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Pension reforms in Poland and Russia: mid-term experiences from the participants' perspective

Patrycja KOWALCZYK-RÓLCZYŃSKA, *Wroclaw University of Economics,*
Natalia GRISHCHENKO, *Novosibirsk State University of Management and Economics,*
Marta BORDA, *Wroclaw University of Economics*[1]

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Abstract. Poland and Russia, as the states that were the first to introduce social insurance programmes, have come a long way from a centrally planned budget for social security to an insurance-type model in the social sphere. The authors focused on pension systems, which are the most important components of social insurance systems. The purpose of this paper is to provide an overview, comparison and evaluation of the pension reforms conducted in Poland and Russia taking into account a participant perspective. To achieve the purpose of this paper, the monographic method, a comparative analysis as well as document research were used. The varied experiences of Poland and Russia after nearly 20 years provide mid-term lessons that could be useful to other countries. The study results suggest, *inter alia*, that despite the need for long-term stability, persistent volatility can be observed in the pension systems employed in Poland and Russia, reflected mostly in changes in the legal regulations and the principles of calculation and obtaining pension benefits; this has the deleterious effect of limiting participants' confidence in the system.

Keywords: social insurance, pension system, reforms, Poland, Russia.
JEL Codes: P21, H55, J32.

1. Introduction

The formation of a new model of financing social expenditures began in Poland at the end the 1980s and in Russia at the beginning of the 1990s as a continuation of the introduction of market economies due to a change in the political course. At that time, Poland and Russia were among the more developed of their political partners: Poland in the Central and Eastern European (CEE) region and Russia among the states of the former Union of Soviet Socialist Republics (USSR). These two

[1] Contact to authors: Patrycja Kowalczyk-Rólczyńska, Department of Insurance, Faculty of Management, Computer Science and Finance, Wrocław University of Economics, Komandorska 118/120, 53-345 Wrocław; e-mail: patrycja.kowalczyk@ue.wroc.pl. Natalia Grishchenko, e-mail: natalia.b.grishchenko@gmail.com. Marta Borda, e-mail: marta.borda@ue.wroc.pl.

countries started their economic reforms at the same time, including: the liberalisation of prices, the privatisation of state property and changing of the social sphere. They also had a common past of social security based on state support, budget financing and a universal approach to social services. Poland and Russia were among the first states to start their social insurance reforms in the transition period. These two countries have already passed the first stages of the reform of pension schemes and have obtained both positive and negative results. However, the selection of these two countries for a mutual study was determined not only by these uniting factors, but also their unique social transition paths and differences in social insurance reforms. These common and distinctive backgrounds are able to provide meaningful lessons and interesting recommendations for others.

In the scientific literature, issues of pension as well as whole social insurance reforms in transition and developing countries have been considered broadly from both theoretical and practical points of view. For example, Antia and Lanzara [2011] discussed the Chilean, Uruguayan and Brazilian systems, Brodmann et al. [2014] described changes in social insurance in Jordan, Sanchez Martin [2010] focused attention on the Spanish pension system, as well as Cai and Cheng [2014] and Remington [2015] concentrated on pension reform in China. With regard to Poland, the problems of social insurance transition, including pension reform, have predominantly been described and evaluated in comparison to other CEE countries, especially Hungary and the Czech Republic (see e.g. [Bielawska 2014; Maśniak, Lados 2014; Guardiancich, 2013; Fultz 2002; 2012; Schmähl, Horstmann 2002]). In addition, the features and peculiarities of pension insurance reforms in Russia have frequently been discussed in the context of their challenges and outcomes [Grishchenko 2007; 2016; Müller 2014; Pallares-Miralles, Romero, Whitehouse 2012; Góra, Rohozynsky, Sinyavskaya 2010; Barr, Diamond 2009], the influence and role of policymakers and government [Remington 2015; Fornero 2015; Wagner 2005] and the political economy of reforms [Williamson 2006]. Moreover, the World Bank, International Monetary Fund (IMF) and Organisation for Economic Co-operation and Development (OECD) provide working papers and overviews of Polish and Russian statistics and data.

In contrast, the mid-term experience of Poland and Russia after nearly two decades of substantial pension reforms has been examined to a very little extent in the scientific literature. The purpose of this paper is to provide an overview, comparison and evaluation of the pension reforms conducted in Poland and Russia taking into account a participant perspective. Special attention is paid to level and methods of calculation of benefits according to existing rules, level and changes of contributions as well as protection level characterised by a pension replacement rate. To achieve the purpose of this paper, the monographic method, a comparative analysis as well as document research were used.

It should be added that various classifications of pension systems are described in the scientific literature, however the most popular among them seem to be

the approaches proposed by the World Bank, International Labour Organisation (ILO) and OECD (see: [Chybalski 2012; Owczarek 2011]). Under these concepts, various combinations of methods of funding, methods of benefit calculation as well as types of participation within the system (obligatory or voluntary) are applied. The paper is not focused on an examination whether the pension systems in Poland and Russia fit the above-mentioned classifications, but if the changes made under pension reforms are significant from the participants' point of view.

The paper consists of three main parts. First, an overview and an evaluation of pension reforms conducted in Russia are presented. Second, the main lessons from the Polish pension insurance reforms are considered. Finally, the comparison of the result of the Polish and Russian pension schemes reforms is discussed.

2. Pension scheme reform in the Russian Federation

Pension reform process in Russia is characterised by institutional, organisational, financial, and other changes for state and participants. The existing pension scheme includes three pillars: (i) basic (social), with a minimum amount of pension insured through the participation of the entire population, (ii) with valorisation of some part for those born before 1967 and (iii) a complementary funded part. To this time, the Russian pension system has not fundamentally changed its key parameters, which were before the reforms, using hybrid (Defined Benefit (DB) and Defined Contribution (DC)) method of calculation of benefits, Pay-As-You-Go (PAYG) financial basic instead of funding. Changes in the sources of financing of the pension system in Russia occurred several times during 1998-2017: from contributions to general taxes and *vice versa*. Currently, there are also transformations related to the transfer of control and accumulation functions of insurance contributions from the pension fund to the federal tax service of the country. It should be mentioned that the retirement age has not been changed: 55 years for women and 60 years for men.

The first pension law, "*About State Pension in Russian Federation*", was introduced in 1990; however, its general provisions and other legal regulations have frequently been changed. Among the most changeable conditions are the features and principles of the pension reform and requirements for old-age pension benefits implemented (Table 1). The frequent changes in Russian pension legislation have led to the disorientation of policyholders, as well as future and current pensioners. For example, the pension calculation rules were changed several times during the period examined. Until 1990, each citizen's pension was appointed based on the prescribed retirement age, or constituted special pensions based on the nature of a person's work, such as teachers, doctors, miners, etc. The pension benefit did not depend on the amount of salary or length of work. In 1990, the pension calculation principles remained the same, but the pension formula changed to expand the list of payments. Non-contributory periods were included to make it possible to calculate a pension from earnings for any five years of continuous work.

Table 1. Pension reforms and changes in pension legislation in Russia, 1990-2016

	Type and features of pension system	Requirements for old-age pension
Before reform	PAYG	the pension defined by law as a percentage of earnings
First reform 1995-2011	mixed: PAYG and funded; the introduction of the three pillars of the pension system: social, insurance and funded	the pension depends on the insurance period and insurance contributions; minimum employment period: 5 years
Changes 2005	the exception of citizens born in 1953/57–1966 from the funded part of the pension scheme; stimulation of the funded portion through the addition of personal contributions with state co-financing	monetisation of social benefits, an additional informal pension and changes to insurance principles of the pension system
Reform 2010-2012	pension divided into two parts: insurance and obligatory funding; the social pension is excluded from pension finance	the pension calculated as an amount of funded and insured portions
Changes 2008	state support of the funded pension as parity co-financing of voluntary contributions of citizens on a "*one-to-one*" basis	valorisation of pension rights earned before 1991 and 2008
Reform 2013-2015	the choice between participation in an insurance pension together with the funded pension, or only the insurance pension	the pension depends on the employment period, earnings and the retirement age (as special defined points); minimum employment period: 15 years
Changes 2014-2015	PAYG, the funded portion is under moratorium; all pension contributions come to form only the insurance portion of the pension without funded portion	working pensioners excluded from pension indexation
Reform 2016 (under discussion)	PAYG with stimulation of the voluntarily funded portion of the pension	a gradual increase in the retirement age to 65 for men and women (from 60 and 55 respectively)

Source: Authors' own elaboration.

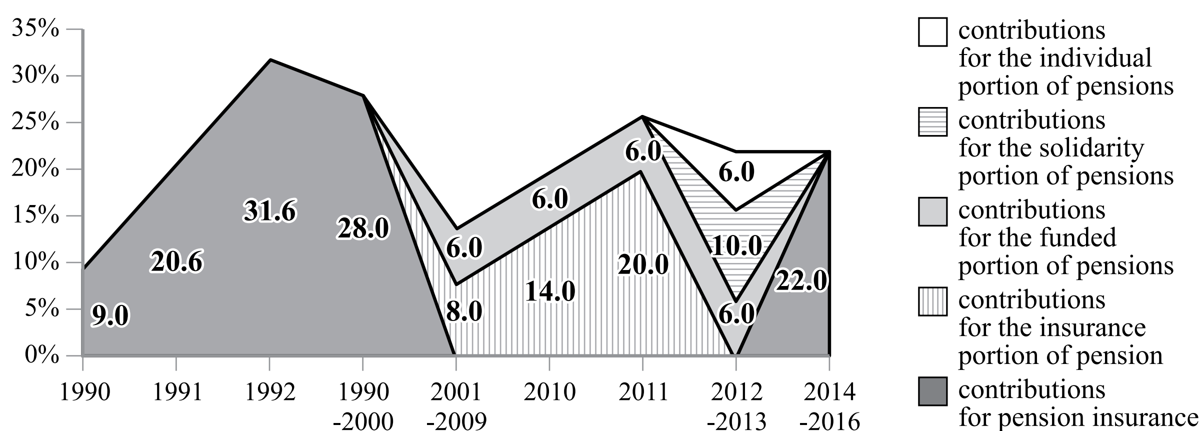
The first concept of the pension reform in the Russian Federation was approved in 1995 by the government. According to this idea, the three-pillar pension system, individual pension accounts, as well as personal pension numbers were introduced. In 1998, the government tried to carry out the "*Pension Reform Programme*" which provided an introduction of the funded part of old-age pensions and activated non-state pension funds. Despite the fact that provisions of the programme were sufficiently substantiated, the 1998 crisis did not allow it. In 2001, the first reforms identified in this programme were implemented.

Since 2002, a new formula for pension calculation has been introduced, formed by three components: the base portion (fixed, established by the state), the insurance portion (depending on the amount of insurance premiums paid,

reflected in an individual citizen's account), the funded portion (depending on wage and the amount of pension contributions paid, accumulated throughout the work period). Citizens born in 1967 and later, registered under the system of mandatory pension insurance, have been given the opportunity to select an option with regard to pensions since 2002: the sole pension form (without a right to participate in funded part) or insurance with a funded pension. Thus, citizens can either pay a 6% rate of insurance contributions into the funded pension or opt not to further the formation of pension savings and put all the premiums that employers pay for them towards the formation of a standard pension. Since 2015, all previously formed pension rights of citizens have begun to be converted into pension points (individual retirement coefficients), which are taken into account in the appointment of pensions. The number of points depends on the insurance premiums paid into the system of compulsory pension insurance and the employment period. From 2014 (in a plan up to 2018), a moratorium on the formation of the accumulative part of the pension was introduced. This "*freezing*" of funded contributions aimed to correct the difficult financial situation of the Pension Fund of Russia and reduce the amount of transfers from the federal budget. For the last 20 years, Russian pensioners and employees have seen four reforms of pension legislation, three changes in tax legislation in the field of pensions and laws regarding social payments. At present, the government is discussing a new pension concept, excepting the solidarity portion of the pension system and the voluntary portion of individual pension accounts, due to the budget deficit and economic crisis.

The terms of pension legislation have also been transformed on some occasions for those who are currently insured: corporations (employers), citizens (employees) and entrepreneurs. For example, the rate of pension contributions has varied almost every year with the exception of the mid 1990s period. The rate of contributions before the reforms was 9.6% of salaries for all those under the insurance scheme, rising to 31.6% in 1992 and decreasing to 28.0% in 2001. Since that year, the rate has been divided into shares of 20% for the insured portion and 6% for the funded portion; these proportions have also changed in subsequent years. The rate for employees was only 1% in the first years of the pension reforms (1992–2001); before the reforms and to the present day, all pension contributions have been paid by employers (this is a distinctive aspect of the Russian pension policy as in the majority of developed countries, these contributions (taxes) are shared between the employer and employee in various proportions). The rates for entrepreneurs were changed from 5% at the beginning of the 1990s to a fixed amount in the 2000s. In recent years, a single rate of 22% of salaries was applied due to the funded portion of the pension being under the moratorium, as mentioned above (Figure 1).

Figure 1. Contributions rates by employers for pension insurance in Russia (% of salaries), 1990-2016



Source: Authors' own calculation.

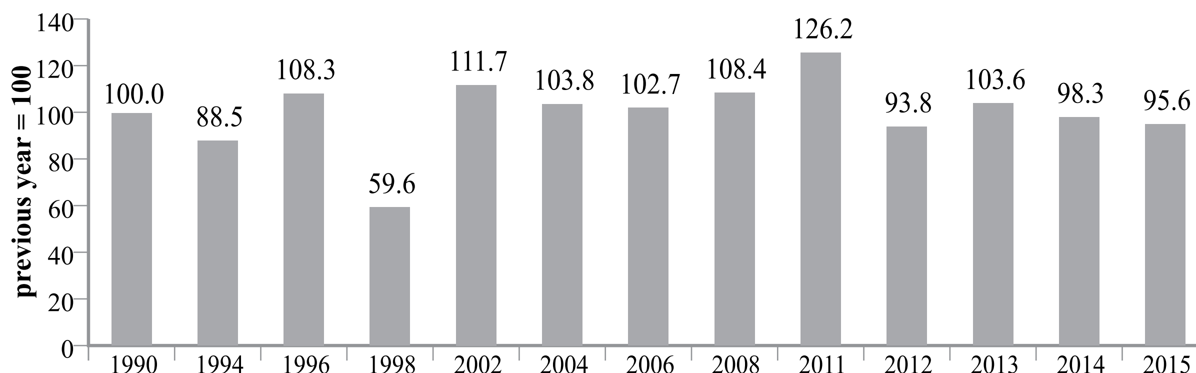
Thus, despite the need for long-term sustainability and continuity of the pension system, there have been fairly frequent changes to pension legislation, the rules of calculation and the receipt of pension benefits, which are reflected in confidence in the system itself. In a survey of the pension models of new EU member states from CEE, Wagner [2005] argued that even the best technically prepared pension reform fails if it does not reflect the preferences of a country and is not credible to its citizenry. Comparing the results of authoritarian regimes, such as the types of policy making in Russia and China, the pension policy in Russia has been rather centralised, but subject to sharp reversals in response to exogenous shocks [Remington 2015].

The legal incoherence, lack of expected levels of pension benefits and inconsistency of pension reforms have clearly led to the instability of the pension system. One of the main pension indicators – gross replacement – has not reached a stable pre-reform level. This is related to the quick and significant response of Russian socio-economic indicators to internal and external challenges present in other spheres, for instance, gross domestic product (GDP), the index of industrial production, the living standards of citizens, etc. The essential reductions in pensions argue the weak financial stability of the system, which is directly linked to the state of government support. Moreover, the reduction of current contributions and taxes to the pension system due to economic crises also shows the lack of a margin of safety and of stability. For instance, economic difficulties militate against the planned indexation of current pensions in accordance with laws in line with the increase of inflation in 2015 and 2016 (Figure 2).

Old-age pensions were partially indexed at a rate of 4% in 2015 instead of the official rate of 12% and for the first time with the exception of working pensioners. For countries with developing economies, the linkage between the pension and the inflation rate is a critical matter due to its relatively high value and a possible decline in the wealth of pensioners. Before 2015, according to the pension legislation, old-age and social pensions were annually indexed due to

rising prices and the average monthly wage in the Russian Federation. Comparing trends: first, at present, the gross replacement rate and real pension have not reached pre-reform levels; second, there is contradictory trend in the effective (real) old-age pension, with three falling periods contrasting with the designed rising pattern. Thus, the significant instability of the wealth of pensioners also confirms the lack of attention paid to the progress and consolidation of pension reforms.

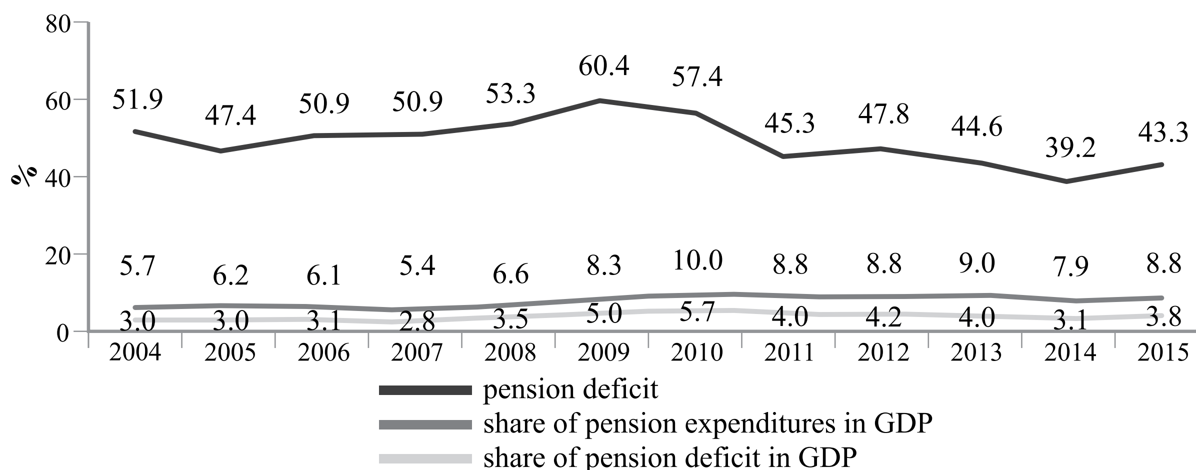
Figure 2. Dynamics of real old-age pensions in Russia, 1990-2015



Source: Federal State Statistic Service, authors' own calculation.

The level of the pension fund deficit and its share in GDP are good indicators showing the achievements of pension reforms in a given country. At present, a contradictory tendency can be seen in Russia: the deficit in the state pension fund has been on average 50% during the last 12 years. Despite the stable level of the share of the pension deficit in GDP at around 4% during the period examined, this tendency had not been resolved by the various pension reforms and changes in pension options (Figure 3).

Figure 3. Deficit of pension fund in Russia, 2004-2015



Source: Authors' own calculation.

Clearly, there are several factors influencing the deficit in the pension fund in Russia, among them the following: a significant number of privileged pensioners and employees receiving higher pension benefits (seniority, professional), or eligible for early retirement; the impairment of state social guarantees and pensions as a result of high inflation; a lack of regular actuarial and investment planning in the management of pension funds. Nevertheless, all examined indicators highlight the changeable and inconsistent tendencies of pension reforms in Russia. Only one of the pension indicators, the statutory retirement age of 55 years for women and 60 years for men, is still at the pre-reform level.

The important lesson, among other post-reform conclusions in the social insurance sphere, is the need for the continuity of reforms and a lack of frequent changes. What are the reasons for the repeated shifts in the pension system in Russia? In our opinion, this is due to the absence of a leading goal in various stages of the pension reforms. According to Barr and Diamond [2009], each pension reform should have a concrete goal or task. Over a period of two and half decades of pension reform, clearly each period has its own issues: the initial reduction of poverty in retirement; establishing an improvement in the pension infrastructure according to modern financial and social innovations; sharing the insurance risks and the development of state/private pension programmes. The lack of defined tasks in these stages has led to the incoherence and instability of pension reforms as a whole. Certainly, there are other important factors that affect the progress of reforms: economic growth, political willingness, institutional surroundings, the maturity of the financial market, etc. Nevertheless, the definition of reform objectives makes it possible to obtain clearly planned results rather than spontaneous outcomes. It is worth adding that transition itself should not be the goal of a reform. Guardiancich's [2013] in-depth analysis of reform policy states that viable pension reforms should not be seen simply as an event, but rather as continuing process, which must be fiscally, socially and politically sustainable. He argues that the appropriate institutional infrastructure and political support are crucial to an increase in the consistency of reforms and mitigating the likelihood of policy reversals over time.

Also, the likely success of pension reforms as a process will be heightened if the necessary reforms are presented for public debate in a timely fashion and in a clear and understandable manner [Boeri, Tabellini 2012]. In Boeri and Tabellini's [2012] opinion, changing arrangements for existing workers can disrupt expectations in ways that may be unsatisfactory. On the whole, the roots of the problems of pension financing are long-term trends, not a short-term "*crisis*" [Barr, Diamond 2009].

Thus, taking into account the lasting and trusting nature of pension relationships, the permanent volatility of the pension system is rather a negative factor for participating insured persons, their understanding of pension reform goals and their real influence on the present and future situation with regard to pensions. The need for continuity in pension reform is, in our opinion, one of the most important lessons of mid-term Russian theory and practice.

3. Pension system reform in Poland

The reform of the social insurance system in Poland started in 1999 and focused on the change of the benefit formula from DB to DC. The most important new legal regulation was the Act of 13 October 1998 on the social insurance system. Under this act, the social insurance fund, which is administered by the Social Insurance Institution, was divided into four separate funds: the old-age pension fund, the disability pension fund, the sickness fund and the accident fund. The old-age pension fund was intended to finance old-age (retirement) pensions. The disability pension fund was designed to finance primarily: disability pensions, training pensions, survivors' pensions, supplements to survivor's pensions for double orphans, nursing supplements and funeral grants. The sickness fund was intended to finance sickness, maternity and care benefits, compensatory allowances and rehabilitation benefits. The accident fund was created to finance work accident pensions and supplements, lump-sum compensation payments, sickness allowances in respect of work incapacity resulting from an accident at work or an occupational disease.

Table 2. Rates of contributions to social insurance funds in Poland (%), 1999-2017

Type of insurance		**Total contribution**	**Employer**	**Employee**
Retirement pension		19.52	9.76	9.76
Other pensions	January 1999 - June 2007	13.00	6.50	6.50
	July 2007 - December 2007	10.00	6.50	3.50
	January 2008 - January 2012	6.00	4.50	1.50
	February 2012 - December 2017	8.00	6.50	1.50
Sickness	January 1999 - December 2017	2.45		2.45
Accident	January 1999 - December 2002	1.62	1.62	
	January 2003 - March 2006	0.97-3.86	0.97-3.86	
	April 2006 - March 2007	0.90-3.60	0.90-3.60	
	April 2007 - March 2009	0.67-3.60	0.67-3.60	
	April 2009 - March 2012	0.67-3.33	0.67-3.33	
	April 2012 - March 2015	0.67-3.86	0.67-3.86	
	April 2015 - December 2017	0.40-3.60	0.40-3.60	

Source: Authors' own elaboration based on [Social Insurance Institution, n.d.].
Note: The rate of an accident contribution depends on the type of business and level of risk.

Since 1999, contributions to all social insurance funds have started to be financed partially by employees and employers. The rates of contributions and their division in the years 1999-2017 are presented in Table 2. The value of the contributions depends on the assessment basis (e.g. salaries for workers, declared revenue for self-employed).

The most important part of the reform of social insurance system was the pension system reform. Until 1998, a public PAYG pension scheme based on defined benefit DB operated in Poland. In the DB scheme, the value of the retirement pension depended on a percentage of income and employment career. The pension system reform led to a change from the DB scheme to a DC scheme, and introduced three pillars of the pension scheme. The first pillar was (and still is) managed by a public body – the Social Insurance Institution (SII). An individual account was opened for each of participants born after 31.12.1948. Under the second pillar, Open Pension Funds (OPFs) were set up, managed by private institutions – General Pension Societies. Both these pillars initially were mandatory. The third pillar, administrated by private institutions, should ensure a higher level of old-age pensions in the future thanks to a supplementary contribution. Participation in the third pillar was (and still is) completely voluntary.

Since 1999, two old-age pension schemes have been operating simultaneously in Poland:

– a pension scheme operating under the previous rules – for persons born before 1 January 1949;
– a pension scheme operating under the new rules – for persons born after 31 December 1948.

Persons born after 31 December 1948 but before 1 January 1969 could stay in the existing PAYG pension scheme (first pillar) or join the new pension scheme, i.e. the PAYG scheme (first pillar) and funded pension scheme (second pillar), by selecting an OPF. These persons could join the new pension scheme by 31 December 1999 (for more details, see [SII 2013]). For those choosing the new pension scheme, the initial capital was calculated as a recognition of contributions to pre-reform scheme and was noted on their individual accounts run by SII.

Contributions to the old-age pension insurance (19.52%) were financed by insured persons (employees) and by contribution payers (employers) from their own resources in equal parts – 9.76% of the assessment basis (Table 2). For those who participated in the pension scheme operating under the new rules, the pension contribution was divided into two parts: the first, comprising 12.22% of pension contributions, was paid to the Social Insurance Fund (SIF); the second, comprising 7.30% of pension contributions, was transferred to OPFs. During the following years, the division of the old-age pension contribution was changed (Table 3). In 2011, the Social Insurance Institution also introduced a subaccount within the framework of an insured account, into which those contributions from the second pillar of the pension scheme derived from the reduced contribution to OPFs were credited.

Table 3. Division of pension contributions between the SIF and OPFs

<table>
<tr><th>Period of insurance</th><th>Social Insurance Fund</th><th>Social Insurance Fund – subaccount</th><th>Open Pension Fund</th></tr>
<tr><td>January 1999 - April 2011</td><td>12.22</td><td>non-existent</td><td>7.30</td></tr>
<tr><td>May 2011 - December 2012</td><td>12.22</td><td>5.00</td><td>2.30</td></tr>
<tr><td>January 2013 - December 2013</td><td>12.22</td><td>4.50</td><td>2.80</td></tr>
<tr><td>January 2014</td><td>12.22</td><td>4.20</td><td>3.10</td></tr>
<tr><td>February - June 2014</td><td>12.22</td><td>4.38</td><td>2.92</td></tr>
<tr><td rowspan="4">Since July 2014</td><td>12.22</td><td>4.38</td><td>2.92</td></tr>
<tr><td colspan="3">If a declaration for transfer of contributions to an OPF has been submitted</td></tr>
<tr><td>12.22</td><td>7.30</td><td>–</td></tr>
<tr><td colspan="3">If a declaration for the transfer of contributions to an OPF has not been submitted</td></tr>
</table>

Source: Authors’ own elaboration.

The next change concerning the division of the pension contribution took place in 2014. It should be emphasised that up until 31 January 2014, membership in an OPF was compulsory. Since 1 February 2014, those starting work for the first time have been able to choose whether they want a part of their pension contributions to go to an OPF, or whether the whole amount should go to the Social Insurance Fund. The rest of all insured persons had to make a decision about transferring their pension contribution in the period from 1 April to 31 July 2014. They had two options: under the first option, the whole pension contribution (19.52%) would go to the SIF, namely into the individual insured account and subaccount; under the second option, the pension contribution would be divided into three parts (insured account, subaccount and OPF). Based on data from the Polish Financial Supervision Authority (PFSA) [2014], only 2.5 million persons (among more than 16.7 million members of OPFs) submitted declarations for the transfer of their contributions to an OPF. Moreover, in 2014, a “*security slide*” was introduced. This mechanism aims to protect against the risk of a so-called “*bad date*”, that is a strong slump in the market rates in a given retirement year, which would result in a reduction in pension capital and consequently in lower pension benefits. At the time of retirement, all funds will be kept by the Social Insurance Institution, which will pay out a pension for life. From the month in which the “*security slide*” is launched, no contributions will be transferred to OPFs [SII 2015]. Now the second pillar is made up of two parts: OPFs and a subaccount in the Social Insurance Fund. The investment policy of OPFs is rather aggressive and the investment portfolios are dominated by stocks. The pension contributions paid into the subaccount in the Social Insurance Fund are indexed by

an indexation rate (announced by the President of the Central Statistical Office). All changes made since the beginning of pension reform were aimed at providing financial support for the stability of public finance.

It should be mentioned that up to 2012 the retirement age was: 60 years for women born on or before 31 December 1952 and 65 years for men born on or before 31 December 1947. Starting from 1 January 2013, the retirement age has been increased (for more, see [SII 2015]). This process has been stopped, and from October 2017, the retirement age will be, respectively: 60 years for women and 65 years for men.

The third pillar of the Polish pension scheme consists of:
– Occupational Pension Programmes (OPPs – an offer available since 1999);
– Individual Retirement Accounts (IRAs – available since 2004);
– Individual Pension Security Accounts (IPSAs – available since 1 January 2012);
– reverse mortgages (the act on reverse mortgages came into force on 15 December 2014, but so far banks have not offered this product on the Polish market);
– unit-linked insurance for individuals (available since 2004; for more, see [Kowalczyk-Rólczyńska, Pisarewicz 2015]).

In the Polish pension system, the coverage of the third pillar has remained at a marginal level. Although the numbers of IRAs and OPPs have been increasing over the last few years, at the end of 2015, less than 12% of the total employed population had savings under pension programmes – OPPs, IRAs or IPSAs [PFSA 2016a; 2016b]. These three programmes are supported by the state in the form of the tax incentives. In the Polish pension system, it is important that the number of retirees who receive payment from the SII has been growing significantly from year to year. Unfortunately, the number of people paying contributions to the pension system has been decreasing as a result of demographic changes. Because of this, the current government is considering further changes to the pension system.

4. Results and discussion

In summary, both examined countries have moved a long way in the transition from their previous centralised and state-financed pension schemes to the present mixed systems. In Table 4, a brief comparison of the pension system concepts introduced and currently existing in Poland and Russia is presented.

Comparing the pension systems in Poland and Russia, some similarities and differences can be observed. In both systems, there are three pillars, which are built in a similar way. Moreover, both systems are mixed: in the second and third pillars, the benefits can be inherited and those who save money in the voluntary portion of pension systems can take advantage of tax relief. The two pension systems differ in that the level of pension contributions is higher in Russia than in Poland, but the retirement age is higher in Poland than in Russia. Moreover, the lower level of pension contributions affects the amount of replacement rates, which are significantly lower in Poland compared to Russia (see Table 5).

Table 4. Comparison of the pension system concepts of Poland and Russia

Criterion	Poland	Russia
Year of reform implementation	1999	2001
Type of introduced pension (DB or DC)	mixed	mixed
Structure of pension systems (pillars)	three pillars:	three pillars:
	1st: based on the PAYG principle (compulsory)	1st: based on the solidarity principle (compulsory)
	2nd: based on the PAYG principle (compulsory) and capital investments (voluntary)	2nd: based on the insurance principle (compulsory) and capital investments (optional)
	3rd: represents individual private pension schemes (voluntary)	3rd: represents individual private pension schemes (voluntary)
Administration (institutions)	1st: Social Insurance Institution (public)	1st: State Pension Fund (public)
	2nd: Social Insurance Institution (public) and OPFs (private)	2nd: State Pension Fund (public) and State Pension Fund or Private Pension Funds, Investment Management Companies (public/private)
	3rd: insurance companies, banks, investment funds, pension funds (private)	3rd: insurance companies, banks, investment funds, pension funds (private)
Contributions	together, 1st and 2nd pillars: 19.52%	together, 1st and 2nd pillars: 22.00%
Tax exemptions (for contribution or benefits)	in the annual tax declaration, social security contributions are deducted from taxable income	old-age (compulsory and voluntary) benefits are exempt from taxation
Contributor(s)	9.76% financed by employee, 9.76% financed by employer	22.00% financed by employee
Retirement age (2016)	current: for women, around 61 years old (depending on the month of birth), for men, around 66 years old (depending on the month of birth)	current: for women, 55 years old, for men, 60 years old
	target: from October 2017: 60 years for women and 65 years for men	target: raising and levelling
Replacement rates (2014), average value	net: men 53%; women 53%.	net: men 86%, women 74%.
	gross: 43.1% (both sexes)	gross: men 75.2%, women 64.1%
Main factors influencing the level of benefits	the sum of accumulated pension contributions as well as indexed initial capital, average life expectancy expressed in months	the pension depends on the employment period, earnings, indexed capital and retirement age (as special defined points); minimum employment period 15 years
Inheritance of benefits	only in 2nd (partially) and 3rd pillars (totally)	only in 2nd and 3rd pillars
Tax incentives in the third pillar	IRA – lack of capital gains tax, IPSA – payments can be deducted from the tax basis; OPP – lack of capital gains tax (in the case of additional contributions); all programmes: annual limit on contributions/payments	voluntary pension contributions (maximum RUB 120,000 in a year) can be deducted from taxable income. old-age (compulsory and voluntary) benefits are exempt from taxation
Current main problems	demographic changes (negative migration flows, low fertility rate, increasing of life expectancy), instability of the structure of the pension system, large political influence on the pension system	demographic issues (ageing of population, insufficient health care indicators), incoherence of pension reforms, economic crisis, large public pension spending, deficit of State Pension Fund

Source: Authors' own elaboration based on OECD.

Note: The net replacement rate is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners. The gross replacement rate is defined as the gross pension entitlement divided by gross pre-retirement earnings. Both measure how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement.

Table 5. Gross pension replacement rates by earnings (median earner) in Poland and the Russian Federation (%)

Year	Poland		Russian Federation	
	men	women	men	women
2008	61.2	44.5	n.a.	n.a.
2010	59.0	43.2	65.1	57.9
2012	48.8	48.8	63.0	56.4
2014	43.1	43.1	75.2	64.1

Source: Authors' own elaboration based on [OECD 2015; 2013; 2011; 2009].

5. Conclusions

The above considerations indicate many problems in the reforms of the Russian and Polish pension systems. The main factor influencing the effectiveness of reforms is the degree of consistency and comprehensiveness. Incessant changes in approaches to and principles of the reforms themselves result in a lack of clarity concerning their objectives and renders their results unattainable. Moreover, it is necessary to establish a balanced proportion of responsibilities and financing between the state, employers and employees to achieve an appropriate level of pension security.

The varied experiences of Poland and Russia over a period of more than after nearly 20 years provide mid-term lessons that could be useful to other countries. The study results suggest, *inter alia*, that despite the need for long-term stability, persistent volatility can be observed in the pension systems employed in Poland and Russia, reflected mostly in changes in legal regulations and the principles of calculation and obtaining pension benefits; this has the deleterious effect of limiting participants' confidence in the system. The considerable differences in the developmental levels of regions of the Russian Federation should also be taken into account in pension reform in the coming years.

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Abbreviations

CEE – Central and Eastern Europe; DB – Defined Benefit; DC – Defined Contribution; GDP – Gross Domestic Product; ILO – International Labour Organization; IMF – International Monetary Fund; IPSA – Individual Pension Security Accounts; IRA – Individual Retirement Accounts; OECD – Organisation for Economic Co-operation and Development; OPF – Open Pension Fund; OPP – Occupational Pension Programmes; PAYG – Pay-As-You-Go; PFSA – Polish Financial Supervision Authority; SII – Social Insurance Institution; USSR – Union of Soviet Socialist Republics.