ec.europa.eu/economy_finance/publications/eeip/pdf/ip018_en.pdf.

EC – European Commission. (2016a). Commission Staff Working Document. Country Report Slovenia 2016. Including an In-Depth Review on the prevention and correction of macroeconomic imbalances. SWD (2016) 92 final. Obtained at http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_slovenia_en.pdf.

EC – European Commission. (2012). Active Ageing. Special Eurobarometer 378. Obtained at http://ec.europa.eu/public_opinion/archives/ebs/ebs_378_en.pdf.

EC – European Commission. (2014). MACELI Final Report. Comparative efficiency of health systems, corrected for selected lifestyle factors. Written by Rijksinstituut voor Volksgezondheid en Milieu, Erasmus Universistat Rotterdam. Erasmus Medical Center Rotterdam.

EC – European Commission. (2015). The Ageing Report: Economic and budgetary projections for the EU Member States (2013–2060). European economy 3|2015. Obtained at http://europa.eu/epc/pdf/ageing_report_2015_en.pdf.

EC in EPC – European Commission and Economic Policy Committee. (2010). Joint report on health Systems. European Economy. Occasional Paper 74. December 2010. Obtained at: http://europa.eu/epc/pdf/joint_health care_report_en.pdf.

Eurostat Portal page – Population and social conditions – Education and training. (2016). Obtained at: http://epp.eurostat.ec.europa.eu.

Eurostat Portal page – Population and social conditions – Health. (2016). Obtained at: http://epp.eurostat.ec.europa.eu.

Eurostat Portal page – Population and social conditions – Labour market. (2016). Obtained at: http://epp.eurostat.ec.europa.eu.

Eurostat Portal page – Population and social conditions – Population. (2016). Obtained at: http://epp.eurostat.ec.europa.eu.

Feyrer, J. (2007). Demographics and productivity. The Review of Economics and Statistics, 89(1), pp. 100–109.

Figueras, J., McKee, M., Lessof, S., Duran, A. and Menabde, N. (2008). Health systems, health and wealth: Assessing the case of investing in health systems. Background document for WHO European Ministerial Conference on Health Systems: 'Health Systems, Health and Wealth'. Tallinn, Estonia, 25–27 June. Copenhagen: WHO Regional Office for Europe.

Filipovič Hrast and Srakar, A. (2015): Socialna izključenost: primerjava Slovenije z evropskimi državami (Social exclusion: comparison of Slovenia with European countries). In Majcen, B. (ed.) *Značilnosti starejšega prebivalstva v Sloveniji: prvi rezultati raziskave SHARE (Characteristics of the older population in Slovenia: preliminary results of the SHARE study)*. (pp. 206–214). Ljubljana: IER.

Fotakis, C. and Peschner, J. (2015). Demographic change, human resources constraints and economic growth: the EU challenge compared to other global players. European Commission Working Paper 1/2013.

Hribernik, M. and Kierzenkowski, R. (2013). Assessing the efficiency of welfare spending in Slovenia with data envelopment analysis. ECO/WKP(2013).50.

IMF – International Monetary Fund, (2015). Country Report No. 15/42. Republic of Slovenia. Selected Issues. Washington: International Monetary Fund. Obtained at http://www.imf.org/external/pubs/ft/scr/2015/cr1542.pdf.

Lipar, T. (2013). Bivalne razmere starejših ljudi (Housing conditions of the elderly). In Ramovš, J. (ed.) (pp. 261–268). Ljubljana: Anton Trstenjak Institute of Gerontology and Intergenerational Relations.

Majcen, B. (2015). Ocena dolgoročnih projekcij izdatkov in prejemkov zdravstva in dolgotrajne oskrbe (Assessment of long-term projections of health care and long-term care expenditure and revenue). Institute of Economic Research. Consultation on financing and optimisation of financing models in health. Obtained at: http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/Analiza/ppt/_Majcen_slo_Projekcije-zdravstvo-DO.021115__Zdruzljivostni_nacin__.pdf

Mandič, S. (2015). Stanovanjske razmere in mobilnost starejšega prebivalstva – Slovenija v primerjalni perspektivi (Housing conditions and mobility of the elderly population – Slovenia in comparison). In Majcen, B. (ed.) *Značilnosti starejšega prebivalstva v Sloveniji: prvi rezultati raziskave SHARE (Characteristics of the elderly population in Slovenia: preliminary results of the SHARE study).* (pp. 183–195). Ljubljana: IER.

MDDSZE – Ministry of Labour, the Family, Social Affairs and Equal Opportunities. (2014). Effects of pension reform and
thenextsteps.Obtainedathttp://www.mddsz.gov.si/fileadmin/mddsz.gov.si/pageuploads/dokumenti_pdf/dpd/Analiza.PIZ.pdf.

MDDSZE – Ministry of Labour, the Family, Social Affairs and Equal Opportunities. (2016). White paper on pensions. Obtained at http://www.mddsz.gov.si/nc/si/medijsko_sredisce/novica/article/1939/7901/.

Medeiros, J. and Schwierz, C. (2015). Efficiency estimates of health care systems. European Economy. Economic Paper 549. European Commission: June 2015. Obtained at: http://ec.europa.eu/economy_finance/publications/economic_paper/2015/pdf/ecp549_en.pdf.

MF – Ministry of Finance. Bilten javnih financ (Bulletin of Government Finance). (2016). Pension and Disability Insurance Institute 1992–2016. Obtained at http://www.mf.gov.si/si/delovna podrocja/javne finance/tekoca gibanja v javnih financah/bilten javnih financ/.

Nagode, M. and Srakar, A. (2015). Neformalni oskrbovalci: kdo izvaja neformalno oskrbo, v kolikšnem obsegu in za koga (Informal caregivers: who provides care, to what extent and for whom). In Majcen, B. (ed.) Značilnosti starejšega prebivalstva v Sloveniji: prvi rezultati raziskave SHARE (Characteristics of the elderly population in Slovenia: preliminary results of the SHARE study). (pp. 183–195). Ljubljana: IER.

Normand, C. (2015). *Long Term Care in Slovenia: key policy issues and likely trends in costs*. Trinity College Dublin and European Observatory on Health Systems and Policies. Consultation on long-term care (for Analysis of the health system). Ljubljana, 24. 11. 2015. Obtained at:

http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/Analiza/24_11_2015/Long_Term_Care_in_Slovenia_Charles_N ormand.pdf.

Peschner, J. and Fotakis, C. (2013). Growth potential of EU human resources and policy implications for the future economic work. European Commission Working Paper 3/2013.

Ramovš, J. (ed.). (2013). Staranje v Sloveniji. Raziskava o potrebah, zmožnostih in stališčih nad 50 let starih prebivalcev Slovenije (Ageing in Slovenia. Study on the needs, capabilities and positions of the Slovenian population over 50). Ljubljana: Anton Trstenjak Institute. http://www.inst-antonatrstenjaka.si/repository/datoteke/projekti/Staranje_v_Sloveniji_2013_zdrueno_zadnja_verzija.pdf.

Romer, P. (1987). Crazy Explanations for the Productivity Slowdown. In *Macroeconomics Annual 2*. Cambridge: The MIT Press.

Skirbekk, V. (2004). Age and individual productivity: a literature survey. Vienna Yearbook of Population Research, Vol. 2, 2004.

Sneddon Little, J. and Triest, K. R. (2001). The impact of demographic change on U. S. labor markets. Federal Reserve Bank of Boston Conference Proceedings, 2001, Volume 46.

Suhrcke, M. and Urban, D. (2010). Are cardiovascular diseases bad for economic growth? Health economics 19: 1478–1496.

SORS – Statistical Office of the Republic of Slovenia. (2016). SI-STAT data portal.

Third European company survey: first findings. (2013). Dublin: Eurofound.

IMAD – Institute of Macroeconomic Analysis and Development (2016). Spring forecast of economic trends 2016. Obtained at:

http://www.umar.gov.si/fileadmin/user_upload/publikacije/analiza/Pomladanska_napoved_2016/ang_majska_2016_spl et1.pdf

IMAD – Institute of Macroeconomic Analysis and Development (2016a). Assessment of the effects of structural measures in Slovenia. Obtained at:

http://www.umar.gov.si/fileadmin/user_upload/sporocila_za_javnost/2016/marec/Ocene_ucinkov_nekaterih_strukturnih _ukrepov2.pdf

Wren, M.A., Normand, C., O'Reilly, D., Cruise, S.M., Connolly, S. Catriona Murphy. (2012). Towards the Development of a Predictive Model of Long-Term Care Demand for Northern Ireland and the Republic of Ireland. Dublin: Trinity College Dublin, Centre for Health Policy and Management. Obtained at: http://medicine.tcd.ie/health_policy_management/assets/pdf/CARDI%20report.pdf.

ZZZS – Health Insurance Institute of Slovenia. (2015). Internal processing of data on health expenditure by gender and age for 2014. By agreement with the Working group for coordination of the preparation of projections of age-related public expenditure headed by the Ministry of Finance.

Žnidaršič, J. (2008). Management starosti: organizacijski model aktivnega staranja (Age management: the organizational model of active ageing). Doctoral dissertation. Ljubljana: University of Ljubljana, Faculty of Economics.