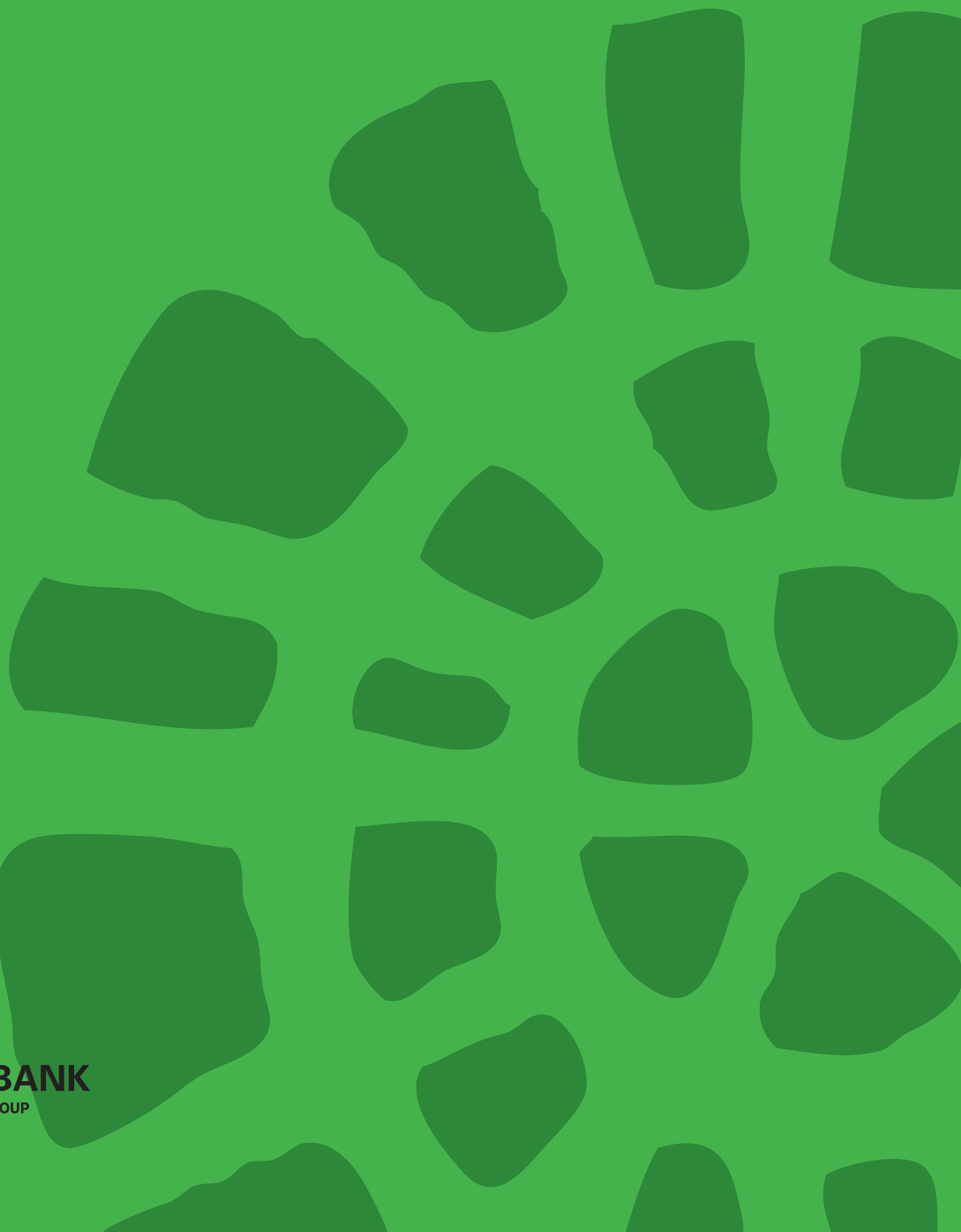
THE ACTIVE AGING CHALLENGE

FOR LONGER WORKING LIVES IN LATVIA



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Acknowledgements

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Abbreviations

50+	Individuals aged 50 or more
AAI	Active Aging Index
EC	European Commission
ESF	European Social Fund
EU	European Union
EU15	The first 15 members of the EU: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom
EU28	All current members of the EU
EU-SILC	EU Statistics on Income and Living Conditions
GP	General practitioner
ICT	Information and communications technology
IT	Information technology
KOSTRA	Local Government Data Registration and Information Scheme, Norway
LFS	Labor Force Survey
MISSOC	The EU Mutual Information System on Social Protection
MSRS	Migrant Skills Recognition Service, VETASSESS
NGO	Nongovernmental organizations
OECD	Organisation for Economic Co-operation and Development
OSH	Occupational safety and health
PEARS	Prevention and Early Active Return-to-Work Safely program, Canada
PIAAC	OECD's Survey of Adult Skills
PISA	OECD's Program for International Student Assessment (PISA)

SHARE Survey of Health and Retirement in Europe

SMEs Small and medium-sized enterprises

STEP Science, Technology, Engineering, and Mathematics Talent Expansion Program, National Science Foundation, U.S.

UNECE United Nations Economic Commission for Europe

VETASSESS Vocational Education and Training Assessment Services, Australia

1. Introduction

BACKGROUND

The European Commission (EC) awarded a grant to the Government of Latvia under the budget heading 04.03.07 for "Analysis and studies on the social situation, demographics and the family" to develop an active aging strategy. As part of this project, it was agreed that an international organization would conduct a review (study) focused on recommendations to improve active aging outcomes. The Government of Latvia requested the World Bank to prepare the active aging review as a Reimbursable Advisory Service (RAS).

OBJECTIVES OF STUDY

The report provides background analysis for the Government of Latvia in preparing its active aging strategy for the population aged 50 and over. The focus is on labor market participation and the productivity of the labor force. The work does not focus on fiscal issues related to aging or the care of the elderly, but brings them in where relevant to policy recommendations and when setting out the overall policy challenge. An important emphasis of the analysis is to get beyond averages and examine inequalities in outcomes. The time period of interest is from now to 2030, with the next five-year period being of particular interest in terms of the active aging policy agenda.

The objective of the RAS is to provide a background report for the Government of Latvia to inform the development of their evidence-based and comprehensive active aging strategy for Latvia. The goal of the Government of Latvia's active aging strategy is to facilitate longer and better working lives. The active aging strategy will be developed independently by the Government of Latvia using the background report that the World Bank will produce as an input. The report is a collaborative effort, with close partnership between the World Bank and Latvian Government representatives on design, analysis, and the final policy options. The Government plans to launch Latvia's active aging strategy in 2016. The strategy will inform a program of labor market activation and lifelong learning measures to be undertaken by the Government, partly with the support of European Social Funds.

STRUCTURE OF THE REPORT

The report is divided into eight chapters. Chapters 2 and 3 provide the background information and motivation on the demographic challenge faced by Latvia. The second chapter presents the results of the European Active Aging Index for Latvia, which allows assessing how well the elderly population is aging in the country in comparative perspective, and what are the areas where further room for improvement exists. The third chapter offers detailed information about the most relevant demographic trends and challenges moving forward. Chapter 4 focuses on the labor market situation of older people in Latvia, including the main determinants of labor supply, the existing demand constraints, the quality of jobs held by older people and the different profiles of vulnerable elderly. The fifth chapter moves on to exploring the issue of life-long learning in Latvia, examining participation trends and barriers and the system of education and training in the country. Chapter 6 studies the issue of economically secure aging, reviewing the prevalence of poverty and vulnerability among older people and the role that different sources of income play for such groups. Chapter 7 summarizes the main health challenges and policy responses for active aging in the country, by examining mortality and morbidity trends, and avoidable risk factors among the middle-aged cohort

in Latvia. Relevant international practices that may serve as a reference for the Latvian Government are presented throughout all chapters. Chapter 8 concludes and outlines the main policy recommendations along the central three areas of employment, education and health for active aging.

2. The Active aging challenge for Latvia

The Active Aging Index allows a benchmarking of Latvia's performance in several domains related to the well-being of the "50+" population.[1] The indicators in the AAI focus on the population aged 55 and over, and this chapter compares the AAI outcomes for Latvia with other EU countries. However, the rest of the report looks at the situation of those aged 50 onwards, which in the case of Latvia is the more appropriate group to concentrate on given that there is evidence that, for example, a person exiting the labor market in their early 50s has a low chance of obtaining another job. Specifically, the AAI demonstrates how well people are aging in Latvia compared to other EU countries and indicates how prepared the 55+ population is to age actively age in the future. An analysis of the results offers important insights across a range of areas including employment, vulnerability to material deprivation and poverty, social participation, education, health and aspects of independent living. In addition to providing the rationale for the Government to prioritize certain aspects of aging-related policies, this exercise also helps to identify which outcomes/indicators lag behind the others, and thus may need particular attention from the Government. As is pointed out in this chapter, each part of the index may not be well suited for measuring the country-specific challenge faced in a particular area. The index is to be used on conjunction with additional country-specific analysis to look at the situation of the older population.

UNTAPPED POTENTIAL IN LATVIA AND THE EU'S ACTIVE AGING INDEX

One of the measures that the Government of Latvia is using to gauge the challenge for improving the situation of those aged "50+" is the Active Aging Index (AAI). The index is an analytical tool that aims to help governments measure the untapped potential of older people across a range of areas, identify areas where there could be further progress and thus design and implement better informed policies for active and healthy aging.[2] The AAI has four sub-indices: (i) employment; (ii) social participation; (iii) independent living; and (iv) capacity for active aging. The first three sub-indices are related to the actual experiences with active aging and reflect the current state of older individuals in terms of living independent, healthy, secure and autonomous lives. The fourth sub-index looks at the factors that can facilitate active aging, such as being in good health or engaging in lifelong learning. More detail on the domains and indicators of AAI and Latvia's performance on each indicator is available in Annex 1 of the report.

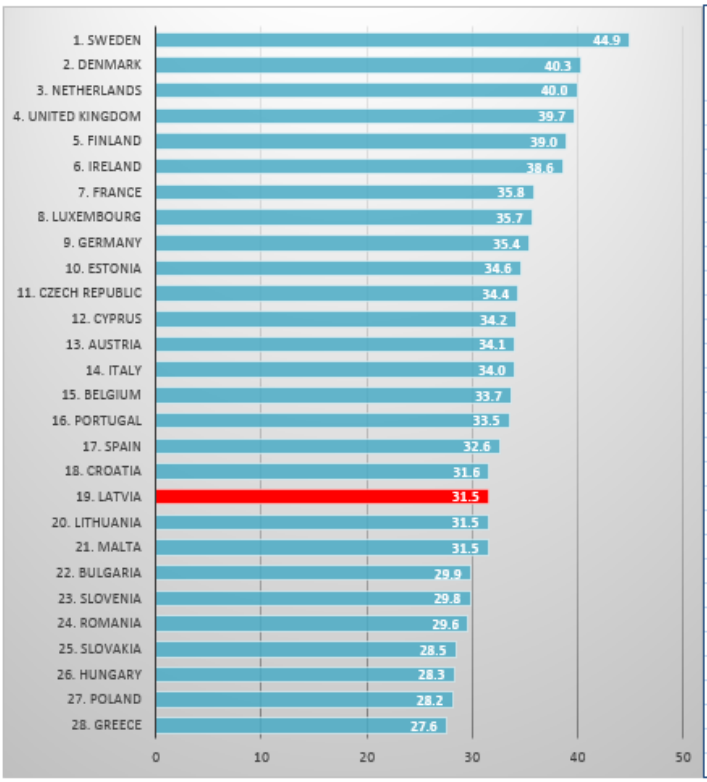
[1] The AAI was developed in the context of the European Year for Active Ageing and Solidarity between Generations 2012 (EY2012) by the European Centre for Social Welfare Policy and Research in Vienna (ECV) in close collaboration with the European Commission's Directorate General for Employment Social Affairs and Inclusion and the United Nations Economic Commission for Europe.

[2] European Commission, United Nations' Economic Commission for Europe (2013), Introducing the Active Aging Index, Policy Brief.

Based on the Active Aging Index, the challenge of active aging appears to be particularly acute in Latvia, especially for men. Latvia scores nineteenth out of twenty-eight EU countries in the most recent 2014 AAI with an overall score of 31.5 (see Figure 1).[3] The countries with the highest ranking are Sweden, Denmark, the Netherlands, the United Kingdom, Finland and Ireland. These countries manage to score well on most of the active aging areas, though it should be noted that none come close to the AAI goalpost, which sets all indicators at the maximum observed value and is 57.5. Therefore, all countries have a long way to go. When the results are considered for men and women separately, it is apparent that the situation of men in Latvia is of particular concern: While Latvian women rank eleventh, men are among the worst performers, ranking twenty-fourth out of twenty eight countries. Indeed, Latvia is one of the only three countries (including also Estonia and Finland) where women perform better than men, and the one where the gender gap against men is largest. Hence, gender-specific issues are an important element of the aging challenge in Latvia.

Figure 1: Latvia ranks poorly among EU countries in the Active Aging Index

Active aging index: Overall ranking and ranking by sub-component for EU Countries



Rank	Employment	Participation in society	Independent and secure living	Capacity and enabling environment for active ageing
1	Sweden	Ireland	Denmark	Sweden
2	Estonia	Italy	Finland	Luxembourg
3	Denmark	Sweden	Netherlands	Denmark
4	United Kingdom	France	Sweden	Netherlands
5	Germany	Netherlands	France	United Kingdom
6	Netherlands	Luxembourg	Luxembourg	Ireland
7	Finland	United Kingdom	Ireland	Belgium
8	Portugal	Finland	Germany	Austria
9	Latvia	Belgium	Slovenia	Finland
10	Cyprus	Denmark	Austria	France
11	Romania	Czech Republic	United Kingdom	Malta
12	Ireland	Croatia	Belgium	Spain
13	Lithuania	Austria	Czech Republic	Germany
14	Czech Republic	Cyprus	Malta	Italy
15	Bulgaria	Spain	Spain	Croatia
16	Austria	Malta	Croatia	Portugal
17	France	Slovenia	Italy	Cyprus
18	Spain	Hungary	Hungary	Czech Republic
19	Italy	Lithuania	Cyprus	Bulgaria
20	Poland	Portugal	Estonia	Slovenia
21	Slovakia	Latvia	Portugal	Slovakia
22	Luxembourg	Greece	Lithuania	Hungary
23	Croatia	Slovakia	Slovakia	Latvia
24	Belgium	Germany	Poland	Greece
25	Greece	Estonia	Greece	Poland
26	Malta	Romania	Bulgaria	Lithuania
27	Hungary	Bulgaria	Romania	Estonia
28	Slovenia	Poland	Latvia	Romania

Notes: Active Aging Index (AAI) is produced jointly by the European Commission's Directorate General for Employment, Social Affairs and Inclusion (DG EMPL), and the Population Unit of the United Nations Economic Commission for Europe (UNECE). The methodology is outlined in Gasior, Hofmarcher, Lelkes, Marin, Rodrigues, Schmidt, Vanhuysse and Zolyomi (2013).
Source: EC and UNECE (2015).

Latvia is among the best performers with regards to employment, although it lags behind in other categories. Latvia performs well on the employment sub-index, given that labor market participation and employment rates are relatively high for EU standards, especially in the case of

[3] http://www1.unece.org/stat/platform/display/AAI/Annex +A.3 + +Information +on +chosen +indicators +for +the +3rd +domain +Independent%2C +healthy +and +secure +living (Accessed June 5, 2015)

women. Overall, Latvia shows a relatively high score in employment among older population groups compared to other EU countries: The country ranks ninth out of the twenty eight EU countries. However, and while men rank fourteenth, performance is much better among women: Latvia´s female employment sub-index is the fifth highest in the sample. Educational attainment among the older population is high relative to other countries. On the other hand, Latvia´s score for "social participation", at twenty-one, is one of the lowest. The country is the worst performer under the category "independent, healthy and secure living" and the sixth worst on "capacity and enabling environment for active aging" in the AAI index.

Alternative measures of social participation to the formal volunteering and political participation variables in the AAI would be useful to gauge the engagement of older people in society in Latvia. Latvia's score is low for the "social participation" domain due to relatively low scores based on survey measures of volunteering and political engagement; these measures are problematic in gauging the participation of older people in countries with a Soviet past. First, the volunteering measure is constrained to participation in the activities of a formal volunteering organization and given that these types of organizations are less usual in Latvia than in other EU countries and that people are more like to carry out volunteering through informal activities, it does not reflect the participation of older people in informal volunteer work.[4] Formal political engagement such as political party membership is also lower in Latvia given the country's history[5] and again the measure does not capture informal activities such as political debate in the community and following current affairs in the media.

The poor results with regards to both independent and healthy living, and capacity and enabling environment, are explained by the incidence of particular factors. The low score attained in the former category is mainly due to low rates of physical exercise and physical safety, the lack of lifelong learning opportunities and of independent living arrangements, and the prevalence of relatively low median incomes. Additionally, there may be some measurement problems with this domain. Physical exercise is assessed based on answering a question of whether the respondent "Take part in sports or physical exercise" in the European Quality of Life Survey (EQLS).[6] This may not capture daily activities that contribute to older people's fitness like gardening or cycling if people understand the question to refer to formal sports activities. Chapter 7 presents evidence that although participation in organized physical activities is low in Latvia, a lot of people engage in cycling or walking. With regard to physical safety, Latvia has among the lowest crime rates in the EU,[7] yet the percentage of people aged 55 years and older who are feeling very safe or safe to walk after dark in their local area is one of the lowest in the EU—perceptions of safety may be influenced by aspects such as traffic risk or the quality of pavements or an anticipation of safety risks based on information produced by mass media. On safety, it would be necessary to do more in-depth analysis on the issues behind this performance to identify policy priorities. The low performance on the capacity and

[4] The point on the problem of measuring volunteering through formal institutional participation is made by the authors of the AAI methodology and results (UNECE/ European Commission 2015).

[5] See van Biezen, Mair and Poguntke (2012) on the decline of party membership in Europe, where they show that among the European countries they study Latvia has the lowest party membership as a percentage of national electorates.

[6] See the original survey in Latvian and Russia at http://www.eurofound.europa.eu/eqls-2012-questionnaire-translation. Accessed July 5, 2015.

[7] Source: Eurostat.

enabling environment for active aging sub-index, in turn, reflects a particularly low use of information and communications technology (ICT) and poor social connections, followed by low healthy life expectancy and mental wellbeing. As highlighted above, the scores on most of these aspects are higher for women than men in Latvia. However, women tend to perform worse than their male counterparts with regards to mental wellbeing, ICT use, social connectedness, and healthy life expectancy. On the latter measure, though women are expected to have longer remaining life expectancy than men at 55 years of age, for women a greater proportion of the remaining life years at age 55 years of age are expected to be lived in poor health compared to men. But this is because men are dying prematurely in Latvia and have far fewer years of life expectancy at 55 years old compared to women (see chapter 7 on the healthy aging challenge in Latvia).

Latvia's performance in the 2014 AAI shows a recovery after the impact of the crisis on the 2012 results. The 2012 analysis was based on 2010 data and so captured a sharp decline in employment and income-related indicators due to the crisis when compared to the first ever AAI from 2010. The 2014 results reflect the beginnings of the crisis recovery given that they are based on 2012 data, but the AAI has still not recovered to 2010 levels. The index for men is still four points behind where it was in 2010, although the overall performance of women has risen by 1.5 points over the same period. These results indicate that there is still a need to recover to pre-crisis levels and Chapter 4 will show that, particularly for the lower educated group, employment has not yet fully rebounded.

IMPORTANCE OF MOVING BEYOND THE AVERAGES

National averages mask large inequalities in Latvia's performance related to different dimensions of active aging. Employment and health outcomes, as well as participation in lifelong learning exhibit significant heterogeneity between groups in the population. In order to understand the heterogeneity within the domains covered by the AAI this report disaggregates some of the AAI indicators by population subgroups, such as gender, educational attainment,[8] and geographical region. Indeed, for some indicators the gap between the best and the worst performing group in the population is bigger than that found in other EU countries indicating that inequality in outcomes higher in Latvia**.** In light of the general focus of this report on labor market outcomes, the analysis presented here looks more closely into the employment dimension. In addition, the analysis focuses on the AAI domain where Latvia performs the worst ("Independent, Healthy, and Secure Living") and looks within it at disparities in independent living arrangements, unmet medical and dental care needs, and non-monetary welfare measure of the material deprivation risk for older individuals. In order to assess the magnitude of the heterogeneity, Latvia is compared to other EU countries, and in particular, to countries with a similar population profile (in terms of educational attainment).

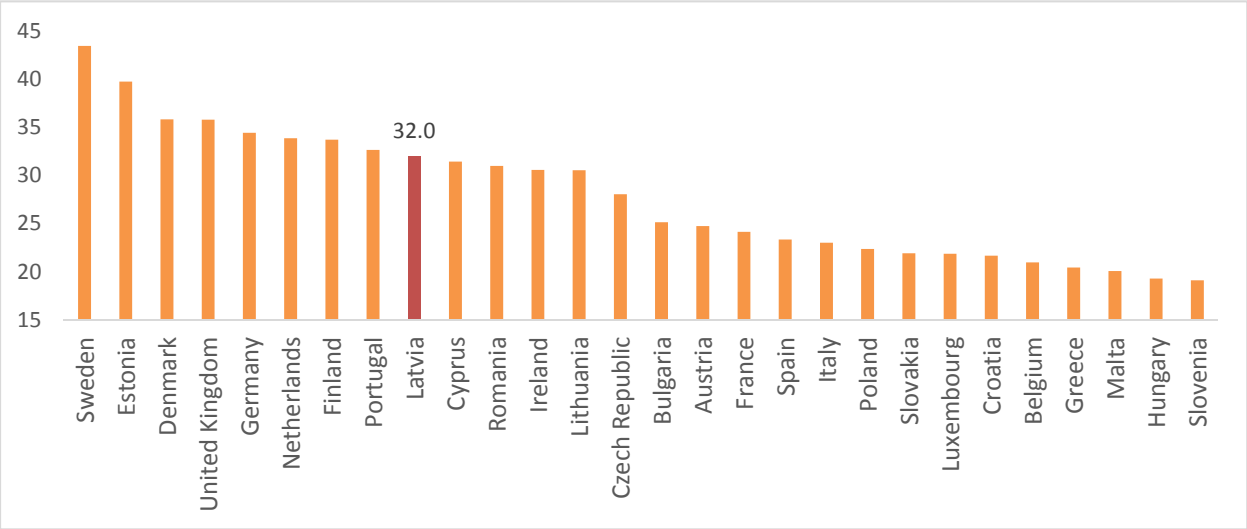
Employment: Significant disparities linked to educational attainment

Latvia performs well in terms of employment on average, but its lower educated population (with just basic education) fares as poorly as the worst performing country in the region. As seen in Chapter 4 on productive aging, Latvia has higher than EU average employment rates. In the AAI, Latvia ranked ninth on the Employment domain based on 2012 data (Figure 2). However, and as additionally

[8] Due to limited availability of comparable income information for all sources used in the construction of AAI, education serves as a proxy for socioeconomic status. Findings from a simple wage regression confirm the validity of this assumption: wages and total household income increase significantly with higher educational attainment.

highlighted in Chapter 4, underlying the national averages, there are substantial differences in employment rates for individuals with basic, secondary and tertiary education levels. For individuals with low education, the index takes a value of 19.3 compared with the value of 49.4 for those with high education. Overall, differences within Latvia are larger than differences between the best performing country in the index (Sweden) and the worst performing country (Slovenia). When compared to countries with similar educational attainment profiles for older individuals (such as Slovenia and Hungary, which have similar proportions of the older population in each of the three education groups considered as Latvia),[9] Latvia has much larger differences in employment rates between its highest and lowest educated subgroups, with the disparity being particularly high for women (Figure 3). Indeed, at 49 percentage points, the difference between employment rates of older women with tertiary and with less than upper secondary education in Latvia is the highest of all EU-28 countries.

Figure 2: Latvia performs relatively well on the dimension "Employment" of the AAI
Score under employment domain of AAI, 2014



Source: Active Aging Index 2014.

[9] Basic education is here defined as attaining less than primary, primary and lower secondary. Secondary educated are those with upper secondary and post-secondary non-tertiary education. Tertiary are those with tertiary education.

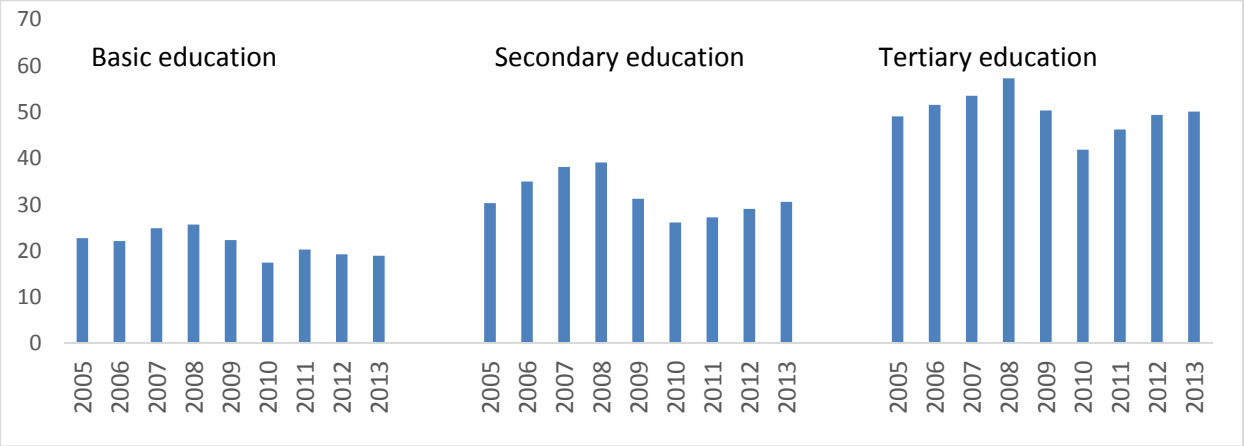
Figure 3: National averages mask substantial inequalities in employment

Employment rates of older individuals (55-74) by education level attained

Source: LFS Latvia (2012). Active Aging Index 2014.

Employment rates (and simultaneously unemployment rates) took a large hit during the economic crisis beginning in 2008/09, and the lower educated groups have seen the slowest recovery. A comparison of employment rates over time indicates how cyclical factors in the economy impact the employment dimension of the AAI. Figure 4 shows that employment rates recovered for all three groups in the population; yet, the path differs systematically by the level of education with a heavier crisis legacy for the low educated. In addition to differences over time, employment rates and further labor market indicators show significant variation across regions and municipalities.[10]

Figure 4: The impact of the economic crisis differs systematically by educational attainment
Employment rate by educational attainment, annual, in percent



Source: LFS Latvia (2012).

Independent, Healthy, and Secure Living: Latvia has much room to improve living conditions for the generation "50+"

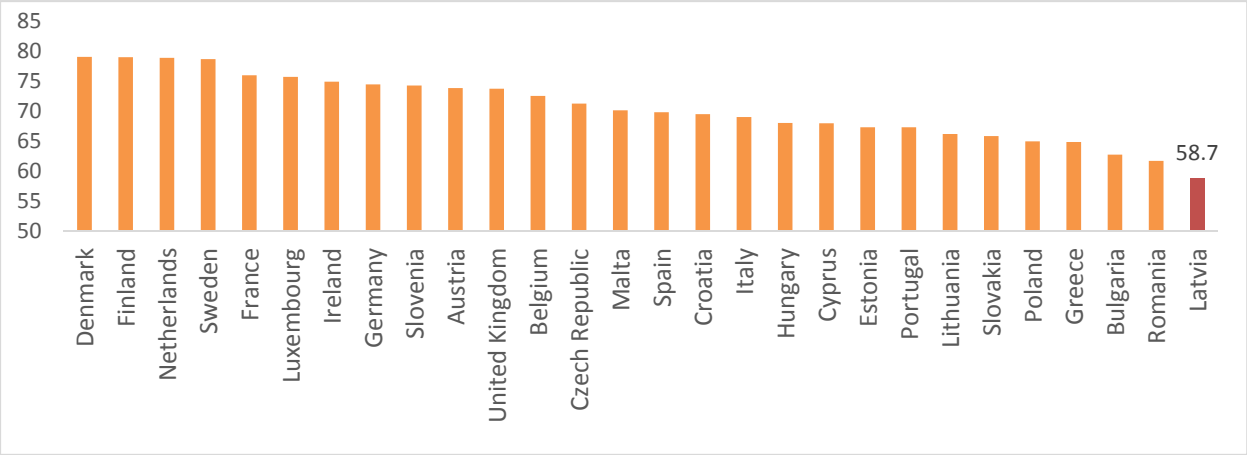
For the dimension "Independent and secure living", Latvia's low ranking is partly explained by the significant lag between it and most of the EU in terms access to healthcare (Figure 6). Latvia has the highest unmet needs in health and dental care in the EU.[11] Only 68.4 percent of the population aged 55 and above in Latvia claims that they face no unmet needs with regards to health care. Moreover, this indicator varies largely across different groups in the population and is significantly correlated with educational attainment. Only 63 percent of individuals aged 55 and above in the lowest education group declare they have sufficient access to health services, while the respective share is 80 percent for older individuals with tertiary education (see Figure 6). However, even the highest-educated older people in Latvia have lower likelihood to meet their healthcare needs than lowest-educated people in most EU countries, with the exception of Romania, Portugal, Bulgaria, Greece, and Poland. Relatively large urban-rural gaps in access to healthcare and dental care for older people, especially men, suggest that the unequal provision of services and health behaviors

[10] The section on labor market performance makes use of administrative data and looks into more detail into the spatial dimension of labor market outcomes.

[11] Percentage of people aged 55 years and older who report no unmet need for medical and dental examination or treatment during the last 12 months preceding the survey.

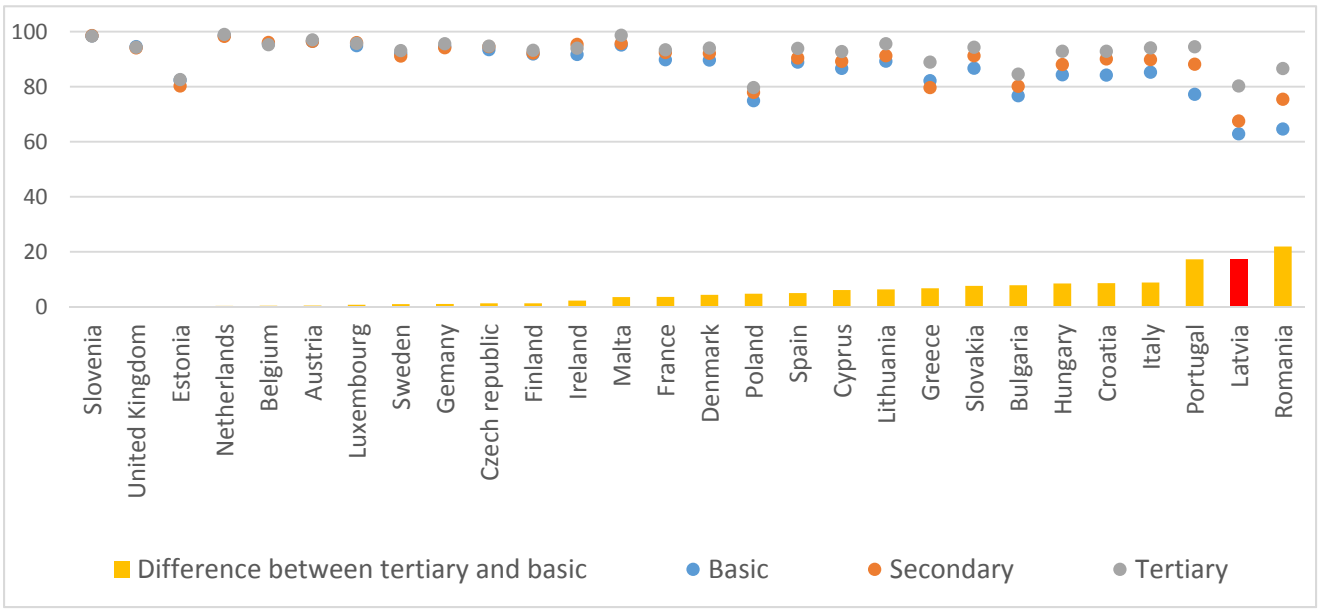
contribute to the relatively poor performance of Latvia. Given poor health outcomes, covered further in Chapter 7, this is of concern.

Figure 5: For the dimension "Independent and secure living" Latvia has the lowest score
Score under independent and secure living domain of AAI, 2014



Source: Active Aging Index 2014, score under independent and secure living sub-index.

Figure 6: Latvia has relatively large inequality in unmet medical care needs
No unmet need for medical/dental examination, 2012, by education attainment



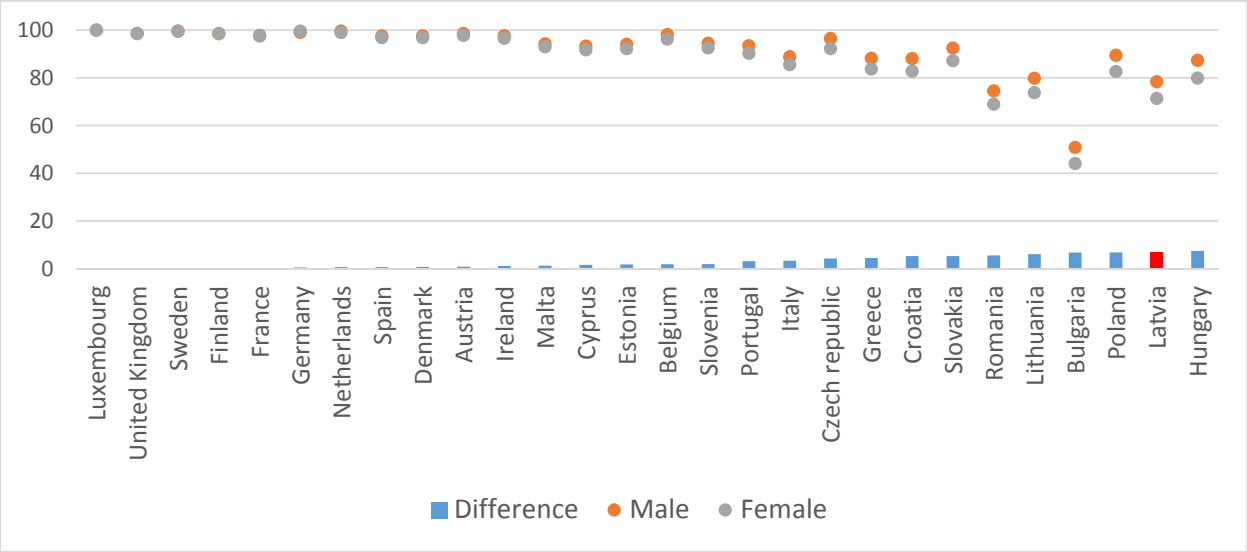
Source: EU SILC data for Latvia (2012).

Varying performance on non-monetary welfare measures also drags down Latvia's ranking on the independent living domain of AAI. This is particularly the case for material deprivation measures,

where Latvia scores the second lowest after Bulgaria.[12] Figure 7 shows the share of the population above 65 years that is free from severe material deprivation. According to this indicator 73.6 percent of older individuals in Latvia are able to afford four or more out of the nine durables that are considered essential by most households in the EU. The gender gap in material deprivation among older individuals in Latvia is second highest in the EU, with 78 percent of men and 71 percent of women being free from severe material deprivation, implying that older women face a higher likelihood of being materially deprived compared to Latvian men, and compared to women in all EU countries except Bulgaria and Romania. Moreover, Latvia has relatively large disparities in material deprivation by education, suggesting that social assistance might not prevent severe material deprivation in old age.[13] This is especially relevant for women, as tertiary-educated older women face a 18 percentage point lower risk of severe material deprivation compared to older women without upper secondary education, this difference being the third highest in the EU, after Romania and Bulgaria, but close to Hungary, the country with a similar education profile for this age group.

Figure 7: The risk of severe material deprivation differs significantly by gender

No Severe Material Deprivation, 2012, by gender



Source: EU SILC data for Latvia (2012). Active Aging Index 2014.

[12] Material depreciation aims to measure financial security and shows the proportion of individuals and households who cannot afford certain goods considered by most people to be necessities. It measures exclusion by directly capturing people's actual standard of living in the country where they live. Moreover, whereas other poverty indicators based on current income (i.e. at-risk-of-poverty rate) or the relative median income are affected by transitory shocks, indicators on material deprivation can compensate for such limitations because they tend to be more stable over time and reflect the underlying circumstances of individuals and households.

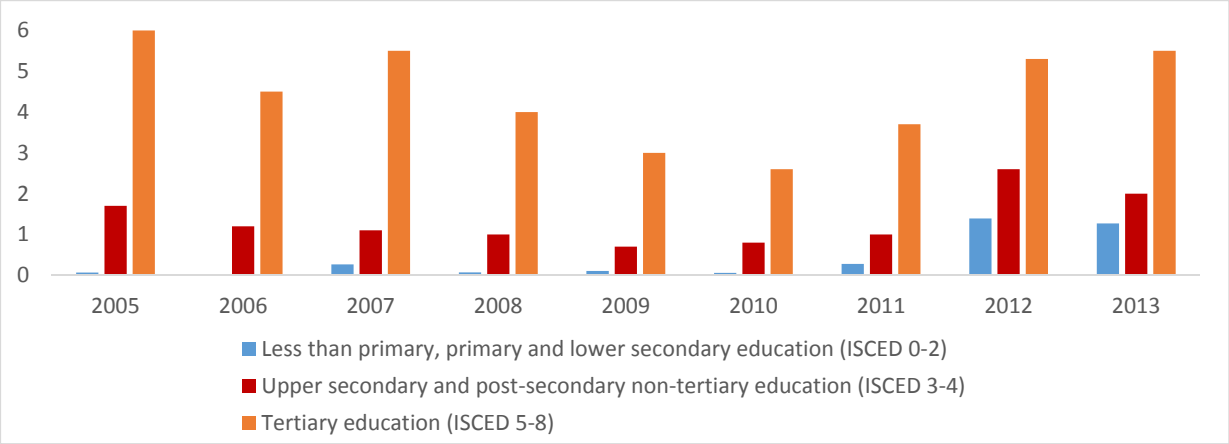
[13] Throughout the report, the following definitions are used to denote social protection schemes, which are based on or consistent with the 2012 ESSPROS manual: "social protection" encompasses all interventions from public or private bodies intended to relieve households and individuals of the burden of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved; "social insurance" programs are contributory social protection schemes that require the payment of contributions, by the protected persons or by other parties on their behalf, in order to secure individual entitlement to benefits; and "social assistance" programs are non-contributory social protection schemes, in which eligibility to benefits is not conditional on the payment of contributions by the protected persons or by other parties on their behalf.

In an international comparison with other EU countries, Latvia scores relatively low in terms of participation in lifelong learning.[14] Focusing on the age group 55 to 74 years, Latvia only ranks thirteenth out of 28 countries in 2012. Figure 8 illustrates how lifelong learning declined over the crisis years and still has not recovered the levels enjoyed by the highest education groups in 2005. The situation of the lower educated groups (lower than tertiary education) has, however, improved. Most of the overall positive gains since 2010 can be attributed to significant improvements in the regions of Kurzeme and Zemgale. Indeed, gender and education heterogeneity in lifelong learning indicator is relatively low in Latvia.

The results from the decomposition of the Active Aging Index substantiate the need for policy interventions aimed at improving aging outcomes for the "50+" generation. In an international comparison, Latvia ranks nineteenth among all EU member countries. Furthermore, the large disparities between outcomes for different population groups illustrates the importance of focusing on improving the performance of the less advantaged among the "50+". Given that the labor force will come to rely more on those aged 50 and over, focusing on improving aging outcomes across the population and particularly for those is less advantaged socioeconomic groups will be important for future growth performance. Health is clearly spelled out as an area where there is room for improved outcomes for the entire population in Latvia, though males are lagging particularly in health outcomes.

Figure 8: Participation in lifelong learning is low, with minor improvements after the crisis

Lifelong learning: percentage of older persons aged 55-74 who received education or training in the four weeks preceding the survey



Source: LFS Latvia. Active Aging Index 2014

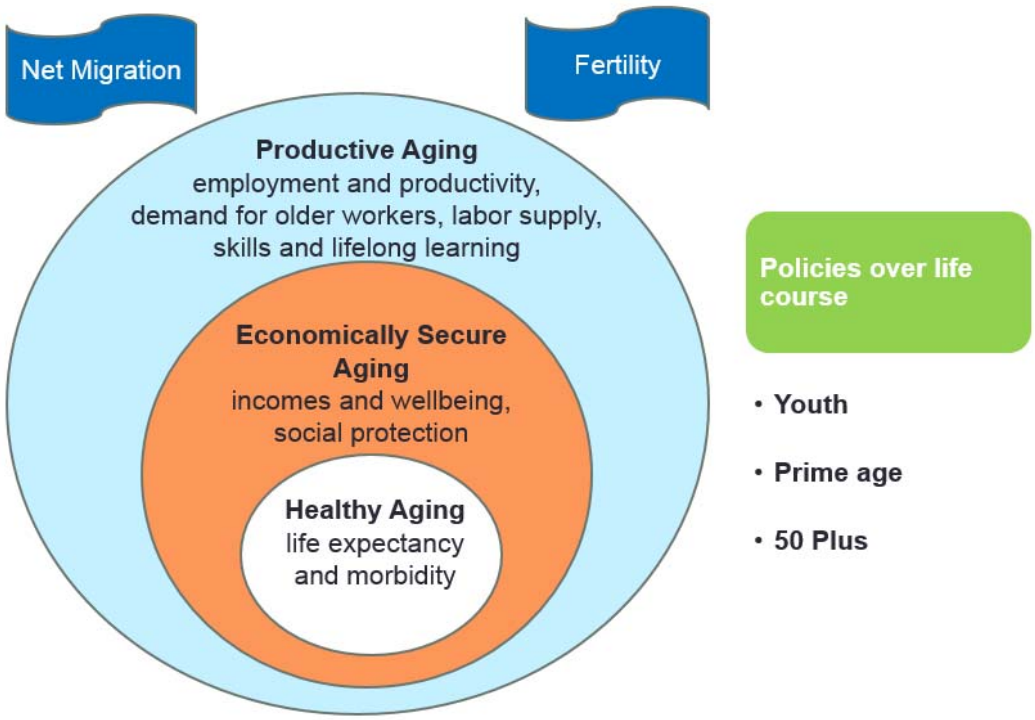
[14] The information collected relates to all education or training whether or not relevant to the respondent's current or possible future job. It includes formal and non-formal education and training that means in general activities in the school/university systems but also courses, seminars workshops, etc. outside the formal education.

BUILDING A POLICY AGENDA FOR "50+"

The report concentrates on **productive aging**—the conditions necessary to support employment and productivity over longer working lives, including lifelong learning/skills development over the lifecycle, **economically secure aging**—essentially how older people fare along different welfare dimensions, with a strong focus on income; and **healthy aging**, a large challenge for Latvia, which loses too many people, especially men, to premature mortality. The framework for the report is provided in Figure 9. While the AAI focuses on the "55 plus", many of the interventions required by an aging society are to be developed from childhood onwards. The report therefore also includes policies beyond the "50+" population. Given than incomes of the "50+" are on average lower in Latvia than in many EU countries, the report moves beyond employment rates to look at monetary and non-monetary aspects of job quality, income composition and absolute poverty measures. Apart from health, income, employment and learning, there is evidence that social connectedness is low and that social participation, especially in voluntary activities, could be increased. However, these latter aspects of active aging are not explored in this report.

Before focusing directly on policies that can help to adapt to population aging, the report will now set the context of the demographic challenge in Latvia. In addition, the next chapter will discuss two policy-relevant issues that can, in theory, accelerate or moderate the pace of population aging—fertility and net migration—and the extent to which each can affect the age structure of Latvia's population in the short, medium, and longer term horizon.

Figure 9: Building an active aging policy agenda for the "50+"
Framework for policy focus



3. Demographic challenge

This chapter provides an account of past demographic trends and future challenges in Latvia. The population is aging mostly due to shrinking younger age cohorts rather than because of a large expansion in older age groups due to rising longevity. Rapid aging is mainly a result of a sharp fall in fertility and high outmigration. Although over the longer-term, a rise in fertility could contribute to re-balancing the population structure, a rise in fertility now would not impact on the size of the working-age population by 2030. Any change in fertility would take time to impact on the population as low fertility now means fewer potential parents in the next generation and therefore has a multiplier effect, reducing the size of future generations. Immigration can play a more immediate role in compensating—though not fully—for shrinking younger cohorts, although emigration rates have increased and the potential for continued high emigration remains high.

POPULATION IS IMBALANCED ACROSS GENERATIONS

Latvia's population structure is top heavy: the "50+" make up nearly 30 percent of the working-age population. This is not due to a post-Second World War baby boom, but rather is explained by the sharp drop in fertility since the early 1990s and the emigration of younger cohorts. The population is projected to continue to decline, shrinking by a fifth percent over 2012-2030 (see Table 1). By 2030, the share of the working-age population—defined as those aged 15 to 64—is set to decline almost seven percentage points and the "50+" share of the working-age population will grow further, while the share of the "oldest old" population (80 plus) is expected to increase to 7 percent of the population. Those aged 50 to 64 years make up a growing share of the population—accounting for a fifth of the total based on data for 2012. The overall population share of the "50+" is expected to rise from 38.6 percent in 2012 to 45.6 percent in 2030.

Table 1: Latvia: Population to fall and become older

Share of the population, in percent (unless otherwise noted)

Age	2012	2030
0-14	14.3	14.2
15-29	20.0	16.2
30-49	27.2	24.0
50-64	20.0	20.3
65-79	14.1	18.3
80+	4.5	7.0
Working age (aged 15-64)	67.2	60.4
Old-age dependency ratio	27.6	41.9
50+ share of workforce	29.8	33.6
50+	38.6	45.6
65+	18.6	25.3
80+	4.5	7.0
Population (millions)	2.0	1.6
Population change 1/		-19.9

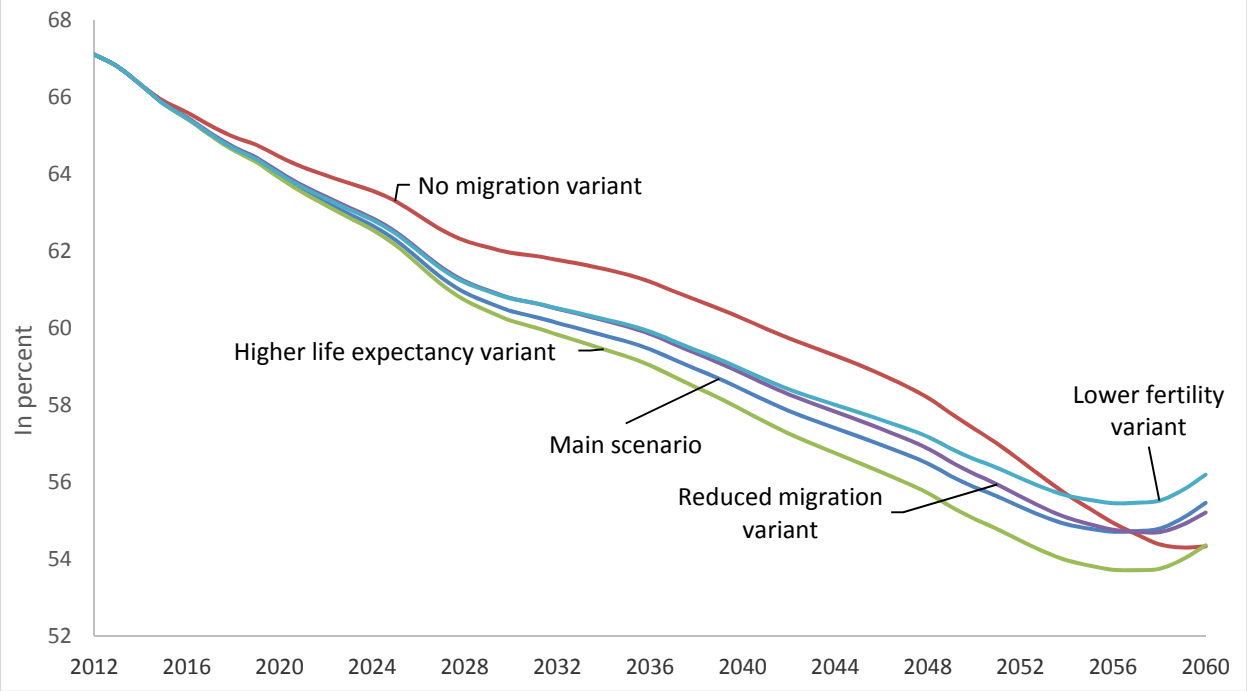
Note: Population projections are based on the Eurostat's main population projection scenario. 1/ Shows population change over 2012-2030 and 2030-2060.

Source: World Bank staff calculations based on data from Eurostat.

Under realistic fertility assumptions, migration trends become the biggest driver of population dynamics in Latvia. The projections in Table 1 are based on Eurostat's main population projection scenario. According to Eurostat's main population projection scenario, emigration exceeding migration (negative net migration) is expected to taper off in the long term, but is still expected to remain high during the 2013-2030 period—with annual net migration flows projected to be -0.5 percent, -0.8 percent and -0.6 percent of the population in 2013, 2020 and 2030, respectively. Life expectancy is expected in increase by one to two years per decade for men and 2-3 years for women over 2013-2030. The main scenario assumes a projected increase in fertility in Latvia to a range of 1.5 to 1.68 over 2013-2030 and 1.73 to 1.78 over 2040-60 from 1.44 in 2012. This represents a substantial increase given low fertility trends over the past 20 years. The projected rise in fertility would contribute to a slight re-balancing of the population structure, with a rise in the relatively size if the population groups under 30 years of age and a fall in the "50+" share of the working-age population in 2060. But it would take time for the fertility rise to impact on the population structure and large impacts are not foreseen by 2030 or even 2060. Figure 10 shows different paths for the working-age population share based on alternative population scenarios: these are the main scenario, a reduced migration variant, a no migration variant, a higher life expectancy variant and a lower fertility variant (fertility remains unchanged). Different assumptions on migration, not fertility, have the largest impact on working-age population projections. A falloff in emigration and more substantial immigration would have a greater impact on the rebalancing of the population than changes in fertility in the period to 2030 and even beyond.

Figure 10: Under realistic fertility assumptions, migration becomes the biggest driver of population trends

Share of working-age population (aged 15-64)



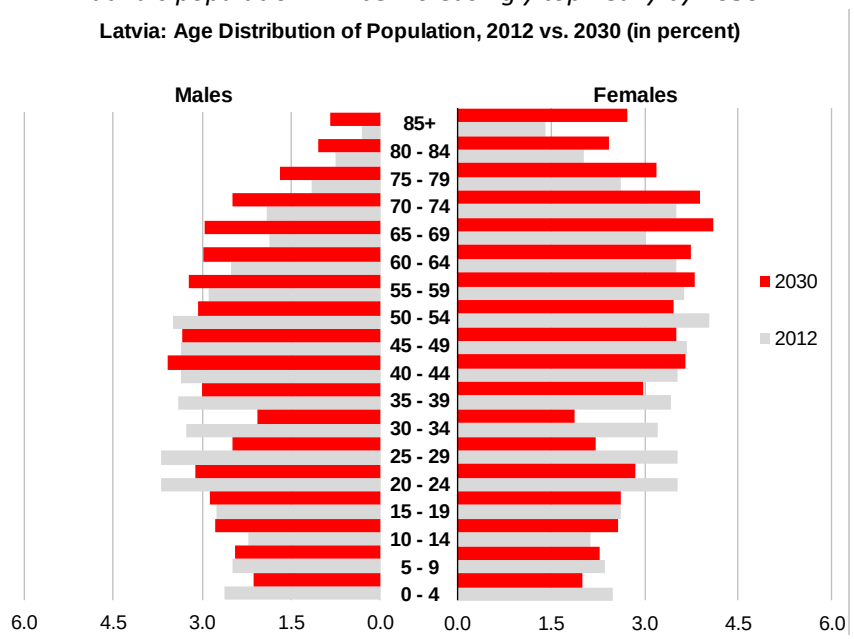
Source: World Bank staff calculations based on data from Eurostat.

Compared to other Northern European countries, there is a larger imbalance across generation sizes in Latvia due to shrinking younger generations. Figure 11 compares the population structure in Latvia and Sweden in 2013 and 2030. While Latvia and Sweden have a similar median population age—41.2 years in Latvia compared to 40.7 years in Sweden in 2010—their population structures look very different. With a total fertility rate that is close to replacement (1.91 in 2012) and positive net migration, Sweden's age cohorts are balanced in size across the generations when compared to Latvia. While Sweden is aging, it is from the top—the older generations are becoming larger due to increased life expectancy and younger generations are not shrinking. Close-to-replacement rate fertility has meant that in Sweden aging has slowed compared to in many other EU countries. Sweden was the country with the highest median age for much of the second half of the twentieth century until Italy overtook it in the latter half of the 1990s.[15] Latvia in comparison to Sweden then not only has to deal with an increase in the average age of the population, but also faces the challenges of adapting to differently sized age groups and shrinking younger age cohorts.

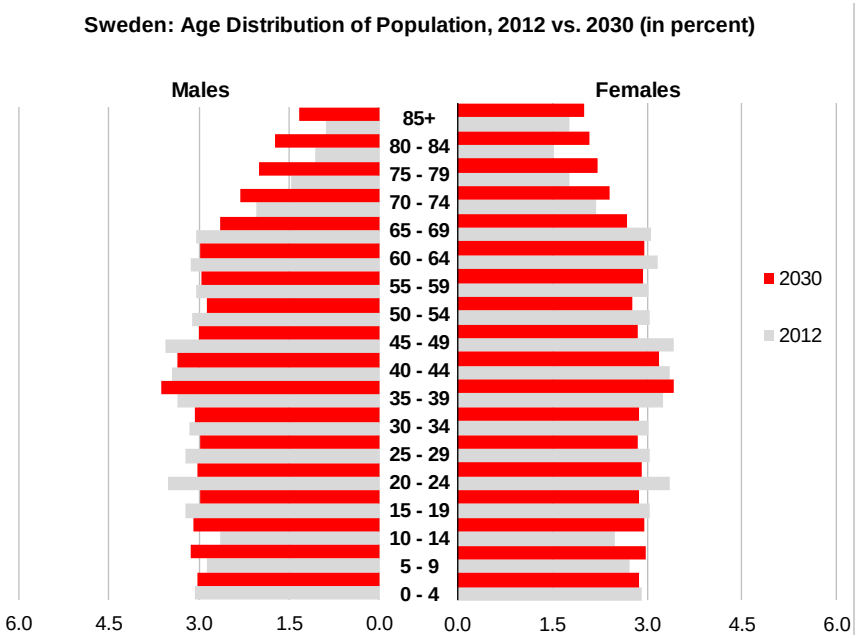
[15] The median age in Sweden was highest among the current EU28 countries at 36 in 1960, 38.3 in 1990, before the median age equalized with Italy in 1995 at 38.5 in 1995. Italy then aged more rapidly and by 2000, the median age in Sweden was 39.4 compared to 40.2 years in Italy (UN Population Division 2013).

Figure 11: Latvia: Population structure to become increasingly skewed toward older groups over 2012-2030

Latvia's population will be increasingly top heavy by 2030



Sweden's more balanced population structure



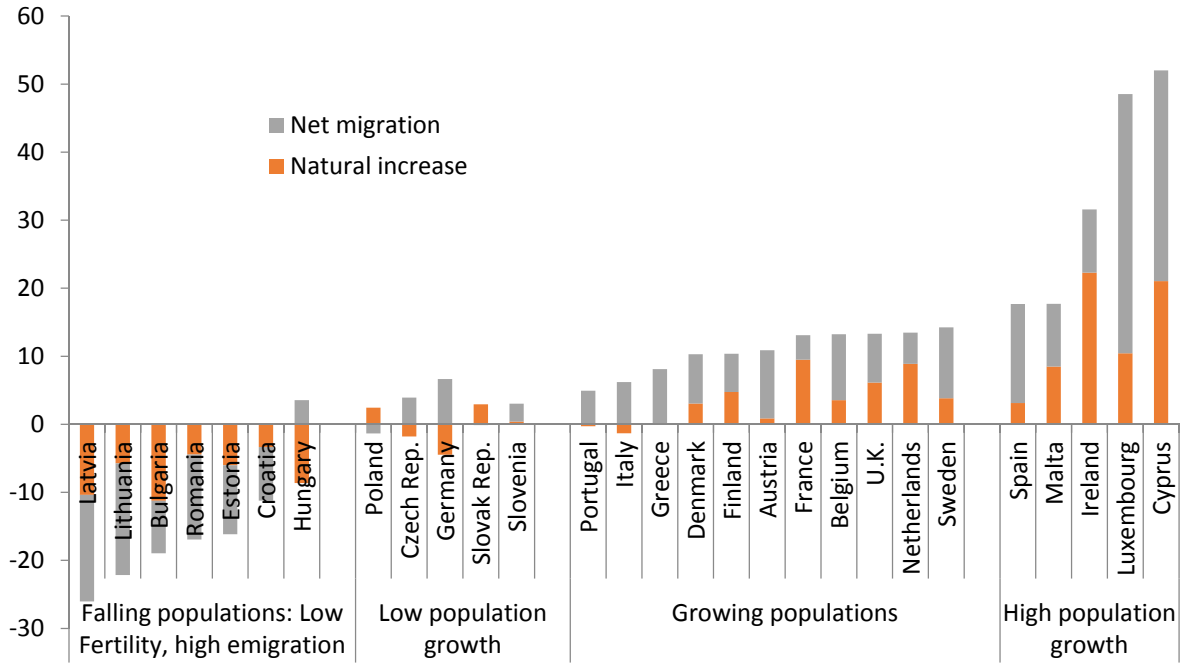
Source: World Bank staff calculations based on data from Eurostat.

MIGRATION AND FALLING FERTILITY HAVE DRIVEN DEMOGRAPHIC CHANGE

Latvia is the country in the European Union (EU) that has experienced the largest decline in its population in recent years—a fall of over a quarter since 1990 (Figure 12). At the same time, the median age of the population has risen from 35 years in 1990 to 43 years in 2015. Aging has taken place due to shrinking younger generations rather than because there has been a large rise in the numbers of elderly people. Fertility rapidly decreased from just below the replacement rate of 2.1 children per woman in 1990 to among the lowest fertility level across countries, at 1.4 in 2012. Higher deaths than births thus contributed 40 percent to the overall population decline over 1990-2010. Beyond the natural rate of population decline, Latvia is notable for its high rates of emigration, which was responsible for 60 percent of the population decline. Emigration speeded up following EU accession and the opening up of certain countries in 2004 and again at the onset of the economic crisis in 2008/09.[16]

Figure 12: Latvia's population has declined by over a quarter since 1990, due largely to emigration and falling fertility

Cumulative population change 1990-2015, in percent



Notes: The natural increase in the population is defined as births minus deaths. Net migration is the net total of migrants during the period, that is, the total number of immigrants less the number of emigrants.
Source: Based on United Nations Population Division (2015).

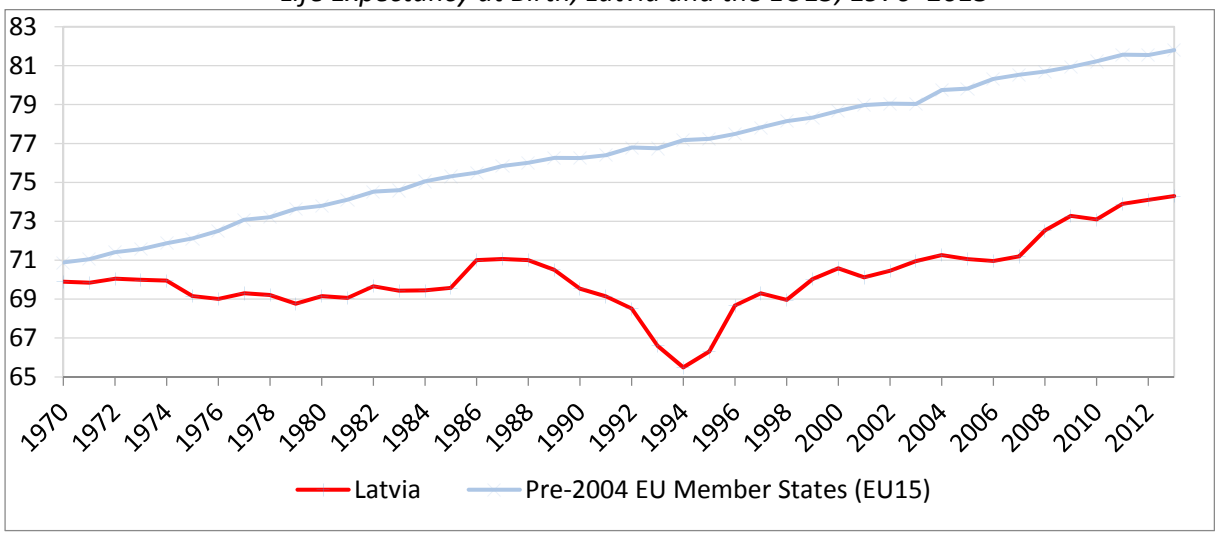
[16] This basic decomposition of the change in population disregards the impact of immigration on fertility and as such downplays its importance. On average, families with the largest demographic potential have been found to be more likely to emigrate than others in Latvia (Hazans, 2014). The impact of the loss of these women is apparent when the total fertility rate for Latvian-born women living in England and Wales in 2011 is taken into account—it is nearly double that of women in Latvia at 2.51 (Office for National Statistics, U.K.).

Increased longevity has not driven aging in Latvia. Since the Second World War, the largest gains in life expectancy were seen from the early 1950s to the mid-1960s, when life expectancy at birth increased from 62 to 70 years.[17] In the 20 years following 1970, life expectancy in Latvia stagnated and even declined in common with other former communist countries of Central and Eastern Europe and Russia. All the gains in life expectancy took place over the 2000s, but the gap between how long people can expect to live in Latvia compared to the pre-2004 European Union member states (EU15) is still eight years (Figure 13).

Excess mortality among males is partly responsible for the observed difference in longevity. On average, men die at 69.3 years and women at 78.9 years in Latvia compared to 78 and 83 years, respectively, in the EU15.[18] Behavioral factors explain part of this difference: Smoking- and alcohol-related deaths account for much of the gender gap and the difference with the better-performing EU countries. Improved detection and treatment of cardiovascular-related diseases will play a role in closing the life expectancy gap.[19] In tackling the life expectancy gap, there are indications that a critical factor for Latvia will be to reduce within-country inequality (see Chapter 7 for further details).[20]

Figure 13: Latvia's life expectancy gap with the pre-2004 EU member states has fallen since the early 1990s, but still was eight years in 2013

Life Expectancy at Birth, Latvia and the EU15, 1970–2013



Sources: World Bank's World Development Indicators (2014) and Eurostat (2015).

[17] Source: UN Population Division (2013).

[18] Source: Eurostat (2015) data for 2013.

[19] See Smith and Nguyen (2013) for a comprehensive evaluation of the health challenges facing European and Central Asian countries.

[20] There are considerable inequities in health outcomes in Eastern Europe: decomposing life expectancies at age 50 by educational attainment reveals a strong differences across educational levels. This gradient is larger for men than women, larger in countries with shorter life expectancies, and wider in 2007-09 than it was in 2002-04 (European Union 2013). The education premium is especially severe in Eastern European countries. For instance, the average life expectancy at age 50 for males with tertiary education in Eastern Europe is around 10 years higher than for males without upper secondary education, a difference that dwarfs the 6.3 years in the U.S. uncovered by Pijoan-Mas and Rios-Rull (2014).

EXPLAINING DECLINING FERTILITY

Historically, fertility has been very low in Latvia, with the exception of an uptick in the 1970s and 1980s. Unlike other European countries, there was not a pronounced post-World War II baby boom. Latvia was one of the first countries in the Russian Empire to begin the demographic shift to lower fertility in the mid-nineteenth century—at the same time as the forerunner countries in Northern and Western Europe became the first in the world to transition to lower fertility.[21] By the late 1920s, Latvia was already close to less-than-replacement-rate fertility.[22] The Baltics did not experience the baby boom seen in other European countries in the period following the Second World War up to the 1970s. Latvia experienced a slight increase in births in the late 1940s, but fertility remained below replacement rate and the country had the lowest fertility rate in the World in the 1950s and 1960s. Fertility rose in the 1970s and 1980s when the country experienced a mini-baby boom, particularly in the mid-1980s when it rose to close to the replacement rate. The economic shock of the transition period was accompanied by a decline in fertility to under "lowest low" levels of 1.3 by the mid-1990s, and Latvia once again joined the ranks of countries with the lowest reproduction rates seen globally. This coupled with high emigration has resulted in a severe shrinking of younger age cohorts.

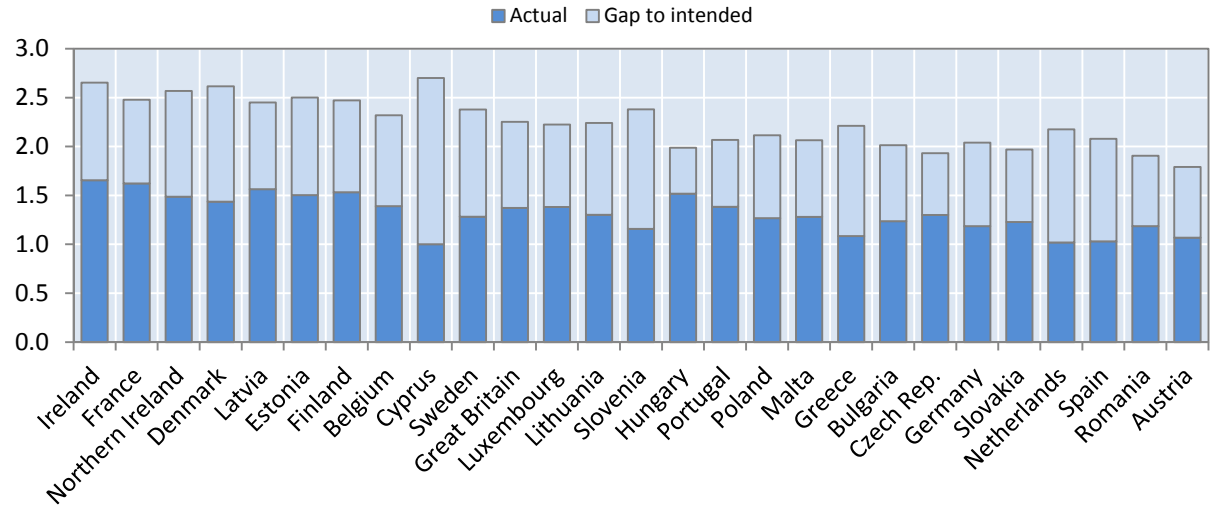
Helping people to have more children has become an issue of growing importance in the policy agenda in Latvia. The Government had introduced a number of policies aimed at supporting families' income and childcare needs. The evidence is that people in general want two children and yet are having on average smaller families that they would like. The "ultimately intended family size" is estimated by summing the number of children that women aged 25-39 "intend" to have and those already born. The two-child family emerges as the dominant ideal in all European countries. In Latvia, women say they want slightly bigger families than is usual in the EU, with 2.4 children being the number of children women intend to have (Figure 14)[23]—well below the number of children they actually go on to have. Interestingly, according to the U.K. Population Census 2011 data, the total fertility rate of women born in Latvia was 2.51. Higher incomes among Latvian migrants in the U.K. may have assisted women in having bigger families. Of course, it is difficult to make any long-term conclusions based on current total fertility rates; it will be necessary to look at the fertility behavior of Latvian migrants over the longer-term and look at whether this group has different characteristics from those that have remained in Latvia.

The decline in fertility in Latvia is mostly due to women not having a second child. Childlessness is unusual in Latvia. Only 16 percent of women on average have no children, compared to 22 percent in Italy or 24 percent in Germany.[24] However, while in the higher fertility countries like Denmark, Ireland, or Sweden, about 80 percent of women having one child decide in favor of a second child, in Latvia under 60 percent of women have two children.

[21] Coale, Anderson, and Harm (1979)
[22] Katus, Puur, Sakkeus and Põldma (2009)
[23] European Commission (2014)
[24] Based on EU SILC CS 2008 for women aged 39 to 45.

Figure 14: People in the EU often have fewer children than the approximately two they say they want

Actual and ultimately intended number of children of women age 25-39, 2011



Note: Countries are ranked by the decreasing number of ultimately intended family size of respondents. This information is based on survey responses to the question: "And for you personally, what would be the ideal number if children you would like to have or would have liked to have?"
Source: European Commission (2014): Eurobarometer 75.2 (2011). TNS OPINION & SOCIAL, Brussels [Producer]. GESIS Data Archive, Cologne. ZA5480 Data file Version 4.0.1, doi:10.4232/1.11853.

Improving families' economic circumstances is important for increasing fertility in Latvia. Affordability or economic stability seems to dominate the decision to have a second child in Central European and Baltic countries. Several studies suggest that job instability along with income uncertainty are important reasons explaining low fertility in lower income EU countries such as Latvia, Poland, Hungary or the Czech Republic.[25] For less rich EU countries the general economic circumstances facing families would then appear critical in driving the decision to whether or not to have more children. For countries where unstable or low incomes prevent families from growing, progressive tax and benefit policies may play an important role in supporting families to expand. Child-care coverage for children aged 0–3 years and preschool places for children under age 7—by reducing the direct costs associated with having a child—also can be an important family policy instrument.

Low fertility now has a multiplier effect in the future. Lower numbers of children result in smaller numbers of potential parents in future years, which decreases the number of children in subsequent cohorts. Figure 15 (a) shows the stark decrease in the number of children under the age of 5 that occurred between 1990 and 2010 in central Europe and the Baltics; among these countries Latvia registered the sharpest drop. Figure 15 (b) shows the trajectory for the number of births expected until 2030 if fertility rates remained constant at its 2015 value,[26] in which case the number of babies born will continue to decrease in the future. Even where fertility is assumed to be high in the future,

[25] Goldstein et al. (2009); Mishtal (2009)

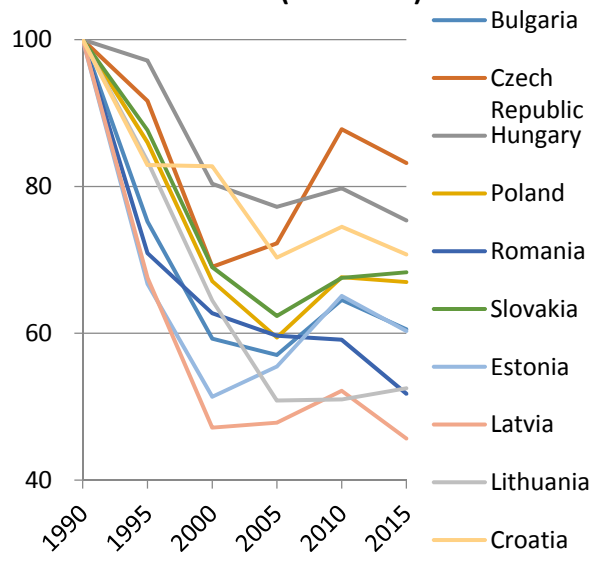
[26] The 2015 value is taken from United Nations Population Division (2015) and is based on a period average over 2011-15.

with the total fertility rate increasing to 2.15 by 2030, fewer parents due to shrinking cohorts would lead to a decline in the number of babies born after 2025. [27]

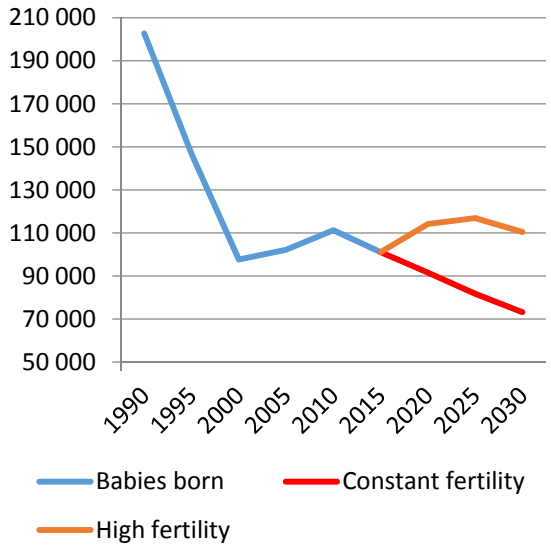
To keep the number of children at 2010 levels, the number of children per family would need to increase by 51 percent up to 2030. The projected decline in births is attributable solely to the reduction in the cohorts of potential parents, which was predetermined by fertility declines twenty years ago. This demographic momentum underlines the limited effect that increased fertility rates today can have on mitigating the demographic shocks in the coming decades. Over the longer-run, however, a rise in fertility would contribute to re-balancing the population structure and would increase the share of younger generations in the population.

Figure 15: Low fertility now has a multiplier Effect

A. Number of Children under Age 5 Compared to 1990 (1990=100)



B. Births in Latvia in 1990-2015 and Projected Future Births through 2030



Source: Based on United Nations Population Division (2015).

MIGRATION PUSH AND PULL FACTORS

Emigration is exacerbating the demographic crisis in Latvia. The loss of young population due to emigration has reinforced negative natural change as a result of sharply declining birth rates. Despite the many benefits that migration can entail for sending countries (e.g., improvements in local labor markets, increased productivity or salaries upon return, remittances, etc.) these trends also bear significant challenges for instance in terms of the potential loss of human capital and the sustainability of local social protection systems. Reflecting these emerging concerns, three quarters of Latvia's population perceive emigration as the largest threat to the country (2012). Latvia has one of the most mobile populations in the EU, second to Lithuania if measured as the loss in population share due to net emigration over 2000-2012 (Figure 16).[28]

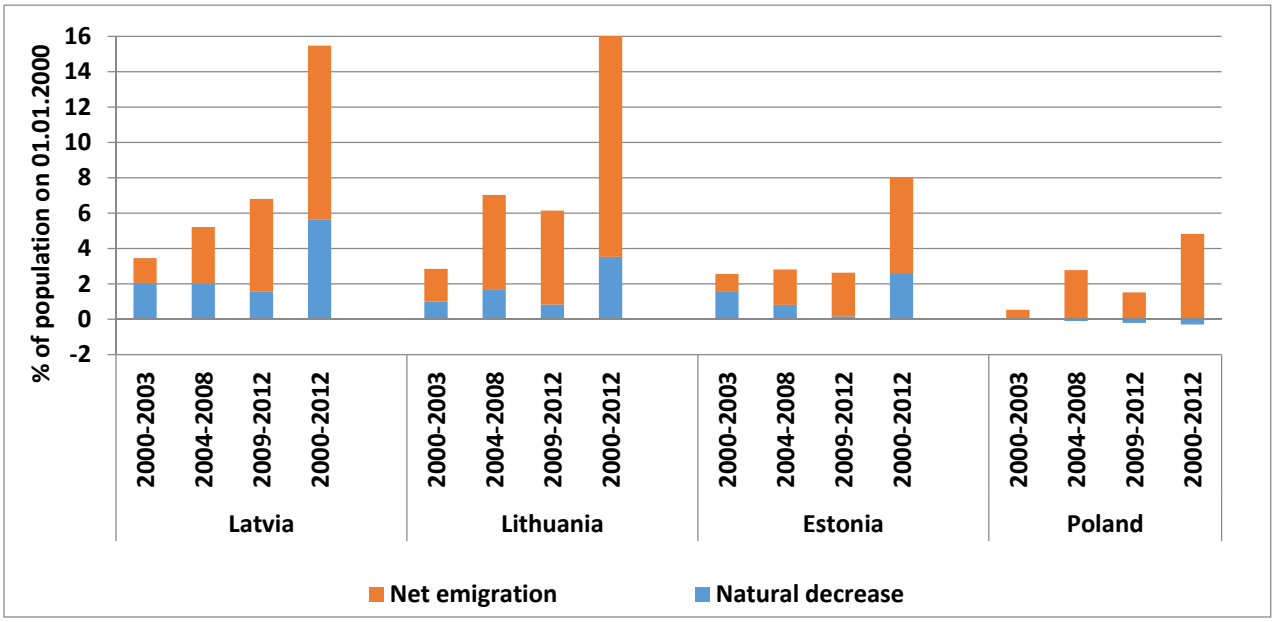
[27] Based on the high fertility variant of United Nations Population Division (2015).

[28] This section is based on the analysis of Hazans (2015a).

Over 2004-2008, migration increased substantially with accession and the gradual implementation of free movement of labor within the EU. As a result of growing migrant networks, the costs of job search abroad and migration decreased, while the demand for migrant`s labor in EU-15 countries was growing, and higher income and better working conditions abroad operated as strong pull factors, especially for those without higher education or in a well-paid profession. Pull factors then stimulated emigration during this period, and led to a loss of 2 percent of the population to emigration in the five post-accession years (2004-2008), although the economic boom reduced the motivation to migrate towards the latter half of the period.

Figure 16: Latvia has one of the most mobile populations in the EU

Natural decrease of population and net emigration: The Baltic countries and Poland, selected years, 2000-2012



Source: Hazans 2015.

Push factors prompted emigration during the crisis years when employment was particularly hard hit over 2009-2010. These push factors included a rise in joblessness and wage cuts, but also inability to pay back credits, weak social protection systems and uncertain prospects for the future. There was a substantial increase in out-migration: Outflows doubled or almost doubled compared to the pre-crisis levels in 2009. Most of those who left during (and after) the crisis were not risk-takers: On the contrary, they perceived staying as too risky, and destination countries as safe heaven. This implied a strong shift from temporary emigration of breadwinners towards long-term or permanent emigration of entire families.

Emigration is not slowing down substantially and the potential for further emigration continues to be high. In the aftermath of the crisis, and despite economic recovery, there have been no clear signs of a considerable slowdown in emigration from Latvia. Overall, during the five years during the crisis and post-crisis years (2009-2013) gross outflows from Latvia were equivalent to 9.1 percent of their populations. Additionally, in four years (2009-2012) the stock of Latvian emigrants in EU/EFTA countries increased by almost 150 percent. Pull factors and non-economic reasons mainly explain intentions to emigrate. As shown by survey evidence from Latvia, the share of adult working-age (18-

64 years) population prepared to accept an offer implying long-term emigration has increased from 55 percent in 2010 to 68 percent in 2012, while the intention to return among labor migrants has actually decreased today compared to 2005-06. Consultants from European Employment Services (EURES) in Latvia found that the strong shift from temporary emigration of breadwinners toward long-term or permanent emigration of entire families was associated with people wanting to find permanent skilled employment and social protection rather than the lower skilled temporary employment that was common in the past (Table 2). Evidence from surveys on emigration intentions in Estonia conducted in 2006, 2010 and 2013 suggests similarly that both economic and non-economic push factors, including better social security abroad, sharply increased.

Table 2: Changing Profile of EURES Clients in Latvia, 2004-2010

2004-2007	2008-2010
Planning to move alone	Planning to move with family
Looking for temporary, low-skilled job	Looking for permanent, skilled job
Minimal knowledge of foreign languages	Better knowledge of foreign languages, higher qualifications
Planning to return	Interested in legal employment and social security

Note: Based on the daily records of European Employment Services (EURES) consultants in Latvia.
Source: Hazans (2013: Table 4.6)

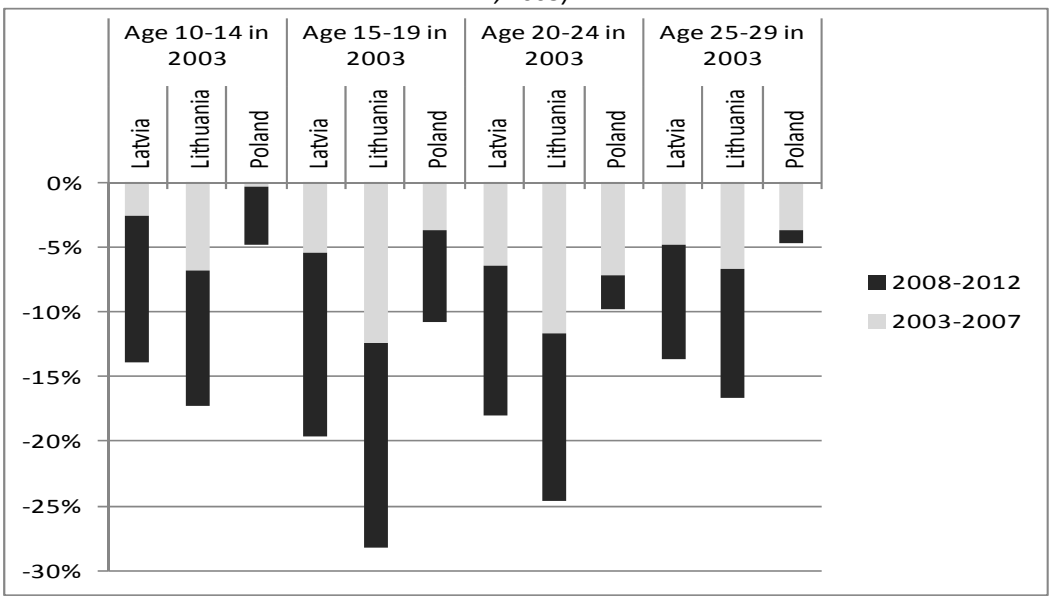
Emigration led to a shrinking of younger age groups in Latvia as most migrants are young and in addition the loss of young women means that less children are born in Latvia. Most Latvian emigrants depart aged between 15 and 34 years old, hence this age group shrinks faster than population in general, thus accelerating aging (caused also by declining birth rates). Figure 17 illustrates the impact of post-enlargement migration on youth cohorts by tracking their size (which is almost unaffected by natural change) over the period of 2003-2012. In ten years, of Latvian cohorts aged 15-19, 20-24 and 2-29 years at the beginning of 2003, 20 percent, 18 percent and 14 percent, respectively, of their members have emigrated. The five year during and after the crisis (2008-2012) accounts for most of this youth loss.[29] Families with the largest demographic potential—families with children or who are planning to have a child within three years—are more likely to emigrate.[30] In common with other Baltic countries and Poland, Latvian women abroad have higher fertility rates than their peers at home. Total fertility rates for U.K.-based women born in Latvia, Lithuania and Poland were 2.51, 2.29 and 2.13 according to the U.K. Population Census 2011 data—well above fertility rates seen in the home countries, but similar to the declared optimal family size according to survey data. The direct loss of demographic potential due to emigration is large: in England and Wales alone, the number of births in 2011 attributed to females born in Latvia and Lithuania accounted for about 12 percent of the number of live births in the sending countries in that year.

[29] Note that the presented data here are based on the official population statistics, which, especially in Latvia, underestimates emigration in the post-crisis period (Hazans 2013), so actual losses are likely even larger.

[30] Hazans, 2013d; 2014a; 2014b.

Figure 17: Younger cohorts have shrunk post-enlargement due to emigration

Change in the size of selected age cohorts: Latvia, Lithuania and Poland, 2003-2012 (in % of population on January 1, 2003)



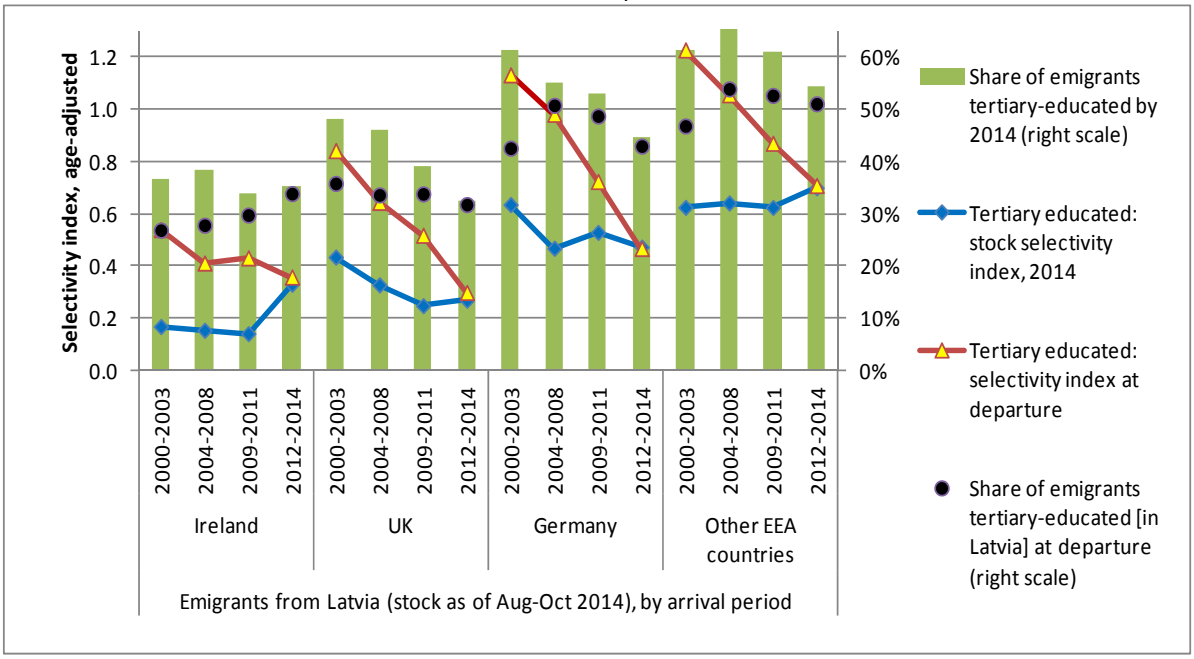
Notes: For Poland, the data presented in Figure 5 diverge substantially from the official Polish population statistics which severely underestimates emigration.
Sources: Hazans (2015a) based on Latvia and Lithuania: Population statistics (Eurostat) and own calculation. Poland: Eurostat and OECD statistics on Polish nationals among population of EU and EFTA countries and own calculation.

Emigrants were better educated than those who remained at home. Using the U.K. Population Census data of 2011 on the educational attainment of Latvian-born residents, almost half were tertiary educated—substantially more than above their peers at home.[31] An age-adjusted stock selectivity index compares human capital of migrants of each age group in the destination country with those of the same age group at home. The age-adjusted stock selectivity index reveals that for each of the main destination countries the share of university graduates among Latvian emigrants was higher than among their age group that stayed in Latvia (Figure 18). [32] A flow selectivity index reveals that the brain drain (measured here as "diploma" drain) is slowing down: University graduates were not as over-represented during the crisis as before for all destination except Ireland and in the post-crisis period while Latvia was still losing proportionately more better-educated people, the brain drain was less intensive. [33]

[31] Hazans (2015a).
[32] Hazans (2015a).
[33] Hazans (2015a).

Figure 18: Emigrants were more likely to be better educated than those who stayed at home

Shares, flow selectivity and stock selectivity of Tertiary educated emigrants from Latvia, 2000-2014, by destination and arrival period



Notes: The [stock] selectivity index compares, for each destination and arrival period, human capital of the stock of Latvian emigrants in August - October 2014 with human capital of Latvia's population as of 2013, assuming the same (destination-and-arrival-period-specific) age distribution as for the stock of emigrants. The [flow] selectivity index compares, for each destination and arrival period, the share of emigrants who left Latvia with completed tertiary education with the share of tertiary educated stayers in that period, assuming the same age distribution as for those who moved from Latvia during that period.

Source: Hazans (2015a) based on emigrant survey data and Eurostat data.

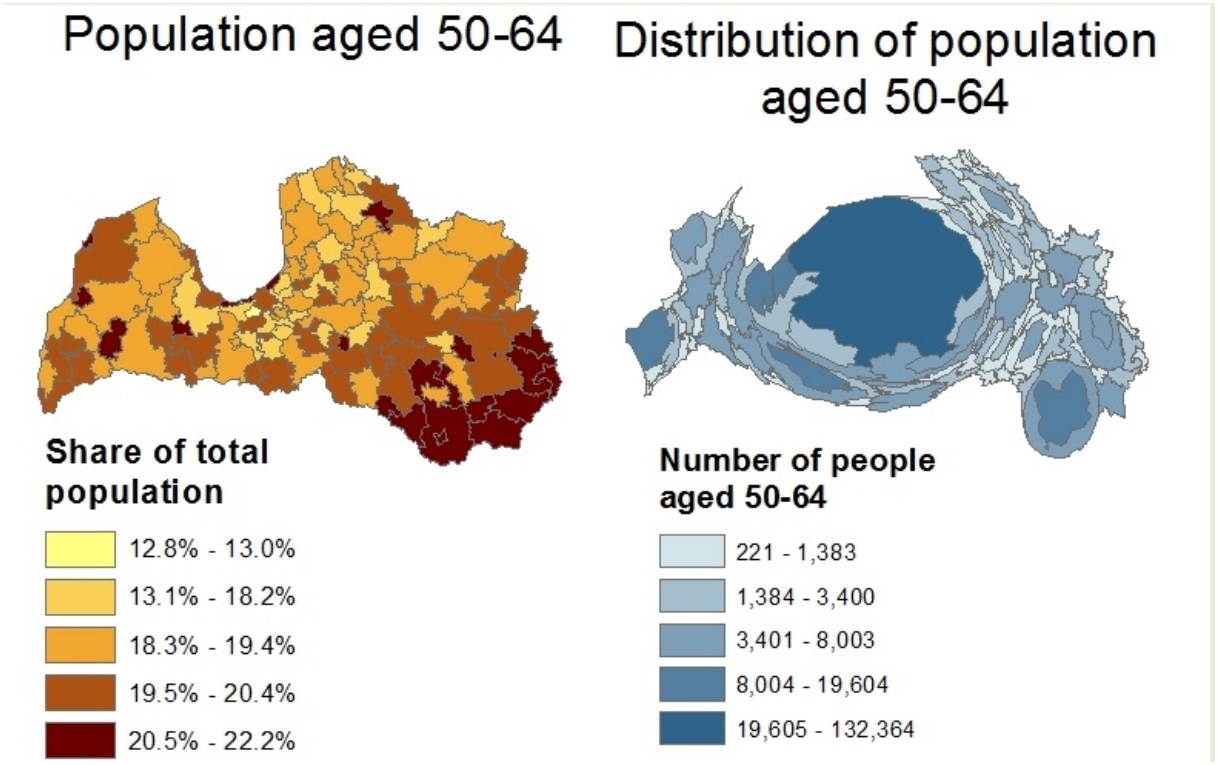
REGIONAL DIMENSION TO AGING

The population in the east of the country—particularly Latgale—is older than in Riga and its surrounds and faces lower incomes and higher unemployment; however, the majority of the older is urban based and just under half live in Riga and Pieriga. The east of Latvia is older than the rest of the country. Latgale has 16 percent of the "50+" population and the oldest region, where on average the "50+" make up 41 percent of the population of the municipalities/cities. Much of the older population (60 percent) in Latgale live in mixed rural-urban or rural municipalities. The region, which is the poorest with a GDP per capita in 2011 that was 57 percent of the national average, faces higher than average unemployment for the "50+" and has lost a large share of young people due to outmigration. It also must confront the challenge of delivering services to older people in sparsely population areas. The first map in Figure 19 shows the share of the older working-age population by municipality/Republican city and the cluster of older municipalities/cities in the east of the country is apparent. Riga and Pieriga are younger that the rest of the country with an average "50+" share of 35 percent across Riga and the Pieriga municipalities. In Pieriga, there are number of municipalities with young populations, Mārupes novads is the youngest where 77 percent of the population is below the age of 50. The second map in Figure 19 shows the cities and municipalities of Latvia sized by their population of older working-age people. Apart from Latgale, the population-weighted map shows that the older population is predominately based in Republican cities and their outlying areas. A large

share of the older population aged 50-64 is urban-based or near to Riga with 50 percent in Riga and Pieriga (Riga's outlying area) and a further 10 percent in other Republican cities.

The distribution of the population aged "50+" and the oldest old is almost exactly the same as the population was a whole. Just over half (53 percent) of the "50+" population resides in cities or other urban areas (compared to 50 percent of the population as a whole), 13 percent live in intermediate regions where the rural population is between 20 and 50 percent of total population it is also 13 percent for the total population) and 38 percent are in predominantly rural regions where the rural population is 50 percent or more of the total population versus 37 percent for the total population.

Figure 19: The biggest share of the older working-age population lives in Republican cities and neighboring areas, but the east of the country is relatively older



Source: Based on CSB Census Data (2011).

CONCLUSIONS AND POLICY DIRECTIONS

The Latvian government has put in place a number of measures to support families and should continue to build on these efforts. Empirical analysis, as stated earlier in the chapter, indicates that low incomes are a barrier to increasing family size and that to decrease emigration it will be necessary to reduce the wage differential with destination countries. Therefore, general business climate improvement measures to aid job recovery and wage growth are important to stop the shrinking of younger generations. Increasing incomes through better jobs and more favorable tax and benefit regimes for low-income families may reduce the push factors that drive emigration and support families to have the two children they say they want. Supporting further low-income families by

generally targeting tax-benefit policies to low-income (working) families could contribute to improving the situation of families—as overall fiscal sustainability allows. Continued actions to increase the coverage of day care for children aged 0–3 years and preschool for children under seven will be important to support working parents.[34]

Emigration also brings benefits. Remittances and increased productivity or salaries upon return are just two ways emigrants bring benefits back to sending countries. A recent survey of Latvian emigrants found that 17 percent of those who emigrated in the 21st century definitely or probably plan to return within 5 years and another 17 percent plan or consider returning upon retirement.[35] Wages are higher for return migrants. Econometric analysis shows that even after controlling for educational attainment, age, gender, region and family members working abroad, employed return migrants have an income that is 13 percent higher compared to their employed counterparts without post-accession foreign work experience.[36] Moreover, this difference is due to experience abroad rather than to differences in productivity between return migrants and other workers. According to the results of the survey conducted for Human Development Report 2011, 70 percent of returnees report that foreign experience had a positive effect on their professional skills and 82 percent notice a positive effect on self-confidence (as the latter is very important for active aging, the returnees can be the agents of change in this respect).

Having a large diaspora can offer benefits for trade, investment, and innovation; in this regard, governments should foster the diaspora's engagement in economic and social development and expand "virtual borders". According to a recent survey of emigrants, 25 percent of the post-2000 emigrants plan to start a business in Latvia or to help their employers to establish business relations with Latvia.[37] However, the evidence does not yet point to large trade or investment impacts due to the growth of the Latvian diaspora in the United Kingdom, Ireland, Germany, Norway, and Sweden in the last decade. Over time the increased wealth and foreign work experience of migrants could be expected to have a greater impact on the domestic economy if rising numbers of Latvian nationals return and/or invest in the country. The Latvian Ministry of Foreign Affairs is focused on strengthening the links between Latvia and compatriots living abroad.[38] Continuing and expanding these activities will be important going forward. Over the longer term an aim, as is common in many countries with large diaspora communities, is for the government to work with the private sector to put a specific focus on expatriates (either as investors or as facilitators) into Latvia's broader FDI and national development strategy. While strengthening investment channels may take longer to come

[34] However, take-up of childcare services for children in the 0-3 year old age group is impacted by the lack of demand from parents of children up to 1.5 years old, as they benefit from relatively generous childcare benefits for children in this age group. Information on child benefits is available at http://www.vsaa.lv/media/uploads/UserFiles/pakalpojumi/vecakiem/pabalsti_par_bernu_2015.pdf

[35] Hazans (2015b).

[36] Hazans (2015a).

[37] Hazans (2015a)

[383838] In 2013, the Ministry of Foreign Affairs, in its report On Cooperation of the Ministry of Foreign Affairs with the Latvian diaspora in 2013 – 2015, set out four lines of action: facilitating the civic and political engagement of the diaspora; preserving the diaspora's bonds with Latvia and Latvian identity; promoting cooperation with the diaspora in business, science, education, and culture; and providing support for those who wish to return to Latvia. Source: http://www.latvia.eu/fr/blog/latvian-diaspora

to fruition, as the economy grows and employment demand increases, the network of embassies and consulates can play a role in promoting employment recruitment forums to bring back Latvians with needed skills. Underlying the success of these efforts will be the development of strong diaspora networks as per the government's diaspora strategy, which may not necessarily begin as economic themed but rather more broadly focused on civic and political dialogue. Some interesting examples of these types of outreach activities conducted in partnership with civic society and the private sector can be taken from the Government of Ireland's Global Irish: Ireland's Diaspora Policy (2015). Part of the policy agenda is to strengthen the institutional basis for networks through, for example, arranging more structured and more frequent network meetings, supporting Irish community organizations to achieve independently validated quality assurance standards and convening meetings such as the Global Irish Civic Forum in Ireland and also the Global Irish Economic Forum to provide more structure for dialogue and increase engagement.

For small, open economies like Latvia, migration can contribution to alleviate the economic implications of downturns. There has a high proportion of former registered-unemployed among emigrants. The possibility for people to migrate in bad times reduces unemployment and helps those who emigrate to work because they cannot find work in their home country to retain job skills. Remittances have grown significantly from very low levels in the early 2000s to being equal to 2.5 percent of GDP in 2013.[39] Flows of remittances provided a buffer during the recent crisis. Moreover, being spent mostly on consumption in Latvia, remittances have an additional (multiplier) effect and, through VAT, a positive impact on government revenues.

A more open immigration policy can contribute to make up for the loss of workers to emigration and because of natural population decline. Migration is unlikely to make up for the fall in the working-age population in Latvia: Latvia would need to have on average annual migration equal to 0.3 percent of the population to make up for the natural decline in the working-age population over 2015-2020 and at least another 0.5 percent of the population to compensate for emigration. Such an immigration rate would equal that seen in the large Northern European destination countries in the last decade, such as the U.K. or Denmark, and is unlikely to occur. However, inward migration can go some way towards making up for falling working-age populations and having an open and active immigration policy would contribute to the active aging agenda. Shrinking numbers of younger workers may increase incentives to make more of the available pool of potential immigrants, for example, in non-EU neighboring countries. This would involve an accompanying policy agenda, including measures to facilitate international mobility and the validation of professional qualifications, and to reduce barriers for immigrants to take up formal employment, including language requirements. For specific sectors facing a shortage of personnel, a targeted immigration policy may help to ameliorate the expected shortage in workers. For example, in the Latvian media a shortage of medical personnel has been often reported.[40] For those sectors with reported shortages

[39] World Bank staff calculation based on data from IMF Balance of Payments Statistics database and data releases from central banks, national statistical agencies, and World Bank country desks.

[40] For example, on May 7, 2014, the problem of ensuring specialists for provision of emergency care was reported as being an issue for almost all regional hospitals, including Jecabpils, Laipaja, Ventspils, and Daugavpils. http://nra.lv/latvija/116694-regionu-slimnicas-letali-trukst-specialistu.htm Aging may exacerbate the problem given the age of medical practitioners: as reported on April 28, 2014, according to the data of the Latvian Hospital Association, in hospitals outside Riga more than a half of doctors are in pre-retirement or retirement age. For

it would be appropriate to survey general or human resource managers to identify the particular workforce demand and supply shortages. For instance, the U.K.'s National Health Service (NHS) carried out a survey of Human Resource Directors/Directors of Nursing in England in 2014 to establish personnel data, and nursing workforce shortages for specific grades or specialization.[41] Part of the solution may be an increased focus on international recruitment. Finally, another measure could be to attract highly-skilled foreign undergraduate and graduate students into higher education programs where there is a large domestic demand for graduates.

The country has to prepare for uneven sized age cohorts. Different-sized generations impact on everything from education policy to health spending to the financial position of the social insurance system and general revenues. The student–age population (aged 5-24) is set to shrink by a fifth by 2030 (from just under 445 thousand in 2012 to 352 thousand in 2030). At the same time, a large generation is set to reach retirement age from 2025 onwards.

Lagging economic growth regions in Latvia are faced overall with the problem of how to increase growth; aging adds another dimension to the problem. The primary issue for aging regions that are lagging economically and/or sparsely populated is how to increase economic development. Lower levels of incomes and less employment opportunities in lagging regions drive outmigration and, since it is the young who are more likely to migrate, lead to more rapid aging. A country may opt for a "place-based" regional development strategy with significant regional investments or a spatially-blind strategy that focuses efforts on the areas/sectors seen as having the most economic promise. Latvia's regional strategy is a mix of the two, with substantial EU funds going into regional investment. How does aging come into the picture? Older people are less likely to move geographically to find jobs and so promoting labor mobility as a solution to unemployment for older workers is unlikely to work for the current "50+" population. Efforts to increase worker mobility in Latvia, namely a mobility grant that sought to provide financial assist to cover the cost of travelling to work, have not had much take-up among the population in lagging regions. So for the current "50+" generation in lagging regions, the lack of labor demand in the regions where they are based is likely to continue to constrain employment for the period of focus over 2015-2030. There is further analysis later in the report on regional labor market developments in Annex 2. There is evidence that certain employment programs may help. For example, Latvian language proficiency programs or allowing on-the-job language certification may help bring people into the labor market. Self-employment could be an option, particularly in "Silver Economy" areas such as the care sector.

For an aging population, one area that is important to focus on is to ensure that access to healthcare and education services is equitable in lagging regions/rural areas. There is evidence of relatively large urban-rural gaps in access to healthcare and dental care for older people in Latvia. Ensuring a more equitable sharing of resources at the subnational level to finance social services will also be critical in providing care services to the oldest old.

example, in Balvi and Gulbene hospital they comprise 60 percent of doctors. http://www.delfi.lv/news/national/politics/slimnicas-satrauktas-valsti-katastrofali-trukst-medicinas-specialistu.d?id=44438156#ixzz3epCGY3hN

[41] NHS Employers (2014)

4. Productive aging

Raising the labor force participation of older population groups has the largest potential to mitigate against the projected substantial increase in dependency ratios up to 2030. This section explores the labor market performance of the growing older population groups in Latvia. With the aim of identifying the priority areas for action and potential policy interventions to address current challenges, this chapter offers new relevant analysis on: (1) correlates of labor supply among older populations,[42] such as age, health status and disability, region of residency, education, citizenship and ethnicity, non-labor income, or care duties, (2) labor market demand constraints, (3) the quality of jobs held by older individuals using the Quality of Job Index, and (4) vulnerable groups profiles among the elderly and their main features, using Latent Class Analysis. The chapter additionally presents relevant international practices to promote activation in the context of aging.

Although, as seen in the previous chapter, the Latvian population is bound to experience a marked aging process in the next years, the changing shape of the age pyramid in Latvia does not need to translate directly into a shrinking workforce and ballooning dependency ratios. In a world of increased longevity and compressed morbidity, traditional measures of dependency ratios, which define working-age population with an artificial age cut-off (usually 64), become increasingly outdated. Fiscal implications of aging are better measured with the ratio of inactive to active populations, irrespective of their age. This new version of the dependency ratio would also better reflect behavioral responses to the changing economic model as well as policy changes that promote labor force participation throughout the life cycle.

Increased labor force participation can help Latvia mitigate the challenges of demographic transformation. Figure 20 shows projections of the Latvia's inactive-to-active population ratio up to 2030 under different labor force participation scenarios and Eurostat demographic projections (please see Box 1 for methodology and estimated scenarios). The constant participation profile provides the possible ceiling for the rise in dependency ratios, implying that by 2030, for every 10 people in the labor force, there will be 9 people who depend on non-labor income. The more likely baseline scenario is provided by the ILO projections, which predicts that dependency ratios will rise by much less than in the constant participation profile scenario but will still reach significantly higher values by 2030 as compared to 2010.

All other scenarios allow Latvia to attain lower inactive-to-active ratios by 2030. Given the small gender gap in labor force participation rates (LFPRs) in Latvia, female-to-male convergence is the least powerful of the simulations. On the other hand, if Latvia can extend the working lives of older adults by 10 years, its dependency ratios will fall by more than if it replicated the age-gender profile of any of the three Nordic countries. This will imply that inactive-to-active ratios fall from 0.7 to less than 0.6, a very significant decrease. Of course, closing the gender gap and extending working lives has the highest impact, reducing the dependency ratios even further, to around 0.5.

[42] Some of the correlates might directly influence labor supply while others can be related to unobserved factors that affect labor supply. For example, in theory, ethnicity could relate to employability directly through discrimination or indirectly through language skills (either native or state).

Box 1. Labor force projection methodology and scenarios

In order to investigate the effects of a different composition of Latvia's labor force given by the aging process, age-gender profiles of labor market participation up to 2030 were estimated. This analysis adapts the Koettl (2008) methodology and uses Eurostat demographic projections of 5-year age bands from 2010 to 2030.

Constant participation profile scenario assumes that labor force participation rates (LFPRs) for the whole projection period up to 2030 remain at the level observed in 2010 for each gender-age (5-year) cell. Although not very realistic, this serves as a reference scenario, as it reflects the purely demographic effect on the workforce.

ILO projection scenario relies on ILO (2013) methodology to calculate labor force participation until 2030, using mechanic projections from the constant profile and the logistic trend as well as judgmental adjustment of the projection based on external data (such as migration, urbanization, and expected change in retirement ages, although not expected changes in education of future cohorts) and to ensure consistency.

All other scenarios imply higher LFPRs achieved either through behavioral adjustment or policy reform.

Female-male convergence scenario projects linear convergence by 2030 of female LFPR to ILO-projected male LFPR for each 5-year age band. Although in 2010, for some age bands (45-49 and 55-59) Latvia's women had a higher LFPR than men, ILO projects that by 2030, men's LFPR is higher than women's LFPR for all age groups.

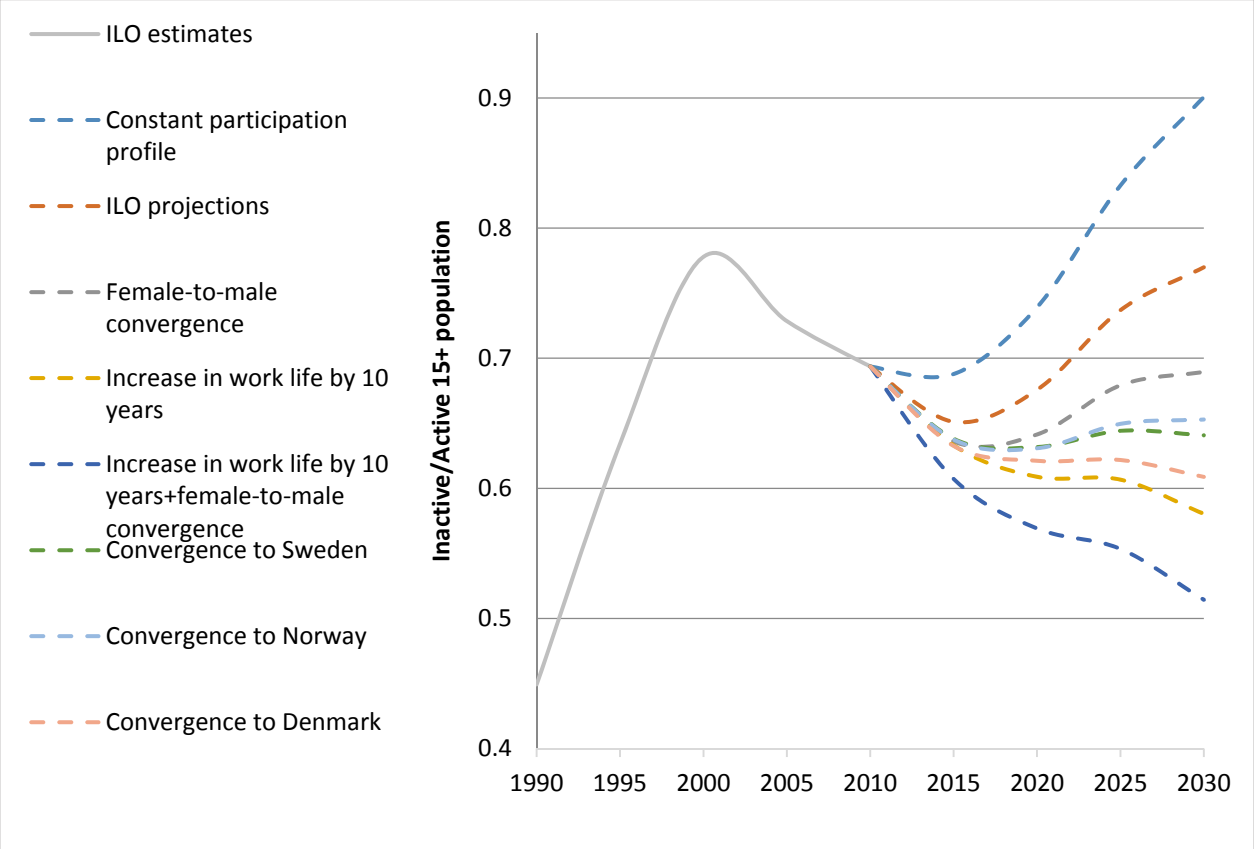
Increase in work life by 10 years scenario projects linear convergence by 2030 of 55 plus LFPR to that of the ILO-projected LFPR of age bands that are 10 years younger.

Combination scenario projects both female-male convergence and an increase in work life by 10 years, both by 2030.

Convergence to benchmark country (Denmark, Norway, and Sweden) projects linear convergence to the benchmark country's ILO-projected age-gender LFPR profile by 2030.

Figure 20: Higher labor force participation rates can moderate the impact of aging on the labor market

Inactive-to-active dependency ratios in Latvia under different labor force participation scenarios, 2010-2030



Source: Eurostat, ILO, and Koettl (2008).

Latvia can achieve a reduction in dependency ratios and enjoy the benefits of increased longevity if its aging population becomes more active and productive. The following sections will assess whether the country appears to be on the right trajectory towards this objective and examine the factors that can affect the chances of success in this endeavor. The sections will thus provide detailed information and analysis results with regards to overall labor market performance and the main drivers of participation and employment in old age, the quality of jobs held by older people, current demand constraints and specific vulnerable profiles among the elderly and priority interventions for such groups.

LABOR MARKET PERFORMANCE IN AGING LATVIA

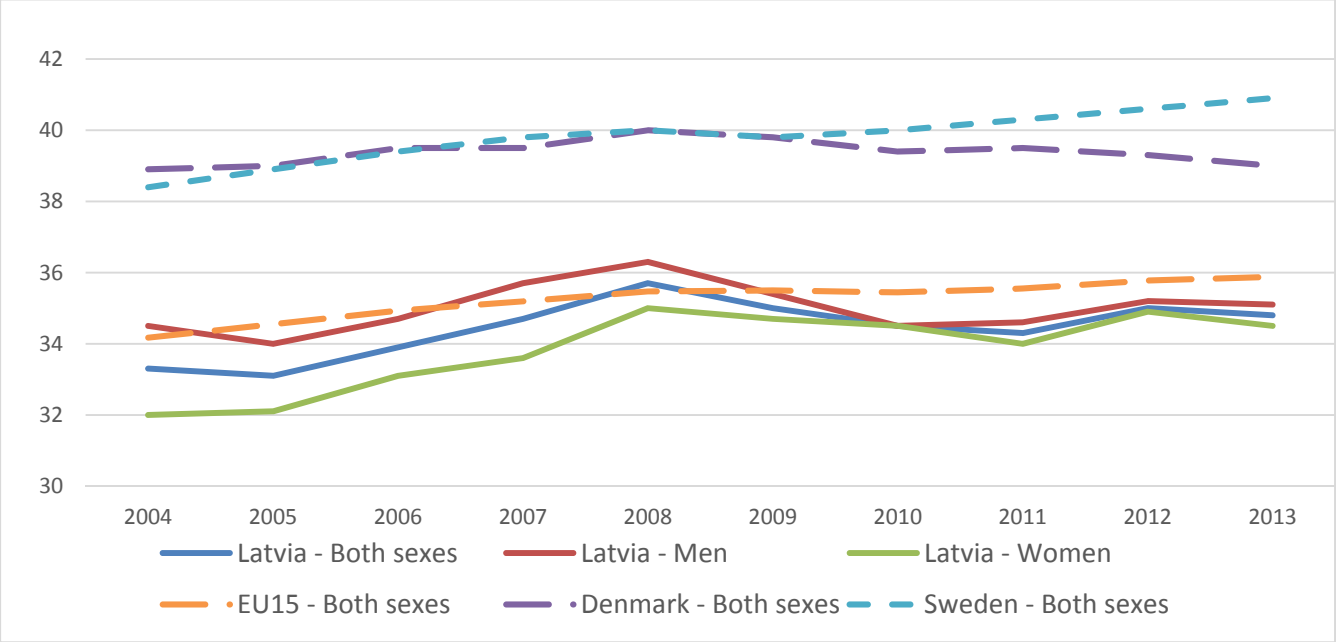
Duration of working life

A useful summary statistic collected by Eurostat for the Europe 2020 strategy is duration of working life. Such a measure is defined as "the number of years a person aged 15 is expected to be active in the labor market throughout his/her life." Latvia's duration of working life in 2013 stood at 35 years for men and 34.5 years for women, which is close to the EU15 average of 36 years but significantly

below the best-performing Nordic countries, such as Denmark at 39 and Sweden at 41 years (Figure 21). Since 2004, Latvia's average working life increased by 1.5 years, which was achieved primarily due to remarkable convergence of Latvian women's working life duration to that of men. This section will try to unpack what constrains Latvians' working life duration from converging to that of better-performing European countries.

Figure 21: Latvia's duration of working life is slightly below average for the EU

Duration of working life in Latvia and comparators, 2004-2013



Source: Eurostat.

Employment rate

Following the recent recession in 2008-2009, the employment rate for population aged 15-74 in Latvia has recovered. Employment rates for that age group have increased from 52 percent in 2010 (and 56 percent in 2005) to 58.2 percent in 2013, slightly higher than the average rate in EU15 countries of 57.6 percent, but significantly below that of Nordic countries, where it stands at between 64 percent (Denmark) and 69 percent (Norway). Is this gap primarily due to youth, prime-aged, or older adults? And is it due to differences in labor force participation or unemployment?

There is a long-term trend for people to work longer, which has been reflected in labor market indicators. According to the Eurostat data, in the EU, the employment rate of older workers "50+" has increased in most countries, but remains uneven across countries, averaging 34.0 percent in EU28 countries in 2014, and ranging from 27.7 percent in Malta and 29.1 percent in Hungary to 42.5 percent in Sweden and 41.2 percent in Estonia. In Latvia, and as seen in Chapter 2, the employment rate of the "50+", at 36.4 percent, remains above the EU28 average but below that of the best performers.

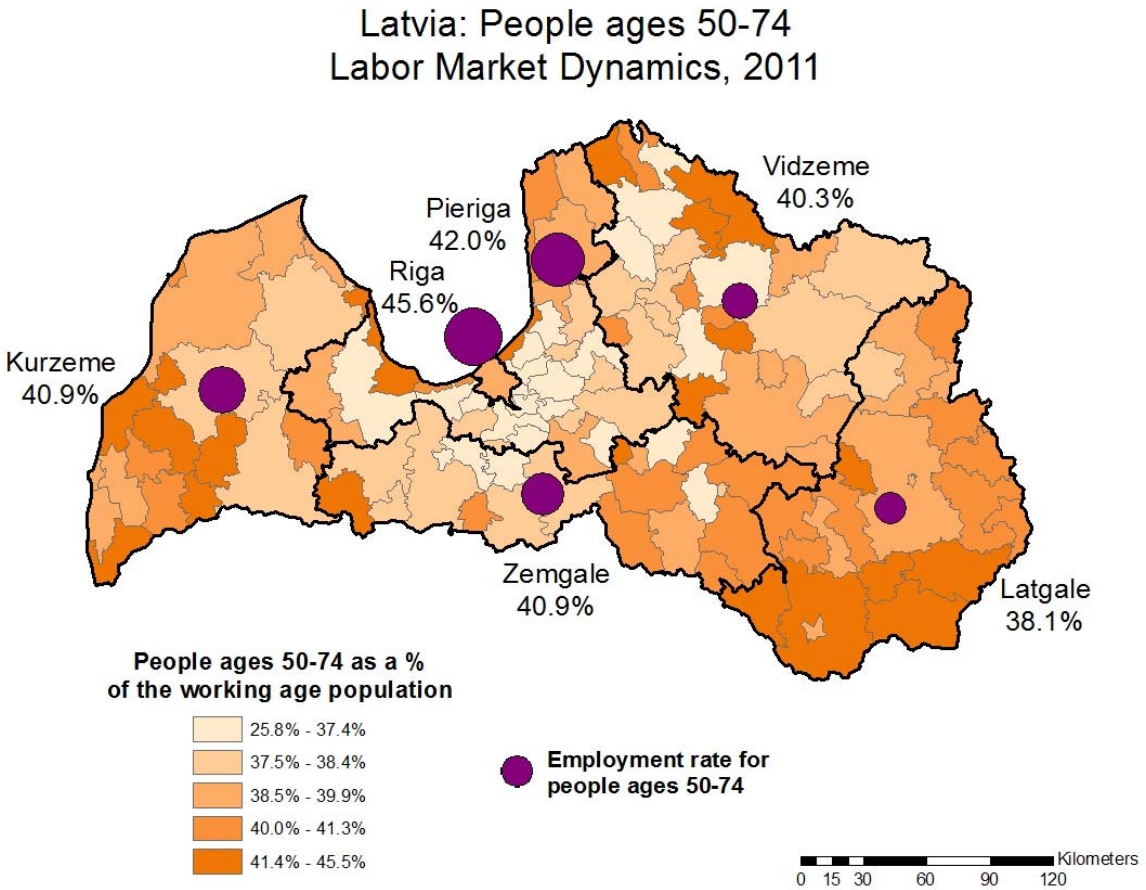
In the last decade, the number of employed people in Latvia has declined by one-tenth, in part due to outmigration of population to other EU countries. This decline occurred in all major age

groups of population except the population "50+". The employment rate for older workers aged "50+" in Latvia has improved and reached the level of 36.4 percent in 2014. The surge in employment among females at that age, spurred in large part by the increase in statutory retirement age from 60 to 62, has been especially remarkable, rising from 28.5 percent in 2005 to 33.2 percent in 2014.

Employment rates of older adults in Latvia also exhibit substantial regional heterogeneity. Figure 22 shows that the municipalities in Latgale had the highest shares of "50+" in their working-age population based on the 2011 Census, and this same region had the lowest employment rate among older adults (38 percent). On the other hand, the working-age population of Riga and its surrounding region are relatively young, while older adults residing in these areas are most likely to be employed (42-45 percent). This suggests that there may be a separate policy agenda to target employment of older adults might need to focus on the lagging region of Latgale, which is aging quicker and less actively. Of course, the wider lagging regional development agenda is relevant here, including encouraging worker mobility to areas with more vibrant job markets.

Figure 22: Older regions have lower employment rates

Employment rates and population shares of older adults (50-74) in Latvia, by region



Source: Population data is from the 2011 Census, and employment numbers are from Ministry of Welfare data of the first quarter of 2015.

Labor force participation rate

The Latvian population is relatively active, with 66 percent of those aged 15 to 74 participating in the labor force. This is slightly higher than the labor force participation rate of EU15 (65 percent) but somewhat below that of Denmark (68 percent) and significantly below Norway and Sweden (at 71-72 percent). In 2013, the labor force participation of older adults (50-74) stood at 51 percent, which is much higher than the activity rate of youth (15-24), which was only 40 percent (Figure 23). Moreover, the activity of older Latvian women (48 percent) was significantly higher than that of the EU15 average (41 percent) and even higher than that of Danish older women (46 percent). The LFPR of older women (50-74) increased dramatically over the last decade, closing much of the gender gap in this regard (Figure 24). It appears that in terms of labor force participation Latvia's major problem lies with youth (15-24), as only 40 percent are in the labor force. While this may be due to most people in this age group still receiving full-time education, the activity rate of this age group is below the EU15 average (45 percent) and far below that of Sweden and Denmark (55 and 62 percent, respectively).

Figure 23: Latvia's "50+" are very active in the labor market

Labor force participation rate by gender age group in Latvia and comparators, 2013

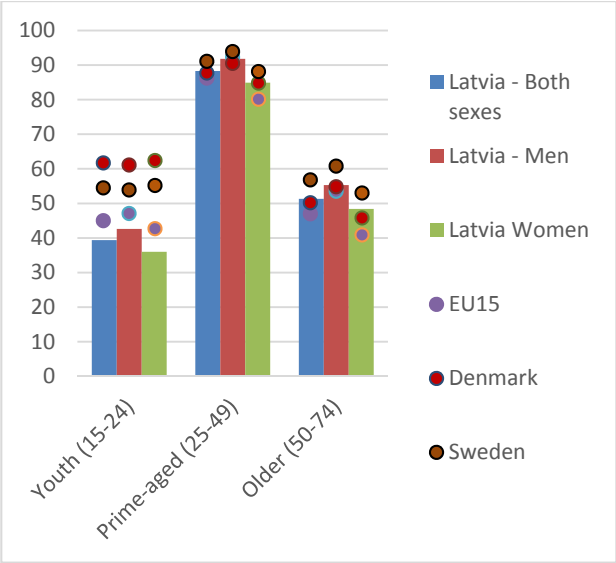
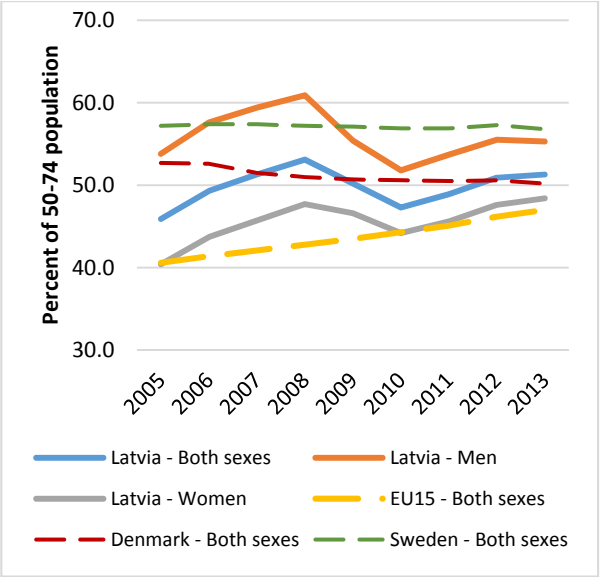


Figure 24: Labor force participation of older women has increased substantially

Labor force participation of older adults (50-74) in Latvia and EU15, 2005-2013



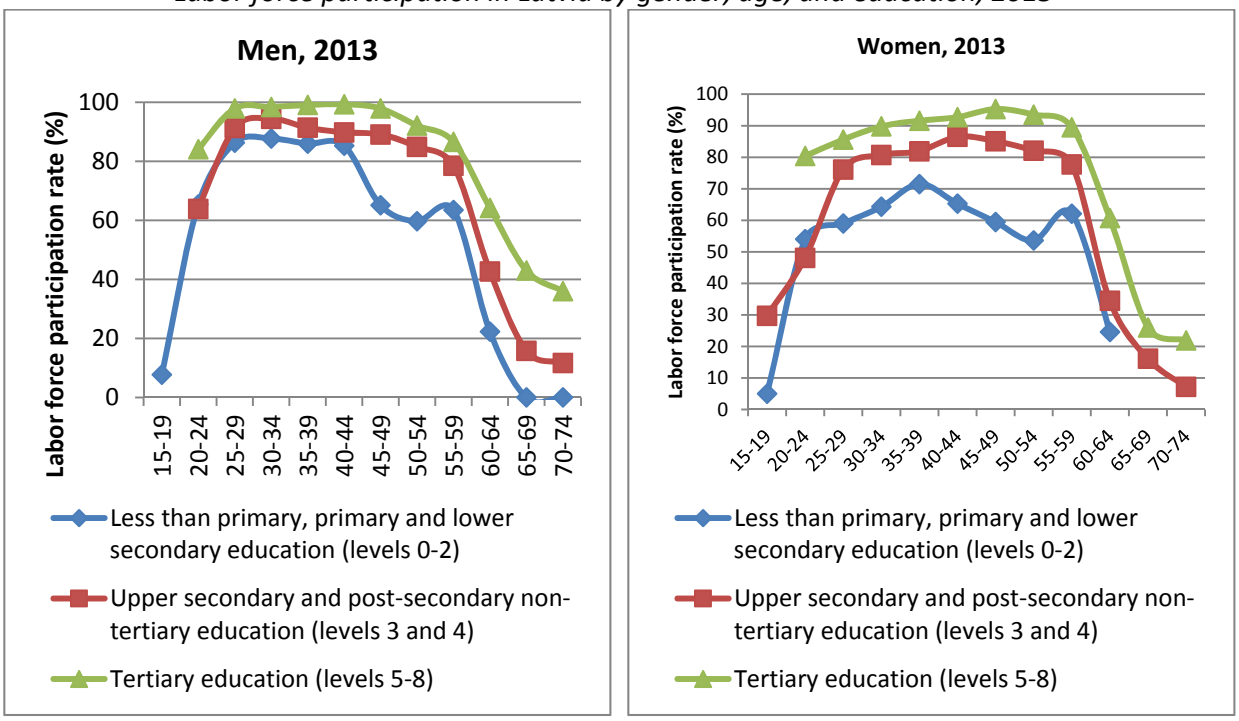
Source: Eurostat.

As already observed in Chapter 2, higher education facilitates active aging in Latvia. Beyond the age of 25, having higher education is correlated with higher labor force participation (Figure 25). The biggest differences are between the lowest-educated group (with less than upper-secondary education) and those with secondary and above education. For women, these differences span over their whole working life, while for men, they emerge in the mid-40s. For both sexes, however, education becomes very important in terms of exit from the labor force around retirement age: While 64 percent of men and 61 percent of women with tertiary education still participate in the labor force

at the age of 60 to 64, only 43 percent of men and 35 percent of women with secondary general or vocational education and fewer than a quarter of individuals with less than secondary education are still active at that age.

Figure 25: More-educated Latvians stay in work longer

Labor force participation in Latvia by gender, age, and education, 2013

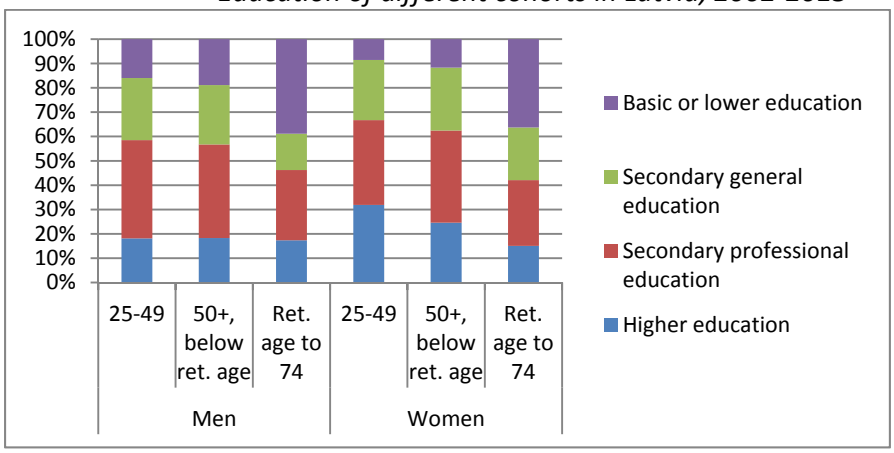


Source: Eurostat.

The good news is that the upcoming cohorts of "50+" will be better-educated and thus more likely to stay in the labor market. Those aged 25-49 in 2002-2013 will be aged 50-74 in 2027-2038. Compared to the current "50+", the future cohort will comprise a larger share of individuals with higher education, especially among women, and a smaller share of the low-educated (Figure 26). Thus, if labor force participation patterns by age, gender, and education remain the same, chances are that the future "50+" will be more likely to stay in the labor market. This assumes that the expansion of higher education results in a labor force with better skills for the labor market. Of course, emigration of highly-skilled prime-aged workers (i.e. "brain drain") might moderate this positive trend.

Figure 26: Younger cohorts are better-educated

Education of different cohorts in Latvia, 2002-2013

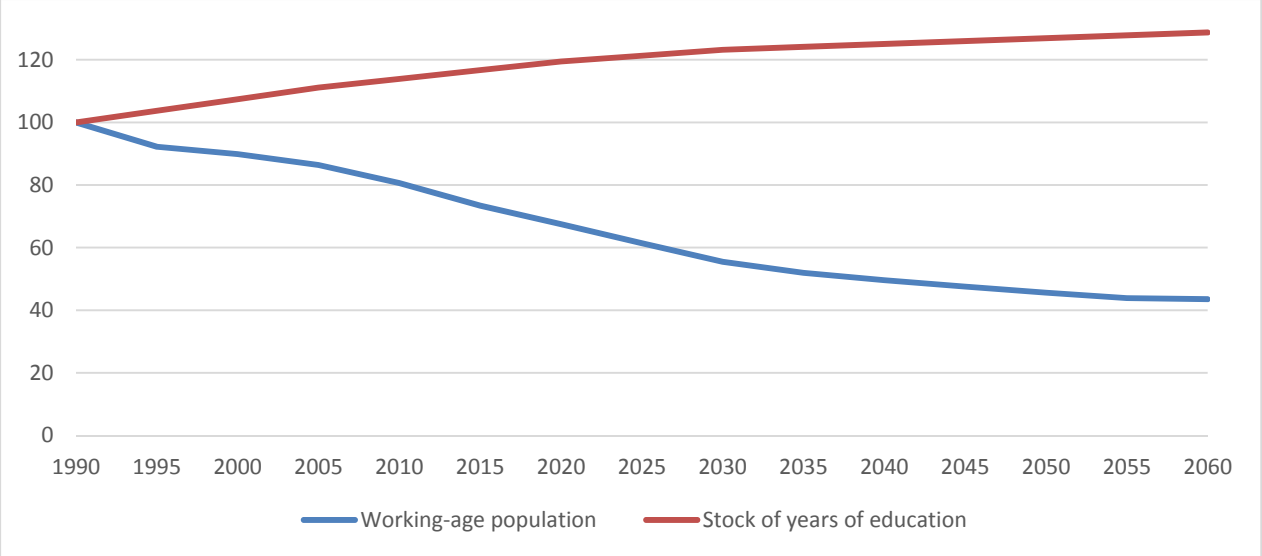


Source: LFS.

Indeed, the higher education of upcoming cohorts implies a less pessimistic view of the long-term effects of aging. The shrinkage of the working-age population might not translate into a correspondent fall in the labor force, and definitely not to a correspondent fall in productivity, if higher education levels lead to higher labor force participation rates and more productive working lives. The stock of human capital, "as measured in total years of schooling among those aged 16–64 years, has been expanding over the past 20 years in Latvia even as the size of the working-age population fell. This pattern is expected to maintain for the foreseeable future, although the rate of growth in education stock will slow down in the outer years of the projection period (Figure 27).

Figure 27: Stock of human capital in Latvia will rise despite falling numbers of working-age population

Index of the size of the working-age population and stock of years of schooling, Latvia, 1990-2060



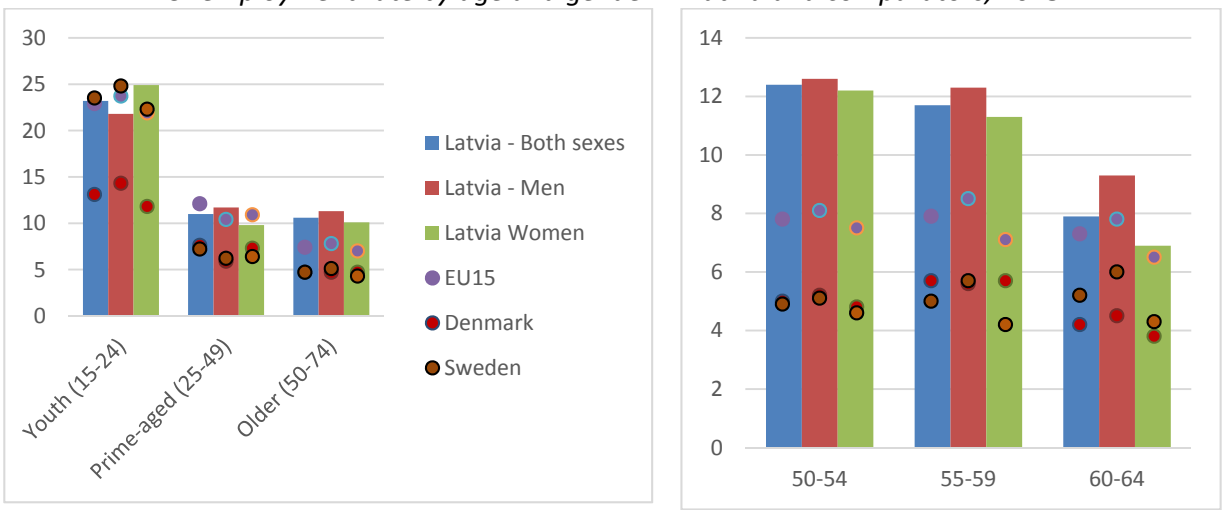
Source: World Bank calculations based on Lutz, Butz, and K. C. 2014.

Unemployment[43]

The labor market continues its recovery: Unemployment for individuals aged 15-74 fell from the peak of 19.5 in 2010 to 11.9 in 2013. According to the LFS data, the unemployment rate for older adults (50-74) was somewhat lower, at 10.6 percent and comparable to that of prime-aged adults (25-49), while youth unemployment was almost twice as high at 23.2 percent (Figure 28).[44] Young job-seekers are in a difficult position as they are newcomers with little experience and reduced productivity. While the youth unemployment rate in Latvia is comparable to that in EU15 and Sweden, the unemployment rate for older adults is much higher than in either the EU15 or Nordic benchmarks, especially among the 50-59 years old age group. In the case of the EU15, this gap could be partly attributed to higher labor force participation of this age group in Latvia, but remains a worrying signal of under-performance of the labor market for older Latvians.

Figure 28: Unemployment of older adults is high, especially for those in their 50s

Unemployment rate by age and gender in Latvia and comparators, 2013



Source: Eurostat.

It is not clear to what extent unemployment among older workers is structural or cyclical in nature. The unemployment rate of older adults (50-74) in Latvia fell to the EU15 average levels prior to the 2008-09 crisis but then shot up to 20 percent for older men and 13 percent for older women in 2010, and by 2013, it remains significantly above the EU15 average (Figure 29). While labor demand has still not fully recovered, there appears to be a significant relationship between education and likelihood of unemployment for older workers (Figure 30), although unemployment rates are also higher for lower-educated adults throughout their working life. Thus, only 4 percent of older males with tertiary education are unemployed, compared to 13 percent with secondary general or professional education, and 22 percent with less than secondary education. Importantly, as

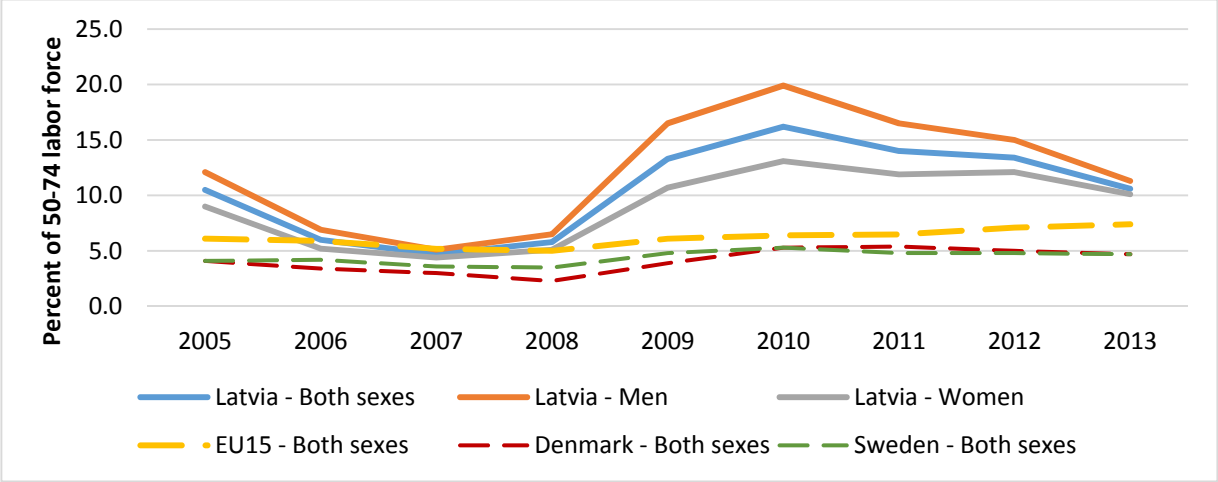
[43] Throughout the report, unless otherwise noted, unemployment refers to the ILO definition of unemployment, which is persons who are without work but are available for and actively seeking work. When registered unemployment is discussed, it is explicitly defined as such.

[44] However, hidden unemployment (% of non-employed among extended labor force (employed + unemployed + non-working willing to work and available in 2 weeks) is higher among 50-74 year olds (17%) than among 25-49 year olds (14%), according to LFS 2013 data.

demonstrated in Figure 30, the increase in unemployment between 2007 and 2013 was much higher for lower-educated workers than for higher-educated workers in all age groups, suggesting a potentially emerging skills mismatch, in which lower-educated adults have a much greater difficulty finding jobs than their better-educated peers. A more detailed discussion of structural versus cyclical unemployment follows later in the chapter (section on labor demand considerations).

Figure 29: Unemployment of "50+" increased dramatically during the crisis

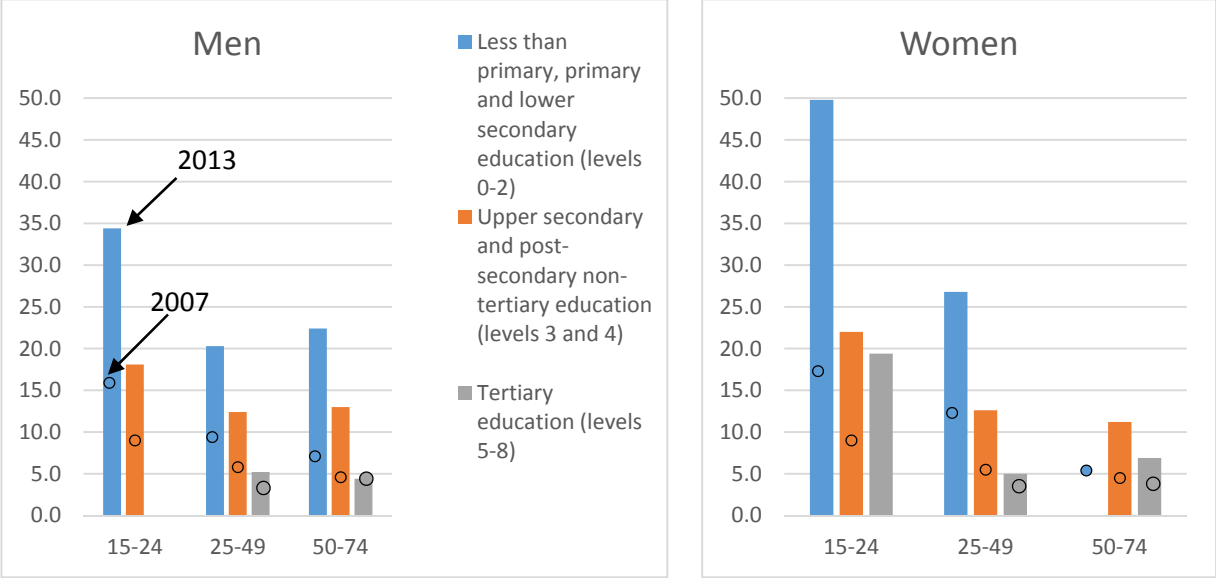
Unemployment of older adults in Latvia and EU15, 2005-2013



Source: Eurostat.

Figure 30: Unemployment of lower-educated "50+" remains substantially above the pre-crisis levels

Unemployment rate by gender, age, and education in Latvia, 2007 and 2013



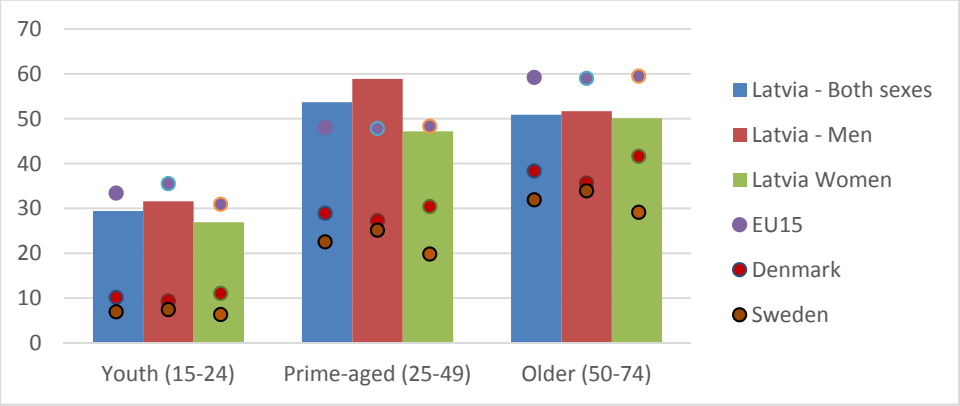
Source: Eurostat.

Of concern is that long-term unemployment remains at twice its pre-crisis rate at 5.1 percent in 2013. Older groups are more likely to spend a long time out of work, with about half of the unemployed aged "50+" having been out of work for more than 12 months, which is below the EU15

average but significantly above the percentage registered in Sweden and Denmark (Figure 31). Unemployed prime-aged males (25-49) are actually at the highest risk of long-term unemployment, with almost 60 percent searching for a job for 12 months or more. While younger workers can transition out of unemployment relatively quickly, older workers, once displaced, tend to stay unemployed for a longer period, and they are also less likely to be (re) hired. Many can become discouraged from seeking work and slip into inactivity, which is often a path of no return, with few chances of re-entering the world of work.

Figure 31: Long-term unemployment is more prevalent for "50+" compared to youth

Long-term unemployment as share of total unemployment by gender and age in Latvia and comparators, 2013



Source: Eurostat.

Thus, the under-performance of Latvia in terms of employment rates among the pre-retirement age group can be explained mostly by unemployment. In addition to relatively high "open" unemployment, defined based on the ILO methodology as looking for a job and being available to start work, the pre-retirement age group has a substantial "hidden unemployment," defined as being available to start work but not actively searching for a job, perhaps due to discouragement (Figure 32). Given the relatively high shares of "willingness to work," defined in this report as either having a job or being willing and available to work, increasing employment rates for the pre-retirement age population in Latvia would imply special efforts to activate the discouraged unemployed as well as facilitate the transition to employment among those actively seeking jobs.

In the case of the post-retirement elderly, not only employment rates but also labor force participation are low. The post-retirement age older Latvians (below 75 years) show much higher inactivity rates: On average between 2002 and 2013 only 30 percent of men and 22 percent of women either worked or reported a willingness to work. Employment rates, at 23 percent for men and 16 percent for women, were also low, and thus unemployment, mostly hidden, was prevalent. For this population group, the potential to increase employment rates therefore lays not only with reducing hidden unemployment, but also with promoting the activation of older people who are discouraged (and thus have given up searching for a job).

Figure 32: Unemployment is the challenge for pre-retirement age group

Open and hidden unemployment by age group and gender in Latvia, 2002-2013

Source: Authors' calculations based on LFS 2002-2013.

Attitudes that can affect productive aging

Negative beliefs regarding the role of older workers in preventing young people from finding jobs prevail in Latvia. Evidence demonstrates that the difficulties experienced by older workers in securing longer retention and re-integration in the labor market not only result from outdated skills, or salary expectations; they are also significantly influenced by attitudes towards older workers, expressed by the society in general and by employers in particular. As measured in the Eurobarometer (2009) survey on international solidarity, 61 percent of Latvians agreed with the statement that "as older people work until a later age, fewer jobs will be available for younger people," which is close to the EU15 average but quite far from Denmark, UK, and Netherlands, where only 27, 46, and 47 percent of respondents, respectively, agreed with this sentiment.[45]

The "lump-of-labor" fallacy has been refuted time and again. For example, the OECD (2011a) found a positive correlation between the employment rates of younger and older people across OECD members. Also, within countries, a strong positive correlation has been found between employment of 55–64-year-olds and 20–24-year-olds (Gruber and Wise 2010, as cited in Schwarz et al. 2014). Finally, national experiments in Denmark, France, and Germany found no evidence that earlier exit from employment by older adults increases job opportunities for youth (Schwarz et al. 2014). The positive correlation observed between the employment rates of younger and prim-aged workers on one hand, and older workers, on the other hand, as shown for Latvia in the 2002-2013 period in Figure 33, arises from higher aggregate demand: a higher employment rate of older workers generates higher output, which stimulates demand and leads to better job opportunities of younger workers (and vice versa). There is hope in defeating the lump-of-labor fallacy as young people, especially men, are least likely to believe in it: Only 39 percent of men and 55 percent of women aged 15-24 agreed with the Eurobarometer statement. This implies that in the future, the belief that older workers take away the jobs of the young will be less widespread.

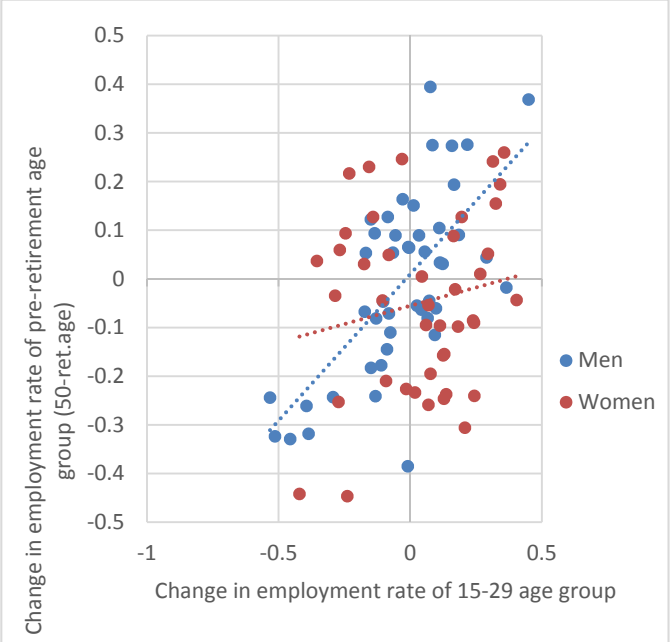
[45] This is the "lump-of-labor" fallacy, so called because it assumes a fixed number of jobs exist.

Figure 33: Younger and older workers are not substitutes

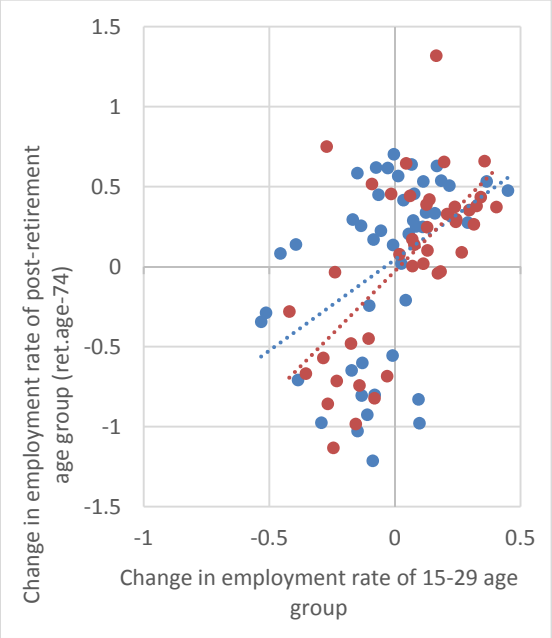
Changes in employment rates of

A. Youth (15-29) and…

Pre-retirement (50-ret. age) group

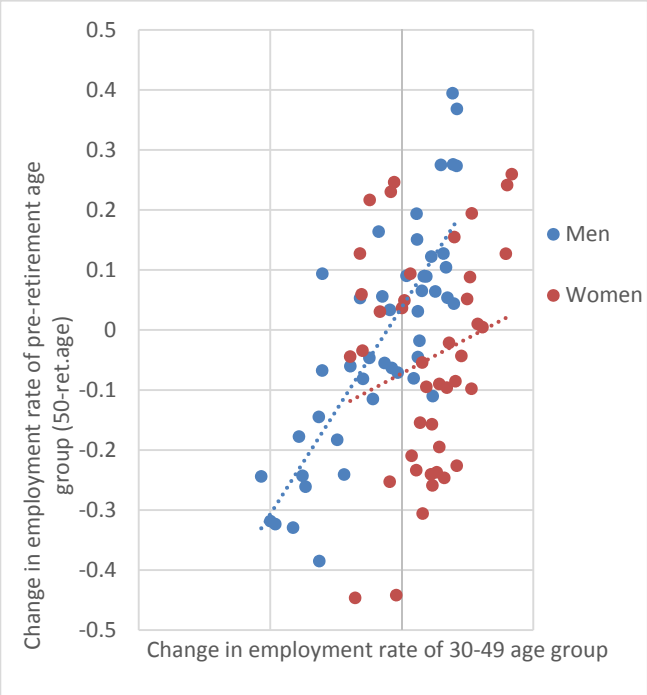


Post-retirement (ret. age-74) group

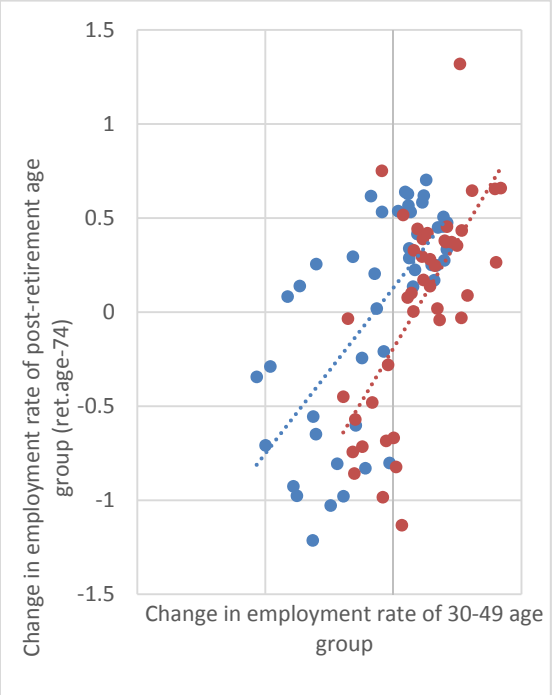


B. Prime-aged (30-49) and…

Pre-retirement (50-ret. age) group



Post-retirement (ret. age-74) group



Source: Authors' calculations based on LFS 2002-2013.

Note: The analysis uses quarterly time fixed effects coefficients from the probit employment model conditional on participation in the extended labor force, with controls for last year region-specific ILO unemployment rate and last year total number of emigrants. Blue and red dots on the graphs represent the relationship for, respectively, men and women, between changes in employability for youth (15-29) or prime-aged (30-49) and

pre-retirement (50-ret.ag) age groups, controlling for previous year region-specific ILO unemployment rate and previous year total number of emigrants. The blue and red lines represent the linear trend in the series for, respectively, men and women.

Other negative attitudes with regards to the capacity of older workers affect their employment prospects. These include the belief of older workers' tendency for sickness, absence from work, lower productivity, lack of motivation to accept change, and unwillingness to be involved in training, all of which are not substantiated by research (Dalen and Henkens, 2009). Another Eurobarometer survey, conducted in 2011, asked respondents about potential reasons why older workers separate from employment. In Latvia, the most important consideration, reported by 83 percent of respondents, relates to older workers not being perceived positively by employers. This is a relatively high percentage as for all 28 EU countries in the study the average share was 75 percent. In the same study, 10 percent of Latvians have experienced and almost 20 percent have witnessed age discrimination against older adults at the workplace, which is substantially higher than the respective EU average values of 7 and 17 percent, respectively. A more recent survey, conducted by the Latvia's State Employment Agency in 2014, confirms the relatively high prevalence of age discrimination, as almost 40 percent of respondents aged 50-64 reported experiencing unfair treatment at work due to their age in the previous two years (State Employment Agency 2014). Better age management policies in Latvia's firms and promotion of age diversity in the workplace can thus help to increase the retention of older workers and allow a more productive utilization of their expertise.

CORRELATES OF LABOR SUPPLY OF OLDER ADULTS

In recent years, there has been a fundamental shift in attitude among European policy makers who previously favored early retirement as an instrument for ameliorating unemployment (Taylor, 2008). The 2002 Barcelona European Council concluded that there should be a progressive increase of around five years in the average retirement age by 2010. Still, workers in most OECD countries leave the labor market before the standard pension eligibility age, in some cases, much earlier. Table 3 shows the recent average effective age of withdrawal from the labor market in selected EU countries for men and women.[46] In Latvia, the average effective age of withdrawal is 65.2 years for males and 64.5 years for females – one of the highest levels in the sample of selected countries. Still, some people exit the labor force prematurely. As early retirement pensions granted starting at age 60 are smaller than regular old-age pensions and since, unlike regular pensions, they cannot be combined with work, adults aged 60-61 who cannot find employment can use them as an option of last resort. However, individuals in a substantial number of occupations qualify for early retirement under the service pension scheme, which makes them eligible for receiving pensions as early as at age 38, depending on the assumed ability to pursue the covered profession beyond that age. The latter scheme could have strong disincentive to switch to another profession and remain in the labor market.

[46] The average effective age of withdrawal is defined as the average age of exit from the labor force during a five-year period for workers initially aged 40 and over.

Table 3: The average effective age of retirement defined as the average age of exit from the labor force in selected countries

	Males				Females			
	Official age of retirement	Effective age of retirement		Expected years in retirement	Official age of retirement	Effective age of retirement		Expected years in retirement
	2012	2005	2012	2012	2012	2005	2012	2012
		2000-05	2007-12			2000-05	2007-12	
Estonia	63	62.3	63.6	14.5	61	63.0	62.6	20.3
Latvia	62	64.8	65.2*	…	62	59.6	64.5*	…
Lithuania	63	64.5	61.7*	…	61	61.1	61.7*	…
Poland	65	61.4	62.3	17.0	60	58.0	60.2	23.1
Austria	65	58.9	61.9	20.4	60	58.1	59.4	26.1
Denmark	65	63.2	63.4	18.2	65	61.9	61.9	22.3
Finland	65	60.5	61.8	20.1	65	60.0	61.9	24.2
Germany	65.08	61.8	62.1	19.9	65.08	60.7	61.6	23.8
Netherlands	65	61.2	63.6	18.7	65	60.2	62.3	23.1
Norway	67	63.3	64.8	18.3	67	61.8	64.3	21.9
Sweden	65	65.1	66.1	17.4	65	62.4	64.2	22.0

*-2006-2011 (2011)

**- In Latvia, starting from 2014, the legal retirement age is gradually increased by 3 months per year until reaching 65 years in 2025, and in Lithuania, from 2012 onwards, the retirement age is annually increasing by 4 months for women and by 2 months for men until it reaches 65 for both women and men in 2026.

Source:http://www.oecd.org/els/emp/ageingandemploymentpolicies-statisticsonaverageeffectiveageofretirement.htm

Increases in the statutory retirement ages were effective in extending working lives in Latvia. Average age at which employed persons started receiving a retirement pension has increased from 57.9 years in 2006 to 59.5 years in 2012, and the exit age is slightly above the average for EU27 countries of 59.1 years. The share of early retirements among persons who receive an old-age pension was 35.1 percent in Latvia, whereas it was 39 percent in the EU27. Unlike in many EU/OECD countries where people tend to leave the labor market before the standard pension eligibility age, in Latvia people tend to work past the statutory retirement age. Currently equalized at 62 years and six months for men and women, the statutory retirement age is due to gradually increase to 65 years by 2025. In Latvia, the average effective age of withdrawal from the labor market[47] was 65.2 years for males and 64.5 years for females over in 2011 (for the period 2006-11)–one of the highest levels when compared to OECD countries. This represents a large increase over time as in 2005 (for the period 2000-05), the effective age of withdrawal from the labor market was 59.6 years. However, there is still scope for improvement: 38.3 percent of economically-inactive persons in Latvia who receive a pension wished to stay employed longer, which is much higher compared to 27.9 percent on average in the EU27.

Overall, in Latvia, there is a clear trend to stay in the labor force for a longer period of time. But what are the constraints to higher labor force participation and employability of older Latvians? This section summarizes the most relevant results of regression analysis using Labor Force Survey data from the period 2002-2013 and focusing on two labor market outcomes: participation in the

[47] The average effective age of withdrawal is defined as the average age of exit from the labor force during a five-year period for workers initially aged 40 and over. The source of the data is http://www.oecd.org/els/emp/ageingandemploymentpolicies-statisticsonaverageeffectiveageofretirement.htm

extended labor force (which includes employed, unemployed, and those who are willing to work but not actively searching for a job) and employability (defined as probability of being employed conditional on being in the extended labor force). For the purpose of the analysis, two main age groups have been identified: (1) those in pre-retirement age (50 to retirement age), and (2) the group of elderly in post-retirement age, below 75 years old (retirement age to 74). Analysis is conducted separately for men and women, given the potentially different factors involved in the work and retirement decisions for the two genders.

As expected, age has a significant relationship with participation and employment. For both genders, and other things being equal, the willingness to work declines with age, both before and after reaching the official retirement age. Over and above the effect of age per se, eligibility for early retirement (i.e., reaching the retirement age, less 2 years) reduces the probability of being in the extended labor force by 3.5 percentage points for men and by 7.5 percentage points for women.

Health and disability are strongly correlated with willingness to work and employability. People of pre- and post-retirement age with disabilities or work limitations caused by a chronic illness are 20 percentage points less likely to participate in the extended labor force. Among men, disability additionally reduces the probability to be employed conditional on willingness to work by 6 percentage points in pre-retirement age and by 28 percentage points in post-retirement age. As a result, disability reduces the probability of employment in pre- and post-retirement age by 10 and 16 percentage points for men, respectively, and by 7 and 12 percentage points for women. Box 2 presents additional evidence from EU-SILC and the FINBALT Health Monitor data on the effects of relationship of health and employment of older adults in Latvia.

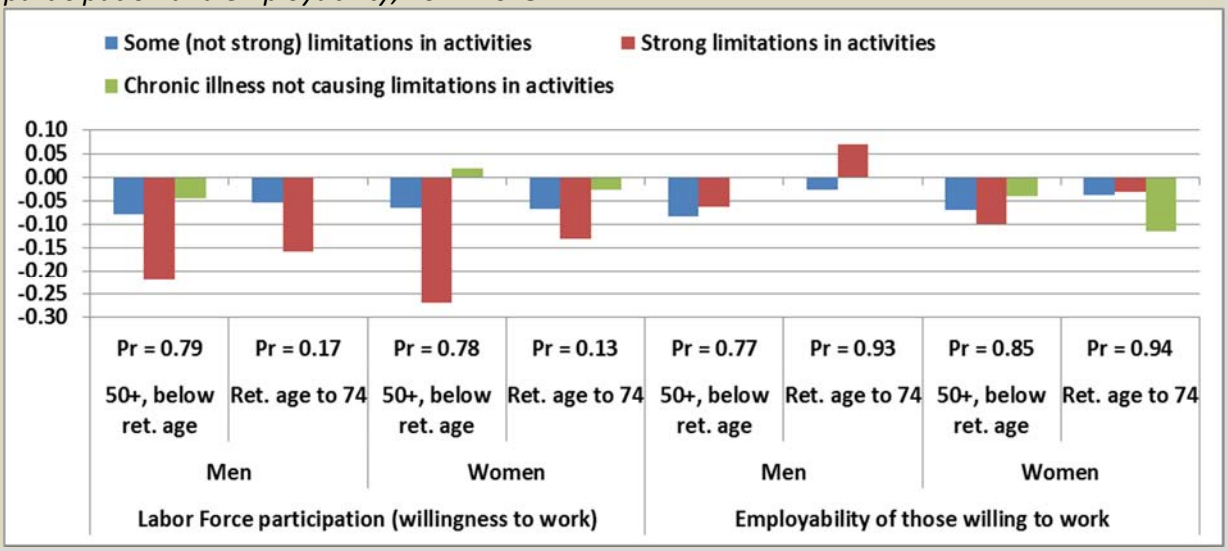
Box 2. Health and employment of older adults in Latvia

Health status plays a role in the decision of the optimal age to retire (Lumsdaine and Mitchell, 1999; Stock and Wise, 1990). Poor health makes previously implemented job tasks more demanding (especially for manual workers) and decreases an individual's productivity which may result in lower earnings; therefore the attractiveness of staying in the labor force declines. Deteriorating health reduces an individual's expected remaining years of life and results in higher time demands for resolving health matters, both of which may stimulate the worker to refrain from further participation in the labor market and increase the utility of leisure (Gameren, 2010).

Numerous studies have demonstrated a strong empirical link between health (measured either as self-assessed status or with incidence of chronic illnesses and disability) and withdrawal from the labor force among older adults (see, for example, Aranki and Macchiarelli (2013) using EU-SILC data and Alavinia and Burdorf (2007) using SHARE data). Kalwij un Vermeulen (2007) using SHARE data found that effects of health on retirement decisions differed markedly between the 11 countries in the study. According to authors' assessment, labor force participation rate among 50-64 years old males would have been about 12 percentage points higher if all males had been healthy. Even in Sweden where employment rate among males of this age group is particularly high, participation rate would be 7 percentage points higher. The authors also find that different health indicators have a significantly different impact on an individual's participation which implies that models focusing on only one health indicator may miss an important dimension in labor force participation decisions among the elderly.

As can be seen in the below graph based on multivariate analysis of EU-SILC data for 2011-2013, limitations in usual activities due to health problems correlate with the labor market status of older Latvians (see Figure B2.1). In particular, strong limitations in activities are negatively correlated with labor force participation, with marginal effects higher for the pre-retirement sample (reducing the probability of being in the labor force by 20 and 25 percentage points for, respectively, men and women). More mild limitations in activities also affect labor force participation, albeit with smaller magnitudes. Chronic diseases that do not limit daily activities only have a significant but relatively small effect on labor force participation of men aged 50-61 and women aged 62 and over. Poor health is also correlated with employability of pre-retirement age men and women over 50.

Figure B2.1: Health problems are correlated with worse labor market outcomes for "50+"
Marginal effects of limitations in activities due to health problems and chronic illnesses on LF participation and employability, 2011-2013



Note: Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on EU-SILC data.

A less explored issue is the relationship between mental health and employment of older adults. The examination of this relationship is complicated by the potential reciprocal causality, whereby on the one hand mental health issues increase a chance of losing a job and hinder getting back to the labor market, and on the other hand mental health problems may develop due to separation from employment. In order to mitigate this issue in the current study, instrumental-variables approach was applied.

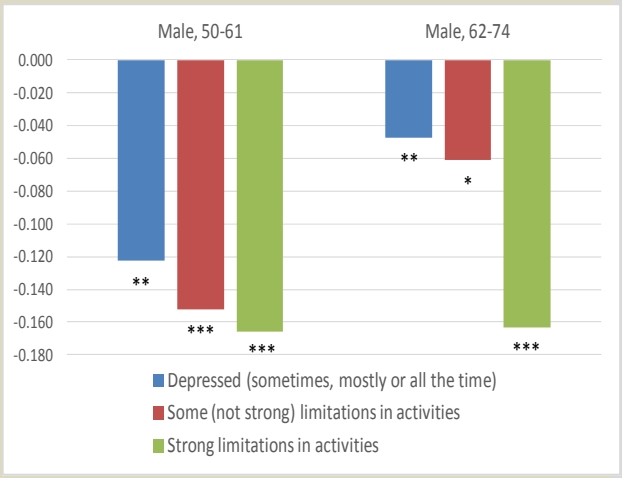
We analyze the problem of depression from the two different standpoints. First, based on EU-SILC data for 2013 we estimate the effect of existing depression on probability of employment of 50-61 and 62-74 year old males and females in Latvia. We construct a binary depression variable, where 1 is assigned if a person feels depressed sometimes, mostly or all the time, 0—if otherwise. Depression was instrumented with various aspects related to personal relationships, trust to other people and satisfaction with recreational and green areas in one's place of residence.

Second, using FINBALT Health Monitor data (FINBALT) for 2010 and 2012 we analyze the effect of increasing depression on employment, focusing on the sample of 50-64 years old males and females in Latvia. Depression was measured as a binary variable, where 1 indicates that a person felt depressed during the past 12 months a bit or significantly more compared to previous years, and 0 indicates that either the person was not feeling depressed at all or that his or her depression level did not increase from previous years. Increased depression was instrumented with behaviors related to quitting smoking, use of sedatives and antidepressants, personal hygiene, and diet.
The results obtained based on EU-SILC data suggest that being depressed at least sometimes has negative effect on probability of employment among 50-61 and 62-74 year old men (see Figure B2.2); the effect for women is not statistically significant unless factors that may lead to depression[48] are removed from the model.

According to the model results based on the FINBALT data increased depression is negatively associated with probability of employment among men and women aged 50 to 64. For males, the effect of increased depression on employment is almost as strong as the effect of having an official disability status (see Figure B2.3).

Figure B2.2: Older men with depression are less likely to work

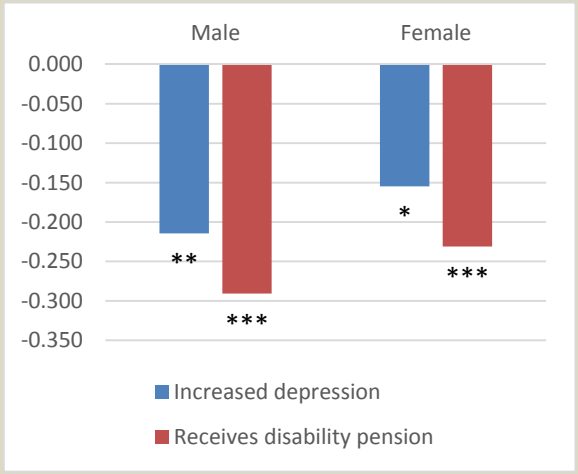
The effect of depression on employment of older males (50-61 and 62-74) in Latvia



Source: Authors' calculations based on EU-SILC data.

Figure B2.3: Increases in depression reduce employment probabilities of "50+"

The effect of increased depression in older adults (50-64) on employment in Latvia



Source: Authors' calculations based on FINBALT data.

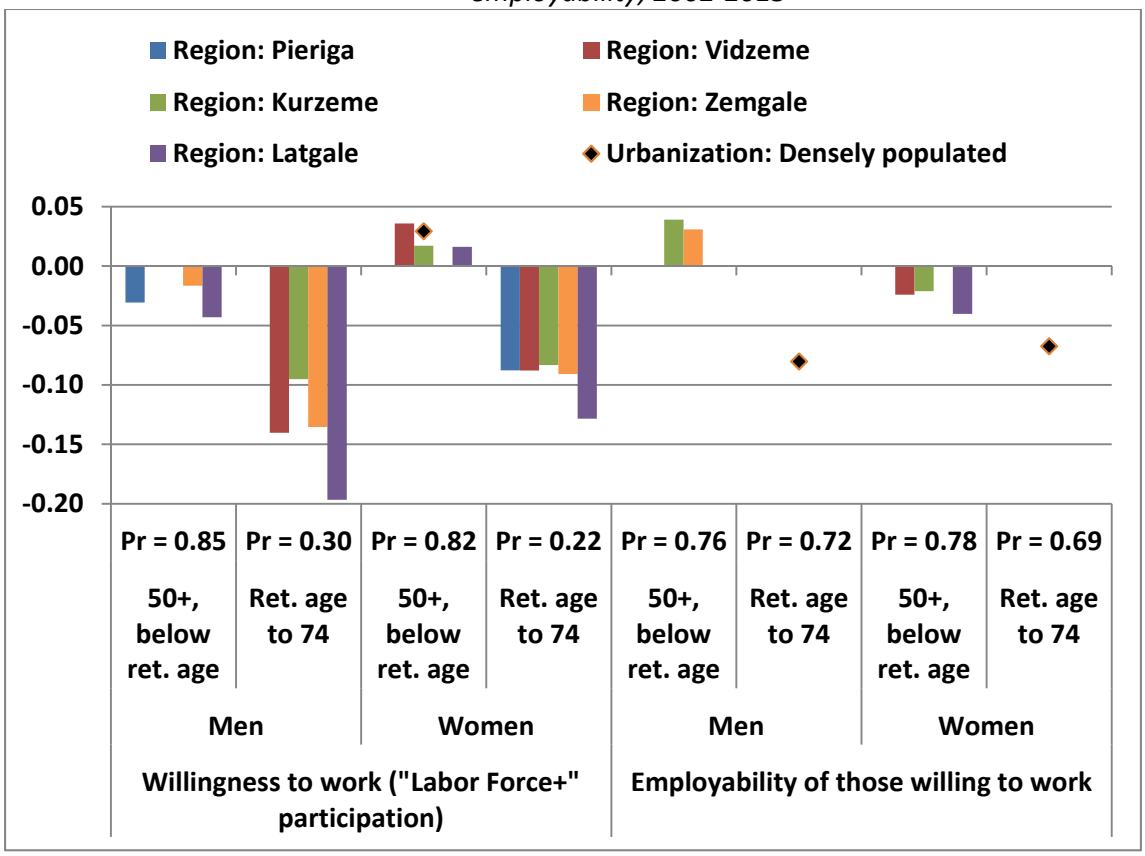
The results of the analysis confirm the observed regional disparities highlighted in the previous section. The region of residency, and whether the individual lives in an urbanized area, also appear to influence willingness to work and employability. Willingness to work among men and women in post-retirement age is much lower outside Riga and lowest in Latgale, other things equal. However, the likelihood of finding a job among willing-to-work men and women of post-retirement age in densely populated areas is lower than in rural areas by 7 to 8 percent points, respectively (see Figure

[48] I.e. when partner's limitations in activities and living together with elderly parents are removed, and own physical limitations are replaced with the official disability status.

34). Annex 2 of this report presents findings from additional analysis of labor supply correlates implemented separately for each region.

Figure 34: Willingness to work among "50+" is highest in Riga except for pre-retirement age women

Marginal effects of Region (vs. Riga) and Urbanization level (vs. Rural) on willingness to work and employability, 2002-2013



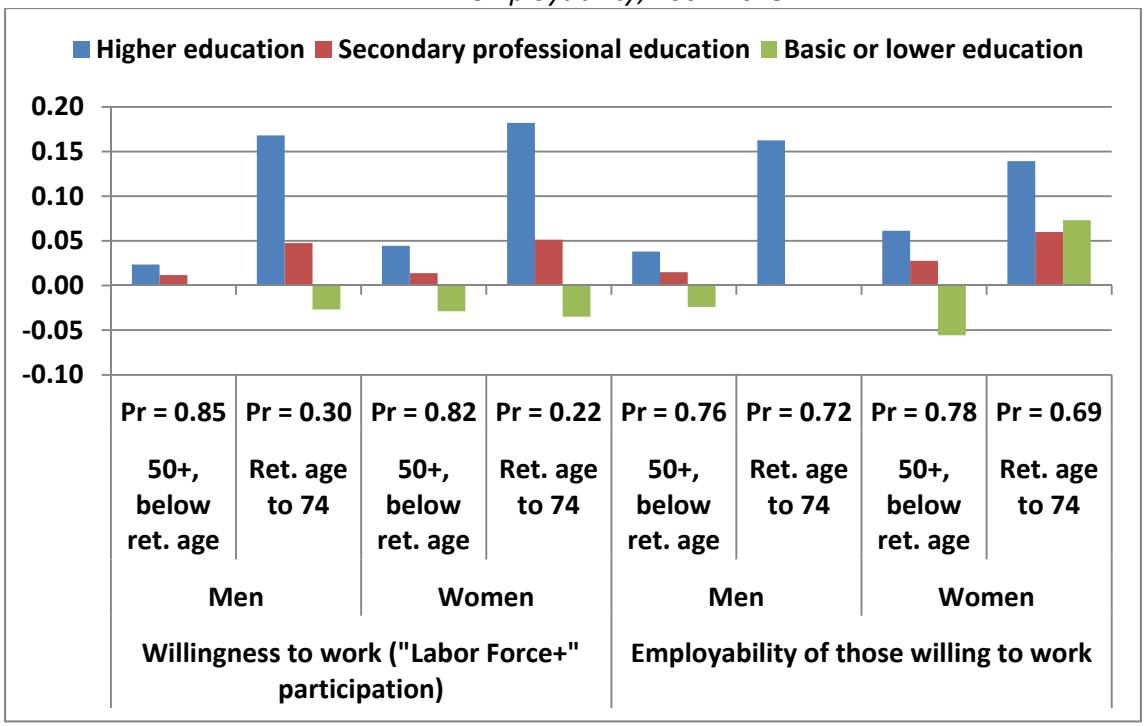
Note: Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on LFS 2002-2013.

Higher levels of education enable older Latvians to have a longer working life. The highest probability of participating in the extended labor force for population "50+" is found among persons with tertiary education, which provides further support to the conclusions of Chapter 2 and the previous section (see Figure 35). These are followed by Latvians with secondary professional education, and finally by individuals with secondary general education. On the other hand, persons with basic education are the least likely to be willing to work after turning 50. The impact of education on willingness to work is especially strong in the post-retirement age group. This result is not surprising, given that better-educated individuals are less likely to be in physically-demanding and strenuous occupations, which allows them to continue working (or searching for a job) at older ages. Moreover, the post-retirement age group has lower incidence of unemployment, so those who are willing to work are likely to be the ones whose skills are in demand by employers, which are likely to be higher-educated older adults. This result is confirmed by the employability regressions for all except post-retirement age women. In the latter group, the least-educated women have the second-

highest provability of being employed conditional on being willing to work. This result could suggest these women's higher willingness to accept more readily-available low-skilled jobs.

Figure 35: University education facilitates productive aging

Marginal effects of Education Level (vs. Secondary General) on willingness to work and employability, 2002-2013



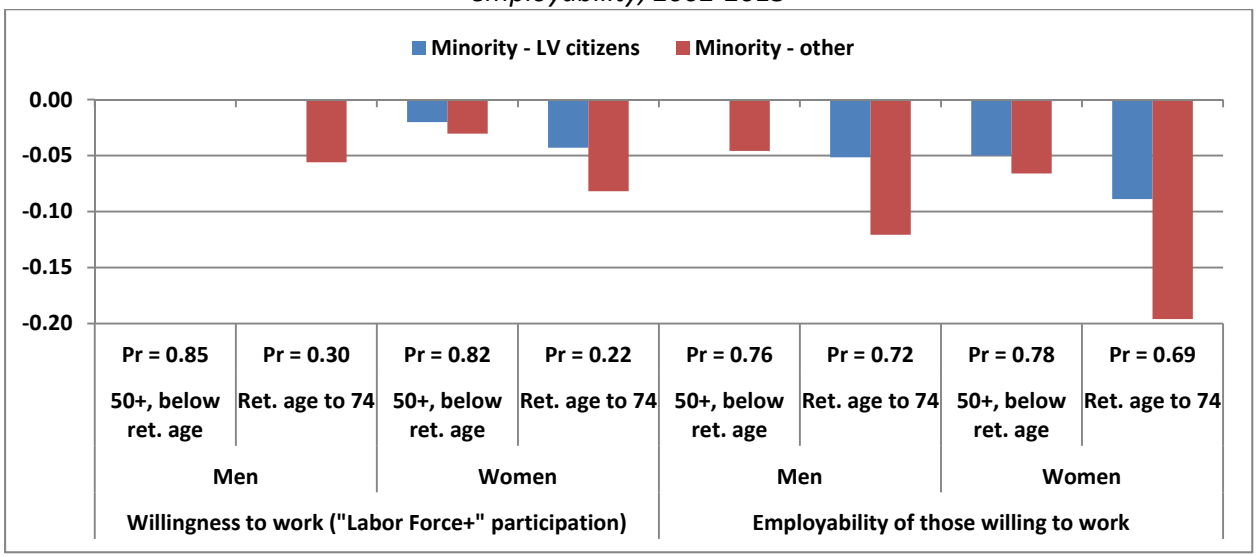
Note: Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on LFS 2002-2013.

For minority men, lack of Latvian citizenship is correlated with employability and with exit from the labor force after reaching retirement age. Controlling for other characteristics (e.g. education, region, level of urbanization, etc.), Latvian citizenship seems to matter more than ethnicity for older men in Latvia. In particular, minority men aged 50-74 with Latvian citizenship do not differ from ethnic Latvians in terms of labor force participation and, in the case of pre-retirement age men, also in terms of employability (see Figure 36). However, and other things equal, minority men without Latvian citizenship, if willing to work, have lower chances to be employed than ethnic Latvians; in post-retirement age they are also less likely to be part of the extended labor force, likely due to a large extent to discouragement.

For women, however, ethnicity seems to matter, regardless of citizenship, and probably in connection with language skills. Minority women aged 50-74 are less likely than ethnic Latvians both to participate in the labor force and to be employed if willing to work; these effects are weaker in pre-retirement age than in post-retirement age (see Figure 36). This association is probably related to the fact that women are more likely to work in language-intensive occupations, and therefore the effect of ethnicity, which can be seen as a proxy for language skills, is larger among them.

Figure 36: Citizenship matters for staying in work at older ages

Marginal effects of Ethnicity and Citizenship (vs. Latvians – LV citizens) on willingness to work and employability, 2002-2013

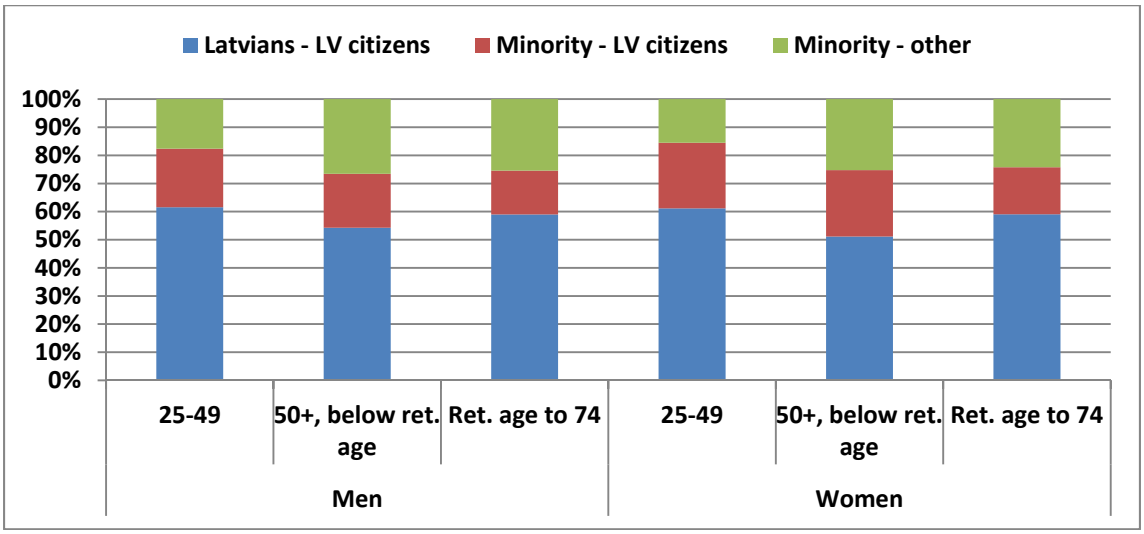


Note: Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on LFS 2002-2013.

The future "50+" cohorts will have more Latvians and fewer non-citizens. In the meantime, the observed differences can be taken into account in the design of policies aimed at improving the labor force participation and employment of older non-ethnic Latvians and individuals without Latvian citizenship. As noted above, the population group aged 25-49 in 2002-2013 will turn 50-74 in 2027-2038. As shown in Figure 37 below, among future "50+" potential workers, there will be more Latvians and less non-citizens. Such change in the composition of this age group by ethnicity and/or citizenship will favor labor force participation in the future decades. The negative correlation between ethnicity and employability in the case of women (but also for male workers in sectors and occupations that require higher language skills) can be mitigated by improving language learning outcomes in schools, improving access to free Latvian language courses for adults (including the unemployed), and by softening pre-employment language requirements (at least for the "50+" population) so that they can engage in on-the-job language learning.

Figure 37: Future cohorts have more Latvian citizens

Men and women of prime age, pre-retirement and post-retirement age by ethnicity and citizenship, 2002-2013



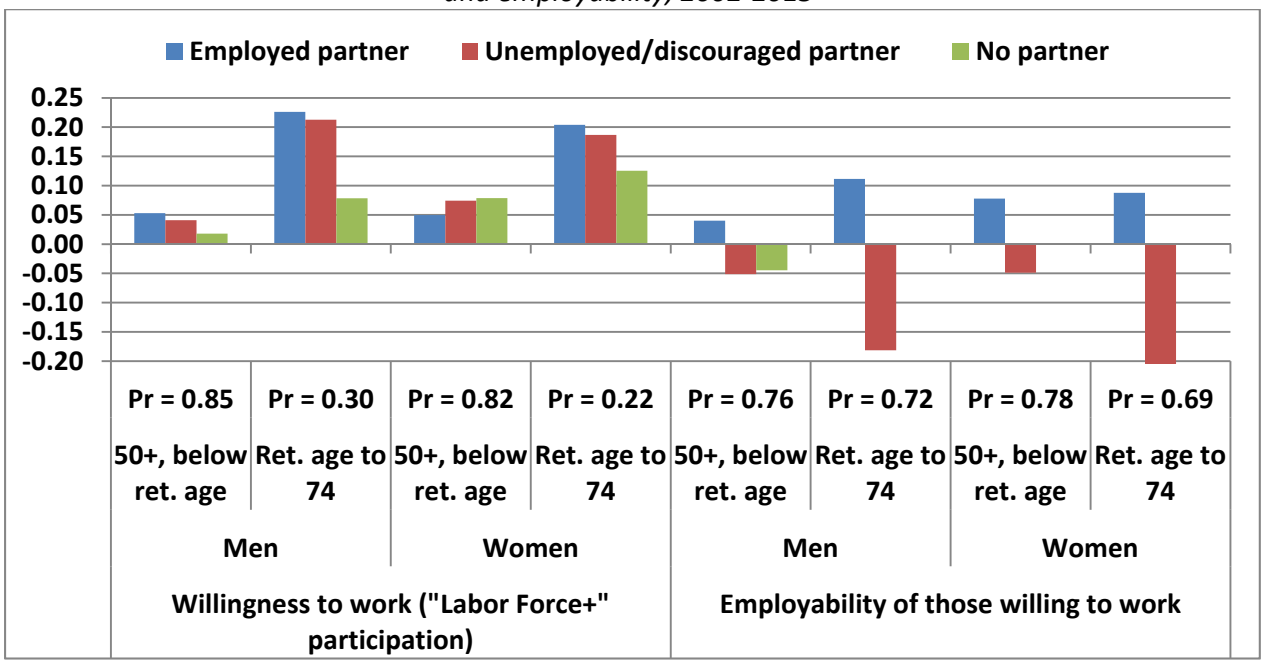
Source: Authors' calculations based on LFS 2002-2013.

Latvian older couples have a preference for joint retirement. Keeping other factors constant, both men and women after the age of 50 whose partner is not employed and not willing to work are less likely to be part of the extended labor force than those whose partner is employed, unemployed or discouraged (Figure 38). In terms of willingness to work, the labor market status of the "50+" with employed partners does not differ much from that of older people with unemployed/discouraged partners. Therefore, partner's earnings do not appear to cause a significant "non-labor income effect", which further supports the hypothesis that the retirement decisions in Latvia are made at the level of the couple rather than individually. It must be however noticed that among pre-retirement age female participants there is some evidence for the "added worker effect," as women with unemployed partners are somewhat more likely to be part of the extended labor force than those whose partners are employed.

Assortative matching on both "positive" and "negative" unobserved labor market characteristics appears to be at play in Latvia. Conditional on willingness to work, the highest chances to be employed are for those "50+" with employed partners, while the lowest chances are for those with unemployed and discouraged partners. Among men of pre-retirement age, the absence of a partner is associated with lower employability.

Figure 38: Retirement decisions are usually made jointly by the couple

Marginal effects of Partner's Labor Status (vs. Out of Extended Labor Force) on willingness to work and employability, 2002-2013



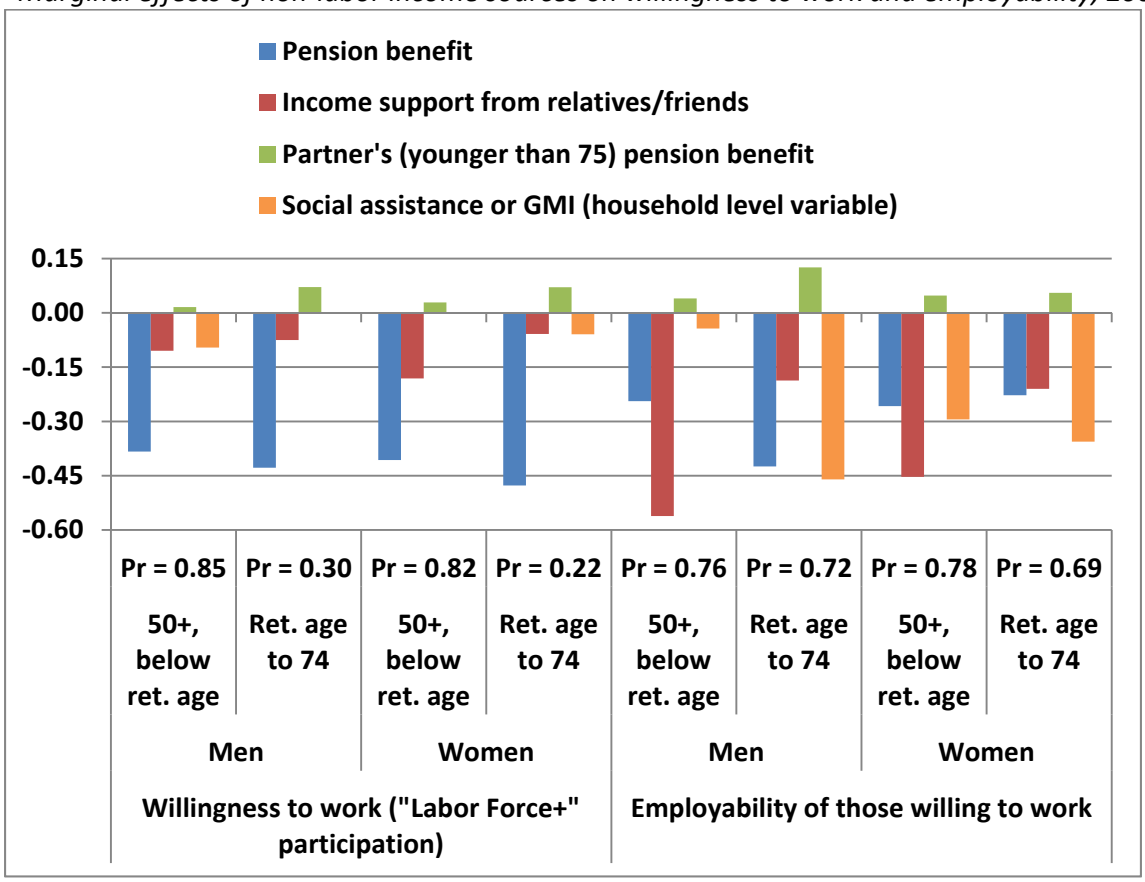
Note: Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on LFS 2002-2013.

As expected, non-labor income has a significant relationship with labor market outcomes. Among both men and women in pre-retirement age, 19 percent received various pension benefits (e.g., disability, early retirement, from other countries, etc.); by contrast, only a tiny minority (3 percent of men and 2 percent of women) in post-retirement age does not receive pensions. Another source of income is support from relatives and friends, which is received by around 19 percent of men and 26 percent of women in pre-retirement age and 7 percent of men and 11 percent of women in post-retirement age. These results suggest that support from social networks could be compensating for the absence of retirement benefits before eligibility. The coverage of the last-resort social assistance program (municipal social assistance or guaranteed minimum income, SA/GMI) is quite low among older adults: only 2 percent of the "50+" individuals in pre-retirement age and less than 2 percent of their post-retirement age counterparts live in households that receive this benefit. Recipients of pension benefits and older people who receive support from relatives and friends are much less likely (other things equal) to be part of the extended labor force Figure 39).[49] Furthermore, the above-mentioned kinds of non-labor income have also strong negative effects on employability of the "50+" individuals willing to work, very likely in connection with the fact that non-labor income

[49] The only exception partner's pension benefit, the effect of which is theoretically ambiguous. On the one hand, it can reduce the respondent's willingness to work due to higher non-labor income. On the other hand, it can signal unobserved positive characteristics of the respondent through assortative matching, as partners who remain in the extended labor force despite receiving pensions demonstrate their preference for active aging and partners who leave the labor force due to receiving a pension are presumably better than partners detach from the labor market for another reason. The results suggest that the positive effects of assortative matching prevail over the non-labor income effect of partner's pension.

raises the reservation wage. Receipt of SA/GMI has a similar effect, but it is not so large and can be observed only in post-retirement age. In the case of SA/GMI, this is reinforced by very high marginal effective tax rates: People lose the benefits if they start working, and therefore the net gain from work is small unless wages are sufficiently high.

Figure 39: Non-labor income, especially pensions, reduces willingness to work for "50+"
Marginal effects of non-labor income sources on willingness to work and employability, 2002-2013



Note: The SA/GMI effects shown are from models not corrected for potential endogeneity of this variable. When SA/GMI is instrumented, the effects become larger. Only significant effects shown. The analysis controls for other observable characteristics.
Source: Authors' calculations based on LFS 2002-2013.

For women of pre-retirement age, willingness to work is reduced when there are dependents living in the household. Such decline is higher in the case of children, depending on their age: the likelihood of being in the extended labor force is reduced by 4 percentage points if the household has children below 5 years of age, by about 2 percentage points if the household includes children aged 5 to 9 years, and by 2.5 percent if an elderly parent (woman's or her partner's) lives in the same household. Although the estimated effects are small if compared to the extended labor force participation rate of about 80 percent, they can add up if a household contains children in both age groups and an elderly parent. Moreover, the real impacts are likely to be underestimated as LFS does

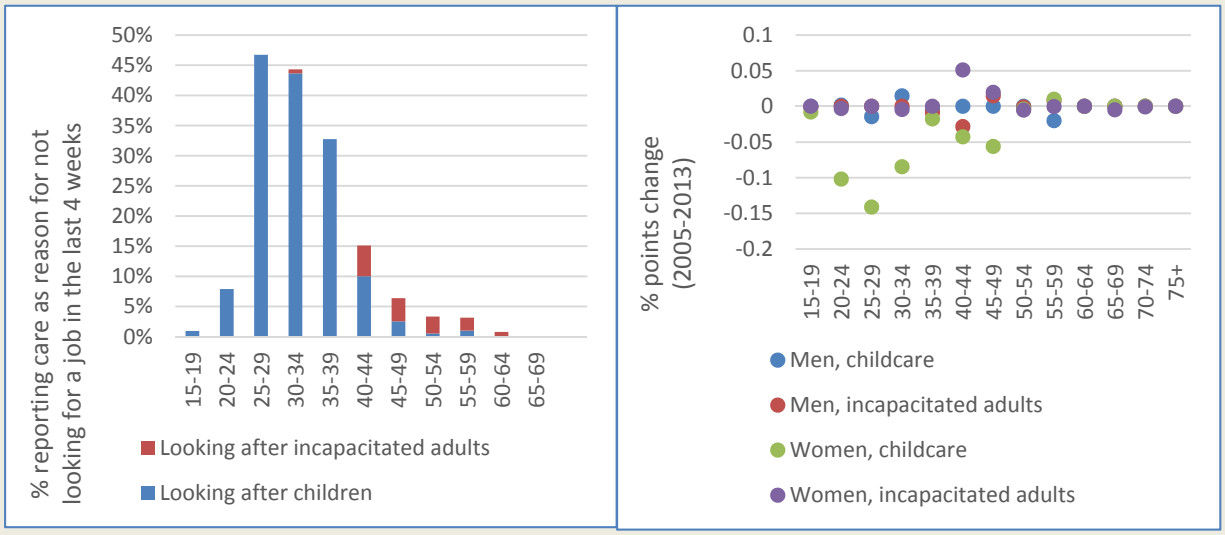
not account for care for grandchildren or elderly living in another household.[50] Box 3 provides more details about the role of care obligations in Latvia.

Box 3. Care obligations and employment in Latvia

Demographic and epidemiological trends are leading to an increase in the demand for care in Latvia. Larger old cohorts and longer periods of care needs are expected to translate into an increasingly higher demand for elder care (Levin et al., 2015). In Latvia, the expected increase in aggregate care burden (including children and adults with severe and moderate limitations in activities of daily living) from 2010 to 2060 is about 6 percentage points, which is relatively low compared to other countries, such as Poland (9 percentage points) or Slovakia (12 percentage points), but it could still affect the Latvian labor market, if the additional caregiving responsibilities fall on informal caregivers who would otherwise be involved in paid work.

Examining self-reported reasons for inactivity reveals that care obligations are more a constraint for labor force participation of younger Latvian women. More than 40 percent of inactive women aged 25 to 34 report being out of the labor force due to looking after children. This share has decreased significantly since 2005, but remains quite high. The sandwich generation that provides both childcare and eldercare appears in Latvia to be in the early 40s, where about 10 percent of inactive women were not in the labor force due to looking after children and 5 percent due to looking after incapacitated adults. The latter share actually increased from 2005, suggesting that eldercare supply might not be expanding at the rate of demographic change.

Figure B3.1: Care obligations present more of an obstacle for labor force participation of younger women than for "50+"



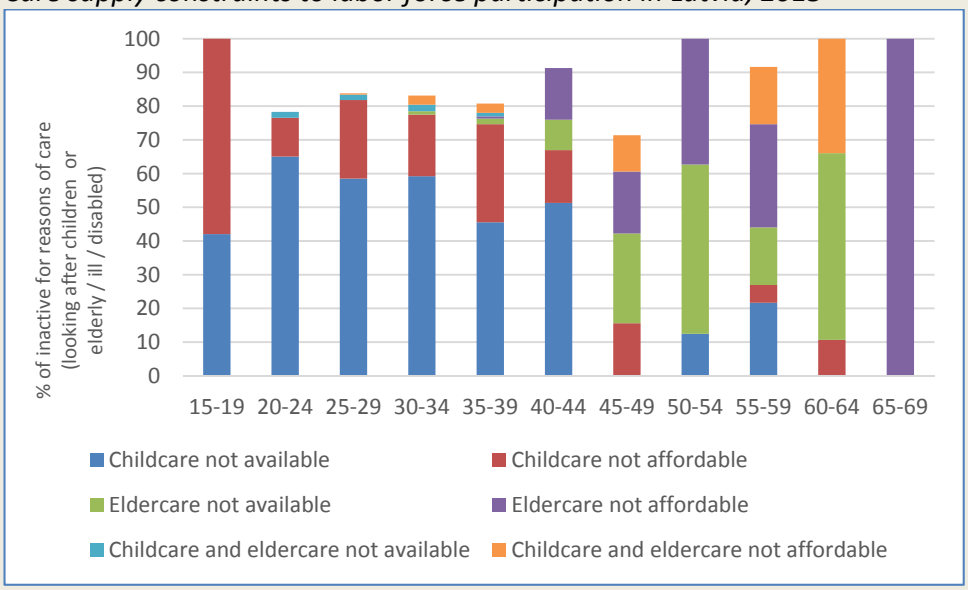
Source: Eurostat.

[50] In the case of men, the negative effect of childcare obligations can only be observed during the crisis/post-crisis period (2009-2011). The probability to be in the extended labor force (i.e., the probability to be willing to work) was reduced only over the years of the recent economic downturn. For pre-retirement age men, willingness to work declined by 3.6 percentage points when the household included children below 10 years of age. For men in post-retirement age but younger than 75, the likelihood of being willing to work was reduced by 11 percentage points when the household included children below 5 years of age.

The main constraint in care supply appears to be availability of childcare for younger age groups and availability and affordability of eldercare for older groups. Younger women (up to 45) who are out of the labor force due to care obligations reported that childcare availability is the most significant barrier to their activation. For women aged "50+" availability and affordability of eldercare was more of a constraint. Affordability issues tend to be more relevant among the youngest and eldest age groups, among which financial constraints tend to be more common.

Figure B3.2: For "50+", eldercare is more of a constraint than childcare

Care supply constraints to labor force participation in Latvia, 2013



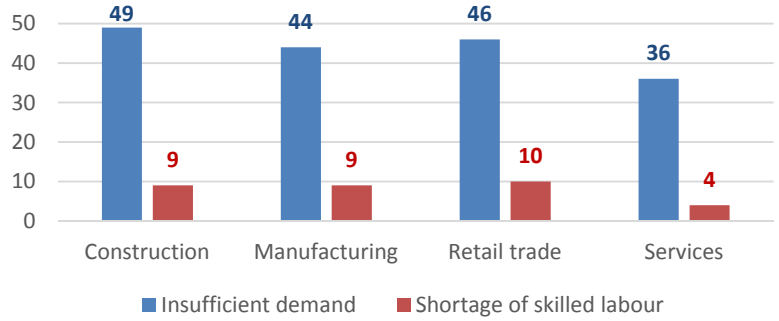
Source: Eurostat.

LABOR DEMAND CONSIDERATIONS

Labor demand in Latvia has not fully recovered since the crisis. Job vacancies are historically low and quickly filled. Vacancies are among the lowest in the EU: Data from the fourth quarter of 2014 shows that Latvia and Italy (both 0.4 percent) have the lowest job vacancy rates in the EU except for Cyprus (0.3 percent compared to Germany with the highest job vacancy rate of 3.2 percent). Firms do not report a shortage of labor as the most limiting factor for their activity; rather, insufficient demand remains the most important constraint to business (Figure 40). By contrast, prior to the crisis, labor availability was the critical constraint noted by firms, ranging from 40 to 50 percent in most industries.

Figure 40: Insufficient demand is cited as the most limiting factor for activity not shortage of skilled labor

Factors limiting manufacturing (% surveyed enterprises)



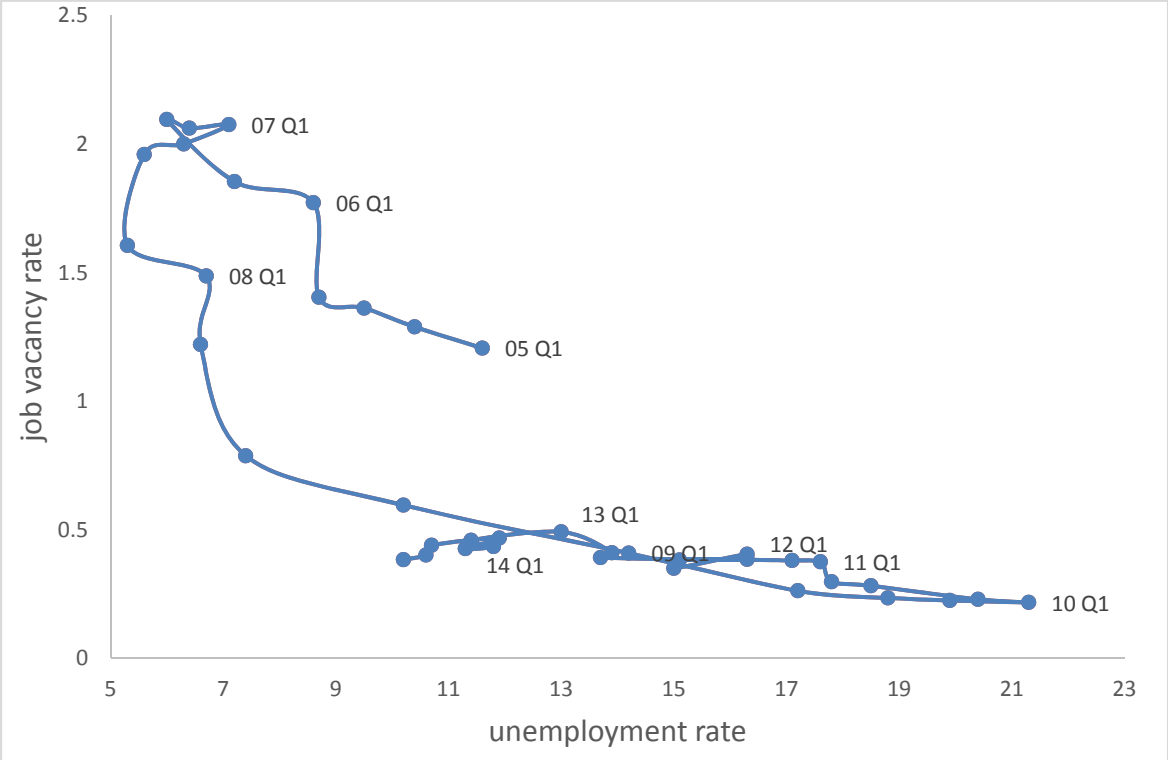
Source: Central Statistical Bureau of Latvia.

The country experienced the sharpest increase in unemployment in the EU as the economic crisis hit in 2008-2009. Coming out of the crisis, it took time for unemployment to recover and it remains high, including among older groups, for which long-run unemployment makes up half of overall unemployment. To what extent does the persistence of unemployment account for structural rather than cyclical factors? If structural unemployment is defined as occurring when the skills of the unemployed do not meet the skills requirements of available vacancies, then there is limited evidence of a large skills mismatch in the economy (Hazans, 2013; Anosova et al, 2013). It rather seems that labor demand has still not fully recovered from the economic downturn.

Unemployment since the onset of the crisis is largely explained by cyclical factors. Examining the relationship between the vacancy rate and the unemployment rate over time provides some support to the hypothesis that unemployment has been caused by a decline in job vacancies rather than a rise in the mismatch between vacancies and the skills of the unemployed. Figure 41 shows the Beveridge curve for Latvia over the first quarter of 2005 to the fourth quarter of 2014. As the crisis hit in 2008, the number of vacancies fell quickly and unemployment started to increase rapidly. There was a movement outwards along the curve as cyclical unemployment grew. Since the first quarter of 2010, the recovery began with a movement back along the curve as cyclical unemployment fell. There is some evidence of a small shift downwards since the third quarter of 2013—with lower vacancy rates being associated with lower unemployment rates—suggesting a possible recent decrease in structural unemployment due to improved matching.

Figure 41: Limited evidence of increase in labor market mismatching since the crisis

Unemployment rate vs. vacancy rate in 2005Q1-2014Q4, seasonally adjusted



Note: The year and quarter for each observation.

Source: CBS, JVS01. Occupied posts by kind of economic activity, jvs02. Number of job vacancies by kind of activity, nb02. Activity rate, employment rate and unemployment rate by sex and quarter 15-74.

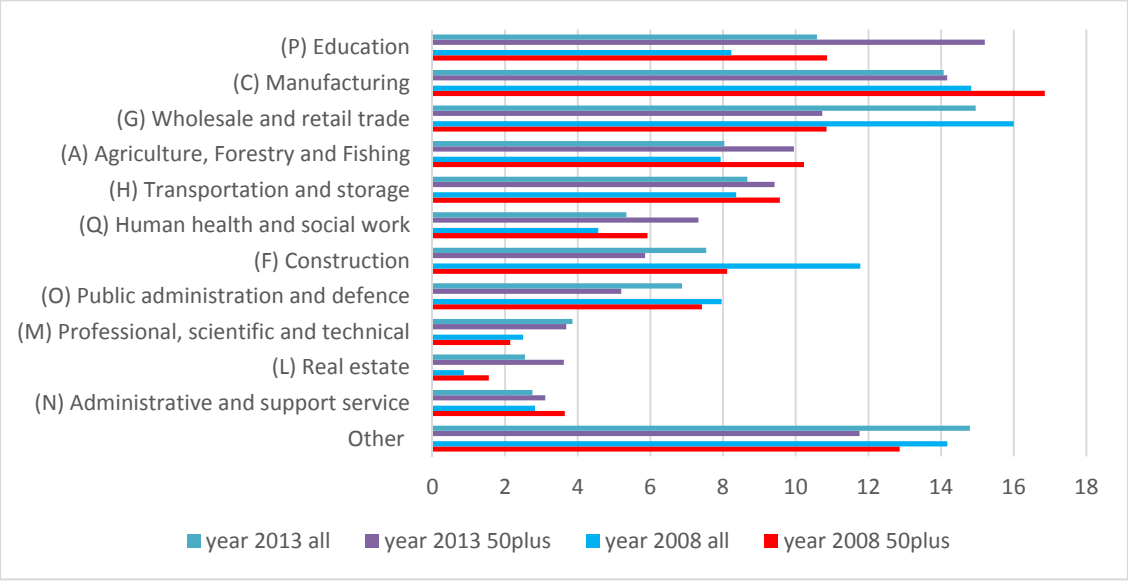
Evidence does not support the recovery as having disfavored industries where older workers are concentrated. If the rise in employment seen since 2010 had occurred in industries where younger people were concentrated, then this would have been an indication that the skills of older workers do not match the jobs being produced in the economy. The industries that were hit hardest in terms of declining employment by the crisis and in its aftermath (over 2008-2013) were construction (35 percent fall), wholesale and retail trade (22 percent fall), manufacturing (19 percent fall) and public administration and defense (14 percent drop). When compared to employment trends for the overall population, the pattern was somewhat different for the "50+" for which manufacturing and public employment and defense made up close to 80 percent of job losses over 2008-2013. The share of the "50+" in employment has increased from 22 to 24 percent, reflecting not just the overall aging of the labor force but also the higher probability that younger workers migrated in response to the crisis.

For the "50+" workforce the structure of employment remains similar to that observed before the crisis. The same five sectors still account for a large share (60 percent) of employment in 2013: These are education (15.3 percent); manufacturing (14.2 percent); wholesale and retail trade (10.7 percent); agriculture, forestry and fishing (10 percent); and transportation and storage (9.4 percent) (**Figure 42**). The big shifts that have taken place include an increasing importance for education and a diminishing role for the manufacturing sector. The employment share of education for the "50+"

has risen by 4 percentage points over 2008-2013, reflecting a rise in absolute terms in employment in this sector since 2008. Meanwhile, manufacturing employment has shrunk for the "50+" age groups (by 3 percentage points). At the same time, in 2013, almost half of all inactive adults aged 50-74 previously worked in manufacturing and mining, trade or hospitality, or information and communication/financial and insurance services, and administrative/support services.

Figure 42: The big shifts in employment that have taken place for the "50+" are in education (increase) and manufacturing (reduction)

Employment by sector, as a share of total employment, 2008 and 2013 (annual), all population and "50+"



Notes: Ordered by highest to lowest employment share of "50+" in sector in 2013. Other category consists of (R) Arts, entertainment and recreation; (I) Accommodation and food service activities; (D) Electricity, gas, steam and air conditioning supply; (S) Other service activities; (J) Information and communication; (K) Financial and insurance activities; (E) Water supply, sewerage, waste management and remediation activities; and (B) Mining and quarrying.
Source: Authors' calculations based on LFS 2008-2013.

As highlighted in previous section, seven years on from the onset of the recession in 2008, employment has still not recovered to the pre-recession highs. Employment peaked at 1.075 million in Q2 of 2008 and the latest available data shows it at 870 thousand for Q4 2014. Employment of the "50+" population has recovered more than that of the general population. There is no evidence that industries with a higher share of the "50+" at the onset of the crisis suffered from a more severe employment collapse than other sectors. If anything, the "50+" are employed in some of the main sectors to have enjoyed a recovery in employment since the crisis. Figure 38 shows how the number of jobs in each industry has changed since 2008. The line bars show the number of employed in each industry over 2008-2013. Individual lines are placed on the x-axis based on the initial share of "50+" workers in the industry and on the y-axis based on the number employed in each industry over 2008-2013.

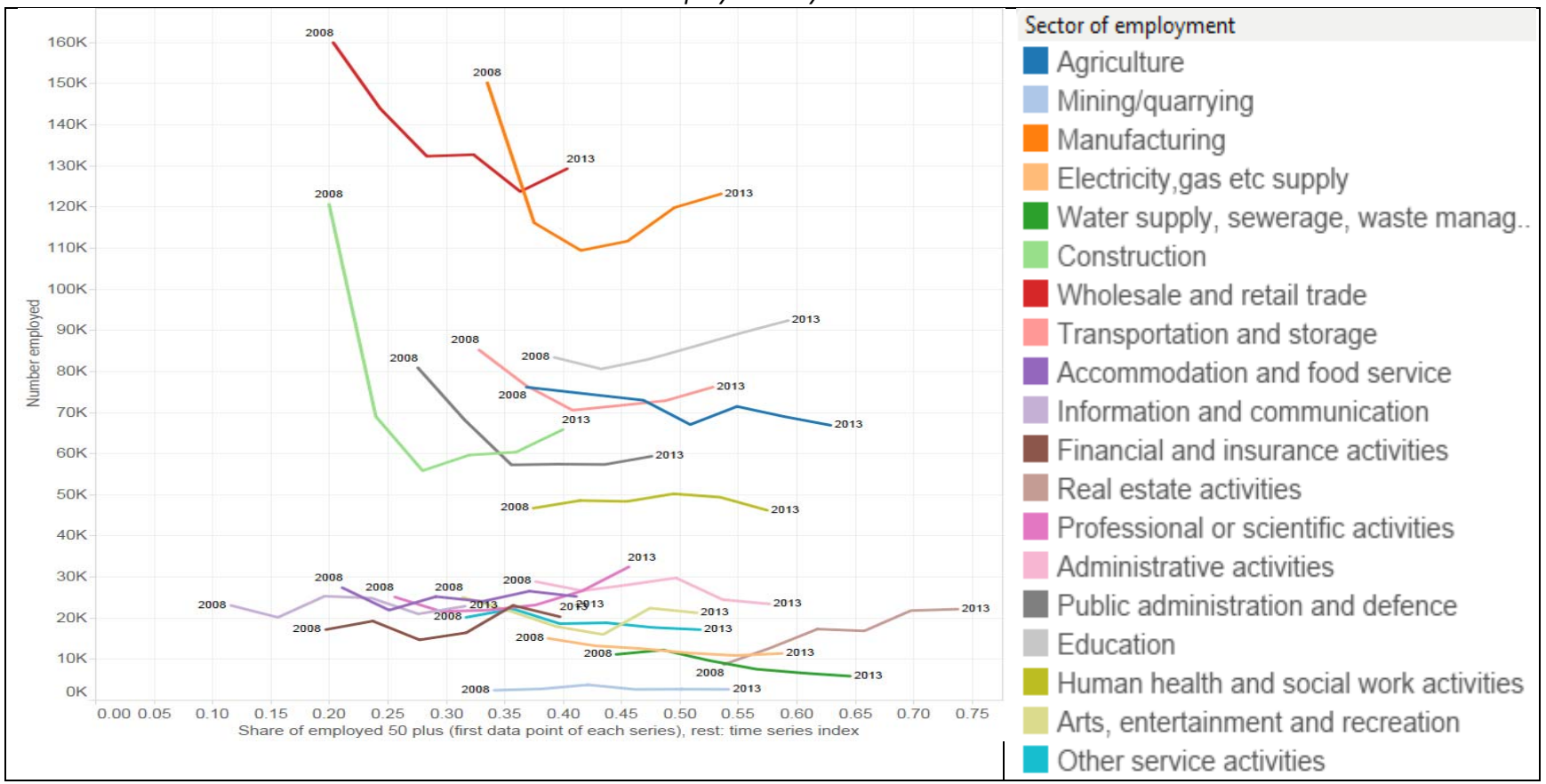
Older workers have not been particularly hit by the crisis. If the industries that have recovered are defined as those where employment has returned to 2008 levels, then four stand out in terms of

employment gains: Real estate; professional services; education, and financial and insurance activities. With the exception of financial and insurance activities, the number of "50+" employed in each of these sectors has increased substantially. If underrepresentation for an age group in a particular industry is defined as having an employment share lower than the overall share of the age group, then in fact the "50+" have been underrepresented in industries hardly hit by the crisis—namely construction, wholesale trade and public administration and defense—and overrepresented in industries, particularly education, that where employment has recovered well. One concern is that older workers are less likely to work in information technology and financial and insurance services, industries that are not that large in terms of their employment share but where employment has grown significantly and where wages are particularly high (see Figure 43).

Nevertheless for the longer-term unemployed aged "50+" there is a concern that cyclical unemployment over time becomes structural. This phenomenon may be driven by a deterioration of skills leading to younger, better-educated workers and workers without prior unemployment spells being preferred to take available vacancies (hysteresis). The likelihood for unemployment to persist among older workers is exacerbated by their low mobility across sectors or geographically in Latvia. Older workers are less likely to find employment after job loss, as their chances of re-employment are hurt by lower labor and geographic mobility as well as negative employer biases toward older people.

Figure 43: Recovery in employment has not disfavored industries where older workers are concentrated

Employment by sector



Source: Based on the LFS.

JOB QUALITY

The chapter so far has focused on the extent to which older adults in Latvia have jobs, and on the constraints that hinder their employment. But when older individuals are employed, what is the quality of their jobs compared to other age groups, and does this job quality differ for individuals with different socio-demographic characteristics? To address this question, the report calculated a Job Quality Index, which allows measuring the quality of jobs held by individuals along certain components (see Box 4 for more details on methodology).[51] This index measures job quality based on Labor Force survey data, and allows the examination of overall job quality and performance on separate components by different groups within the pool of the wage-employed.[52] This section summarizes the results of the analysis of job quality for wage-employed workers based on certain demographic and socio-economic features, such as gender, region, citizenship/ethnicity and education, and by different age cohorts.

Box 4: The Job Quality Index

What defines a good job? The Job Quality Index is calculated for each wage-employed worker in Latvia, and it consists of 11 components, based on the following definition of a good job. For the purpose of this analysis, a good job is one that:

1. ***Provides safe working conditions and is regulated and protected by the Labor Protection law***. These criteria are operationalized with LFS data by the first two components of the index: (1) having *wages above the minimum wage*, and (2) adequate *work safety* (incidence of work-related accidents, health problems and exposure to risk factors affecting physical health or mental well-being).
2. ***Provides adequate linkage between wages and the job***. This is measured by two components: (3) *relative underpayment* and (4) *compensatory moonlighting* (employment in additional jobs where the primary job is full-time with wages at or below the minimum wage).
3. ***Offers career advancement and growth***. This is measured with three components: (5) engagement in *work-related training*, (6) *underemployment* (workers preferring to work more hours); and (7) *employment engagement* (ranking by contract tenure and time spent in employment).
4. ***Uses the highest level of productivity***, as measured by (8) *relative over-qualification*.
5. ***Is resilient to shocks***. This is operationalized by (9) *resilience to aggregate shocks* (probability of job loss due to dismissal or end of temporary job during a crisis), and (10) *resilience to idiosyncratic shocks* (probability of job loss due to illness, disability, or pregnancy).
6. ***Is adaptable to a changing economy***, as measured by (11) *risk of skills obsolescence*.

For each component, the job of each wage-employed worker observed in LFS data is classified as "good quality" or "bad quality" in one of three ways: (1) Comparison of individual job characteristic with a normative threshold (e.g. the minimum wage), (2) Comparison of individual job characteristic with a threshold derived from the average job characteristics of workers in the same peer group (e.g. relative underpayment is based on comparisons of workers in the same sector-occupation-education-potential experience cell), and (3) Assignment based on the characteristics of workers who had similar jobs (e.g.

[51] The concept of Job Quality Index was first developed and implemented for Turkey (Del Carpio forthcoming).

[52] One attractive feature of this index is that it is fully customizable based on policy preferences and priorities: the number and definition of components can be altered based on the context, with the only constraint being operationalization with data collected in the country's Labor Force Survey. Moreover, the assignment of weights for each component in the calculation of the overall JQI can also be changed based on policy priorities.

resilience to shocks of current jobs is based on shares of unemployed whose last job was in the same sector-occupation cell). Employment engagement is rated on a 4-item scale. Table B4.1 provides a summary on the data and threshold used for each component.

Table B4.1: Data and threshold used for JQI components

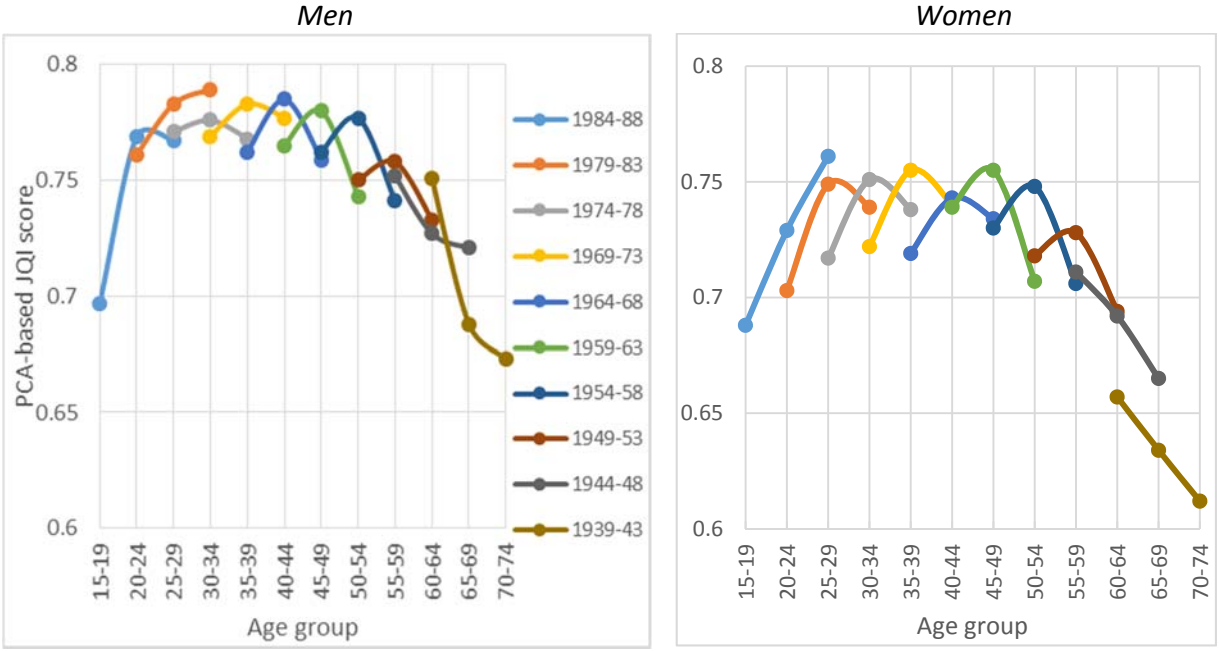
	Component: A good quality job is one that has:	*Data used for scoring*	*Threshold for individual wage-employed worker*
(1)	Wage > minimum wage	Individual	Normative threshold
(2)	Better work safety	Sector-occupation cell	Derived from the distribution of work-related incidents, diseases and health risks in the sector-occupation cell
(3)	Low incidence of relative underpayment	Individual	Median wage bracket of sector-occupation-education-potential LM experience cell
(4)	Low incidence of compensatory moonlighting	Individual	Yes/No
(5)	High incidence of work-related training	Individual	Yes/No
(6)	Low incidence of underemployment	Individual	Yes/No
(7)	Better employment engagement	Individual	4-item scale
(8)	Low incidence of over-qualification	Individual	Median level of education of sector-occupation-birth cohort cell
(9)	High resilience to aggregate shocks	Sector-occupation cell	Share of jobs lost due to dismissal or end of temporary work in sector-occupation cell
(10)	High resilience to idiosyncratic shocks	Sector-occupation cell	Share of jobs lost due to own illness, disability or pregnancy in sector-occupation cell
(11)	Low risk of obsolescence	Sector-occupation cell	Normative threshold

Since results from multivariate analysis demonstrated that some components of JQI, such as employment engagement and compensatory moonlighting or underemployment and relative underpayment are interrelated, the aggregate Job Quality Index (JQI) is calculated via polychoric principal components analysis (PCA). PCA is a data reduction technique to reduce the number of dimensions; it transforms the original data by condensing groups of correlated variables into principal components which are less correlated. Polychoric PCA is especially suitable for JQI, as its components are mostly binary (i.e. 0 or 1). The aggregate JQI uses the first rotated component as the composite index. However, when discussing the criteria that make a good job, the 11 raw components will be used, as they are more amenable to interpretation and policy design than the principal components. More details on the methodology are provided in Annex 3.

Job quality of the older workers is relatively low, especially for post-retirement age women, and the change in job quality is not monotonic. Figure 44 below presents the overall Job Quality Index in Latvia, based on polychoric PCA, for men and women, broken down by age and cohort, in three different years (2003, 2008, and 2013). Each line represents a group of workers that belong to the same 5-year birth cohort, and the graph follows average job quality of each cohort as it ages. Reading the graph vertically, it is thus possible to compare average job quality in any particular age group across cohorts, which helps to identify generational effects that impact the entire cohort of workers. Moreover, comparisons of bottoms, mid-points or tops of the lines traces job quality across age groups at a specific point in time. In 2013, the average JQI for wage-employed workers was 0.740, with the 95 percent confidence interval of 0.737-0.742. This is very similar to average JQI in 2003 (0.738), but significantly lower than the JQI in 2008 (0.754). In 2013, men aged 30-34 and women aged 25-29 had, on average, the highest overall job quality, while oldest adults (aged 70-74) had the lowest job quality. In general, women appear to have lower job quality than men. Moreover, there is no clear trend in job quality – for the youngest cohort (born in 1984-1988), job quality is increasing with age, for the oldest cohorts (born in 1948 or earlier) job quality is declining with age, and for the middle cohorts, job quality has an inverse-U shape, perhaps pointing to the lost wage jobs during the crisis being of lowest quality, which thus brought up the average job quality for remaining wage-employed.

Figure 44: Job quality in Latvia is lower for older workers, especially women

Job Quality Index by age and cohort in Latvia, (2003, 2008, and 2013)

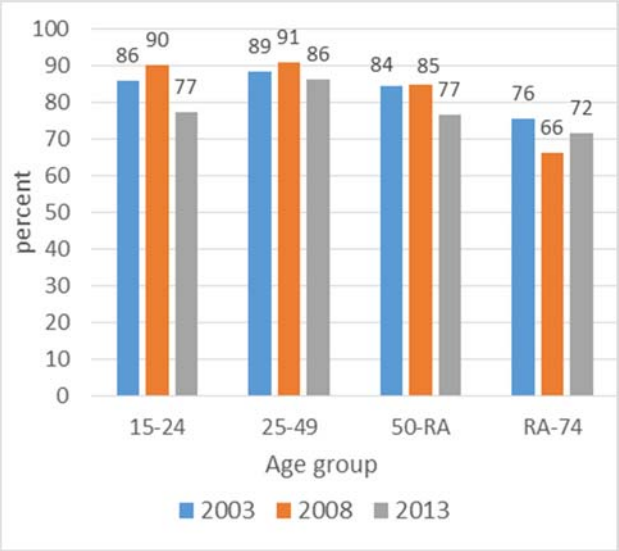


Source: Calculations based on LFS data.

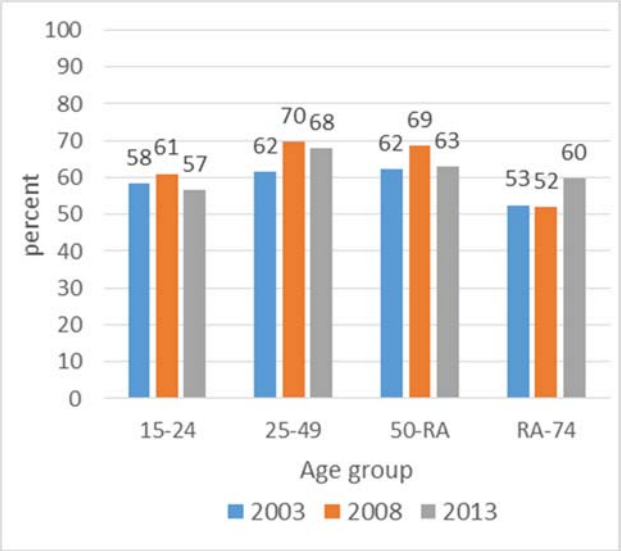
The quality of jobs diverges between age groups among the elderly. The examination of performance on specific components for different age groups reveals that older wage-employed workers ("50+") are least likely to be earning wages above the minimum wage, with the share of good quality jobs by this component being especially low in the post-retirement age group (Figure 45a). In terms of relative underpayment, the job quality of youngest and oldest workers suffers the most, and

Figure 45: Job quality along different components by age, 2013

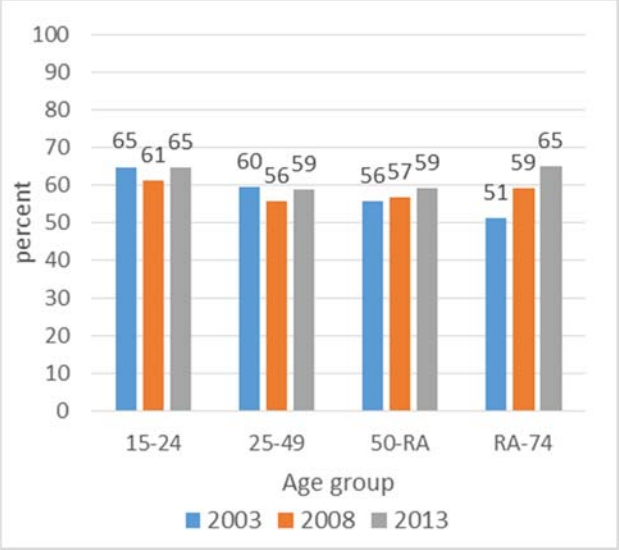
a. Share of wage jobs with wages above the minimum wage by age and year



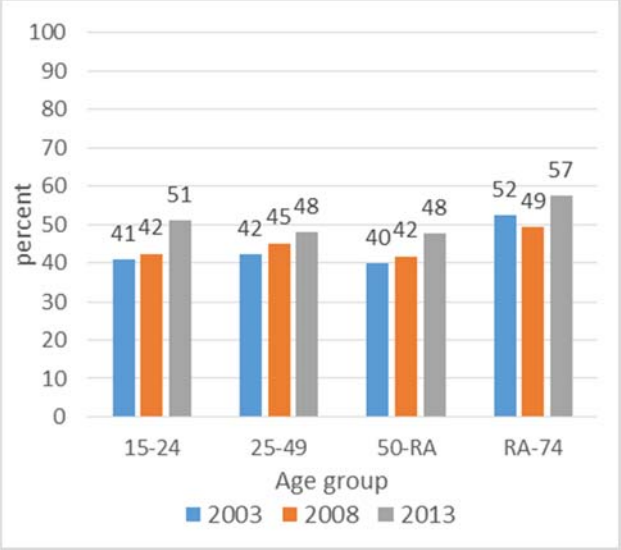
b. Share of wage jobs that are not underpaid relative to their peers by age and year



c. Share of wage jobs that are resilient to aggregate shocks by age and year



d. Share of wage jobs that have better working conditions by age and year



Notes: RA stands for retirement age.
Source: Calculations based on LFS data.

while the situation improved since 2008 for those aged 60 plus, it has worsened for workers aged 50-59 (Figure 45b). On the other hand, it appears that oldest wage workers in Latvia are in jobs that are most resilient to aggregate shocks (Figure 45c). Poor working conditions are another important factor that may push older workers into early retirement. [53] In terms of work safety, pre-retirement age

[53] According to the latest available (2012) data, the number of accidents at work reached the highest level since 1996 (170.5 cases per 100 000 workers). The number of deaths in accidents has been decreasing since 1996 reaching

workers face relatively poor working conditions, while workers beyond retirement age can enjoy much improved working conditions (Figure 45d).

Job quality of the pre-retirement age wage workers is worse in many respects compared to other age groups, but post-retirement age group has the lowest overall job quality. Table 4 compares the job quality of pre-retirement age wage workers (50-61 years old) with the quality of employment of other age groups. On most components of the Job Quality Index, pre-retirement age workers have the lowest shares of "good jobs." Notably, prime-age workers achieve significantly higher scores in wage-related components[54], are more likely to receive training, and are less affected by skills obsolescence than pre-retirement age workers. Both young and post-retirement wage workers scored better than pre-retirement age workers in terms of the underemployment incidence and in terms of resilience to aggregate shocks; and post-retirement age workers also enjoyed higher levels of work safety, better resilience to idiosyncratic shocks and lower incidence of skills obsolescence. Given the importance of wage-related components in the overall job quality index, workers aged 25-49 years have the highest JQI scores while post-retirement age workers are on the other end of the JQI spectrum, with youngest and pre-retirement age workers in the middle and not very different from each other.

Table 4: Who has better jobs? Results by age in 2013

Component	15-24	25-49	50-61	62-74
wage > minimum wage		+	base	–
better work safety			base	+
low incidence of relative underpayment	–	+	base	
low incidence of compensatory moonlighting	–	+	base	–
high incidence of work-related training		+	base	
low incidence of underemployment	+		base	+
better employment engagement		+	base	
low incidence of overqualification		–	base	–
high resilience to aggregate shocks	+		base	+
high resilience to idiosyncratic shocks			base	+
low incidence of skills obsolescence		+	base	+
Job Quality Index		+	base	–

Notes: Highlighted cells with plus (minus) sign indicate that significant positive (negative) differences exist between the particular age group and the pre-retirement age group. Blank cells indicate statistically insignificant differences between age groups at the 95 percent significance level.

The variation in job quality along the age spectrum can also differ by other socio-demographic characteristics. The results of the analysis show some relevant gender disparities by specific

its lowest level in 2010 at 2.7 cases per 100 000 workers, but then went up again to 3.9 and 3.8 cases per 100 000 workers in 2011 and 2012 respectively (Employers' Confederation of Latvia, 2013).

[54] Wage-related components are (i) wage is above the minimum wage, (ii) relative underpayment, and (iii) compensatory moonlighting.

dimension and age group. Men tend to have higher scores with regards to wage-related indicators regardless of age, while women´s performance is generally better for training, low incidence of underemployment and over-qualification - with the exception of the 50-61 years old group - and for resilience to shocks, skills obsolescence, and work safety[55] across all age groups (see Table 5). Overall job quality is significantly higher for men across all age groups.

Table 5: Who has better jobs? Results by gender and age in 2013

Component	15-24	25-49	50-61	62-74
wage > minimum wage	M	M	M	M
better work safety	W	W	W	W
low incidence of relative underpayment	M	M	M	M
low incidence of compensatory moonlighting	M	M	M	M
high incidence of work-related training	W	W	W	
low incidence of underemployment	W	W	M	W
better employment engagement			M	
low incidence of overqualification		W	M	W
high resilience to aggregate shocks	W	W	W	W
high resilience to idiosyncratic shocks	M	W	W	W
low incidence of skills obsolescence	W	W	W	W
Job Quality Index	M	M	M	M

Notes: Blue cells indicate that men have significantly higher scores, red cells indicate that women have significantly higher scores. Blank cells indicate statistically insignificant differences between men and women at the 95 percent significance level.
Source: Calculations based on LFS data.

The geographic disaggregation of data indicates regional disparities in job quality. Individuals living in Riga tend to show better results for most age groups in the wage-related categories as well as in terms of resilience to shocks and work safety. Inhabitants of Latgale, in turn, have the poorest performance with regards to compensatory moonlighting, underemployment, and employment relations for workers aged 50-61 years. Zemgale features the highest incidence of work-related training for all age groups. For the older cohort (62-74 years old), it appears that job quality is better in Riga and Zemgale (see Table 6). With regard to the aggregate Job Quality Index, prime-age workers are significantly better off in Riga and Zemgale, whereas pre-retirement age workers in Latgale face particularly low levels of job quality.

[55] In 2013, women aged 50 and above comprised almost half (46 percent) of all workers in this age group who experienced workplace accidents. However, women got into severe (29 percent) or even fatal (7 percent) accidents at work noticeably rarer than men did. In their turn, women below 50 comprised 35 percent of all workers in this age group who got into severe or fatal workplace accidents (State Labour Inspectorate data).

Table 6: Who has better jobs? Results by region and age in 2013

Component	15-24	25-49	50-61	62-74
wage > minimum wage	K P	R P	L (-)	R L
better work safety	R	R	R	R V
low incidence of relative underpayment	K	R	Z	R
low incidence of compensatory moonlighting	V	L (-)	L (-)	L (-)
high incidence of work-related training	Z	Z	Z	Z
low incidence of underemployment	V P	P	P	K
better employment engagement			L (-)	
low incidence of overqualification	R	K Z	K P	Z
high resilience to aggregate shocks	R	R L	R Z	V Z
high resilience to idiosyncratic shocks	R	R	V Z	R
low incidence of skills obsolescence	R	K	P Z	K Z
Job Quality Index		R Z	L (-)	

Notes: Highlighted cells indicate significant differences in overall job quality or its components. Blank cells indicate statistically insignificant differences between groups of workers at the 95 percent significance level.

Legend:

R	Riga	Z	Zemgale
P	Pieriga	L	Latgale
V	Vidzeme	L (-)	Latgale lowest
K	Kurzeme		

Component	15-24	25-49	50-61	62-74
wage > min wage	K P	R P	L (-)	R L
low incidence of relative underpayment	K	R	Z	R
low incidence of compensatory moonlighting	V	L (-)	L (-)	L (-)
high incidence of work-related training	Z	Z	Z	Z
low incidence of underemployment – Eurostat	L (-)	L (-)	L (-)	L (-)
low incidence of underemployment – ILO	V P	P	P	K
better employment relation			L (-)	
low incidence of overqualification	R	K Z	K P	Z
high resilience to aggregate shocks	R	R L	R Z	V Z
high resilience to idiosyncratic shocks	R	R	V Z	R
low incidence of skills obsolescence	R	K	P Z	K Z
better work safety – version 1	P	R	R L	R
better work safety – version 3	R	R	R	R V

Source: Calculations based on LFS data.

Distinct differences emerge also in comparing the job quality of ethnic Latvians and minorities with and without Latvian citizenship. Although the scores of ethnic Latvian are higher for most components and age groups, for many components, the job quality of ethnic Latvians is similar to that of minorities with Latvian citizenship, signaling the importance of Latvian language proficiency for ensuring higher-quality jobs. Indeed, for the sample of post-retirement age wage workers, minorities with citizenship outperform ethnic Latvians (and minorities without citizenship) on a

number of components (having wages above minimum wage, better work safety, resilience to aggregate shocks, and skills obsolescence) (see Table 7). Looking at the aggregate Job Quality Index, ethnic Latvians aged 50-61 years enjoy significantly higher levels of job quality, whereas for other age groups there is no statistically significant difference between groups.

Table 7: Who has better jobs by component? Results by ethnicity / citizenship and age in 2013

component	15-24		25-49	50-61	62-74	
wage > minimum wage	minority non-citizen		ethnic Latvian	ethnic Latvian	minority citizen	
better work safety	minority non-citizen		ethnic Latvian	ethnic Latvian	minority citizen	
low incidence of relative underpayment	minority citizen	minority non-citizen	ethnic Latvian	ethnic Latvian	minority non-citizen	
low incidence of compensatory	minority non-citizen		minority non-citizen	ethnic Latvian	minority non-citizen	
high incidence of work-related training			ethnic Latvian	ethnic Latvian		
low incidence of underemployment	minority citizen		minority citizen	ethnic Latvian	ethnic Latvian	minority citizen
better employment engagement				ethnic Latvian	minority citizen	
low incidence of overqualification	ethnic Latvian	minority citizen	ethnic Latvian	ethnic Latvian	ethnic Latvian	minority citizen
high resilience to aggregate shocks	ethnic Latvian		ethnic Latvian	ethnic Latvian	minority citizen	
high resilience to idiosyncratic shocks	ethnic Latvian		ethnic Latvian	ethnic Latvian	ethnic Latvian	
low incidence of skills obsolescence	minority citizen	minority non-citizen	ethnic Latvian	ethnic Latvian	minority citizen	
Job Quality Index				ethnic Latvian		

Notes: Blank cells indicate statistically insignificant differences between groups of workers at the 95 percent significance level.
Source: Estimation based on LFS data.

Education appears to be associated with the quality of jobs held. Not surprisingly, those with higher educational attainment are employed in better quality jobs on most dimensions of the index and generally across all age groups. As a result, the overall Job Quality Index is significantly higher for higher-educated workers. However, those with secondary education show a relatively lower incidence of underpayment for all age groups. Similarly, workers with general secondary education are less likely to be overqualified in their current job (see Table 8 below).

Table 8: Who has better jobs? Results by education and age in 2013

component	15-24	25-49	50-61	62-74
wage > minimum wage	higher	higher	higher	higher
better work safety	higher	higher	higher	higher
low incidence of relative underpayment	higher; general second	prof second	general second; prof second	general second
low incidence of compensatory moonlighting	higher; prof second	higher; prof second	basic	general second
high incidence of work-related training	higher	higher	higher	higher
low incidence of underemployment	higher; general second	higher; general second	basic	
better employment engagement	higher; prof second	higher; general second	higher	
low incidence of overqualification	general second	general second	general second; basic	general second; basic
high resilience to aggregate shocks	higher	higher	higher	higher
high resilience to idiosyncratic shocks	higher	higher	higher	higher
low incidence of skills obsolescence	higher	higher	higher	higher
Job Quality Index	higher; prof second	higher	higher	higher; general second

Notes: Blank cells indicate statistically insignificant differences between groups of workers at the 95 percent significance level.
Source: Estimation based on LFS data.

PROFILING LABOR MARKET VULNERABILITY AND NON-PENSION BENEFIT RECEIPT

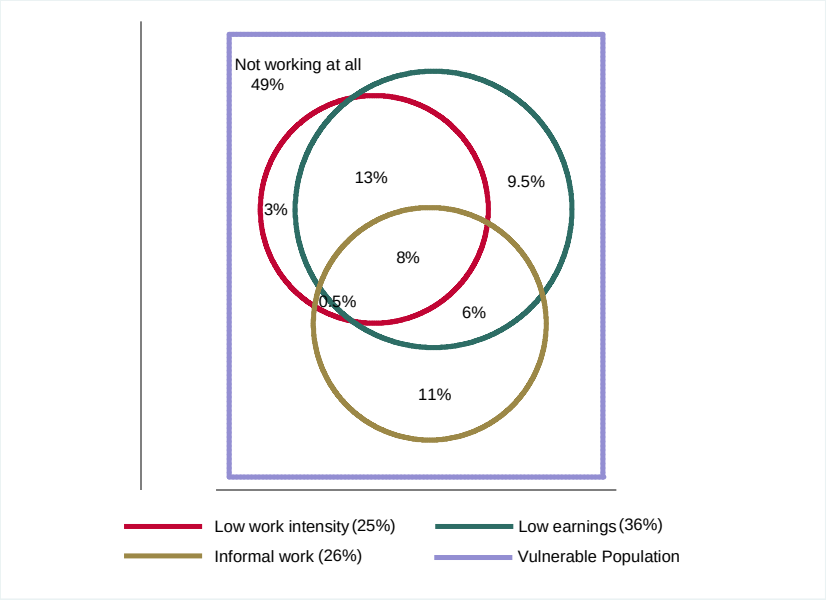
This section defines the profile of the most vulnerable groups among the elderly in Latvia. Given the observed gaps between groups among the elderly based on socio-economic and demographic characteristics in Chapter 2 and previous sections in this chapter, the analysis presented in this section aims to examine the income profile of pre-retirement age (50-61) individuals with labor market vulnerabilities, including their reliance on social protection benefits and to identify distinct subgroups among these individuals. In particular, an individual is considered vulnerable if he/she experienced the following situation in any given year (2007 and 2013 are used for profiling with EU-SILC and 2005-2012 are used for assessing benefit receipiency with administrative data):

- "Not working" (V1): not reported to have worked during any month of the year, or no labor income;
- "Low work intensity" (V2): employed or self-employed at least one, but no more than six months during the year;
- "Low earnings" (V3): labor income less than 80 percent of the full-time, full-year minimum wage;

- "Informal" (V4) (only available with EU-SILC): positive labor income but no (employer) social security contributions, or labor income is mainly earned in kind, or the person reports being an unpaid family worker.

Many vulnerable pre-retirement age individuals experience more than one source of labor market vulnerability at the same time. Notably, categories V2, V3, and V4 are not mutually-exclusive. According to the 2013 SILC data, 86 percent of pre-retirement age individuals experiencing low work intensity also have low earnings and the majority (58 percent) of low-earnings individuals have low work intensity, with informality significantly interacting with both work intensity and earnings (Figure 46). A similar pattern emerges in the 2005-2012 administrative data, where the overwhelming majority (92.8 percent) of observations with low work intensity obtain low earnings, and almost two-thirds (63.7 percent) of low-earnings observations are at least partially due to low work intensity.

Figure 46: There is significant overlap between low work intensity, low earnings, and informality
Extent of overlap among the different categories of labor market vulnerability (V1-V4) in the pre-retirement age group (50-61), 2013

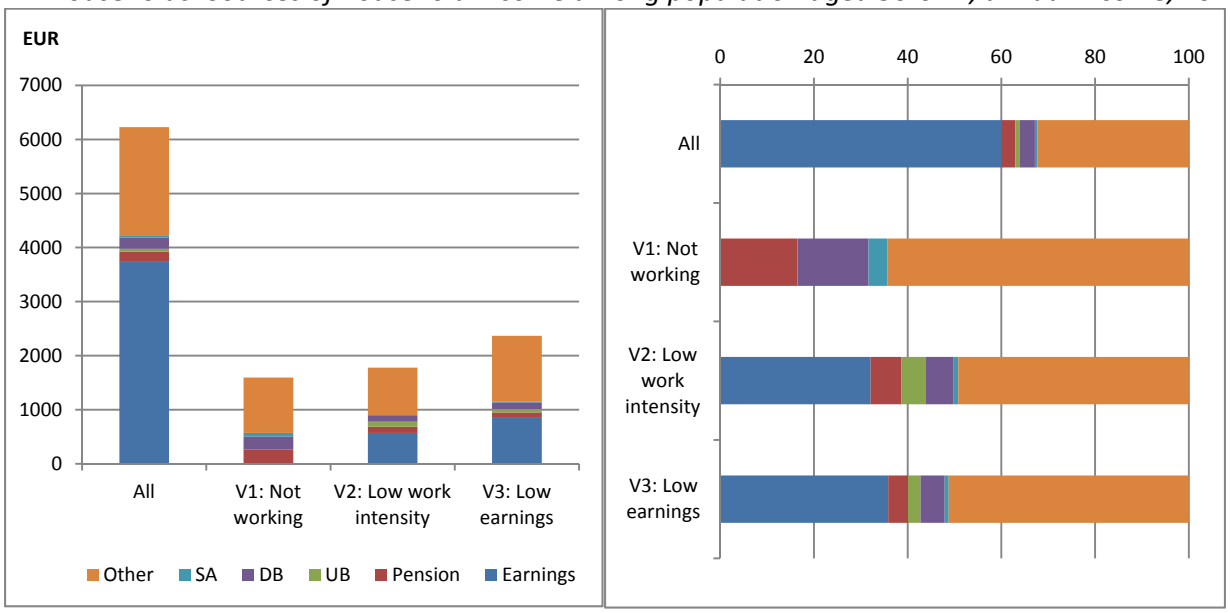


Source: SILC 2013.

Although own earnings represented over two thirds of total income among the average pre-retirement age in 2011 in Latvia, the most vulnerable elderly largely rely on family support. Using administrative data on formal sources of individual and household income, the income of different household types was decomposed. As shown in Figure 47, in 2011, the average 50-61 year old in Latvia lived in a household where own earnings was the main source of household income, followed by other income sources, which include other benefits received by the household and income received by other household members. Pensions (service pensions, early retirement or foreign old age pensions) only account for a small share of total income for the overall group. However, households with older people in the group V1 (not working) on average appear to live mostly out of the income of other family members. For Latvian residents who fall into the V2 (low work intensity) and V3 (low earnings) groups, while their own earnings makes up a relatively large share of total household income, they still mostly rely on other household members' income and benefits.

Figure 47. The pre-retirement age with employment difficulties do not rely on social assistance or unemployment benefits

All households: Sources of household income among population aged 50-61[56], annual income, 2011



Note: Calculations using administrative data for all 119 municipalities. Social assistance benefits received by households include both monetary and in-kind benefits. All is the entire sample. The category "Other" contains other benefits received by households and income received by other household members. The group of people with “low work intensity” overlaps with the group of those with “low earnings.”

Source: Government of Latvia Administrative data.

Single-member households aged 50-61 show particularly low annual incomes, while the situation improves for those who live in two-adult households. The average annual income received by people aged 50-61 was only EUR 3,634 in 2011 (see

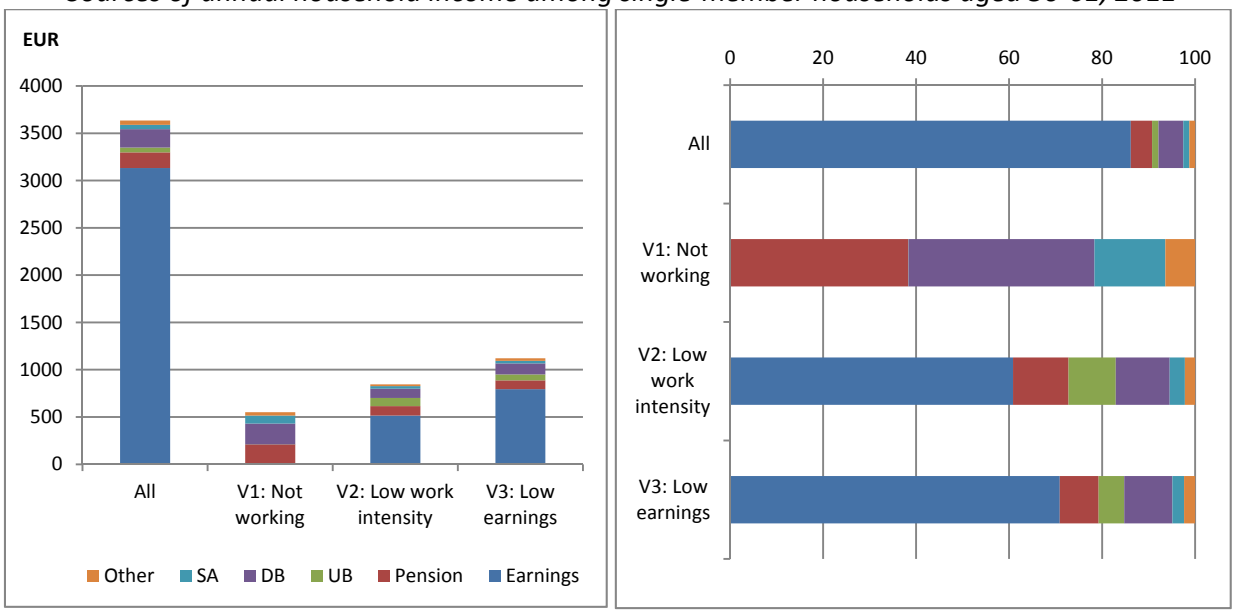
[56] In 2011, the retirement age was 62 year both for males and females

Figure 48). Individuals found in the V1 (not working) group had to cope with especially low annual incomes averaging EUR 550, 80 percent of which are attributed to pension and disability benefits that are not very generous in Latvia. Social assistance benefits comprise only 15 percent of total income, on average, for individuals in this group. Labor income were the main source of income for single-member pre-retirement age households with low work intensity (V2) and low earnings (V3), comprising 61 percent and 71 percent of their total annual income. Two-adult households (where at least one is aged 50-61) have much higher income levels (Figure 49). Although the contribution of older people found in the groups V1-V3 to total household income in two-adult households is low (19.4 percent for V1, 34.2 percent for V2 and 32.2 percent for V3), the mean household income per capita[57] for V1 living in two-adult households, is three times higher than that of single-adult households.

[57]Information on children (under 18) is not available in the administrative data, so distribution of household income across household members can only be done for adults.

Figure 48. Single-member pre-retirement age households with employment difficulties have low incomes

Sources of annual household income among single-member households aged 50-61, 2011

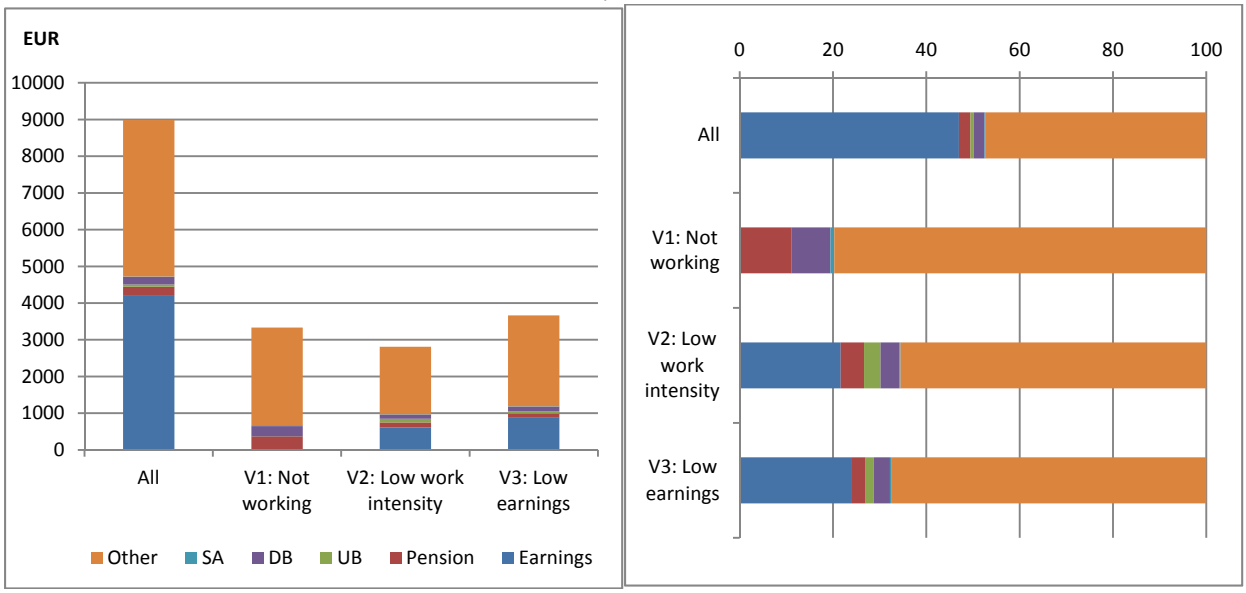


Note: Calculations using administrative data for all 119 municipalities. Social assistance benefits received by households include both monetary and in-kind benefits.

Source: Government of Latvia Administrative data.

Figure 49. Having another adult in the household triples household incomes for pre-retirement age adult with employment difficulties

Sources of annual household income among two-adult households with at least one adult aged 50-61, 2011



Note: Calculations using administrative data for all 119 municipalities. Social assistance benefits received by households include both monetary and in-kind benefits. At least one of the two adults in the household is aged 50-61.

Source: Government of Latvia Administrative data.

Transfers from family and friends are an important income buffer for pre-retirement age people in Latvia. According to the LFS data, 19 percent of men and 26 percent of women in pre-retirement age (50 to retirement age) receive income support from their relatives and friends. This is an important source of income for poor households and it acts as an alternative to social assistance covering many more households than are covered by social assistance benefits. As seen in the correlates of labor supply section of Chapter 4, the effect of social assistance benefits on labor force participation of pre-retirement age is relatively small, and statistically significant only for men. Support from relatives and friends is, on average, more important than social assistance benefits for those with labor market difficulties.

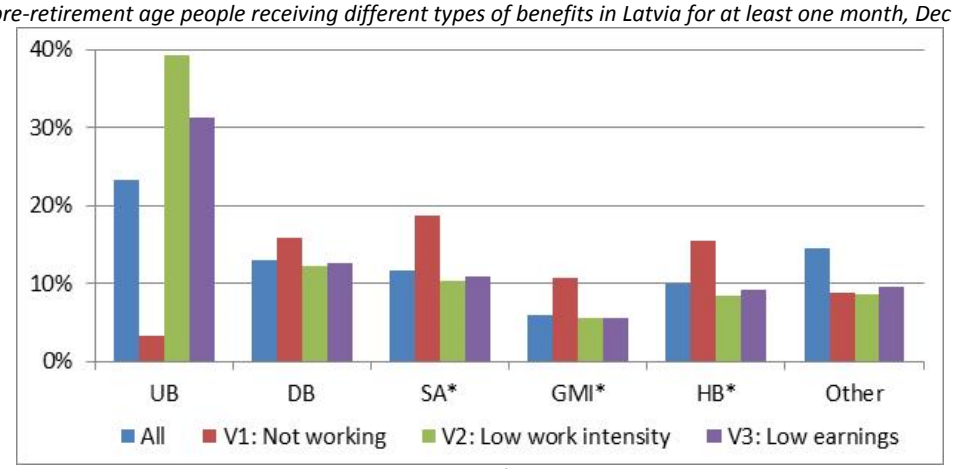
Unemployment benefit has the highest coverage of pre-retirement age individuals with employment difficulties. Between December 2005 and July 2012, about 23 percent of all Latvians aged 50 to retirement age received the unemployment benefit for at least one month (Figure 50). Unemployment benefits are particularly important for older adults with employment difficulties, as 39 percent of those with low work intensity[58] received unemployment benefits for at least one month during the observation period. Such high prevalence of unemployment benefits points to the high labor force participation rate of the pre-retirement age population: when they are not in employment, they are likely to remain in the labor force and continue searching for work. In the 12 months from mid-2011 to mid-2012, only 6 percent of all pre-retirement age individuals received unemployment benefits (Figure 51). However, reliance on this type of benefits among those with low work intensity was still relatively high – 19 percent received the benefit for at least one month during the year, and in republican cities this share was slightly greater than in small towns and rural areas.

Social assistance has low coverage and presents a low risk for benefit dependency. Social assistance in Latvia comprises the Guaranteed Minimum Income (GMI) program— the last-resort social assistance program in Latvia—and housing benefits. The GMI program has low coverage, with only 6 percent of the pre-retirement age group received GMI at least once, and only slightly higher coverage (11 percent) for older adults who are not working at all (see Figure 50). Those who did receive GMI support spent a short time on benefits: 49 percent of all pre-retirement age beneficiaries received GMI for only one to three months (Figure 52). Moreover, the frequency of benefit receipt by the same individuals was low: 45 percent of recipients aged 50-61 received GMI only once, and additional 35 percent had two to three spells during the observation period (Figure 53). From mid-2011 to mid-2012, reliance on social assistance benefits was lower than before—only 9 percent of population received these transfers for at least a month (Figure 51); in Riga and Pieriga as well as in other republican cities this indicator was lower than in small towns and rural area (7-8 percent versus 11 percent).

[58] Given the high correlation between low work intensity and low earnings, 31 percent of those with low annual earnings received unemployment benefits during their unemployment spells.

Figure 50. Unemployment benefits are the most frequent benefit for pre-retirement 50+

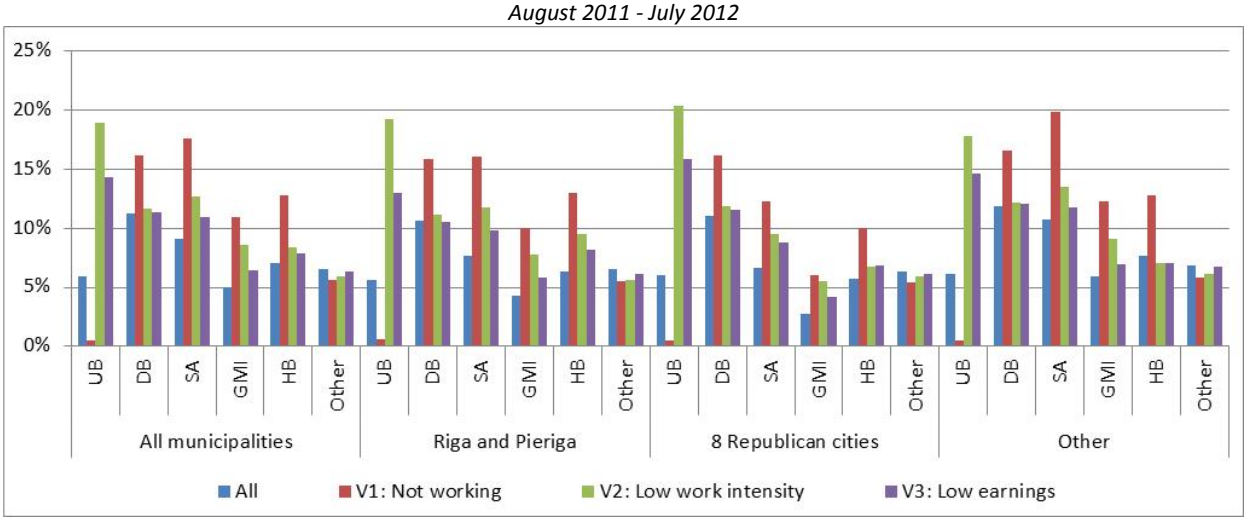
Share of pre-retirement age people receiving different types of benefits in Latvia for at least one month, Dec 2005 - Jul 2012



Note: * Calculations using administrative data for 7 municipalities[59]: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili. The figure shows the share of population aged from 50 to retirement age who received a benefit for at least one month in the observation period, which is December 2005 to July 2012. UB: Unemployment benefit; DB: Disability benefit; SA: Social assistance (mostly GMI and HB); GMI: Guaranteed minimum income; HB: Housing benefits.
Source: Government of Latvia Administrative data.

Figure 51. After the crisis, unemployment benefit incidence became less frequent

Share of pre-retirement age people receiving different types of benefits in Latvia for at least one month during a year, August 2011 - July 2012

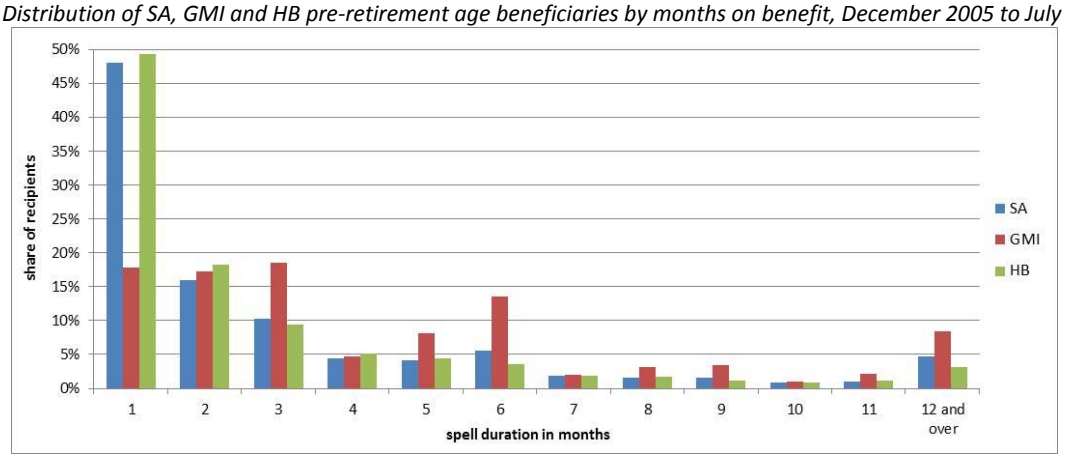


Note: Calculations using administrative data for all the 119 municipalities. The figure shows the share of population aged from 50 to retirement age who received a benefit for at least one month in the year, which is August 2011 to July 2012. UB: Unemployment benefit; DB: Disability benefit; SA: Social assistance (mostly GMI and HB); GMI: Guaranteed minimum income; HB: Housing benefits. *Source*: Government of Latvia Administrative data.

[59] When analyzing social assistance benefits (SA, including GMI and HB) for a time span longer than one year, data is used for the seven municipalities for which the SOPA data are sufficiently complete during the observation period. The SOPA database implementation was completed at different times in municipalities, with small municipalities generally finishing later than republican cities. Most of the municipalities other than the seven used in the analysis started recording complete data on social assistance benefits only from 2010 or 2011. The data sensitivity analysis carried out in the Annex 4 (Figure A4.1 and Table A4.1 and A4.2) indicates that the results obtained using the sample of seven municipalities are coherent with the results obtained using data for all the municipalities.

Figure 52. Time spent on social assistance benefits was low, mostly one to three months

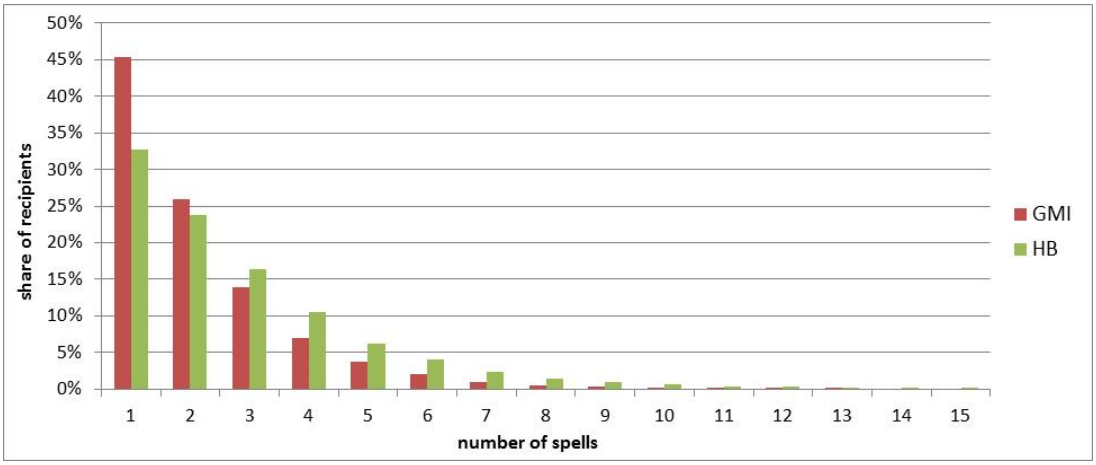
Distribution of SA, GMI and HB pre-retirement age beneficiaries by months on benefit, December 2005 to July 2012



Note: Calculations using administrative data for 7 municipalities: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili.[60]
Source: Government of Latvia Administrative data.

Figure 53. Social assistance spells are relatively infrequent, with 45 percent of GMI recipients only getting the benefits for a single spell

Number of social assistance (SA), GMI and housing benefit spells per pre-retirement age individual, December 2005 – July 2012



Note: Calculations using administrative data for 7 municipalities: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili. The figure shows the number of separate time periods for which a person received a benefit by type of benefit.
Source: Government of Latvia Administrative data.

Pre-retirement age adults with labor market difficulties can be grouped into six distinct clusters. A multidimensional profiling of the vulnerable population aged 50 to 61 has been applied to cross-sectional data from EU-SILC 2013. The objective of the multidimensional profiling approach, Latent Class Analysis (LCA), is to classify the population of interest into several groups of individuals that share a common latent trait, in this case, their vulnerability, using observable characteristics (see Box 5 for an intuitive explanation of the methodology). The ultimate goal of this analysis is to identify classes or groups of vulnerable individuals that are as homogeneous as possible within each class and

[60] The results obtained using all municipalities are coherent with those provided on the graph, allowing for the same conclusions. The exception is HB, where the mean length of spells among all municipalities is even shorter and the share of short (1 month) spells is greater (66%), than that found for the seven republican cities.

as distant as possible between classes, according to a set of observable characteristics, enabling the design of tailored policy responses. The approach taken here follows the methodology employed by Ferré, Immervoll and Sinnott (2013). For 2013, six distinct clusters of individuals with labor market vulnerability were identified based on the profiling exercise for Latvia. The six clusters identified are of diverse sizes, representing from 11 to 24 percent of the individuals aged 50 to 61 with labor market difficulties in EU-SILC 2013 (see Figure 54):[61]

(1) Low-intensity workers with low earnings account for almost a quarter of the population of interest in 2013. The individuals belonging to this group suffer from long unemployment periods and, consequently, they also have low annual earnings. Almost half of the individuals in this cluster belong to the bottom income quintile, and they are more likely to receive unemployment and sickness benefits, as well as GMI and housing benefits than the average individual with labor market vulnerabilities.

(2) Poor out-of-work individuals represent 22 percent of the 50-61 years old population with labor market vulnerability. Most members of this cluster did not work at all in 2013 and reported being either unemployed or inactive, fulfilling domestic tasks, at the time of the survey. They are over-represented among the poor, with around 60 percent belonging to the bottom 20 percent of income distribution, with a quarter of individuals in this group receiving GMI and a fifth receiving housing benefits.

(3) Disabled out-of-work individuals. This group accounts for 16 percent of the 50-61 years old population with labor market vulnerability. The majority of its members are aged 55 to 59, and no individuals in the cluster worked in 2013. An overwhelming share of the individuals in this cluster is disabled (88 percent), but the degree of limitation differs, with 46 percent being strongly limited in their daily activities due to health problems, and 50 percent reporting to be limited but not strongly, which can indicate some potential to participate in the labor market. Almost a third of individuals in this cluster lives by themselves, and half live without a partner. Most of the members in the cluster receive disability benefits, and their education profile is significantly below that of other clusters. Finally, 44 percent of the cluster belongs to the bottom income quintile, with individuals in this group having the highest incidence of GMI and housing benefit receipt, 29 percent and 32 percent respectively.

(4) Informal male workers represent 15 percent of the 50-61 years old population with labor market vulnerability. These are predominantly men (64 percent), who work full-time in the informal sector and are overrepresented among the self-employed (43 percent). They are much wealthier than the rest of individuals with labor market vulnerabilities, with only 24 percent in the bottom income quintile, and more than half in the top 40 percent of the income distribution.

(5) Female low-earners. The individuals grouped in this cluster, that represents 12 percent of the population of interest, are mostly females who earn less than 80 percent of the annual minimum wage, either due to low hourly wages or less-than-full-time

[61] Similar clusters were obtained using 2007 SILC data, suggesting that the profiles of labor market vulnerability in Latvia are relatively stable. The more significant differences between 2007 and 2013 clusters are the emergence of a disabled cluster in 2013, and the disappearance of gender distinction in the early-retired cluster (in 2007, the retired cluster was predominantly women). The profiles of the clusters for 2007 are presented in Annex figure A5.1.

employment (39 percent reported working part-time). This cluster is more likely to have children aged 6-15 in their households relative to other clusters, and 23 percent of individuals in this cluster receive family or child allowances. Compared to most other clusters (except informal male workers), this cluster is not income-poor, as 36 percent belong to the bottom income quintile.

(6) Early-retired individuals. This group, that represents 11 percent of the individuals aged 50-61 with labor market vulnerabilities, comprises individuals who did not work at all in 2013. The majority (58 percent) are aged 60 or 61 and receive old-age pension benefits; moreover, 73 percent declare themselves as retired. This cluster is the best-educated one, with almost 40 percent having post-secondary or tertiary education. The early retirement decisions in this cluster is not likely to be driven by health reasons, as the majority do not experience any health limitations (only 12 percent reported strong health limitations). Compared to most other clusters (except informal male workers), this cluster is not income-poor, as 36 percent belong to the bottom income quintile.

Box 5. Latent Class Analysis – An Intuitive Explanation

Latent class analysis (LCA) is used in several fields, including the medical profession and behavioral sciences, to identify hidden and underlying subgroups of individuals that share observable characteristics within a population of interest. To intuitively understand how this statistical methodology works, a simple example may help. WeMakeTheWorldHappier Ltd., a producer of "all things sweet," is interested in better understanding patterns behind the consumption of its products (ice cream, chocolate, and so on) among children and early teenagers so that it can more efficiently target marketing campaigns. Also, for prevention purposes, policymakers are trying to identify specific groups at risk of obesity or diabetes that are not noticeable to the naked eye. Now assume that individual surveys were conducted among a diverse group of children that included data on ice cream and chocolate consumption. Think of these data as "indicators," the noticeable symptoms of an underlying vulnerability or disease. For simplicity, let's say that individuals were asked about the frequency of their chocolate and ice cream (ab)use; each activity could be categorized as frequent/regular (I sneak to the fridge once dad and mom are asleep), occasional (unfortunately the fridge is usually locked at night), or non-existent (we have actually never seen such a child but we are told they exist).

Furthermore, the survey collected information on certain main demographic characteristics (such as gender—we are told women enjoy chocolate more than men—age, and having siblings), and early-stage behaviors that are typically associated with high consumption of sweets (regular attendance at friends' parties, spending lots of time at grandparents' house(s), and regularly playing sports or not). Think of these as the main correlates of a given condition (for example, chocolate addiction); in LCA jargon, these are the active covariates. Finally, the survey includes other demographic information such as economic and social background, race, nationality, and so forth; in LCA terminology, these are the inactive covariates that will simply help describe the unobservable groups.

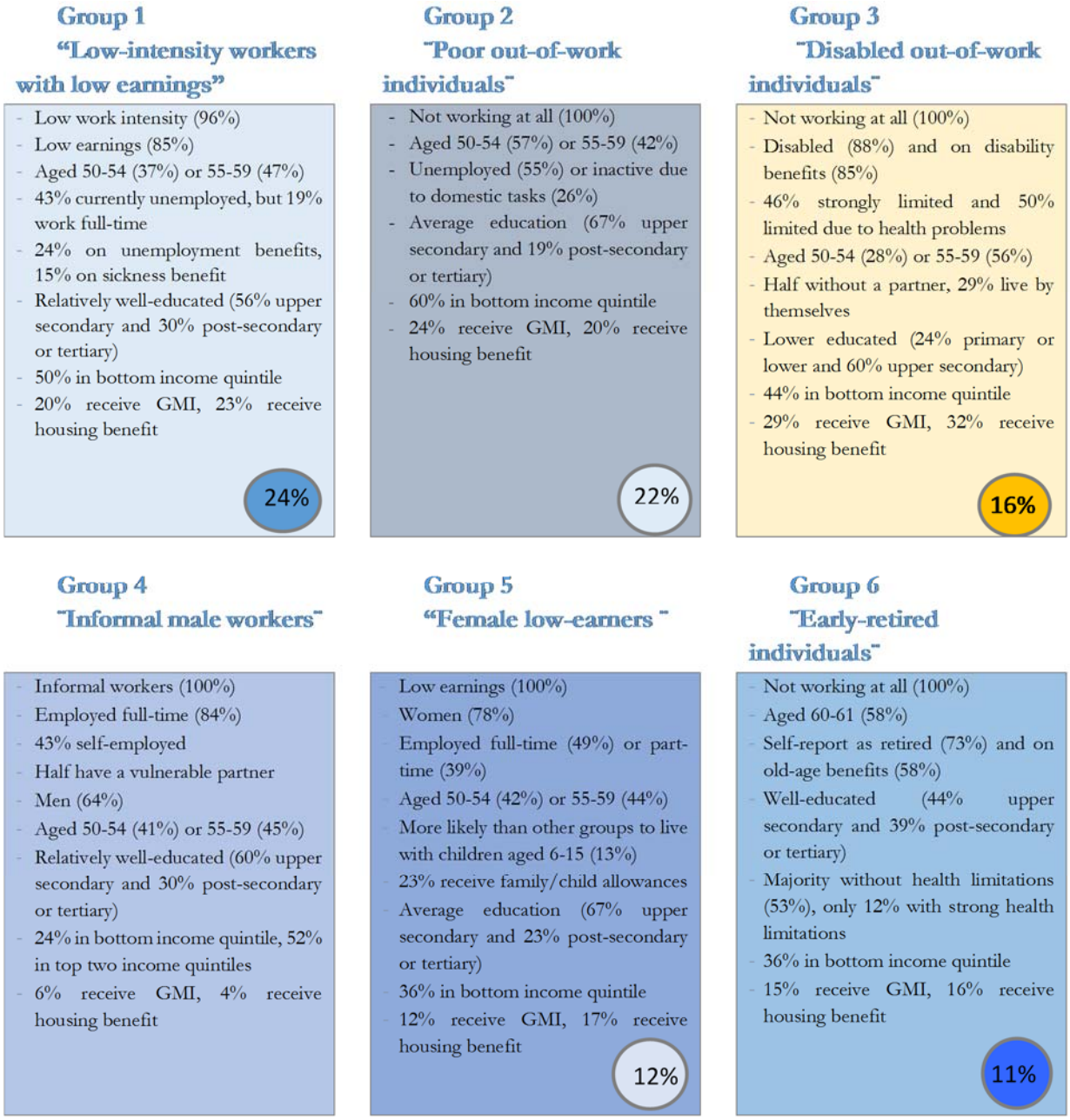
By running latent class analysis on the dataset, each child surveyed will be placed in a specific group (or latent cluster), based on his or her probability of answering the sweets-consumption questions in a certain way given his/her active covariates (which, in this example, are the main demographic and behavioral characteristics). The number of groups obtained is not predetermined and will vary based

on how well a certain model fits the available data; however, the groups are such that every individual can be assigned to one group only (the groups are mutually exclusive) and all observations will be assigned to a group (collectively exhaustive). Each group can then be further analyzed along additional demographic lines (the inactive covariates) that do not affect the fit of the model but allow us to get a more detailed profile of candy-devourers.

For illustrative purposes, LCA methodology applied to the described dataset will construct unobservable clusters of children that, given certain features, have the same probability of a certain pattern of consumption. For instance, LCA might detect the existence of a cluster of "will-eat-ice-cream-in-my-sleep" young children of both genders, who are very active, mostly started binge-eating ice-cream at their grandparents', and attend the birthday parties of every child in town (even if they are not invited). LCA might also define a smaller group of young chocolate-addicted girls who do well in school and have one or two older brothers who are often mean to them. It might identify a group of "candy monsters" (undiscriminating candy eaters), who consume as much chocolate and ice cream as they can, often stash goodies under their beds, live in open defiance of their desperate parents, are not very active in sports, and so on. The analysis could identify more clusters, each of which would differ from the others in at least one dimension. Knowledge of these groups would allow for the identification of early–warning signs of candy addiction, and would allow parents to take preventive measures. Note to kids: you may want to hide this research.

Source: World Bank (2014), *Portraits of Labor Market Exclusion*.

Figure 54: Profiles of individuals aged 50-61 with labor market vulnerability in 2013



Most of the pre-retirement age beneficiaries of social assistance fall under the "not working" clusters. Around three quarters of all social assistance recipients are found in the group V1 (Figure 54), and 19 percent of the group received social assistance benefits at least once during the observation period, twice the share observed among the V2 and V3 elderly. Based on the profiling exercise, the two groups with the highest incidence of GMI receipt are also the "not working" clusters 2 and 3 ("poor out-of-work individuals" and "disabled out-of-work individuals," respectively). The V1 group also includes more than half of those who received disability benefits during the period analyzed. Around 60 percent of people with disabilities in this age group are long-term unemployed, while most of the remaining individuals with a disability fall into the group with low work intensity.

Table 9: The majority of social assistance recipients are not working

Number of people aged from 50 to retirement age who received a benefit for at least one month, December 2005 – July 2012

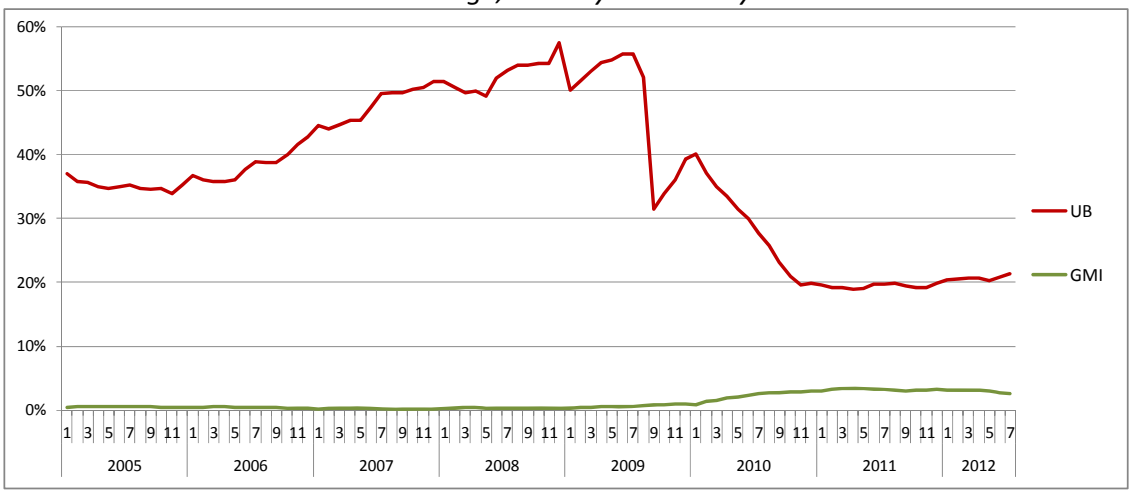
	Total number of recipients	Unemployment benefits	Disability benefits	GMI**	Housing benefit**	Other
All	460652	107144	60106	29166	45359	67047
V1 "Not working"	223078	7282	35444	24379	32026	19516
V2 "Low work intensity"	211892	83249	25755	10635	14039	18021
V3 "Low earnings"	235181	73318	29506	11757	17614	22297

Note: ** Calculations for DB, UB and 'other' benefits were implemented using data for all municipalities; calculations for GMI and HB were implemented using data for 7 municipalities: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili.
Source: Government of Latvia Administrative data.

Unsurprisingly, the incidence of unemployment benefit receipt increased significantly over the crisis years (Figure 55 and Figure 56). Unemployment benefits are particularly important for older people in the groups V2 and V3, such as individuals in cluster 1 ("low-intensity workers with low earnings"). On the other hand, for non-working individuals (group V1) unemployment benefit receipt was almost zero over the last years, probably due to unemployment spells lasting longer than the maximum duration of unemployment benefits (which was only 6 months for people with short contribution history for some years before the crisis). More than a third of the pre-retirement age recipients stayed on unemployment insurance benefits for the maximum possible benefit period (nine full months) between 2005 and 2012, and only about a fifth of the group could get back to the labor market within the first three months (Figure 57). Many pre-retirement age unemployed exhausted the maximum duration of their unemployment benefits in the middle of the crisis, which lead to a sharp drop in the coverage of this benefit until maximum duration was extended.

Figure 55. Unemployment benefits have a much higher incidence for the pre-retirement age unemployed than GMI

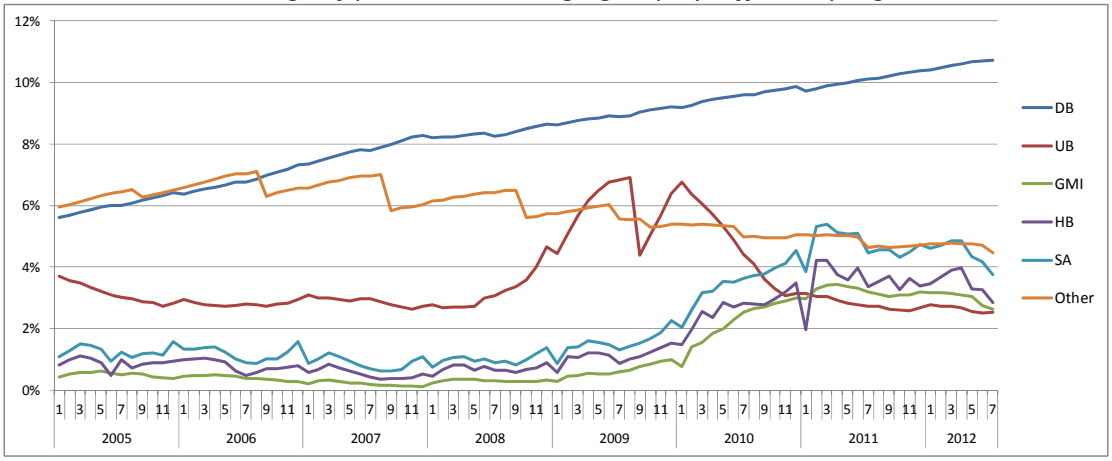
Share of unemployment benefit and GMI recipients among registered unemployed pre-retirement age, January 2005 – July 2012



Note: Calculations for UB were implemented using data for all municipalities; calculations for GMI were implemented using data for 7 municipalities: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili.
Source: Government of Latvia Administrative data.

Figure 56. Disability and unemployment benefits are the main social protection programs for pre-retirement age in Latvia

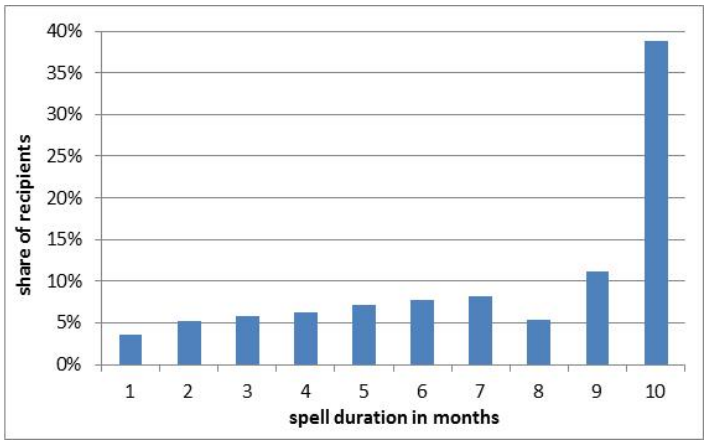
Coverage of pre-retirement age group by different programs, 2005-2012



Note: Calculations for UB were implemented using data for all 119 municipalities; calculations for GMI were implemented using data for 7 municipalities: Riga, Jurmala, Liepaja, Rezekne, Valmiera, Ventspils, Preili. UB: Unemployment benefit; DB: Disability benefit; SA: Social assistance (mostly GMI and HB); GMI: Guaranteed minimum income; HB: Housing benefits.
Source: Government of Latvia Administrative data.

Figure 57. More than a third of pre-retirement age unemployment benefit recipients stayed on benefit for the maximum duration

Share of pre-retirement age unemployment benefit recipients by number of months on benefit, 2005-2012[62]



Note: Calculations using administrative data for all 119 municipalities.
Source: Government of Latvia Administrative data.

Members of cluster 3 ("disabled out-of-work individuals") have spent long periods on disability benefits. At least 80 percent of the pre-retirement age group who have received disability benefits

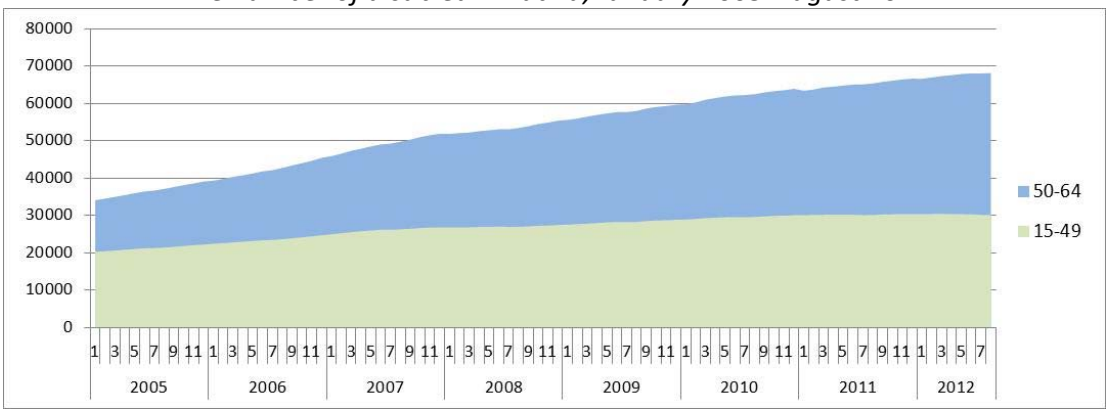
[62] While maximum possible unemployment benefit duration is 9 months, the graph reflects a maximum of 10 months. This is because the available administrative data contain only the month of the beginning and the month of the end of a benefit spell, not the precise date. Therefore, for example, if the unemployment benefit spell started in the middle of January, in case of full 9 month spell it would end in the middle of October and in our data we would see a 10 months long spell (from January to October).

at some point during the observation period have disability spells of at least one year, and more than 60 percent[63] have at least two-year-long continuous spells. Almost all the pre-retirement age adults with disabilities have experienced only one benefit spell. At least 13 percent of this age group´s disability benefit recipients have spent over 6 years on these benefits.

The absolute and relative number of people with disabilities among the 50-64 years old population has increased substantially in recent years. From 2005 to 2011 the absolute number of people aged 15-64 with a disability grew by 81 percent, against the backdrop of a rapidly shrinking total population. The increase in the proportion of people with disabilities among the 50-65 years old population, by 128 percent, was even sharper (Figure 58 and Figure 59). This trend is probably due, at least in part, to hidden unemployment and relatively short duration of unemployment benefits. The economic crisis may have impacted adversely on the health status of the older population. In addition, it is likely that people who would quality but who had not claimed disability benefits during the high growth years preceding the crisis as they were employed and could afford to take care of their health needs, applied for disability benefits once they lost their jobs and had exhausted their unemployment benefit entitlement. Finally, in 2008 a new benefit was introduced for people requiring round the clock care. To receive the benefit individuals had to be accessed as having a qualifying disability level by the State Medical Commission for Expert-Examinations of Health and Working Ability. The new benefit resulted in a rise in the number of disability claimants. Despite the rise in the number of disability recipients, the spending on these programs remains among the lowest in the EU (Figure 60). There is concern on the adequacy of such low disability pension amount.

Figure 58. The number of older disability beneficiaries increased substantially over the past decade

The number of disabled in Latvia, January 2005-August 2012

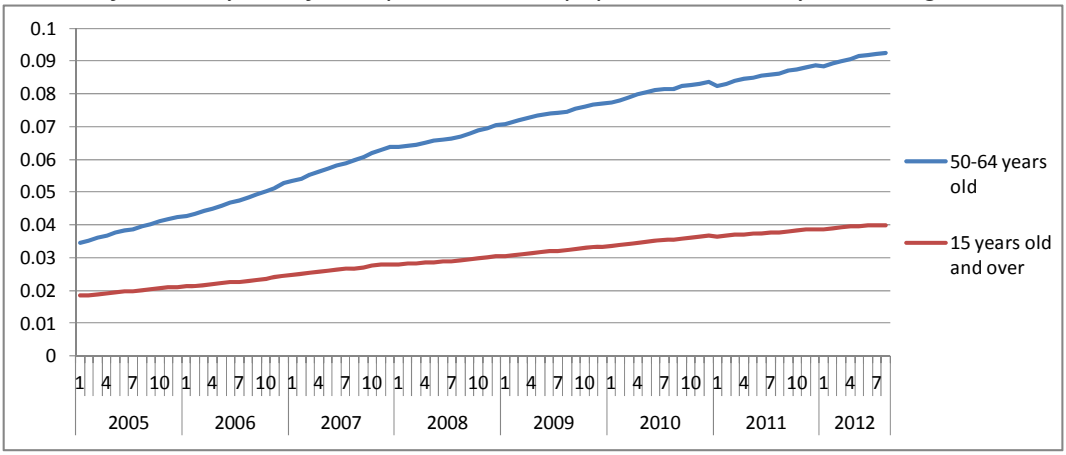


Note: Calculations using administrative data for all 119 municipalities.
Source: Government of Latvia Administrative data.

[63] More precise estimates are not possible since 84.6 percent of disability spells are censored

Figure 59. Share of disability beneficiaries among population has grown each year

Share of disability benefit recipients in total population, January 2005-August 2012

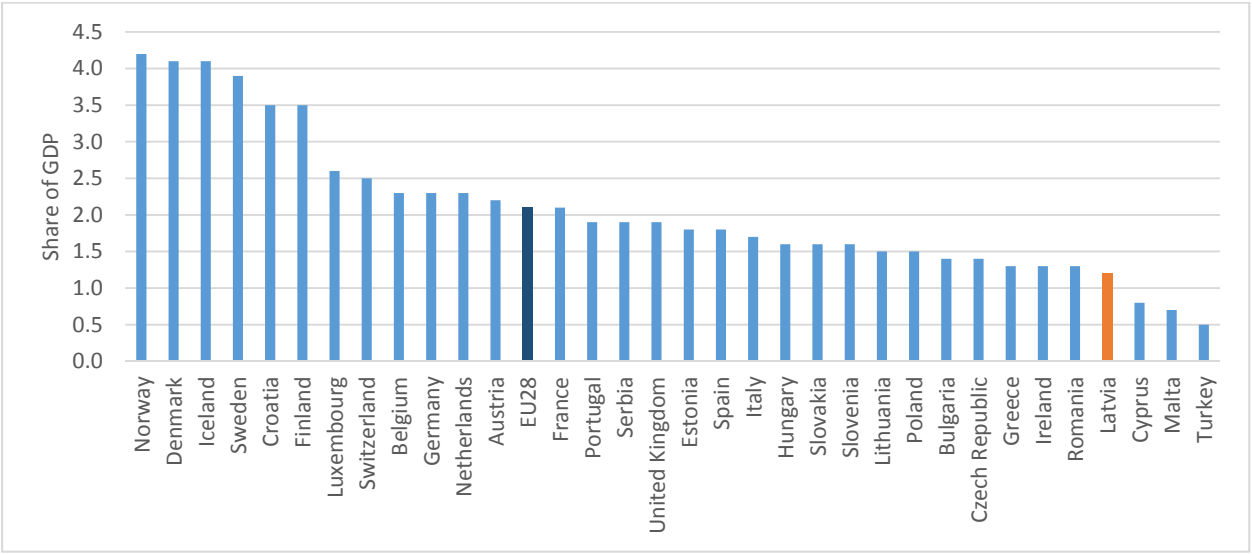


Note: Calculations using administrative data for all 119 municipalities.

Source: Government of Latvia Administrative data.

Figure 60. State spending on disability benefits is low in Latvia relative to other EU countries

State spending on disability benefits in EU countries, Share of GDP, 2012



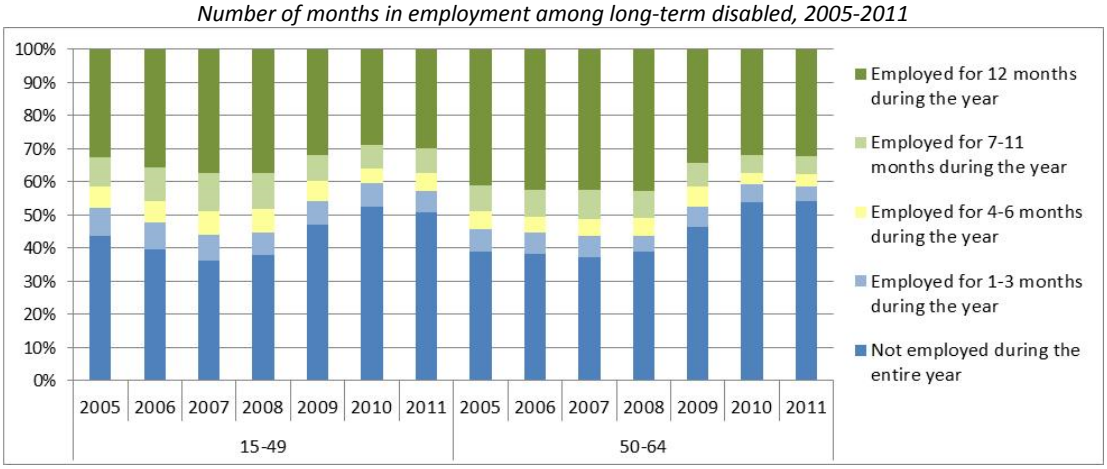
Source: Eurostat.

The employment rate among disability benefit recipients aged 50-64 is low, especially after the crisis. In 2010 and 2011, over half of people aged 50-64 and with disability spells of at least 12 continuous months were also not in employment for at least 12 months (Figure 61). The employment rate among this group was about 16 percentage points lower after the economic downturn than during the pre-crisis period. The same trend was observed among younger population groups. These data suggest that older people who were laid off as a result of the economic downturn may have increasingly relied on disability benefits as their main source of income in the absence of other means to sustain themselves and/or their families.

Indeed, a large share of pre-retirement age people with disabilities have had low work intensity both before and after obtaining the official disability status. A quarter of this group was not officially employed for at least a year before the first disability spell,[64] and one-fifth was not employed at least two years before obtaining the official disability status. After obtaining formal recognition of their disability status, only 7.4 percent of pre-retirement age people who were unemployed for at least a year before the disability spell returned to employment within a year and 8.4 percent within two years. For those who did return, most experienced low work intensity, as they officially worked for up to 6 months during a year or up to 12 months during the two-year period after obtaining the disability status.

Figure 61. Older disability recipients became much less likely to be employed after the crisis

Number of months in employment among long-term disabled, 2005-2011



Note: Calculations using administrative data for all 119 municipalities.
Source: Government of Latvia Administrative data.

The probability of early exit from the unemployment benefit scheme is low for pre-retirement age group, as most beneficiaries remain on benefits for the entire length of their entitlement. As Figure 62 shows, the probability of exit from unemployment benefits, at below 6 percent, was particularly low during the first three months. A slight increase up to 12 percent is observed after the sixth month when the amount of the benefit decreased substantially or was not paid at all.[65] However, and as noted above, more than a third of pre-retirement age unemployment benefit recipients stayed on the benefit for the maximum duration. In 2006-2007, after exhausting the full unemployment benefit period (nine months), 23-24 percent of the pre-retirement age unemployed

[64] Measured since January 2005.

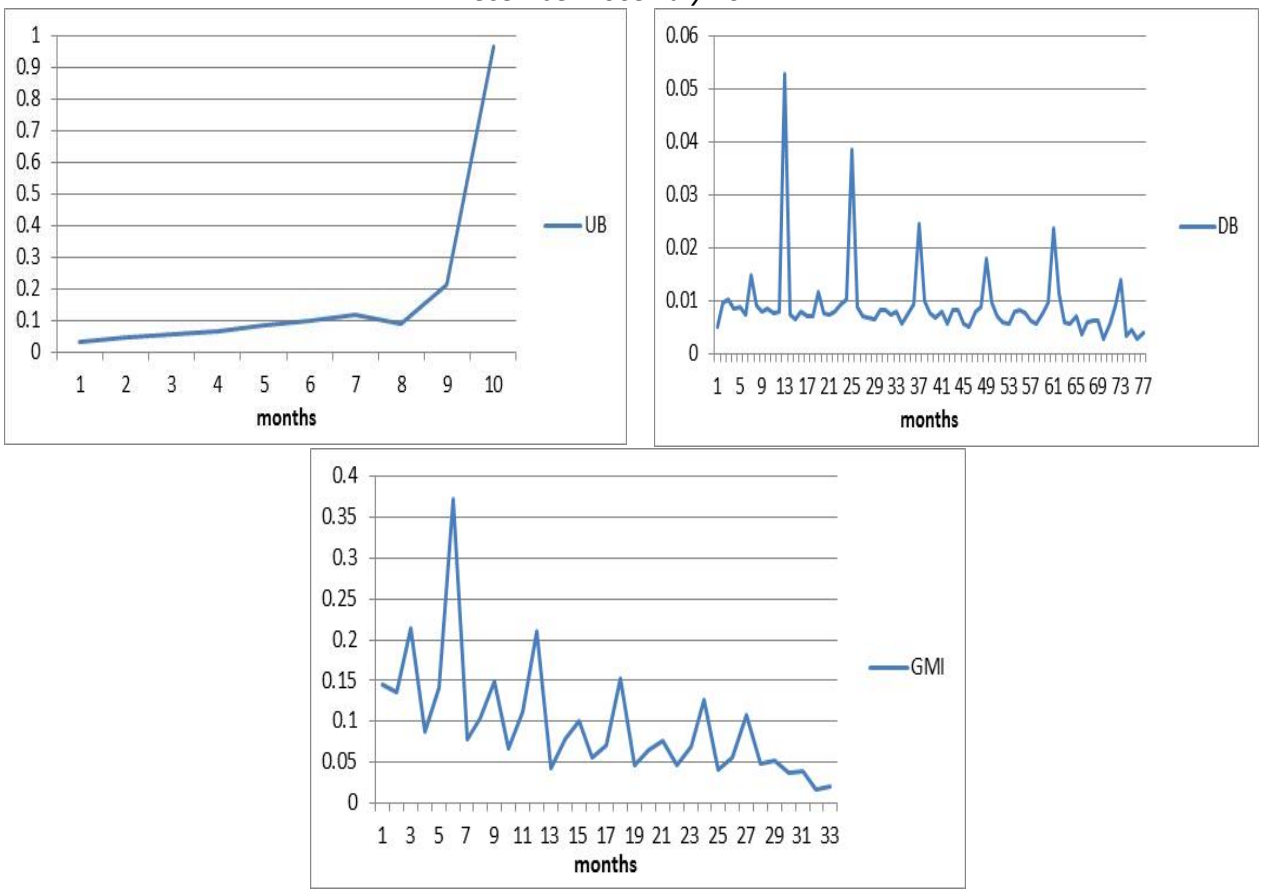
[65] As part of a set of measures put in place in response to the crisis, from July 1, 2009 to December 31, 2011, the coverage of unemployment insurance benefits was expanded. Individuals were entitlement to receive benefits if the insurance contribution period equaled 9 months out of the previous 12 months (previously it was 12 months in 18 months). These people all received 9 months of unemployment benefit. Full unemployment insurance benefits were paid for all 9 months if the contribution history exceeded 20 years; if the contribution history was 10-19 years, the full benefits were paid for 6 months, if contribution history was under 10 years, then full benefits were paid for 4 months only. For those months where the recipient was not entitled to full unemployment insurance benefits, they received 45 LVL (EUR 64) per month.

shifted to employment within a month and 36-37 percent were able to find a job within three months. During the crisis, these indicators were lower by about a half: in 2010-11, only 11 percent of the group were able to find a job immediately, and 20 percent were employed within three months.

The probability of exit from GMI and housing benefit receipt show the typical declining pattern with a moderate increase after each six months and pronounced increases after each twelve months. Patterns of benefit hazard rates indicate that the chance of leaving GMI and housing benefits declines with the duration of benefit receipt: the longer the individual receives that benefit, the lower the probability that he or she will eventually exit benefit receipt. Although the probability of exit from disability benefits increases after each 12 months, it is low, reaching only 5.3 percent after the first 12 months, and becomes even lower for further 12 month cycles.

Figure 62. Exit from benefit decreases with benefit duration, except for unemployment benefit

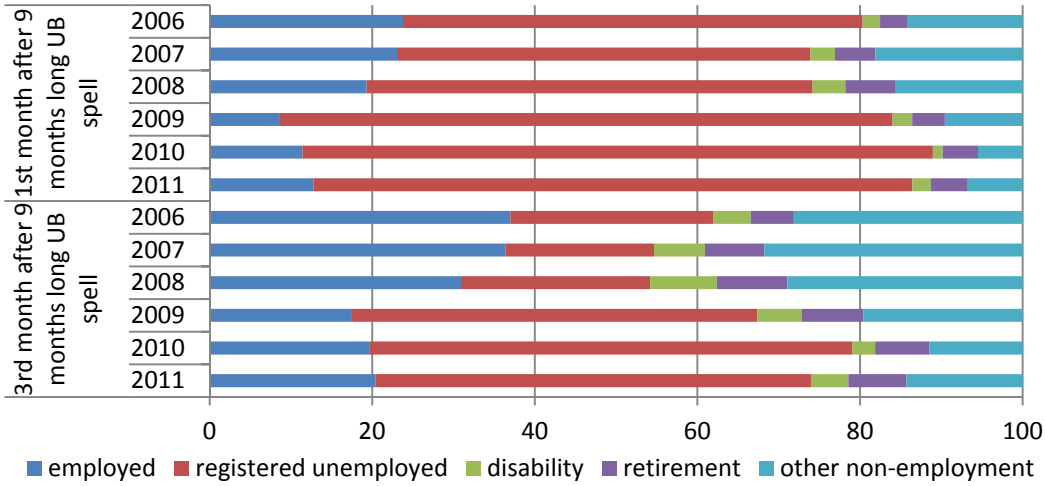
Rate of exit from benefit by duration of benefit spell in months for pre-retirement age recipients, December 2005-July 2012



Note: Calculations using administrative data for all 119 municipalities.
Source: Government of Latvia Administrative data.

Figure 63. Return to employment after exhaustion of unemployment benefits became half as likely since the start of the crisis

Labor force status of the pre-retirement age individuals one and three months after exhaustion of the maximum unemployment benefit spell (9 months), 2006-2011



Note: Calculations using administrative data for all 119 municipalities.
Source: Government of Latvia Administrative data.

The profiling exercise and analysis of benefit recipiency allow for the design of tailored policies to support individuals with labor market vulnerability. Moreover, in a constrained fiscal space, it facilitates the prioritization of actions to support some clusters over others, based on criteria specified by policy priorities. As an example of how prioritization could be based on profiling, two prioritization criteria were selected, in order of importance: Income vulnerability and potential to find a "good" (formal full-time) job. In this example, income vulnerability is defined by the group's share in the bottom quintile, while the potential to find a good job refers to the cluster's distance from this definition (Table 10).

When looking at the income vulnerability dimension, the clusters of *poor out-of-work individuals* and *low intensity workers with low earnings* stand out, given their overrepresentation among the bottom income quintile, compared to other clusters. For *poor out-of-work individuals*, the potential to find a good job for this cluster is "medium," given that two-thirds of individuals in this cluster have upper-secondary education. For this cluster, policy recommendations have to be further differentiated by labor market status. Unemployed individuals in this cluster could benefit from a case management approach, which targets the idiosyncratic challenges that hinder their employability, including the provision of mobility incentives for people residing in locations with low labor demand or involvement in reskilling training for individuals whose skills have become obsolete. On the other hand, for members who declared to be inactive due to domestic tasks, provision of temporary or part-time employment or facilitation of self-employment opportunities can work as a first step into the labor market. In addition to it, the encouragement of volunteering, training in social services or entrepreneurship, and adequate provision of quality and affordable childcare and eldercare may be useful to relax the constraints on these individuals' labor force participation. These policies would be expected to have a particular effect on female employment, and through improving

the motherhood-career balance, could potentially have a positive effect on the probability of having a second child.

The challenge of *low-intensity workers with low earnings* is their inability to remain in employment for an extended period of time. They are relatively well-educated compared to most other clusters (with 30 percent having post-secondary or tertiary education), but their frequent unemployment spells could be due to some unobserved challenges, such as, for example, skill obsolescence, lower interpersonal skills, health or addiction issues, or to their ability to secure only temporary jobs. Engaging individuals in this cluster during their unemployment spells in training to increase their employability (specifically, socio-emotional skills, or updating their technical skills) could facilitate their re-employment in higher-paying and more permanent jobs, thus allowing them to accumulate tenure in the next job.

The next priority groups are and *female low-earners* and *early-retired individuals*, whose members, although less impoverished, have a high potential to find a good job given current labor market attachment or education profile. For *female low-earners*, it is important to distinguish the reason behind the low pay. For women working full-time at low hourly wages, one possible course of action would be re-skilling through training, in order to increase their employability in higher-paying occupations. Women whose low earnings are driven by part-time employment can be further divided into those who are unable to find full-time jobs and those who cannot work full-time given their engagement in informal childcare or eldercare. For the former sub-group, job search assistance and training in job search skills can be helpful. For women who work part-time due to care obligations, adequate provision of quality and affordable childcare and eldercare may allow them to engage more fully in paid work.

Increasing the participation of *early-retired individuals* in the labor market can help ease fiscal pressures associated with the payment of pension benefits. Given that individuals in this cluster are most likely to be well educated, their early exit from the labor force also signifies substantial waste of productive resources in Latvia. Increasing the labor force participation of these individuals could be achieved by freeing them from caregiving responsibilities by providing better childcare and eldercare services, promoting flexible work arrangements, and adjusting workplaces and age-management policies to encourage more age diversity in the workplace could help retain these workers in the labor force for longer periods. Changing the design of the early retirement scheme to disincentivize premature exit from the labor force through old-age pension penalties and limiting the categories of occupations that could be eligible for early retirement could also be considered. For example, other countries expect people in occupations that Latvia covers with service pensions to transition to other careers but continue employment. For example, a ballerina could teach ballet, could choreograph, could run a dance studio, or could move to an entirely different profession. Similarly, even a policeman could later work as a security guard. Retraining would allow these individuals to continue to participate in the labor market, but in alternative careers, just like other workers who need to adjust to the changes in labor market and employer demands.

As a cluster, older *disabled out-of-work individuals* have medium income vulnerability and relatively lower potential to find a good job, compared to other clusters, due to their dual challenges with respect to health limitations and education. However, individuals in this cluster could benefit from inclusion in the labor market via policies that assess their working capacity and

adapt the workplaces to suit their needs. Moreover, flexible work arrangements and training in innovative information and communication technologies that enable telework for people with mobility limitations could be appropriate for this cluster.

Finally, with the pre-selected criteria of income vulnerability, *informal male workers* end up at the bottom of the list in terms of priority for action. Still, the Government of Latvia could adopt formalization policies in order to integrate these individuals into the formal labor market. Formalization policies fall into two main categories: deterrence measures and policies encouraging formalization. While the first ones aim to increase the cost of being informal through inspections and sanctions, the second category of measures decreases the cost or increases the benefits of becoming formal. This second group of policies can be further grouped in four broad categories related to benefits, regulation and public perception. The four broad sets of policies include: 1) reducing direct and indirect tax and social security obligations; 2) changing labor regulations and institutions, such as setting an adequate (not too high, not too low) minimum wage, and shifting from protecting jobs via Employment Protection Legislation (which, at least *de jure*, is above the OECD average as relates to dismissals) to a flexicurity model, where workers who lose jobs are protected via job search assistance and retraining; 3) changing business regulations to make it easier for employers and self-employed to work and create jobs in the formal sector; and 4) various measures building trust in government institutions and communication campaigns to change public perceptions.[66]

Table 10: Example of prioritization: overview of vulnerable groups and priority for action

Share	Group	Poverty	Potential to find a good job	Priority for action
24%	Low intensity workers with low earnings	High	Medium	A
22%	Poor out-of-work individuals	High	Medium	A
16%	Disabled out-of-work individuals	Medium	Low	C
15%	Informal male workers	Low	High	C
12%	Female low-earners	Medium	High	B
11%	Early-retired individuals	Medium	High	B
100%	Total			

Note: Priority for action A: high, B: medium, C: low.

LEARNING FROM OTHER COUNTRIES: WHAT CAN BE DONE TO INCREASE EMPLOYMENT IN AN AGING ECONOMY?

Promotion of age diversity at the workplace and beyond

Discrimination against older workers exists in Latvia. As seen in previous sections in this chapter, and although the Latvian Labor Law already prohibits discrimination at the workplace based on age, there is evidence that in reality many employers in the country remain reluctant to hire older adults and express misconceived notions about the productivity of older workers. A survey conducted by

World Bank, 2014b, Packard et al. 2012, OECD 2013a.

Latvia's State Employment Agency (2014) found that 35 percent of all respondents would not be willing to employ someone aged 50 and over. The main reasons given were difficult working conditions (physically demanding jobs), inflexible thinking (i.e., difficulties in accepting change and learning), and health problems leading to lower work productivity.

These concerns are often misguided, as productivity at the workplace is rather related to the quality of working conditions and the time over which an individual is employed to do the same tasks. In that respect, it is not age, but rather the quality of work and monotony that makes workers less productive, even at a younger age. A recent study by Börsch-Supan and Weiss (2011) shows that overall productivity of older people even increases slightly. Ensuring good and healthy working conditions as well as a variety of tasks is therefore critical for preventing declining productivity. Employers' misperceptions about the potential productivity of older workers could be changed by disseminating this information and encouraging age diversity in the workplace. Interesting examples include Australia, Finland, France, the Netherlands, Norway and the United Kingdom (OECD, 2006), where employers are not just being told that they cannot discriminate against older workers through the law, but they are also provided with tools and information for managing an older workforce. In some instances, there has been a strong emphasis on managing age diversity in the workplace to avoid stigmatizing older workers.

Employment protection regulation

Employment protection regulations, such as anti-discrimination legislation, can have both positive and negative effects on older workers. On the one hand, strict employment protection legislation protects incumbent workers who tend to be older at the expense of "outsiders," such as youths. Countries with stringent dismissal regulations tend to have more durable or stable jobs that would benefit older workers. On the other hand, such protection may encourage employers to use early-retirement pathways to adjust their workforce, so the tradeoffs should be carefully considered.

Labor laws in many countries stipulate restricted rights to terminate the employment of specially protected workers, including older workers at pre-retirement age. The list of individuals with preferential rights to protection of the employment contract often includes seniority-based criteria or completion of the minimum conditions to collect an old-age pension, unless the right to the unemployment benefit has been ensured. Currently, in cases of mass reductions, Latvian Labor Law contains a preference of continued employment for employees in the pre-retirement age group, who have similar performance results and qualifications as their younger colleagues. Older workers (within two to five years from pension entitlement, depending on the country) are often protected by an added burden on the employer to justify the dismissal; a particularly warranted reason has to be the ground of such dismissals. These rights may lead to delays in labor market adjustments within firms.

Flexible work arrangements

Facilitating access to part-time jobs and flexible work arrangements are ways to give older workers greater choice and smooth work retirement transitions. Examples of flexible work arrangements can be brought forward from the recent reforms in Germany (see Box 6). Part-time employment programs similar to mini- and midi-jobs in Germany might be an attractive alternative to informal

employment or open and hidden unemployment among certain vulnerable groups. These arrangements are particularly suitable for those who already receive a basic income from either a pension or a social benefit and can afford to work for such low wages. Thus, the provision of these jobs to the early-retired individuals identified as a distinct cluster of labor market vulnerable group of older adults in Latvia can help these individuals to return to the labor market. It is important to note that a tradeoff exists between introducing thresholds for minimum taxable incomes, such as the one in Estonia, and establishment of mini and midi jobs as in Germany, as the former would set the floor for minimum taxable income, which would be above that of a mini or midi job.[67]

Box 6. Mini and midi jobs in Germany

As part of the Hartz reforms, a significant role in the expansion of part-time employment in Germany can be attributed to 'mini-jobs' and 'midi-jobs', designed to assist individuals that were unemployed or employed in the informal sector to transition to normal employment. Mini-jobs and midi-jobs refer to low-wage employment contracts for a small number of hours worked, which can be especially suitable for older workers.

A mini-job generates an income below 450 EUR per month (since January 1, 2013). A person holding a mini-job is exempt from social security contributions for employees, which effectively increases net wages. Jobs with incomes between 450 and 850 EUR per month are called midi-jobs. For these jobs, social security subsidies are paid at a decreasing rate, depending on the income, i.e. gradually rising from zero contributions at 450 EUR into full contributions at 850 EUR. Both mini- and midi-jobs thus constitute "jobs with reduced social security contributions" (Bouvard et al, 2013).

Workers in mini-jobs are not entitled to unemployment insurance benefit, and pension benefits are optional; workers may opt to pay a pension contribution at a reduced 4.9 percent rate, which gives them pension rights similar to the standard contributions. A mini-job does not entitle the worker to health insurance insofar as the employer does not pay health insurance contributions. The individual may nevertheless be entitled to health insurance if it is provided under another activity, or if covered through a family member. Workers in midi-jobs are entitled to the same benefits as employees subject to social insurance contributions at the full rate.

The numbers working in mini-jobs on top of other paid work have grown sharply from 1.69 million in 2004 to 2.53 million in 2011; on the other hand, those working only in a mini-job increased by just 81,000 between 2004 and 2011 (to 4.9 million, 66 percent of whom are women). The number in midi-jobs rose from 1.19 million in 2007 to 1.37 million in 2011, 74 percent of whom are women (Bouvard et al, 2013).

In addition, there has been considerable growth in one-euro-jobs, a workfare arrangement in the non-private sector established by Hartz IV, under which the claimant continues to receive benefits, in addition to payment of at least one euro an hour for work in the public interest. In 2005, their first full year of existence, there were over 200,000 one-euro-jobs, which continued to pick up through 2009, when they exceeded 320,000 jobs, before declining sharply in 2011, to 188,000 jobs.

[67] For example, in Estonia, the overall social tax rate equals 33 percent, and in 2015, the minimum taxable income equals EUR 355 per month (in 2014, EUR 320), so the minimum social tax cannot be less than EUR 117.15 per month.

The rise in mini-jobs has been criticized from the gender perspective, as women account for about two-thirds of mini-jobbers (68 percent of those whose primary job is a mini-job and 56 percent of those with a secondary mini-job) (Weinkopf 2009). Given that these jobs often provide low earnings and limited hours as well as no protection by the social security system, they are likely to have led to an increase in the already-substantial gender pay gap in Germany.

Rapid and intensive placement efforts by the State Employment Agency in cases of enterprise restructuring can help prevent long-term unemployment of older workers. PES in many countries offers outplacement services for workers who will be redundant regardless of their age. A proactive approach taken by PES, in the event of restructuring and mass redundancies, entails assistance to companies and employees before employees are made redundant. PES may utilize long-term relationships with employers/enterprises and offer advice, information, training, and/or counseling to employees facing redundancies. While Latvia's Labor Law requires employers to notify the State Employment Agency one month in advance of a mass reduction in employees, in Poland, the notification period is longer, at three months, and every employer who intends to fire at least 50 employees is required to perform an intensive outplacement program consisting of mediation and counseling, psychological support, training, and active job search assistance. Such a program can be implemented by the local labor office, agency, employment, or training organization. Belgian employers are obliged to finance outplacement services for the people aged 45 plus who are made redundant, which is the only age-specific provision found with regards to restructuring (EC, 2012p; EC, 2012e).

Minimum social contribution

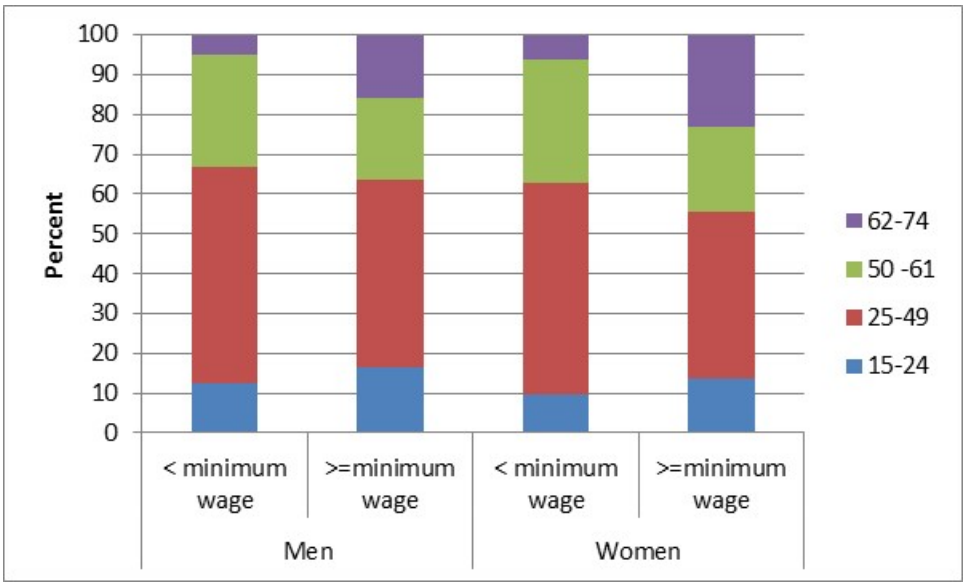
The introduction of a minimum social contribution for workers, while aimed at enhancing pension system sustainability and future pension adequacy, can have significant adverse impacts on employment and the equity of fiscal policy. A minimum social contribution, irrespective of earnings or hours worked, has some potential to increase current resources of the pension system and future pensions for the employed. However, it will also increase the cost of hiring part-time and lower-skilled workers. Therefore, there is substantial concern that this measure would reduce formal employment of those who are in low-paid and part-time jobs with gross monthly earnings below the minimum wage. As people aged 50+ and especially those of pre-retirement age are more likely to work in lower-paid and part-time jobs, the introduction of a minimum social contribution could affect this group disproportionately. One possible approach is to follow Estonia in excluding from the minimum social contribution those who are most vulnerable to unemployment—in Estonia's case, it is the pre-retirement population and disabled. More generally, the introduction of a minimum social contribution would further skew the tax system toward labor taxes and increase the already high employer contributions for low-income earners. Given that the tax system is already relatively regressive, with a flat income tax of 23 percent, the introduction of a minimum social contribution raises additional concerns from an equity perspective.

The introduction of a minimum social contribution would likely impact on a larger share of the 50+ population than in the general population. Figure 64 (a) shows, according to EU-SILC data, that in 2011-2013 the share of persons aged 50+ but below retirement age (i.e., aged 50-61) was much

higher among those earning less than minimum wage per month than among those who earned minimum wage or more.[68] While from the LFS it is not possible to distinguish earnings equal to and below the minimum wage, in 2013 the share of persons aged 50-61 (as well as the share of those aged 62-74) was much higher among those earning *at their main job* no more than minimum wage than among those who earned more (Figure 64 (b)). So, the introduction of minimum social contribution is likely to disproportionally reduce employment in the pre-retirement age group. This, in turn, will adversely affect employment in the post-retirement age when corresponding cohorts will reach retirement age—recall that it is much more difficult to get the elderly back into work than to keep them in employment. When the potential for a reduction in employment is taken into account, the overall social effect of the introduction of the minimum social contribution might turn negative. Moreover, this measure will reduce possibilities to increase labor force participation of the 50+ by promoting part-time jobs.

Figure 64: A larger share of the "50+" earn less than or equal to the minimum wage

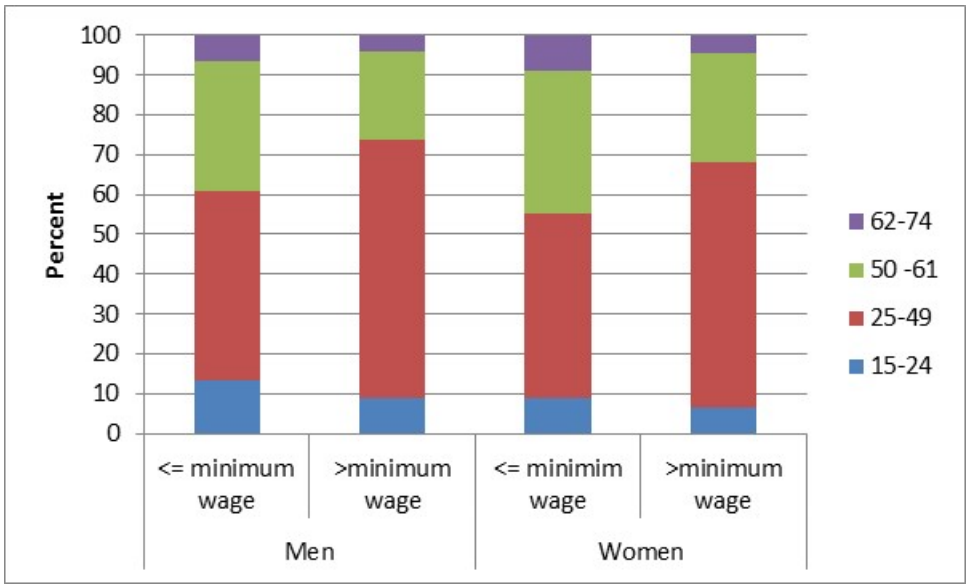
(a) Employees with monthly earnings below and at least minimum wage by age, 2011-2013



Notes: Earnings from all jobs are accounted for. Source: Calculation with EU-SILC data.

[68] Employees with higher wages are more likely to stay employed in post-retirement age, this is why the share of this age group in higher among those with monthly earnings of at least minimum wage.

(b) Employees with earnings up to minimum wage and above minimum wage by age, 2013



Notes: Earnings from the main job only are accounted for. Source: Calculation with LFS data

Engagement of older adults in labor market policies

Despite their special status, older adults are under-represented in ALMPs. There is a multitude of labor market services and measures specifically targeted at various groups of job seekers, and older workers are free to participate in the full range of labor market measures offered. Few PES offer employability services and measures specifically targeted at older workers, but in some countries, legislation defines vulnerable groups of jobseekers that may receive preferential treatment in job referrals and access to ALMPs; very often, older workers are among the priority groups of job seekers. Specific expertise is required among PES counselors to help address specific issues of older job seekers, such as motivation and perceptions about their own ability to learn, as well as to provide tailored skills enhancement.

Profiling might be helpful for older job seekers to determine their specific needs and capabilities.[69] As part of the Hartz reforms in Germany, qualitative profiling of job-seekers was introduced upon unemployment registration with the Local Employment Agency (LEA). Also a compulsory written agreement was established between the LEA and the job-seeker in order to determine the duties and efforts of both contracting parties during the job-search process. Assignment of clients to measures is now based on a profiling process, which is highly standardized (Jakobi and Kluve, 2006).[70] The caseworker assesses the client's abilities, problems, and potential labor market chances in an interview and assigns the client to one out of four types:

[69] On profiling methods see Loxha, A.,and M. Morgandi (2014). Profiling the Unemployed: A Review of OECD Experiences and Implications for Emerging Economies. Social Protection & Labor Discussion Papers, No. 1424. World Bank, Washington, DC.

[70] Jacobi, L. and J. Kluve (2006). Before and After the Hartz Reforms: The Performance of Active Labour Market Policy in Germany. IZA Discussion Paper No. 2100, April. http://ftp.iza.org/dp2100.pdf.

- "Market clients" (*Marktkunden*) are considered to have the highest chances of finding employment
- "Clients for counselling and activation" (*Beratungskunden Aktivieren*) range second and mainly need to be activated in their job search
- "Clients for counselling and support" (*Beratungskunden Fördern*) need more attention and will likely be assigned to a program
- "Clients in need of supervision" (*Betreuungskunden*) need special attention since they face the lowest chances of re-employment.

Each type is linked to an action program that defines available measures for that type of jobseeker. Active labor market policy measures are available mainly for the types II "counselling and activating" and III "counselling and supporting." The type I "market client" is expected to reintegrate without special assistance, while the fourth type, "supervising," is deemed to not benefit from any measure and excluded from participation.

In a few countries, there are specially trained job counselors who focus on the needs of older workers, while in others older job seekers are assisted early in their job seeking efforts. In Germany, teams are created with lower counselor-to-client ratios to tackle the additional challenges facing many older workers (EC, 2012p). With the new 55 plus program in the Netherlands, PES work with local networks of 55 plus job seekers who are supported by 25 work coaches employed by PES (EC, 2012l). This work involves a broader approach focusing on individual possibilities and resources rather than limitations, encourages active participation in social life, learning activities and personal development, which can increase the willingness of older people to make the transition to paid work. In France, every older jobseeker over 55 has a personal counselor from the first month of unemployment (younger jobseekers only have a counselor from the fourth month of unemployment; EC, 2012h). In Lithuania in 2012, a specialist for job seekers of retirement age was assigned in each department. Placement professionals and guidance counselors are trained accordingly, so that they can respond to the needs of particular groups of people (EC, 2012j).

Several PES also try to ensure that older jobseekers are linked with counselors in their same age bracket, to avoid feeling like they are taking guidance from someone new to the workplace (EC, 2012o). Where this age-matching does not apply, PES staff should receive training to manage situations to deal with an older jobseeker effectively. Evidence-based research into the effectiveness of PES case-workers (in France, Germany, Netherlands, Romania, and Sweden) indicates that working with older job seekers involves more in-depth interventions with regards to labor market conditions, alternative career paths, competence assessment, sources of skills development, and transition management to enhance personal employability (EC, 2011c). This requires PES case-workers to coach older workers, provide skills updating where required, assess potential employers, and establish personal contacts for older job seekers. This requires good knowledge of local labor markets and contacts with employers. Evidence suggests, for example, that older job seekers have better opportunities of finding work in small and medium-sized companies, particularly small companies and those who already employ substantial numbers of older workers (Lagerström, 2011).

Complex programs targeted at older workers

Some countries have adopted complex programs to tackle the issues of older job seekers, rather than focus on particular measures.

In 2008, the Polish Government launched a comprehensive program entitled 'Solidarity Between Generations–Measures Aiming at Increasing Economic Activity of People over 50.' The program promotes active ageing by raising awareness, activation of job seekers, and supporting age management policies, life-long learning strategies and health prevention at the work place (EC, 2012o; EC, 2012m).[71] As part of this initiative, active labor market programs were reviewed and adjusted to the specific needs of older workers. To prepare PES staff for delivering these enhanced services, new internal training programs were developed. According to the analysis assessing implementation of the program, from 2008 to 2010, there was an increase in the activity rate of job seekers aged over 45, average retirement age, and participation in lifelong learning.

- In Germany, the federal program *Perspektive "50+"*: *Employment Pact for Older Long-term Unemployed in the Regions* was launched in October 2005 as part of the "50+" initiative, with the aim to improve the employability of older jobseekers (EC, 2012p; Koch, 2012).[72] *Perspektive 50+* encompasses a wide variety of measures intended to increase the employability of older persons, such as counseling, training, integration subsidies, etc. One of the most successful measures is individual job-search coaching, which is also available after their return to labor market. In 2011, 200,000 older persons got involved in the program, out of which 70,000 found employment. The strength of *Perspektive 50+* is its reliance and utilization of strong regional partnerships and fostering the exchange of best practices between them. The variety of measures offered, with particular emphasis on individualized services and the possibility of combining these measures, also contributes to the success of the program (EC, 2012p).
- The U.K. introduced a voluntary employment scheme for older jobseekers in April 2000, the *New Deal "50+" Program* (EC, 2012n). People aged 50 or over, unemployed for at least six months, are eligible to join this scheme. It provides: (i) access to one-on-one advice and guidance about finding work from a specialist personal advisor, (ii) tax free wage increase (the Employment Credit - in 2002, this was subsumed into a wider tax credit scheme eligible to all age groups) for up to a year for people starting work with earnings below a specific threshold, and (iii) a training grant.
- The Czech Republic has strengthened incentives to continue work beyond the statutory retirement age (OECD, 2012a). The Government Council for Older Persons and Population Ageing was established in 2006, as a permanent advisory body to the government to promote conditions for healthy and active ageing. Restrictions on the concurrent receipt of an old-age pension and income from work were abolished in 2008. Also in 2010, a project titled *Promoting Employment and Use of Leisure Time of Seniors: People of Pre-retirement Age in*

[71] Program is available from the website of the Institute of Economic Analysis and Prognoses – Ministry of Labor and Social Affairs at http://analizy.mpips.gov.pl/index.php/program-50/145-sprawozdanie-z-realizacji-programu-solidarno-pokole-.html

[72] For more information visit http://www.perspektive50+.de/

the Age of 50+ was made operational. Its aim is to contribute (through sharing of best practices and exchange of foreign experience) to prolongation of economic activity and social integration, and promotion of harmony between the working and private lives of people of pre-retirement and retirement age.

Job search assistance

As older unemployed people are far from being a homogeneous group, there is widespread consensus that competent individual action planning based on resource-oriented profiling has the largest potential (EC, 2012o). In Poland, the PES are obligated to create an Individual Action Plan, which includes work practice, training, and apprenticeships for adults, for unemployed persons above age 50 within 180 days from date of registration (EC, 2012m). This rule applies only to older job seekers and two other groups: unemployed up to age 25 and former prisoners.

Because of stereotypes regarding older workers among employers, it is also important for this target group to benefit from measures that directly bring jobseekers into contact with employers. Job fairs, speed dating and work trials (e.g. the Netherlands), and simulated recruitment methods (e.g. France) may be effective. According to previous studies, what seems crucial is to arrange an interview and work trial, in order to ensure intensive contacts where the older unemployed can show their value based upon experience and acquired competences (EC, 2012o).

A number of PES has created positive experiences using group activities targeted at the older unemployed. For example, in the Netherlands and in Germany, group counseling in self-help groups is successful to tackle social isolation and the lack of networking skills to effectively deliver job search skills (EC, 2012h; EC, 2012p). Job clubs, whether or not age-targeted, can also help to source 'hidden' vacancies. For example, job clubs were introduced for the first time in Estonia in 2009 and targeted older unemployed over 55, among others (EC, 20112g). The Netherlands offers group counseling for job seekers aged 55 plus. Job seekers become eligible for the services after three months of unemployment (EC, 2012l). Networking 55 plus enables them to meet their peers to share and exchange information. These group activities are very flexible. In Belgium, "50+" Clubs offer age-specific measures for jobseekers over 50 years (EC, 2012e; EC, 2012q). When comparing the outflow rate of participating and non-participating jobseekers for the past three years, the job club appears to have a visible impact. In 2011, 33 percent of job club participants were reemployed within six months after completing training, while the outflow rate of non-participants was only 19 percent.

Wage subsidies

Wage subsidies and tax incentives are one of the most common measures to enhance the employability of older workers. Financial incentives are either provided directly (through direct wage subsidies) or indirectly (through social security waivers and reductions in labor taxes). Wage subsidy programs can be scaled up relatively rapidly, making them particularly prominent during times of economic crises, to temporarily sustain jobs and avoid layoffs. These programs typically are targeted at the long-term unemployed, areas/sectors with high unemployment, and special groups of workers (e.g., youth or older workers) to integrate them into real workplaces (ideally with some training) and, thus, provide a point of entrance into the labor market. In some countries, such subsidies are tied to a specific age, or a general provision may be extended starting from a specific age (France, Belgium, the

Netherlands). In other countries, the respective measures are universally available depending on the degree of disadvantage (e.g., skills, health problems).

In Poland, employers can obtain temporal exemption (12 months) from the obligation to pay contributions to the Labor Fund and the Fund for Guaranteed Employees' Benefits for employing people over 50 years of age. For employed women aged 55 and men aged 60, employers do not pay these contributions (EC, 2012m).

- The Austrian PES successfully runs a program called *Integration Subsidy*, which is targeted at unemployed persons (EC, 2012o; EC, 2012f). Although the measure itself is not age-specific, it proved to be effective in stimulating employment of older jobseekers. Between 1999 and 2008, on average, 14 percent of all subsidized placements were taken up by people aged 45-49, and a further 30 percent by jobseekers over 50.
- In Lithuania, employers receive a 50 percent subsidy to partly compensate salary up to six months, but the subsidy may not exceed two months of minimum wages approved by the Government (EC, 2012j). There is no universal obligation for employers to employ the person after the subsidy ends, but afterwards, if a job is available, employers could be at risk of not receiving further subsidies.
- In Hungary, individuals are entitled to the Start Extra Card for up to two years, for the exemption of tax and social contributions paid by the employer (EC, 2012i). The Start Extra Card is available to support the employment of jobseekers above age 50, registered for at least 12 months of the past 16 months at the time of the claim, or for low-skilled jobseekers. The contribution tax payable to the jobseekers possessing the card was reduced by 27 percentage points of the total in the first year, and by 17 percentage points in the second year.
- In France, specific subsidies for the recruitment of older workers (45 plus) have been established (e.g., bonus of EUR 2,000 for the employer and no social contribution on the part of the salary corresponding to minimal wage; EC, 2012h). Subsidies (wage and social contribution) for hiring targeted groups are defined at the regional level. The duration of subsidies is limited at two years, but can be expanded to five years for seniors. In the Netherlands, a subsidy for older workers equals EUR 6,500 per year and can be paid for up to three years (EC, 2012l).
- In Slovenia the new '50+' active employment program funded by the European Social Fund (ESF) targets people over age 50 who have been registered as unemployed for over six months, as well as the employers who could help them. By offering potential employers EUR 8,000 of subsidies for periods of 18 months, the program aims to give older workers the time they need to fully integrate into their new jobs, building motivation, aspiration and career development (ESF, 2013).

While these programs serve a social objective, it is difficult to design subsidies that actually create jobs in a cost-effective manner. They are often associated with deadweight losses, and often do not create jobs on net. Instead, they can have unintended effects such as subsidized workers replacing unsubsidized ones ("substitution" effect), or employers hiring subsidized workers and laying them off once the subsidy period ends. Some PES practitioners argue that subsidies are only targeted and effective if combined with quality personal services to jobseekers and employers (see Mayhew

and Rijkers, 2004). A recent study by the European Commission also notes that any such subsidy needs to be "carefully considered to ensure that it does not prevent access to the labor market for young workers and that it does not artificially distort the labor market by creating deadweight or negatively impacting on other groups of workers" (EC, 2011b; EC, 2012f; Nachtschatt, 2012). Another issue is how to safeguard against displacement that is, how to ensure that the employer would not have filled the new work place in any event. Legislation might foresee penalties for employers for early termination of the contract with subsidized workers. In Estonia, an employer must return a wage subsidy in full if the relevant employment or service relationship is terminated at the initiative of the employer earlier than one year after entry into the contract of employment or appointment to the position.

Other measures

There are few other programs in selected countries targeted at older job seekers. In Poland, for participants of public works programs, the PES reimburses a part of the costs of remuneration and social insurance contributions of placed unemployed persons (EC, 2012m). The program of public works can last up to 24 months for persons above age 50, whereas the basic duration of the program is six months. In Lithuania in 2007, to encourage older people to actively participate and remain in the labor market, the 'Senior Bank' program was implemented, which was intended to collect and provide information on employees who want to work in retirement (EC, 2012j). Within five years, about 3,000 pensioners were registered in the 'Senior Bank.' The average registration time in the 'Senior Bank' is about six months. During 2007-2011, labor exchange specialists assisted a quarter of the 'Senior Bank' participants into employment.

Many PES stress the importance of partnerships for implementing their strategies towards older workers (EC, 2012o). Partners to PES may include:

- Employer organizations (UK, Poland, Netherlands), in order to provide information about labor market needs, job opportunities, and work trials;
- Municipalities and social assistance centers (Poland, Estonia, Netherlands Germany), which can provide the specific tools and expertise to assist jobseekers with more complex problems;
- Temporary work agencies (Netherlands, Austria); in Austria, the strong cooperative relationship between the PES and temporary work agencies helps to mitigate prejudices against employment of older unemployed people;
- Vocational education institutes for provision of training (Estonia); and
- Non-governmental organizations (NGOs) and advocacy agencies (Poland), which represent elderly people and have knowledge about the needs of this group.

Cooperation with such institutions can help bring efficiency gains to the service delivery of PES for senior workers whilst also reducing costs of launching new measures. Partnerships are especially important for preventive measures to ensure proper age management and employability support, which are often considered outside their remit or difficult to implement by PES (EC, 2012a).

Improvements in working conditions

Interventions to improve working conditions for older workers may help to preserve them in the labor force. Although the incidence of exposure to unpleasant working conditions and/or work-related stress may be lower for older workers compared to younger workers (Eurofound, 2012), the accumulated effect of such conditions may take a heavier toll on older workers, forcing them to exit the labor force prematurely. Too high workload and poor and dangerous work conditions is accordingly the second and the third most often mentioned factor driving employees dissatisfaction with job in Latvia (Employers' Confederation of Latvia, 2013). Measures such as adaptations of working conditions, shorter working hours, training, or switching to less onerous work tasks may be effective in keeping workers employed longer (OECD, 2013).

Therefore, health promotion, rehabilitation, and risk prevention is another emerging field of activity for some PES, with funding available in Austria and the UK. In particular, health-related issues were given a very high priority in Austrian labor market reform to be implemented by 2016 (EC, 2012f). In particular, the Fit2Work initiative is intended to increase employability of workers facing difficulties in their workplace due to their health condition, and consequently their stay on sick leave. The initiative entails counseling services for the employees concerned. In the UK, employers can obtain financial support via the PES to adapt workplaces to the (changed) requirements of individuals whose work ability has been restricted due to work related accident or injury (EC, 2012n). The Estonian Unemployment Insurance Fund (EUIF) offers training compensation for employers (EC, 2012g), supporting (re)training of employees who are at risk of losing their job due to health reasons. Additionally, if the workplace or equipment needs to be adapted due to a long-term health issue of an employee in order to keep them employed, the PES can compensate up to 50 percent of the costs of adaptation.

Unemployment benefits and early retirement schemes

In several countries, registered jobseekers at pre-retirement age can maintain unemployment benefits until they reach pensionable age, and their job search requirements are relaxed (see MISSOC, 2014; Annex Table 9). For example, eligibility rules for unemployment benefits that require active job search are either explicitly or implicitly waived for older jobseekers in a number of countries, including Belgium, France, Germany, and Ireland and, in some instances, the Netherlands. Thus, the incentives and help given to them for job search are minimal or non-existent. In Finland, the older long-term unemployed are able to move onto an early-retirement scheme and exempted from any job-search or job-availability requirements. Given the unfavorable situation of older jobseekers in the labor market, many countries have extended maximum unemployment benefit durations according to age or contribution record, including the following:

- In Poland, since 2004, benefits of longer duration are available for unemployed persons aged "50+" who complete at least a 20-year entitlement period have a right to the benefit for 12 months. The basic unemployment benefit period is 6 months.
- In Germany, the right to unemployment benefit depends on the duration of the insurance contract and the person's age (e.g., people age 50 can obtain unemployment benefits up to 15 months, people age 58 up to 24 months). Otherwise, the maximum duration is 12 months.

- In Hungary, the Employment Act offers jobseekers' benefit for those up to five years below the pension age, who are registered unemployed for more than 45 days, cooperating with the PES and have a sufficient period of service for an old-age pension. The monthly benefit is equal to 40 percent of the minimal wage.
- In France, the duration of payment of the unemployment benefit is up to 36 months for workers "50+" (24 months for other groups) who have not reached the minimum age to receive their retirement allowance, but have reached sufficient quarters of contribution.
- In Estonia, the maximum period of receiving unemployment allowance is 270 days (or 210 days, depending on the reason the job was terminated). After the end of this 270-day period, an unemployed person who is less than 180 days from pensionable age is paid unemployment allowance until they reach that age.
- In Lithuania, benefits of longer duration are provided to older job seekers. Unemployment insurance benefits are available for persons who, prior to registration at the local labor exchange office, have had a length of service of no less than 18 months over the past 36 months (for persons with an unemployment insurance record of less than 25 years; with a record of more than 25 years, the duration of receiving benefits can be longer).

However, extended unemployment benefits for older job seekers may not lead to improvements in their employability, especially if job search requirements are relaxed. It might be more cost effective to provide them with targeted and means-tested unemployment assistance benefits after unemployment insurance expires.

In some countries, older workers can claim early retirement benefits. In Latvia, men and women with an insurance period of not less than 30 years may claim an early pension two years before the standard retirement age. In Estonia, early retirement pension is available up to three years before the legal retirement age. In Lithuania, persons are eligible for early retirement pension if (i) they acquired an insurance period of 30 years, (ii) the age is less than five years to retirement age, and (iii) they have no other income, pension or benefit. There are no early retirement pensions in Denmark, Finland, the Netherlands, Norway and Sweden (see MISSOC, 2014). Publicly subsidized early-retirement benefits are largely maintained because other policies to absorb older unemployed workers are ineffective, or because unemployment assistance programs are not available for the long-term unemployed. Although established based on social considerations, there is a real risk that the early retirement scheme will increasingly crowd-out alternative expenditures, such as ALMPs, which have a higher social priority.

CONCLUSIONS AND POLICY DIRECTIONS

The promotion of productive aging can go some way to address the demographic challenge in Latvia. The above analysis has examined the labor market performance in Latvia in recent years and provided insights on the individual and household characteristics that facilitate or hinder labor force participation and employability for older adults in the country. The other side of the labor market was also assessed, demonstrating that the overhang from the last crisis is still depressing demand in the private sector, although it is not particularly severe for older adults. The quality of jobs was also examined, focusing on any differences that occur by the age of the wage-employed workers. Distinct clusters of labor market vulnerable older adults were identified to facilitate tailored policy solutions

and prioritization in the tight fiscal space. Finally, the experience of other aging countries in the EU was presented to derive lessons learned about what works and what does not to promote employment of older adults.

What does it all mean for Latvia?

The promotion of increased human capital accumulation and maintenance is key to extending working lives in Latvia. As the analysis has demonstrated time and again, health and education / skills are strong correlates of willingness to work (defined as either having a job or being willing and available for work) and employability in older age. If older workers lack the skills required by employers, suffer from poor health, or face onerous working conditions, they may still be pushed into early retirement. Workers with better education and skills not only attract greater demand from employers but also are less likely to work in physically-demanding jobs, thereby allowing them to remain employed even after their physical capacities wane. Thus, ensuring a culture of lifelong learning and targeted health promotion campaigns to preserve the health of current and future workers is of vital importance to put Latvia on the right trajectory towards productive aging. The following chapters will further explore the areas of life-long learning and healthy aging in Latvia.

One unique but relatively transitory challenge for Latvia is to support the productive aging of the current ethnically-diverse cohort of older adults. As the analysis has shown, ethnic minorities without Latvian citizenship have worse labor market outcomes compared to both ethnic Latvians and minorities with Latvian citizenship. This is likely to be the effect of Latvian language proficiency. The gap in labor market outcomes can be narrowed by improving language learning outcomes in schools, improving access to free Latvian language courses for adults (including the unemployed) but also by softening pre-employment language requirements (at least for individuals "50+") to support on-the-job language learning.

As observed from the analysis of labor supply correlates, decisions on work and retirement are often made on the level of the couple rather than the individual. Given the strong preference for joint retirement, Latvia can be commended for equalizing retirement ages and tying future increases to changes in life expectancy. Limiting options for early retirement can also encourage older adults to extend their working lives, especially if their spouses are already retired. The significance of assortative matching in willingness to work and employability hints at the importance of unobserved individual characteristics that mater in these outcomes. With many individual and household factors already taken into account, these unobserved characteristics could potentially be individual's interpersonal skills. Emphasis on development of these skills from the early years could be strengthened by parental education, curriculum in primary and secondary schools, and with targeted interventions for youth. One such program is Juventud y Empleo in the Dominican Republic, which included a life skills component. A rigorous impact evaluation demonstrated that the program had a significant positive impact on labor market outcomes (such as job formality of men and monthly earnings of the employed) as well as on measured socio-emotional skills, including grit and self-esteem (Ibarraran et al., 2014). Socio-emotional skills interventions may be incorporated as part of Latvia's Youth Guarantee programs.

Improving availability, affordability, and quality of childcare and eldercare supply could facilitate longer employment of young mothers and pre-retirement age women. Analysis of LFS data

has shown that young women in Latvia report provision of informal childcare as one of the main reasons for remaining out of the labor force. This implies extended periods of detachment from paid work, which can significantly decrease their subsequent chances of finding a good job. On the side of eldercare, Latvia currently has one of the lowest coverage rates for residential care as well as formal home care (Bettio and Verashchagina 2012), implying that most of the caregiving burden falls on informal care providers, who are likely to be pre-retirement age women. Thus, improving the supply of affordable and quality childcare and elderly can bring more women into the Latvian labor force, thus closing the already narrow gender gap in labor force participation rates. If the capacity of the network of formal care institutions is reduced through policy measures, it is important to ensure sustainable and predictable co-financing to provide options for caregivers who would like to remain in the labor market.

There is a concern that cyclical unemployment over time becomes structural as skills deteriorate and younger and better-educated workers as well as workers without prior unemployment spells are preferred to take available vacancies (hysteresis). In this sense, the focus should currently be on long-term unemployed, especially young workers, who are most likely to emigrate if they cannot find a job in Latvia. The recent OECD study on youth has several useful suggestions to that effect.[73] The lower geographic and labor mobility of older workers implies fewer chances of their re-employment, especially in a period of job destruction (all other things equal). International evidence from policy interventions shows that once older workers lose their jobs it may already be too late. For instance, programs to increase geographic mobility have not had great success. Thus, efforts of the State Employment Agency should be focused on reducing the risk of unemployment for older adults through better age management policies (adaptation of working conditions, shorter working hours, health promotion, rehabilitation, or less onerous work tasks) and encouragement of age diversity at the workplace and beyond. Given that almost half of all inactive older workers previously worked in manufacturing, trade and hospitality, and administrative/support/financial/information and communication services, the State Employment Agency could pay particular attention to older employees of these sectors.

If unemployment cannot be avoided, intensive placement efforts are necessary for the integration of this age group. In particular, early interventions by the State Employment Agency at the stage of notification of redundancies might help raise changes for re-employment, including measures such as mediation and counseling, psychological support, training, and active job search assistance. International experience attests that individual job-search coaching, job fairs, work trials, intensive contacts with employers, and various group activities targeted at the older unemployed, such as job clubs and group counseling in self-help groups are successful to tackle social isolation and lack of networking skills. Selective programs of wage subsidies, and reimbursement of training costs to employers of older workers at risk of dismissal can also enhance employability.

[73] OECD (2015).

5. Lifelong Learning in Latvia

As seen in chapters 2 and 4, education appears to play a significant role for the extension of working lives in Latvia. This chapter further delves into the issue of life-long learning in the country, by: (1) presenting a framework for the formation along the life cycle of different types of skills demanded in Latvia's labor market today and in the future, and (2) by assessing the Latvian system around three categories of measures to support the development of an effective and inclusive adult education and training system: coordination, financing and regulatory tools. The section also offers some international experiences that may be of use to the Latvian case and reflects upon the potential trade-offs and prioritization criteria in the improvement of life-long training provision in the country.

CONTEXT: SKILLS ACQUISITION ALONG THE LIFE CYCLE

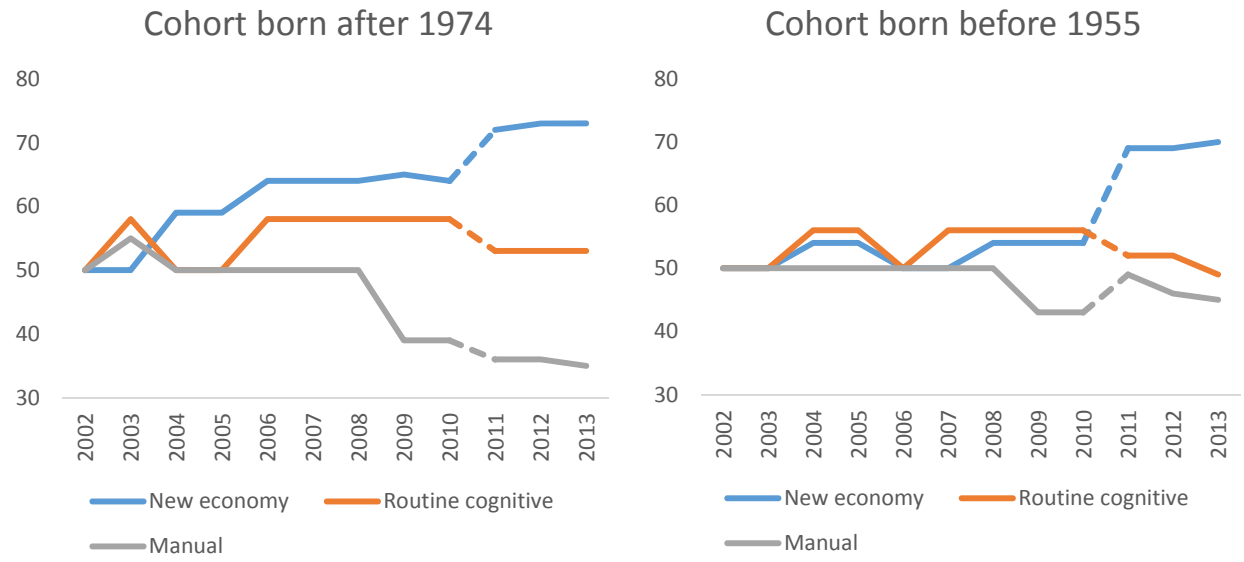
Three broad dimensions of skills matter for labor market outcomes – cognitive, socio-emotional and job-specific technical skills – and are formed at different episodes along the life cycle. *Cognitive* skills include literacy and numeracy such as measured among 15 year-olds in the Program for International Student Assessment (PISA), but also competencies like critical thinking and problem-solving.[74] *Socio-emotional* skills capture, inter alia, one's ability to interact with others, openness to experience, emotional stability as well as conscientiousness and focus on getting a job done. *Technical skills* in turn capture one's ability to perform technical tasks in any occupation, e.g. work as a plumber, a software programmer or engineer. Cognitive skills are formed mostly during childhood and form a foundation on which subsequent job-specific technical skills are being built during adulthood. Good cognitive skills formation requires, in addition to strong parental attention, high quality preschool, primary and secondary education for all. Job-specific technical skills can be formed, and updated in line with personal needs and labor market developments, throughout adulthood. There is also increasing evidence that certain socio-emotional skills evolve with age and can be fostered through specific interventions as part of adult training. This calls for nimble and responsive systems for adult education and training with adequate capacity and incentives to respond to evolving demands of workers and firms and good information for workers and providers on employer and labor market needs.

Like elsewhere in the developed world, the importance of cognitive and socio-emotional skills in Latvia's labor market has been increasing. In a widely cited study in which they measure average task content of jobs and the associated skill requirements, Autor, Levy and Murnane (2003) show that the demand for, and use of, non-routine cognitive (analytical and interpersonal) skills has been rising in the United States since 1960. A similar change can be observed in Latvia. Figure 65 shows that the skills used by workers of cohorts both born before 1955 and after 1974 for different tasks (or occupations) include an increasing proportion of non-routine cognitive analytical and non-routine interpersonal components (aggregated as "new economy skills" in Figure 65). At the same time, the importance of routine cognitive and manual skills, especially for younger age cohorts, has been declining. This reflects a growing importance of advanced manufacturing and service jobs in the

[74] See OECD 2013b.

economy. There are two messages: First, Latvian jobs increasingly favor workers with higher levels of cognitive and socio-emotional (e.g. interpersonal) skills across all age cohorts. Second, as much of these skills is acquired in childhood and youth but deliver lifelong returns, the education systems play a critical role in imparting these skills in future cohorts of labor market entrants. But lifelong learning interventions for prime age and older workers can help foster certain socio-emotional skills that have been shown to be malleable throughout adulthood and increasingly important for labor market success, such as openness to experience, self-control or confidence (Cunningham et al. 2014).

Figure 65: Cognitive and socio-emotional skills are increasingly used in Latvia's labor market



Source: World Bank staff estimates using Labor Force Survey (LFS) data. Note: The y-axis plots the percentile of the skill distribution for jobs held by each cohort in any given year, with respect to the corresponding median skills intensity of jobs held by that cohort in 2002. New economy skills reflect non-routine cognitive analytical and non-routine interpersonal components. The coding of occupations in the LFS was changed from the ISCO88 system to the ISCO08 system between 2010 and 2011, resulting in a break in the series, depicted with the dashed line.

Lifelong learning begins early—with equipping children and youth with the right foundation skills. In line with the life-cycle approach to skills formation, policies to promote lifelong learning, especially of older workers, in Latvia need to start with a focus on equipping the shrinking next generations of labor market entrants with the right cognitive foundation skills for successful, continuous acquisition of job-specific technical skills throughout adulthood. Evidence from the assessment of mathematics, reading and science competencies among 15 year-olds—measuring key basic cognitive skills—as part of the 2012 PISA assessment suggests that Latvia's education system does an average job of equipping the next generation with the right foundation skills. There is room for improvement of both the aggregate score to catch up with higher performing Nordic neighbors such as Estonia and Finland (Figure 66, top) and at the bottom end of the performance distribution where almost one fifth of 15 year-olds scored below level 2 of PISA and can be considered functionally illiterate and innumerate (Figure 66, middle). There are also significant equity issues in Latvia's education system, with performance gaps between students in top and bottom socio-economic quintiles of about 80 PISA points – the equivalent of two years of schooling (Figure 66, bottom).

Figure 66: Latvia has room to improve performance in PISA on several dimensions

Source: World Bank staff calculations using PISA data.

ADULT LEARNING IN LATVIA

Adults are building and updating their skills in many different ways depending on their needs, including on the job, in formal classroom-based settings or online. The usual definition of adult education and training differentiates between formal, non-formal and informal learning (see box 7). This report analyzes participation patterns both on aggregate, grouping formal and non-formal education and training together, and separately for the three different forms of adult learning. It examines participation patterns and motivations both for the adult population aged 25-64 overall and by different age cohorts. The analysis of adult education and training in this report relies on two rich Eurostat surveys, the household-based Adult Education Survey (AES) which captures training activities for adults aged 25-64 and which has had two rounds in 2007 and 2011 and the firm-based

Continuing Vocational Training Survey (CVTS) with two rounds in 2005 and 2010.[75] These survey instruments allow for a detailed and disaggregated analysis of patterns of particpiation of different types of workers in different forms of adult education and training as well as motivations and barriers for Latvia and in comparison with other EU Member States.

Box 7: Formal, non-formal and informal learning

Formal learning: Learning that occurs in an organized and structured environment (such as in an education or training institution or on the job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner's point of view. It typically leads to certification.

Non-formal learning: Learning embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's point of view.

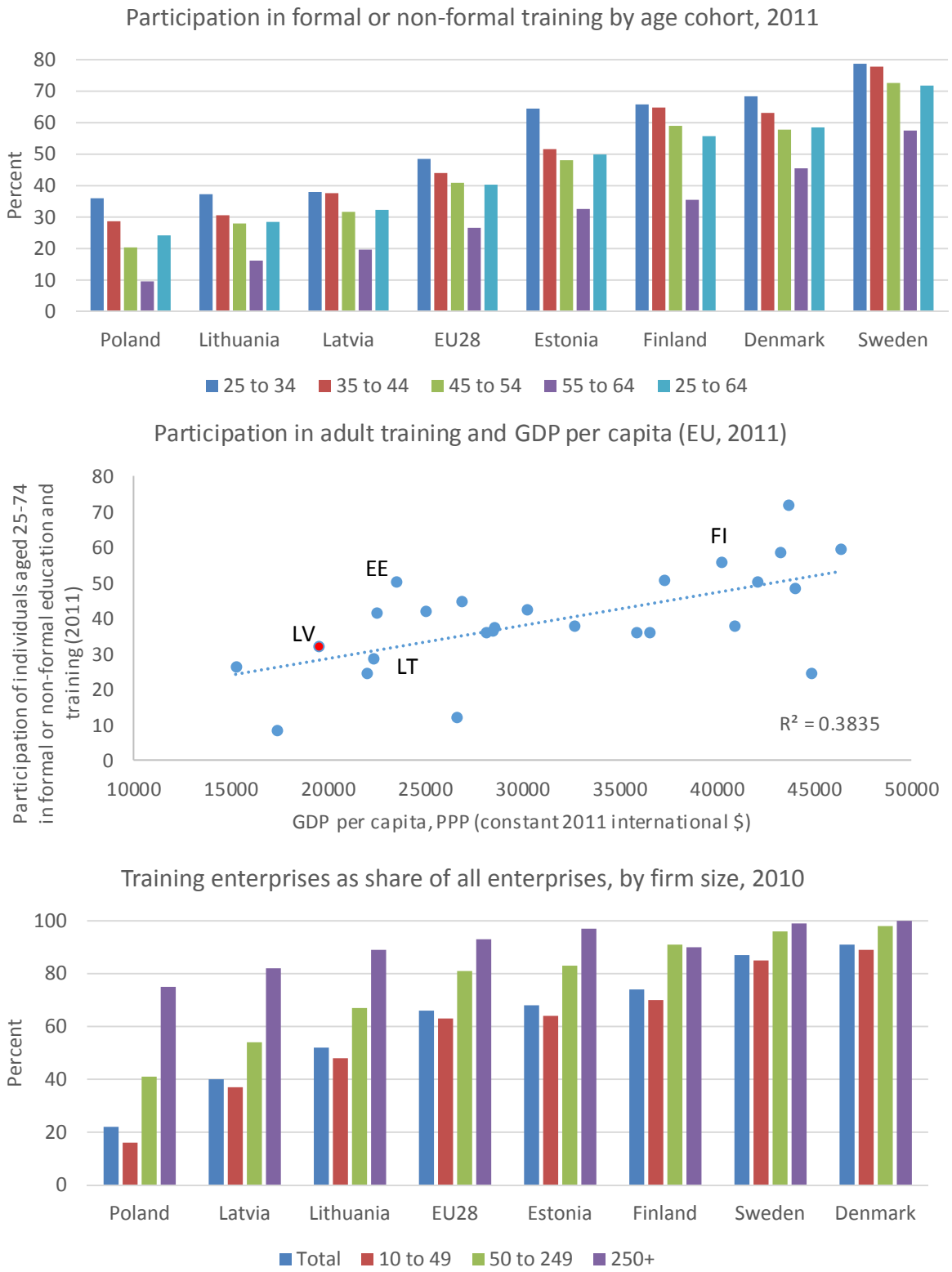
Informal learning: Learning resulting from daily activities related to work, family or leisure. It is not organized or structured in terms of objectives, time or learning support. Informal learning is in most cases unintentional from the learner's perspective.

Source: Cedefop (2014)

Adult education and training is less widespread in Latvia than in other EU Member States, including some of its northern neighbors, and particularly among older workers. Data from the AES 2011 shows that participation of adults aged 25-64 in Latvia at 33 percent is low in an EU comparison (Figure 67, top). Consistent with international and EU patterns, participation is much more widespread among younger workers than older workers, and, though not shown here, among tertiary graduates than among secondary graduates, among workers in managerial, technical or professional occupations than among workers in elementary occupations and among the employed vis-à-vis the unemployed and inactive workers. While Latvia trails Estonia, Finland and the EU28 average in adult education participation across all age groups, with relatively larger gaps among the younger workers, the prevalence of adult training is not significantly above or below what would be expected given the country's GDP per capita (if taken as proxy for the economy's maturity, see Figure 67, middle). Firm level data from the most recent CVTS from 2010 shows comparatively low shares of enterprises engaged in training (Figure 67, bottom). In Latvia, only 40 percent of companies provided any form of training in 2010, much lower than many other European countries and Nordic neighbors, including Lithuania (at 50 percent) and Estonia (at 77 percent). Like elsewhere in Europe and around the world, larger firms are much more likely to seek or provide training to their workers than smaller firms.

[75] The extent of lifelong learning in EU Member States is usually assessed on the basis of the Eurostat Labor Force Survey (LFS) which includes information on participation in education and training of adults aged 18 and above, with a recall period of 4 weeks. The LFS also underpins the lifelong learning dimension of the Active Aging Index. The analysis in this report draws on the AES and the CVTS which have a recall period of 12 months and offer the opportunity for more in-depth analysis, including of motivations and barriers to training participation.

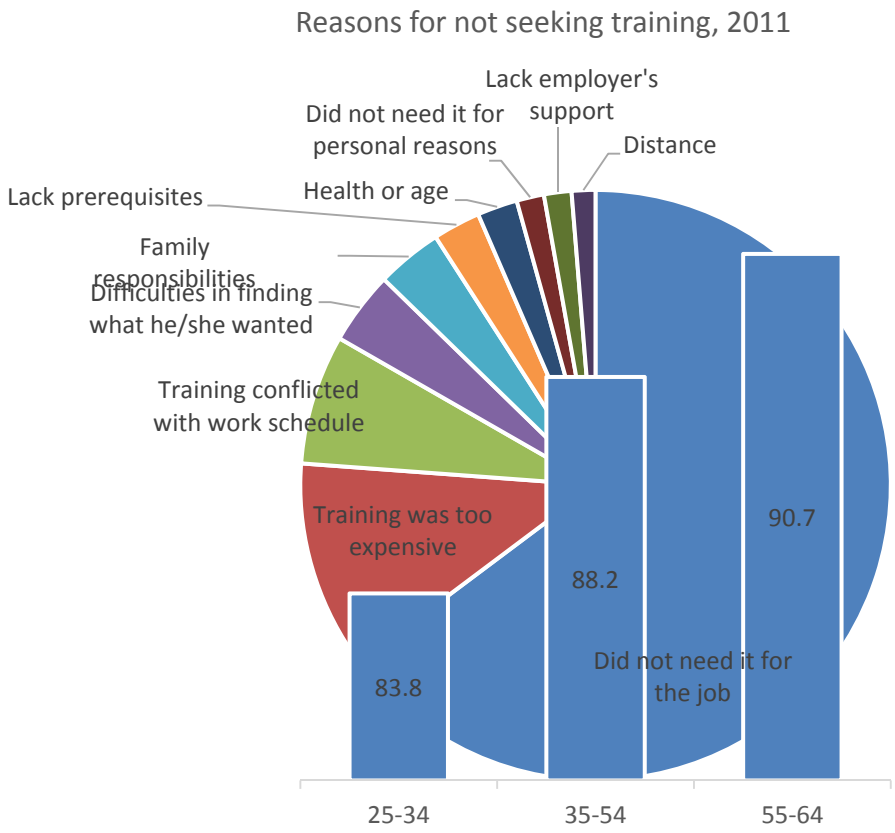
Figure 67: Participation in adult education and training is relatively low in Latvia

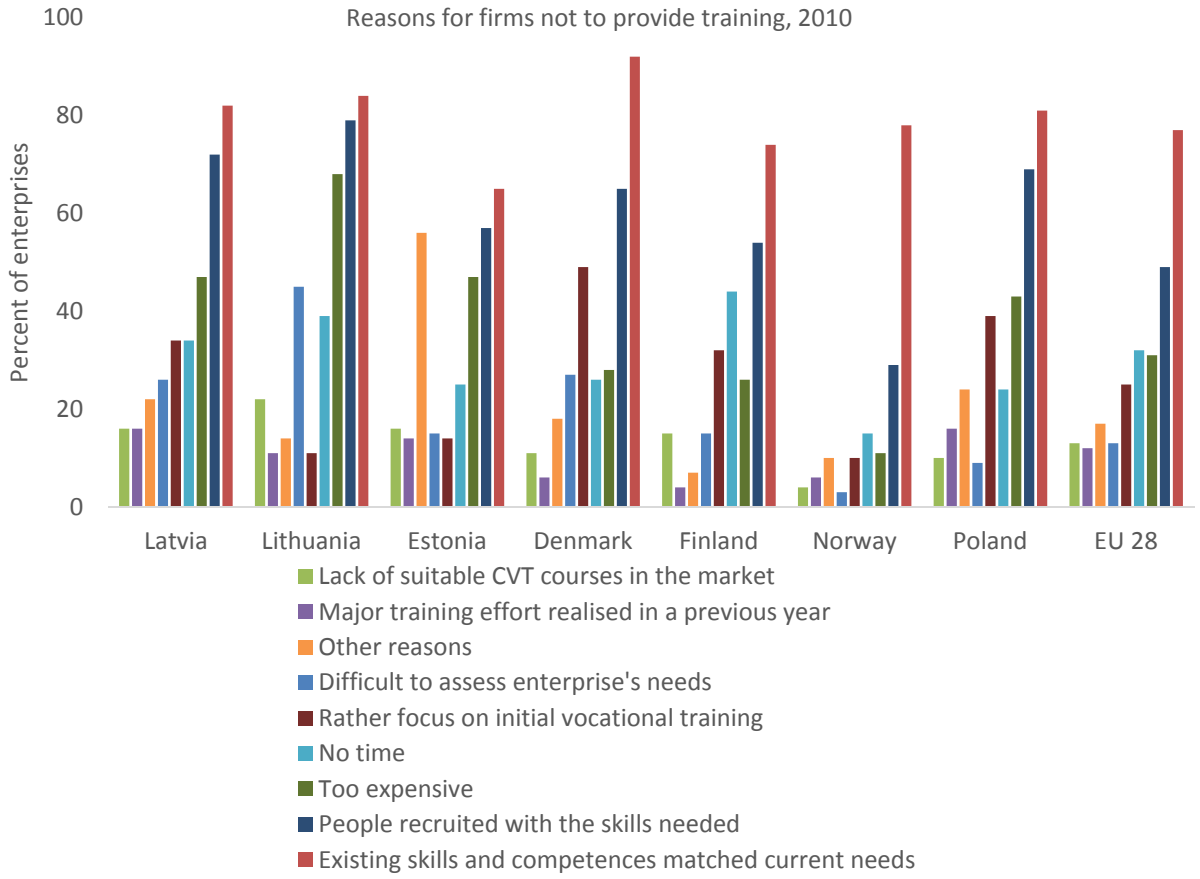


Source: World Bank staff estimates using AES 2011 (top), AES and WDI (middle) and CVTS 2010 (bottom). The middle chart includes all EU member States except Croatia and Luxembourg.

Low participation is largely driven by a lack in demand and interest in training by both workers and firms, but there are also other barriers commonly found worldwide. The extent of participation in adult training is a function of motivation of the individual and firms and additional barriers. More than 80 percent of workers not engaged in training in Latvia point to the fact that training is not needed for the job as the most important reason preventing them from seeking training (Figure 68, top). The motivation of adults in Latvia to participate in training declines with age. Additional obstacles relate to cost, time, information and availability of programs, all of which are common barriers found in countries around the world. CVTS data shows that the picture for firms' motivation is similar: The major reasons why firms did not provide training were that they already have people with the skills they need or they would prefer to hire people with the necessary skills (Figure 68, bottom). In addition, the share of firms who would rather focus on initial vocational training quadrupled from 8 percent to 34 percent between 2005 and 2010. This signifies a reliance on the education systems for training prior to entrance to the labor market rather than throughout the employees' working lives.

Figure 68: Most workers and firms who do not pursue training say that it is not needed



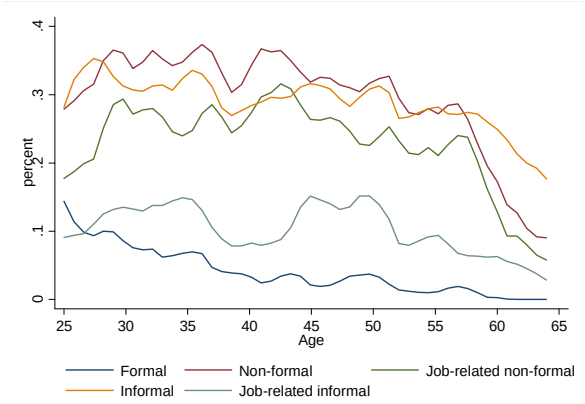


Source: World Bank staff estimates using Latvia AES 2011 (top) and CVTS 2010 (bottom).

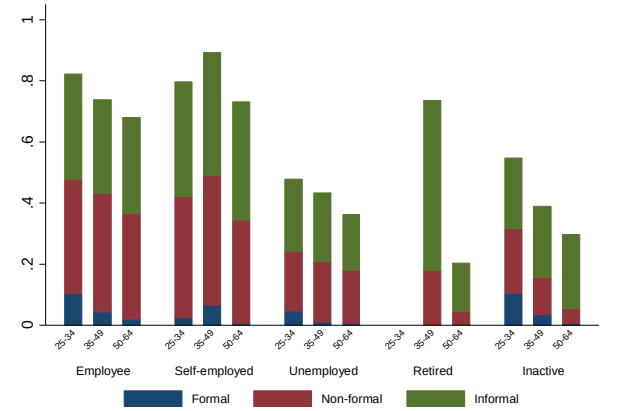
The pattern of participation in different types of training varies across age cohorts, with informal learning featuring as most prominent among older adults. Figure 69 presents participation in different types of training for different age cohorts and labor market status. Participation in formal education is generally low (around 10 percent) and declines close to zero for people aged 50 and above. Non-formal education and training is the most prominent for most age cohorts, but participation drops significantly after the age of 55. As opposed to that, informal learning participation is almost as high for all age cohorts as that for non-formal training, and remains the predominant form of learning for adults above the age of 55, in particular for the inactive older individuals. While non-formal learning remained a prominent form of training for employed or self-employed, and even the unemployed, older workers (albeit less than their young counterparts), the most prominent form of training for inactive and retired adults aged 50-64 is informal training. Among those who are employed or self-employed, participation in non-formal and informal training does not seem to differ across age groups.

Figure 69: Informal learning is the dominant form of training among older workers

Participation in training, by age, 2011



Participation in training, by labor status, 2011



Note: Individuals may participate in multiple types of training.
Source: World Bank staff estimates using Latvia AES 2011.

Promoting adult education and training for older workers in Latvia will require a two-pronged approach—tailored programs and policies for older workers as part of a strengthened adult education and training system on the one hand and opportunities for longer working lives on the other. As highlighted in chapter 4, there is a concern that cyclical unemployment over time becomes structural due to skills deterioration among the longer-term unemployed aged "50+", which underscores the relevance of re-skilling and up-skilling especially for this group. This includes not just vocational and technical skills needed for certain tasks or occupations but also socio-emotional skills which can be reflected in adult education and training programs. Evidence on low motivation to seek training and poor employment prospects for older workers points toward the need to make training (and its certification) both accessible and worthwhile for workers. But it also suggests that policy levers to promote training of older workers are only partially in the scope of training policy, like making training provision and content relevant and tailored to older workers. For example, a key entry point for enhancing training opportunities for current cohorts of older workers may lie with encouraging more informal learning, which is most prominent among workers above the age of 50. The other part of the policy agenda is related to making longer working lives a reality by providing the right incentives to workers (e.g. related to early retirement) and to firms alike, in order to make training investments pay off in the eyes of workers and firms.

LIFELONG LEARNING AND ADULT EDUCATION AND TRAINING FOR OLDER WORKERS: POLICY OPTIONS

The demand for adult education and training is likely to grow over the coming years as Latvia's economy matures and the Government can actively shape this process. The positive correlation of training incidence and income per capita in the EU evident in Figure 67 suggests that adult education and training is likely to become more widespread in Latvia: It can be expected that a continuing structural transformation of the economy and skills-biased technological change over the coming years will trigger a growing demand for training by workers and firms. Given demographic pressures, this will likely extend to older workers as well. The Government both at national and local levels can shape this process by strategically developing a well-connected and inclusive adult education and

training system, including for the benefit of productive employment of current and future older workers. This includes the State Employment Agency which, due to financing of adult training programs and its direct interaction with employers and workers as well as training providers, is a key player on the emerging adult training market in Latvia.

Information gaps, inability to finance training and a lack of availability of programs suggest that Latvia's adult education and training system may not be functioning as effectively as it could, calling for Government intervention. Such barriers can be summarized into three broad categories: poor information (e.g. on employer skill needs, or the importance of socio-emotional skills or how they can be fostered through adult education and training interventions), weak incentives (e.g. to respond to employer skill needs) and low capacity (e.g. to respond to employer skills needs). These reflect what economists call "market failures"[76] and can lead to suboptimal outcomes in terms of a "disconnected" and non-inclusive adult education and training system in which in which individuals, firms and training providers make choices and act in isolation and do not sufficiently interact with each other. The result is less training activity than would be economically and socially adequate. Government intervention can address this by facilitating the flow of information, providing the right incentives to public and private education and training providers to be responsive to information and through carefully investing in raising their capacity. In order to maximize the potential for training to meet real labor market needs, the basic principle should be one of boosting the demand for adult education and training by workers and firms and incentivizing and capacitating the supply side (training providers) to respond. There are three broad categories of measures that the Government of Latvia can use to support the development of a well-connected and inclusive adult education and training system: coordination, financing and regulatory tools. The rest of the chapter will examine them in turn.

High income countries usually pursue adult education and training policies with two separate, but complementary, objectives which can be broadly framed around poductivity improvements and social inclusion. First, adult education and training policies can help promote improvements in productivity by skilling up the workforce or adjusting people's skills to improve their productivity in their jobs or allow them to move from lower productivity jobs or sectors to higher productivity employment. This type of adult education and training is aimed primarily at those adults in employment and happens at the initiative of either the individual or the firm. Second, adult education and training can help promote social inclusion by skilling up the out-of-work to facilitate their return to employment. This type of training is aimed primarily for the unemployed or the inactive and is typically initiated and funded by the public employment services (PES). Both objectives are relevant for prime age and older workers alike. However, as will be examined below, they have differing implications for government financing for the adult education and training sector.

Latvia's governing framework for adult education and training reflects the productivity and inclusion objectives. Latvia has been implementing adult education and training programs in line with both objectives, including with financing from the ESF under the financial perspective 2007-2013 and will continue to do so during the 2014-2020 period. For this purpose, the Government of Latvia has adopted a new governing framework for adult education and training consistent with the complementary productivity and inclusion objectives of adult education and training. Under a

[76] For a discussion of market failures in training see Bodewig and Hirshleifer (2011) and Almeida, Behrman and Robalino (2012)

Ministry of Education and Science-led national coordination council for adult education involving the sector expert councils (see below), ministries, social partners and representatives of planning regions, three ministries and their agencies are in charge of different objectives of adult education and training. The Ministry of Economy through the Investment and Development Agency is responsible for promoting firm-based training of employees (productivity objective). The Ministry of Welfare through the State Employment Agency and planning regions is responsible for supporting training for the unemployed and workers at risk (inclusion objective). The Ministry of Education and Science through the State Education Development Agency is in charge of promoting work-based training of employees to increase basic skills, computer skills, entrepreneurship skills and validation and certification as well as support to mobility.

Coordination

Effective Government intervention in adult training starts with coordination: The Government can use its convening power to create mechanisms at central and local levels to improve the flow of information and encourage coordination and cooperation between firms, industry associations and training providers. While a coordination mechanism at national level provides a forum for policymaking in adult education and training, there is an equally important coordination role at local and sectoral levels. Latvia's Education Law accords local government a responsibility in financing, providing (through municipal schools), and overseeing adult education. Following the recent reforms in vocational education and training in Latvia, local governments are now in charge of a greater share of vocational schools. In practice local government also has a role in coordination of adult education and training activities by serving as an information channel and convener of local business, employer representatives as well as schools and training providers to promote the matching of demand and supply in its territory (Cedefop, 2015). Some local governments have employed adult education coordinators among their staff for this purpose.

"Sector skills councils" have become increasingly common across OECD countries as forms of coordination and are typically led by either government or by sectoral employer representations. Their primary rationale is to bring together demand and supply side stakeholders in skills development to enhance cooperation. Since 2011 Latvia has created "sectoral expert councils" (SEC) in twelve sectors of the economy. The SECs operate under a joint secretariat consisting of representatives from the National Centre for Education, the Employers' Confederation and the Free Trade Union Confederation of Latvia and with financing from the European Social Fund (ESF)[77]. Amendments to the Vocational Education Law in 2015 provide a legal and regulative framework for SECs. The SECs' role is to promote cooperation between government, firms and employers' associations, chamber of crafts and trade unions in the area of initial VET. The SECs conduct research and forecasting, develop sectoral professional qualification structures and standards and contribute to developing the system for quality assurance, accreditation, examination and assessment of prior learning.

[77] The twelve sectors are tourism and beauty; chemical, pharmaceutics, biotechnology, environment; metalworking, machine building, mechanical engineering; textile, leather and leather; forestry and wood processing; building and construction; power; food processing and agriculture; wholesale and retail trade, commerce; manufacturing of electronic and optical equipment, ICT; printing and publishing industry, paper and products production, computer design; transport and logistics.

The development of Latvia's adult education and training system will benefit from a further strengthening the role of sectoral expert councils and leveraging the State Employment Agency. Latvia's State Employment Agency can play an important role in facilitating the flow of information on labor market needs between employers and providers at central, regional and local levels and champion the interests of older workers and job seekers. Moreover, Latvia's sector expert councils are still relatively young institutions. The next step is to strengthen them and to widen their focus towards the strategic development of adult education and training, including from the perspective of promoting skills development of older workers. They could also open up to the participation of key training providers or their representatives. While the SECs' initial and main focus is on initial vocational education and training, they can also expand their focus on continuing vocational training of adults. Lastly, local governments can also develop or strengthen their capacity to convene training supply and demand sides and promote local partnerships. This would require limited designated resources in local budgets or from ESF to ensure a minimum of staff and other resources, for example the recruitment of adult education coordinators, for coordination and partnership with businesses and providers.

Financing

Government financing is a key tool to promote adult education and training since it directly addresses one of the main obstacles to training – cost and affordability. Latvia has at its disposal both national government resources and financing from the ESF, which can be used to promote adult education and training and to strategically develop the system. The choice of financing tools should be guided by considerations about the risk of public funds replacing private investment and whether returns from investment are predominantly private or public. These vary for the productivity and inclusion objectives of adult education and training.

Financing the productivity objective

Adult education and training to promote improvements in productivity by skilling up the workforce is aimed primarily at those in employment and is initiated and funded either by the individual or the firm. Under this form of adult education and training private returns dominate in terms of increased wages and firm profits. As such, there is a strong case for such training to be financed primarily by firms and workers. Accordingly, Latvia's Labor Law makes it the firms' responsibility to pay for training initiated by them. Nevertheless, with cost among the major reasons for firms and individuals not to invest in training, the Government can use public financing strategically to incentivize more private investment by individuals and firms in upgrading their own or their workforce's skills. However, there is not a strong case for fully financing such training, as it might simply replace resources that firms and individuals might have anyway invested (economists call this a "deadweight loss"). While other countries are providing public financing for firm-based training of employed works, it usually comes with restrictions. For example, in Germany, only wider employability training (rather than employer or task-specific training) and accredited training is supported (EC, 2012p). In Lithuania in-work training can only be funded when redundancies are planned, and financial support is linked to employment guarantees (e.g., 12 months following training; EC, 2012j). Typical forms of "incentive financing" are tax incentives and co-financing or matching grants. Latvia already provides tax breaks for individuals and firms for training expenses

(including wages of workers while on training) which is in line with the principle of making adult education and training demand-led.

Expanding the use of training in small and medium-size enterprises may need to start by enhancing managerial and HR capacity in such firms. Small and medium size enterprises (SME) make up the bulk of firms in Latvia: Only about a fifth of people employed in the private sector are in enterprises with over 50 employees. Evidence from the 2010 CVTS suggests that Latvian firm with less than 50 employees are less prepared or les strategic on worker training than in neighboring countries. Among those firms with less than 50 employees that provide any kind of vocational training to their workers only 7 percent have a training planning or budget (see Table 11). This suggests the need to provide support to SMEs in building HR management capacities as part of Latvia's SME support programs. In Germany, the PES has been offering qualification counselling for SMEs to raise awareness of the value of strategic personnel development and on the job training, including of older workers (EC, 2012p).

Table 11: SMEs are less likely to have workforce training plans and budgets

Percentage of training enterprises with training plan and/or budget, by size, any type of training, 2010				
	Total	10-49 employees	50-249 employees	250 + employees
Latvia	10	7	20	56
Poland	10	5	22	60
Lithuania	14	10	29	61
Estonia	25	19	49	80
EU28	35	30	55	81
Finland	36	29	59	80
Sweden	53	47	78	90

Source: Continuing Vocational Training Survey 2010

Financing the inclusion objective

Adult education and training to promote social inclusion is aimed at skilling up the out-of-work to facilitate their return to employment. It is typically initiated and funded through active labor market programs (ALMP) by the public employment services (PES). For this kind of training the social returns dominate in terms of reduced social welfare payments and increased tax revenue. Also, the risk of deadweight loss is low. As such, there is a strong case for public financing for such training activities. In the EU, training activities for older out-of-work individuals are often integrated into complex programs for older or otherwise vulnerable workers (see chapter 4). Like increasingly across the EU, the use of a voucher system for training for the unemployed is widespread in Latvia and is in line with the principle of empowering the demand side. The effectiveness of voucher systems critically depends on the quality and accessibility of information, especially for disadvantaged job seekers (see Barnow, 2009, for US evidence). In Latvia individuals can choose from a list of training programs that were approved by the Training Commission which consists of representatives from the State Employment Agency, Ministry of Welfare and Ministry of Education as well as employer and employee representatives. This list is based on labor market forecasts and sector-specific employment and vacancy data and also draws on inputs from SECs. Information is accessible through the website of the State Employment Agency. Vouchers may also be less effective when the market of training providers is small, especially in remote and rural areas. This suggests that vouchers are a

more appropriate tool in urban centers of economic activity and may need to be accompanied with supply-side incentives in remote regions or through interventions that promote mobility to centers of economic activity.

Preventive education and training programs for older employed workers, which straddle the productivity and inclusion objective, are becoming increasingly prevalent across the EU. For example, Germany introduced a preventive program aimed at professional training for low skilled or older workers in small and medium sized companies (*Weiterbildung Geringqualifizierter und beschäftigter älterer Arbeitnehmer in Unternehmen*, WeGEbAU) in 2006. Recognizing that training of employed workers is the responsibility of firms and workers, the program provides financial incentives and not full financing of training and qualification activities (EC, 2012). It also aims at raising awareness among firms. Latvia has implemented preventive programs for workers at risk of losing their job. Funded with ESF 2007-2013 resources, a preventive program was implemented in 2009/2010 targeted to vulnerable workers, including those in part-time employment, on short working hours and with short tenure in the job. An economic crisis response measure at the time, it generally points in the direction of proactively and early identifying training needs of vulnerable workers, especially older workers, to invest in their skills and help them retain their productivity and labor market readiness. In another program also funded from the ESF between 2010 and 2014, employed and self-employed workers above the age of 45, and vulnerable workers below that age, were entitled to career counseling and a training voucher to be used for pre-approved training programs. There are plans to continue preventive lifelong learning programs for persons at risk of unemployment which balance public and private financing through co-financing arrangements.

Drawing on such experience, Latvia could use EU financing in the 2014-2020 financing period to conduct experiments and evaluate them rigorously. Such experiments of different types of interventions both in pursuit of the productivity and inclusion objectives would contribute to better knowledge of how to promote adult education and training in different contexts in Latvia, including for older workers. This can include stand-alone adult education and training interventions and skills development as part of complex activation programs targeted at older workers. EU financing can also be used to stimulate and incentivize innovation on content and delivery. Ideally, experiments should be underpinned by a rigorous evaluation following treatment and control principles.

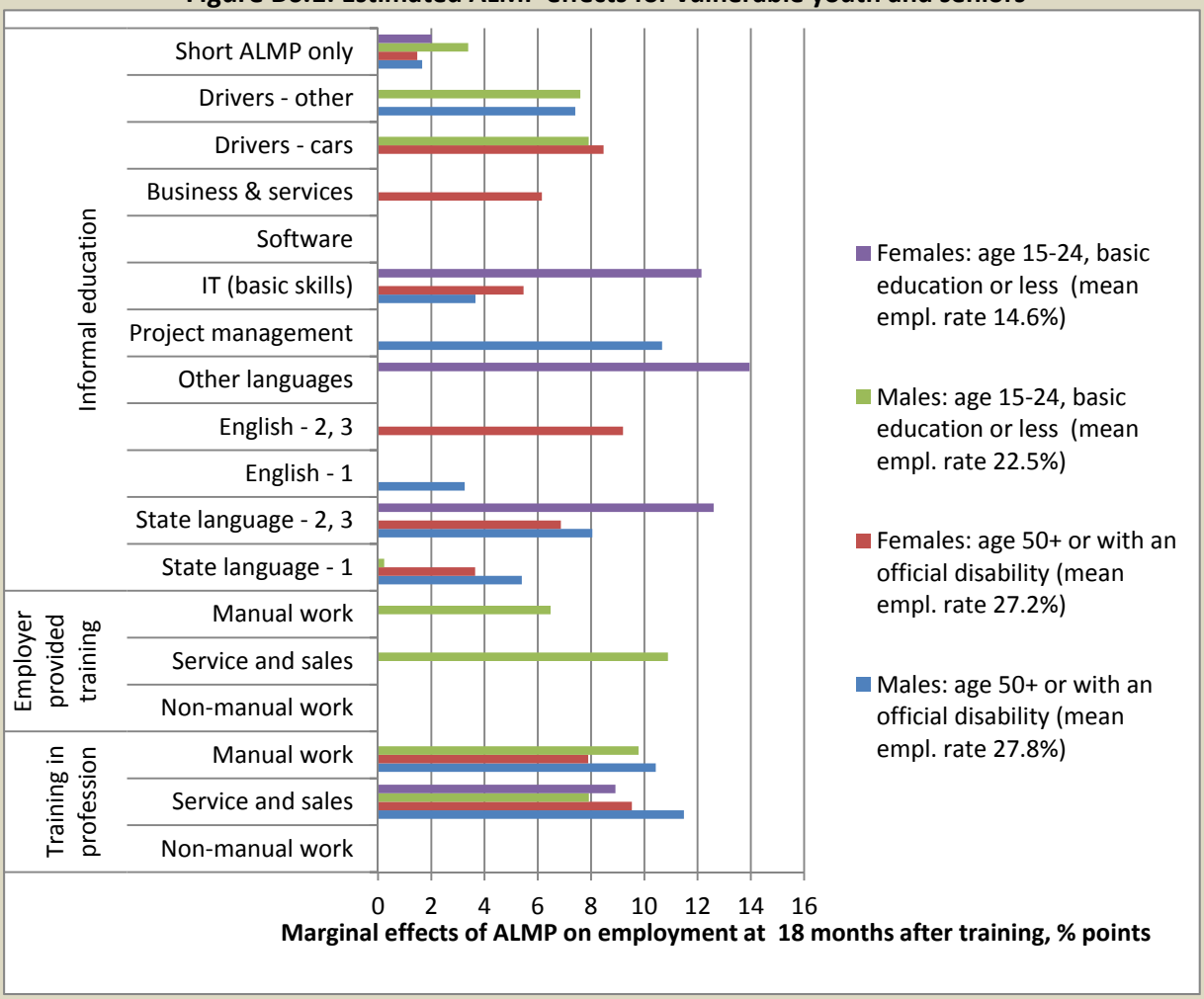
It could involve efforts to include socio-emotional skills elements in the curriculum of adult education and training programs, for example to foster openness to experience and confidence for long-term older unemployed. Ideally, experiments should be underpinned by a rigorous evaluation following treatment and control principles. The area of adult education and training offers plenty of opportunity to pilot test and evaluate new approaches to learning content and delivery. For example, Box 8 summarizes recent evaluation results of training programs for unemployed workers, including of older age, which can inform further design of training interventions.

Box 8: Evidence on effect of training programs for older unemployed workers in Latvia

A recent evaluation of active labor market programs (ALMP) in Latvia during 2005 and 2012 linking State Employment Agency administrative records, State Social Insurance Agency records and Population Registry records provides interesting lessons for the design of adult education and training programs for older workers (Hazans, 2013). The evaluation included three main

types of training: (i) occupational training (43 narrow programs); (ii) informal education programs (classroom training aimed at enhancing universal skills and competences, e.g. language skills, IT skills, project management or driving; 18 narrow programs distinguished by content); (iii) employer-provided training (training in a profession at an employer's firm; 13 narrow programs). The study findings suggest that occupational training and informal education programs for unemployed significantly improve participants' employment rates—both soon after training completion and in the medium term, but with substantial variation in terms of efficiency between and within types of programs. Effects on earnings are either non-significant or slightly negative for classroom training and highly negative for employer-provided training programs. The participants of employer-provided training who retain their jobs receive much lower wages than otherwise similar participants of other programs or non-participants. These programs also do not show a long-term effect on employment for women.

Figure B6.1: Estimated ALMP effects for vulnerable youth and seniors



Source: Hazans (2013). Note: Estimated ALMP effect on employment rates 18 months after completing training (or short ALMP measure). Only statistically significant effects are displayed. For those who have not participated in ALMP, the 18 months horizon is measured since being granted status of registered unemployed.

The study also identified the best-performing programs for men and for women in general, as well as for low-educated youth and unemployed aged 50+ with disabilities (see Figure B6.1). It finds that classroom-based training in occupations related to services and sales and in manual jobs improves employment prospects of older unemployed men and women with disabilities. By contrast, occupational training in non-manual professions does not seem to have any significant employment effects. Acquiring IT or state language skills through informal education programs significantly improve employment prospects of unemployed older men and women. In addition, older women benefit also from English language programs (levels 2 and 3) and from obtaining a car driving license (perhaps because this increases their mobility and enlarges the pool of accessible jobs). Finally, obtaining driving permits for passenger or freight transport or industrial vehicles appears to be helpful in finding (and keeping) jobs for older men.

Source: Hazans, M. (2013), Background study for the World Bank project "Latvia - Who is Unemployed, Inactive or Needy?", mimeo

Regulation

Latvia is at an advanced stage of developing its regulative framework for adult education and training and the challenge is to make it relevant to the needs of older workers. Latvia's regulative framework consists of a National Qualifications Framework (NQF), professional qualifications levels and occupational standards, policies on the recognition of prior learning and quality assurance mechanisms (Ministry of Education and Science of the Republic of Latvia, 2012). As it further develops these tools and makes use of them, the authorities need to make these tools accessible and relevant for the needs of older workers and use them to steer the system in the direction towards greater openness to the needs of older workers. For example, developing the recognition of prior learning through informal and non-formal activities should be a priority in light of the relative importance of informal learning among older workers. Given the general low motivation of older workers to seek training, the benefit of seeking training and obtaining a recognition of qualifications needs to be obvious in terms of increased employment opportunities in a more inclusive labor market. As highlighted in Chapter 4 on Productive Aging, the need for re-skilling and up-skilling is especially acute among the long term unemployed older workers who may enter structural unemployment due to the deterioration of skills. Given their importance for labor market success, efforts should be made to reflect socio-emotional skills in adult education and training program design.

Financial incentives to public VET schools and universities to enter the adult education and training market need to go hand in hand with regulative measures. These include ensuring autonomy of schools and universities to develop and offer adult training programs as well as to encourage a greater orientation towards labor market needs. In addition to universities, Latvia's 14 newly created vocational education competency centers (VECC), which are expected to offer continuing education and other services, could be a priority vehicle to strategically expand adult education and training programs in partnership with local governments, the SEA and SECs over the coming years. Amendments to the Vocational Education Law in 2015 have introduced advisory bodies ("convents") in each VET institutions consisting of local and central government as well as employer representatives which can make proposals on the development of the school and linkages with local enterprises.

TRADE-OFFS AND PRIORITIZATION

Adult education and training is an important part of the policy tool-box to promote active aging in Latvia. But its strategic development may involve trade-offs both in terms of the policy focus of central and local government and the use of national budget and ESF resources. For example, should the priority be to invest in the training of the stock of current older workers or the flow of future (older) workers, like preparing the younger generations with the right cognitive and socio-emotional foundation skills and investing in training today's prime age adults to ensure that they remain productive? As shown in Figure 66 at the beginning of this chapter, training participation is relatively low also among younger and prime-age workers in Latvia. Equally, should Latvia emphasize the productivity or social inclusion objective of adult education and training, i.e. emphasize training of the out-of-work (older) population or training of the employed? Or should it pursue preventive approaches which incentivize firms to retain and train older workers? Lastly, should different types of out-of-work individuals, as identified by the profiling exercise of the out-of-work in this report, be prioritized over others?

6. Economically Secure Aging

This chapter examines the relevant issue of economic security at older ages in Latvia. For that purpose, it reviews the incidence and risk of poverty and vulnerability among current and future cohorts of older people in the country, and their main sources of income. Wages, pensions, family support and social assistance all play a relevant role for the elderly, and, as highlighted in Chapter 4, often interact with the incentives of older people to stay engaged in the labor market.

POVERTY AND VULNERABILITY

Within the "50+" group, the risk of poverty[78] is lower among the retirement-age population compared to the 50-59 year old pre-retirement group. Among adults, the risk of poverty is highest for individuals in their 50s, while individuals who are 65 years and over are less vulnerable to poverty than the total population, and—with the exception of 25-29 year olds—any other population groups (Figure 70). Longevity does not increase the risk of poverty. Severe material deprivation indicator,[79] however, being the lowest at age 25-29, grows gradually with age reaching the highest level among individuals of retirement age, reflecting their inability to afford basic durables or limited ability to pay for adequate housing; the indicator decreases a bit for the oldest-old (individuals aged 80 and above).[80] Compared to most other EU countries, Latvia's incidence of material deprivation is higher at all ages given Latvia's lower per capita income levels. Still, there is a share of the population who are retired and face low incomes. In 2014, of all the needy people, 10.9 percent were retired people whose income was below the national needy line of 128.06 euro (comprising 0.6 percent of total population).

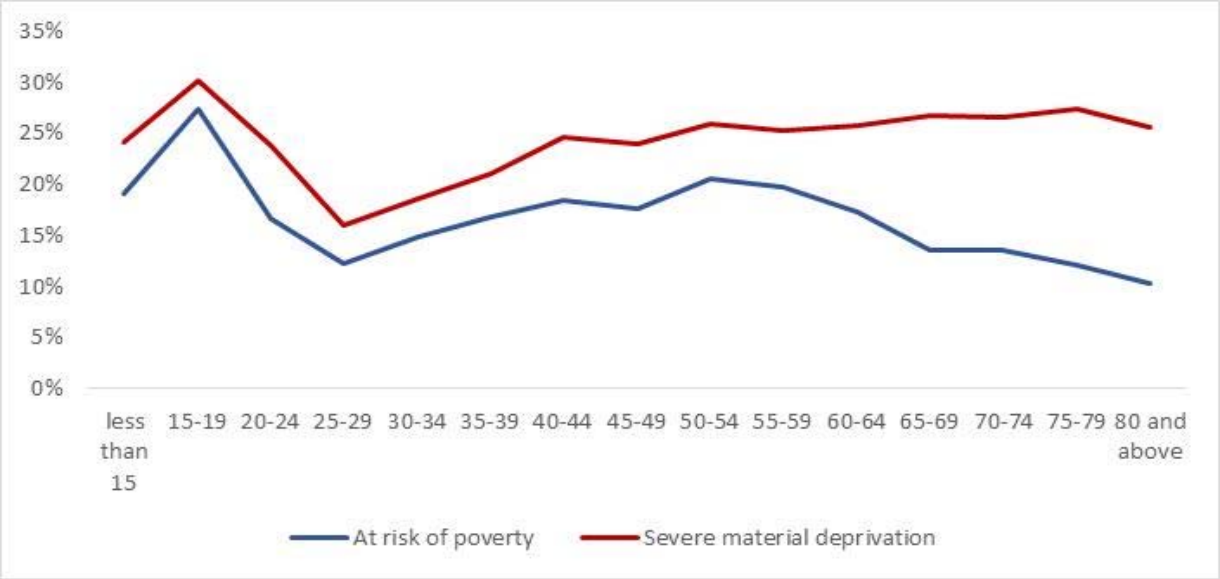
[78] The EU uses the measure "at risk of poverty," which is defined as having incomes that are less than 60 percent of median adult equivalent income.

[79] The severe material deprivation indicator is defined as the percentage of population with an enforced lack of four out of nine material deprivation items in the 'economic strain and durables' dimension. For a definition see: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_material_deprivation_by_dimension

[80] Eurostat assesses housing quality along the following dimensions: (a) leaking roof / damp walls / floors / foundation or rot in window frames; (b) accommodation too dark; (c) no bath/shower; (d) no indoor flushing toilet for sole use of the household.

Figure 70. Poverty in Latvia is lower for older age groups but severe material deprivation is high for the oldest-old

Monetary and non-monetary dimensions of poverty by age group, 2012

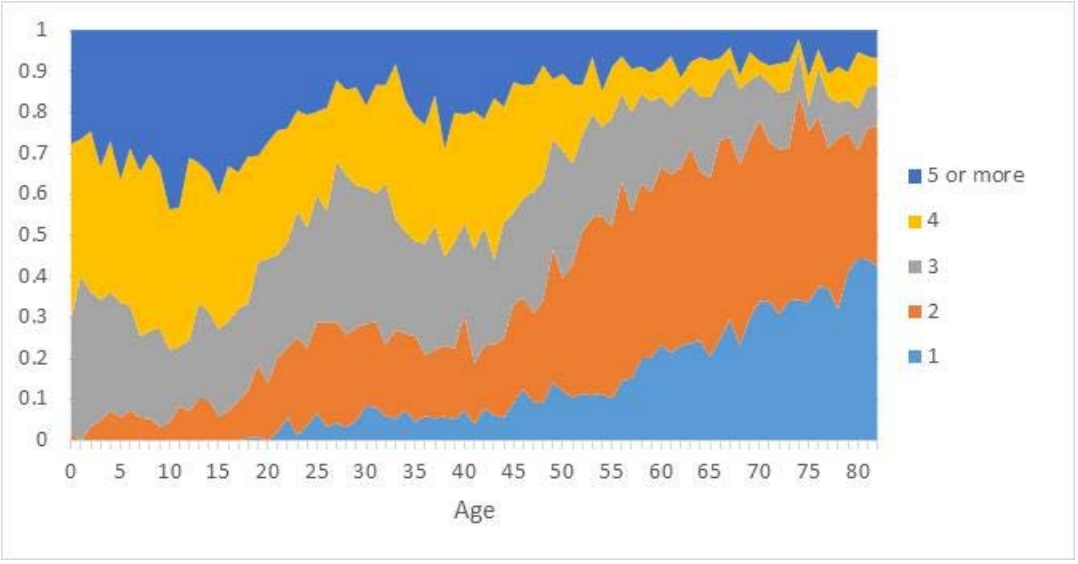


Source: National EU SILC. Year 2013.

Older households are smaller and more likely to be female-headed, which is correlated with higher likelihood of poverty. Figure 71 shows household composition in Latvia**.** For adults aged 65 years or older, over 70 percent live in households with only one or two members. A large share of single-member older adult households consist of widows or single females, as men over 65 are more likely than women to be living with a partner. Widows are at a higher risk of poverty, as they are more likely to be in a disadvantaged position, which may be at least partly related to the early death of their husbands.

Figure 71. Latvia: Older households have fewer members

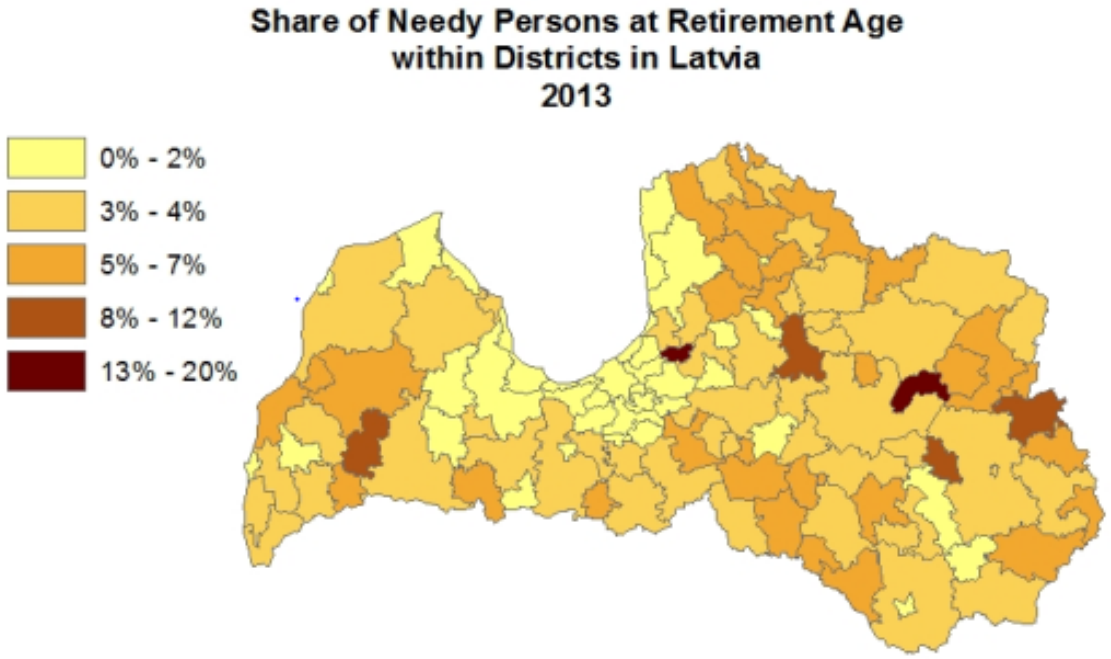
Household composition by age



Source: National EU SILC. Year 2013.

Spatial differences in old-age poverty are also considerable. It is not possible to get a disaggregated view on poverty by municipality from household survey data due to sample size issues. However, administrative data from the Ministry of Welfare is available on individuals of retirement age who are defined as needy based on the national needy line. Figure 72 shows a 2013 map of the needy share at retirement age by municipality. There are large differences in this share, from a very low incidence of neediness in the republican cities to higher rates in outlying municipalities—the needy rate ranges from 1 percent in Liepaja city to 22 percent in Incukalna novads. The poorer parts of the country have the highest share of needy older adults. The east of the country has a number of municipalities with high needy rates for older people. Rezekne city in Latgale has the highest neediness rate among retirement age people at 6 percent. The west of the Vidzeme region also has a number of municipalities with high needy rates.

Figure 72. Latvia: Large spatial inequality in poverty among older adults



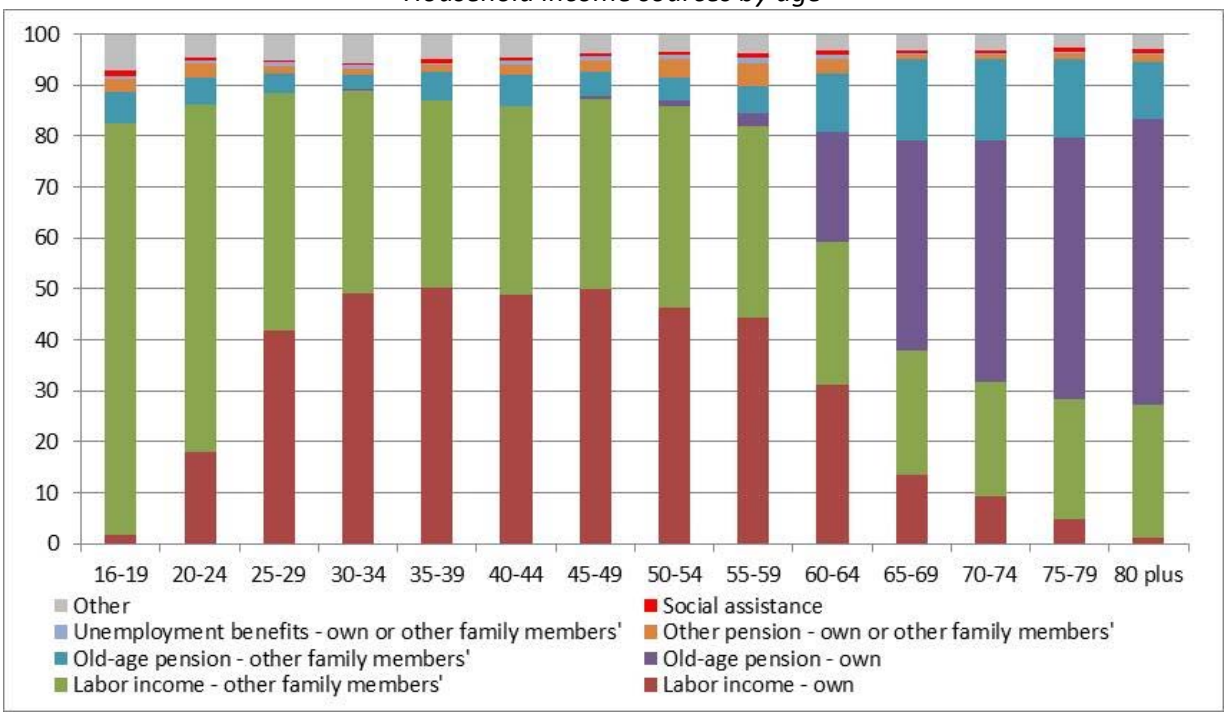
Note: As measured by national needy line. Division into low to high needy groupings based on Jenks' Natural Break algorithm, which are based on natural groupings inherent in the data. Class breaks are identified that best group similar values and that maximize the differences between classes. The features are divided into classes whose boundaries are set where there are relatively big differences in the data values.
Source: Based on administrative data.

Labor earnings and old-age pensions comprise the household incomes of the "50+." Labor income makes up 84 percent of the household income for those aged 50-54, this decreases to 81 percent for the 55-59 age group and 57 percent for 60-64 year olds. From the mid-50s onwards, old-age pensions contribute a larger share to household income, with the share climbing from 7 percent for 50-54 year olds to 9 percent for 55-59 year olds to 35 percent for 60-64 year olds and to more than a half of the total household income for older age groups. Other social insurance benefits prior to retirement mostly represent below 5 percent of income across age groups; the share is highest for 55-59 year olds at 6 percent and diminishes for older age groups. Social assistance is small for all age groups, and substantially contributes to income only for short episodes of need for a low proportion

of the population (Figure 73).

Figure 73. Labor income and pensions dominate as income sources for the "50+"

Household income sources by age



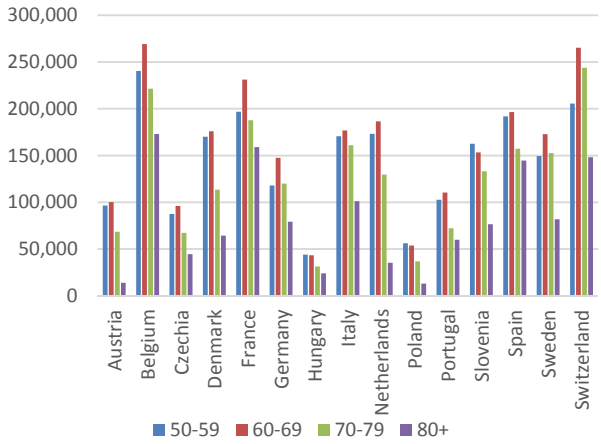
Source: National EU -SILC. Year 2013.

Households have limited ability to fund old age from accumulated assets. Given low income levels, savings are low[81] and apart from labor income, the "50+" rely on government transfers for income. While wealth data is not available for Latvia, information for Poland (which is similar in terms of the level and trajectory of household income) from the Survey of Health and Retirement in Europe (SHARE) show that the "50+" do not hold significant assets and thus have limited ability to support themselves after retirement (Figure 74).

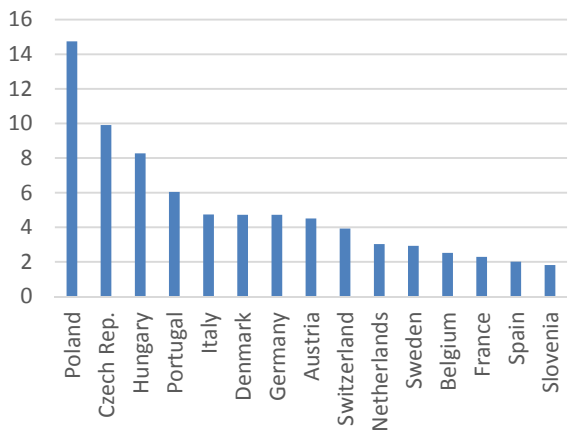
[81] Bičevska, Meļihovs and Kalnbērziņa, 2009.

Figure 74. In comparable countries, the "50+" have had fewer opportunities to accumulate wealth

Panel A: Median net worth by age group, in absolute numbers



Panel B: Share of households with zero or negative net worth



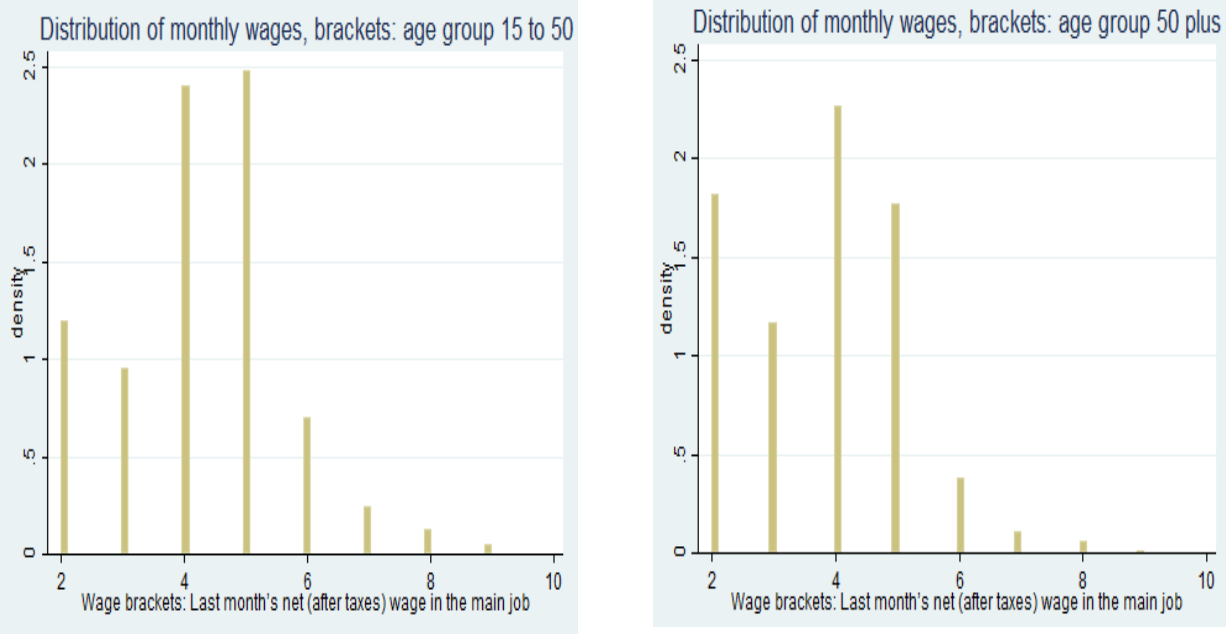
Note. Net worth is the sum of net real assets and net financial assets. Panel (a) shows household median net worth in Euro, 2005 PPP. Since the CPI, which is used to measure PPP, does not take into account changes to asset prices (only goods and services), deflating asset prices by PPP, is not an accurate representation of the real value of assets across the countries. Ideally, one should deflate physical assets such as houses by an index of asset prices.
Source: Based on SHARE, wave 4.

WAGE INCOME OF OLDER WORKERS

Wages are lower and more compressed for older workers than for the young. Figure 75 shows the distribution of wages for wage-employed "50+" workers and for those younger than 50. To investigate the association between wages and age, analysis was done using the 2013 LFS and controlling for a wide set of individual characteristics such as education, experience, and sector of employment. The findings are that the wage-age relationship shows an inverted U-shaped pattern (Figure 76). If an individual is younger than 50, comparing two workers with different ages and controlling for many observable characteristics, being older is associated with higher wages. This relationship reverses for individuals above the age of 50: for them, being older implies having a lower wage. The negative association between wages and age for older workers could be a result of age discrimination or lower productivity.

Figure 75. Wages are lower for the "50+"

Monthly wages, by age group



Wage income per month:

Wage bracket 2: *Up to EUR 253.27*

Wage bracket 3: *EUR 253.28–284.57*

Wage bracket 4: *EUR 284.58–426.86*

Wage bracket 5: *EUR 426.87–711.44*

Wage bracket 6: *EUR 711.45–1067.15*

Wage bracket 7: *EUR 1067.16–1422.87*

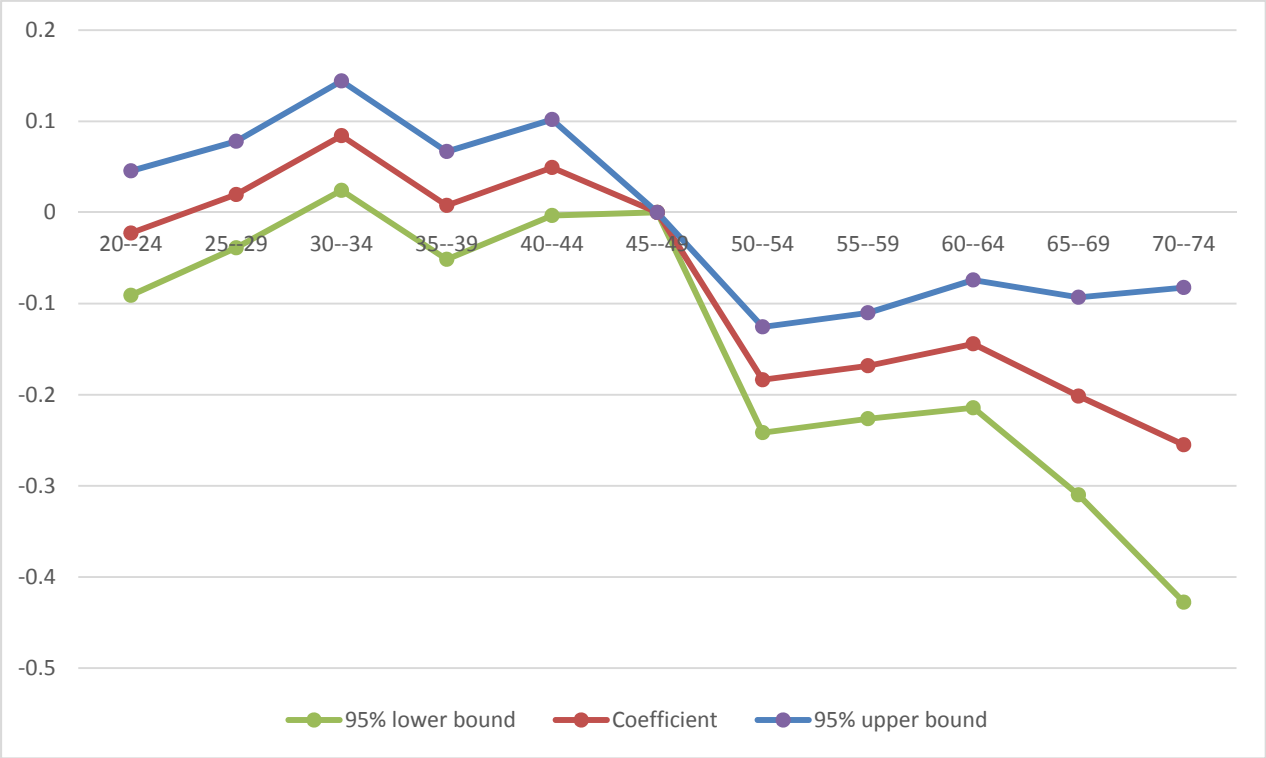
Wage bracket 8: *EUR 1422.88 –2134.31*

Note: Wage income is grouped into categories.

Source: Based on LFS Latvia 2013.

Figure 76. The age-wage relationship changes after age 50

Estimated age-wage relationship for all age groups, male, full time



Note: Based on estimated Mincer equation for all age groups using an interval regression approach with wage (logarithm) as dependent variable. Controls were added for individual-level characteristics. See Annex 6 for the full results (including for females and for part-time workers).

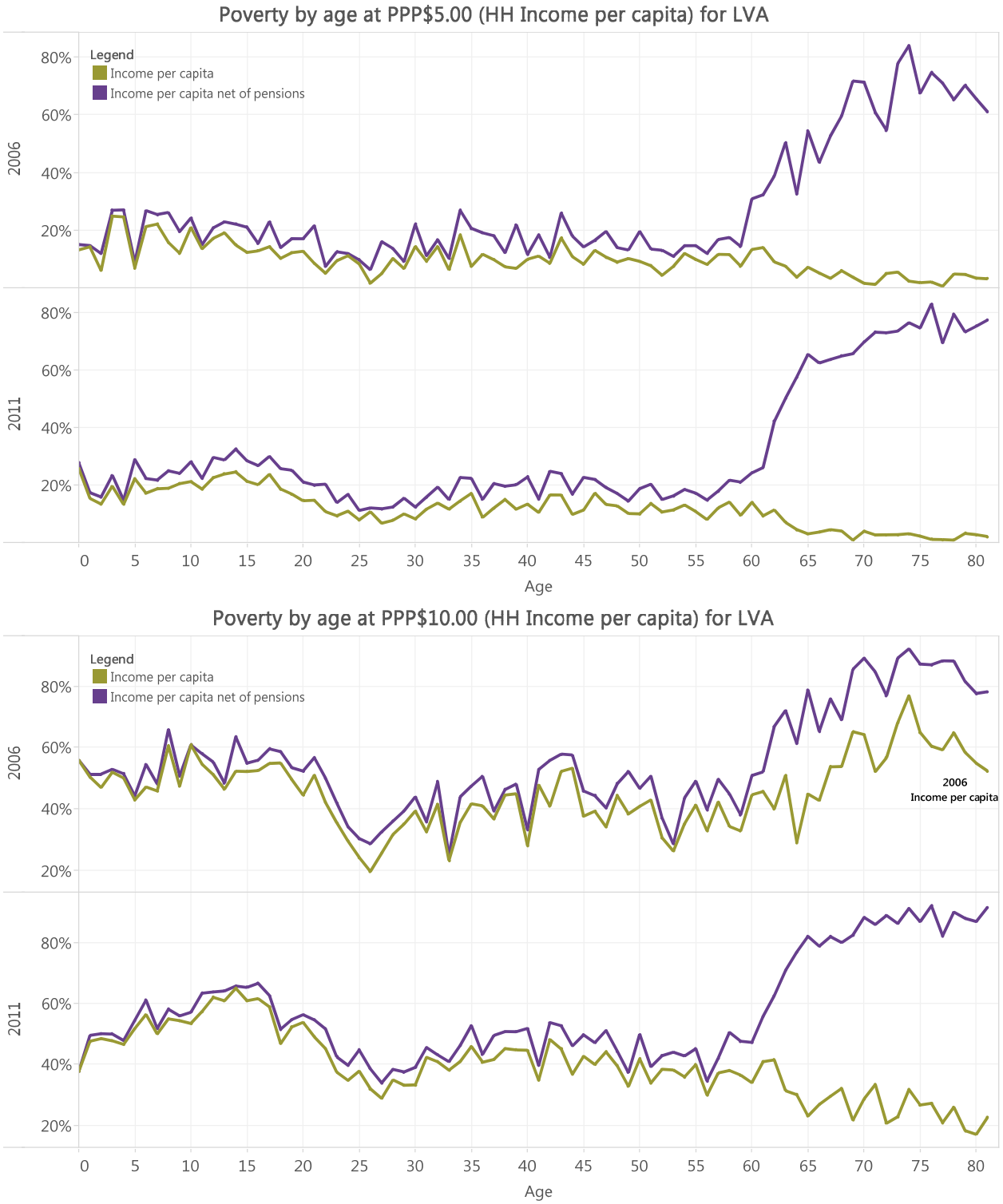
Source: Based on LFS Latvia 2013.

PENSIONS

Pensions contribute substantially to poverty reduction for the older segment of the "50+" population. Measured on a per capita basis with a 5-dollar-a-day threshold, old-age poverty is low when compared to early childhood poverty, and has seen a steady pace of reduction since before the 2000s in Latvia (Figure 77).[82] The lower rates of poverty after retirement age are consistent with the pattern seen in other EU countries reflecting the protective role of pensions. However, 12.3 percent of all pension recipients currently have pensions below the poverty/needy line (128 EUR) and 36 percent of 65+ are "at risk of poverty or exclusion" (AROPE) (EU28 average is 18 percent), and government projections show these rates could rise in the future. There is also concern about pension adequacy for disability pensions, with 47.7 percent of disability pensioners currently falling under the needy income level.

[82] See Strokova and Damerau (2013a) for an analysis of social protection program spending and performance in Latvia.

Figure 77. Pensions play a strong role in reducing poverty for older age groups

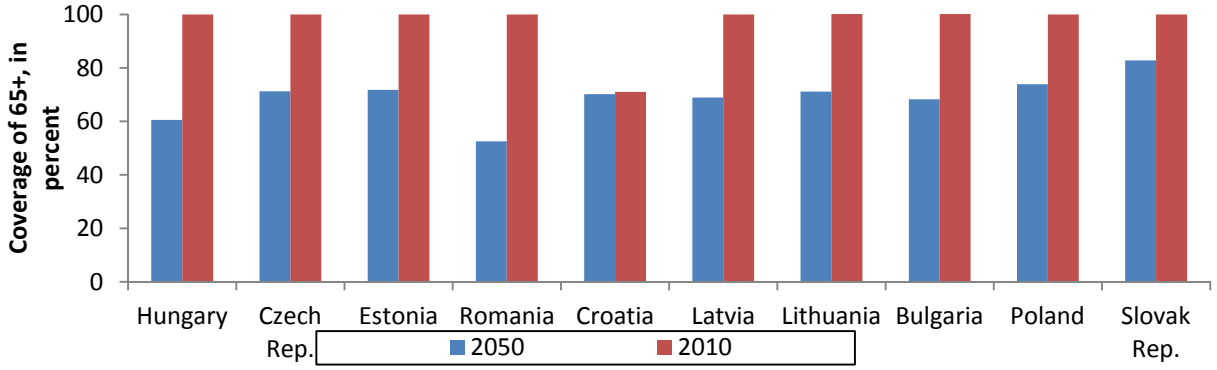


Note: Poverty based on income per capita, with and without pensions/old age benefit.
Source: ECAPOV.

Future pension adequacy and coverage are a concern. The low poverty risk for the retirees is due to the relatively uniform wage histories of current pensioners, *ad hoc* redistributive measures applied at different times to raise incomes of the current pensioner population, and almost universal pension coverage at older ages. Pension coverage and generosity is set to fall in the future and the low poverty rates among pensioners today may not persist, in the absence of changes to the pension system. Figure 78 shows the percentage of elderly who are currently collecting regular pension benefits and projections based on current social insurance contribution patterns of the percentage of elderly who can expect to collect benefits in the future. This outlook appears to have improved slightly over the past few years. According to government statistics, the percentage of the pension-age population who will qualify for contribution-based pensions is projected to fall in Latvia. Overall pension coverage of the working age population in 2013 was 78 percent, and about 85 percent of prime-age contributors (35-40) were covered, so at least 15 percent-20 percent of future elderly workers are likely to be uncovered.

Figure 78. Pension coverage is set to fall based on current contribution patterns

Share of older people receiving social insurance benefits



Notes: Future coverage of elderly (65 and over) in the pension system is based on pension system contribution patterns of the current working-age population. Higher rates of labor market informality compared to the pre-1990s along with stricter contribution requirements (higher retirement ages, longer length of service requirements) contribute to reduced participation in the pension system of current working-age population compared to pre-transition.
Source: Extracted from Figure 3.26 in Schwarz,et al (2014).

In addition to coverage issues, a large share of the employed who are covered earn low wages and therefore, will build up low future benefit levels. Already income dispersion of new retirees is much higher than that of the whole pensioner pool due to increasingly dispersed wage histories and pension system rules that tightly link benefits to contributions.

Benefits will likely also decrease as a result of the design of the Notional Defined Contribution (NDC) benefit formula. NDC plans are designed to automatically and gradually reduce benefits over time in order to maintain the fiscal sustainability of the social insurance system. In the Latvian NDC program, if the size of the labor force and number of contributors declines, and this leads to a reduction in the total wage fund, then application of the NDC indexing factor would result in a reduction in the size of account balances. At the same time, if life expectancy increases, it will increase G-factors and further reduce benefits. This reduction could be partially or fully offset by an increase in retirement ages, which should lead to more years of notional account contributions and lower G-factors.

Another concern is that in 2010 a new tax regime for microenterprises was adopted, which reduced taxation including social insurance contributions. Given that 20 percent of private sector employees[83] are now microenterprise workers, the concern is that these workers may have much lower entitlements for pensions as well as other social insurance benefits such as unemployment. The plan is for the tax rate on microenterprises to be gradually increased starting in 2016 if no separate mandatory social contributions are introduced for microenterprise employees. As the change to the microenterprise regime is being designed, it will be important to ensure it takes into account whether microenterprise employees will be making adequate contributions for pensions and other entitlements.

Based on current pension system parameters, fiscal spending on pensions is projected to decline over time in Latvia. As in Bulgaria, Croatia, Estonia, Hungary, Poland and Romania, pension spending in Latvia is projected to decline over 2013-2060 in the European Commission's 2015 *Ageing Report.* Public spending on pensions is projected to drop by 3.1 percentage points of GDP by 2060 (from 7.7 percent of GDP in 2013). However, as noted in the 2015 EU Ageing report, these results assume current pension system design does not change in the future. The report also notes that, "If pensions are being perceived as being 'too low' or the retirement age 'too high', this could eventually result in changes in pension policies, leading to upward pressure on pension spending, and the projections could thus underestimate future government expenditure." Consequently, political pressures could easily cause public pension spending to be higher than shown in the report.

The social insurance budget is in surplus. Total social insurance contributions stand at 34 percent (of gross wages), only 20 percent of which is allocated to notional pension accounts and to the second tier, with the rest covering other social insurance programs. Declining fertility and falling unemployment will likely lead to significant surpluses in maternity, child allowance, and unemployment spending. At the same time, pension rights accumulation is projected to decrease in the future if left unchanged. These surpluses from the non-pension insurance programs could be used to make improvements to the pension system to help prevent poverty among future pensioners and to increase the overall expected replacement ratios under the program. However, in order to do this, these surpluses must be saved and not be used for other *ad hoc* spending proposals. This is often politically difficult as there may be pressure to use the surplus for current spending rather than saving it for many years in the future. Even though there is a single social insurance fund, it would be useful to consider maintaining sub-accounts that clearly show the financial position of each of the programs in the social insurance fund. This would increase system transparency and understanding, and help strengthen the argument for accumulating a demographic reserve for future pension system needs.

The Latvian government is considering options for reforming the pension system. To the extent the government of Latvia's policy focus shifts toward providing minimum income through the pension program, the government may need to introduce more redistributive elements into the pension system. This could be accomplished in several ways, such as: (i) by establishing a basic pension financed from the general budget; (ii) via additional government contributions of flat amounts to all active social insurance accounts; or (iii) by changes to the minimum pension.[84] The challenge is how

[83] (Insert source from Ministry of Welfare)

[84] These reforms are also consistent with the main messages of the recent World Bank publication "The Inverting Pyramid" Schwarz et al (2014).

to put in place a system that ensures adequate coverage and pension levels, while preserving incentives for social insurance contributions by maintaining the link between contributions and benefits.

The cost of social/redistributive pensions will depend on eligibility conditions, the size of the minimum income guarantee, and the manner in which the benefit is indexed following retirement. The fiscal space for a redistributive pension component could be obtained from a number of sources, for example: (i) it appears that some components of the social insurance fund have surpluses. To the extent this can be affirmed, contributions being used to finance these programs could be redirected to pensions; (ii) changes in pension system design to focus more on poverty prevention and less on income replacement by introducing more redistributional elements and reducing the allocation to NDC; (iii) change in the method of indexing pensions following retirement. For example, indexing to inflation only rather than a combination of inflation and wage indexing; (iv) re-examination of disability and early retirement pensions. It is important to make sure the pension system provides adequate disability benefits, but does not create moral hazard by providing incentives to seek disability retirement as a substitute for old age retirement. While early retirement provisions in the Latvian system have been reduced and the age for early retirement is being increased, 22 percent of all new pensions in the first half of 2014 were early retirement pensions and certain groups still retain the right to retire early without reduction in benefits; (v) reallocation of general budget revenues.

In order to examine these design and financing issues, updated projections of demographic, labor market and macroeconomic conditions and expectations, as well as updated long-term projections for the pension system that reflect its current status, are needed to develop evidence-based policy and examine potential design and financing options.

CONCLUSIONS AND POLICY DIRECTIONS

Poverty is lower for older relative to younger age groups, though incomes are generally low for the "50+". Given the low savings of the current "50+", labor income is the dominant income source for the pre-retirement age while post-retirement age adults rely more on pensions. The post-retirement age group is less vulnerable to poverty than the pre-retirement "50+" (and other age groups) due to pension transfers. Still, many pensioners have low incomes. In general, the "50+" have relatively low incomes, given the lower incomes in Latvia compared to most other EU countries and the lower wages of older workers. The prevalence of small households (single or two adults) among the "50+" reduces the possibilities for income (and risk) pooling and increases vulnerability.

Pensions currently reduce poverty for the older segment of the "50+," but the future of the protective function of pensions is in doubt. The currently low incidence of poverty among the elderly is due to the relatively uniform wage histories of current pensioners, *ad hoc* redistributive measures applied at different times to raise incomes of the current pensioner population, and almost universal pension coverage. However, income dispersion of new retirees is much higher than that of the whole pensioner pool due to increasingly dispersed wage histories and pension system rules that tightly link benefits to contributions. Future pension adequacy and coverage are thus a concern. In two to three decades, up to half of the elderly are expected to fall below the needy poverty level unless significant changes are applied to the pension system.

The evidence is that social assistance recipients represent a small share of the pre-retirement age population and that most of those that do benefit receive benefits for a short time. As observed in Chapter 4, unemployment is the main social insurance benefit used by pre-retirement age people with employment difficulties; social assistance has low coverage. In the recent labor market turmoil, a large share of the pre-retirement age adults who lost work stayed on unemployment insurance benefits for the maximum possible benefit period. But unemployment benefit incidence has been falling as the labor market recovered and also because some of the out-of-work have used up their entitlement. Concurrently, there has been increasing flow into disability benefit program. Social assistance plays only a minor role in covering those who do not qualify for unemployment insurance. The last-resort social assistance program in Latvia—the Guaranteed Minimum Income (GMI) program—has low coverage, with only 6 percent of the pre-retirement age group receiving GMI at least once, and with those who did benefit from GMI spending a short time (1-3 months) on benefits, and using GMI support only once or twice between 2005 and 2012. Apart from social assistance and unemployment benefits, the most vulnerable "50+" largely rely on family support.

Income is not the only factor to be taken into account when assessing old-age poverty and well-being. Income poverty in fact does not reflect other changes such as loss of wealth and assets, and declines in physical and mental health, measures of life satisfaction, and/or subjective well-being that might affect individuals' assessment of their own poverty status.[85] In Latvia, poor health makes the older population vulnerable to shocks as their health deteriorates alongside their income generation capacity. The consequences of these shocks might lead to early retirement (for those who have not yet done so), loss of additional labor income after retirement, spikes in consumption of certain items, as well as loss of wealth and savings depletion.[86]

[85] Adena and Myck (2013) find that individuals 50-64 who rank higher in subjective measures of poverty have a higher mortality probability than those with low subjective poverty levels.

[86] Lee et al. 2010.

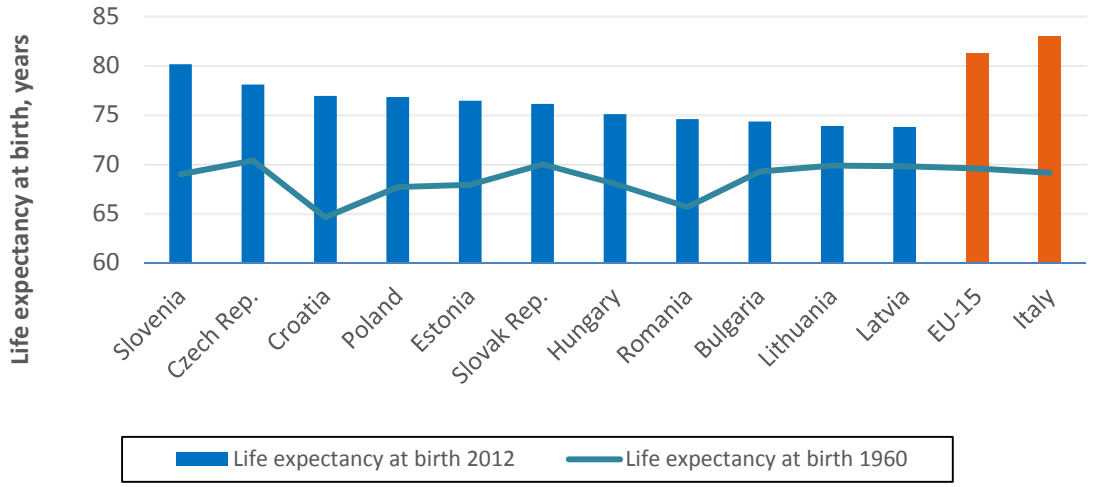
7. Healthy aging

Aging in good health is among the largest challenges faced by Latvia, as the country features as the worst performer in this category among EU countries. Good health is a necessary pre-condition for quality of life in old age. In addition, and as seen in chapter 4, health status and disability are central correlates of labor supply in old age, while employers tend to hold prejudices against older people´s capacity and productivity in connection with potential functional limitations. The adequate extension of working lives will therefore largely depend on how healthy Latvian people age in Latvia in the future. This chapter covers various aspects of healthy aging. The first section reviews mortality trends in the entire population and among the middle-aged. The second section analyzes morbidity as an obstacle to active aging. The third section considers the avoidable risk factors and related changes among the middle-aged cohort in Latvia. The last section concludes shortly and summarizes the policy options that Latvia might consider to improve the health system performance in ensuring healthier aging.

INTRODUCTION

Health indicators from the middle-age onwards in Latvia lag well behind the EU average. There is a wide gulf between life expectancy for males and females, with too many men dying at relatively young ages. The population over 50 is more likely to spend more of their remaining life in sickness and disability than in good health. Ill-health and premature death imposes high economic costs. Prolonging lives and making them healthier goes beyond the possible contribution to the economy of the potential for increased labor market participation and lower health care costs, but in itself is necessary for the population to reap the benefits of longer lives. For instance, people in Italy—another aging EU economy—have gained fourteen years of increased life expectancy since 1960 compared to just four in Latvia (see Figure 79).

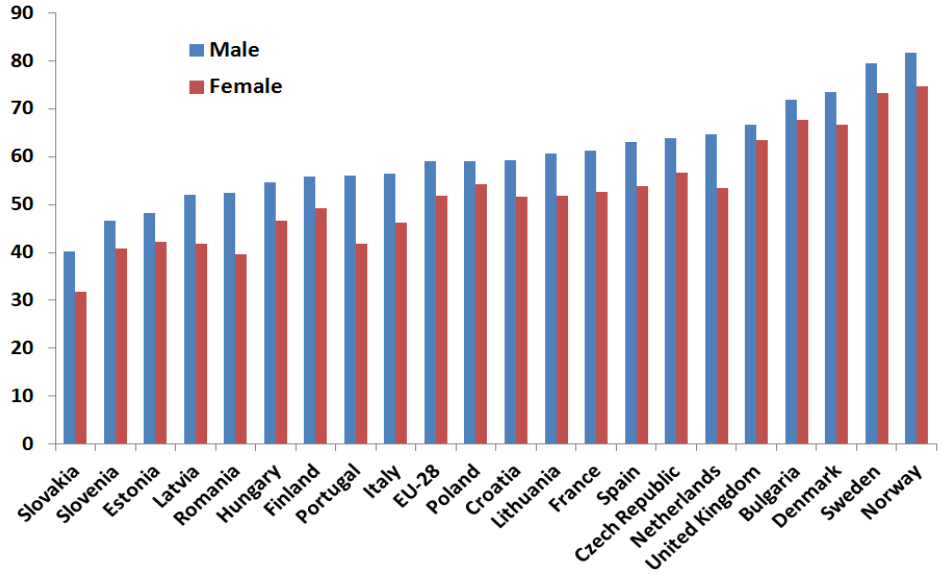
Figure 79: Life expectancy at birth in 1960 and 2012



Source: Based on World Bank's World Development Indicators.

Healthy life expectancy[87] estimates how many years of life people live in a "healthy" state. The measure is closely related to the quality of life. Poor health is also expected to adversely affect an individual's productivity in the labor force. Latvia faces the lowest healthy life expectancy among the EU member states: At existing rates of morbidity and resulting functional limitations males at birth on average are expected to enjoy only 51.7 years of active life, while females would live on average 54.2 years without activity limitations (Eurostat data). Middle-aged Latvians can expect to live less of their remaining life in relatively good health than their counterparts in most other EU member states (Figure 80). Males aged 50 and over can expect to spend about half of their remaining life in good health. While women live longer, a large share of their higher life expectancy is spent in poor health: only two-fifths of their remaining life years at "50+" are healthy. The situation is common in the EU: while they live longer lives, females spend more years in poor health than males, both in absolute and relative terms.

Figure 80: Healthy life years at 50 as a share of total life expectancy



Source: Eurostat 2011 data, accessed 3 September 2014

To improve morbidity and mortality indicators, it will be necessary to reduce risky health behaviors, as well as increase accessibility of health care to vulnerable groups. Better health and illness behavior, augmented treatment of cardiovascular diseases and early detection of oncology among males and females will play a significant role in achieving gains in life expectancy and healthy life years. Reducing premature mortality critically depends upon ensuring mortality declines among the lower educated.

[87] Self-reported limitations in daily activities due to health problems are combined with conventional life expectancy to form a composite measure called healthy life expectancy. When expressed as a percentage of life expectancy, this can be interpreted as the amount of remaining life that people can expect to live in good health (based on current rates of disability and mortality).

AGING CUT SHORT: MORTALITY TRENDS

Mortality in Latvia begins to diverge rapidly from the better EU performers like Italy when men reach age 25 and women reach age 40 (see Figure A7.1 in the Annex). According to the UN data, since early 1990s middle-aged Latvians (at 50 years of age) gained fewer life expectancy years than in many other EU member states; by contrast, Estonia since obtaining independence has achieved the third best life expectancy improvements in the EU, while Lithuania showed the poorest result. However, there has been some improvement in recent years: from 2004 to 2013 (the latest Eurostat data available), middle-aged men and women in Latvia gained more life years—2.3 and 2.1 years accordingly—than on average in the EU (1.8 for males and 1.5 for females). During the same period Estonian men and women aged 50 obtained twice more—3.7 and 2.9 years longer lives, while Lithuanian middle-aged men and women are expected to live 1.1 and 1.5 years longer than in 2004.

Excess deaths due to diseases of the circulatory system

Premature mortality in middle-age is mainly due to cardiovascular disease and oncology. These two factors are responsible for the rapid increase in mortality among males and females aged 50-64 compared to people in their 40s. In 2013, cardiovascular diseases and cancer took away 4.5 and 2.8 times more 50-64 year old female lives, respectively, than in the age group 40-49 (per 1000 females in each age group). The situation among males is similar, but with a change in positions: compared to 40-49 year old males, 50-64 year old males show 3.7 and 5.3 times[88] higher mortality due to cardiovascular diseases and cancer (respectively).

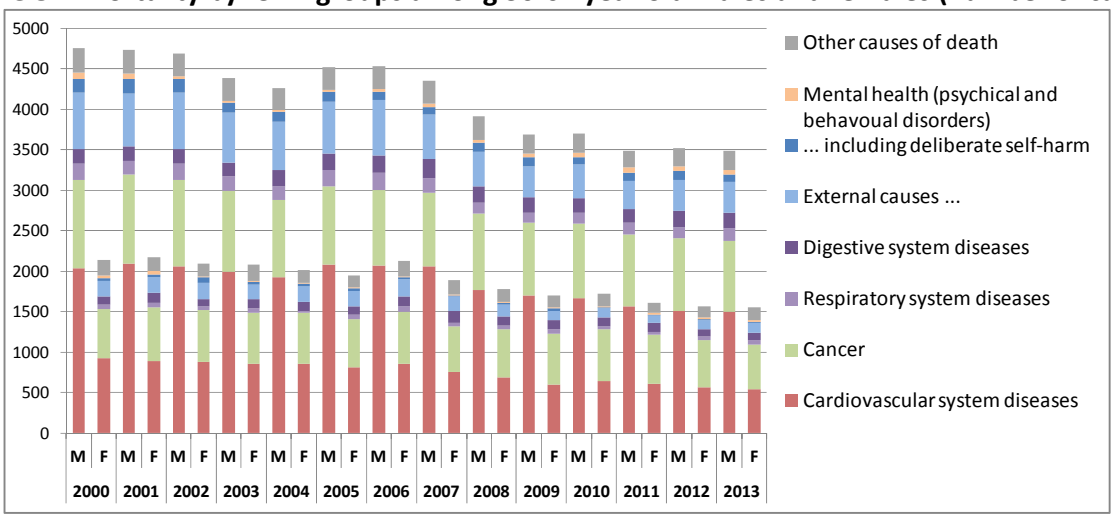
In Latvia people are dying earlier than in most other EU countries due to three main reasons. Latvia has third highest mortality rate[89] due to diseases of the circulatory system (DCS) in the EU, the fifth highest death rate from cancer and the second highest mortality rate due to external causes). Substantial improvements in the death rate from external causes have been achieved in recent years—though there is more to be done[90] (Figure 81).

[88] Calculated per 1000 males in each age group

[89] Age-standardized mortality rate per 100 000, WHO mortality database, 2010

[90] Reduction in mortality due to external causes is observed in younger groups as well.

Figure 81: Mortality by ICD[91] groups among 50-64 year old males and females (number of cases)



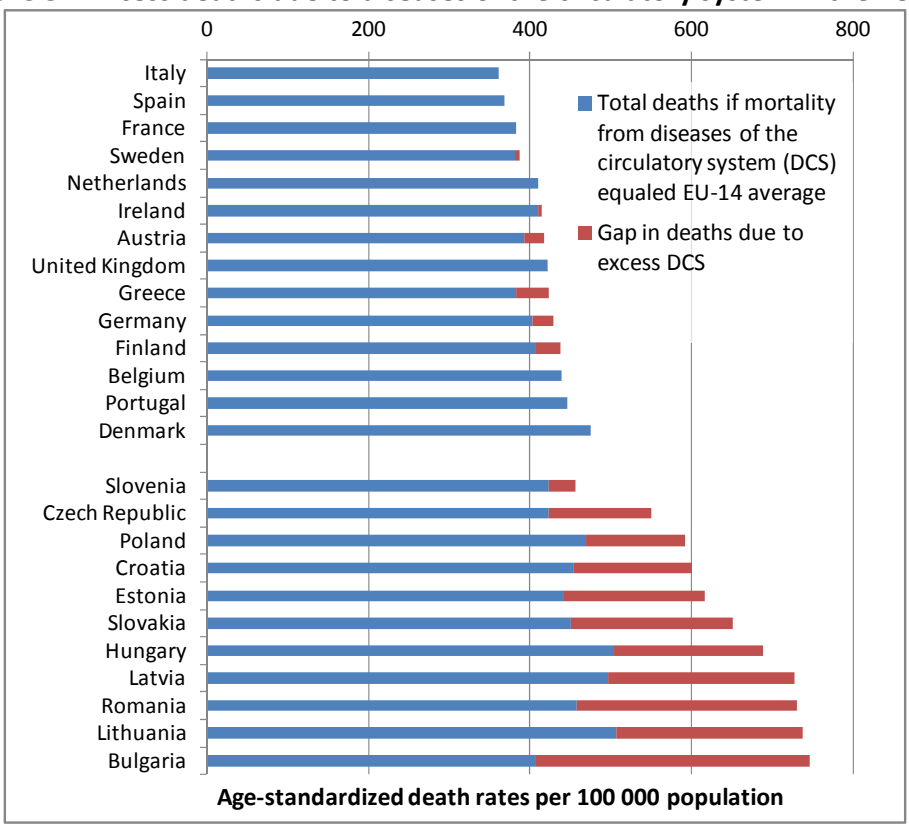
Source: Calculations based on Centre for Disease Prevention and Control data

Achieving a reduction in diseases of the circulatory system is critical to reducing overall mortality. If Latvia managed to reach the average EU-14 mortality due to diseases of the circulatory system—involving achieving a reduction in mortality from 358.0 to 126.7 per 100,000 population—all else being equal the overall mortality level in the country would be reduced by a third (Figure 82). The situation in Lithuania is similar to that in Latvia. Estonia has since obtaining independence succeeded in achieving a much greater reduction in mortality from diseases of the circulatory system—from 1990 to 2010 the age-standardized death rate among males was reduced by 273.5 and among females by 183.2. In Latvia and especially in Lithuania these gains are much lower, 160.4 and 143.4 respectively for males and females in Latvia, and 69.0 and 88.2[92] in Lithuania.

[91] The International Classification of Diseases (ICD)

[92] The mortality reduction for women was greater.

Figure 82: Excess deaths due to diseases of the circulatory system in the EU-11



Notes: Data for 2010. EU-14 is EU-15 group of countries excluding Luxembourg for which data is not available.
Source: Based on the WHO Mortality Database.

Cancer is the number one cause of death among 40-49 year olds and 50-64 year old females.[93] Despite the number of deaths due to this factor has fallen for the younger age group, mortality due to cancer among 50-64 year old females has barely decreased since the 1990s.[94] Among middle-aged males, cancer is responsible for a quarter of all deaths (Figure 81), however in absolute terms cancer causes more premature deaths among males than among females: it causes the same number of 40-49 year old male and female lost lives, and substantially more male than female deaths in the age group 50-64 .

The share of deaths due to external causes including deliberate self-harm[95] among 50-64 year old males is lower than that for 40-49 year old males. However, in absolute terms (i.e. per 1000 males in each age group) the number in the former group is considerably greater (2.6 compared to 1.8). This cause of death is one of the main reasons that explains the divergence of male mortality from the better EU performers.

[93] According to official statistics, during recent years mortality due to diseases of the circulatory system among 50-64 year old females was about the same as mortality caused by cancer. However, in Latvia registered mortality due to cardiovascular diseases is higher than actual. Therefore it is likely that cancer has already overtaken diseases of the circulatory system as the top cause of death for 50-64 year old women.

[94] In 1996, per 1000 50-64 year old females residing in Latvia 2.5 females died due to cancer, and in 2013 this mortality rate was 2.4.

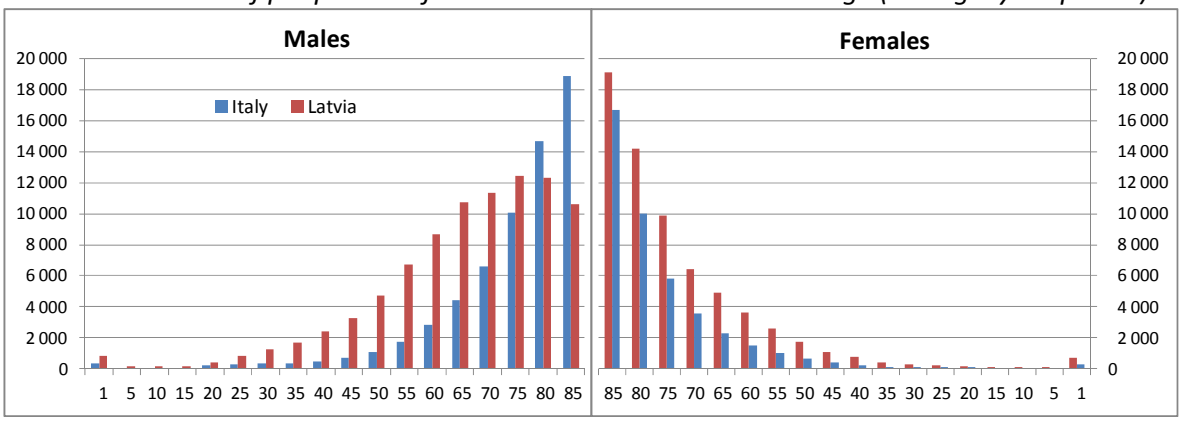
[95] Deliberate self-harm falls into the category "External causes of death".

Diseases of the circulatory system become a more important cause of death as people age. In 2013, for those aged 65 and over 57.4 percent and 69.6 percent of deceased males and females, respectively, died due to cardiovascular diseases. External causes become less important both among males in females in this age group, and cancer loses its relative weight among women giving it to DCS.

The number of Latvian men who have died by age 25-30 exceeds that in Italy by 3.8 times (assuming there are an equal number of boys born), **at age 40 the difference is fivefold** (Figure 83). Latvia loses 4 times more males than Italy before they reach 50 years of age. The gap among females is less striking with mortality diverging at much later ages, but still the number of females who die before reaching age of 50 in Latvia is 2.7 times greater than in Italy.

Figure 83: Mortality at different ages in Latvia and Italy

The number of people out of 100000 who would die at each age (during 5 year period)



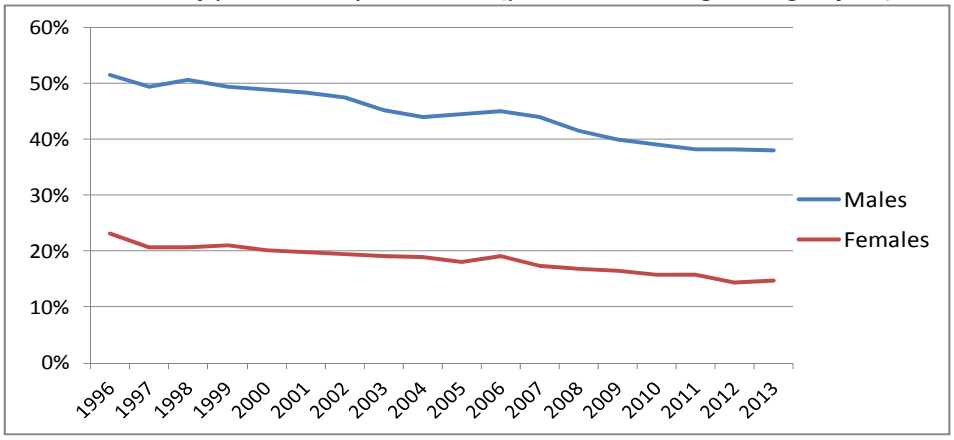
Source: United Nations Population Division data, 2005-2010

Premature mortality[96] in Latvia has fallen since the mid-1990s (Figure 84). The share of women who died before reaching the age of 65 years fell from 23.0 percent in 1996 to 14.6 percent in 2013. Male premature mortality also fell, but remains high, with 38.1 percent of men dying before the age of 65 compared to 51.4 percent in 1996. A reduction in mortality due to cardiovascular system diseases and external causes contributed to the drop in mortality among 50 to 64 year old males and females. However, mortality due to the second most important cause—cancer—decreased at a much slower pace.

[96] According to national approach, premature mortality is defined as deaths among people aged less than 65 years

Figure 84: Excess mortality is decreasing for men and women

The share of prematurely deceased (prior to reaching the age of 65)



Source: Calculations based on Centre for Disease Prevention and Control data.

Increasing the coverage of state-financed cancer screening programs would greatly benefit men. Currently only colorectal cancer screening is offered to males aged 50 and above. Apart from colorectal cancer, females have access to regular screenings for breast and cervical cancer.

Further analysis of cancer-screening programs for males and females should be carried out to learn from evidence, analyze the reasons of low participation rates and ensure high efficiency of subsequent actions. Mandatory screening option could also be considered (e.g. for users of health insurance implying a 'penalty' for not using the state financed screening option). But for this there would need to be efficient communication[97], adequate available medical resources (also for the working population which has restricted availability during the regular working hours)[98], and assurance that the NHS invitation letters reach the addressees[99]. The point on communication should take into account the problem of state language proficiency for the middle-aged minority group.

Further development of cardiovascular screening programs would also be necessary to reduce high mortality among males. Latvian males still have considerably less regular preventative maintenance of DCS compared to counterparts in Estonia. [100] According to the *Cardiovascular Health Improvement Action Plan 2013-2015* it is planned to evaluate the possibility for general practitioners to carry out DCS screening for eight groups of population, including middle-aged males and females. Wide informative program would be also necessary to make sure that society, including vulnerable groups, is aware of the opportunity to implement once a year a preventative health check provided by GPs free of charge.[101]

[97] For example, about half of people eligible for the health benefit program under the emergency social safety net implemented during the crisis never used the available health benefits, which implies that a large part of the target group was not aware of the availability of or how to access services.

[98] For example, about half of people eligible for the health benefit program under the emergency social safety net implemented during the crisis never used the available health benefits, which implies that a large part of the target group was not aware of the availability of or how to access services. For more see Griffin and Mozhaeva, 2013.

[99] Currently using services of private companies (not Latvijas Pasts) for delivering the invitation letters from the NHS involves certain risks.

[100] Health Behavior Survey among Latvian Adult Population, 2012 year data.

[101] Except for cases when a patient was already examined by a doctor within the year during his or her illness.

Inequalities in premature mortality and life expectancy

There are considerable inequalities in mortality among the middle-aged in Latvia. Official mortality data linked to socioeconomic indicators is not available for Latvia. Hence, an estimate of mortality for older-age groups by education level was carried out using LFS data (Table 12**)**. The approach is to analyze the changes in the size of the 55-64 age cohort over the period 2000-2010 (in 2010 they are 65-74 years old). The shrinking in the cohort is assumed to be mainly due to mortality since the effect of migration is small for this age group; this assumption is supported by CDPC mortality statistics on reduction of the cohort size during the observation period (Table 12). The results obtained using LFS data on the reduction of the 55-64 cohort size by education level allow us to conclude that mortality is much higher among males and females with low education compared to the more educated. This implies that reducing premature mortality among the less advantaged in the population is critical for speeding up the decline in the overall mortality indicator in this country. Of course, these results are only broadly estimated and given the importance of the issue, it is crucial to carry out a detailed analysis of inequalities in mortality by disease type once the data is available (as planned by the Central Bureau of Statistics for 2016 for an OECD study).

Table 12: Differences in mortality rates across education groups[102]

Reduction (in percent) of the 55-64 cohort size within 10 years (from 2000 to 2010), by education level

	LFS data								CDPC mortality data	
	Men				**Women**				**Men**	**Women**
	High	Medium	Low	Total	High	Medium	Low	Total		
2000-2010	-33	-25	-46	-35	-6	-14	-24	-16	-32	-13

Source: Labour Force Survey data, CDPC mortality data

The findings for the other Baltic countries, which share similar health characteristic to Latvia, show health inequalities to be high. Inequalities in mortality between upper and lower education groups in Estonia and Lithuania are large and they became even more pronounced in the 2000s compared to the 1990s: Despite the overall reduction in the premature mortality indicator in both countries, it rose among less educated males and females.[103] An increase in inequalities associated with premature mortality is common for most populations in the North, West and East of Europe.[104] While inequality is present for both men and women all over the EU,[105] the educational premium (in terms of lower mortality) is greater for men (Figure 85). Not only is the gap in mortality rates between men with lower and higher education much larger than that for women, but the gap is substantially larger in the EU member states that joined after 2004, especially in Estonia and Lithuania (Latvia is not analyzed).[106]

[102] The results based on LFS data are not adjusted for migration effect, however, this effect among those aged 50-64 is small. When interpreting the data one should take into account the statistical error and the fact that the LFS data are not perfectly representative within small cells. Some part of people also moved from medium to high education which are obviously persons with expectations for relatively long further life.

[103] According to the results of studies by Leinsalu et al. (2009) and later on by Mackenbach et al. (2015).

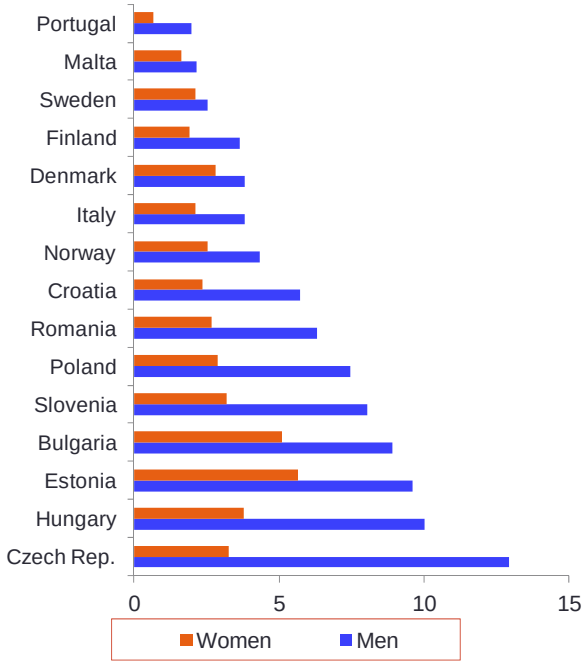
[104] Mackenbach et al., 2015.

[105] Deboosere et al., 2009; Leinsalu et al., 2009; Mackenbach et al., 2015; Raalte et al., 2012; Steingrímsdóttir et al., 2012.

[106] Based on the results of a study conducted by van Raalte et al. (2012).

Figure 85: There is a larger gap in life expectancy between high and low education groups in Eastern Europe and the Baltics

Gap in life expectancy at 50 years old between those with high and low education, by gender, 2010



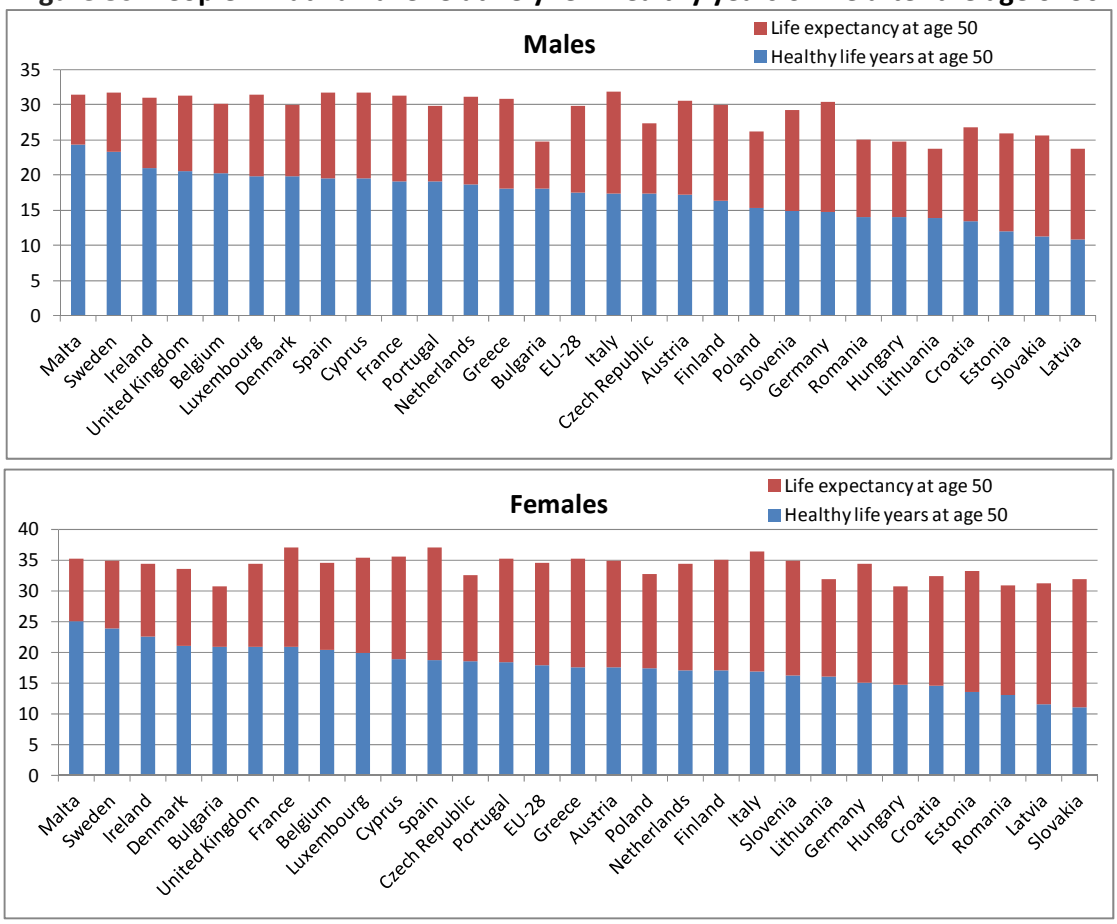
Source: Based on Eurostat.

AGING BETTER: MORBIDITY TRENDS

The population over 50 is more likely to spend more of their remaining life in sickness and disability than in good health. Figure 86 shows the situation of men and women in Latvia vis-à-vis those in other EU countries: Latvia only performs better than Slovakia in terms of healthy aging of the "50+" females and has the worst result among males. These results are aligned with those of the Active Aging Index presented in Chapter 2, which show that Latvia is among the worst performing countries in the EU in the category of healthy aging. Improving health outcomes, of course, is not simply needed to increase labor market participation, but necessary to improve the quality of life for those aged "50+".

Despite the relatively high share of life after 50 spent in disability, in Latvia increasing life expectancy does not just mean longer life in ill health, but it also brings additional years during which life quality is still high. The age after which males and females face strong physical limitations is mostly being delayed in line with increasing life expectancy (Figure 87). The tendency is shared with other EU countries that had rather high initial disability rates among the middle-aged population (Latvia is among these countries). As with mortality, there is evidence that considerable inequalities exist in terms of self-assessed health. Despite the ongoing debate on inequalities and improvements in the system, an educational premium exists in virtually all EU member states—middle-aged people with lower education levels report considerably worse health and more often complain on severe physical limitations compared to more educated individuals (Figure 88).

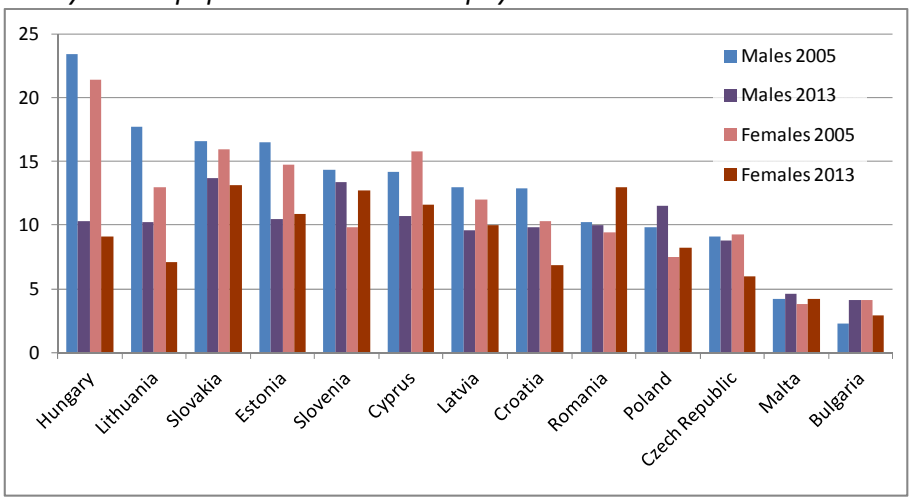
Figure 86: People in Latvia have relatively few healthy years of life after the age of 50



Source: Eurostat 2013 data, accessed 02 June 2015.

Figure 87: Severe disability has fallen for those aged 55-64 years as life expectancy have risen

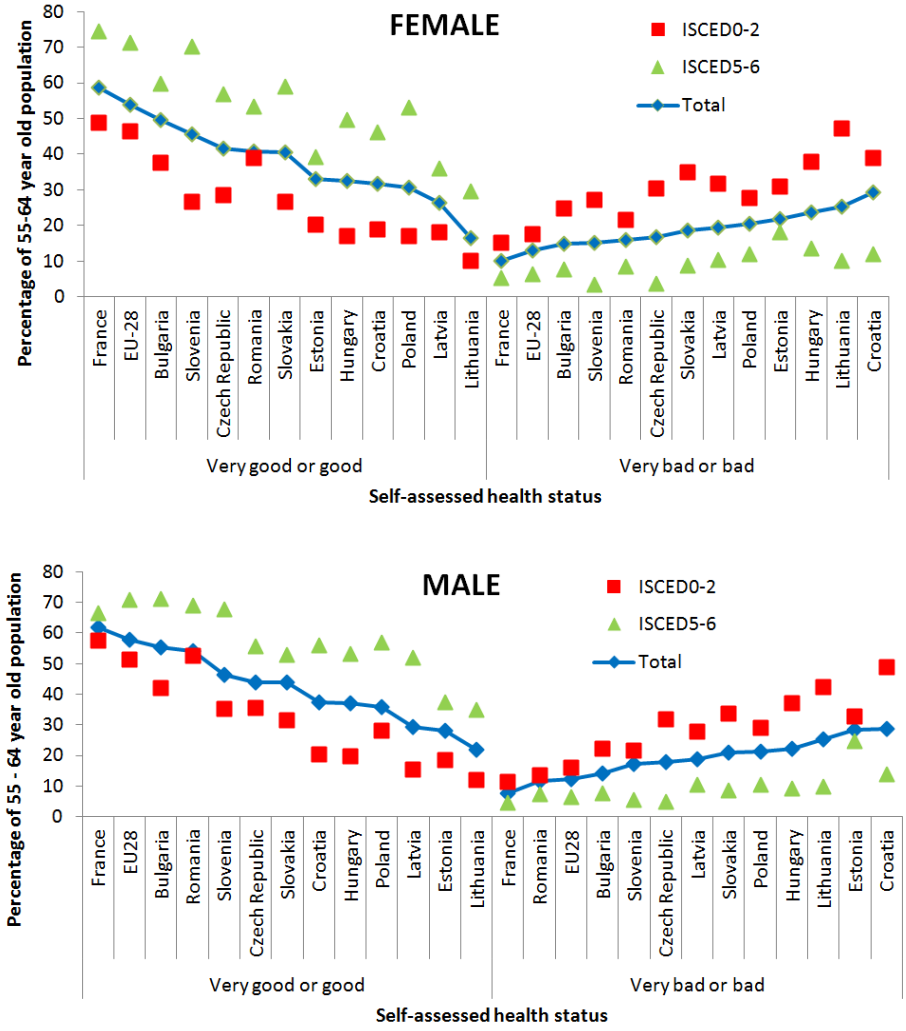
Share of 55-64 year old population with severe physical limitations in EU-13 in 2005 and 2013



Note: Not for all the countries analyzed data for 2005 are available. Data for Bulgaria and Poland are for year 2006, for Romania 2007, and for Croatia 2010.

Source: Eurostat 2005 and 2013 data, accessed 31 May 2015

Figure 88: Self-assessed health by education level in the EU among 55-64 year old population

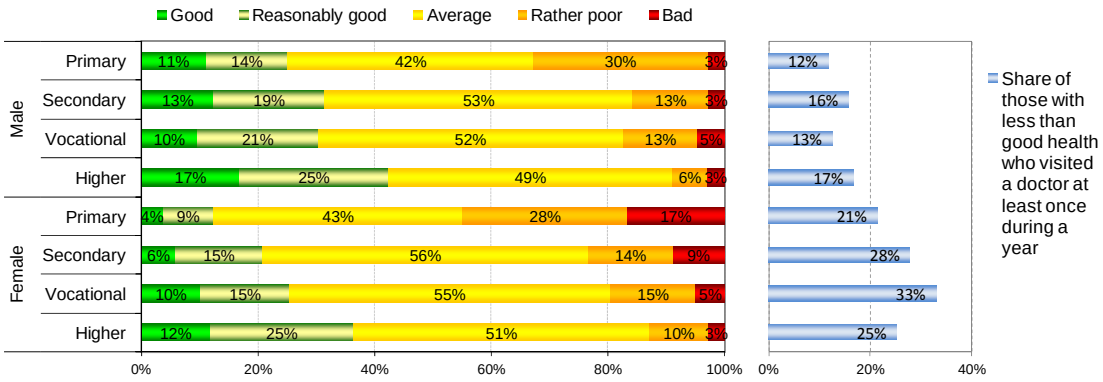


Source: Eurostat 2012 data, accessed 5 May 2014

Differences in subjective health measures between income groups in Latvia are higher than in most other EU countries using EU-SILC data: only 36.9 percent of population in the first income quintile report good or very good health (only Croatia has a lower level of 36.4), while the indicator in the fifth quintile is 63.1 percent. The difference between the poorest and best-off quintile (26.2 percent) is the sixth largest in the EU[107], and this problem is aggravated by particularly high inequalities across other income levels in the country: in 2013, Latvia had the second highest inequality in subjective health outcomes in the EU (as measured by the Gini index).

[107] Eurostat 2013 year data, accessed 17 June 2015.

Figure 89: Self-assessed health and doctor (GP or specialist) visits among 50-64 years old males and females in Latvia



Source: Health Behavior Survey among Latvian Adult Population 2010 and 2012 year data.

Indications are that access to health services is lower for the less advantaged in society. As presented in the Active Aging Index analysis in chapter 2, significant gaps based on education can be observed in Latvia in terms of access to medical and dental health services. Less educated middle-aged males and females report not only poorer health, but also lowest doctor visits (Figure 89), which is likely to have an impact on health outcomes. Lower use of health services is most likely associated with income barriers to access, but also with attitudes, a lack of education and overall poor health behaviors.

ACHIEVING BETTER HEALTH: REDUCING RISK FACTORS IN THE POPULATION

Doctor visits and unmet medical needs

The challenge of achieving healthier aging puts an emphasis on strengthening primary care in Latvia.[108] This might require increasing supply of GP services, especially in the rural areas, where mean age of population is relatively high. While the overall number of practicing doctors in Latvia per 1000 population is only slightly lower than on average in the EU (3.1 in Latvia compared to 3.4 on average in the EU), the country has only 66 GPs per 100 000 population which is the sixth lowest result in the EU[109], considerably less than in Estonia (82) and Lithuania (90). The weight put by the health care system on GPs in countries who are leading in terms of health outcomes is considerably greater, for example, France has 156 GPs per 100 000 population. Ambulatory service usage indicators in Latvia are middle to high compared to the other EU countries.[110] The coverage of ambulatory health care has been improving bit by bit in Latvia and reached 77.6 percent of population in 2013(NHS, 2009-2014). Partly this improvement was achieved via the health benefit program introduced in October 2009 under the Emergency Social Safety Net (ESSN). This means-tested program targeted most vulnerable groups and increased the health care service coverage indicator.

[108] EU member states are urged to ensure universal access to health care and to strengthen cost-effective and evidence-based interventions in prevailing primary care settings to meet the needs and implications of ageing societies (Regional Committee for Europe, 2012).

[109] Out of 25 countries for which the data are available. Eurostat 2012 year or latest available data, accessed 17 June 2015

[110] Eurostat 2012 year data, accessed 16 June 2015

[111] About two-fifths of all beneficiaries under the ESSN were people 50 and over, and half of them were aged 50-59.[112] The ESSN program ended in December of 2012. However, the main health benefits of the ESSN are still provided for needy persons from the means of state budget.

Unmet medical need in Latvia remains higher than elsewhere within EU: in 2013, 20 percent of all adults reported having unmet needs for medical treatment within last year (the EU average is 7 percent). The most important explanation for unmet medical needs are financial barriers: 12 percent of adults didn't receive a service due to its cost (the EU average is lower at 2.4 percent).[113] In 2013, 24.2 percent of 50-64 year old adults in Latvia faced unmet medical needs, and 63.5 percent of them referred to financial barriers as the main reason for these unmet needs. Before the crisis, i.e. in 2008, performance in terms of unmet needs was somewhat lower: 22.8 percent of middle-aged persons reported unmet medical needs, and financial barriers was the main reason for 45.5 percent of them (EU-SILC 2008 and 2013 data).

Care to prevent cancer deaths

Lung, breast and colorectal cancer are the most prevalent forms of cancer in the population and in general are responsible for 2/5 of all deaths related to cancer in Europe.[114] Latvia is among EU countries with relatively low morbidity and mortality due to breast cancer[115] [116], however the threat is growing since this country faces increasing morbidity with breast cancer, which has overtaken lung cancer in becoming the most widespread type of cancer in Latvia: in 2013, 103.8 breast cancer cases per 100 000 females[117] were registered (compared to 56.8 lung cancer cases per 100 000 population). [118]

In 2011, Latvia ranked fourth in the EU by male mortality due to cancer (114.3 cases per 100 000 male population). Morbidity for lung cancer hasn't changed much since 2004, but newly-registered cases of colorectal cancer have grown. In 2013, lung and colorectal cancer were second and third place in term of new cases, with respectively 55.6 and 55.7 new cases per 100 000 population (CDPC, 2014). Mortality indicators for lung cancer and colorectal cancer are the highest: in 2014, accordingly 15.8 percent and 11.5 percent of all deaths related to cancer referred to these two types.

Late detection explains some of the differences in cancer mortality rates in Latvia and screening rates could be improved. High mortality due to colorectal cancer is to a large extent explained by the fact that a half of cases are diagnosed late—during the third or fourth stage. The indicator for breast

[111] Six percent of ESSN beneficiaries didn't use any health care services paid by state at least for four years before the ESSN was introduced, and 13% didn't use them for at least two years. Average intensity of health care service usage under the ESSN among these patients was substantially greater than on average among the other ESSN beneficiaries, which implies that the program increased the coverage of health care by capturing people with serious health problems.

[112] Griffin and Mozhaeva, 2013.

[113] Eurostat 2013 year data, accessed 27 May 2015.

[114] Eurostat 2011 year data, accessed 17 June 2015

[115] WHO data, accessed 17 June 2015. http://eu-cancer.iarc.fr/eucan/CancerOne.aspx?Cancer=46&Gender=2

[116] Mortality for breast cancer is 7.4 deaths per 100 000 population (CDPC, 2015).

[117] 1132 new cases in all

[118] Register of Patients with Particular Diseases, Patients with Cancer , CDPC

cancer is somewhat more positive—about a third of all cases are identified during the two last stages (CDPC, 2013year data). In 2008, i.e. right before the state-funded cancer screening was launched in this country, Latvia was among EU countries with the highest share of females aged 50-69 who never had a mammogram breast examination (40.3 percent), and in the lower education group this indicator was twice as high among women with tertiary education (52.7 percent compared to 26.2 percent). In Estonia, the share of middle-aged females who had never had a mammogram was slightly lower at 37.4 percent (46.1 percent and 28.6 percent respectively in the low and high education groups), while in France it was much lower at 7.1 percent (9.5 percent and 3.2 percent accordingly in the low and high education groups).[119] The coverage of colorectal cancer screening program has increased gradually, however is still rather low, reaching just 9.6 percent of the target group in 2013 (NHS, 2014). Taking into account high primary care usage indicator in this age group, greater proactivity from GPs can achieve higher screening rates.

Take-up of screening invitations for breast cancer is improving, but screening acceptance rates are worse for the less educated. According to NHS data, the response rate on invitations to undergo breast cancer screening is increasing: in 2009 it was 21.1 percent, while in 2013 it had climbed to 34.2 percent (NHS, 2014). In turn colorectal cancer screening indicators while being low in Latvia still are better than in most other EU countries for which the data is available. In 2008, 74 percent of Latvian males and females aged 50-74 reported never undergoing such screening. Again, the indicators among less educated are worse.[120]

Preventative care for diseases of the circulatory system

While diseases of the circulatory system (DCS) are the main cause of death as well as the main reason of disability (CDPC, 2014), resources devoted to tackling these diseases are still relatively scarce and do not meet requirements. Reaching and going beyond the planned reduction of premature mortality indicator related to DCS (130 cases per 100 000 population) by 2020 (MoH, 2014) would require more investment into preventative measures that still do not provide the adequate coverage. DCS-related health checks in Latvia are historically lower than in Estonia, a country that has inherited a similar health challenge to Latvia, but has achieved a considerable reduction in mortality due to DCS during the past two decades. In 2012, Latvian women aged 50-64 implemented cholesterol and blood pressure measurements as regularly as Estonian women: 86.3 percent of Latvian women and 85.4 percent of Estonian women reported having measured blood pressure within the last year, while cholesterol level was checked by 67.8 percent and 64.4 percent of Latvian and Estonian women accordingly. However, the gap between Latvian and Estonian males is still rather wide: in Estonia 79.2 percent of 50-64 year old males had blood pressure measurement and 60.1 percent checked cholesterol level within the last year; in Latvia these indicators are lower at 68.4 percent and 44.8 percent respectively.[121]

Reducing disability due to diseases of the musculoskeletal system

Diseases of the musculoskeletal system and connective tissue is the third most widespread reason of disability in this country: in 2013, 16.9 percent of all 'new' registered disabled and 14.4 percent of

[119] Eurostat data, accessed 29 May 2015

[120] Eurostat data, accessed 29 May 2015

[121] Health Behavior among Latvian Adult Population and Health Behavior among Estonian Adult Population data

'new' non-working disabled obtained the status due to serious complications of this system. The size of the problem grows in Latvia both in absolute and relative terms: during the recent years (in 2010-2013) the number of new disability cases due to diseases of the musculoskeletal system was about three times greater than a decade before, and the share of these cases among all new registered disabled doubled since then.

Various studies indicate that in case of musculoskeletal disorders different types of disability or prolonged disability prevention programs bring beneficial effects, for example, occupational and clinical rehabilitation for workers (Loisel et al., 2002), musculoskeletal disorder management (Abasolo et al., 2005), ergonomic interventions (Anema et al., 2004), early interventions with examination, information, and encouragement to engage in physical activity (Hagen et al., 2000), exercise-based rehabilitation programs for injured workers (Kenny, 2000) result in successful outcomes. Workplace-based occupational programs are found to be efficient (Badii et al., 2006; Bunn et al., 2006; Lemstra and Olszynski, 2003), reducing medical costs, injury claim incidence, absenteeism and increasing productivity.

Physical activity

Engagement in organized physical activities and exercising is low in Latvia: for example, in 2009, only 27 percent of adults reported playing sports or doing physical exercises at least once a week, in Lithuania the equivalent share was 36 percent, in Estonia it was 34 percent, while the EU average indicator was 40 percent. Latvians have a preference for activities like cycling, walking, and dancing: 44 percent of adults engage in these types of physical activity regularly, which is the highest indicator in the EU (European Commission, 2010). But the frequency of physical exercise[122] for the pre-retirement age "50+" is low: In 2012, only 26.2 percent and 30.8 percent of middle-aged (50-64) males and females respectively reported doing physical exercise at least once a week, in Estonia these indicators were substantially higher at 34.8 percent for males and 44.1 percent for females. [123]

Overweight and obesity

Just as in most other EU countries, the problem of overweight and obesity in Latvia becomes more acute. While the share of adult males suffering from obesity in this country is the 5th lowest in the EU (12 percent), the share of such females is almost twice greater – 21 percent, which is the 7th highest indicator within the EU. In all obesity among Latvian adults is as widespread as in Estonia at 17 percent, which is 3 percentage points lower than in Lithuania (OECD, 2012b).
However, among Latvian middle-aged population the overweight and obesity problem is more widespread than in most other EU member states[124] (at 73 percent among 55-64 year old population). In 2012, the share of Latvian middle-aged (50-64) men and women with above normal weight was the same (72 percent), however, females are found to be more inclined to obesity (38 percent of females and 28 percent of males were obese).[125]

[122] Physical exercise is defined as at least 30 minutes activity in leisure time that results in mild shortness of breath or sweating.

[123] Health Behavior Survey among Latvian Adult Population, 2012 year data; Health Behavior Survey among Estonian Adult Population, 2012 year data.

[124] Eurostat data, accessed 19 August 2015

[125] Health Behavior Survey among Latvian Adult Population, 2012 year data

Alcohol use

In 2004, the three Baltic States showed highest proportion of alcohol-attributable deaths as a share of all deaths for the group of men aged 15–64 years in the EU and also had very high indicator for women.[126] At the same time the amount of alcohol used per capita in 1990 and 2000 in the Baltics was lower than in most European countries. In case of Latvia this may be due to the fact that most alcohol users, predominantly men, in the 1990s preferred strong alcoholic beverages to lighter ones and the share of binge[127] drinkers among alcohol users was relatively high at 26 percent.[128] Nowadays these drinking patterns explain the fact that 41 percent of alcohol consumed in the country is used by 5 percent of all alcohol users aged 15-64. [129]

From 1990 to 2010, as with most of EU member states where alcohol consumption was very high initially, Latvia managed to reduce the indicator of pure alcohol consumed per capita. By contrast, showing rather an increase in alcohol consumption, Lithuania has the highest absolute alcohol consumption per capita in the EU (12.7 liters per capita). In Latvia this indicator was about the same as the EU average at 10.2 liters (OECD, 2014). A share equal to 18.1 percent of males aged 50-64 and 2.9 percent of females of the same age report using strong alcoholic beverages at least once a week. Of middle-aged males, 13.5 percent can be characterized as binge drinkers in that they use at least six portions of alcohol at once weekly or more often.[130]

To reduce the social and economic harm related to alcohol usage, programs should be targeted to the two main groups at most risk: the young and the older middle-aged (WHO, 2012): While young people suffer from risky drinking and face the socioeconomic consequences related to alcohol usage, the middle-aged have the absolute highest rates of alcohol-related disability and premature death. Evidence shows that policies targeted to specific occupations and alcohol-free workplaces can be efficient. For example, over the course of 20 to 30 years alcohol-related mortality among male medical practitioners in U.K. was reduced from near the top among different occupation groups to near the bottom (WHO, 2012).

Smoking

Latvia has the fourth poorest smoking indicators in the EU: In 2012, 27.9 percent of population aged 15 years and over smoked daily (OECD, 2014). Estonia is ranked sixth (26.0 percent) and Lithuania 16th (21.8 percent). No improvement in smoking behavior had been observed in Latvia in the ten year period over 2002-2012, while Estonia and especially Lithuania succeeded in making strong gains in smoking cessation (-8 percent and -23 percent accordingly). This implies that the implemented tobacco consumption reduction policy, including a moderate gradual increase in the excise tax and smoking limitations in public places, was not enough to achieve smoking cessation among adults in Latvia. However, the measures introduced facilitated the reduction in smoking rates among children (CDPC, 2014).

[126] WHO, 2012.
[127] During the two weeks preceding the interview had 5 or more alcohol units on last drinking occasion
[128] Brunovskis and Ugland, 2002
[129] Survey on prevalence of addictive substances usage among Latvian general population 2011, CDPC
[130] Health Behavior Survey among Latvian Adult Population, 2012 year data

Men are 'responsible' for the very high smoking indicator in Latvia: Females show the fourth lowest smoking level in the EU, and the gap between male and female daily smoking indicator in Latvia is greater than elsewhere in EU. This means that further measures in Latvia should place the emphasis at reducing smoking prevalence among male population. In 2010-2012, 50 percent of 50-64 year old males and 16 percent of the same age females smoked daily.

Smoking indicators among 50-64 year olds could be much lower if more of those who tried to quit managed to do so: A quarter of males and the same share of females seriously tried to quit smoking within the last year, but only 13 percent of these males and 22 percent of these females managed to get rid of the harmful custom. [131] Smoking cessation even at relatively old age improves longevity. The results of the analysis of data obtained from the U.S. National Health Interview Survey and U.S. death records propose that smokers who quit between the ages of 45 to 54 on average gained 6 years of life, while smokers who quit between the ages of 55 to 64 gained 4 years of life (Jha, 2013). It is well documented that smoking cessation reduces mortality from respiratory disease (Godtfredsen et al., 2002), the risk of stroke (HHS, 1990; Kawachi et al., 1993; Wolf et al., 1988) and reduces tobacco-related cancer risk substantially (Peto et al., 2000; Samet, 1992).

Stress and depression are important factors hindering this process. A share equal to 23 percent of daily smokers who tried to quit within the last year admit that felt depressed at least for two weeks in a row within the past 12 months. This means that additional support is necessary to reduce smoking among the middle-aged, and these programs should be related to stress management. Linking smoking cessation programs to sports might be efficient since positive effect from physical activities would act as a compensating factor to physical and psychological discomfort during the transition period.

CHANGES IN HEALTH BEHAVIOR: AGE EFFECT OR SUCCESSFUL HEALTH POLICY?

The pre-retirement age "50+" have healthier behaviors than when they were ten years younger, but there is not substantial evidence that this group has improved compared to the "50+" ten years ago. However, self-assessed health among 50-64 year-old people in 2008 improved compared to 10 years before according to Health Behavior Survey among Latvian Adult Population data: In 1998, only 21 percent of middle-aged respondents assessed their health as good or reasonably good, while in 2008 the indicator was 7 percentage points higher. During the ten-year period (from 1998 to 2008), the share of daily smokers as well as alcohol users decreased in the cohort of 50-64 year-old males and females. The share of daily smokers among women fell by a half, among men, by almost a third. The proportion of those who use strong alcoholic beverages at least two to three times a month decreased substantially both among males and females, falling from 65.5 percent to 50.8 percent for males and from 36.6 percent to 21.6 percent for females. Beer and wine are also used less regularly: The share of males who consumed these beverages at least several times a month decreased from 63.4 percent to 51.5 percent, and the share of females with the same habits dropped from 38.2 percent to 25.8 percent. Comparing changes within the 50-64 age cohort during the ten-year period, i.e. from 1998 when they were 40-54 years old to 2008 when they turned 50-64, and health behavior of 50-64 year-old males and females in 1998 and 2008 one can conclude that despite smoking

[131] Health Behavior Survey among Latvian Adult Population, 2012 year data

indicators having improved in society on average since late 1990s, positive changes for those aged 50-64 seem to be to a greater extent explained by the age effect, and to a lesser degree are related to changes in behaviors in this age group. At the same time positive changes in alcohol usage indicators in the cohort aged 50-64 while being caused mainly by age effect, to some extent are also due to improvements in society and health policy. According to the Health Behavior Survey among Latvian Adult Population data, in all no significant improvements in the level of physical activity were achieved in the current pre-retirement age "50+" cohort – in 2008 the middle-aged exercised about as much as they did 10 years ago (when they were 10 years younger) and as much as their counterparts (50-64 year-old people) did in 1998. Some positive changes are observed among the middle-aged females: they report less often not being able to exercise due to an illness. However, the above-mentioned females mostly seem to shift into the group of those who exercise rarely rather than those who exercise frequently.

CONCLUSIONS AND HEALTH POLICY OPTIONS

A recent increase in life expectancy in Latvia has been combined with a reduction of age-specific disability rates resulting in longer and healthier lives. However, there's still large space for improvement for Latvia. Estonia has achieved better results in increasing life expectancy in the last decade, notably by reducing mortality from cardiovascular diseases.

The indication is that inequalities in health are larger in Latvia than elsewhere in the EU. Inequalities in mortality and morbidity are observed all over Europe. In Latvia less educated middle-aged males and females report not only poorer health, but also lower doctor visits. Apart from attitudes and overall health behavior, this problem is related to financial barriers to accessing health care: Latvia has the largest share of people who have unmet medical needs due to financial reasons in the EU. Income-related health inequalities in Latvia are very large relative to most other EU countries. Changing attitudes and perceptions, and educating citizens is already an area of focus in the long-term national health policy. Public health campaigns should put a large focus on targeting those most vulnerable to poorer health outcomes by informing them on risky health behaviors and encouraging them to access health services. Minimizing existing income-related barriers to accessing primary health care and specialists is also crucial. Targeting preventive care to the less advantaged population has a win-win in terms of directing services to those with the most risky behaviors and having the potential of reducing inequalities in health outcomes. Reducing health inequalities is one of the overarching objectives outlined in the Public Health Strategy for the period 2014 to 2020 (Ministry of Health of the Republic of Latvia, 2014).

Reducing deaths due to diseases of the circulatory system (DCS) can go a long way to improving health outcomes. Latvia has third highest mortality rate due to diseases of the circulatory system (DCS) in the EU and 35 percent of all premature deaths are caused by diseases of the cardiovascular system. Among 50-64 year old population these diseases account for 40 percent of all deaths. In Estonia premature mortality due to cardiovascular diseases has been reduced substantially and currently is much lower than in Latvia. While public health programs aimed to reduce risk factors can provide a strong long-term effect, these activities do take some time to impact on outcomes. Programs aimed at increasing longevity of today's middle-aged population would include developing cardiovascular disease screening programs that would efficiently capture this age group, especially

males. One has to make sure that society is well informed about the right to undergo once a year a range of health checks provided by GPs free of charge.[132]

Widening coverage of the state-financed cancer screening program, particularly targeted for middle-aged males[133], is necessary. Out of each 100 people who die aged 50-64, 28 die due to cancer and of these 17 of them are males. Cancer takes away more male than female lives prematurely. A public campaign to promote the program will be necessary to ensure high participation rates of targeted groups. Analysis of the cancer screening programs for males and females should be carried out to learn from evidence, find if possible the reasons for low participation rates and ensure high efficiency of further actions. Mandatory screening options could be considered, but two issues will have to be focused on to provide the necessary conditions for success: availability of medical resources (also to cover the working population outside of regular working hours) and efficient communication.[134] The latter point also should take into account the problem of state language proficiency among the older middle-aged minority group.

Health spending—particularly on preventive care—is low in Latvia and as budgetary resources become available the sector should be prioritized for investment. Total public and private health expenditure spending is low in Latvia: in 2012 it was just US$1188 PPP per capita (or 6 percent of GDP) which is the third lowest spending in the EU (WHO HFA-DB). The problem is deepened by high private expenditure for health care: in 2012, out-of-pocket payments for health care accounted for 37.4 percent of total health expenditure (higher only in Bulgaria and Cyprus). In Estonia and Lithuania this indicator was substantially lower, 18.4 and 28.5 percent accordingly. Whereas evidence shows that a large share of the population cannot afford to access sufficient health services (see Chapter 2), and households with members over 65 relatively often encounter catastrophic expenditure for health care (Xu et al, 2010), putting further weight on private spending will aggravate the existing problems of the sector. Large gains in life expectancy and healthy life expectancy are likely to require substantial investment.[135]

More can be done to stop smoking. Smoking cessation policy in Estonia and especially in Lithuania has been more successful than in Latvia. This implies that the set of interventions introduced in Latvia, including gradual increases in excise taxes, smoking limitations in public places and rules for package design, have not done enough yet to achieve higher rates of smoking cessation among adults. To ensure greater efficiency among adult population it may be necessary to apply higher excise taxes to increase the price of tobacco products substantially, since the gradual increase hasn't produced the expected effect: People adapt to slightly higher prices for cigarettes and make small adjustments to their composition of spending (if it's necessary) to keep to smoking. If the cost of cigarettes would increase significantly, it would make smoking less attractive for adults. In terms

[132] Except for cases when a patient was already examined by a doctor within the year during his or her illness.

[133] Currently state program offers only colorectal cancer screening for males. When other types of cancer (prostate, gastric) are included into the program, it's crucial to capture the group of middle-aged males efficiently.

[134] For example, about a half of the eligible persons for the health benefit program under the ESSN introduced during the financial crisis never used health benefits, which implies that large part of the target group was not informed about the opportunities.

[135] According to the Public Health Strategy for 2014-2020, substantial increase for health promotion and health prevention activities is planned.

of cost, most cigarette brands in Latvia are slightly cheaper at US$4.40[136] in PPP terms compared to US$5.20 in Estonia and US$4.90 in Lithuania (WHO, 2013). Banning e-cigarettes following in the footsteps of Lithuania would prevent previous non-smokers, especially among youth, from falling into the addiction trap via "healthy" smoking: e-cigarettes cause addiction and provide a 'gateway' to smoking. While smoking in public places is formally banned, these bans often are not respected. Upholding of restrictions should be controlled more strictly by municipality police, especially in popular open-air recreation areas for families with children, such as Mezhaparks in Riga, Jurmala etc.

Helping people to be more successful at quitting smoking is important. Despite one out of four middle-aged males reporting that they seriously tried to quit smoking during the last year, only 13 percent of those who tried reached the goal. Stress and depression is one of the factors hindering this process. Additional support is necessary for middle-aged who intend to quit smoking. Incorporating stress management into these programs would ensure higher success rates.

Latvia has been more successful in tackling excessive alcohol usage compared to Lithuania and Estonia[137], however alcohol-related mortality in this country is still very high. Programs should be targeted on the two main groups—the young and the older middle-aged: while young suffer from risky drinking and face socioeconomic consequences related to alcohol usage, the middle-aged have the absolute highest rates of alcohol-related disability and premature death. Fiscal measures, such as tax increase, minimum price per unit of alcohol and a ban on 'below-cost' sales of alcohol can be efficient. Policies targeted to specific occupations and alcohol-free workplaces also can be helpful. Interventions are most efficient in the sectors where the employer can have a big impact, through for example limiting access to smoking areas, which may be easier for professions such as seafarers, construction workers, medical personnel. Over the course of 20-30 years alcohol-related mortality among male medical practitioners in U.K. was reduced from near the top among different occupation groups to near the bottom (WHO, 2012). In the USA, a passenger railroad company adopted a substance abuse intervention program that focused on changing workplace attitudes toward on-the-job substance use in addition to training workers to recognize and intervene with co-workers who have a problem; this resulted in about one-third reduction in injury rate (Spicer and Miller, 2005).

Healthy life habits should be encouraged from early age. Education campaigns in schools, universities and the media can inform children from an early age on good dietary and exercise habits, prevent smoking and alcohol abuse and inform them on the main risk factors to health. Such campaigns are not necessarily expensive and can be built into the curriculum. Increasing children's awareness of healthy habits also can be a way of targeting the wider household: Children brings their awareness to the family. So called "health lessons" were removed from the compulsory school program, however a number of campaigns and educational seminars on active healthy lifestyle, physical activity promotion and other health behaviors are carried out in Latvian schools.

Aging healthily involves a broader enabling agenda than just health policy actions. Accumulated inequalities over the lifecycle can lead to poorer health. For example, children from less advantaged backgrounds are less likely to attain high education qualifications. Having lower education often means going on to have less stable and more poorly paid employment and being more vulnerable to

[136] Price of pack of 20 cigarettes.

[137] European Core Health Indicators.

income shocks. Stress due to higher vulnerability to income shocks, incomes too low to access health care, poorer health behaviors and poorer working conditions can all coalesce to result in poorer health outcomes for the more vulnerable in society. So improving health not only involves increasing further health promotion efforts and extending access to health services, but also having better education, jobs and income protection throughout the lifecycle.

Workplace interventions can also play a role. Interventions by employers span actions to ensure occupational safety, and workplace measures to promote healthy practices and prevent diseases. There is a growing body of evaluated interventions on which to start building policy approaches. There is some evidence that having an integrative approach encompassing occupational safety and health rather than separate programs may increase participation and effectiveness of programs.[138] Targeting wider health behavior improvements through workplace programs is more effective if combined with a focus on workplace hazards. It is important to stress the business case to employers for workplace health interventions. The 50+ share of the working-age population is currently 30 percent so these workers represent an important part of the workforce and keeping them healthy and productive is important for firms. Workplace health interventions can improve health and longevity, but evidence also suggests they have a role in improving productivity and reducing absenteeism due to sickness or short-term disability leave.

Workplace interventions are most effective if targeted by sector, type of worker and health/occupational hazard risk. Programs can include the following types of interventions: (i) Workplace risk assessments; (ii) training; (iii) awareness programs on reducing risky behaviors, including diet, alcohol and tobacco use; (iv) stress management; (v) exercise programs; (vi) incentives to reduce workplace accidents such as safe driving competitions or team competitions; (vii) Adaptation of work spaces and equipment and work routines to prevent injury (reducing not just accidents but risks of repetitive strain and related injuries) and raise productivity. In Latvia, workplace risk assessments are carried out more regularly than in most other EU countries including Estonia and Lithuania according to ESENER-2 data (European Agency for Safety and Health at Work, 2014). However, there is still room for risk assessments to further influence the introduction of preventative measures, for example, in 2013 action plans to prevent revealed risks were introduced in only 62 percent of Latvian enterprises (Employers' Confederation of Latvia, 2013). The extent to which issues connected with aging workforces feature in planning of preventative measures is unclear. There have been efforts with regard to training on safe and healthy work environments—there is likely to be room to disseminate further best practices with regard to aging workforces. In 2014, the Institute for Occupational Safety and Environmental Health of Riga Stradins University together with Centre for Disease Prevention and Control carried out a number of seminars in various municipalities aimed to educate employers on safe and healthy work environment promotion. Activities at workplaces are planned under the *Public Health Strategy for* 2014-*2020* to promote physically active lifestyle and healthy eating habits.

Finally, on workplace interventions there is an opportunity to encourage further innovation, evaluation (including cost) and dissemination of knowledge. Take-up of health and related workplace interventions is unclear and likely to be low for small and medium-sized enterprises. Much

[138] Anger et al (2015).

of the evidence we have internationally is for the automobile industry and for large firms.[139] Wide dissemination of what works and the provision of toolkits for large industries/workplace types that face similar challenges could assist employers to adapt to an older workforce. Particular emphasis would have to be put on smaller enterprises, who make up a large share of employers and who are likely to need most assistance in the area of workplace and work practice adaption due to aging. For those at-risk of exiting work at older ages due to poor health, there may be an opportunity through workplace interventions to provide support to improve health.

[139] For example, BMW faces a situation where 45 percent of its workers will be over 50 by 2020. In its production line pilot in Bavaria, the company staffed the assembly line with the share of older workers it expects to be in place in 2030 and invested US$50,000 to put in place 70 small modifications, such as adding chairs so workers could sit down to perform certain tasks. In addition, they put in place interventions to (i) manage health care; (ii) enhance workers' skills and workplace environment, and (iii) institute part-time policies and change management processes. Older workers' productivity increased by 7 percent in a year, bringing the BMW "pensioners' assembly line" to the productivity level of that of younger workers. Absenteeism fell from 7 percent to 2 percent, to below the plant average. For an account of the BMW pilot, see Loch et al (2010).

8. Summary of policy options/priorities

OVERALL POLICY PRIORITIES

Latvia has made progress in addressing the challenges of aging, but further efforts could reap substantial gains. Given low fertility and high emigration rates, a substantial rise in old-age dependency ratios is unavoidable. But policy reform, steps by firms to accommodate their aging workforces, and behavioral changes by individuals hold considerable potential for improving the experience of aging and ensuring continued economic growth and fiscal sustainability in the context of an aging workforce. Policies that could show substantial short-term benefits, particularly in increasing labor force participation, include increasing the availability of childcare and elder care, devoting more resources to the training of older workers, reducing biases against older workers, and efforts to support their productivity. Measures to improve health status, particularly more focus on preventative and primary care coupled with promotion of lifestyle changes, and mainstreaming the lifelong learning culture will take longer to show dividends, but gains in terms of lengthening healthy lives, improving employability and productivity and easing the fiscal costs associated with aging can be considerable. Policies to support fertility and encourage immigration will take even longer, if successful, to bring about a rise in the labor force.

Many of the policies will involve significant fiscal tradeoffs. Latvia has the lowest age-related fiscal spending in the EU at 12.1 percent of GDP in 2013 (Figure 90 (a)).[140] Of this, pension spending is 7.7 percent of GDP, age-related health spending is estimated as 3.8 percent of GDP and long-term care just 0.6 percent of GDP. Aging-related spending is projected to remain the lowest in the EU in 2060. Based on current policies and parameters of the pension system, age-related spending is projected to fall by 2.4 percentage points of GDP to 9.7 percent of GDP by 2060 (Figure 90 (b)). Why? Pension spending is set to decrease by 3.1 percentage points of GDP, aging-related health spending is not projected to rise by much and public provision of long-term care is projected to remain limited (at 0.7 percent of GDP).

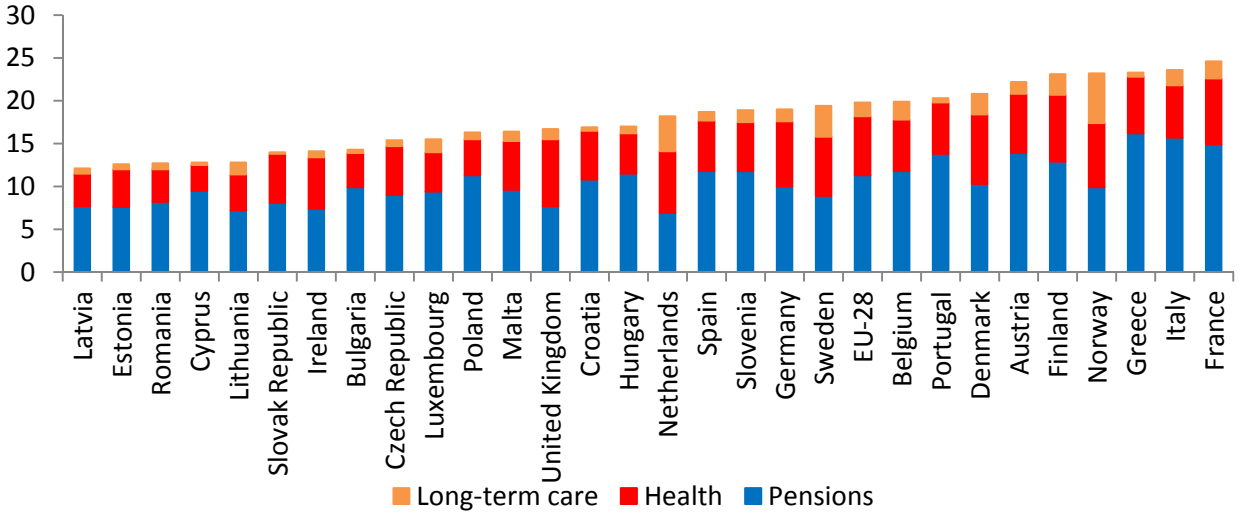
Responding to aging challenges would involve increasing, not decreasing, fiscal spending on critical programs. Given that people have limited savings and that this is unlikely to change in the near future, there is arguably a large role for public rather than private provision. Public spending on health is low and out-of-pocket payments are high relative to the EU average. Raising public health care expenditures closer to the EU average would involve large costs, but also would reduce barriers to access, and thus facilitate higher labor force participation. Similarly, increasing female participation in the labor force would involve providing elder care and childcare alternatives other than relying on your wife/mother/daughter. But the countries that have such care options spend a lot more fiscal resources on child and long-term care. Declining pension spending is unlikely to be socially feasible given that it involves a large decrease in coverage and generosity. Ensuring that poor retirees have a pension that protects them from poverty in the future will be costly, but would prevent a large rise in old-age poverty. Aging confronts Latvia with considerable challenges, and policy adjustments are urgent. Nevertheless, the appropriate policies have considerable potential to help Latvians achieve healthy, economically secure, and long lives.

[140] Source: European Commission's *2015 Ageing Report.*

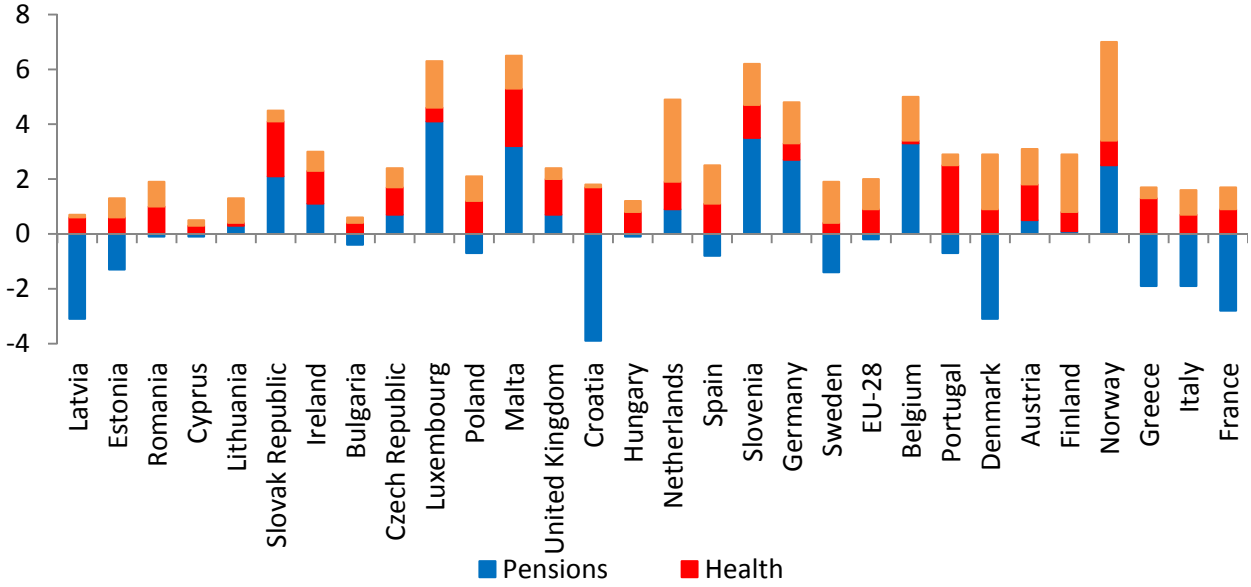
Figure 90: Based on current policies: Age-related spending lowest in Latvia out of EU countries and projected to fall

Decomposition of age-related spending, 2013 and growth 2013-2060

(a) Age-related items, 2013, in percent of GDP



(b) Growth in age-related items, 2013-2060, in percent of GDP



Notes: Age-related spending here excludes education.
Sources: Based on the European Commission's *2015 Ageing Report.*

The policy agenda is multi-sectoral and complex and involves action on the side of individuals, employers, civil society, and the Government of Latvia. Given Latvia's considerable aging challenges, policy adjustments are urgent. Fortunately, there are policies that have considerable potential to help Latvians achieve healthy, productive, economically secure, and longer lives. The following policy options matrix suggests key policy levers along the discussed core themes (demography, productive aging, economically secure aging, lifelong learning, and healthy aging) and emphasizes the importance of ensuring adequate financing and evidence base for the aging agenda.

POLICY OPTIONS MATRIX

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
Goal 1: Move to more balanced demographics.				
Support families to have the two children they say they want	Continue expanding quality affordable day care for children aged 0–3 years and preschool for children under age 7. **Impact**: Immediate reduction of obstacles to labor supply and possibly longer-term effects on fertility. **Priority: High** **Policy and Program Examples:** The French system of quality affordable crèches and an extensive network of registered child minders have helped to create a family-friendly environment that allows women to combine motherhood and careers. It has supported a resurgence in French fertility rates since the mid-1990s. In 2013 Germany introduced a legal right to center-based childcare for children aged 1–3, which required a significant expansion in the number of childcare facilities. Austria introduced an awareness effort designed to support working parents, which included a number of projects managed by the Familie & Beruf Management GmbH and funded by the European Commission (EC).	General (provide care to youth, ease care burden for prime age and older adults)	**High to Medium:** Depends on the timetable for expansion. Government has a large role in providing affordable access to childcare in Latvia, but as the country transitions to higher incomes, individuals and employers could share more of the costs. Latest OECD estimates for Latvia's public spending on childcare and early education (2011) is 0.6% of GDP. The OECD average is 0.8% and the highest spender is Denmark at 2%. *Source*: OECD (2015), OECD Family Database, OECD, Paris (www.oecd.org/social/family/database.htm) Early childhood education and care for Latvian children aged up to 3 is a relatively low 15%; the Barcelona target is 33%.	Ministry of Welfare; Ministry of Education and Science; local governments; employers

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	One was a Work and Family Audit for enterprises, which rewarded enterprises that created a family-friendly environment. Another was a State Award for the most family-friendly enterprises to reward innovation. Specific sectors were targeted through the University and Family Audit that assessed in 2011 the needs of students and employees with families and in 2013 employees in healthcare and nursing facilities and small and medium-sized businesses. The impact of these measures has not yet been fully evaluated, but given the relatively low cost they would seem a good investment in best practice.			
	Continue to use tax-benefit policies to raise family incomes, such as by increasing benefits for children and other dependents (especially for low-income working households). **Impact**: A gradual increase in family incomes could over time have an incremental impact on fertility. However, tax-benefit policies are only one factor contributing to higher and more secure family incomes. Other aspects, such as better paid and more stable jobs, also are important. **Priority: Medium to High**	Youth and prime age	Prioritize as fiscal space is freed up.	Ministry of Finance; Ministry of Welfare
Increase openness to immigration	Ease the integration of skilled immigrants into the labor market by (1) introducing systems to validate and accredit non-EU professional qualifications; (2) reducing language barriers by providing access to	General (potential immigrants	**Low:** Apply new rules and schemes in existing institutions and programs. Use European Union (EU) funding for	Ministry of Interior (Office of Citizenship and Migration

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	affordable Latvian language training and allowing on-the-job language certification; (3) implementing targeted international recruitment for specific sectors where there is a shortage of personnel (government could help employers with this); and (4) directing highly-skilled undergraduate and graduate students into higher education programs where there is a large domestic demand for graduates. **Impact**: Low immediate impact but important to prepare the ground for future selective immigration over the longer term as the labor force shrinks and new skills needs arise (and as the country becomes more attractive to immigrants). **Priority: Medium** **Policy and Program Examples:** In 2013, Finland adopted its Future of Migration 2020 strategy. Supporting measures cover (1) creating systems to provide guidance to employers recruiting from abroad and foreign workers; (2) identifying pull factors for labor in-migration and preparing related policies; and (3) providing study modules on Finnish language, culture, and working life for foreign nationals entering Finland to take up jobs. Since 2000 Ireland has worked to attract non-EU skilled workers through the working visa/authorization system (since 2007 via a centralized green card process). Targeted were workers in positions where	likely to be young)	communications, training, and employment programs.	Affairs); Ministry of Welfare (labor laws); Ministry of Education and Science; Ministry of Economics (accreditation of professional qualifications); employer confederations and individual employers (recruitment, training)

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	there was clear evidence of sustained skill shortages. (e.g., health, information technology [IT], construction, financial and business professionals, engineers, and scientists). Potential migrants into Australia use the national Vocational Education and Training Assessment Services (VETASSESS) to have their skills analyzed as part of the requirement for skilled migration to Australia. VETASSESS assesses both general professional and trade skills by examining the education system of the migrant's country of origin, the institution awarding the qualification; and the level, structure, length, and content of the program of study. The VETASSESS assessment program concentrates on occupations where there is a need for workers. Potential migrants pay for their own skill assessment. VETASSESS also has a Migrant Skills Recognition Service (MSRS) for refugees, asylum seekers, and other eligible migrants who did not enter Australia on a skilled migrant visa. After a skills assessment, eligible migrants either get an Australian qualification awarded or a Statement of Attainment. The latter recognizes skills below the level of full qualification and over time an individual can build up the skills recorded in the Statement to accumulate a full qualification. Eligible migrants are given customized gap training in their trade, including work experience and language, literacy, and numeracy support. One issue is that circumstances may make it extremely			

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	difficult for many eligible migrants to get the necessary paperwork from their country of origin.			
Foster diaspora ties to the country and engagement in economic and social development	Continue and expand the program of activities to tighten the links between Latvia and Latvians living abroad.[141] The establishment in 2014 of the World Latvian Economics and Innovations Forum is a promising move. Work with the private sector to focus specifically on expatriates, as either investors or facilitators in Latvia's broader foreign direct investment and national development strategy. **Impact**: Longer-term payoff expected in terms of return of more emigrants, more investment and trade opportunities, and integration of emigrant experience and innovation. **Priority: Medium** **Policy and Program Examples**: Useful examples of outreach activities conducted in partnership with civic society and the private sector can be found in the Government of Ireland's *Global Irish: Ireland's Diaspora Policy* (2015;	General	**Low**: Use embassies and consulates and seek financial support from the Latvian private sector and emigrant networks to fund activities.	Latvian Ministry of Foreign Affairs; Ministry of Interior (Office of Citizenship and Migration Affairs); private sector; emigrant groups.

[141] In 2013, the Ministry of Foreign Affairs, in its report "On Cooperation of the Ministry of Foreign Affairs with the Latvian Diaspora in 2013–2015," set out four lines of action: facilitating the civic and political engagement of the diaspora; preserving the diaspora's bonds with Latvia and Latvian identity; promoting cooperation with the diaspora in business, science, education, and culture; and providing support for those who wish to return to Latvia. See http://www.latvia.eu/fr/blog/latvian-diaspora. The government has not yet formally adopted the proposed program of action.

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	https://www.dfa.ie/media/globalirish/global-irish-irelands-diaspora-policy.pdf). Part of the policy agenda is to reinforce the institutional basis for networks through, for example, more structured and more frequent network meetings, supporting Irish community organizations to achieve independently validated quality assurance standards, and convening meetings such as the Global Irish Civic Forum and the Global Irish Economic Forum to provide more structure for dialogue and heighten engagement. Ireland has been very successful in building on diaspora ties.			
Ensure equal access to aging-related support services and programs across the country	Reduce regional disparities in service provision by deepening and broadening (1) information and monitoring and evaluation systems; (2) evaluation of service delivery by local governments; (3) the link between financing and service demands, given demographic developments in municipalities; and (4) innovation to improve services to the aging population. Evaluate whether the current system of financing results in inequities in service provision. There is some evidence of inequities in the areas of health, social care, and lifelong learning. It will be important to improve information systems so that the national government can track service delivery and the flow of funds.	Older adults	**Unclear**: Needs to be quantified as information systems on service delivery are further developed. Could be relatively costly. Pilot programs and awareness communications campaigns could be supported by EU resources.	Ministry of Regional Development and Local Government; Ministry of Welfare; Ministry of Health; Ministry of Education and Science

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Continue to support initiatives to seek innovative ways to provide services locally.[142] Provide support for transportation to critical health and other social services where lack of transport is a barrier to participation. **Impact**: Results are expected in the long term. Complex institutional reforms in financing, planning, provision, and oversight are needed. Programs to execute specific policies for increasing coverage, take-up, and the quality of local services need to experiment with what works in the specific country context. **Priority: High** **Policy and Program Examples:** A variety of systems are used to measure subnational performance on spending overall or for particular programs. Norway's Local Government Data Registration and Information Scheme (KOSTRA) provides information on how municipalities and counties use resources. Statistics Norway compiles data from local governments on service provision and finances and merges it with related statistics, such as population. This makes it possible to compare the coverage and productivity of local services and helps			

[142] Such as recent initiative by the Association of Local and Regional Governments: http://www.lps.lv/Iepirkumi/?task=view&article_id=4957

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	local governments set priorities based on how effectively resource are used. Sweden issues a public report on elder care, which is the responsibility of municipalities. Statistics Sweden collects the data for the National Board of Health and Welfare, which uses the data to evaluate elder care provision by local governments and to reset national priorities (www.socialstyrelsen.se). New Zealand has in place a Voluntary Bonding Scheme conducted by the Ministry of Health and Health Workforce New Zealand to encourage graduates in the health sector to move to communities that suffer from staff shortages. Annual cash bonuses to pay back student loans or provide additional income are used to attract participants. However, to succeed such schemes probably have to be expensive.			
Goal 2: Support employment and productivity over longer working lives.				
Prevent unemployment among Latvians 50+	Enhance measures to support older workers to stay in employment, especially during cyclical downturns; and as demand rises, support flexible work arrangements, such as part-time and home-based work. Support of microenterprises and other forms of self-employment can provide productive opportunities for older adults seeking flexible employment. **Impact**: Medium-term, as older workers start taking advantage of employment options rather than entering unemployment.	Older adults	**Medium (estimated)**: Much depends on whether subsidies would be provided for retaining older workers or how much of the social security burden is transferred from employers to the government.	Ministry of Welfare; employer organizations

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Priority: High **Policy and Program Examples:** In 2013, France introduced the Intergenerational Contract (*Contrat de Génération*), a subsidy for small companies hiring a worker younger than 26 and retaining a worker older than 57 to facilitate intergenerational skills transmission. In Germany mini- and midi-jobs—jobs that are at least partially exempt from social security contributions—demonstrate how part-time formal employment can be stimulated for the unemployed and informally employed. Moreover, Public Employment Service in Germany piloted provision of age structure and qualification analysis to small and medium enterprises (SMEs) to raise awareness of and facilitate on-the-job training so as to increase retention of older employees.			
Monitor potential disincentives to retaining or hiring older adults	Ensure that changes to tax or other policies do not create disincentives to the hiring or retaining of older workers. Introduction of the minimum social contribution or increases of minimum wages beyond increases in productivity can make it more difficult to retain or hire older adults (e.g., those with less education or who prefer to work part-time), since a substantial share of	Older adults	**Low:** Although the fiscal cost is low, the real political economy cost is in convincing stakeholders that the benefits of higher wages or social contributions for some groups may be outweighed by the costs of less employment for the same or more vulnerable groups.	Ministry of Finance; Ministry of Welfare; Ministry of Economy

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	older workers currently earn only the minimum wage, or less. **Impact**: Part-time or low-skilled workers may see their employment opportunities diminish quickly after changes to tax systems or minimum wage levels as employers reassess their workforce structure in the light of new policies. **Priority: High** **Policy and Program Examples:** Estonia plans to amend its minimum social contribution tax regime to exempt employees with reduced ability to work or of pensionable age from the minimum monthly social tax contribution to be paid by the state.			
Reduce long-term unemployment among the older unemployed	Provide early and intensive job search assistance for the 50+ unemployed by increasing the notification period for mass reductions in employees, profiling older unemployed soon after their separation from employment, and offering them trained job counselors to assist in job search. **Impact**: Medium-term, as the long-term unemployment rate falls due to more intensive job search assistance. **Priority: High**	Older adults	**Medium (estimated)**: Depends on the resources and capacity of the State Employment Agency. There may be an opportunity to access European Social Fund (ESF) financing through investment priority 2.7.3, active inclusion with a view of promoting employment.	State Employment Agency; Ministry of Welfare; employers

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Policy and Program Examples: Belgium requires employers to finance outplacement services for workers aged 45+ who are made redundant due to company restructuring. In France, every jobseeker over 55 has a personal counselor from the first month of unemployment (younger jobseekers have one from the fourth month).			
Reduce bias against older workers	Promote positive stereotypes about the capacities of older workers through awareness and information campaigns and funding NGO projects, encourage mixed-age teams in the workplace; for the unemployed, increase opportunities for exposure to employers via job fairs, networking events, and work trials. **Impact**: Medium- to longer-term, as attitudes change. **Priority: High** **Policy and Program Examples:** In the Netherlands, employers can offer the unemployed an unpaid trial placement for three months, during which they continue to draw unemployment benefits. Employers also partner with industry organizations to let recently-unemployed job seekers have speed dates with them. Since 2006 the United Kingdom (U.K.) has had a continuing public information campaign, "Age	Older workers	**Low to medium**: The cost of public information and awareness campaigns should be relatively low; organization of job fairs and expanding networks of employers for coordinated "speed dating" and work trials can be more costly. There may be a possibility of accessing EU resources for such activities, such as under ESF priority 2.7.3.	State Employment Agency; Ministry of Welfare; employer organizations

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Positive," sponsored by the Department for Work and Pensions. The objective is to stop age discrimination by employers in recruitment, retention, and training. The campaign disseminates the findings of research and works with the press to raise awareness on related issues, holds events, and gives awards for best practices.			
Reduce the care burden on women	Expand formal care services to reduce exits from work or limitation of working hours due to child and elder care responsibilities, especially for women. If the capacity of the network of formal care institutions is reduced through policy measures, it is important to ensure sustainable and predictable cofinancing to provide options for caregivers who would like to remain in the labor market. **Impact**: There may be an immediate rise in female labor force participation if formal care services are available, affordable, and of high quality. A longer-term consequence is a reduction in old-age vulnerability to poverty for women, who are otherwise likely to leave the labor force during caregiving spells. **Priority: Medium** **Policy and Program Examples:** Austria has a comprehensive support system for caregivers and persons in need of care. It includes a cash benefit to be used for formal care services or to reimburse informal caregivers for their time. It also includes provisions for care-related leave or reduction	Prime-age, older adults	**High to Medium:** Depends on the timetable for expansion.	Ministry of Welfare; Ministry of Finance

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	in working hours to support workers who need to provide care to their relatives.			
Preserve the working capacity and productivity of older employees	Promote adaptation of workplaces to the needs of older employees, raise awareness about the benefits of workplace rotation, continue enhancing occupational safety and health (OSH) compliance, and provide voluntary "aging audits" for employers. **Priority: Medium** **Impact**: Some short-term results from fewer absences due to sickness but mostly medium-term, from reduction of premature exit from the labor force due to disability **Policy and Program Examples:** A Bavarian branch of BMW in Germany was able to reduce absenteeism and increase the productivity of older workers using a cost-effective program of small modifications to workplaces, healthcare management, training, enhancement of the work environment, policies for part-time work, and change management processes. Recent labor market reform in Austria emphasized health-related issues and introduced the Fit2Work initiative. Fit2Work, financed by the Public Employment Service, social security, and Ministry of Social Affairs, offers comprehensive counseling and case management for people who are unemployed or in extended absence from work due to a health	Older workers (main), prime-age workers (secondary)	**Medium**: Government can finance awareness and information campaigns on workplace adaptations and OSH audits and offer consultation services, but firms should finance at least part of the activities to raise productivity and reduce absenteeism among their employees. ESF financing may be available to support these measures via priority 2.7.3.	Ministry of Welfare; labor inspectors; employer organizations

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	condition. It also provides counseling for companies, using a wide-reaching network of consultants, to promote and maintain work ability of employees, to identify and eliminate counterproductive factors in the workplace environment, and to improve the company's productivity. This is done through counseling process based on Work Ability Index Plus, employee interviews, and coaching on workability. Austria also provides companies with consultation services on how to increase age-related flexibility and health promotion at the workplace, and how to up-skill and re-skill workers aged 45+. The U.K.'s Department for Work and Pensions offers an "Employer Toolkit: Guidance for Managers of Older Workers" that covers all business sectors and discusses retaining, training, recruitment, legal issues, and flexible working arrangements. The U.K.'s Age Action Alliance has online a comprehensive information source for employers managing older workers, "Managing the Health and Productivity of an Aging Workforce—An Employer Resource: Solutions to Employer Questions" http://ageactionalliance.org/wordpress/wp-content/uploads/2014/03/Employers-Toolkit-April-2014.pdf. It contains simple tools and checklists and expert advice on a wide range of health and productivity issues.			

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
Goal 3: Ensure economically secure aging.				
Prevent old-age poverty	To the extent the government of Latvia's policy focus shifts toward providing minimum income through the pension program, the government may need to introduce more redistributive elements into the pension system. This could be accomplished by: (i) establishing a basic pension financed from the general budget; (ii) additional government contributions of flat amounts to all active social insurance accounts; or (iii) changes to the minimum pension. Updated projections of demographic, labor market and macroeconomic conditions and expectations as well as updated long-term projections for the pension system that reflect its current status are needed to develop evidence-based policy and examine potential design and financing options. **Priority: High** **Policy and Program Examples**: The Swedish pension system consists of a notional defined contribution (NDC) program, a mandatory fully funded defined contribution program and a Guarantee Pension. The Guarantee Pension is an income-tested top-up for people with low levels of benefit from notional accounts, and is price indexed. There is also a housing benefit for pensioners that that covers 93% of housing costs up to a maximum	Older adults	**Medium to High**: The cost of social or redistributive pensions will depend on eligibility conditions, the size of the minimum income guarantee, and the manner in which the benefit is indexed following retirement. The fiscal space for a redistributive pension component could be obtained from a number of sources, for example, by: (i) reallocations within the social insurance budget; (ii) changes in pension system design to focus more on poverty prevention and less on income replacement by introducing more redistributional elements and reducing the allocation to NDC; (iii) change in pension indexation, such as indexing to inflation only; (iv) re-examination of disability and early retirement pensions to provide adequate benefits without creating incentives to use these as a substitute for old-age retirement; (v) reallocation of general budget revenues.	Ministry of Welfare; Ministry of Finance

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Chile has a mandatory fully funded defined contribution program and a pension-income-tested supplement. The supplement is payable to all Chileans who have attained age 65, been a resident of Chile for 20 years. The pensioner's family must be among the poorest 60% of the population as assessed by the census. The benefit is payable to all individuals whose defined-contribution pension is less than a specified amount: the maximum welfare pension threshold. Basic pensions in various forms exist in many EU countries including the Czech Republic, Estonia, Iceland, Ireland, Lithuania and the UK. The basic pension consists of a flat benefit that is not related to earnings. Typically, a minimum number of years of contributions is required to be eligible and the benefit may increase with years of contributions. Other countries pay social pensions financed from the State budget including Denmark, Netherlands and Sweden			
Increase savings for older age	Raise awareness of the need for savings and enhance incentives for saving. Continue and deepen government financial literacy campaigns about pensions, savings, and older-age income needs. This could be done partly in cooperation with the private sector. Continue tax incentives for savings programs. **Policy and Program Examples**:	Young/ prime-age (savings are low on average for the older generation who have less time to build	**Low to medium**: Information campaigns, automatic enrollment schemes, and the like are not expensive. Depending on their design, tax incentive schemes could be costly.	Individuals; Ministry of Welfare (public campaigns); private sector

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Countries are increasingly using automatic enrollment schemes (often with an opt-out possibility) to encourage saving. Most automatic enrollment schemes for savings are targeted to pensions, as for example in Australia, the U.K., and the Netherlands. Voluntary savings schemes also can be effective. In New Zealand the KiwiSaver is a voluntary scheme to help people build up retirement savings; younger participants can use it to save for a deposit on their first home. Participation in KiwiSaver has grown over time. In contrast, although Latvia has had a voluntary private pension savings pillar since 1998, enrollment is still low. Compulsory schemes may be necessary to ensure adequate savings for all; automatic or voluntary schemes may be a second-best option. A recent example of raising financial awareness is a commercial advertising campaign of the Prudential insurance company in the United States, "How Much Do you Need to Retire?" Professor Daniel Gilbert from Harvard University used data visualization to influence perceptions on savings and retirement (see http://www.ispot.tv/ad/7Txd/prudential-ribbon-experiment). The impact of this campaign has not been evaluated, but the perception is that it did raise awareness of how much people need to save for retirement.	savings for retirement)		
Goal 4: Promote skills development and lifelong learning.				

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
Promote coordination of both central and local adult education and training	Use the government convening power to strengthen central and local mechanisms to improve the flow of information and encourage coordination and cooperation between firms, industry associations, and training providers. This includes (1) strengthening and expanding the focus of tripartite Sector Expert Councils on adult education and training; and (2) leveraging the State Employment Agency to facilitate the flow of information on labor market needs between employers and training providers at central, regional, and local levels and to champion the interests of older workers and job seekers. Local governments can also initiate or build up their capacity to convene training supply and demand sides and promote local partnerships. **Impact**: Potentially high, building on and building up existing institutions and mechanisms. This is a first step in building effective adult education and training systems. **Priority: High**	General	**Low**: Combine national and available EU funding. Leverage private sector contributions.	Various national government agencies and local governments; Joint Sector Expert Council secretariat with representation from the National Centre for Education, the Employers' Confederation and the Free Trade Union Confederation of Latvia; State Employment Agency; public and private training institutions
Use national and EU financing strategically to build the adult education and training system	In allocating public funds (national and EU), differentiate between inclusion and productivity objectives in adult education and training and recognize the risk of public funds replacing private investments. Use EU financing in the 2014–20 financing period to conduct experiments and evaluate them rigorously.	Prime-age and older workers	**Variable**: Combine national and any EU funding. For the productivity objective (mainly focused on employed individuals) leverage private (co-)funding from workers and firms using such incentives as tax breaks and matching grants. For the	Various Government of Latvia agencies

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Impact: Variable **Priority: Medium-High**		inclusion objective (mainly focused on unemployed and inactive workers and those at risk), use public resources in a demand-led manner, e.g., through vouchers.	
Use regulation strategically to make sure the emerging adult education and training system reflects the needs of older individuals	Use regulatory tools to steer the adult education and training system in the direction of more openness to the needs of older workers and job seekers, e.g., recognizing prior learning through informal and non-formal activities in light of the relative importance of informal learning for older individuals. Reduce language barriers by providing access to affordable Latvian language training and allowing on-the-job language certification. **Impact**: Medium-term. **Priority: Medium**	Older workers and job seekers	**Low**	Ministry of Education and Science
Goal 5: Achieve healthier and longer lives.				
Increase state health care spending, ensure accessibility of health care services across the country	Continue to give primary and preventive care priority in all health services; make medical resources more available, especially general practitioners (GPs), particularly in rural areas; reconsider support for GPs working in areas with low population density; evaluate the possibility of organizing transportation for patients to the point of service. **Impact**: Longer-term payoff expected in terms of labor supply and productivity and easing fiscal costs associated with an older population.	General	**High:** Increasing the health care budget is expensive, but it is clearly a necessity. Measures can be prioritized for adoption as state budget funds are freed up. Expenses for making medical resources available in regions and rural areas depend on the extent of the expansion. Transportation of patients is a matter of cost efficiency.	Administration; Ministry of Health

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
Prevent and reduce premature mortality and disability	Improve disease detection and treatment, such as coverage of state-financed cancer screening programs; widen programs to screen and treat cardiovascular diseases. Analyze why so few take advantage of screening programs; make sure that poor proficiency in the official language does not depress take-up rates among middle-aged ethnic minorities. Raise public awareness of the importance of cancer screening. Ensure occupational safety. Reinforce workplace-based occupational programs for preventing disability, especially prolonged disability due to musculoskeletal disorders. Make medical resources more available for workers, e.g., outside regular working hours. **Impact**: Medium-term payoff expected in terms of a larger and more productive labor force, and lower costs for inpatient health care and disability benefits. **Policy and Program Examples**: In Australia a mass media campaign, "Don't Just Sit There," involved TV ads and mail campaigns. During the campaign there was an 18% increase in the number of cervical cancer tests—the majority were older unscreened and under-screened women. The "Cherry & Pea TV Campaign" increased the likelihood of breast cancer screening and awareness of the need to have a mammogram every two years.	General / middle-aged	**Medium:** The cost of public information and awareness campaigns should be relatively low. Expenses for better diagnostics will lead to spending more on newly discovered cases of diseases in the short run, but those expenses would be outweighed by the reduction in disability and premature mortality in the medium term. Enterprises should at least partly cover expenses for improving occupational safety and development and building up workplace-based occupational programs. ESF financing may be available to support workplace-based programs via investment priority 2.7.3.	Ministry of Health; National Health Service; employers; State Labor Inspectorate

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Workplace-based occupational programs for workers with musculoskeletal problems and disability have proved efficient. In Canada, the Prevention and Early Active Return-to-Work Safely (PEARS) program at Vancouver General Hospital helped get workers with musculoskeletal injuries back to their regular duties more quickly.			
Reduce excess male mortality	Reduce deaths from diseases of the circulatory system, cancer, and external causes. Ensure a high take-up rate of state-financed screening for such diseases. Raise awareness, educate, change perceptions, involve spouses, encourage GPs to be more proactive. **Impact**: Mid-term payoff in terms of sustainability of the male workforce. **Policy and Program Examples**: In Korea, combining telephone and postal invitations or using only telephone invitations for colorectal and gastric cancer screening for males produced significantly more participation and were more efficient than postal interventions alone. In the United States, targeted and tailored interventions (screening invitation letters, information booklets, tailored "message pages") are found to raise colorectal cancer screening.	Middle-aged	**Medium:** Proactive communication, like telephone invitations, would create minor but permanent expenditure items. Expenses for better diagnostics will lead to spending more on newly discovered cases of diseases in the short run, but these expenses would be outweighed by the reduction in disability and premature mortality in the medium term.	Ministry of Health; National Health Service
Tackle inequalities in health	Reduce financial barriers to accessing health care. Reduce unmet needs for health care. Inform society about free GP visits and a list of tests they provide	General	**Medium**: Expenses for information campaigns would be relatively low. Improved GP visit indicators among the less well-off would not raise costs	Ministry of Health

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	once a year. Target low-income groups. Keep the program for the needy. **Impact**: Longer-term payoff due to higher labor force participation and productivity and longer working lives; savings on the costs associated with disabled and older people. **Policy and Program Examples**: Tackling health inequalities implies measures in a variety of policy fields. In the U.K. health inequalities were reduced substantially by (1) wealth redistribution, e.g., raising the national minimum wage and reforming tax credit and welfare payments; (2) improving educational and employment opportunities, especially for young people and the long-term unemployed; and (3) supporting vulnerable individuals and families (e.g., the Sure Start program).		much. The program for the needy is more expensive but more crucial.	
Encourage and support healthy lifestyles	Target improved attitudes and health and illness behavior; put in place a healthy environment. **Impact**: Longer-term payoff due to higher labor force participation, longer working lives, higher productivity, reduced absenteeism, and decreased costs associated with an older population. **Policy and Program Examples**: Over the last two decades, Lithuania achieved a major improvement in its tobacco control policy. NGOs were involved. Broad information campaigns raised awareness and smoking bans gained substantial public	General	**Low to medium:** The costs of public campaigns are relatively low. Expenses for improving infrastructure depend on scale. There may be a possibility of accessing EU resources for such activities.	Individuals; Ministry of Health

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	support (even among smokers). The program was closely associated with the decrease in smoking. Commitment devices can be used to incentivize healthy behaviors. In the Philippines, the CARES program offered smokers a savings account in which they deposited funds for six months, after which they took a test for nicotine and cotinine. If they passed, their money was returned; otherwise, it was forfeited to charity. The program was successful in increasing the probability of smoking cessation and produced lasting effects.			
Goal 6: Ensure sustainable and adequate financing of the aging agenda.				
Achieve adequate and sustainable financing of the necessary services and programs	Given the urgency of the agenda, prioritize action now to set up socially and fiscally sustainable systems. The immediate priorities are: (1) Rethink the financing mix for pensions. (2) Plan for increased spending on health and long-term care. Since many older people have few assets, in the immediate future private financing of health and care needs may be limited. (3) Find fiscal space elsewhere in the budget for aging-related spending. (4) Use EU funds strategically to support aging policies. (5) Be transparent about implicit pension costs by defining reliable methodologies for calculating the implicit pension debt, and make these figures publicly available.			Government of Latvia

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Priority: High **Policy and Program Examples**: Many countries are relying more heavily on general revenue financing than on labor taxes for aging-related programs. Japan has chosen to raise consumption taxes, e.g., the VAT, to finance such spending, but this is regressive—and is particularly worrisome if inequality is already high.			
Goal 7: Develop an evidence-based policy agenda.				
Develop and use research on aging-related issues to inform the policy agenda	Continue the current evidence-based approach to policy- of making: (1) Put in place IT systems to track program spending, service quality, and coverage) in key subnational areas. (2) Support research on how people are aging across the lifecycle. (3) Deepen monitoring and evaluation of aging-related programs and policies. (4) Experiment with pilot programs and policy approaches, accompanied by continuous evaluation. (5) Consider joining the Survey of Health and Retirement in Europe (SHARE) research project (fielding the survey and supporting related research). This is a multidisciplinary and cross-national database of microdata on health, socioeconomic status, and social and family issues for 20 European countries + Israel on those aged 50+ (source: http://www.share-project.org/). (6) Consider joining PIAAC or implementing a STEP survey to evaluate the skills of the working-age population.	General	**Low**: Combine national and available EU funding. Attract private sponsorship in appropriate areas. Monitoring and evaluation are vital to ensure value for money in public and private spending on aging-related interventions.	Various national government agencies (with the Aging Steering Committee) and local governments; universities and research institutes; the Employers' Confederation; large companies; cooperation with the EC, the OECD, World Bank. etc.

Objective	Policy Options	Age Group Targeted	Cost and Financing Options	Institutions Responsible
	Impact: Potentially high as resources are directed where they are most needed and most effective. **Priority: High**			

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Annexes

Aging Index components

	Measurement/Definition	Source	Value for Latvia	Indicator specific rank	Rank for Latvia
55-59	Number of employed aged 55-59 / population aged 55-59	LFS-2012	65.62	10	9
60-64	Number of employed aged 60-64 / population aged 60-64		37.23	9	
65-69	Number of employed aged 65-69 / population aged 65-69		15.25	7	
70-74	Number of employed aged 70-74 / population aged 70-74		7.87	7	
es	Percentage of older population aged 55+ providing unpaid voluntary work through organizations	EQLS-2012	5.4	23	23
	Percentage of older population aged 55+ providing care to their children, grandchildren (at least once a week)		31.3	15	
lts	Percentage of older population aged 55+ providing care to elderly or disabled relatives (at least once a week)		10.7	23	
tion	Percentage of older population aged 55+ taking part in the activities of meeting of a trade union, a political party or political action group		7.7	19	
	Percentage of people aged 55 years and older undertaking physical exercise or sport at least 5 times a week.	EQLS-2012	12	17	28
of care	Percentage of people aged 55 years and older who report no unmet need for medical and dental examination or treatment during the 12 months preceding the survey.	SILC-2010	68.4	28	
g	Percentage of people aged 75 years and older who live in a single household alone or in a couple household.	SILC-2011	73.9	24	
ncome	Ratio of median equalized disposable income of people aged above 65 to the median equalized disposable income of those aged below 65.	SILC-2012	79.8	20	
	Percentage of people aged 65 years and older who are not at risk of poverty.	SILC-2012	94.5	10	
vation	Percentage of people aged 65 years and older who are not severely materially deprived.	SILC-2012	73.6	26	
	Percentage of people aged 55 years and older who are not worried about becoming a victim of violent crime.	ESS-2012	39.86	27	
	Percentage of people aged 55 to 74 who stated that they received education or training in the four weeks preceding the survey.	LFS-2012	2.9	13	
of 50	RLE at 55 divided by 50 to calculate the proportion of life expectancy achievement in the target of 105 years of life expectancy	EHLEIS 2012	47.76	25	21
ife t age	Healthy Life Years (HLY) a measure of disability-free life expectancy that combines information on quality and quantity of life. HLY measures the remaining number of years spent free of activity limitation.	EHLEIS 2012	47	20	
g	Mental well-being (using EQLS 2011 and WHO's ICD-10 measurement model)	EQLS-2012	51.4	25	
	Share of people aged 55-74 using the internet at least once a week.	ICT Survey 2012	35	16	
ness	The indicator measures the share of people aged 55 or more that meet socially with friends, relatives or colleagues several times a week or every day.	ESS-2012	38.28	21	
nment	Percentage of older persons aged 55-74 with upper secondary or tertiary educational attainment	LFS-2012	79.7	4	

Annex 2: Regional variation in covariates of labor supply among the pre-retirement age group

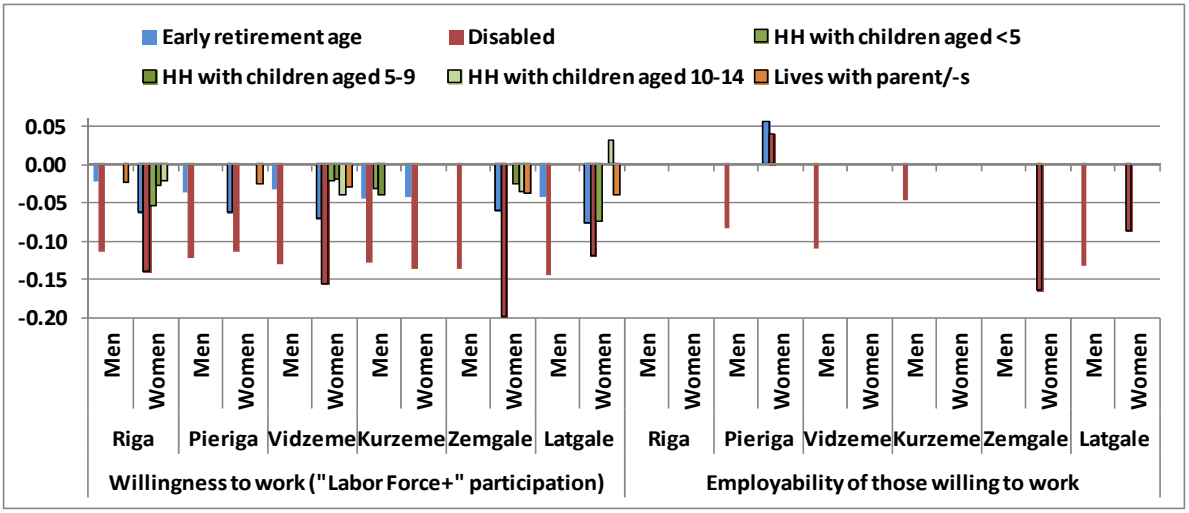
In order to identify any region-specific factors that constrain or facilitate longer working lives in Latvia, the analysis presented in Chapter 4 on correlates of labor supply is repeated here for the pre-retirement age group, i.e. individuals aged 50 to retirement age, separately for each region. The main findings from this regression analysis, done using Labor Force Survey data for 2002-2013 and focusing on participation in the extended labor force and employability, are presented below.

Main findings on disability, age, and potential care responsibilities (Figure A2.1):

- In all regions and for both genders, disability (and work limitations caused by a chronic illness) has a very strong negative effect on labor force participation, controlling for other observable characteristics.
- In terms of employability, disability has a very strong negative effect for men in all regions except Riga and Zemgale; for women, disability has a significant effect on employability only in Zemgale and Latgale.
- Controlling for other characteristics (including a linear term for age), reaching the age of eligibility for early retirement reduces participation in the extended labor force for men and women in all regions, with the sole exception of men in Zemgale.
- Presence of children in the household reduces women's willingness to work in most regions (except Pieriga and Kurzeme), while men's participation in extended labor force is only affected by the presence of children in Kurzeme.
- Living with one's (or partner's) parent(s) reduces willingness to work of men in Riga and of women in all regions except Riga and Kurzeme.

Figure A2.1: Marginal effects of early retirement age, disability and potential care responsibilities on willingness to work and employability in Latvia's regions, 2002-2013

Men and women aged 50 to retirement age



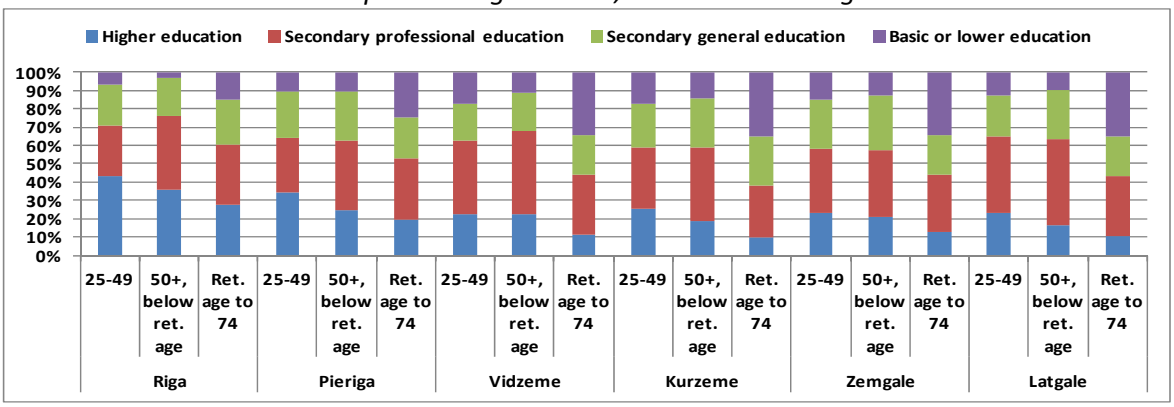
Notes: Columns representing women are bordered. "Very insignificant" marginal effects (with $|z|<1$) are not shown. The analysis controls for other observable characteristics.
Source: Based on Labor Force Survey data for 2002-2013.

Main findings on education (Figures A2.2 and A2.3):

- Compared to the current 50-74 cohort, the future cohorts in this age group will be more educated in all regions, but the increase in human capital will be less pronounced in Vidzeme and Zemgale. 25 years from now, the population aged 50-74 will still be much more educated in Riga and Pieriga than in other regions.
- Higher education boosts participation of preretirement age women in extended labor force in all regions except Riga; for men, education matters only in Pieriga and Latgale.
- Higher education improves employability of men in Pieriga and Latgale, as well as of women outside Riga and Pieriga.
- In Riga, Kurzeme and Latgale, women with basic education (or lower) are less likely to be part of (extended) labor force than those with upper secondary education.

Figure A2.2: Future 50+ are going to be more educated but regional disparities will persist

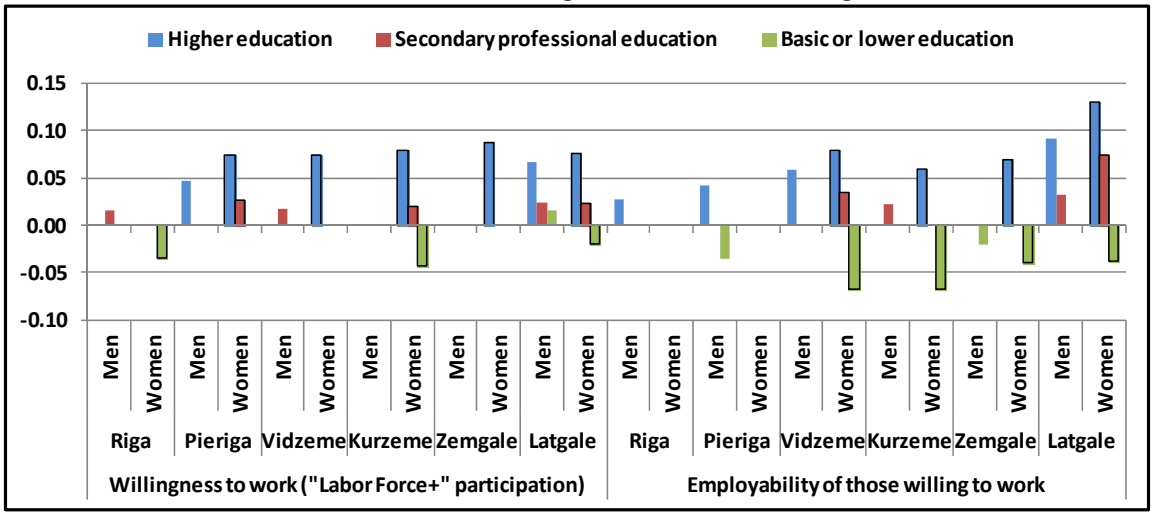
Population aged 25-74, 2011-2013 average



Source: Based on Labor Force Survey data for 2002-2013.

Figure A2.3: Marginal effects of educational attainment on willingness to work and employability in Latvia's regions, 2002-2013

Men and women aged 50 to retirement age



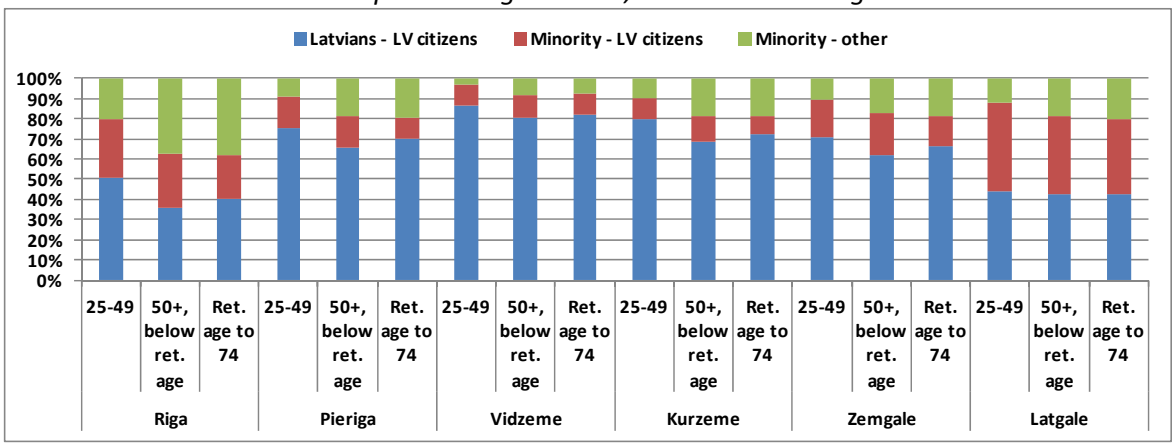
Notes: Reference category: secondary general education. "Very insignificant" marginal effects (with $|z|<1$) are not shown. Columns representing women are bordered. The analysis controls for other observable characteristics.
Source: Based on Labor Force Survey data for 2002-2013.

Main findings on ethnicity and citizenship (Figures A2.4 and A2.5):

- Ethnic minorities make up a substantial proportion of the 50+, and will continue to do so, especially in Riga and Latgale.
- Controlling for other observable characteristics (such as age, education, and partner status), while participation in extended labor force for preretirement minority men is the same or higher than that of ethnic Latvians in all regions, preretirement minority women (with and without Latvian citizenship) outside Pieriga and Kurzeme have lower participation compared to their ethnic Latvian peers.
- In terms of employability, minority men without Latvian citizenship face significant employability barriers in Riga, Pieriga, and Vidzeme; minority women (with and without Latvian citizenship) face significant employability barriers in all regions except Vidzeme.

Figure A2.4: Ethnic minorities account for a substantial proportion of the 50+, as well as future 50+, population in each of Latvia's region

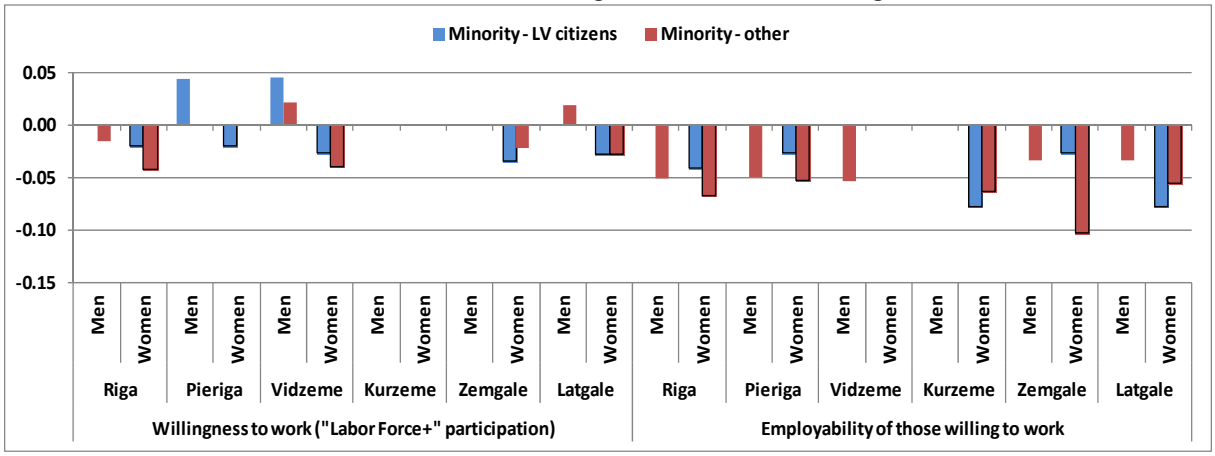
Population aged 25-74, 2011-2013 average



Source: Based on Labor Force Survey data for 2002-2013.

Figure A2.5: Marginal effects of Ethnicity and Citizenship (vs. ethnic Latvian with Latvian citizenship) on willingness to work and employability in Latvia's regions, 2002-2013

Men and women aged 50 to retirement age



Notes: Columns representing women are bordered. "Very insignificant" marginal effects (with $|z| < 1$) are not shown. The analysis controls for other observable characteristics.

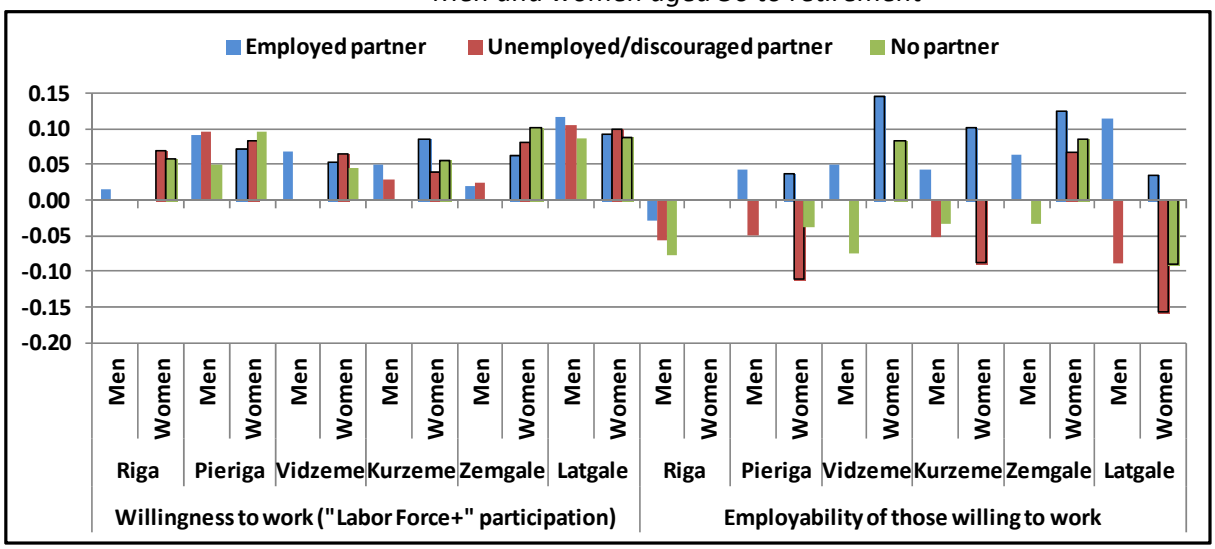
Source: Based on Labor Force Survey data for 2002-2013.

Main findings on partner's labor market status (Figure A2.6):

- The preference for joint retirement (whereby individuals whose partner is outside the extended labor force are themselves less willing to work) is present for preretirement age women in all regions; for men, this effect is most pronounced in Pieriga and Latgale but absent in Riga.
- Except for women in Riga, both employed and unemployed or discouraged partners are associated with higher willingness to work for preretirement adults; in other words, what matters for participation in the labor force is not the partner's earnings but partner's participation in the labor market.
- In most regions, conditional on willingness to work, individuals with employed partners have the highest chances to be employed while those with unemployed or discouraged partners face most significant barriers in employability. This kind of assortative matching between partners is stronger for women than for men and is not observed in Riga.

Figure A2.6: Marginal effects of partner's labor market status (vs *Out of Extended Labor Force*) on willingness to work and employability in Latvia's regions, 2002-2013

Men and women aged 50 to retirement



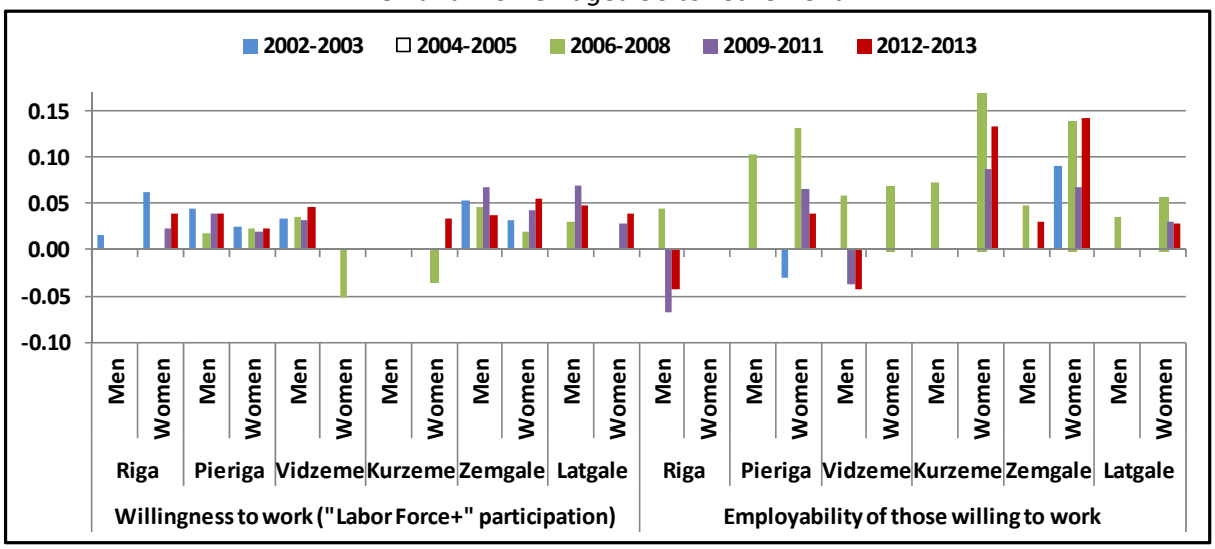
Notes: Columns representing women are bordered. "Very insignificant" marginal effects (with $|z|<1$) are not shown. The analysis controls for other observable characteristics.
Source: Based on Labor Force Survey data for 2002-2013.

Main findings on time period (Figure A2.7):

- There is no evidence in any of the regions that in the post-crisis period willingness to work of the preretirement age group is significantly below the pre-crisis or pre-accession level; moreover, in Latgale it is even higher.
- By contrast, employability of preretirement age men and women is yet to recover fully (Zemgale region being a positive exception).

Figure A2.7: Marginal effects of time period (vs. 2004-2005) on willingness to work and employability in Latvia's regions, 2002-2013

Men and women aged 50 to retirement



Notes: "Very insignificant" marginal effects (with $|z| < 1$) are not shown. The analysis controls for other observable characteristics.

Source: Based on Labor Force Survey data for 2002-2013.

Annex 3: Job Quality Index methodology

Calculating the components of job quality

The Job Quality Index (JQI) for Latvia consists of 11 components and calculates the quality of employment for each employed wage worker in a specific year. Each worker's job quality is measured by assessing specific job characteristics, i.e. the JQI components, against a threshold. Several components use the worker's personal characteristics and job attributes, such as level of education or wage, and compare them either to a normative threshold such as the minimum wage or a threshold that is derived from the average job characteristics of workers in the same peer group (cell-based threshold, see also Table A3.1).

Creating cells of comparable workers (i.e. the worker's peer group) facilitates a relative approach to measuring job quality. For Latvia, two relative measures of job quality are included*: relative underpayment* and *overqualification*. In the case of overqualification the worker's peer group comprises all workers that belong to the same sector-occupation-birth cohort cell.[143] To determine whether the worker is overqualified for the job, his level of education is compared to the education level of the median worker in the particular sector-occupation-birth cohort cell. A similar approach is followed for *relative underpayment*.

For other components the assessment is based on a more aggregate level where workers are grouped into sector-occupation cells. Components such as *resilience to aggregate shocks* or *skills obsolescence* exploit information of today's unemployed to assess the quality of employment of today's workers. For example, examining the main reason why people whose last job was in a specific sector-occupation cell became unemployed provides important information on the resilience of current jobs with similar characteristics (i.e. the same sector-occupation cell).[144]

Work safety utilizes the LFS 2013 ad-hoc module on accidents at work and work-related health problems. For the purpose of this analysis, the incidence during the past 12 months of (i) work-related accidents and (ii) work-related health problems as well as the current exposure to (iii) risk factors affecting physical health, and (iv) risk factors to mental well-being are included. Correlation among the four variables is sufficiently high and principal component analysis (PCA) is used to aggregate the individual measures. Since the underlying data is strictly binary, tetrachoric PCA is performed and the first principal component is used as the measure of work safety at the worker's level. To also obtain estimates in earlier years, 32 sector-occupation cells are created in all years and the 2013 cell-specific scores of work safety are mapped into the data of 2003 and 2008. Finally, good jobs belong to cells that have a work safety score below the median value of the cell-based work safety score distribution.

[143] Sectors are grouped into 8 categories (Table A3.2), main occupational groups are aggregated into 4 skill levels (Table A3.3), and 4 groups of birth cohorts are used, resulting in 128 cells.

[144] Work safety and both resilience to shocks components are based on 32 sector-occupation cells. In case of skills obsolescence, the number of sector aggregates was reduced from 8 to 4 and only 2 instead of 4 levels of occupational skills are used when constructing sector-occupation cells, mainly to ensure reliable cell estimates of long-term unemployment.

Table A3.1: Job Quality Index: methodology and shares of good jobs by component

Component	Data used for scoring	Type of threshold	Criteria for good job	Share of good jobs in 2013 (percent)
Wage > minimum wage	Individual	Normative	The worker's monthly wage is strictly higher than the minimum wage.	82.4
Better work safety	Sector-occupation cell	Median of work safety score distribution	The cell-based score of work safety is below the median value of work safety.	48.7
Low incidence of relative underpayment	Individual	Cell-based threshold	The worker's wage is not below the wage of the median worker in the sector-occupation-education-potential LM experience cell.	65.3
Low incidence of compensatory moonlighting	Individual	Yes/No	A full-time worker earning the minimum wage or less does not have a second job.[a]	93.6
High incidence of work-related training	Individual	Yes/No	The worker received work-related training in the past 4 weeks.	3.6
Low incidence of underemployment	Individual	Yes/No	The worker does not want to work more hours.[b]	84.2
Better employment engagement	Individual	4-item scale	If the worker works part-time and/or has a temporary job, it is by choice.	97.2
Low incidence of overqualification	Individual	Cell-based threshold	The worker's level of education is not above the education level of the median worker in the sector-occupation-birth cohort cell.	72.2
High resilience to aggregate shocks	Sector-occupation cell	Median of distribution of cell-based shares	The worker's cell has a share of jobs lost due to dismissal or end of temporary jobs during a crisis that is less than 60 percent.[c]	59.7
High resilience to idiosyncratic shocks	Sector-occupation cell	Median of distribution of cell-based shares	The worker's cell has a share of jobs lost due to illness, disability or pregnancy that is below 5 percent.	44.1
Low incidence of skills obsolescence	Sector-occupation cell	Normative	The worker's cell has a long-term unemployment rate that is below the annual economy-wide long-term unemployment rate.	60.8

Notes: [a] All other possible combinations of full-time, below the minimum wage and second job as well as part-time workers receive score 1.

[b] Based on the ILO definition of underemployment, part-time and full-time workers are asked about their preference to work more hours.

[c] For the calculation of JQI in 2003, 2008 and 2013, the following years of crisis are considered: 2003, jobs lost during the course of Russia's 1998 financial crisis, in particular 1998, 1999 and 2000. 2008, jobs lost in 2008 at the beginning of the global financial crisis. In 2013, job was lost in the course of the global financial crisis, in particular years 2008, 2009, and 2010.

The actual score is binary for most components: a worker receives score one for good job if the component-specific requirement is fulfilled and score zero in case the good job criterion was not met (Table A3.1). *Employment engagement* is the only exception as it ranks each wage job on a 4-item scale. Jobs are ranked according to the permanency of the contract and whether it is a full-time or part-time job. If workers have permanent full-time jobs or engage voluntarily in temporary and/or part-time jobs, score one for good job is assigned. If workers could not find permanent full-time employment, score zero is allocated. Table A3.4 provides further details.

Table A3.2: Economic sector classification of current and last job (NACE rev. 2)

NACE rev. 2 codes	Sector of current or last job:	
	8 groups	4 groups
A: Agriculture, forestry, fishing	A + B	A – F
B: Mining, quarrying		
C: Manufacturing	C + D + E	
D: Electricity, gas, steam, AC supply		
E: Water supply; sewerage, waste management, remediation		
F: Construction	F	
G: Wholesale, retail trade; repair of motor vehicles	G	G
H: Transportation, storage	H + I + J	H – N
I: Accommodation, food service		
J: Information, communication		
K: Financial, insurance activities	K + L + M + N	
L: Real estate activities		
M: Professional, scientific, technical activities		
N: Administrative, support service		
O: Public administration, defense	O + P + Q	O – U
P: Education		
Q: Human health, social work		
R: Arts, entertainment, recreation	R + S + T + U	
S: Other services		
T: Households as employers		
U: Extraterritorial organizations		

Table A3.3: Skill level of current and last occupation (Major groups of ISCO classification)

ISCO88 or 08	Skill level of occupation:	
	4 groups	2 groups
1: Managers	High	High/Medium
2: Professionals		
3: Technicians and associate professionals	Medium	
4: Clerical support workers		
5: Service and sales workers		
6: Skilled agricultural, forestry and fishery workers	Low	Low/Basic
7: Craft and related trades workers		
8: Plant and machine operators and assemblers		
9: Elementary occupations	Basic	

Table A3.4: Employment engagement: 4-item scale to rank quality of job

Type of engagement		full-time	or part-time	
			voluntary	involuntary
permanent		1	1	0.5
or temporary	voluntary	1	1	0.3
	involuntary	0.5	0.3	0

Aggregating the components to calculate the Job Quality Index

The data underlying the JQI is likely to be multicollinear and some of the components are interrelated, indicating that two or more of the observed variables may capture the same latent factor. Including correlated variables in the composite index is likely to bias the JQI since dimensions that are captured by several variables are overrepresented at the expense of equally important but singularly measured dimensions.

To minimize the bias when aggregating the individual components, the composite index of job quality is calculated using principal component analysis (PCA). PCA is a data reduction technique that groups individual variables into principal components according to their degree of correlation. After the data is transformed, the principal components are uncorrelated. Since most of the job quality components are binary, polychoric PCA which uses the polychoric correlation matrix is performed.[145] In particular, the data for 2003, 2008 and 2013 is pooled and polychoric PCA is performed on standardized variables.[146] In order to obtain a simpler structure of the factor loadings, components are rotated and the first rotated component is used as the composite index of job quality. Since each principal component is a linear combination of all observed variables, all 11 JQI components are included in the composite index, but some variables contribute more than others. Wage-related components and the type of employment engagement are strongly correlated with the JQI (Table A3.5). In terms of overall job quality, almost 3 out of 4 wage-employed workers have high quality jobs, but significant differences exist over time (Table A3.6).

[145] Traditional PCA is based on the Pearson correlation coefficient which is inappropriate in case of binary or categorical data.

[146] Running separate PCAs for each year will yield factor loadings that differ for each year. Results would not be directly comparable over time.

Table A3.5: Factor loadings of the first rotated component

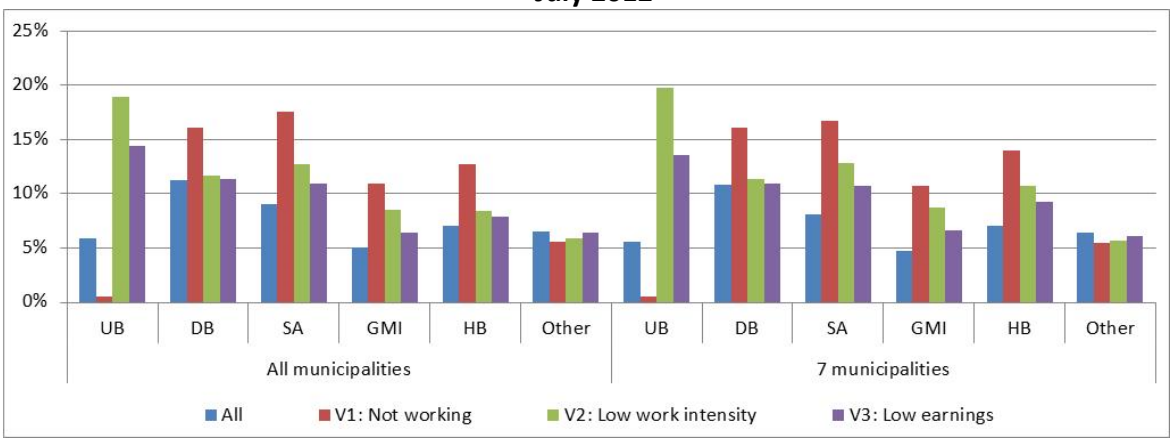
JQI component/original variable	first rotated component
Wage > minimum wage	**0.568**
Work safety	-0.100
Relative underpayment	**0.490**
Compensatory moonlighting	**0.478**
Work-related training	**0.242**
Underemployment	0.003
Employment engagement	**0.362**
Overqualification	-0.048
Resilience to aggregate shocks	-0.048
Resilience to idiosyncratic shocks	-0.011
Skills obsolescence	0.069

Table A3.6: Job Quality Index, various years

year	JQI	95 percent confidence interval	
2003	0.738	0.735	0.742
2008	0.754	0.751	0.756
2013	0.740	0.737	0.742

Annex 4: Comparison of benefit incidence in selected municipalities to all municipalities

Figure A4.1. Share of pre-retirement age people receiving different types of benefits in Latvia for at least one month in all municipalities and in the sample of seven municipalities, August 2011 - July 2012



Note: July 2012 is the last date for which this data is available.
Source: Government of Latvia Administrative data.

Table A4.1. Share of pre-retirement age benefit recipients by number of months on benefit in all municipalities and in the sample of seven municipalities, December 2005 - July 2012

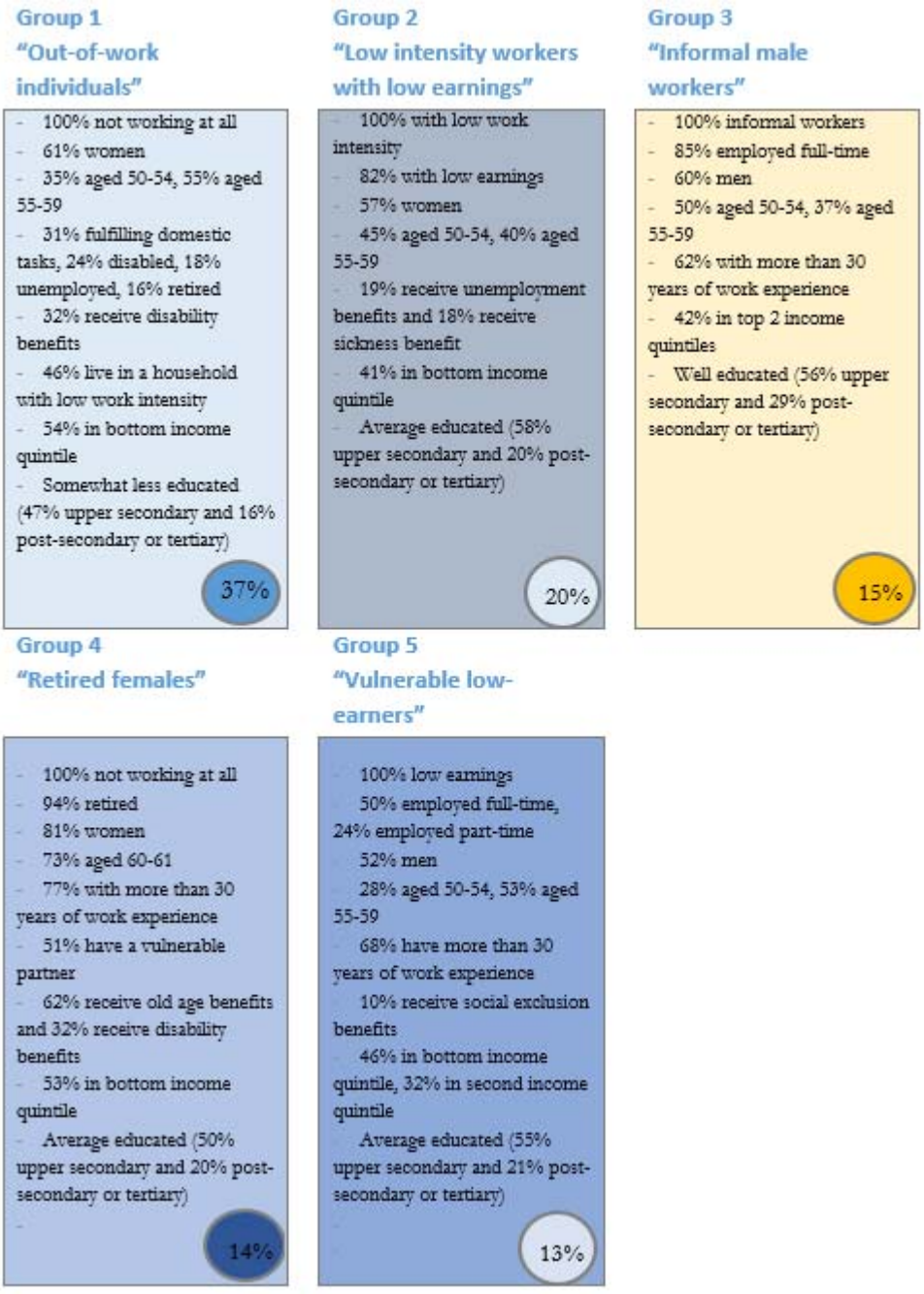
Length of spells, months	UB		DB		SA		GMI		HB		Other	
	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic
1	4%	3%	2%	2%	53%	48%	18%	18%	66%	49%	75%	75%
2	5%	5%	2%	2%	12%	16%	14%	17%	12%	18%	10%	10%
3	6%	5%	2%	2%	10%	10%	18%	19%	7%	9%	3%	3%
4	6%	5%	2%	2%	4%	4%	6%	5%	3%	5%	2%	1%
5	7%	6%	2%	2%	4%	4%	8%	8%	3%	4%	1%	1%
6	8%	8%	2%	2%	7%	6%	18%	13%	3%	4%	1%	1%
7	8%	8%	2%	2%	2%	2%	2%	2%	1%	2%	0%	0%
8	5%	6%	2%	2%	1%	2%	3%	3%	1%	2%	0%	0%
9	11%	12%	2%	2%	1%	1%	3%	3%	1%	1%	0%	0%
10	39%	42%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%
11	1%	1%	2%	2%	1%	1%	2%	2%	1%	1%	0%	0%
12-23	0%	0%	20%	20%	3%	4%	7%	8%	2%	3%	3%	3%
24 and over	0%	0%	61%	61%	0%	1%	1%	1%	0%	0%	3%	3%

Table A4.2 Number of benefit spells per pre-retirement age individual in all municipalities and in the sample of seven municipalities, December 2005 – July 2012

No. of spells	UB		DB		SA		GMI		HB		Other	
	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic	All munic	7 munic
1	82%	84%	97%	96%	40%	37%	49%	45%	39%	33%	87%	87%
2	15%	14%	3%	3%	26%	24%	27%	26%	26%	24%	9%	9%
3	3%	2%	0%	0%	15%	15%	13%	14%	16%	16%	3%	3%
4	1%	0%	0%	0%	8%	9%	6%	7%	8%	11%	1%	1%
5	0%	0%	0%	0%	4%	5%	2%	4%	4%	6%	0%	0%
6	0%	0%	0%	0%	3%	4%	1%	2%	3%	4%	0%	0%
7	0%	0%	0%	0%	1%	2%	1%	1%	1%	2%	0%	0%
8	0%	0%	0%	0%	1%	2%	0%	0%	1%	1%	0%	0%
9	0%	0%	0%	0%	1%	1%	0%	0%	1%	1%	0%	0%
10	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%
11	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
12 and over	0%	0%	0%	0%	1%	1%	0%	0%	1%	1%	0%	0%

Annex 5: Profile of Labor Market Vulnerability of pre-retirement age adults in 2007

Figure A5.1. Profiles of individuals aged 50-61 with labor market vulnerability in 2007



Source: Authors' calculations based on SILC 2007 data.

Annex 6: Mincer equation estimates

Approach: Interval regression with wage (logarithm) as dependent variable. The so called mincer regression model distinguishes between males and females and shows findings for part-time and full-time workers separately.

Table A6.1: Mincer equation for all age groups (20-74)

VARIABLES	M1	M2	M3	M4
Age group (reference category: 45—49)				
Age group 20--24	-0.0227	-0.111	0.00746	0.183
	(0.0348)	(0.197)	(0.0321)	(0.186)
Age group 25--29	0.0197	-0.0746	0.0579**	0.138
	(0.0298)	(0.212)	(0.0279)	(0.169)
Age group 30--34	0.0843***	-0.247	0.102***	-0.133
	(0.0306)	(0.162)	(0.0274)	(0.158)
Age group 35--39	0.00767	-0.410*	0.0150	0.296*
	(0.0302)	(0.248)	(0.0276)	(0.175)
Age group 40--44	0.0493*	0.158	0.0253	0.0992
	(0.0269)	(0.254)	(0.0222)	(0.146)
Age group 50--54	-0.184***	-0.784***	-0.0452**	0.0383
	(0.0296)	(0.240)	(0.0225)	(0.134)
Age group 55--59	-0.168***	-1.161***	-0.0961***	-0.0399
	(0.0297)	(0.211)	(0.0228)	(0.141)
Age group 60--64	-0.144***	-0.0361	-0.0865***	0.107
	(0.0358)	(0.233)	(0.0266)	(0.153)
Age group 65--69	-0.202***	-0.209	-0.192***	-0.00999
	(0.0553)	(0.166)	(0.0478)	(0.183)
Age group 70--74	-0.255***	-1.160***	-0.331***	-0.373**
	(0.0881)	(0.298)	(0.0545)	(0.178)
Highest completed education (reference category: up to basic)				
General secondary	0.105***	-0.0936	0.112***	0.0207
	(0.0232)	(0.184)	(0.0263)	(0.199)
General secondary after vocational	0.161***	-1.913***	0.165**	0.438
	(0.0614)	(0.319)	(0.0724)	(0.290)
Professional basic	-0.0617	-1.616***	0.185	
	(0.125)	(0.414)	(0.122)	
Professional education after basic	0.102***	-1.634***	0.135***	0.260
	(0.0373)	(0.325)	(0.0343)	(0.325)
Professional secondary after basic	0.143***	-0.207	0.117***	0.0295
	(0.0228)	(0.185)	(0.0269)	(0.204)
Professional education after secondary	0.191***	-0.0332	0.149***	-0.213
	(0.0366)	(0.212)	(0.0310)	(0.229)
First level professional higher education	0.223***		0.193***	0.356
	(0.0540)		(0.0439)	(0.286)

VARIABLES	M1	M2	M3	M4
Academic education or second level professional higher education	0.260***	0.0952	0.303***	0.397
	(0.0311)	(0.214)	(0.0292)	(0.247)
Doctorate	0.547***	0.652**	0.631***	0.591*
	(0.0937)	(0.289)	(0.130)	(0.312)
Experience	0.00804***	-0.00390	0.00347***	0.00647*
	(0.00101)	(0)	(0.000750)	(0.00333)
Hours worked on main job	0.00635***	0.0194	0.00351***	0.0219***
	(0.00138)	(0)	(0.00120)	(0.00486)
Economic activity (NACE) classification (reference category: agriculture)				
Mining/quarrying	0.291***		0.341***	
	(0.0813)		(0.115)	
Manufacturing	0.0122	-0.111	0.0634	-0.0247
	(0.0270)	(0.297)	(0.0389)	(0.200)
Electricity, gas etc supply	0.115***	-2.284***	0.234***	-1.917***
	(0.0443)	(0.489)	(0.0734)	(0.268)
Water supply, sewerage, waste management	0.0102	-1.555***	-0.00526	-1.383***
	(0.0513)	(0.440)	(0.0903)	(0.248)
Construction	0.0228	-0.278	0.234***	-0.131
	(0.0307)	(0.281)	(0.0784)	(0.277)
Wholesale and retail trade	0.000979	-0.358	-0.0873**	0.0684
	(0.0340)	(0.339)	(0.0365)	(0.172)
Transportation and storage	0.136***	-0.214	0.102**	-0.234
	(0.0299)	(0.289)	(0.0441)	(0.196)
Accommodation and food service	0.0702	-1.115***	-0.110**	-0.0913
	(0.0590)	(0.416)	(0.0463)	(0.177)
Information and communication	0.237***	-0.214	0.159**	0.0751
	(0.0446)	(0.356)	(0.0630)	(0.183)
Financial and insurance activities	0.361***		0.204***	1.187***
	(0.0511)		(0.0568)	(0.406)
Real estate activities	-0.267***	0.801*	0.282***	-0.183
	(0.0595)	(0.455)	(0.0845)	(0.221)
Professional or scientific activities	0.0823	-0.332	0.0363	0.0655
	(0.0615)	(0.340)	(0.0588)	(0.196)
Administrative activities	-0.0691	-1.209***	-0.00670	0.347*
	(0.0538)	(0.358)	(0.0565)	(0.204)
Public administration and defense	0.0844***	0.215	0.107***	0.0858
	(0.0327)	(0.377)	(0.0385)	(0.200)
Education	-0.164***	-0.123	-0.138***	0.220
	(0.0426)	(0.321)	(0.0352)	(0.154)
Human health and social work activities	-0.0948*	-0.0126	-0.0337	0.313*
	(0.0539)	(0.454)	(0.0367)	(0.181)
Arts, entertainment and recreation	0.0444	-0.322	-0.0763*	0.155
	(0.0902)	(0.365)	(0.0429)	(0.207)
Other service activities	0.00930	-0.293	-0.0475	0.259
	(0.0698)	(0.370)	(0.0541)	(0.189)
Main occupation (reference category: elementary occupations)				

VARIABLES	M1	M2	M3	M4
Managers	0.454***	0.882***	0.624***	-0.215
	(0.0389)	(0.206)	(0.0367)	(0.233)
Professionals	0.384***	0.649***	0.443***	0.0806
	(0.0389)	(0.241)	(0.0276)	(0.138)
Technicians	0.220***	0.623***	0.316***	-0.0384
	(0.0356)	(0.198)	(0.0256)	(0.131)
Clerical support	0.184***	0.0990	0.212***	0.0480
	(0.0485)	(0.182)	(0.0268)	(0.180)
Service and sales workers	-0.00988	0.00421	0.180***	-0.245*
	(0.0318)	(0.244)	(0.0232)	(0.137)
Skilled agriculture, forestry, fishery workers	-0.0504	0.477	0.115***	0.486***
	(0.0494)	(0.300)	(0.0409)	(0.176)
Craft and related trades workers	0.106***	0.382**	0.0699**	0.0101
	(0.0248)	(0.170)	(0.0308)	(0.155)
Plant and machine operators	0.127***	-0.119	0.152***	-2.045***
	(0.0252)	(0.225)	(0.0387)	(0.321)
Region (reference category: Riga)				
Pieriga	-0.0817***	-0.0912	-0.0652***	0.0136
	(0.0267)	(0.173)	(0.0201)	(0.119)
Vidzeme	-0.163***	-0.150	-0.126***	-0.387***
	(0.0240)	(0.169)	(0.0198)	(0.120)
Kurzeme	-0.0874***	0.537***	-0.0763***	-0.288**
	(0.0210)	(0.186)	(0.0182)	(0.114)
Zemgale	-0.0998***	-0.333**	-0.0919***	-0.0472
	(0.0193)	(0.170)	(0.0159)	(0.0898)
Latgale	-0.270***	-0.284	-0.215***	-0.374***
	(0.0192)	(0.179)	(0.0157)	(0.101)
Constant	5.520***	5.139***	5.362***	4.566***
	(0.0712)	(0.372)	(0.0648)	(0.313)
Observations	5,036	169	5,620	472

Notes. Robust standard errors in parentheses (*** p<0.01, ** p<0.05, * p<0.1). M1: female, full time; M2: male, part-time; M3: female, fulltime; M4: female, part-time

Source: Authors' calculations based on LFS data.

Table A6.2: Mincer equation for age group between 55 and 65

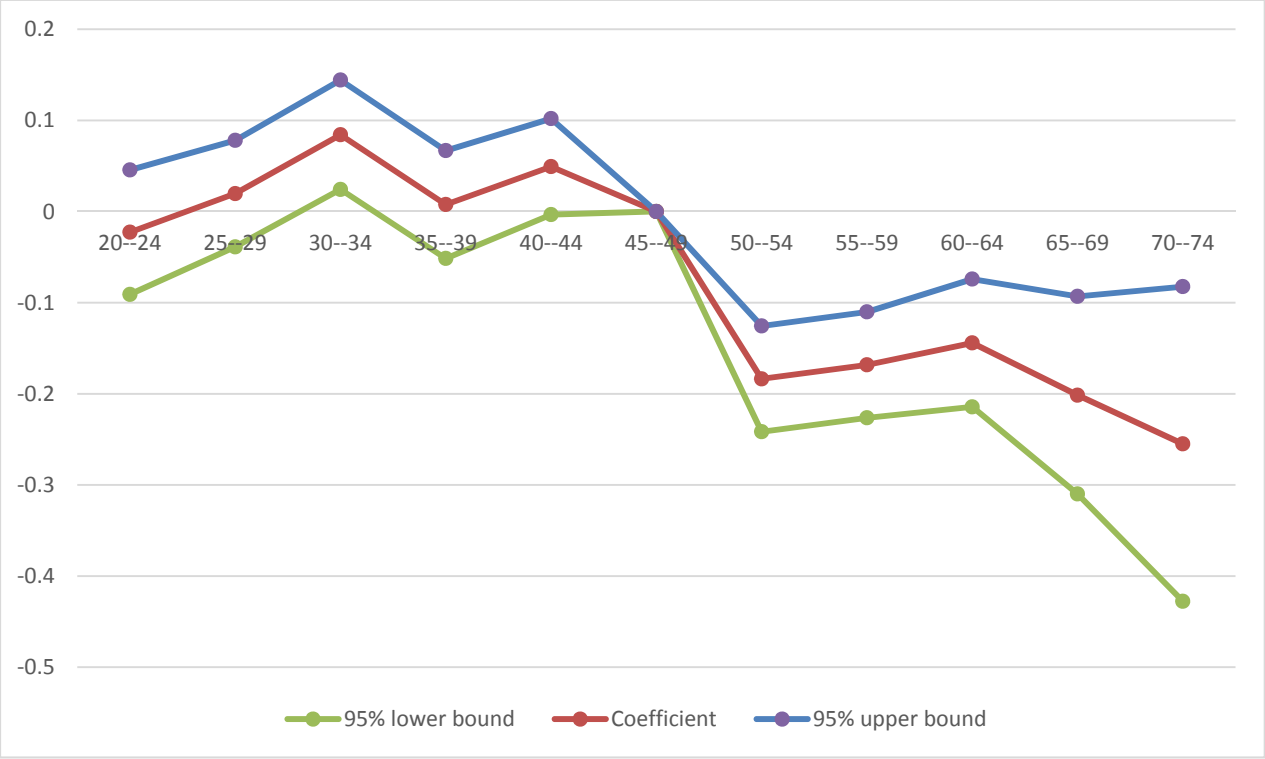
VARIABLES	M1	M2
Age (reference category: 63)		
Age = 55	-0.187**	0.0234
	(0.0779)	(0.0620)
Age = 56	-0.210***	-0.0217
	(0.0768)	(0.0645)
Age = 57	-0.281***	0.0407
	(0.0907)	(0.0654)
Age = 58	-0.241***	-0.00658
	(0.0772)	(0.0649)
Age = 59	-0.143	-0.0676
	(0.0873)	(0.0659)
Age = 60	-0.236***	0.00422
	(0.0810)	(0.0653)
Age = 61	-0.171**	0.0133
	(0.0817)	(0.0683)
Age = 62	-0.103	0.00576
	(0.0930)	(0.0641)
Age = 64	-0.279***	0.0136
	(0.108)	(0.0710)
Highest completed education (reference category: up to basic)		
General secondary	0.133**	0.115**
	(0.0665)	(0.0481)
General secondary after vocational	0.159	0.328***
	(0.230)	(0.119)
Professional basic	-0.0487	
	(0.156)	
Professional education after basic	0.152**	0.0940
	(0.0776)	(0.0674)
Professional secondary after basic	0.199***	0.137***
	(0.0662)	(0.0495)
Professional education after secondary	0.171*	0.144***
	(0.0901)	(0.0560)
First level professional higher education	0.745***	0.190*
	(0.195)	(0.0980)
Academic education or second level professional higher education	0.430***	0.367***
	(0.0754)	(0.0561)
Doctorate	0.334**	0.575***
	(0.170)	(0.126)
Experience	0.00940***	0.00409***
	(0.00175)	(0.00105)
Hours worked on main job	0.00441*	0.00493**
	(0.00267)	(0.00228)
Economic activity (NACE) classification (reference category: agriculture)		
Mining/quarrying	0.689**	0.390***
	(0.276)	(0.128)

Manufacturing	0.0109	-0.0292
	(0.0689)	(0.0822)
Electricity, gas etc supply	0.112	-0.131
	(0.0841)	(0.120)
Water supply, sewerage, waste management	0.272**	-0.332*
	(0.112)	(0.174)
Construction	0.166**	0.0463
	(0.0725)	(0.117)
Wholesale and retail trade	0.0811	-0.133
	(0.0963)	(0.0821)
Transportation and storage	0.129*	0.0211
	(0.0724)	(0.0895)
Accommodation and food service	-0.0322	-0.139
	(0.119)	(0.0924)
Information and communication	-0.0516	0.283***
	(0.246)	(0.109)
Financial and insurance activities	0.113	0.0293
	(0.160)	(0.125)
Real estate activities	-0.253**	-0.120
	(0.127)	(0.118)
Professional or scientific activities	0.0764	-0.209
	(0.178)	(0.134)
Administrative activities	0.0673	0.0969
	(0.111)	(0.135)
Public administration and defense	0.113	0.0646
	(0.0884)	(0.0862)
Education	-0.168**	-0.186**
	(0.0710)	(0.0756)
Human health and social work activities	-0.130	-0.0638
	(0.114)	(0.0799)
Arts, entertainment and recreation	0.0515	-0.176**
	(0.254)	(0.0884)
Other service activities	-0.206	-0.123
	(0.130)	(0.0894)
Main occupation (reference category: elementary occupations)		
Managers	0.347***	0.598***
	(0.0695)	(0.0661)
Professionals	0.278***	0.392***
	(0.0801)	(0.0512)
Technicians	0.365***	0.349***
	(0.0720)	(0.0481)
Clerical support	-0.0306	0.264***
	(0.166)	(0.0532)
Service and sales workers	-0.132*	0.140***
	(0.0786)	(0.0406)
Skilled agriculture, forestry, fishery workers	-0.203**	0.259***
	(0.0980)	(0.0616)
Craft and related trades workers	0.0337	0.156**
	(0.0552)	(0.0649)
Plant and machine operators	0.166***	0.122**
	(0.0502)	(0.0599)
Region (reference category: Riga)		

Pieriga	-0.0989*	-0.0774**
	(0.0512)	(0.0355)
Vidzeme	-0.236***	-0.0652
	(0.0643)	(0.0440)
Kurzeme	-0.107**	-0.0686*
	(0.0432)	(0.0403)
Zemgale	-0.0594	-0.0458
	(0.0440)	(0.0338)
Latgale	-0.302***	-0.165***
	(0.0442)	(0.0312)
Constant	5.575***	5.237***
	(0.169)	(0.142)
Observations	844	1,186

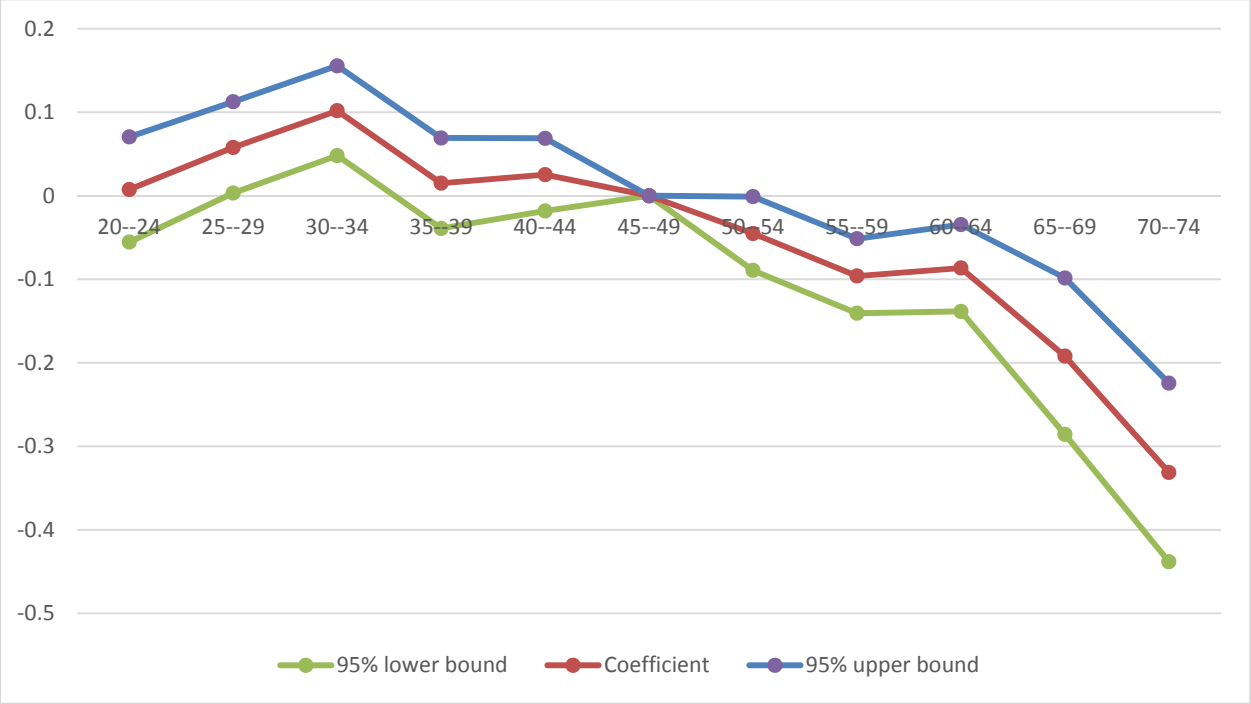
Notes: Robust standard errors in parentheses (*** p<0.01, ** p<0.05, * p<0.1). M1: male, fulltime; M2: female, fulltime.
Source: Based on LFS data.

Figure A6.1: all age groups, male, full time



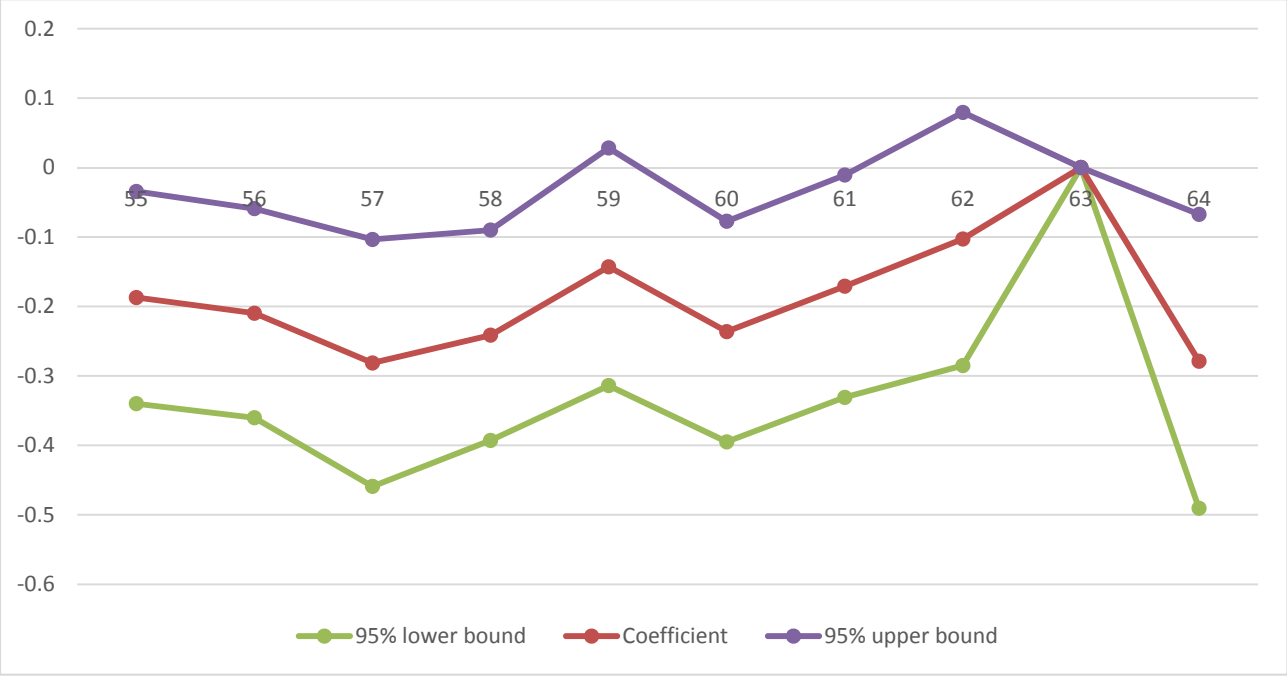
Source: Based on LFS data.

Figure A6.2: all age groups, females, full time



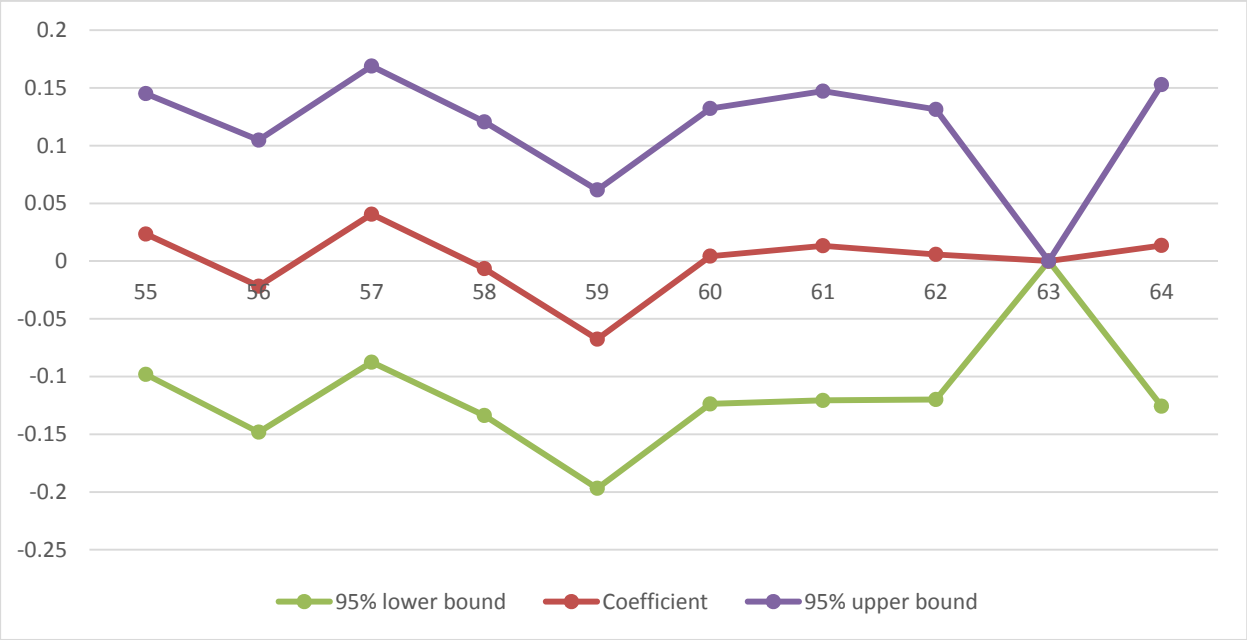
Source: Based on LFS data.

Figure A6.3: only age group between 55 and 64, males, full time



Source: Based on LFS data.

Figure A6.4: only age group between 55 and 64, females, full time



Source: Based on LFS data.

Annex 7: Mortality trends

Figure A7.1. Survivors at different ages, Latvia and Italy