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RUSSIAN FEDERATION AGING PROJECT

PROMOTING ACTIVE AGING IN RUSSIA:

WORKING LONGER AND MORE PRODUCTIVELY

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Content

EXECUTIVE SUMMARY

A shrinking working-age population will be the Russian Federation's biggest demographic challenge in coming decades. With workers increasingly scarce, sustainable future economic development depends on Russia's ability to bring into the labor force currently under-utilized groups, such as young mothers and older people, and to maximize the productivity of every worker. This study assesses the projected dynamics of the working-age population and how changes in labor force participation may affect the future workforce. It also assesses the potential contribution of individual factors to either facilitate or deter the participation of older Russians in the labor force. A review of disincentives for labor force participation in current social insurance programs and labor institutions is followed by policy proposals to help prolong the working lives of older adults.

I. INTRODUCTION

Increased life expectancy makes a longer working life possible. In the next several decades, Russia's total population will age and the working-age population will shrink. These dynamics are troubling in terms of maintaining economic growth and the sustainability of pension and health care systems, which can be expected to have a larger clientele and lower social security contributions. Yet the increased longevity that drives Russia's future population aging can be recast as an economic boon if it enables people to stay in work longer. Indeed, in an aging society the concept of "working-age" need not end with the statutory retirement age (currently 60 for men and 55 for women); it can instead be redefined as the ability to make a productive contribution to the economy. Given an appropriate incentives structure and a dynamic and well-functioning labor market, more Russians can engage in productive work, especially those in groups that currently have lower labor force participation, such as young women and older people.

The productivity of each worker is becoming progressively more important as the population ages. Since the number of workers in Russia is expected to shrink, if economic growth is to be sustained, the productivity of the remaining workers must rise. There is scope to attain higher productivity by investing more in the human capital of Russia's workers—not least by enabling them to stay healthy and to build skills throughout their working lives (see the companion study on adult education in Russia, Nellemann et al. 2015). As has been seen in other countries, offering employers economic incentives for using the current labor force can also bring process and product innovations that facilitate greater use of the skills and experience of older workers and help them to stay productive.

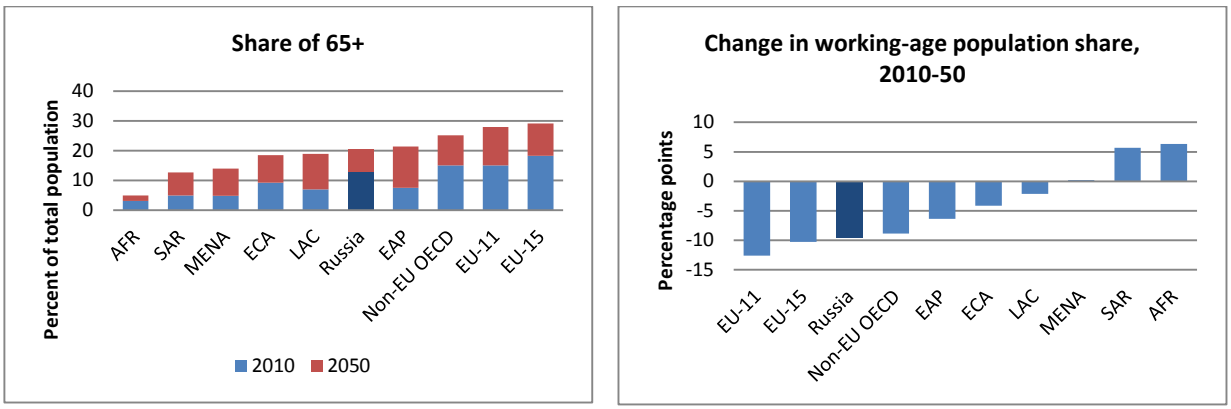
This study examines individual factors and incentives for more active aging in Russia: (1) It analyzes the projected dynamics of the working-age population and assesses how changes in labor force participation can affect the size of the workforce. (2) It assesses how individual factors may either facilitate or deter the labor force participation of older Russians. (3) It analyzes current social insurance policy and labor institutions with respect to explicit or implicit disincentives for labor force participation and retirement and suggests policy options that can help to enhance active aging in Russia.

II. THE FUTURE OF RUSSIA'S LABOR FORCE

A shrinking working-age population will soon be Russia's main demographic challenge. The population in Russia is aging more slowly than in its Eastern European neighbors. As of 2010, Russians aged 65 and older constituted 13.1 percent of the total population—higher than the average in the Europe and Central Asia (ECA) region and lower than in EU-11 or EU-15 countries; by 2050, this share is expected to reach 20.5 percent but would still be lower than in either EU group (UN Population Division 2012). At the same time, Russia's working-age (15-64) population is predicted to drop from 72 percent of the population in 2010 to 62 percent in 2050, a loss of almost 28 million

people. That much shrinkage of the working-age population, while lower than in EU-11 group, parallels the dynamics in EU-15 countries, and exceeds that in all other regions (Figure 1). The precise extent of this challenge in Russia depends on the fertility, mortality, and migration assumptions underlying the estimates of the UN and the Russian Federal State Statistics Service (Rosstat), which differ significantly (Box 1).

Figure 1. Population Aging and Work Force Shrinkage in Russia and Comparator Countries



Source: UN Population Division data (2012 revision).
Note: AFR=Africa; SAR=South Asia; MENA=Middle East and North Africa; ECA=Europe and Central Asia; LAC=Latin America and Caribbean; EAP=East Asia and Pacific; Non-EU OECD=Non-European Union countries of Organization for Economic Cooperation and Development; EU=European Union.

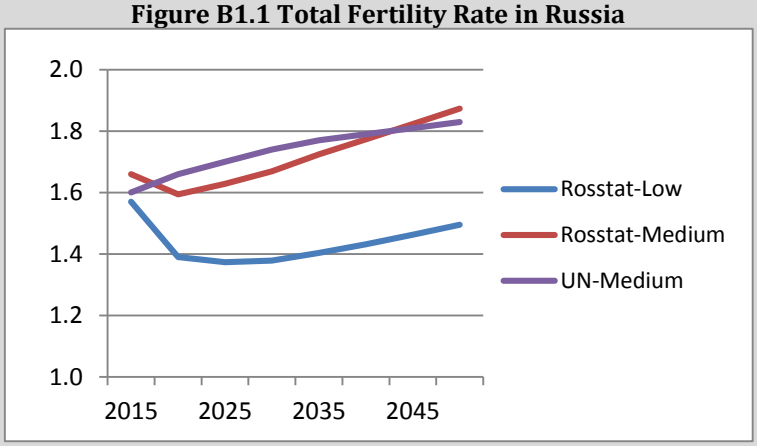
Russia has a fairly high and growing rate of labor force participation; more than 68 percent of 15–72-year-olds are economically active. While precise international comparisons are made difficult by data differences (most countries calculate the labor force participation rate [LFPR] based on those aged 15 and older, with no upper age limit), Russia's working-age population stands out as relatively active. With more than 68 percent of adults aged 15–72 participating, Russia's LFPR is comparable to that of Nordic countries and significantly above the averages for the EU-11 and the Organisation for Economic Co-operation and Development (OECD; Figure 2). Although Russia has a history of even higher LPFRs—for example, 70.3 percent recorded in 1992— (Breev 2005), in 2003–13, growth in this indicator was almost monotonic (Figure 3).

Box 1. Russia's Population Projections and Assumptions

Two sources of population projections are used in this study, UNPD and Rosstat. Each relies on certain assumptions about the main determinants of population dynamics—fertility, mortality, and immigration—to arrive at final estimates. Even small differences in these assumptions can result in large discrepancies in projection estimates, so it is important to understand what lies behind each set of projections and what may be driving the differences between them. This study uses one set of UNPD projections (medium-fertility variant) and two sets of Rosstat projections (low and medium scenarios).

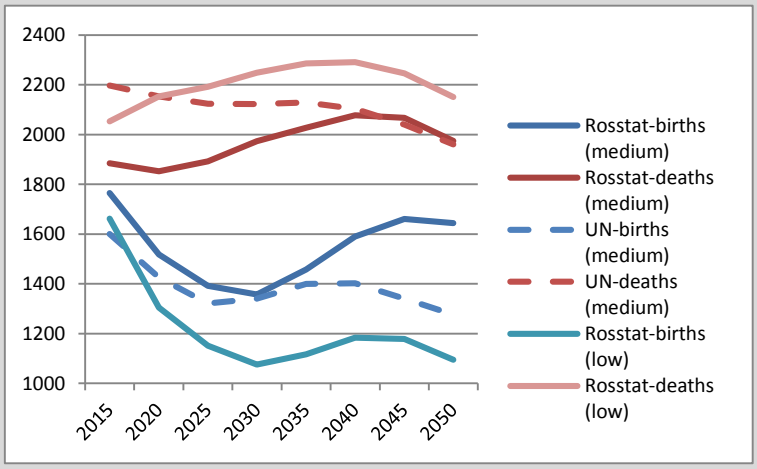
Total Fertility: The medium scenarios of the UN and Rosstat both exhibit an increasing trend and are quite close to each other, with the UN predicting slightly higher fertility until 2040 (Figure B1.1). The more pessimistic Rosstat (low) scenario has fertility falling until 2025, then gradually increasing—but never back to 2015 levels.

Figure B1.1 Total Fertility Rate in Russia



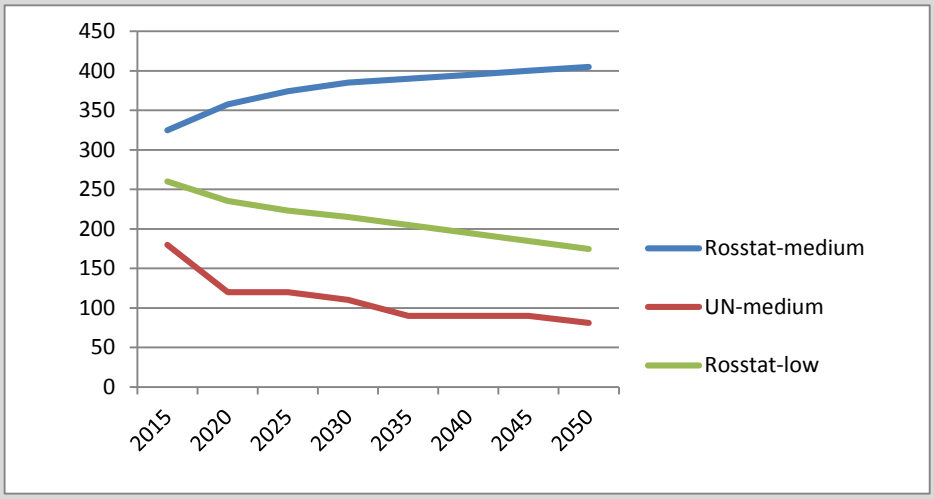
Births and Deaths: For the most part, the medium-variant UN projection lies between Rosstat's medium and low scenarios of births and deaths. While the gap between the two Rosstat scenarios of deaths is largely constant, the gap in births expands significantly, due perhaps to the different age structure implicit in the fertility rate assumptions. The UN projection of births starts off closer to the Rosstat-medium projection but diverges from it after 2040. For deaths, the UN starts closer to the Rosstat-low projection but its dynamics are very different, with deaths dropping throughout the period, which brings it to the Rosstat-medium level by 2040.

Figure B.1.2. Births and Deaths in Russia



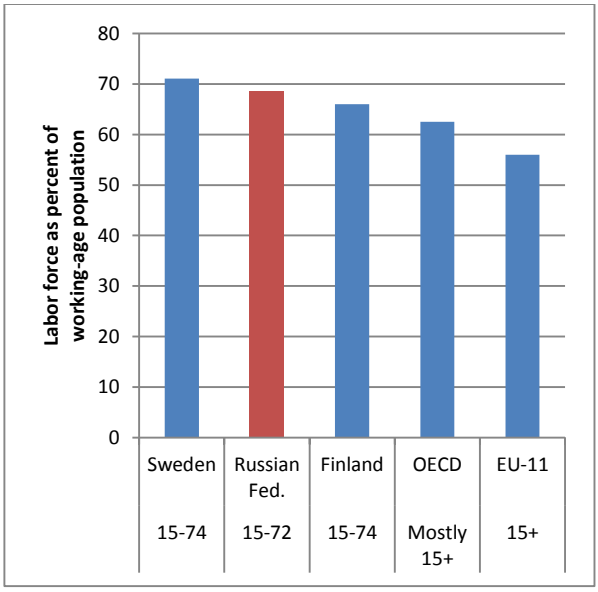
Net Migration: Finally, the three projections assume very different dynamics for future migration flows. Rosstat's medium scenario is very optimistic, expecting a continuous increase in the net number of immigrants to Russia, from 325,000 in 2015 to 405,000 in 2050. Both the UN and Rosstat-low scenario assume that net immigration will decrease, but the magnitude of the decrease differs dramatically: while Rosstat's low scenario expects a decrease of a third, the UN projects a decrease of more than a half.

Figure B1.3. Net Immigration into Russia



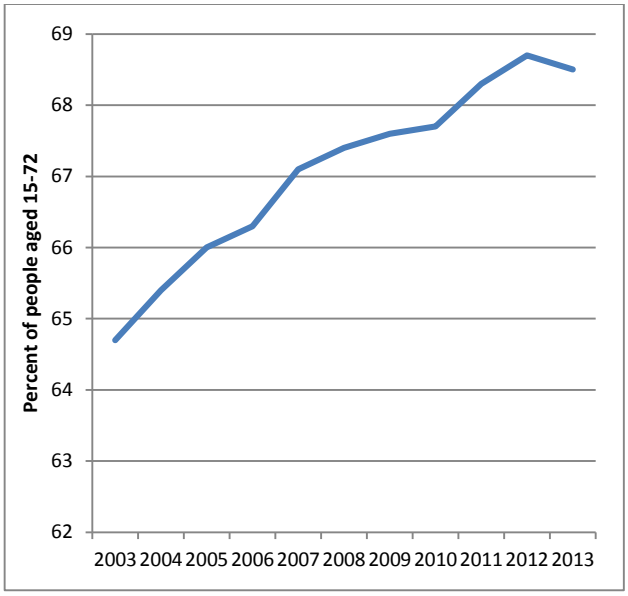
Given the reliance of the Rosstat-medium scenario on very optimistic migration projections, the study will focus on the UN-medium and Rosstat-low scenarios. However, as stimulating greater migration can potentially address some of the challenges posed by population aging, projections based on Rosstat's medium scenarios will also be discussed.

Figure 2. Labor Force Participation, Russia and Selected Comparator Countries, 2012



Source: ECA Employment Monitor Database - Labor Market Indicators (based on ILO Short-term Indicators).

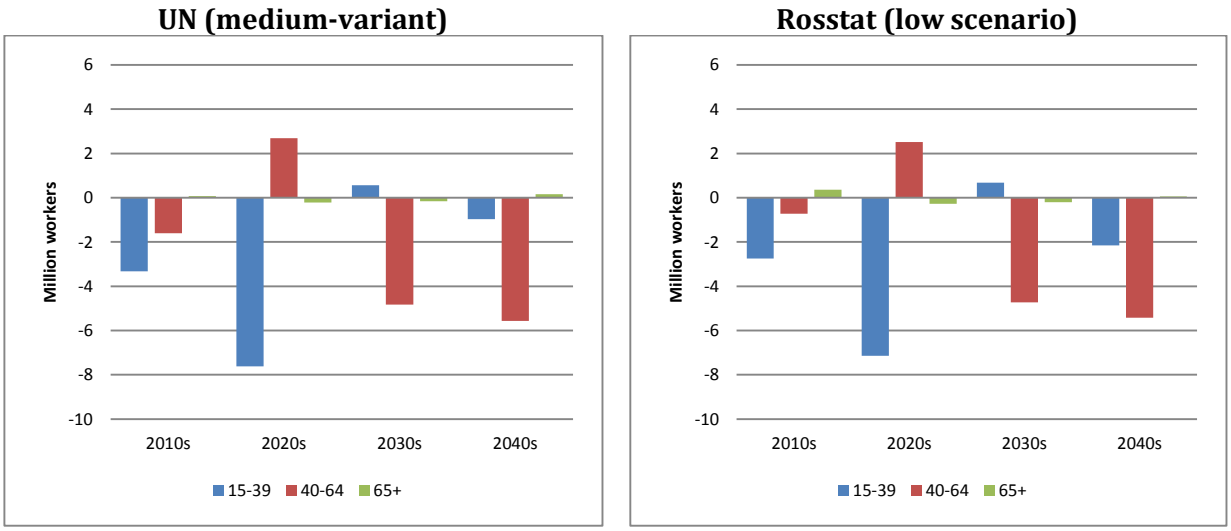
Figure 3. Trends in Labor Force Participation in Russia, 2003–13



Source: Rosstat data.

Yet even with this LFPR, Russia is expected to lose more than 20 million workers through 2050 because the working-age population is shrinking fast. To understand how demographic processes underway in Russia can affect the size and age structure of the future labor force, an analysis was carried out that integrated demographic projections with LFPRs. The data on demographic trends for age-gender combinations came from Rosstat and the UN Population Division (UNPD), and LFPRs disaggregated by age and gender are from the International Labour Organization (ILO). Assuming no changes in LFPR profiles between 2030 and 2050, Russia's labor force could shrink by 20–23 million workers between 2010 and 2050 (based on the Rosstat-low and UN-medium demographic projections; FIGURE 4). Some shrinkage of both younger (15–39) and prime-aged (40–64) workers is expected by 2020. A much more drastic decrease is projected to occur in the 2020s, with Russia losing more than 7 million younger workers because the cohorts born during the 1990s transition years that will be entering the workforce are small. Although the prime-age labor force will still increase, this will be the first real decade of labor force aging as the median age of workers rises significantly and the total workforce shrinks by about 5 million people. The plunge in young workers during the 2020s will reverberate through the age pyramid in the 2030s and 2040s with the subtraction of almost 10 million older workers during those decades. Although the number of younger workers does go up in the 2030s, the gain is minimal (less than a million), and in the 2040s this group again begins to shrink because of the way the fertility dynamics of the 2000s play out (see companion study on family policies, Elizarov and Levin 2015).

Figure 4. Labor Force, by Age Group and Period, 2010s through 2040s

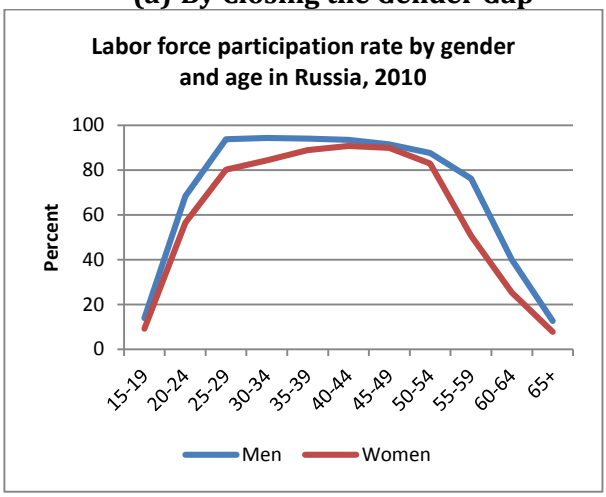


Source: Methodology in Koettl 2008.

There is considerable scope for making better use of the declining working-age population, particularly by enhancing the labor force participation of women and older people. Female labor force participation in Russia is significantly below that of males during the childbearing years (late 20s through 30s) and after women's statutory retirement age of 55 years (FIGURE 5a). This gender gap could be closed with proactive policies that enable women to better combine family and work and that give older women incentives to remain in the labor force past the official retirement age. Since Russian women aged 55–59 have about 18 years of health-adjusted life expectancy (HALE) compared to men's 13.5 years at the same age, health does not appear to be a constraint on bridging the labor force gender gap for older Russians (IHME 2010). Indeed, other countries have been able to achieve a much higher LFPR for older individuals. The extreme example is Iceland, the country with the highest LFPR in Europe, which in 2010 had 74.5 percent of its adult population (15+ years) in the labor force, compared to Russia's 63 percent. A large part of the difference is due to Iceland's significantly higher LFPR of those 50 and over (FIGURE 5b). While 40 percent of men and about a quarter of women in Russia are active beyond 60, in Iceland these figures are 85 percent of men and 73 percent of women; for men, the gap can be attributed in large part to differences in HALE (there is a HALE gap of about 6 years between Russia and Iceland for 50–54-year-olds, for example), such differences for women are fairly small (2.5 years for those aged 50–54). Thus, at least in principle there appears to be substantial scope to lengthen the working life of Russians; admittedly, attaining such a high LFPR would only be possible if many other constraints (for example, on health, skills, and mobility) are removed.

Figure 5. Scope for Increasing Labor Force Participation in Russia

(a) By Closing the Gender Gap



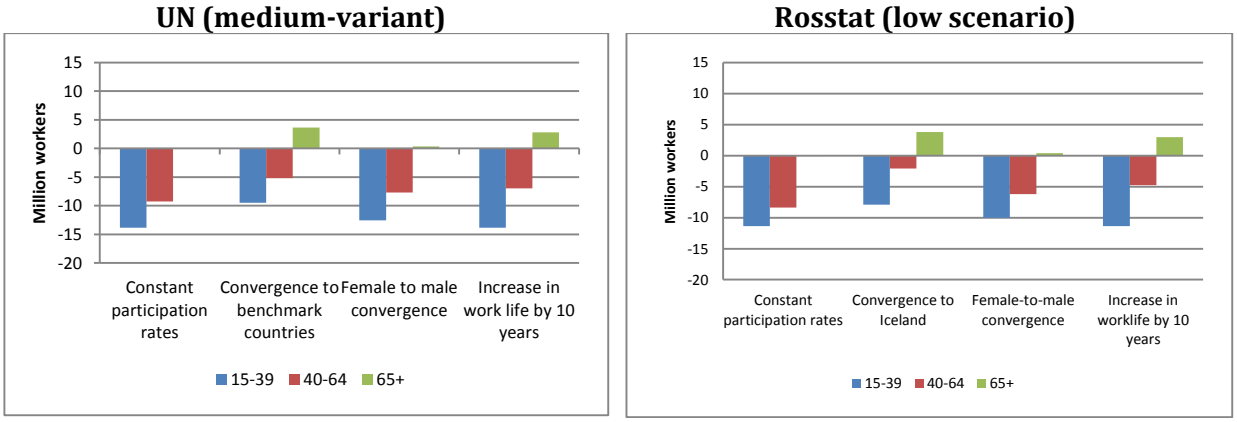
(b) By Activating Older Individuals

Source: ILO data.

Can increases in labor force participation solve Russia's problem of a diminishing workforce? To address this question, four alternative projections of the future labor force were calculated using different participation scenarios, all of which presuppose significant policy reforms. All scenarios use ILO projections of labor force participation between 2010 and 2030. From 2030 to 2050, the baseline scenario assumes constant participation rates, so that the age-gender profile of labor force participation continues as it is in 2030. Scenario 2 assumes convergence of all age-gender LFPRs to the levels in Iceland, the European country with the most active workers. This scenario implies increases in labor force participation across the board but especially among women and older individuals, where there are the greatest gaps in participation. Scenario 3 assumes convergence of female labor force participation to that of males in all age groups. Given the different statutory retirement ages in Russia, this scenario also implies a considerable increase in labor force participation by older women. Scenario 4 simulates a 10-year increase in the average working life for each gender. Of course, achieving any of the alternative scenarios would necessitate significant reforms in pensions and in labor market, tax, and skills policies.

Raising labor force participation in Russia would help to mitigate, though not eliminate, the impending problem of a shrinking and aging labor force. Of the three scenarios simulating higher LFPRs, convergence of Russia's age-gender labor force participation profile to that of Iceland would have the greatest impact. Attaining this scenario would reduce the decline in workforce by two-thirds, using Rosstat-low projections, and by one-half, using UN-medium projections (Figure 6). Both the young and the prime-aged workforce would still experience substantial decreases, but the older workforce (over 65) would gain close to 4 million workers. The other two scenarios—convergence of female to male LFPR and increase of work life by 10 years—have less impact on the aggregate labor force. The relatively low impact is due to structural demographic factors, such as Russia's low fertility in the 1990s, which is still percolating through the age pyramid and resulting in smaller cohorts.

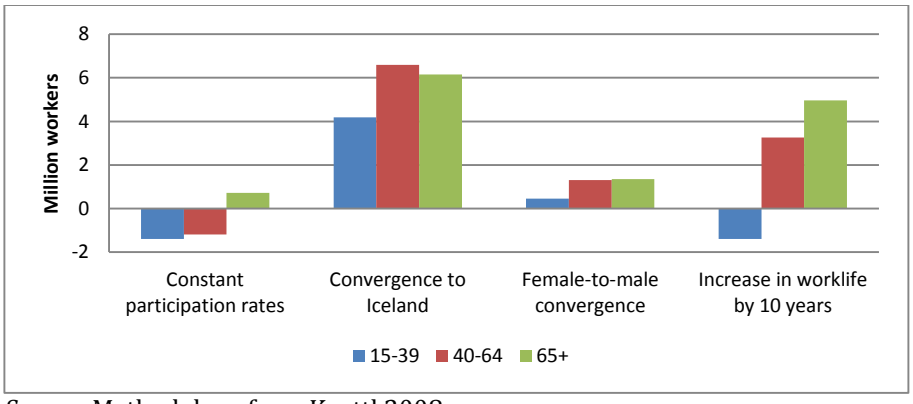
Figure 6. Change in the Russian Labor Force under Different Scenarios, by Age Group, 2010–50



Source: Methodology from Koettl 2008.

Increases in labor force participation coupled with a proactive immigration policy can bring work- force gains. The Rosstat-medium scenario is more optimistic than either Rosstat-low or the UN-medium scenarios not only on future fertility and mortality rates but also on the ability of Russia to attract ever-increasing net inflows of migrants (Box 1). Based on Eurostat data on immigration to Russia in 2007, 82 percent of immigrants were of working age (15–64 years) and 55 percent were aged 15–39. Assuming a similar age profile of future net immigrants gives a significant bump up in workforce numbers; immigration together with more optimistic projections of fertility and mortality combine to produce a relatively small loss of 2 million workers through 2050. Applying the same alternative scenarios to the Rosstat-medium projection yields significant gains in the workforce, with again the greatest impact attained by converging Russia's labor force participation profile to that of Iceland (Figure 7). Of course, in determining the impact on productivity that can be attained through immigration, it is necessary to consider differentials in the educational attainment of immigrants joining the labor force.

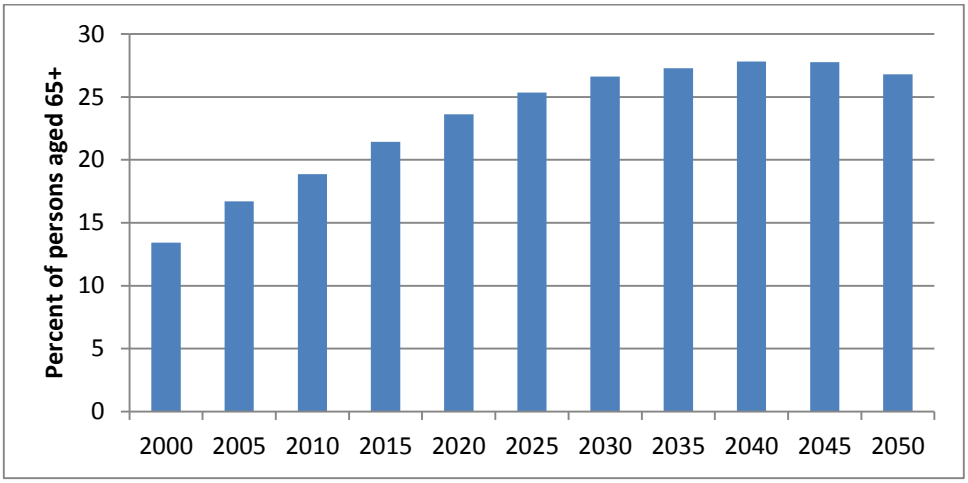
Figure 7. Changes in the Russian Labor Force, Different Scenarios, Rosstat-medium Demographic Projections, 2010–50



Source: Methodology from Koettl 2008.

Although higher LFPRs can help to sustain economic development in the short term, sustained productivity growth will be required to put the country on a stable growth path through the next demographic transition. Using the under-tapped potential of women and older adults through higher LFPRs can support Russia's economic output and growth, but there is a natural limit to such gains. The future of Russia's development will depend on its ability to obtain higher productivity from each worker, which underscores the importance of investing in skills throughout the life cycle. The good news is that attaining both longer working lives and higher productivity at older ages is a feasible goal, given the projected doubling in Russia's high-educated older (65+ years) population from 2000 to 2050, even at constant enrollment ratios (FIGURE 8).[1]

Figure 8. Tertiary Education for Older Russian Adults, 2000–50



Source: IIASA 2010 data.

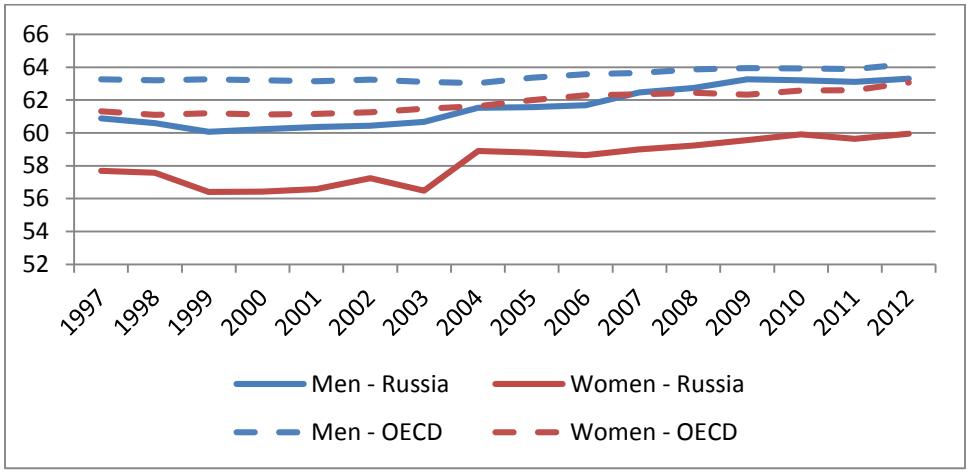
III. Individual Determinants of Working and Retiring in Russia

Greater utilization of older workers is essential to achieve prosperous aging. As Russia's labor force ages and shrinks, promotion of active aging, with workers remaining in productive employment for longer periods, can help Russia take full advantage of increased life expectancy. This section examines factors that drive separation from the labor force and factors that encourage some Russian pensioners to continue working. It also reviews the incentives and disincentives inherent in current social insurance policies that can influence retirement decisions.

[1] Estimating the projected contributions of higher labor force participation and productivity is outside the scope of this study, but see companion papers by Matytsin et al. 2015 and Balaev et al. 2015).

While statutory retirement ages in Russia are low, pensioners are not penalized for working. The age at which most workers can qualify for old-age labor pensions in Russia is 60 for men and 55 for women, although eligibility for social pensions comes later, at 65 for men and 60 for women. Since pensioners can collect full pensions while working past the statutory retirement age, the average effective retirement ages are somewhat higher: 60 for women and 63 for men. Even so, they are below OECD averages, and while the average male effective retirement age has been converging to the OECD benchmark since 1997, the female average lags far behind (Figure 9).

Figure 9. Average Effective Retirement Age, Russia and OECD, by Gender, 1997–2012



Source: OECD data.

Both push and pull factors figure in the decision of Russian older adults to remain in the workforce past retirement age. Previous studies on employment correlates for elderly Russians suggest that the decision to work is based on both necessity (push factors) and opportunity (pull factors). Looking at data from the late 1990s, Kolev and Pascal (2002) found that low pensions as well as pension arrears provided an income imperative for pensioners to work on both the extensive (probability of employment) and intensive (hours worked) margins, while access to subsistence farming and higher human capital (in terms of both education and health) allowed them to find and retain jobs. Gerber and Radl (2014) analyzed the labor force participation and earnings of elderly Russians and confirmed Kolev and Pascal's finding that economic need pushed some pensioners to remain in the labor force, with more educated pensioners having more opportunities to work. Interestingly, Gerber and Radl found no evidence that the elderly were disproportionately blocked from employment: the trend in the employment rate for this group was stable or positive from the mid-1990s on.

Analysis based on more recent household survey data extends the evidence on potential drivers of labor market activity and retirement. The analysis uses rich panel data from the Russia Longitudinal Monitoring Survey (RLMS), focusing on the years since the 2008/09 financial crisis. Specifically, it examines predictors of the move to retire in the four survey waves studied and the characteristics of working pensioners in 2012 compared to nonworking peers. Box 2 provides more details on data and the methodology of this analysis.

Box 2. Analysis of Older Russian Workers' Retirement and Working Decisions

Data

The analysis of older Russian workers' retirement and working decisions uses data from the 2009–12 waves of the Russian Longitudinal Monitoring Survey (RLMS), which covers a representative sample of Russian households.

The analysis of working pensioner characteristics focuses on the 2012 wave of RLMS and includes a nationally representative initial sample of 1,304 males aged 60 and over and 3,611 females aged 55 and over, about 21 percent of both groups being employed. Figure B2.1 shows that at the official retirement age, about 60 percent of Russian women and 50 percent of Russian men were still employed, but this share fell to below 20 percent by the mid- to late sixties.

Figure B2.1. Retirement Ages

The analysis of exit from employment into retirement utilizes the RLMS panel structure, defining the sample as people 10 years before statutory retirement age and up to 72 (i.e., women aged 45–72 and men 50–72) who were employed in the first period in which they appear in RLMS waves 18–21 (for years 2009–12) or who re-enter the labor force at any point during the period studied. The dependent variable in this analysis is an indicator for whether the individual becomes "retired" or not by the next survey wave. The initial sample covers 3,870 observations of 1,765 males and 7,080 observations of 3,038 females. About 5 percent retired during the observation period. As demonstrated in Figure B2.2, the retirement hazard rate (i.e. the probability of exit into retirement) increases around the statutory age (55 for women, 60 for men), and then picks up significantly after 67 for both genders.

Methodology

The following probit model specification examining **distinguishing characteristics of working pensioners** (as opposed to retired pensioners) was estimated separately for men and women on the 2012 cross section of the RLMS:

$$Y_i = \alpha + \boldsymbol{X_i}\beta + \boldsymbol{P_i}\theta + \boldsymbol{H_i}\delta + \boldsymbol{L_i}\theta + u_i \quad (1)$$

where

Y Indicator for employed status (=1 if employed, =0 if not employed)

X Respondent characteristics (age, education, marital status, life satisfaction, self-reported health, disability status, chronic health conditions);

P Partner characteristics (employment, self-reported health, disability status);

H Household characteristics (presence of children under 18, household income per capita net of respondent's labor income);

L Location (settlement type, region).

The model also includes a stochastic idiosyncratic shock (u_i). The model is estimated using sample weights and with robust standard errors clustered by PSU.

The analysis of **exit into retirement** was conducted separately for men aged 50-72 and for women aged 45-72 using 2009-2012 waves of RLMS via a random-effects probit, and was of the following form:

$$Y_{it+1} = \alpha + \boldsymbol{X_{it}}\beta + \boldsymbol{J_{it}}\lambda + \boldsymbol{P_{it}}\theta + \boldsymbol{H_{it}}\delta + Round_t + Region_j + Settlement_s + u_i \quad (2)$$

where

Y Indicator for exit from employment into retirement in the subsequent period (=1 if the respondent's labor force status is "retired" in the next wave, =0 if still employed)

X Respondent characteristics (age, old-age pension eligibility, education, marital status, life satisfaction, self-reported health, disability status, chronic health conditions);

J Respondent's job-related characteristics (public sector, part-time employment, working from home, salary cut in the last 12 months, job satisfaction with job overall and its aspects);

P Partner characteristics (employment, self-reported health, disability status);

I Household characteristics (presence of children under 18, household income per capita net of respondent's labor income);

The model for exit from employment into retirement also includes a full set of settlement type, region, and round (i.e. survey wave) controls, in order to account for location-specific and time-specific factors, as well as a stochastic idiosyncratic shock (ui).

It is important to note that the results of the analysis reflect correlations and not necessarily causation.

Quantitative analysis is complemented by qualitative evidence collected in recent focus groups with employers, employees, and retired pensioners, which were part of the background analysis for the ECA Regional Pensions Report, *The Inverting Pyramid* (Schwarz et al. 2014). They provide an in-depth look at what drives separation at or after retirement age, reasons for remaining in the labor force, constraints on finding employment at older ages, and how employers and other employees perceive older workers. (Details on the main messages from focus groups are presented in Box 3.)

Health-related concerns can push older Russian workers, especially women, into retirement. There is a negative association between poor health or disability on the one hand and working past retirement age on the other (Figure 10a). Moreover, poor health is a significant precursor of Russian women's exit into retirement (Figure 10b). For men, self-assessed poor health is not a significant predictor of employment separation, but diagnosed chronic heart disease is associated with retirement onset. These findings using self-reported health measures are corroborated by an analysis based on the World Health Organization (WHO) Study on global AGEing and Adult Health (SAGE) data, which finds that relative to peers who do not work, older Russians who have jobs perform better on objective functional tests, such as a walking test, and have lower incidence of such health conditions as hypertension, coronary disease, stroke, and arthritis (Maximova 2014). Finally, qualitative evidence from the focus groups suggests that health reasons are the leading cause of separation from employment for older workers, both at their own initiative and at the initiative of employers. The vast majority of Russian companies have not yet felt the same economic pressure to use their aging workforce as firms in other countries, such as Germany's BMW (Loch et al. 2010), which has adjusted workplaces to reduce the physical strain on older workers (see Box 5 later in the study). Indeed, one employer from Yaroslavl questioned the fairness of making adjustments for older workers: "A person works at a certain place and performs a certain job, which requires a certain level of physical and mental abilities, and gets money for this job. Why should we provide any other conditions?"

Higher human capital enables Russians to lengthen their working life. In 2012, Russian pensioners with university education were more likely to be employed (with an increased probability of working for those having tertiary education being 4 percentage points for women and 13 percentage points for men. For men, secondary and professional/vocational education are also associated with a higher probability of working past retirement age. For women, education also matters at the margin in the decision to remain in or leave employment: thus, women with university education are 6 percentage points less likely to retire in the next period than less-educated but otherwise similar women. Evidence from focus groups also points to obsolete skills as a significant predictor of employer-initiated employment separation for older workers and to a substantial skills mismatch in the labor market for Russian pensioners.

Box 3. Qualitative Evidence on the Work and Retirement Decisions of Older Russians

As part of background work for the World Bank Europe and Central Asia Pensions Report (Schwarz et al. 2014), focus groups with employers, older employees, and pensioners were conducted in Russia and several other countries in Europe and Central Asia (ECA), in order to identify what drives separation of older workers from the labor force, constraints on continued employment and reentry, attitudes toward older employees, and perspectives on willingness to work past the legal retirement age.

Methodology

In June 2012, 14 focus groups were conducted in two locations in Russia, Moscow and Yaroslavl; 10 of these, totaling 80 participants, were conducted with older employees and pensioners:

- 4 groups of workers with five or less years to legal retirement age (men aged 55–59, women aged 50–54)
- 2 groups of working pensioners (men aged 60–64, women aged 55–60)
- 4 groups of non-working pensioners (men aged 60–64, women aged 55–60 years)

Four other focus groups consisted of a total of 28 employers, assigned by type of firm ownership (private and public) and firm age (founded before and after 2000).

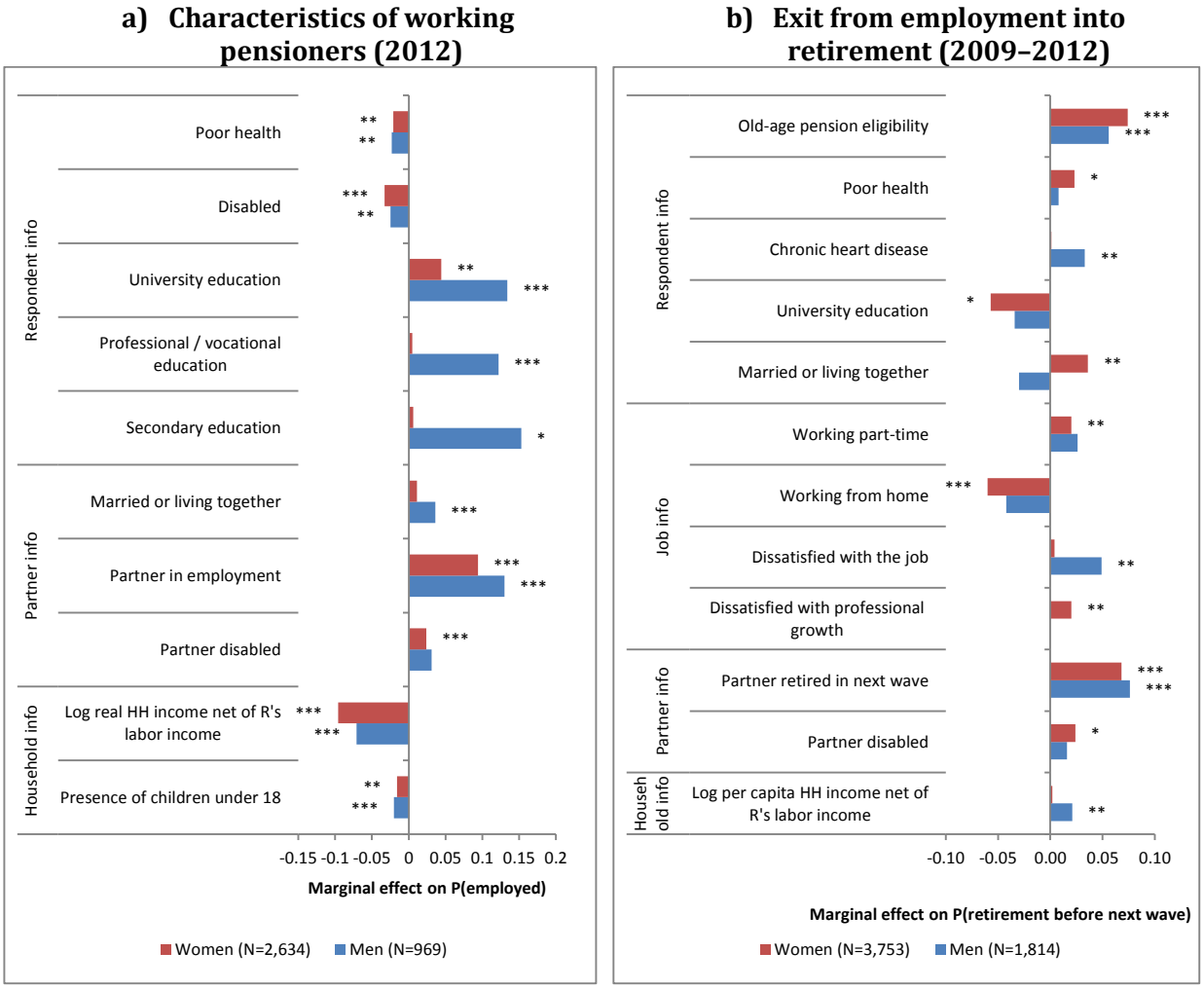
Results

- *Drivers of retirement*: Health was the main factor driving full retirement, from both the employee and employer perspective. Retirement for health reasons is initiated about as often by the employer and the employee. The second most common reason for retirement is informal care demands on older workers' time, closely followed by employers' perception of a mismatch in skills between the job and the worker.
- *Factors promoting continued work*: Most older workers are ready to continue working after legal retirement age, and most non-working pensioners would be willing to reenter work, for financial reasons and to continue feeling useful and engaged. Flexible work arrangements (part-time, seasonal, occasional); less physically demanding working conditions; and having more childcare and eldercare options available can stimulate pensioners to continue working. According to employers, later retirement can be achieved with pension incentives, wage subsidies for hiring older workers, or benefits targeted to working pensioners.
- *Constraints in the labor market*: Employees and pensioners are pessimistic about their ability to find a *good* job post-retirement, believing that the only options would be unskilled routine and physically demanding low-paid jobs. Age-related discrimination, job search difficulties, and skill mismatches are obstacles to post-retirement reemployment. According to employers, while age is generally not considered explicitly, they are hesitant to hire older job seeks because they have higher health risks and less capacity for learning and adjusting to new approaches and teams.
- *Perceptions of older workers*: Employers, employees, and pensioners all perceive older workers to be more responsible and reliable, have a more positive attitude to work, and demonstrate more relevant skills and ability to draw on greater work experience than younger workers. In general, both employers and employees agreed that older workers can do the same or even a better job at lower cost than younger workers. Nevertheless, older workers are considered by both employees and employers to have unstable health and diminishing physical and mental abilities. Social tensions between younger and older workers are rare in Russia because most older workers have jobs that younger workers do not want; instead, older workers are more likely to compete with informal low-skilled guest workers.

Source: MB ARMI-Marketing Company 2012.

Russian couples have a strong preference to retire together. As observed in studies of retirement decisions in East Asian countries (Giles et al. 2012), decisions on whether to keep working or retire from the labor force are often made at the level of the couple rather than by each spouse separately. Thus, in 2012 having a working wife was associated with a statistically and economically significant 13 percentage point increase in the probability that a pension-age husband would still be employed; the corresponding association for pension-age wives is smaller but a still highly significant 9 percentage points. Moreover, a partner's decision to retire is correlated with a 7–8 percentage point higher probability of retirement by the respondent. This implies that equalization of retirement age for men and women can not only give women a longer working life but may also, through the observed preference for joint retirement, have the indirect effect of increasing the average effective retirement age for men.

Figure 10. Work and Retirement Decisions of Older Russians, Correlates



Source: RLMS data.

Note: Marginal effects reported; significance levels: *** <1%, ** <5%, * <10%. Other coefficients included in the regressions are suppressed due to space constraints (see Tables A.1 and A.2 for full estimates of the regressions).

Many older Russians feel a strong income imperative for remaining in employment. Similar to the findings of Kolev and Pascal (2002) and Gerber and Radl (2014), the analysis reveals that for people of pensionable age, household income per capita (calculated net of any labor income earned by the respondent) is 10 percentage points lower for working women and 7 percentage points lower for working men than for their nonworking peers. Income is also positively associated with the decision of Russians to retire, although statistically these estimates are somewhat less precise. Qualitative evidence confirms that many older workers report necessity as the driving force for continued employment, because work enables them to supplement their low pensions and thus allows them both "to avoid poverty" and to remain independent and "not to be a burden on children."

Working pensioners have less likelihood of living with children under 18 and, for women, greater life satisfaction. The presence of children under 18 in a pensioner's household is negatively correlated with the probability of that pensioner, male or female, being employed. The negative relationship could be due to the demand for grandparents to provide childcare, which was also the second most-cited driver of employment separation after health by all focus groups. Moreover, individual focus group members cited the availability of good daycare options for children, elderly, and disabled family members as the third most important factor (behind flexible employment and less physically demanding jobs) that could lengthen employee working lives. Female pensioners who work have a significantly higher probability of being either "mostly satisfied" or "absolutely satisfied" with life). It is not clear, of course, whether life satisfaction increases the probability of employment beyond retirement age or whether staying employed enhances satisfaction with life. It could also be that it is not employment per se that correlates with higher satisfaction with life but the income obtained from employment that has this hedonic return. While data availability problems mean that the analysis cannot distinguish voluntary from involuntary retirement, evidence from other countries suggests that involuntary retirement can have a negative effect on the subjective well-being of pensioners, who would have preferred to attain a larger consumption basket by working (Bonsang and Klein 2012, cited in Schwarz et al. 2014).

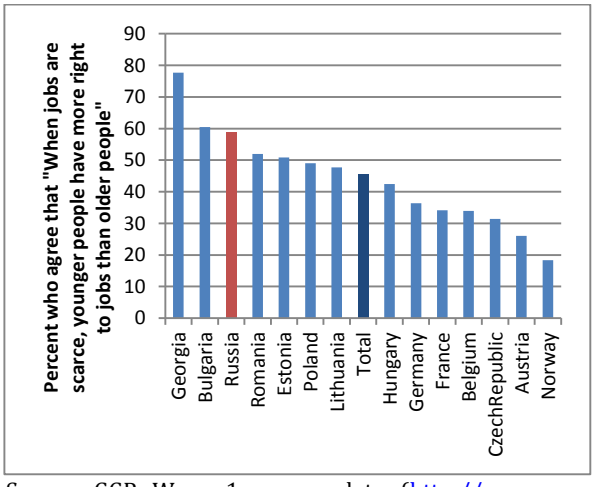
Flexible work arrangements and opportunities for professional growth matter in Russian women's retirement decisions. For older Russian women, the ability to work from home seems to be correlated with postponing retirement; perhaps this is due to the possibility of combining work and fulfillment of care obligations. In focus groups flexible employment options (part-time, seasonal, backup jobs) were cited as the most important factor that could persuade older workers to stay in their current job after reaching retirement age. Interestingly, for some women part-time employment was positively associated with the decision to retire; it may be that women use part-time employment as an intermediate stage in the transition from full-time employment to retirement. Job satisfaction, either overall or with some aspects of the job, also figures in the retirement decision: older men who are dissatisfied with their jobs (either "mostly" or "absolutely") are 5 percentage points more likely to be retired within a year's time.[2] For older women, overall job satisfaction is less important than satisfaction with opportunities for professional growth; dissatisfied women are 2 percentage points more likely to retire. This echoes the frustration reported by older Russians in focus groups with the fact that the only "non-prestigious" unskilled routine jobs are available for

[2] No difference was found between public and private sector employees in terms of exit into retirement.

pensioners, which do not call upon their skills or mental abilities. Indeed, about one in five working pensioners (20.5 percent of those aged 60–72 years) is working in the informal sector, according to Rosstat (2013) estimates; that kind of employment may provide needed income support and flexibility but is likely to under-utilize the potential productivity of pensions.

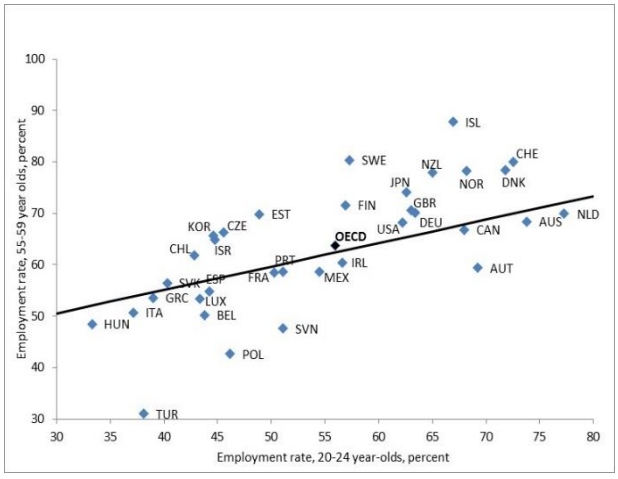
Societal assumptions about the right to jobs may be pushing older Russians out of the labor market. In Russia as in many other countries, there is a widespread perception that older workers are keeping younger ones from finding jobs. A 2009 Eurobarometer survey found that 56 percent of respondents in European Union (EU) countries thought that longer working lives could mean fewer jobs for the young (Schwarz et al. 2014). Although there are no similar data for Russia, the Generations and Gender Programme (GGP) survey, conducted in several European countries in the 2000s (2004–08 in Russia), asked whether respondents agreed with the statement: "When jobs are scarce, younger people should have more right to a job than older people." Russians were more likely to agree with this statement (Figure 11) than respondents in many other countries (except for Bulgaria and Georgia). This is called the "lump-of-labor" fallacy because it assumes that there is a fixed number of jobs, an idea that 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 (Figure 12). 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 older workers 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).

Figure 11. Agreement with Lump-of-Labor Argument, Russia and Selected Benchmarks, 2004–08



Source: GGP Wave 1 survey data (http://www.ggp-i.org/online-data-analysis.html).

Figure 12. Correlation in Employment of Younger and Older People, OECD Countries, 2009



Source: OECD (2011a).
Note: Regression line shown (heteroskedasticity-adjusted standard errors in parentheses) is employment rate of 55–59-year-olds = 36.84 (6.671) + 0.4565 (0.1402) x

employment rate of 20–24 years. R^2 of the regression is 0.2381.

Finally, negative employer attitudes toward older workers may be a major barrier to longer working lives. Although qualitative evidence (Box 3) suggests that some Russian employers perceive older workers to be more reliable than younger workers and to have more positive work attitudes, others are more concerned about diminishing physical and mental abilities among older workers and about potential social tensions between younger and older workers. Moreover, there is some focus group evidence that workers over 40–45 are not even considered for competitive vacancies. This suggests a perception that older workers are less productive than their younger colleagues, when in reality what older workers lose in some skills (such as mental speed and physical strength), they gain in other capacities (such as verbal skills, enhanced social skills, and greater reliance on experience) (Bussolo et al. 2015).

IV. Social Insurance Policies, Labor Institutions, and Incentives to Work Longer

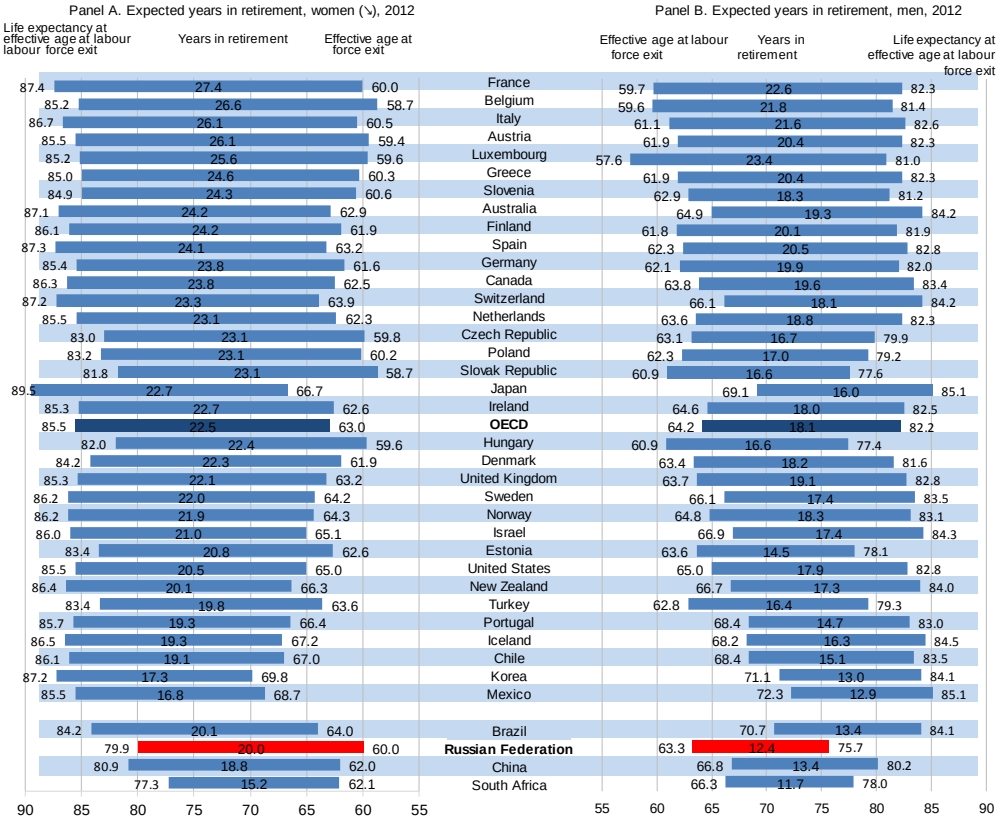
Certain features of a country's social protection system can shape decisions about whether to remain in or withdraw from the labor force. Becoming eligible for an old-age pension in Russia is significantly associated with retirement for both men and women (Figure 10b).[3] Theoretically, the labor force participation decision of an older worker can be affected by the design of social protection benefits through two channels: income and substitution (OECD 2006). The income effect implies that the more generous the benefits to individuals, the less incentive they have to work. The substitution effect implies that the incentive to work decreases if receiving benefits is conditional on ceasing work, as one source of income is substituted for another (as it is, for example, in Ireland in order to receive a state pension at 65) or if pension benefits have an earnings test (as in Japan, where the pension is reduced if the combined pension and salary for working pensioners aged 60–69 exceeds certain thresholds). Moreover, since the decision to retire is often made by a couple rather than the individual, the age difference between partners can interact with gender differences in eligibility criteria for social insurance benefits. Finally, availability of early retirement options through the pension system, disability, or unemployment can also facilitate early withdrawal from the labor force.

Other than having relatively low retirement ages with generous provisions for early retirement, Russia's current multi-pillar pension system contains no explicit disincentives for early withdrawal from the labor force. The official ages of eligibility for old-age pensions are quite low by international standards, 60 for men and 55 for women, with the minimum contribution to the Pension Fund of five years. The ages of eligibility for social pensions are slightly higher, 65 for men and 60 for women. Such relatively low eligibility ages are sometimes justified by low life

[3] This is true even though the model specification includes a quadratic function of age.

expectancies: 64 for Russian men and 76 for women, as of 2011, based on the World Development Indicators database. However, the more relevant life expectancy indicator for pension-related issues is measured not at birth but at the age of retirement. Based on the actuarial forecast of the Pension Fund of the Russian Federation, in 2010 average life expectancy was 14.3 years for 60-year-old men and 23.9 years for 55-year-old women. This implies that the expected duration of pension receipt in Russia may be below the OECD average of 17 years for men, but it is significantly above the OECD average of 20.3 years for women (OECD 2011b). Still, since there is no income test for receiving pension benefits, many Russians continue to work past the pension-eligibility age. Indeed, the effective age of leaving the labor force is 63.3 for men and 60 for women, which is below the OECD averages (OECD 2014; Figure 13). Nonetheless, many people become eligible for full old-age pensions at an even earlier age if they are employed in certain occupations with hazardous or demanding working conditions, including many workers in social services (such as all individuals with 25 years of experience in education or 30 years of experience in health care). According to RLMS estimates, almost half of early pension recipients continue working because there is no explicit disincentive to do so.

Figure 13. Expected Years in Retirement for Women and Men, 2012



Source: OECD 2014.

Although Russia has a history of low pension benefits that had pushed pensioners to continue working in order to survive, since 2008 the benefits have gone up substantially. Old-age contributory labor pensions have insurance and funded components, and the size of the pension benefit depends on both average lifetime earnings and the length of the contribution period (see Appendix Table A.3). The government sets the flat defined benefit part of the insured component, with premiums for disability, advanced age, and dependents, and annually adjusts it for inflation. The individual component is defined as the annuity of the "calculated pension capital" (based on contributions to the Pension Fund since 2002 and conversion of pension rights for the defined benefit system before 2002), divided by the expected length of pension payment, which has been raised gradually from 12 years (for pensions claimed in 2002–09) to 19 (for pensions claimed in 2013). Finally, the funded part of the pension (voluntary for those born before 1967 and mandatory for those younger) is calculated as the ratio of accumulated pension contribution to the special accounts (special part of individual pension account) to the specified expected length of pension payments (currently variable, from 12 to 19 years, depending on the year of claiming pensions). Before 2010, pension benefits were relatively low: 22 percent of average wage for contributory old-age labor pensions and at 16 percent of average wage for noncontributory social pensions; however, pre-2002 pension rights were revalued in 2010, increasing pensions by a third from 2008 (OECD 2011b). This change made Russia's pension system replacement rates similar, in theory, to the OECD average: the net replacement rate for an average earning male with a 40-year contribution history would be 67 percent (see Table 1, column 1). For comparison to the OECD average, this calculation applied the standard OECD assumptions of a full career, real annual earnings growth of 2 percent, and expected period of pension payment based on life expectancy beyond retirement (14.3 years for Russian men); column 2 shows the replacement rate for the Pension Fund assumption of 19 years of pension payments, which lowers the estimate (OECD 2011b). Other columns show the negative impact on replacement rates of a shorter contribution history, absence of the funded component, a lower rate of return on capital, and a lower contribution rate. In reality, most pensioners attain replacement rates close to that of column (3).

Table 1. Pension Replacement Rates in Russia (Males, Average Wage): Sensitivity Analysis

	Expected Pension Payment Period (Life Expectancy at 60 (14.3 years)	**Expected Pension Payment Period = 19 years**				
	40 Years of Experience, 26% Contribution Rate, 3.5% Return on Funded Capital (1)	**40 Years of Experience, 26% Contribution Rate, 3.5% Return on Funded Capital (2)**	**30 Years of Experience (3)**	**Insurance Part Only (4)**	**1% Rate of Return on Funded Capital (5)**	**20% Pension Fund Contribu-tion Rate (6)**
Gross pension replacement rate	58.4	52.3	38.2	35.0	45.4	41.8
Net pension replacement rate	67.1	60.1	43.9	40.2	52.2	48.0

Source: OECD 2011b: p. 183, Table 4.7, based on OECD pension models.

The current pension system gives older Russians virtually no incentive to defer receiving a pension, which jeopardizes the fiscal sustainability of the system. Although there is no income test for working pensioners in either noncontributory or contributory pension schemes, there is also very little incentive to defer pension payment. The sole incentive in the current scheme is reduction of the denominator of the expected payment period, normally set at 19 years, but even this incentive is capped at 5 years, as the minimum expected payment period is 14 years. Virtually all individuals who qualify for a pension begin to claim their benefits immediately, while many continue working, often in the same job.

The 2013 pension reform did not raise retirement ages but improved the incentives to extend working life and defer receiving a pension. One major change introduced by the law adopted on December 28, 2013, which took effect in January 2015, has to do with pension eligibility. Although it preserves current pension eligibility ages of 60 for men and 55 for women, the reform extended the mandatory contribution period from 5 years to 15 (to gradually rise through 2025) and added the requirement of accumulating at least 30 individual pension points (see Appendix Table A.3b). Since accumulated pension points depend on annual contributions to the Pension Fund, which are based on earnings (with upper limits defined separately for individuals with and without the funded pension component), high-earning individuals become eligible for pensions faster. Thus, 30 pension points would require 30 years of contribution at the minimum wage but only 15 years at double the minimum wage. Another reform was introduction of premium coefficients (actuarial adjustments) for individuals who defer pension receipt beyond the pensionable age; this was done both to stimulate extension of working lives and to improve the fiscal sustainability of the pension system. The premium coefficients (see Table 2) depend on the length of time that passes after the person becomes eligible for either a regular or early pension. For instance, for workers who retire 5 years after their pensionable age, the base pension will rise by 36 percent and the insurance part by 45 percent. If late retirement results in 10 years of additional working life, the base pension increases 2.11 times and the insurance part 2.32 times. These adjustments are among the highest in the world for this type of pension scheme (for instance, Iceland allows for a 30 percent increase in pensions for a five-year deferral). Finally, the pension reform introduced additional payroll tax rates (from 2 to 8 percent) for employers of workers in onerous working conditions. This shifted some of the burden for paying early retirement pensions for such workers from the government to the employer, which forces employers to internalize some of the costs of hazardous work and hopefully gives them incentives to improve working conditions.

Table 2. Premium Coefficients for Deferring Pension Receipt

Number of Full Months beyond Mandatory Pension Age	Augmenting Coefficients for Pension Insurance Part		Augmenting Coefficients for Pension Base Part	
	Regular Pension Arrangements	Early Retirement Pension Arrangements	Regular Pension Arrangements	Early Retirement Pension Arrangements
Less than 12	1.00	1.00		
12	1.07	1.046	1.056	1.036
24	1.15	1.10	1.12	1.07
36	1.24	1.16	1.19	1.12
48	1.34	1.22	1.27	1.16
60	1.45	1.29	1.36	1.21
72	1.59	1.37	1.46	1.26
84	1.74	1.45	1.58	1.32
96	1.90	1.52	1.73	1.38
108	2.09	1.60	1.90	1.45
120	2.32	1.68	2.11	1.53

Source: Federal Law #400 on Insurance Pensions, December 28, 2013.

Although the 2013 reform was intended to give Russians incentives to work longer, uncertainty about how points translate into pension benefits and previous experience of changes in pension calculations may undermine its effectiveness. The intent of the reform was to incentivize a longer working life, decrease the prevalence of widespread under-reporting of wages, and make the pension system more sustainable, given the demographic challenge posed by population aging and shrinking. The new system of pension points can in theory help achieve the aims of the reform. The Ministry of Labor expects the annual share of retirees who will defer pensions to be about 15 percent of those reaching pensionable age. However, since this is the first transition from a notional defined contribution scheme to a point-based pension system, the details of transition from the old to the new scheme are not clear, making it difficult for pre-retirement individuals to plan work and retirement decisions. In this uncertain environment, many people may still find it attractive to claim pension benefits at the earliest possible point. The numerous changes in the pension rules over the last 20 years add to the predisposition for myopic behavior.

Low unemployment benefits do not act as a disincentive to work, but the employment service has little capacity to facilitate job search and improve employability, which makes it harder to prolong the working lives of unemployed older Russians. Decisions about work and retirement do not depend solely on how the pension system is designed; other social protection benefits, such as unemployment insurance and disability pensions, can be used to transition from employment into retirement. Benefits related to unemployment do not offer an exit strategy in Russia because they are not generous. Most of those unemployed in Russia do not even bother to register

with the Public Employment Service (PES): the ratio of registered to ILO-defined unemployment has fluctuated at about 20–30 percent. One major reason for not registering is that the maximum monthly benefit amount in 2014 was 4,900 RUB, about US$145, which is very low compared to average wages in all regions. Besides providing minimal support for job search and activation, the PES is promoting early retirement for some older job seekers. Specifically, the PES can offer early retirement pensions to unemployed men aged 58 and over with 25 years of social security contributions and women aged 53 and over with 20 years of contributions till the age they would be eligible for a labor pension. Unemployed workers are eligible for early retirement pensions if they were separated due to liquidation of the organization or individual business or there was a mass reduction of personnel. This scheme can shave off many years of productive work—6 years for men and 7 for women at the current effective ages of retirement. As the companion study of adult education in Russia found, some regions have extensive experience in active labor market programs for the unemployed. However, limited cooperation between training providers and employers decreases the effectiveness of training services for adults (World Bank 2013).

Russia's Labor Code bans discrimination based on age, and recent law has banned age-related criteria in vacancy postings. The Labor Code regulates the employment of pensioners. After becoming eligible for a pension, the person can retire from the labor force or continue with employment, and there is nothing in the Labor Code to end the labor contract after a worker becomes a pensioner. The exception is public servants, who need approval from the relevant state representative to continue employment and who may not continue to be employed as a public servant after they reach 65—although they can keep working in the public sector on a fixed-term contract. Other pensioners can keep working at their pre-pension job, and the employer cannot switch them from an open-ended to a fixed-term contract or break the contract on the grounds that the employee has reached pensionable age. If pensioners change jobs or rejoin the labor force, the new contract can be fixed-term. There is anecdotal evidence of cases where pensioners have been offered renewal of fixed-term contracts every year for several years; in such cases employers can be sued and the contract recognized as open-ended. Russia's Labor Code prohibits employment-related discrimination on any grounds, including age and gender, that are not related to the employee's productivity. In July 2013, Federal Law #162 was passed; it stipulates additional measures to enforce the ban on age and gender discrimination in hiring. In particular, the Law on Employment and the Labor Code were amended to prohibit discrimination not only in hiring (as had previously been the case) but also in publishing job postings. Administrative penalties were introduced for legal entities, including employment agencies, mass media, and Internet sites, which publish discriminatory job postings. According to an opinion poll conducted shortly before this change, 10 percent of individuals aged 31–45 and 25 percent of those aged 46–60 had encountered a situation in the previous two to three years where employers thought they were too old for the job for which they were applying.[4]

There are few opportunities for part-time and flexible work arrangements. Because older Russians attach significant importance to flexibility in post-retirement employment, the labor force participation of older adults may be repressed by the lack of part-time opportunities. Although part-time employment is ensconced in the Labor Code and part-time and full-time workers have the same

[4] http://fom.ru/Rabota-i-dom/10868.

labor rights, Rosstat estimates that only about 5 percent of workers in 2012 worked less than 30 hours a week (4 percent of men and 6 percent of women). The propensity of pensioners to work part-time is higher (12 percent for men and 21 percent for women aged 60–72), but it is far below the averages for EU pensioners of 52 percent for men and 67 percent for women aged 65 and above (Eurostat). Earlier studies suggest that in Russia part-time employment is taken up only by people who cannot find full-time work (Tchetvernina et al. 2001 as cited in Cazes and Nesporova 2003). Whether this is still the case, and whether there is a difference in the value attributed to part-time employment by workers of different ages, is an important subject for future research.

Although disability can be a pathway into early retirement, the government is making a concerted effort to bring more disabled workers into the labor market. Federal medical and social experts' institutions operate disability certification and definition of three disability groups,[5] which is regulated by the federal Law "On social protection of those disabled in the Russian Federation." Workers certified as disabled are eligible for a labor pension no matter what the cause of disability (with a few exceptions), the length of insurance contribution, working status, and timing of the disability—while employed or pre- or post-employment. Disabled individuals who have made no contribution to the insurance system are eligible for social disability pensions. A disability labor pension depends on the disability class and is currently calculated as the sum of the base disability pension (defined by the government, adjustable for dependents) and the individual component. The individual component is defined as the ratio of the "calculated pension capital" as of the date of application for a disability pension to the product of the expected length of old-age pension payment (maximum is 19 years) and the ratio of the normative length of insurance contributions in months as of the date of pension application (minimum of 12 months and maximum of 180). As of 2015, the individual component of the disability insurance pension is the product of the individual pension coefficient (points) and the value of one pension coefficient as of the date of application for a disability pension. The only difference from the old-age labor pension calculation would be division by the ratio of the normative length of the insurance contribution period in months as of the date of application for a disability pension. Also, the base part of the disability pension is reformed in that its value is set to be the same for the 1st and 2nd disability groups, with the 3rd group getting 50 percent of that value.

A disability pension is paid until the reason for disability is no longer valid or until the person becomes eligible for either a labor or a social pension, depending on whether the contribution history (and, from 2015, the number of accumulated pension points) qualifies the disabled person for the old-age labor pension. There is no explicit employment disincentive in the design of the disability pension—it is paid in full irrespective of employment—and contributions to the Pension Fund during employment are taken into account when reconsidering the size of a disability pension. Although the Labor Code restricts the work time of those in the 1st and 2nd disability groups to 35 hours per week, it stipulates full payment for the reduced hours of work, which may introduce an implicit hiring disincentive. On the other hand, the Law on Employment stipulates additional measures to raise the employability of the disabled, including priority access to retraining and special

[5] Disability Group I implies 100% loss of working capacity and requires constant attendance; disability group II implies 100% loss of working capacity but does not require constant attendance; and disability group III implies at least a 50% loss of working capacity and does not require constant attendance.

job creation programs. Moreover, the 1995 Federal Law 181 "On Social Protection of the Disabled" stipulate employment quotas for the disabled that must be met by all firms with more than 100 employees. The quotas are defined in regional legislation and should constitute 2–4 percent of the firm's employees. The law also stipulates that regions define the minimum number of special jobs for the disabled at each large firm and mandates workplace adjustments as needed. Organizations that employ the disabled are also eligible for subsidies on the profit tax, payroll tax, and accidental insurance premiums. However, claiming these subsidies is apparently very complicated and time-consuming. Still, the share of disability pensioners in employment has been rising steadily in recent years, having gone up about 10 percentage points to more than 30 percent between 2006 and 2011.

Table 3. Share of Working Pensioners, Percent

	2006	*2007*	*2008*	*2009*	*2010*	*2011*
All pensions	24.5	26.5	28.4	30	31.2	32.4
Labor pension	28.2	30.5	32.7	34.3	34.9	36.4
Disability pension	22.5	23	23.5	24.3	30.7	31.6
Survivor pension	0.8	0.6	0.6	0.7	0.7	0.7

Source: Based on Rosstat 2012, Table 6.16.
Note: Rosstat changed its methodology for counting pensioners in 2010; reportedly figures, for 2006–09 are being recalculated.

In sum, Russian social insurance benefits and labor institutions contain few disincentives to prolonging working life, but they also do little to support an active aging agenda; the 2013 pension reform could begin to change that. Since old-age and disability pension benefits can be combined with full-time employment without penalty, older Russians have no explicit incentive to retire. However, many able-bodied Russians still retire once they become eligible for pensions because the pensionable age is a powerful anchor for work/retirement decisions. Although up to 2015 the pension system did not offer any incentives to defer pensions, the latest reform makes the first move to incentivize later pension receipt and thus promote explicit extension of working life. A more proactive PES is needed to facilitate job search for the unemployed in Russia, especially unemployed older adults, some of whom are currently allowed to retire even before they reach pensionable age.

V. Policies to Enhance Active Aging in Russia

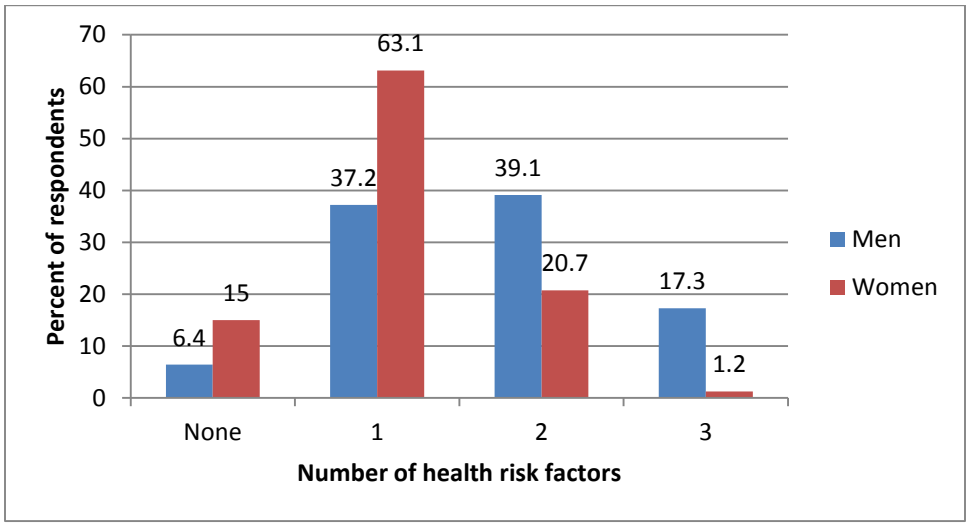
Higher productivity and longer working lives can help Russia take advantage of longer life expectancy and attain a more active and prosperous life at older ages. Population aging does not have to doom a country to gradual decline. Indeed, increased longevity brings with it greater potential to enjoy everything that life has to offer; it should be celebrated as a great human

achievement. However, like any other systemic transformation, population aging requires adjustment of social and economic institutions and a shift in established paradigms. Although Russia, like other European countries, is entering a period of substantial population aging, the process is complicated by international recognition that the working-age population is shrinking rapidly, and only some of the shrinkage (especially for younger workers) can be offset by a more proactive immigration policy. To surmount this demographic challenge, Russia can work to engage its able-bodied population in productive work for longer periods and help them to become more productive. The options offered here for policymakers to consider fall into two categories: the first focuses on enhancing the employability of older individuals and the second on aligning social insurance incentives to promote longer working lives for Russians.

Preserving the Human Capital of Older Adults

Promotion of healthier habits and lifestyles and more attention to preventive medicine and early diagnosis can help Russian workers to remain in work longer. As already noted, in focus group discussions health was the most mentioned driver of employment separation, and it was a significant correlate of exit as soon as workers became eligible for retirement. Many chronic and acute health conditions, such as cardiovascular diseases, which are more prevalent in nonworking older Russians, stem from unhealthy lifestyles and risky habits. Using SAGE data on respondents aged 50 and over, Maximova (2014) examined the prevalence of three health risk factors: smoking, insufficient physical exercise, and inadequate consumption of fruits and vegetables. She found that only 6.4 percent of men and 15 percent of men aged 50–79 had none of these risks; on the other hand, 56 percent of men and 22 percent of women have two or all three of these unhealthy habits (see Figure 14). Relative to other countries for which SAGE data are available (China, Ghana, India, Mexico, and South Africa), Russian older adults compare favorably on smoking, diet, and exercise, but Russia stands out for the prevalence of alcohol abuse, at 7.8 percent of adults aged 50 and over (Maximova 2014).While some age-related biological processes cannot be prevented by lifestyle changes, preventive interventions and an active lifestyle can affect the functional capacity of the heart and lungs, improve physical strength and reaction speed, and lower blood pressure—all of which are essential for extending healthy years of life, which in turn enables an extended working life. Health habits are difficult to change, but a concerted effort can yield significant results, as was demonstrated in Finland's North Karelia Project (Box 4). Besides promoting healthy habits in order to prevent chronic diseases, more attention to early diagnosis is needed. Maximova (2014) identified several conditions, such as angina, asthma, and depression, for which self-reports of older Russians in the SAGE survey are significantly lower than symptom-based prevalence estimates. This suggests that many respondents may not be aware that they may be susceptible to these conditions.

Figure 14. Number of Health Risk Factors, Russians aged 50–79



Source: Maximova 2014, based on WHO SAGE data, 2007–10.

Encouraging firms to institute age management policies for older workers has the potential to prolong their participation in the labor force and maintain their productivity. As noted, employers in Russia tend to treat older workers like everyone else in terms of demands on their productivity, which may push older workers out of the labor market when they still have potential to contribute value. In other European countries with a fast aging workforce, many employers have found it in their best interests to invest in age-management policies that can help to keep older workers productive and their business competitive. Experience in other countries has shown that older workers can be as productive as younger workers if there are workplace adjustments that compensate for reduced physical capacity (see Box 5). Remarkably, some age-management strategies, such as deployment of mixed-age teams, have been demonstrated to not only enhance the productivity of older workers but also to have spillover effects on younger colleagues (Bussolo et al. 2015). Since Russia's older adults are highly educated (half of adults aged 50 or more have higher education and another 30 percent vocational education and training [RLMS 2012]), and since most older workers are employed in the services sector (Figure 15), such workplace adjustments can indeed enhance their employability and preserve their productivity. Policymakers in Russia are already encouraging workplace adjustments for disabled individuals; those initiatives can be combined with information on and promotion of cost-effective adaptations to an aging workforce, especially in sectors where the shares of older employees are rising, Some large companies, such as INTER RAO UES and Rusonyx, are already working to hold on to pension-age specialists by offering them incentives or trying to recruit older workers with flexible schedules.[6]

[6] The head of Rusonyx suggested that training an older worker might be preferable to training a student (their other recruitment target), as the student will leave to make a career while the older worker will stay until retiring (*Forbes* Magazine (in Russian), Oct. 17, 2012: http://www.forbes.ru/svoi-biznes-column/idei/165541-za-sotrudnikov-sluzhby-podderzhki-kotorye-sposobny-vklyuchat-mozgi-id).

Box 4. Changing Health Habits: The North Karelia Project in Finland

In the late 1960s, Finnish men had the world's highest rates of mortality from coronary heart disease. From 1972 to 2007, risk factor surveys were carried out to monitor trends in risk factors and assess their contribution to declining mortality in Finland. Between 1972 and 2007, cardiovascular disease (CVD) mortality rates dropped by 80 percent. Evidence from public health studies suggests that decreases in risk factors were responsible for three-quarters of this reduction (60 percent of the 80 percent) (Vartiainen et al. 2010). How could Finland able achieve such an impressive reduction in risk factors, and mortality, in just 35 years?

The North Karelia Project

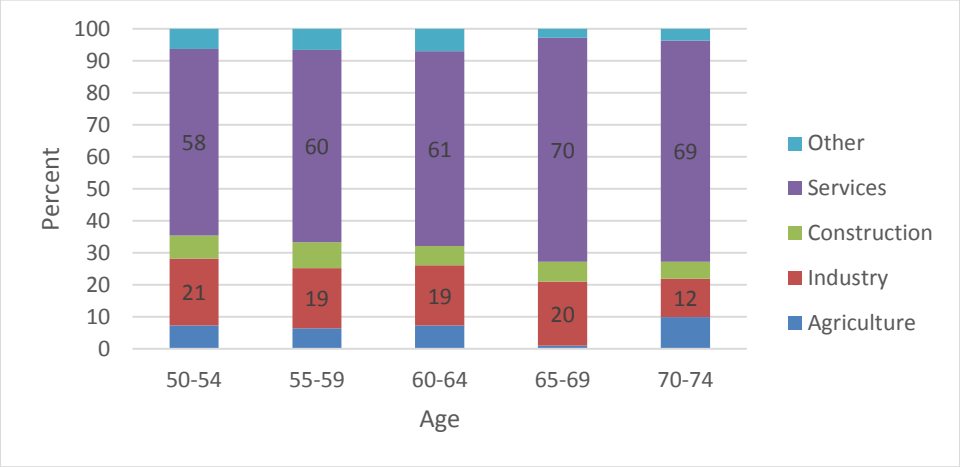
In the 1960s, health outcomes in North Karelia, a region in the east of Finland, were worse than in the rest of the country. In 1972, Finnish authorities with the help of the World Health Organization, launched the 5-year North Karelia Project. What spurred the project was scientific evidence that LDL cholesterol, high blood pressure, and tobacco use were causal factors for CVD. The project's main strategy was an integrated, community-based approach that targeted common behavioral risk factors in the whole population of North Karelia, not just those at high risk or already suffering from chronic diseases. To transform the social and physical environment of North Karelia, the project engaged primary health providers, voluntary associations, the food industry, educational institutions, and the media. Interventions included TV shows with contestants competing to lose weight, inter-city cholesterol reduction challenges, classes for housewives on how to cook vegetables and other healthy food, reduction of dairy subsidies and promotion of the domestic vegetable oil industry, clearer labeling for tobacco products and food in supermarkets, and training of primary health care staff. Monitoring and evaluation were rigorous. By 1977 the impacts were already significant: for middle-aged men (30–59), smoking prevalence dropped from 52 to 44 percent, serum cholesterol fell from 6.9 to 6.5, and average blood pressure decreased from149/92 to 143/89. Similar impacts on cholesterol and blood pressure were observed for women, although their smoking prevalence remained the same (10 percent). Importantly, in the first 5–10 years of the project, most risk factors declined faster in North Karelia than in the reference area of Northern Savo that did not receive the intervention.

Scale-up

After the success demonstrated in North Karelia, the project was extended from 1977 onward and its findings disseminated widely to promote prevention throughout Finland. With the national roll-out, the prevalence of risk factors and mortality from CVD began a rapid decline throughout Finland; moreover, the incidence of strokes and tobacco-related cancers in men has plunged, resulting in a more than 50 percent reduction in the mortality of working-age individuals and a significant increase in life expectancy. Together with achievements in objective measures, there is evidence of improvements in subjective health and well-being that can be attributed to the health interventions.

Source: Vartiainen et al. 2010; Puska 2008; Puska et al. 2009.

Figure 15. Sectoral Employment of Older Russians, 2012, Percent



Source: RLMS 2012 data.

Box 5. Adjusting Workplaces to the Needs of an Aging Workforce: The Case of BMW

In 2007, the management of a BMW plant in Dingolfing, Lower Bavaria, was confronting a potentially steady decline in productivity, given its aging workforce. It was estimated that in the following 10 years, the average age of employees would go up from 39 to 47. The traditional method of handling this challenge—firing or forcing older workers into early retirement—was not an option; BMW, the largest employer in Lower Bavaria, makes a firm commitment to its employees and the communities surrounding its plants. Moreover, moving older workers to less physically demanding jobs at the plant was also not feasible as there were not enough younger workers available to replace them. To solve the problem, BMW chose to combat the decline of productivity rather than the rising age of the workforce.

Design of the intervention

The research team hired to address this challenge first assembled a pilot production line composed of workers whose age profile resembled the plant's projected demographics in 2017. Workers on this line were asked to report any health issues that might be attributed to their working conditions and to generate ideas on what changes might alleviate the problems. The ground-up approach ensured buy-in by workers, who identified about 70 relatively small ergonomic changes that were implemented for this line, such as softer wooden flooring, chairs for breaks, orthopedic footwear, and adjustable worktables.

Results

Although the cost of the interventions was only €40,000, the results were dramatic. In just one year, productivity on the pilot production line went up by 7 percent. Compared to lines with younger workers, the more experienced pilot line worked faster and had a much lower error rate. Moreover, health-related absenteeism dropped from 7 to 2 percent—below the plant average. Since this pilot demonstration, BMW has rolled out similar interventions in other plants in Germany, Austria, and the United States. Although workplace adjustments in each plant depend on each plant's unique conditions and the problems identified by workers there, the impacts were similar to the original.

Source: Loch et al. 2010; Hodin and Hoffmann 2011.

Investment in lifelong learning can also bring about significant gains in labor force participation of older Russians. The companion study on adult education in Russia suggests that continuous professional education and retraining opportunities throughout working life can increase productivity and enable workers to prolong their working life. Indeed, as suggested by evidence from SAGE data, older Russians preserve their capacity for learning new things well into the retirement years: in the 30 days before the survey about 72 percent of post-retirement Russians did not experience any significant problems with concentration or memorization, and about 70 percent did not experience any significant problems with learning new things (Maximova 2014). There are also encouraging findings on the effectiveness of workforce training if training strategies are adapted to the particularities of mature brains (Bussolo et al. 2015). What seems to work best is establishing clear linkages to employers before training, and providing competence-based training in short modules after full integration of prior learning. The combination of preserved capacity for learning, emergence of promising approaches to adult training, the observed returns to education and skills in terms of post-retirement employability, and the qualitative evidence of a skills mismatch in the market for older workers in Russia all suggest that promoting accessible and high-quality lifelong learning can extend working lives. In particular, providing co-financing for employers who invest in on-the-job training of older workers can counteract employer hesitancy to do this because the expected private return on this investment is lower, given the higher risk that older workers will decide to retire.

Incentives to Encourage More Active Aging

Equalization of pensionable ages for men and women can extend the working lives of both genders and improve the equity of the Russian pension system. The 2013 pension reform did not raise the statutory ages of pension eligibility because of political economy considerations; instead, it focused on stimulating later retirement by lengthening the contribution period required to claim old-age pension benefits. Although a longer contribution history may be a second-best alternative in terms of promoting labor force participation at older ages, different ages for pension eligibility for men and women preserve a degree of gender inequity in the payoff expected from the pension system. Lower life expectancy of men combined with a later pensionable age results in a 10-year gender gap in life expectancy at retirement: in 2010, it was 14 years for men and 24 for women at current pensionable ages, based on estimates of the Pension Fund of the Russian Federation (OECD 2011b). Since nothing in the current or reformed insurance pension formula adjusts benefits by the expected payment duration,[7] pension payouts for men are likely to be lower than for women. While arguments against raising the current pensionable age of men due to its proximity to their life expectancy at birth have some validity (although it is life expectancy at *retirement age* that really matters), there is no corresponding argument that can be applied to women: the current gap between life expectancy at birth and pensionable age for men is about 2 years, but it is 19 for women. Besides

[7] The reform of the *funded* pension component does introduce a correction for life expectancy, which will be applied starting in 2016 (Federal Law 424 "On funded pensions").

the equity argument, raising the female statutory pensionable age to that of men has potential to extend the working lives of *both* genders. As demonstrated in Section III, Russian couples greatly prefer to retire together; having a spouse in work increases the probability of employment for pensioners and decreases the probability of exit into retirement.

Discouraging early retirement of able-bodied Russians by revising pension eligibility criteria, adjusting pension benefits, and shifting the fiscal burden from the state to employers can promote longer working lives and better working conditions. Section II demonstrated the gap in labor force participation rates between Russia and Iceland. Much of Iceland's success in terms of active aging comes from its limitation on pathways out of employment before the statutory age of 67 (Box 6). The 2013 reform in Russia preserved the right of workers in hazardous and difficult working conditions to claim old-age pensions before statutory age if they attain a specified number of pension points. Article 30 of the 2013 law lists 21 categories of workers who are entitled to early pension payouts, including all teachers of children of all ages after 25 years of service and all health care workers after 30 years (25 in rural areas). Clearly many older workers become eligible for early pensions before they reach the already-low old-age pension eligibility ages. According to the OECD (2011b), about 35 percent of Russians start drawing pensions before the standard pensionable age; 30 percent of women and 20 percent of men are already claiming pensions by the time they are 50, and half of those left employment for retirement. Although the new pension formula implies higher benefits for people who do not exercise the early retirement option, given current uncertainty about future pension rules, many are expected to claim benefits as soon as they can. Moreover, eligibility for early retirement provides an anchor for individuals in eligible occupations; it might lead them to exit employment at or around their pensionable age even if they do not experience a drop in productivity or health. A few steps could help align the incentives for both employees and employers in a better way. The lists of eligible occupations can be revised by studying current working conditions and the average age and health at retirement onset in each occupation listed (many continue to work in the same job with onerous conditions while receiving early retirement benefits). Moreover, internalization of the costs of early pension payouts could be reinforced: the 2013 pension reform already shifted some costs onto employers in eligible occupations by introducing additional payroll tax rates (from 2 to 8 percent). Perhaps the magnitude of the tax can be tied to the past uptake of early retirement pensions in a way that holds employers more accountable for the working conditions at their firms.

Box 6. Active Aging in Iceland

Of all European countries Iceland has the highest employment rates for older people. In 2010 84 percent of workers aged 55–59, 75 percent of those aged 60–64, and 48 percent of those aged 65–69 were employed; the EU averages in the same categories were 61, 31, and 10 percent. How has Iceland managed to engage so many older adults in productive work? Although part of the answer lies in the specifically Icelandic tradition of a long working life, countries like Russia can draw lessons from the design of its social security system, its active labor market policies, and its promotion of lifelong learning, all of which guide people to a later retirement.

Social insurance system

The design of the Icelandic pension system provides several incentives for prolonging working life: (1) The statutory retirement age is relatively high at 67 for both men and women. (2) There are very few exit channels from the labor force before 67. There is no early retirement pension scheme and only people over 60 can get disability pension. Thus pension receipt is considerably less prevalent (about half of males and 60 percent of females aged 65), than in other Nordic countries. (3) There are strong incentives to defer pension receipt for up to five years even after reaching 67 years. (4) Finally, exit from the labor force via disability pension is reduced through the Icelandic Rehabilitation Fund (VIRK), which aims to reduce job loss due to incapacity by providing consultations with vocational rehabilitation specialists for employees who are absent from work for an extended period due to illness or injury.

Active labor market policies

Unemployment in Iceland is very low even for older individuals: in 2012, according to Eurostat, only 4.6 percent of active men and 3.1 percent of active women aged 50–74 in Iceland were unemployed, almost half the EU-wide average. Although active labor market policies are not specifically targeted at older workers, there is evidence that they actively take up the opportunities these measures offer. For instance, the implicit subsidy of hiring an unemployed person for a trial period was taken up by 9 percent of unemployed aged 65–69, though the average uptake rate was just 6 percent.

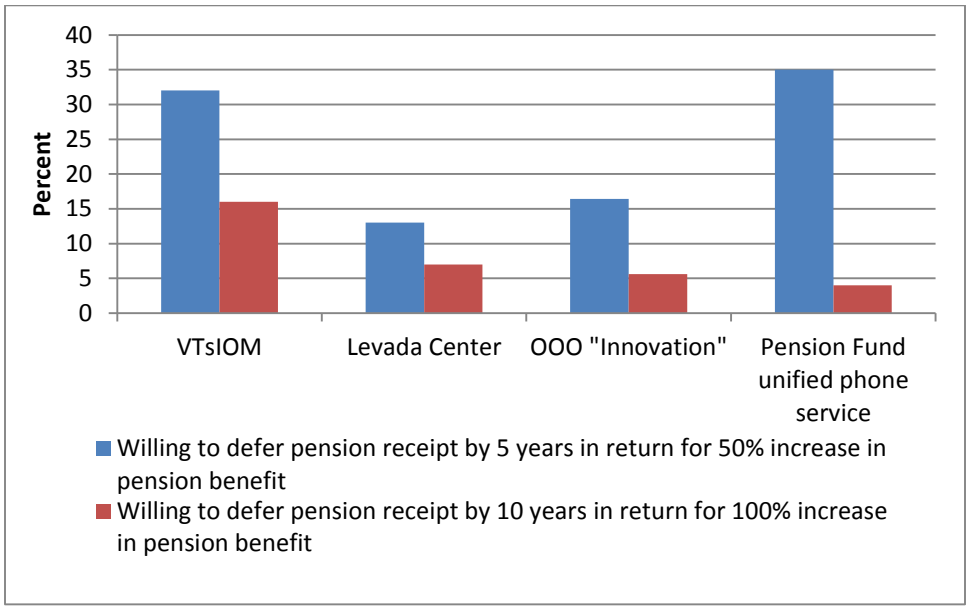
Lifelong learning

Relative to other European countries, older workers in Iceland have very high rates of participation in informal education, for example, 40 percent of workers aged 55–64. Although generally, adults with higher education are more likely to continue learning at older ages, in Iceland older workers without any higher education still participate in educational activities at high rates, which may contribute to their employability.

Making the system of social insurance benefits more transparent is crucial for ensuring that the incentives built into the system will be effective. As with any complex reform, issues of credibility and implementation quality can be as important as design features in determining final outcomes. Although the 2013 pension reform introduced several innovations, such as accumulation of pension points for establishing eligibility and augmented coefficients for deferred pensions to stimulate longer working lives, the impact of the reform will hinge on whether the incentives provoke changes in behavior. Opinion polls conducted several months before the reform suggest that up to a third of Russians would be ready to defer receiving a pension by five years in return for a 50 percent increase in pension benefits (although some polls reveal much lower readiness to take up incentives;

see Figure 16). Uncertainty about the value of a pension point in determining the magnitude of the pension benefit can dampen motivation to respond to the incentives and result in a preference for smaller but certain payoffs over larger but uncertain ones. Thus, it is important for the government to adopt a clear and, even more important, predictable strategy for pension point valuation, one that can enter the decision-making equation of every individual years in advance of eligibility for a pension. An equally vital part of the reform is a broad-based information and communication campaign to elucidate the objectives and design features of the new pension system. Ideally, this could be followed by collaboration with social workers, regional branches of the Pension Fund, and organizations helping pensioners and pre-pension-age individuals to make work and retirement decisions.

Figure 16. Willingness to Defer Pensions in Pre-reform Opinion Polls, July 2013, Percent



Source: Ministry of Labor and Social Protection of the Russian Federation 2013.

Evidence that labor regulations or wage subsidies can increase the employment of older workers is limited and mixed. Antidiscrimination policies may be able to protect older adults and people with disabilities who seek jobs or older workers during systemic shocks (Murrugarra 2011). Although strict employment protection legislation (EPL) can make it more difficult for unemployed older adults to find new jobs, regulations such as those requiring severance pay may help older workers stay in work, especially where there is age discrimination in the labor market (Bussolo et al. 2015). There has been minimal research on the relationship between EPL and employment of older adults, and its results have been mixed even for OECD countries: Deelen and Bourmpoula (2009) found that stricter protection of older workers is associated with a lower LFPR and employment and longer stretches of unemployment for adults aged 55 and over, but Langot and Moreno-Galbis (2013) found that stronger EPL is related to higher employment for older adults. Evidence on the effectiveness of wage subsidies to extend working lives is also at best mixed. Huttunen et al. (2010)

examined the Finnish payroll tax subsidy scheme, which aimed to stimulate the employment of full-time low-wage workers aged 54 and over they found no impact on employment but an increased probability of part-time workers obtaining full-time jobs. Evidence from other types of wage subsidies suggests that subsidies might be most effective when combined with training and job assistance support (Katz 1996).

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APPENDIX

Table A.1: Regression Analysis of Correlates of Being a Working Pensioner

DV: Employed =1, otherwise = 0	(1) Men aged 60+ years	(2) Women aged 55+ years
Age	-0.014	-0.009
	(0.015)	(0.013)
Age squared	0.000	0.000
	(0.000)	(0.000)
Education: Secondary	0.153*	0.006
	(0.081)	(0.020)
Education: Professional / vocational	0.122***	0.005
	(0.030)	(0.017)
Education: University or more	0.134***	0.044**
	(0.026)	(0.018)
Marital status: Married / living together	0.036***	0.011
	(0.010)	(0.012)
Health self-assessment: poor / very poor	-0.023**	-0.021**
	(0.011)	(0.010)
Had health problem in last 30 days	-0.013	0.000
	(0.009)	(0.009)
Has disability status	-0.025**	-0.033***
	(0.010)	(0.008)
Has chronic heart disease	0.003	-0.005
	(0.008)	(0.008)
Has chronic lung disease	0.017	0.009
	(0.022)	(0.018)
Has chronic liver disease	0.010	-0.004
	(0.017)	(0.009)
Has chronic other disease	0.003	-0.009
	(0.008)	(0.014)
Is overweight (BMI>25)	-0.001	0.007
	(0.008)	(0.009)
Ever had a heart attack	-0.004	0.010
	(0.011)	(0.025)
Ever had diabetes	0.018	0.014
	(0.019)	(0.012)
Had depression in the last 12 months	0.018	0.003
	(0.019)	(0.014)
Rather or fully satisfied with life	0.011	0.037***
	(0.007)	(0.012)
Partner is employed	0.130***	0.094***
	(0.035)	(0.021)
Partner is in poor health	0.003	0.001
	(0.013)	(0.014)
Partner is disabled	0.031	0.024***
	(0.020)	(0.009)
Presence of children under 18 in HH	-0.020***	-0.016**
	(0.007)	(0.007)
Log HH income per capita net of R's labor income	-0.071***	-0.096***
	(0.021)	(0.013)
Settlement: Small urban	0.029	-0.010
	(0.026)	(0.017)
Settlement: Rural	0.006	-0.006
	(0.017)	(0.014)
Observations	969	2,634
Region controls	Yes	Yes
Pseudo-R2	0.575	0.476

Note: Marginal effects reported from a probit model with st. errors clustered by PSU; robust st. errors in parentheses.
* p<0.1; ** p<0.05; *** p<0.01.

Table A.2: Regression Analysis of Exit from Employment into Retirement

DV: Exited from employment into retirement by next survey wave (=1); otherwise=0	(1) Men aged 50-72	(2) Women aged 45-72
Age	0.061**	0.015
	(0.025)	(0.014)
Age squared	-0.000**	-0.000
	(0.000)	(0.000)
Will be eligible for old-age pension by next wave	0.056***	0.074***
	(0.020)	(0.017)
Education: Secondary	-0.031	-0.037
	(0.047)	(0.036)
Education: Professional / vocational	-0.013	-0.043
	(0.044)	(0.034)
Education: University or more	-0.034	-0.057*
	(0.044)	(0.034)
Marital status: Married / living together	-0.030	0.036**
	(0.025)	(0.015)
Health self-assessment: poor / very poor	0.008	0.023*
	(0.020)	(0.012)
Had health problem in last 30 days	0.019	-0.004
	(0.012)	(0.009)
Has disability status	0.034	0.001
	(0.021)	(0.018)
Has chronic heart disease	0.033**	0.001
	(0.014)	(0.010)
Has chronic lung disease	0.023	0.022
	(0.022)	(0.015)
Has chronic liver disease	-0.050*	-0.002
	(0.029)	(0.012)
Is overweight (BMI>25)	0.002	0.022**
	(0.012)	(0.011)
Ever had a heart attack	0.012	0.021
	(0.030)	(0.030)
Ever had diabetes	-0.008	0.004
	(0.026)	(0.013)
Works in public sector	0.004	-0.010
	(0.011)	(0.009)
Works part-time (< 35 hours a week)	0.026	0.020**
	(0.022)	(0.010)
Works from home	-0.042	-0.060***
	(0.028)	(0.018)
Had salary cut in the last 12 months	0.003	-0.011
	(0.020)	(0.016)
Not very satisfied / absolutely unsatisfied with job in general	0.049**	0.004
	(0.021)	(0.014)
Not very satisfied / absolutely unsatisfied with work conditions	-0.004	0.008
	(0.020)	(0.014)
Not very satisfied / absolutely unsatisfied with earnings	-0.012	-0.017*
	(0.013)	(0.009)
Not very satisfied / absolutely unsatisfied with opportunity for professional growth	-0.001	0.020**
	(0.014)	(0.010)
Partner retires by the next wave	0.076***	0.068***
	(0.021)	(0.022)
Partner in poor health	-0.016	-0.023
	(0.018)	(0.016)
Partner is disabled	0.016	0.024*
	(0.018)	(0.014)
Presence of children under 18 in HH	-0.001	0.011
	(0.011)	(0.007)
Log HH income per capita net of R's labor income	0.021**	0.002
	(0.010)	(0.002)
Settlement: Small urban	-0.019	0.012
	(0.033)	(0.025)
Settlement: Rural	-0.015	0.017
	(0.029)	(0.021)
Observations	1,814	3,753
Region controls	Yes	Yes
Round controls	Yes	Yes

Note: Marginal effects reported from a random-effects probit model; standard errors in parentheses; * p<0.1; ** p<0.05; *** p<0.01.

Table A.3: Key Parameters of Russia's Pension System

a) Pre-2013 reform

	Basic Part of Labor Pension	*Insurance Part of Labor Pension*	*Mandatory Funded Pension*
Retirement age	60 for men / 55 for women with minimum of 5 years contribution, but many options for even earlier retirement		
Benefit rate	3,170 rubles/month, but higher for those aged 80 or above and certain other categories	Notional account system, based on actual contributions made, with an assumed 19 years of benefit receipt at the normal retirement age beginning in 2013, phased in from the assumed 12 years in 2002	Based on individual contributions and interest earned on those contributions
Interest rate on contributions	-	Growth rate of contribution revenue per pensioner	Interest rate provided by fund chosen by individual
Indexation post-retirement	Indexed to average wages, but can be limited by availability of revenue	Indexed to average wages, but can be limited by availability of revenue	Paid as scheduled withdrawal
Contribution rates	22 percent of wages up to 512,000 rubles (of this, 6 percent finances basic pensions and 6 percent is diverted to the mandatory funded pension for individuals born in 1967 or later). Earnings above 512,000 rubles pay a 10 percent tax rate.		

Source: Based on Eich et al. 2012.

b) Post-2013 reform

	Fixed Part of Insurance Pension	*Insurance Pension*	*Mandatory funded pension**
Retirement age	60 for men / 55 for women with minimum of 15 years contribution (gradually increasing over 2015–2025) and accumulation of at least 30 individual pension points (gradually increasing over 2015–2025), certain earlier retirement provisions remain		
Benefit rate	3,935 rubles/month, but higher for those aged 80 or above and certain other categories Higher benefits for those who defer pension receipt beyond pensionable age (based on premium coefficients)	Points system, based on annual contribution to the Pension Fund (with gradually-increasing upper limits on annual accumulations of points, and lower upper limits for those with a funded component). Higher benefits for those who defer pension receipt beyond pensionable age (based on premium coefficients	Based on individual contributions and interest earned on those contributions
Interest rate on contributions	-	-	Interest rate provided by fund chosen by individual
Indexation post-retirement	Indexed every year (by February 1) to consumer prices growth rate of the previous year. Additional indexation may be conducted annually (By April 1) based on revenue growth rate of Pension Fund by decision of the Russian Government	Indexed based on one pension point value defined annually	Paid as scheduled withdrawal
Contribution rates	The default of all contributions (22 percent) is going to the insurance pension, but contributors can elect to contribute 16% to the insurance pension and channel 6% to funded pension		

Note: * Currently, the mandatory funded pension is frozen, with all contributions (22 percent) going to the insurance pension, pending the decision of the government on unfreezing the funded pension or converting it to a voluntary funded component.