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**Research Report**

## Russia's pension system in the context of world experience and expected trends

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Sergey Vlasov and Mariam Mamedli

Russia's pension system in the context of  
world experience and expected trends



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## Russia's pension system in the context of world experience and expected trends

### Abstract

Russia's level of pension provision lags most OECD countries, as well as faces challenges from rising pension fund deficits and an aging population. On the current course, in the long run Russia can expect decreased budget revenues that would require to adjust government spending. While many countries moved after the 2008 global financial crisis to overhaul their pension systems, Russia postponed action until recently. This paper presents estimates of retirement pension expenditures through 2035 under various assumptions about economic growth, demographic composition, and possible reforms to the pension system. Two recent measures by the government (abolition of indexing adjustments for working retirees and an increase in the retirement age for public servants) will slightly mitigate the long-term negative trends. For any of our assumptions, Russia's decision to begin raising the retirement age by six months a year starting in 2019 will put the retirement pension expenditures relative to GDP on the downward trajectory. This reform allows an accelerating increase in pensions to improve retiree welfare and makes up for some of expected decline in overall budget revenues, making it easier to stabilize the level of public spending relative to GDP. Acceleration of economic growth backed by structural reforms limits further the growth in pension expenditures.

**Keywords:** pension fund revenues and expenditures, pension reforms, retirement age increase, fiscal sustainability, Russia

**JEL classifications:** H55, H68, H75

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# 1. Introduction

The aging population trend in advanced and many developing countries presents governments with the challenge of designing pension schemes that deliver security without being overly burdensome on labor markets or public finances. In the wake of the 2008 global financial crisis, many OECD and G20 countries moved to reform their pension systems. Reforms focused on reducing fiscal pressures through such measures as voluntary pension savings and stimulation of economic growth by enhancing labor market conditions. Though these measures have helped, current trends imply more adjustment lies ahead.

Russia deferred action in the pension sphere and undertook reforms only recently. Although several reforms were launched, the deficit of the Pension fund of Russia (PFR) and the need in transfers from the federal budget are increasing, while the welfare of retirees is below the OECD average. One of the reasons for that is a relatively low retirement age compared to OECD countries, even if the life expectancy is taken into account. That was one of the arguments in favour of raising the retirement age in Russia.

The seminal paper by Kudrin and Gurvich (2012) on the architecture of Russia's pension system analyzes the impact of aging on public finance, i.e. the consequences to the pension spending and various strategies for modifying the pension system to accommodate an aging population. Measures proposed in the paper include increasing social contribution rates paid by employers to the PFR, lowering pension liabilities for certain retiree groups, and increasing the ratio of working population to retirees with an increase in the retirement age. Their analysis shows that the third option is best for achieving long-run sustainability of the pension system.

Researchers have also revisited the impact of demographics on the labor market. Ivanova et al. (2017) consider the consequences of an increase in the retirement age on the labor market under several scenarios.<sup>1</sup> Their calculations suggest that even a rapid increase in the retirement age (by one year annually up to a level of 65 years for men and women) only partly mitigates the negative outcomes of the expected deficit of the labor force, which they estimate to be 6 % of the economically active population.

This paper is organized as follows. Section 2 gives a brief overview and the main developments in pension systems in OECD and G20 economies showing the expected trends in public spending on pensions and the position of Russia in the context of world pension systems. Section 3 covers the recent pension reforms in Russia and forecasts of public pension expenditure up to 2035 under different assumptions concerning economic growth, demographic trends, and pension reforms with respect to the sustainability of public finances. The final section discusses policy implications and summarizes the findings.

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<sup>1</sup> The authors considered the following scenarios: no change in the retirement age, increases in the retirement age by increments of six months annually for men and women, by 12 months annually up to 65 years for men and women, by six months a year up to 63 for men and 62 for women.

## 2. Pension reforms in OECD countries and Russia in the context of current trends

### 2.1. Recent pension reforms in OECD countries

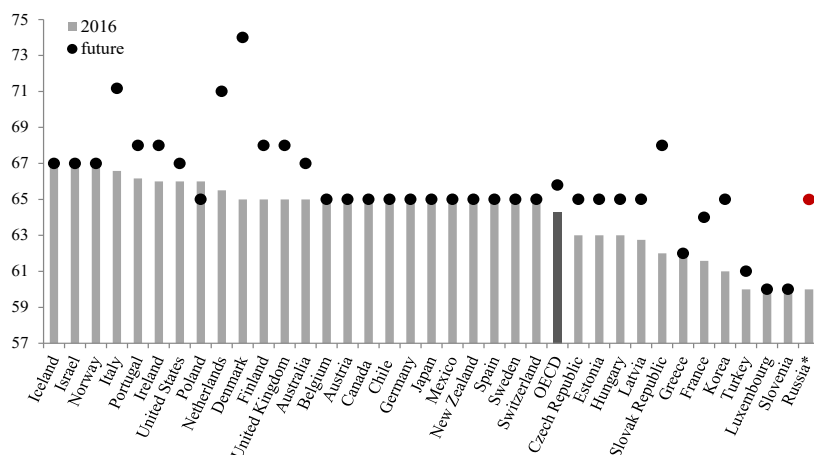
In the wake of the 2008 global financial crisis and Europe's sovereign debt crisis, many countries introduced changes to their pension systems. Measures were often geared to decreasing the burden of pension spending on government budgets. Over the past two years, pension reforms in OECD countries have slowed from the 2009–2015 period. This pull-back partly reflects persisting concerns about the financial sustainability and pension adequacy of current pension schemes in OECD countries.

Most reforms of the past decade include an increase in the retirement age that is coupled with tax incentives or changes in the values of pensions and contributions. Increases in the retirement age, which are widespread, are particularly relevant in the case of Russian pension reform. Over the last two years, three countries increased the retirement age (Denmark, Finland, and the Netherlands), while three countries abandoned previously adopted hikes (Canada, the Czech Republic, and Poland).<sup>2</sup> The future *normal* retirement age varies significantly among OECD countries, ranging from 60 in Turkey, Luxembourg and Slovenia to 74 in Denmark. In eleven of these countries, the retirement age for men now stands at 65 years. In Iceland, Israel and Norway, the current retirement age is 67. According to the OECD, 17 countries will maintain their current retirement age (Figure 1).<sup>3</sup> On average, the normal retirement age in OECD countries will increase from 64.3 years today to 65.8 years for men and from 63.4 to 65.5 years for women (OECD, 2017). The retirement age in Russia is significantly lower than in OECD countries but this difference may decrease in the future with further pension reform in Russia (Figure 1).

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<sup>2</sup> Canada decided to back off its planned increase to 67 for the basic and means-tested pensions. The Czech Republic abandoned plans to increase the retirement age above 65. Poland will not go through with its planned increase to 67 for all, returning retirement ages back to 65 for men and 60 for women.

<sup>3</sup> A detailed overview of pension reforms undertaken for the last two years is presented in Annex 1.A1, "Pension reform overview decided between September 2015 and September 2017," in *Pensions at a Glance 2017*, OECD (2017), p. 31.

Figure 1. Actual and expected retirement ages for men entering the workforce when 20 years old<sup>4</sup>

\*Future retirement age in Russia.

Source: OECD, Pensions at a Glance 2017.

Most pension reforms also substantially reduce the gap between the retirement ages for men and women. In 2016, gender gaps existed in only nine of the 35 OECD countries. By 2060, only three OECD countries (Israel, Poland and Switzerland) will retain lower retirement ages for women than for men (Figure 2). The age gap in Russia and Poland is currently five years. The fiscal impact of this gap is exacerbated by the higher life expectancy for women in Russia, which argues further for narrowing the retirement age gap in Russia. If the retirement age is merely increased as currently planned by the government to 65 years for men and 60 years for women (see subsection 3.2), the gap of five years remains unaddressed.

Cross-country comparisons show the prospect (healthy) life expectancy relative to the current retirement age in Russia is close to prosperous countries for men and substantially better for women. This allows us to assume that an increase in the retirement age for women to 60 years is well-grounded.<sup>5</sup> For men, it is possible to expect a further improvement in their life expectancy at the age of 60 in Russia by analogy to those that took place in recent decades (12.8 years in 2002; 16.1 years in 2016 (18.5 years to 21.7 years for women)).<sup>6</sup>

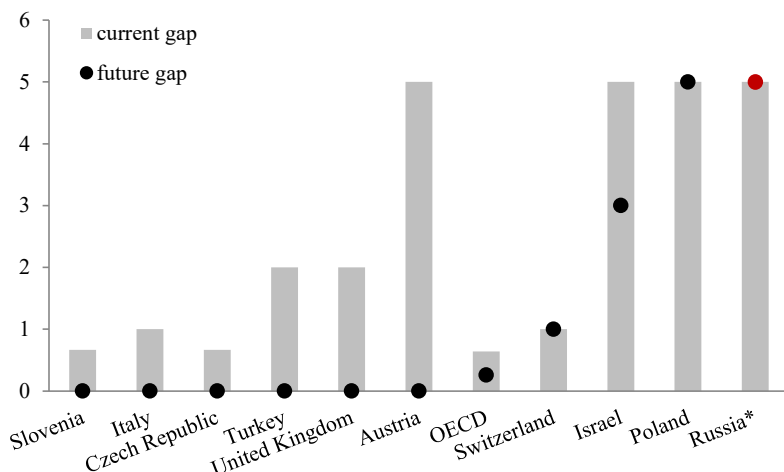
<sup>4</sup> The normal (expected) pension age is calculated for a male worker who enters the workforce at age 20. “Future” refers to the year when a person is eligible for full retirement benefits from all mandatory components, without reduction, assuming labor market entry at age 20. The data for men is provided as an example, for simplicity of illustration. The gap between the retirement age for men and women in different countries is discussed next and illustrated in Figure 2.

<sup>5</sup> For details, see Efremov (2018).

<sup>6</sup> For details, see Denisenko et al. (2018).



Figure 2. Current and future gap between the retirement age for women and men, years



\*Future gap in Russia assuming the pension reform to be started in 2019 stays in place.

Sources: OECD, Pensions at a Glance 2017, Rosstat.

Although increases in retirement age have led to the improvement in employment of the elderly, likelihood of remaining in the labor force declines significantly after age 50. However, in OECD countries for the 55–64 age cohort, employment rates rose from 44 % in 2000 to 58 % in 2016. The increase was greater than 20 percentage points in Austria, the Czech Republic, Estonia, Israel, and Italy and over 25 p.p. in Germany, Hungary, Latvia, the Netherlands and the Slovak Republic (OECD, 2017).

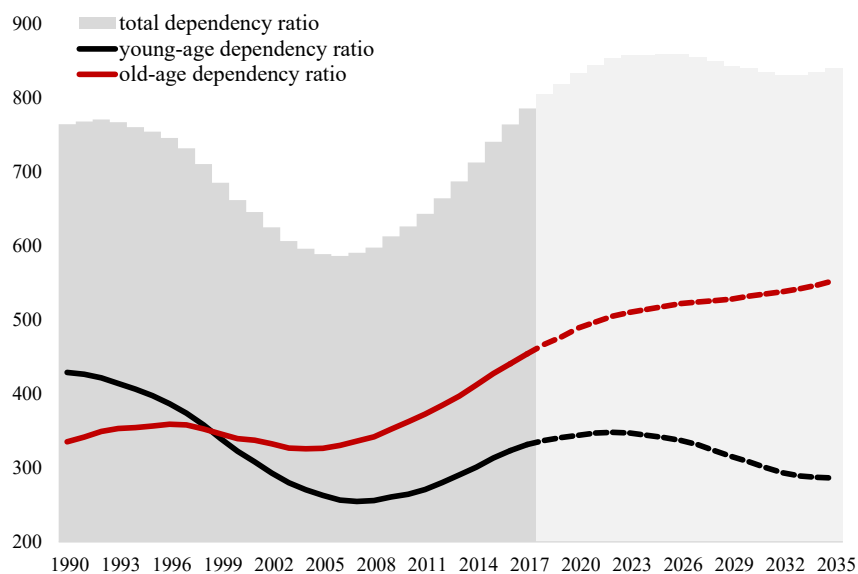
The same trend can be seen in Russia. Year after year, the level of economic activity in age groups rises increasingly for older generations. In the 55–59 age group, this level increased from 58.9 % in 2005 to 62.7 % in 2016, while a reverse trend is observed for younger age groups.<sup>7</sup> In the 65–72 age group, it remains rather stable, declining from 11.7 % to 11.5 % between 2005 and 2016.

Many retirees in Russia continue to work well into their retirement years. Russia's official data show that the number of working retirees within the full retiree group has substantially increased since 2000. It stood at 22.2 % of the retiree population in 2017.<sup>8</sup>

<sup>7</sup> For details see, for example, Gimpelson et al. (2017).

<sup>8</sup> Previous official data show 35.7 % in 2015. In 2016–2017, this share was reported as 22–23 %. The sharp decrease in this share is presumably explained by the change in the methodology of accounting working retirees. With the change in the pension indexation policy (the elimination of pension indexation for working retirees), PFR has started to account more precisely and regularly for the number of working retirees. The decrease in the number of working retirees can be partly explained by the transition of retirees from official employment to unemployment.

Figure 3. Old-age, young-age, and total dependency ratio; number of people with ages lower or higher than working age per 1,000 of working-age population in median forecast of Rosstat (forecast estimates from 2018)



Source: Rosstat, authors' calculations.

Differences in life expectancy and retirement ages complicate comparisons across countries, but we note that 32.4 %, the level registered in Russia in 2011, is substantially higher than the corresponding figures in the 16 European countries presented in Dingemans et al. (2016). The average level of employment in the 60–75 age group in these countries was 11 %, ranging from 3 % in Spain to 21 % in Sweden. The high level of employment of the elderly in Russia is explained by the relatively low retirement age once differences in life expectancy with OECD countries are accounted for and the rather low level of Russian pensions considered.

Russia's increase in the number of retirees has been accompanied by a decrease in the working-age population. The share of the working-age population in Russia fell from the peak of 63.0 % in 2006 to 56.0 % in 2017, while the retirement age population increased to 25.4 % in 2017. As a result, the retirement-age population is increasing faster than the rate of decrease in the working-age population. This leads to an increase in the ratio of the dependent population to the working-age population (old-age dependency ratio). This tendency remains in the Rosstat median population forecast: the old-age dependency ratio is forecasted to increase through 2035 (see subsection 3.2.). The total dependency ratio stabilizes after 2026 trend with the decrease in the number of persons less than working age (Figure 3).

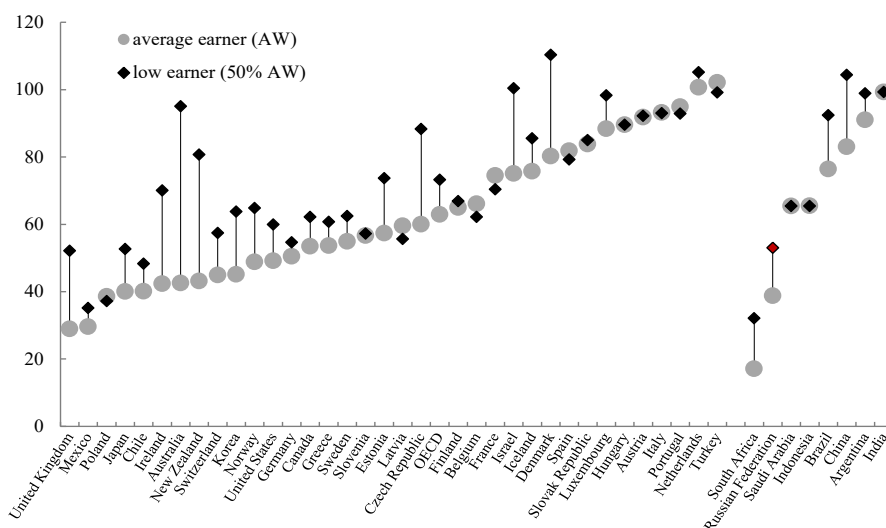
## 2.2. Adequacy of retirement income and income inequality

Gross and net pension replacement rates are widely used as an indicator of pension system adequacy. Net replacement rates, i.e. net value of the pension relative to earnings during working years, may be a better indicator, however. The net replacement rate is calculated as the ratio of net pensions to after-tax pre-retirement earnings (with income taxes and social security contributions excluded).<sup>9</sup> At just

<sup>9</sup> The OECD defines the net replacement rate as the individual net pension entitlement divided by net pre-retirement earnings, taking account of personal income taxes and social security contributions paid by workers and pensioners. (OECD, 2017, p. 106).

38.8 %, Russia has one of the lowest pension replacement rates by OECD estimates when future net rates for mandatory schemes for average income earners are considered. It is far below the OECD average of 63 % (OECD, 2017), with replacement rates range from 29 % for the United Kingdom to 102 % for Turkey. The estimates are presented in Figure 4.

Figure 4. Projected net replacement rates for low- and average-income earners in OECD and G20 countries, %<sup>10</sup>



Source: OECD calculations based on the pension model (Pensions at a Glance, 2017).

Given that private pension schemes and voluntary saving plans are still rare in Russia, the average living standard of retirees is even lower. Our estimate, based on Rosstat data, is that 15 % of retirees receive supplemental public social payments to bring their incomes up to the minimum living standard for retirees. This standard is also lower than the general cost of living, constituting 90 % of general minimum living standard in 2016.

Although the OECD estimates show that the level of pension provision in Russia is lower than in most OECD countries, it satisfies the minimum standard of the International Labour Organization (ILO). As Lyashok et al. (2016) show, the pension replacement coefficient is not calculated as the ratio of the average pension to the average wage (33.2 % in 2017),<sup>11</sup> but, following the ILO methodology, as the ratio of the after-tax wage before retirement for a median employee. This puts the Russian replacement coefficient well above the 40 % recommended minimum. According to their estimates on the basis of microdata from the RLMS survey,<sup>12</sup> the Russian replacement coefficient in 2014 adjusted with respect to the ILO methodology for the median pension and wage equaled 45.1 % (versus 34.3 % calculated as a ratio of the average pension to the average wage). For 2017, we calculate the corresponding adjusted coefficient to be 44.3 % based on this methodology. We conclude that the current average replacement coefficient in Russia (33.2 % in 2017), in fact, satisfies the ILO standard and even could be lowered to slightly below 30 %, although this is accompanied with welfare costs.

<sup>10</sup> Future theoretical replacement rates are estimated by OECD assuming individuals have a full career starting at age 20 in 2016 until reaching the country-specific pensionable age (OECD, 2017).

<sup>11</sup> Not including a one-time payment to pensioners in January.

<sup>12</sup> Russia Longitudinal Monitoring Survey.

## 2.3. Projections of public pension expenditure in OECD and G20 countries

Recent pension reforms in many countries sought to lower the old-age dependency ratio and improve pension finances. However, given current demographic trends and rising life expectancies, the need to reform pension systems has only grown more acute.

Public spending on pensions has increased as a percentage of GDP and is expected to rise further in most OECD countries. According to OECD estimates, the highest level of public spending in 2013 was posted by Greece (17.4 % of GDP), while the lowest was reported by Iceland (2 % of GDP). Long-term OECD projections of public pension spending indicate that an overall rising trend should remain for the majority of OECD countries, rising in 21 countries and falling in 14 (Table 1). As the result, pension expenditures in OECD are expected to increase from 8.9 % of GDP in 2013–2015 to 9.5 % of GDP in 2050, and 10.9 % in 2060.<sup>13</sup>

Russian public expenditures on pensions are projected to increase from 9.1 % of GDP in 2013–2015 to 12.4 % of GDP in 2050, implying a 3.3 p.p. change in expenditures over 35 years (Standard & Poor's, 2016). These estimates conform to recent IMF forecasts, according to which pension spending should increase by 1.8 % of GDP during 2015–2030.<sup>14</sup>

Table 1. Projections of public expenditure on pensions, % of GDP

	2013–2015	2050		2013–2015	2050
<b>OECD members</b>			<b>OECD members (cont.)</b>		
Belgium	11.8	12.9	United Kingdom	7.7	8.1
Czech Republic	9.0	9.6	United States	4.9	5.9
Finland	12.9	12.8	<b>OECD</b>	<b>8.9</b>	<b>9.5</b>
France	14.9	12.8	Brazil	9.1	16.8
Germany	10.0	12.5	China	4.1	9.5
Greece	16.2	14.4	India	1.0	1.0
Italy	15.7	14.8	<b>Russian Federation</b>	9.1	12.4
Poland	11.3	10.4	South Africa	2.2	3.3
Slovak Republic	8.1	9.1	EU28	11.3	11.4
Slovenia	11.8	15.6			

Sources: OECD, Pensions at a Glance (2017), European Commission (2015), 2015 Ageing Report; Standard & Poor's (2016), Global Aging 2016: 58 Shades of Gray.

## 3. Russia's pension system: challenges and prospects

### 3.1. Recent pension reforms

Russia, as opposed to many countries, did not implement pension reforms in previous decades and started to conduct them in the past few years. Since 2014, an insurance part of the pension was “frozen”.<sup>15</sup> Official estimates suggest that this measure reduced intra-budget transfers to the PFR, and

<sup>13</sup> The numbers for 2013–2015 may differ from the values presented in the OECD Social Expenditures Database (SOCX) because of the different ranges of benefits covered and definitions used (OECD, 2017).

<sup>14</sup> See IMF (2017).

<sup>15</sup> Currently social contributions paid by employers form the security part of pensions for the current retirees. Initially, these contributions were supposed to finance the funded part of the future pensions.

reduced the overall budget deficit annually by approximately 0.4 % of GDP. There is currently discussion about the reform of the insurance part of the pension with the Ministry of Finance and the Bank of Russia taking the lead in proposing to encourage employees to save. Our discussion here, however, does not consider this issue or assume an additional burden on budget spending from the insurance part of the pension.

Since 2016, the indexation of pensions (cost-of-living-adjustments) of retirees who continue working was also halted. According to our estimates, the ending of pension indexation for working retirees allowed the government to decrease pension spending in 2016–2017 by approximately 50 billion rubles a year, or by 0.05 % of GDP. If this measure stays in place over the coming years, it will continue to limit the growth of pension payments. The resumption of pension indexation would lead to the return of pension expenditures on the same path as they were without this measure within five years (average record of work after the retirement).

2017 saw the introduction of increases in the retirement age of public servants by six months each year. Due to the relatively low share of public servants in the total employed population (only 3 %), the impact of this measure on budget pension payments is modest (Figure 5–7).

In 2019, Russia will start raising the retirement age for the general population by six months a year per year up to 65 years for men and 60 years for women.<sup>16</sup> The transition period extends through 2028, while transition for public servants, because of the two-year head-start, will be completed in 2026. The initial one-year age groups affected by an increase in the retirement age (men born in 1959 and 1960 and women born in 1964 and 1965) will have the opportunity to retire six months earlier than implied by the reform. Since reaching the retirement age does not bar working after retirement, there is a high probability that the vast majority of people will apply to start receiving pensions. For the sake of simplicity, we assume that all people will take advantage of this opportunity. The design of the reform, as mentioned, implies a six-month delay in the implementation of the reform.

This pension reform also involves an accelerated indexation of pensions at a rate above inflation. In the coming years pensions should increase by approximately 1,000 rubles per retiree per year (about 6 % per year). In fact, this means the maintenance of the replacement coefficient close to the current level.<sup>17</sup>

### 3.2. Population forecasts

In October 2018, Rosstat updated its population forecasts through 2035 based on low, median, and high scenarios (Figure 5–7). Unlike previous Rosstat forecasts, the updated version assumes less population growth dynamics caused by a lower birth rate.

In the median scenario, the population decreases from 2018 due to the negative natural population growth, which is no longer balanced by the migration. If there is no general retirement age increase the number of retirees grows on average by 0.3 million persons per year and the upward trend of the dependency ratio remains: old-age dependency ratio increases through 2035 (from 0.45 in 2017 to 0.55 in 2035) along with the stabilization of the total coefficient after 2025 due to the smaller population of persons below working age (from 0.78 in 2017 to 0.83 in 2035) (Figure 3 and Figure 5).

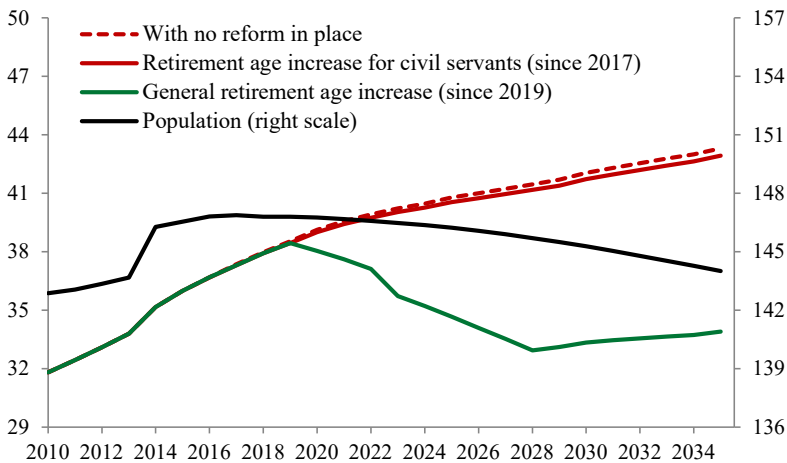
The general retirement age increase will change the trend of population above the working age, decreasing it by 0.5 million persons on average per year through 2028. Their number in 2028 would be equal to the one registered in 2012. After 2029, when the reform is completed, the growth of the

<sup>16</sup> On October 3, 2018, President Putin signed the Federal Law “On Amendments to Certain Legislative Acts of the Russian Federation on Allocating and Paying Pensions” adopting these changes.

<sup>17</sup> The ratio of the average retirement pension to the average wage.

population above working age continues. In 2035, the old-age dependency ratio and the total dependency ratio are 0.39 and 0.64, respectively.

Figure 5. Overall population and population over retirement age in the median demographic forecast under various pension reforms, in millions of persons

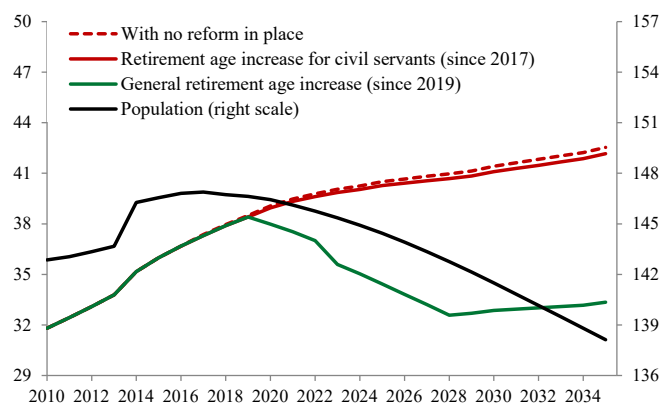


Sources: Rosstat, authors' calculations.

To investigate possible demographic risks, we also consider the low and the high demographic scenarios. In the low scenario (Figure 6), the population shrinks by 6 % from 2017 to 2035, and is 4 % below the median forecast. While the population over the retirement age declines, their relative share of the total population is higher due to the smaller working-age population and few persons below the working-age population.<sup>18</sup> Unlike in the median forecast, the higher death rate is accompanied by a significantly lower birth rate. As a result, the low forecast has fewer taxpayers per retiree and a slightly higher dependency ratio. Similar to the median scenario, the trend on the increase of the share of the population over retirement age can be reversed only with an increase of the retirement age for the overall population.

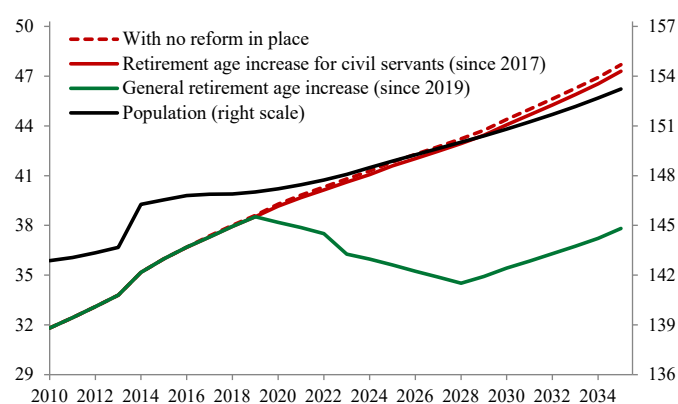
<sup>18</sup> Compared to median forecast, the share of population over working age is 2 % lower in 2035.

Figure 6. Overall population (in millions) and population over retirement age in the low demographic forecast under various pension reforms



Sources: Rosstat, authors' calculations.

Figure 7. Overall population (in millions) and population over retirement age in the high demographic forecast under various pension reforms



Sources: Rosstat, model calculations.

In the high scenario, the population grows during the entire forecast horizon. In 2035, it is 4 % higher than in 2017 and 6 % higher than in the median forecast (Figure 7). Meanwhile, the share of the population over the retirement age is higher and the dependency ratio is the highest among all scenarios due to the assumption of an acceleration in rising life expectancy.<sup>19</sup>

### 3.3. Public finance challenges

From 2013 to 2017 retirement pension expenditures increased by almost 1 p.p. of GDP to 6.9 % of GDP. Their share in the total general government expenditures reaches nearly 20 %. This dynamic is driven by rapid growth in the number of retirees (850,000 per year on average) and pensions' indexation (7.5 % on average) coupled with the low economic growth (0.3 % on average). However, recent reforms and relatively low pension indexation in 2016 and 2017 (4.0 % and 3.9 % with the one-year inflation of 12.9 % and 5.4 % at the end of 2015 and 2016 correspondingly) lowered growth in pension spending. With the adjustment of a one-time payout of 5,000 rubles in January 2017, retirement pension expenditures in 2017 remained at the level of 6.7 % of GDP.

The increasing number of retirees and declining working-age population over the last decade has created an upward trend in the PFR deficit, when adjusted for inter-budget transfers. These transfers continued to increase relative to GDP (from 2.6 % in 2007 to 4 % in 2017). Relative to the total revenues flowing into the PFR, the share of transfers (after a small decrease in 2014) climbed from 39.2 % in 2007 to 44.6 % in 2017 (Figure 8), stabilizing eventually from the introduction of retirement policy measures<sup>20</sup>.

Over the long run, the absence of an increase in the retirement age for the entire population does not translate to an automatic increase in risks to fiscal sustainability from the pension system. However, considering the other challenges facing public finance in Russia, a more active retirement policy is justified. In the long run, the Russian budgetary system could face a significant fall in revenues to GDP, mainly due to the decrease of the oil & gas revenues, which would grow at a rate lower than the growth rate of the nominal GDP. In the draft of the Fiscal Forecast for the Russian

<sup>19</sup> Compared to median forecast, the share of population over working age is 12 % higher in 2035.

<sup>20</sup> In 2014, the amount of transfers decreased due to the freeze in funding for the accumulating part of the pension.



Federation through 2034, the Ministry of Finance expects general government overall revenues to fall by 3.4 p.p. of GDP from 2018 to 2034 (mainly oil & gas revenues).

According to our estimates, maintaining long-run fiscal sustainability in Russia<sup>21</sup> implies a primary fiscal deficit of 0.7 % of GDP at an economic growth rate of 3 %, or 0.4 % of GDP at an economic growth of 1.5 % per year<sup>22</sup> (Figure 9). To keep the net debt at the current relatively low level of 9 % of GDP (end-2017), the primary balance should be close to zero. These estimates conform to the fiscal rule for the federal budget based on a long run primary balance at zero<sup>23</sup> and the policy of the Ministry of Finance designed to maintain the regions' budgetary deficits near zero. In the future, no increase in the general government primary deficit (0.6 % of GDP in 2017) is required, i.e. public expenditures relative to GDP decline along with revenues. The current level of fiscal consolidation allows dealing partly with this target. The cut in the ratio of pension spending to GDP can contribute to task of achieving sustainability.

Figure 8. Revenues, expenditures (% of GDP) and share of intra-budget transfers in total PFR revenues

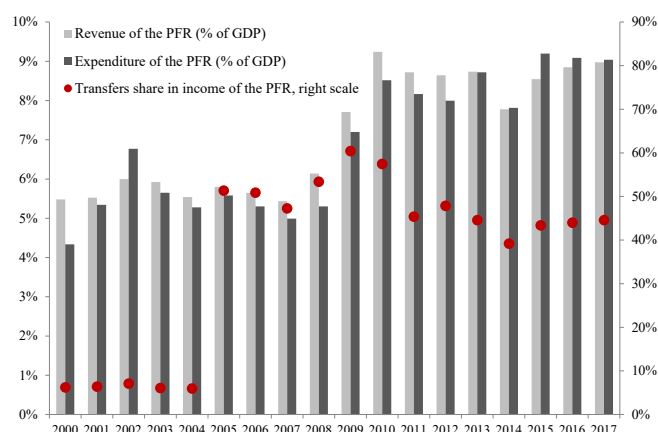
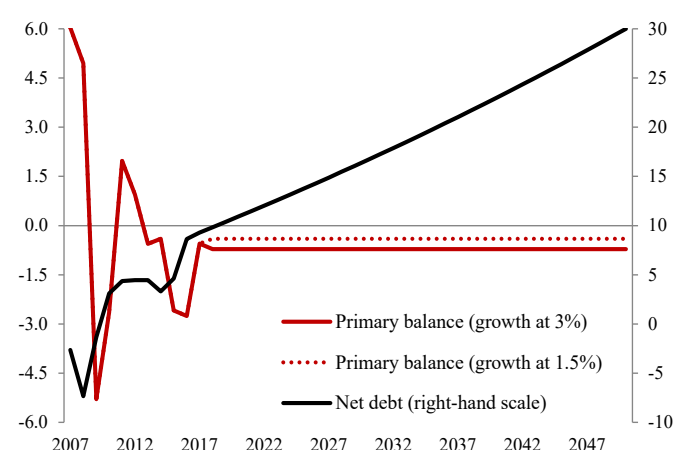


Figure 9. General government primary balance allowed for net debt increase up to 30 % of GDP in 2050, % of GDP



Sources: Rosstat, authors' calculations.

Sources: Federal Treasury of Russia, Russian Ministry of Finance, authors' calculations.

Over the long-run, PFR revenues, net of intra-budget transfers, could decrease slightly relative to GDP. This can be explained by a small decrease in the labor remuneration fund (tax base for social contributions) relative to GDP, forecasted by the Ministry of Economic Development, and by the regressive scale of rates of social contributions. We do not consider an increase in the rate of social contributions. We do not assume any improvement in tax administration, a factor associated with high uncertainty.<sup>24</sup> In general, this corresponds to the estimates of the Ministry of Finance. According to the draft of the Budget Forecast of the Russian Federation for the period through 2034, the ministry expects a decrease in the income of off-budget funds without intra-budget transfers for 2018-2034 by

<sup>21</sup> We define a sustainable state of the budget as the level of net debt (gross debt minus sovereign funds) not exceeding 30 % of GDP. See Vlasov (2011).

<sup>22</sup> In our estimates for the long-run values, we use a 4 % inflation rate and a real interest rate equal to 2.5 %. For details of the model, see Van Riet (2010).

<sup>23</sup> Before 2024, the fiscal rule is temporarily eased by approximately 0.5 p.p. of GDP to allow the corresponding increase in federal budget spending on infrastructure projects.

<sup>24</sup> According to Ministry of Finance estimates, Russia is characterized by a relatively low level of collection of social contributions (receipts as a percent of the wage sum in the GDP relative to the tax rate).



approximately 0.2 p.p. of GDP. Therefore, the change in the deficit of the PFR as a percentage point of GDP and the need in transfer from the federal budget would be roughly defined by the dynamics of PFR spending.

### 3.4. Scenario analysis of pension expenditures and policy implications

Fiscal risks coming from the retirement pension expenditures were estimated under different assumptions concerning economic growth, demographics and the scope of pension reforms (Table 2).

Table 2. Socio-economic assumptions on trends in Russian economy

Economic growth	Climbs to 3.2 % p.a. by 2020 when backed by structural reforms. Stays at 1.5 % under current conditions.
Rosstat's demographic outlook	Median demographic forecast. Low demographic forecast. High demographic forecast.
Reform of the retirement age	Increase from 2019 by six months per year. Remaining at the current level.
Replacement coefficient	Maintenance at the current level of 35 %, pension indexation by a rate higher than inflation. Pension indexation by the inflation rate, gradual fall of replacement coefficient.
Pensions of working retirees	Permanent abolition of indexation. Re-introduction of indexation starting in 2019.

We consider two scenarios for economic growth rate: 1.5 %, which we see as a potential level under current conditions, and a growth rate of 3.2 % (the growth rate of the world economy, which is approximately the long-run goal of the government<sup>25</sup>) backed by structural reforms<sup>26</sup> and planned stimulus measures, especially large-scale infrastructure projects. The economic growth rate affects nominal pension spending indirectly through the size of indexation needed to maintain the current level of the replacement coefficient. It depends on the nominal wage growth, which is different under different assumptions. Following the Ministry of Economic Development, which is in charge of macroeconomic forecasting in Russia, we assume the nominal wage growth to be slightly below nominal GDP growth. The other socio-economic assumptions listed above directly affect nominal pension spending. We assume an annual inflation rate of 4 % for the whole horizon for all scenarios in accordance with the Bank of Russia target. Although the baseline scenario (general retirement age increase, maintenance of the replacement coefficient, abolition of pension indexation for working retirees) seems to be defined by the government, we calculate several scenarios to show the effect of the alternative assumptions about pension reform.

<sup>25</sup> Under the Ministry of Economic Development's long-run socio-economic forecast, it should allow Russia to become one of the world's top-5 economies.

<sup>26</sup> World Bank estimates show that reform measures, which include a combination of pension reform, more migration, higher investment and gradual acceleration of total factor productivity growth can double Russia's potential growth rate in the long run (Okawa, Sanghi (2018)).

Pension expenditures are estimated according to the following equation:

$$PEx_t = PEx_{t-1} \left( 1 + indexation_t (1 - ratio_{wp,t}) \right) \frac{N_t^{pens}}{N_{t-1}^{pens}}, \quad (1)$$

where  $PEx_t$  are total retirement pension expenditures in year  $t$ ;  $indexation_t$  is the rate of pension indexation in year  $t$ ;  $ratio_{wp,t}$  is the share of working retirees in year  $t$ ; and  $\frac{N_t^{pens}}{N_{t-1}^{pens}}$  is the growth rate in the number of retirees.

According to our estimates, retirement pension expenditures in 2018 decrease by 0.2 p.p. of GDP. Excluding the one-time payout in January 2017, they remain at 6.65 % of GDP. This means that the impact of the indexation of pensions (3.7 % p.a.) and of the growth of the number of retirees is roughly offset by the nominal GDP growth.

Future dynamics of pension expenditures could change significantly depending on the assumptions. Under the median demographic forecast shown in Figure 10, economic growth of 3.2 % should roughly stabilize the expenditures relative to GDP even without an increase in the retirement age and with the maintenance of the replacement coefficient. Economic growth of 1.5 % under the same conditions leads to an increase in pension expenditures of 0.3 p.p. of GDP by 2035. The cumulative amount that can be saved during 2019–2035 caused by higher economic growth is 2.7 p.p. of GDP. It is a relatively small amount, on par with e.g. budget expenditures on physical fitness and sports.

An increase in the retirement age by six months annually starting in 2019 bends downward the trajectory of pension expenditures relative to GDP regardless of other assumptions. Depending on the scenario, this will lower the amount of expenditures by 2035 by 0.9-1.6 p.p. of GDP. Under the median demographic scenario with economic growth at 1.5 % and the maintenance of the replacement coefficient, retirement pension expenditures are 1.5 p.p. of GDP lower by 2035 (5.8 % of GDP) as the result of the pension reform (Figure 11). The cumulative amount that can be saved by pension reform during 2019–2035 equals 17.8 p.p. of GDP. Therefore, an increase of the retirement age alone would allow about half of the expected decrease in budget revenues relative to GDP to be offset in the long run.

Figure 10. Pension spending in the median demographic forecast without an increase in the retirement age, % of GDP

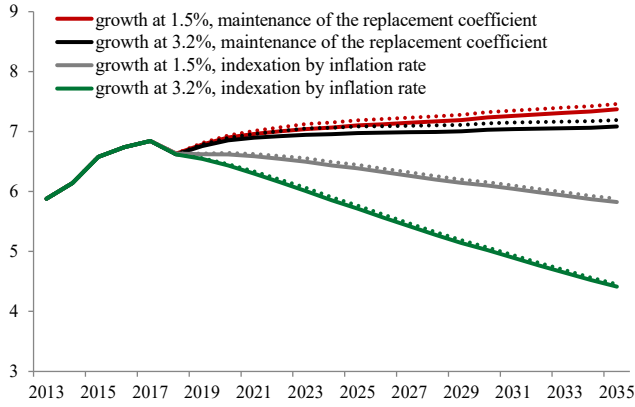
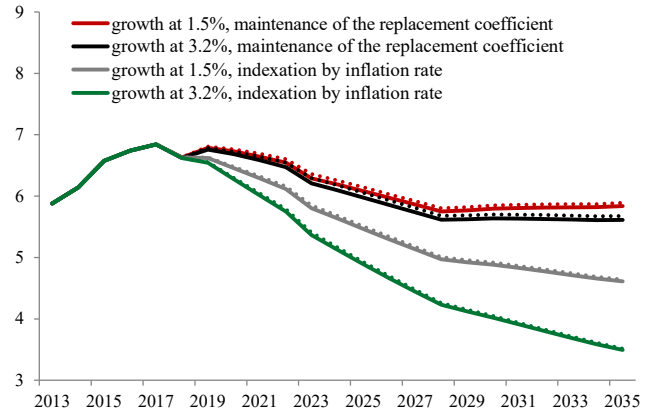


Figure 11. Pension spending in the median demographic forecast with an increase in the retirement age, % of GDP

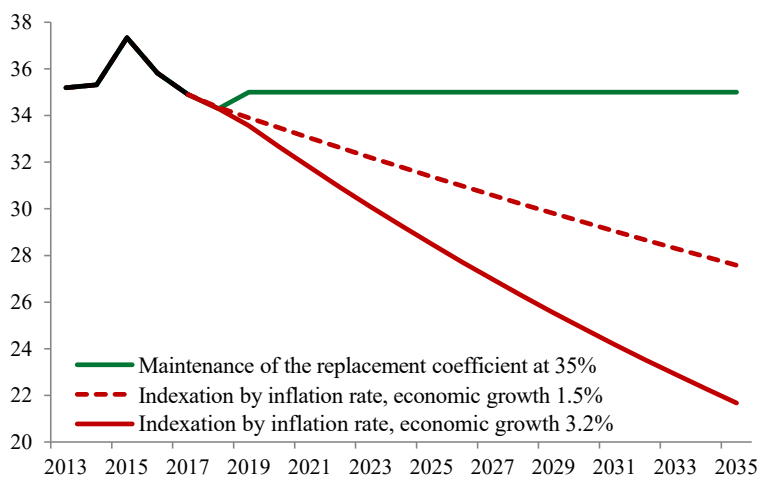


Dashed lines indicate scenarios with renewal of pension indexation for working retirees after 2019.

Sources: Russian Ministry of Economic Development, Rosstat, authors' calculations.

Additional saving of budget funds may come from pension indexation not aimed at maintaining the replacement coefficient at its current level. As shown in subsection 2.2., a decrease in the coefficient to 30 % does not violate the ILO minimum due to differences in estimation methodology. In the case of pension indexation by the inflation rate, pension purchasing power remains, but taking into account an assumed growth rate of real wages, the replacement coefficient decreases, eroding the position of retirees relative to the working population. Our estimates show that an indexation by the inflation rate leads to a replacement coefficient of 22 % in 2035 with economic growth at 3.2 %, or 28 % with economic growth at 1.5 % and lower wage growth (Figure 12).

Figure 12. Replacement coefficient with different assumptions concerning rate of pension indexation and economic growth, %<sup>27</sup>



Sources: Russian Ministry of Economic Development, Rosstat, authors' calculations.

<sup>27</sup> The estimation for 2017 does not include the one off payment in addition to pension in January.

Under the median demographic scenario with economic growth at 1.5 % and a general increase in the retirement age, pension indexation at the rate of inflation rather than maintaining the replacement coefficient at 35 % cuts budget expenditures on pensions by 1.2 p.p. of GDP (to 4.6 % of GDP). In this case, the amount saved during 2019–2035 equals 12.3 p.p. of GDP (Figure 11).

The impact of eliminating pension indexation for working retirees on the budget expenditures is marginal. The higher is the growth rate in the number of retirees and the higher the rate of indexation, the higher the amount saved by abolishing pension indexation for working retirees. On average, the effect of re-introducing indexation for working retirees' pensions on pension expenditures in 2035 is just over 0.05 p.p. of GDP (dashed lines in Figures 12–13, and A2-A5 in the Appendix).

The risks to fiscal sustainability in terms of the deficit and net debt increase when we switch from our medium to our low demographic forecast. A smaller number of retirees leads to a decrease in pension expenditures of approximately 0.1 p.p. of GDP (Figure A1, Figure A2). However, the smaller size of the working age population presumably results in lower social contributions to the budget. Taking into account the higher coefficient of demographic burden, the deficit of the pension fund is higher than in the median forecast. The consequences of this scenario for macroeconomic indicators could result in lower government revenues and a lower overall deficit.

The logic is less clear for the high demographic scenario. A higher number of retirees leads to an increase of public expenditures on pensions by 0.4–0.75 p.p. of GDP. While a larger working population leads to higher social contributions and other budget revenues, due to the higher dependency ratio it does not fully compensate for the increase in expenditures as in the medium scenario (Figure A3, Figure A4).

The estimates of pension expenditures in 2035 under various scenarios are presented in Table 3.

Table 3. Expenditures on provision of retirement pensions in various scenarios, % of GDP

	Economic growth 3.2%				Economic growth 1.5%			
	With an increase of the retirement age		Without an increase of the retirement age		With an increase of the retirement age		Without an increase of the retirement age	
	Maintenance of RC	Indexation by inflation	Maintenance of RC	Indexation by inflation	Maintenance of RC	Indexation by inflation	Maintenance of RC	Indexation by inflation
<b>2013</b>	5.88							
<b>2015</b>	6.58							
<b>2017</b>	6.85 (6.65 without the one-time payment in January)							
<i>Median demographic forecast, without pension indexation for working retirees</i>								
<b>2035</b>	5.61	3.49	7.08	4.41	5.84	4.61	7.37	5.83
<i>Median demographic forecast, pension indexation for working retirees</i>								
<b>2035</b>	5.68	3.52	7.19	4.45	5.89	4.64	7.46	5.88
<i>Low demographic forecast, without pension indexation for working retirees</i>								
<b>2035</b>	5.53	3.44	6.96	4.33	5.74	4.54	7.24	5.72
<i>Low demographic forecast, pension indexation for working retirees</i>								
<b>2035</b>	5.59	3.46	7.06	4.37	5.80	4.57	7.33	5.77
<i>High demographic forecast, without pension indexation for working retirees</i>								
<b>2035</b>	6.26	3.90	7.80	4.86	6.51	5.14	8.12	6.42
<i>High demographic forecast, pension indexation for working retirees</i>								
<b>2035</b>	6.33	3.92	7.92	4.91	6.57	5.18	8.22	6.48

Note: Green signifies high likelihood of a scenario. Dark gray = moderate likelihood. Light gray = low likelihood.

### 3.5. Scenario likelihood

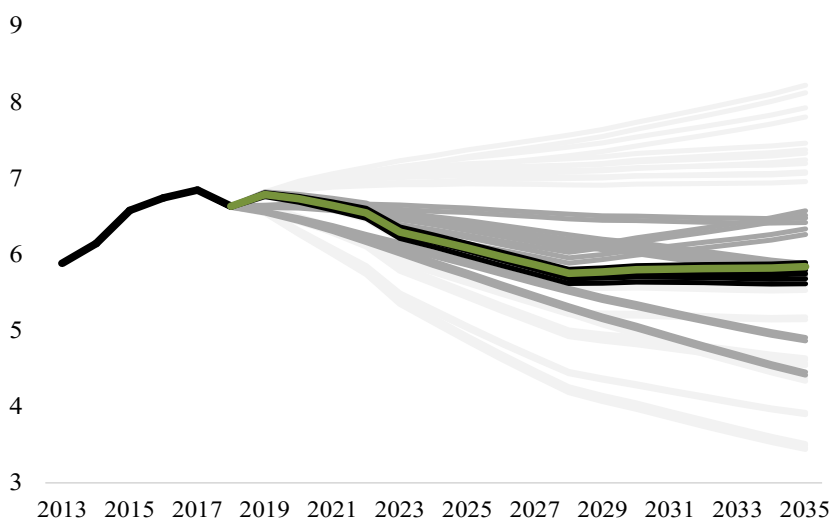
The scenario we consider most likely to occur is based on the median demographic forecast and economic growth at 1.5 %. Following the enactment of a change in pension law, it is reasonable to assume general increase of the retirement age with the maintenance of the replacement coefficient at the current level and no pension indexation for working retirees (Figure 13, green line; Table 3, green cell).

We also distinguish between several scenarios, which are close to the baseline scenario and have relatively high likelihood to occur (Figure 13, black lines; Table 3, dark gray cells). There is a possibility of a shift to the scenario with 3 % growth backed by structural reforms and planned stimulus measures, especially large-scale infrastructure projects. As for the demographic forecasts, we believe more in the low scenario than in the high one. It is closer to the projections for Russia forecasted by international organizations (e.g. United Nations) and Rosstat tends to adjust demographic forecasts downward. We also see the possibility of a re-introduction of pension indexation for working retirees in coming years. It is rather inexpensive and has a slightly negative effect on the labor market, but it also could be treated as an offset to the higher retirement age.

Other scenarios have a low likelihood (Figure 13, dark gray lines, Table 3, medium gray cells) or are unlikely to occur (Figure 13, light gray lines, Table 3, light gray cells). The latter includes scenarios with an economic growth at 3.2 % under the low demographic forecast, which assumes a decreasing population in all age categories. Although we expect the Russian government not to abandon its retirement age reform, the experiences of Canada, the Czech Republic, and Poland (see

subsection 2.1.) mean we cannot completely exclude the possibility of abandoning previously adopted reforms. In this case, we believe that government will have to return to the usual practice of pension indexation to inflation to avoid a substantial rise in budget spending. Similarly, we believe that under the retirement age increase government will not lower pension indexation to the level of inflation since that would create relatively high savings for the government at the expense of pensioners. The remaining scenarios are all low likelihood.

Figure 13. Pension spending under various scenarios and their likelihood, % of GDP



Sources: Russian Ministry of Economic Development, Rosstat, authors' calculations.

Note: Green signifies the most likely scenario. Black = scenarios with a high likelihood. Dark gray = low likelihood. Light gray = unlikely scenario.

## 4. Conclusions

Russia has a low level of pension provision, and its replacement coefficient is among the lowest in the OECD and G20 countries. At the same time, underfunding of the PFR has become more severe, so the resulting deficit must be covered with ever larger transfers from the federal budget. All of Russia's official demographic forecasts foresee a population aging that exacerbates the pension overhang. Meanwhile, Russia remains at risk of decreased budget revenues, especially those resulting from lower oil & gas revenues. Maintenance of the deficit at its current sustainable level would require a decrease in government expenditures.

Russian life expectancies have been rising since the drop in the early 1990s, yet the Russian pension system still allows a relatively low retirement age, especially for women. While most countries moved to reform their pension systems after the 2008 global financial crisis, Russia did not. It has only moved on the reform of this issue recently. Most notable are the abolition of pension indexation for working retirees and the retirement age increase for public servants. These measures only slightly mitigate the negative trends, so the scheduled increase in the retirement age for the overall population starting in 2019 is both reasonable and material. An increase of the retirement age by six months each year will put retirement pension expenditures on a downward trajectory relative to GDP, regardless of assumptions on economic growth, demographic trends, or the replacement coefficient.

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A second factor that can substantially rein in the growth of pension expenditures as a percent of GDP would be an acceleration of economic growth. In the absence of structural reforms, we assume Russia's potential economic growth is limited to around 1.5 % p.a. Active structural reforms, including the encouragement of higher employment of the elderly and the efficiency gains in public spending could push potential growth above 3 % p.a. Under our median demographic forecast, economic growth of 3 % should be sufficient to allow the pension expenditures relative to GDP to stabilize even without increasing the retirement age.

Finally, further reductions in pension spending could be achieved through abandoning the focus on maintaining the pension replacement coefficient. Our estimates show that a decrease of the replacement coefficient to 30 % does not violate the ILO standard of 40 % due to differences in the methodologies used. In light of the relatively low level of pension provision in Russia, however, most of the money saved from rising the retirement age would go to an accelerated growth in pensions to improve the welfare of current retirees. Reintroduction of the modified saving part of the pension and encouraging people to save for their retirement would also improve retirees' living standards.

## References

Denisenko, M., L. Ovcharova, and E. Varshavskaya (2018). Demographic context of higher retirement age. NRU HSE report (in Russian).

Dingemans, E., K. Henkens, and H. van Solinge (2016). Working retirees in Europe: individual and societal determinants. *Work, employment and society*. <https://doi.org/10.1177/0950017016664677>

Efremov, I. (2018). Why retirement age must be equalized rather than increased. *Vedomosti*, July 31.  
European Commission (2015). *2015 Ageing Report*.

Gimpelson, V., R. Kapeliushnikov, and S. Rochin (eds.), (2017). *Russian labor market: tendencies, institutions, structural changes*. Report of the Center of Labor Research and Laboratory of Labor Market Research NRU HSE (in Russian).

International Monetary Fund (2017). *Fiscal monitor: Tackling inequality*, October.

Ivanova, M., A. Balaev, and E. Gurvich (2017). Implications of higher retirement age for the labor market. *Voprosy Ekonomiki*, 3, 22-39 (in Russian).

Kudrin, A., and E. Gurvich. (2012). Population Aging and Risks of Budget Crisis. *Voprosy Ekonomiki*, 3, 52-79 (in Russian).

Lyashok, V., V. Nazarov, and M. Oreshkin (2016). Factors of Pension Growth in Modern Russia. *Financial Journal* 1, 7-22 (in Russian).

OECD (2017). *Pensions at a Glance 2017: OECD and G20 Indicators*, OECD Publishing, Paris, [https://doi.org/10.1787/pension\\_glance-2017-6-en](https://doi.org/10.1787/pension_glance-2017-6-en)

Okawa, Y., and A. Sanghi (2018). Potential Growth: Outlook and Options for the Russian Federation. World Bank policy Research Working Paper, No. 8663.

Standard & Poor's (2016). *Global Aging 2016: 58 Shades of Gray* [https://www.agefiactifs.com/sites/agefiactifs.com/files/fichiers/2016/05/global\\_aging\\_2016\\_-\\_58\\_shades\\_of\\_gray\\_28\\_apr\\_16.pdf](https://www.agefiactifs.com/sites/agefiactifs.com/files/fichiers/2016/05/global_aging_2016_-_58_shades_of_gray_28_apr_16.pdf)

Van Riet, A. (2010). Euro area fiscal policies and the crisis. Occasional Paper Series, No. 109.

Vlasov, S. (2011). An Investigation into the Stability of Russia's Public Finances. *Problems of Economic Transition*, 54(8), December, 68-92.

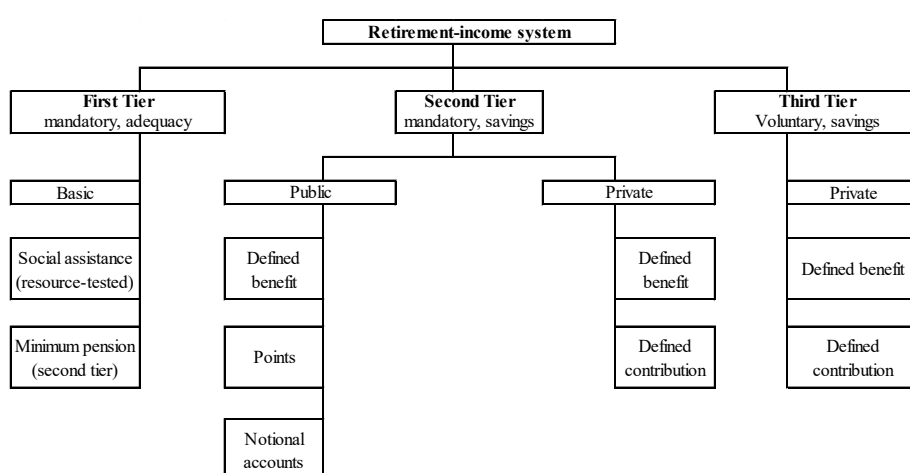


## Appendix

### A1. Key types of pension systems

The OECD uses a three-tier pension model. As we see from Figure A1, it has two tiers that involve mandatory contributions (adequacy and earnings-related) and a voluntary tier (individual or employer-provided contributions).<sup>28</sup> The first tier is designed to assure a basic standard of living for retirees. Second-tier programs are designed to maintain a living standard in retirement comparable to the person's living standard while working. As the third tier has less to do with government policy, we focus on the first two.

Figure A1. OECD overview of possible sources of pension income



Source: OECD (2017), "Architecture of national pension systems," *Pensions at a Glance 2017*.

**First tier:** basic pensions, social assistance, and minimum pension schemes.

*Basic pensions* are either paid to all regardless of how much they have paid into the system, or to retirees that meet basic criteria. *Social assistance* plans either depend on income from other sources or on both income and assets. They provide higher benefits to retirees with low income and reduced benefits to retirees with the higher income. These schemes are present in all OECD countries.<sup>29</sup> *Minimum pensions* are realized via a minimum of a specific contributory scheme or applied to all schemes combined and may have redistributive effect in favor of workers with low earnings.

**Second-tier:** pension provision based on a defined benefit, defined contribution, point scheme, or realized as notional accounts.

*Defined benefit* (DB) public schemes are found in 18 OECD countries, while private schemes are mandatory or quasi-mandatory in three OECD countries. Income upon retirement in these schemes is defined by years of contributions and individual earnings. *Point schemes* are schemes where a worker earns points based on earnings that are converted into pensions at retirement. Mandatory *defined contribution* (DC) plans are used in ten OECD countries. These schemes operate via

<sup>28</sup> OECD (2017), "Architecture of national pension systems," *Pensions at a Glance 2017: OECD and G20 Indicators*.

<sup>29</sup> In Table A1, seven OECD countries are marked as having social assistance for full-career workers with low earnings (30 % of the average) who would be entitled to resource-tested benefits.

individual accounts where contributions and return on investment are accumulated forming pensions at retirement. Russia uses a defined contribution scheme, but the savings component was frozen in 2014. *Notional accounts schemes* (notional defined contribution plans or NDCs) are based on the individual accounts where contributions are registered and a rate of return to balances is applied. At retirement, the accumulated savings form pensions according to a formula based on life expectancy.

Table A1 provides an overview of the pension systems in OECD and G20 countries.

Table A1. Structure of retirement income provision in OECD and G20 countries

	Basic	Minimum	Social assistance	Public Type	Private Type		Basic	Minimum	Social assistance	Public Type	Private Type
<b>OECD members</b>						<b>OECD members (cont.)</b>					
Australia	✓				DC	Netherlands	✓				DB
Austria				DB		New Zealand	✓				
Belgium		✓	✓	DB		Norway	✓			NDC	DC
Canada	✓		✓	DB		Poland		✓		NDC	
Chile	✓		✓		DC	Portugal		✓		DB	
Czech Republic	✓	✓		DB		Slovak Republic		✓		Points	DC
Denmark	✓		✓		DC	Slovenia		✓		DB	
Estonia	✓			Points	DC	Spain		✓		DB	
Finland	✓		✓	DB		Sweden	✓			NDC	DC
France		✓		DB+Points		Switzerland		✓		DB	DB
Germany				Points		Turkey		✓		DB	
Greece	✓			DB		United Kingdom	✓			DB	
Hungary		✓		DB		United States				DB	
Iceland	✓		✓		DB	Argentina	✓	✓		DB	
Ireland	✓					Brazil		✓		DB	
Israel	✓				DC	China		✓		NDC+DC	
Italy		✓		NDC		India		✓		DB + DC	
Japan	✓			DB		Indonesia				DC	
Latvia		✓		NDC+DC		Russian Federation	✓			Points	DC
Korea			✓	DB		Saudi Arabia		✓		DB	
Luxembourg	✓	✓		DB		South Africa	✓				
Mexico		✓			DC						

Source: OECD (2017).

## A2. Pension expenditures in Russia under low and high demographic forecasts

Figure A2. Pension expenditures under low demographic forecast without a reform to increase the retirement age, % of GDP

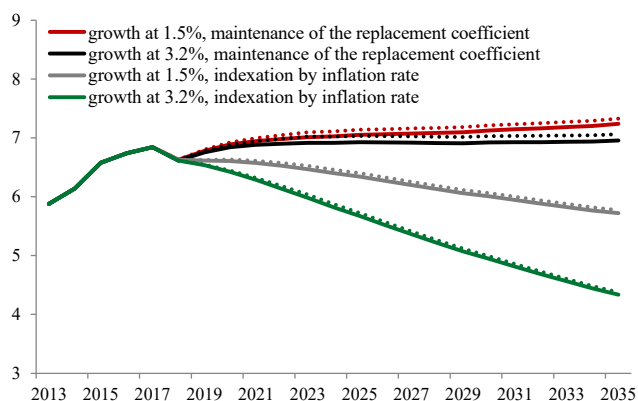
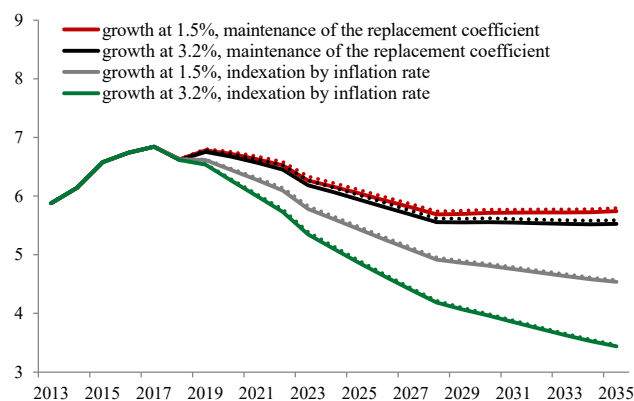


Figure A3. Pension expenditures under low demographic forecast with a reform to increase the retirement age, % of GDP



\*Dashed lines indicate scenarios with reinstatement of pension indexation for working retirees after 2019.  
Sources: Russian Ministry of Economic Development, Rosstat, authors' calculations.

Figure A4. Pension expenditures under high demographic forecast without a reform to increase the retirement age, % of GDP

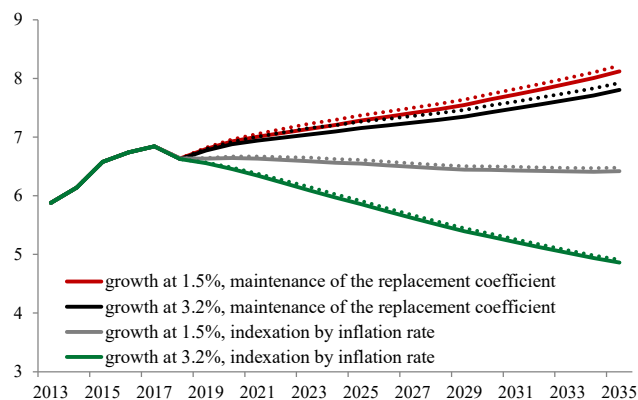
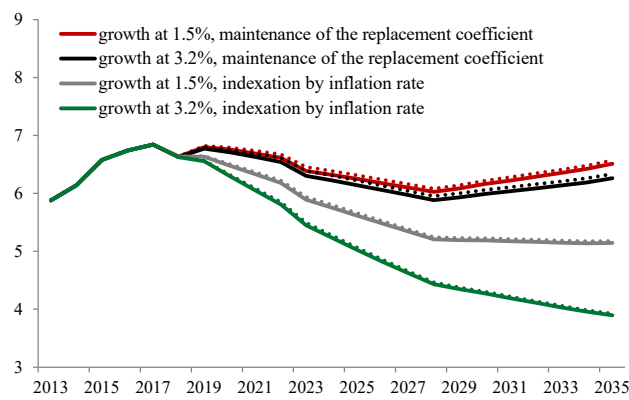


Figure A5. Pension expenditures under high demographic forecast with a reform to increase the retirement age, % of GDP



\* Dashed lines indicate scenarios with reinstatement of pension indexation for working retirees after 2019.  
Sources: Russian Ministry of Economic Development, Rosstat, authors' calculations.

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