
ESS – Extension of Social Security

**Reversing Pension Privatization: The Case of Polish
Pension Reform and Re-Reforms**

Michał Polakowski
Krzysztof Hagemeyer

ESS – Working Paper No. 68

Social Protection Department

INTERNATIONAL LABOUR OFFICE, GENEVA

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifro.org to find the reproduction rights organization in your country.

ISSN 1020-9581; 1020-959X (web pdf)

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

The editor of the series is the Director of the Social Protection Department, ILO. For more information on the series, or to submit a paper, please contact:

Isabel Ortiz, Director Social Protection Department

International Labour Organization

4 Route des Morillons

CH-1211 Geneva 22 Switzerland

Tel. +41.22.799.6226 • Fax: +41.22.799.79.62

Abstract

This paper documents the reversal of pension privatization and the reforms that took place in the 1990s and 2000s in Poland. The report analyses the political economy of different reform proposals, and the characteristics of the new pension system, including laws enacted, coverage, benefit adequacy, financing and contribution rates, governance and social security administration, social dialogue, positive impacts and other key issues of Poland's pension system.

JEL Classification: I3, H53, H55, J14, J26

Keywords: pension privatization, pension reform, social security policy

Contents

	<i>Page</i>
Abstract.....	iii
Acknowledgements.....	vii
Authors	vii
Acronyms.....	ix
Summary of Reforms related to Pension Privatization and its Reversal	xi
Executive summary.....	xiii
1. Introduction.....	1
1.1. Features and circumstances of the pre-reform pension system.....	2
1.2. The Polish pension reform of 1998 –objectives, expectations and results	3
1.3. Promoting later retirement without increasing statutory retirement age.....	3
1.4. Shifting from implicit to explicit pension debt in an ageing society	5
1.5. Promoting voluntary pension savings.....	7
1.6. Promoting competition	7
2. Reasons for re-reform and reversal of privatization	7
2.1. Other arguments for re-reform: Mixed assessment of the performance in terms of the investment portfolio and administrative charges, and high vulnerability to economic shocks.....	10
2.2. Progressive adjustment of the regulatory framework and concentration of pension funds	12
2.3. Low future benefits, regardless of the financing method.....	13
2.4. Regulations regarding minimum benefits	15
3. The schedule and politics of the re-reform: actors and points of view	16
4. The Polish pension system following the 2013 re-reform	19
5. Lessons from the Polish experience and other conclusions	22
References.....	25
Legislation	25
Other references	25

List of figures

1.	Costs of pension privatization (per cent of GDP), 1999-2014.	xiv
2.	Costs of pension privatization (per cent of GDP), 1999-2014.	8
3.	Financial situation of the ZUS pension fund, 1999-2014, per cent of GDP	9
4.	Projections of ZUS pension fund deficit (per cent of GDP) before and after re-reform.....	9
5.	Pension fund portfolio (per cent of assets), 2005-2012.....	10
6.	Expected replacement rates from both tiers for men and women from different cohorts and with different contribution histories.....	14
7.	Distribution of gross old-age pensions, December 2014	15
8.	Mandatory part of the Polish pension system	20

List of tables

1.	Key characteristics of the three-tier Polish Pension system after the 1998 reform.....	1
2.	Demographic trends – Poland and the EU	6
3.	Rate of return of second-tier pension funds	11

Acknowledgements

The paper was reviewed by Isabel Ortiz, Director of the ILO Social Protection Department; Fabio Durán Valverde, Head of Public Finance, Actuarial Services and Statistics, Social Protection Department, ILO; Stefan Urban, Social Protection Financing Expert, Social Protection Department, ILO; and Veronika Wodsak, Social Security Expert, Social Protection Department, ILO.

Authors

Dr Michał Polakowski, Poznań University of Economics and Business and ICRA – International Centre for Research and Analysis.

Dr Krzysztof Hagemeyer, Bonn-Rhein-Sieg University of Applied Sciences and ICRA – International Centre for Research and Analysis.

Acronyms

DB	Defined Benefit
DC	Defined Contribution
FE	Fundusz Emerytalny, Pension Fund, managed by ZUS, part of FUS
FDC	Financial (or Funded) Defined Contribution
FIAP	International Federation of Pension Funds Administrators
FOR	Forum Obywatelskiego Rozwoju, Civic Development Forum, think-tank established by Leszek Balcerowicz
FUS	Fundusz Ubezpieczeń Społecznych, Social Insurance Fund, managed by the Social Insurance Institution - ZUS
IGTE	Izba Gospodarcza Towarzystw Emerytalnych, Chamber of Pension Funds
KNF	Komisja Nadzoru Finansowego, Financial Supervision Authority
KNUiFE	Komisja Nadzoru Ubezpieczeń i Funduszy Emerytalnych, Insurance and Pension Funds Supervisory Authority
NDC	Notional (or Non-financial) Defined Contribution
NIK	Najwyższa Izba Kontroli, Supreme Audit Office
OFE	Otwarty Fundusz Emerytalny, Open Pension Fund
OPZZ	Ogólnopolskie Forum Związków Zawodowych, Trade Union Forum
PTE	Powszechne Towarzystwo Emerytalne, General Pension Society
UNFE	Urząd Nadzoru nad Funduszami Emerytalnymi, Office of the Pension Funds Supervisory Commission
ZUS	Zakład Ubezpieczeń Społecznych, Social Insurance Institution

Summary of Reforms related to Pension Privatization and its Reversal

1998	<p>The pension system following the 1998 privatization: 1st pillar: Mandatory, publicly managed, PAYG, Notional DC (contributions: 12.22 per cent) 2nd Mandatory, privately managed, fully funded DC (contributions: 7.3 per cent)</p>
2010	<p>MoL and MoF launch media campaigns informing on different aspects of the private system (e.g.: high transition costs; high administrative costs, poor investment returns).</p>
May 2011	<p>Reversal of the privatization and rebuilding a public pension system: New pension law Dz.U. 2011 nr 75 poz. 398 (partial reversal):</p> <ul style="list-style-type: none"> – Contribution rate paid to the second-tier pension funds was reduced by more than half (initially to 2.3 per cent; later it rose to 2.92% in 2014) and directed to a special subaccount in the public notional DC tier. – Ban on pension fund marketing, to reduce high administrative costs. – More aggressive investment strategy of the pension funds was allowed. – As of 2012, the retirement age was gradually raised from 60 to 67 for women (by 2040) and 65 to 67 for men (by 2020). – Stricter retirement rules for the military, police and similar institutions.
Sept 2013	<p>Act Dz. U. 2013 poz 1717 (full reversal), made contributions to the individual account scheme voluntary and allowed the transfer of current accounts to the public notional defined contribution (NDC) scheme.</p> <p>The new model: The system consist of a public PAYG NDC scheme. A guaranteed minimum pension is financed from public funds. The government also provides a means- and pension-tested non-contributory pension.</p> <p>Rights and entitlements: Contributory PAYG NDC pension and a guaranteed minimum monthly pension of around US\$240 is available for men (65) and women (60). The replacement rates are 39 (men) and 34 (women) per cent with 45 (men) and 40 (women) years of contributions. In addition means/pensions-tested non-contributory pension benefits of US\$129 approximately are available to both men (65) and women (60).</p> <p>Administration: The public PAYG NDC scheme is under the management of the Polish Social Insurance Institution (ZUS); The remaining private individual accounts (optative) continue to be managed by private pension fund administrators.</p> <p>Transfer of entitlements: No transfer of members was required as every individual account member was also affiliated with the public system administered by ZUS. Assets from the individual account pension funds were transferred and written to the individual NDC sub-accounts in the public scheme.</p> <p>Contributions: Workers contribution: 9.76 per cent Employers contribution: 9.76 per cent</p> <p>Supervision: The private and public pension funds are regulated by the Financial Supervision Authority (FSA).</p> <p>Fiscal impact: PLN 120 billion (~EUR 30 billion) were transferred to the state insurance system (ZUS), decreasing its deficit from 3.52 to 2.73 per cent of GDP, while reducing the fiscal deficit from 4.78 to 3.72 per cent, and the public debt from 56.2 to 50.2 per cent of GDP between 2011 and 2014.</p>
Jan 2014	<p>Transfer of 51.5 per cent of pension fund assets that had been invested in government bonds based on their value on 3. September 2013</p>
2018/2019	<p>The government plans to transfer a quarter of remaining individual account balances to ZUS and credit them to the NDC subaccount. The remaining three-quarters will be transferred to new occupational savings accounts to which both employers and workers contribute, incentivized by state matching funds and automatic enrolment. Workers will be members of such schemes by default but will have the right to opt out.</p>

Executive summary

Poland belongs to the first wave of pension reformers in Central and Eastern Europe. The Polish pension reform of the late 1990s introduced a radical paradigmatic and systemic reform that changed most of the pension system from defined benefits (DB) to a partially privately-managed defined contribution (DC) system. The reform encountered serious challenges and shortcomings in the implementation process. It failed to meet expectations and was reversed through reforms in 2011 and 2013.

During the early years of the economic transition to the market economy, with its double-digit unemployment rates, early retirement provisions were encouraged to facilitate the restructuring of enterprises and entire branches of the economy and to alleviate labour market pressure. With the influx of young pensioners, as well as increased benefits to compensate for the withdrawal of subsidies, pension costs increased substantially. It became clear that the system was unsustainable and reforms were needed to increase effective retirement age (Cichon, Hagemeyer and Ruck, 1997 and Hagemeyer, 1999). After long debates and a series of parametric reforms that did not resolve the main issue of low retirement ages, the government passed the paradigmatic reform of 1998.

The 1998 reform aimed to introduce a pension system with a multi-tiered structure. It was one of the most radical pension reforms in Europe, introducing a complete shift to DC, individual-account schemes in all tiers of the pension system. While the first, mandatory tier remained publicly managed (by the social insurance institution, Zakład Ubezpieczeń Społecznych, ZUS) and financed through a PAYG scheme, the calculation of pension benefits followed DC rules. It is thus a «notional» or «non-financial» DC scheme (NDC), as opposed to a fully funded «financial» DC scheme (FDC). All contributions paid by or on behalf of an insured person are adjusted periodically with the notional rate of return and recorded in an individual account. The retirement pension is calculated by dividing the amount accumulated over the individual's years of employment by life expectancy at the age of retirement. The second tier was originally introduced as a mandatory fully funded FDC tier that was privately managed and operated by private, joint-stock companies and pension fund societies (Powszechne Towarzystwa Emerytalne). The two mandatory tiers are complemented by a third, voluntary tier, also based on FDC principles, with members benefiting from certain tax benefits. At the time of the reform, only occupational plans were available.

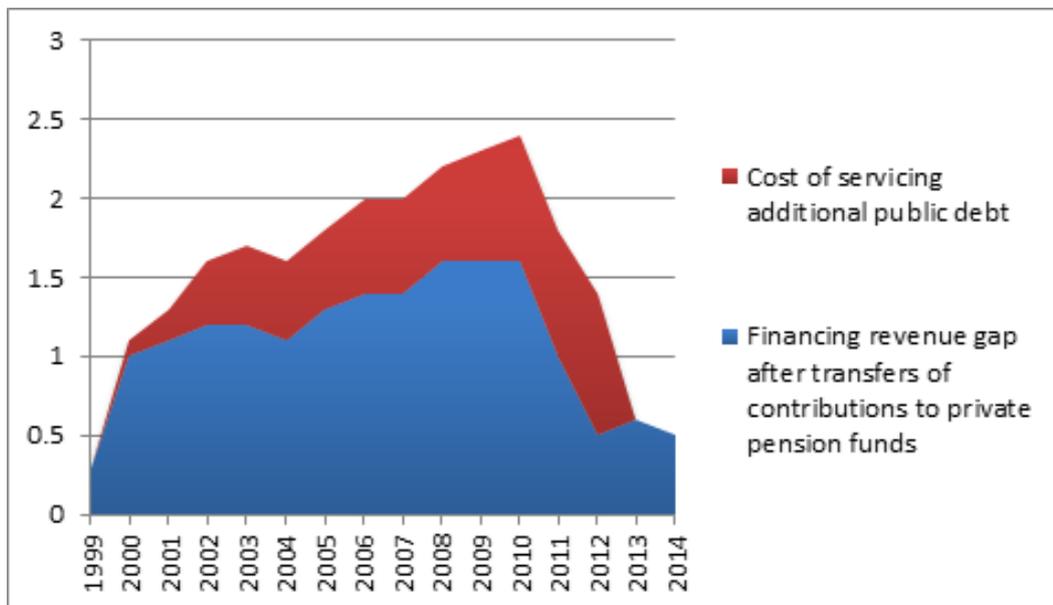
In the (partial) privatization of the Polish pension system in 1999, of the total mandatory contributions of 19.52 per cent of gross salary, 7.3 per cent were transferred from the public system to private pension funds of the second tier, while 12.22 per cent remained in the first, public tier.

Membership for all persons under age 30 (at the time the reform was introduced) and for all new entrants to the labour market was mandatory in the second tier. Those between 30 and 50 years of age had until 31 December 1999 to decide whether they wanted to join the second private tier, thus directing a part of their old-age pension contributions to a selected private pension fund, or to remain in the reformed (NDC) public tier. People above the age of 50 were not affected and remained until retirement in the pre-reform DB system. Approximately 60 per cent of those who could opt for channelling their contributions partially to the private funds decided to do so. The main determinant was age – the younger a person was, the more likely he or she would enrol in the private tier. Relatively more women opted for the private tier among the younger cohorts and more men among the older age group.

Following the reform, a major concern of the government became the financing of the transition costs. The financial stability of the system during the transition was expected to be assured from two major sources: revenues from the privatization of state-owned enterprises and reduced public pension expenditures resulting from various cost-cutting measures, such as the elimination of early retirement provisions and certain special-benefit provisions for selected categories of workers as well as the limited indexation of benefits. Revenues from privatization were presented to the public as the main source for covering transition costs. However, actual proceeds from privatization resources were limited and were higher than the gap in the public pension tier in the first two years only. Many planned cost-saving measures were delayed, modified or abandoned and thus pension expenditures increased much more than expected. Consequently, the financing of the transition costs led to increased public debt.

In the period 1999-2012, the accumulated costs of transfers to the second pillar were estimated to be 14.4 per cent of 2012 GDP, in addition to approximately 6.8 per cent of GDP consumed by servicing additional public debt. For comparison: the privatization revenues over the same period amounted to 5.24 per cent of 2012 GDP.

Figure 1. Costs of pension privatization (per cent of GDP), 1999-2014



Source: Own calculations based on data from the Polish Ministry of Finance and ZUS

After joining the European Union, Poland faced growing pressure from the European Commission to meet the Maastricht criteria and was subject to the EDP. These pressures were a driving force behind the decision to reduce the size of the privately managed tier in 2011 and later to nationalize part of its assets (those held in government bonds) and make the scheme voluntary.

While the main motivation for reversing the 1998 reform was the excessive cost of the transition, additional factors facilitated the consensus on the 2011 and 2013 re-reforms. These included the high administrative cost of the private pension funds, disappointing rates of return, projected low replacement rates, poor governance and market concentration of the pension industry.

The reform process lacked transparency and there was only limited social dialogue and communication regarding the pension reform and especially the reversal of the reform. Further attempts to improve the pension system may be limited given the low level of public trust in future government actions, especially with regard to pension reforms.

The original shift from DB to DC schemes in both pillars had major implications for benefit levels. This remains largely unchanged with the recent re-reform, which shifts financing from a mixed method (NDC+FDC) to NDC. The re-reform will do little to improve benefit levels.

Therefore, further corrections to the system or even major re-reforms can be expected to address the benefit adequacy of contributory pensions and minimum income guarantees in old age and to meet social needs and international standards adopted by Poland – like the ILO Social Security (Minimum Standards) Convention (No. 102) and the Social Protection Floors Recommendation (No. 202).

When analysing the Polish correction of the pension reform, the specific features of the Polish case should be considered. In the European context, the Polish second tier was relatively large. Also, the prevailing negative image of ZUS led many people to support the private tier. Additionally, the possibility of inheritance of contributions collected in the second tier helped to create the widespread belief that contributions saved there belong to insured individuals. Finally, given that private pension companies (PTEs for the Polish acronym) are joint-stock companies with links to major, often international financial institutions, their impact has been extensive. Despite these idiosyncrasies, some lessons for other countries considering pension reforms can still be drawn from the Polish experience:

- Insurance systems require a substantial degree of trust that is hard to gain and easy to lose if policy decisions are not backed by sound evidence and credible calculations. An independent body that evaluates system performance and issues projections can help to build trust.
- Advertising and marketing strategies of private actors are often costly and can distort public perceptions. In Poland, this contributed to exaggerated expectations on the rates of return of the private pension funds while most of the population was unaware of the fees and costs involved in the different products. Pertinent rules and regulations should therefore be put in place.
- It is important to ensure sufficient financial literacy among the population to understand the functioning, implications and trade-offs of the different pension system options.

1. Introduction

Poland belongs to the first wave of pension reformers in Central and Eastern Europe. The Polish pension reform of the late 1990s can serve as a case study for the challenges faced when implementing a radical paradigmatic pension reform towards a privatized DC scheme. This report analyses the background of the original reform, discusses its political, social and economic impact and explains the reasons for later reform reversals. The report stresses that the two re-reform waves, which took place in 2011 and 2013, were mainly driven by fiscal considerations. Since the current system maintains the DC scheme applied to both public and private tiers, the recent reversal of privatization will not improve benefit levels.

The original design of the Polish pension reform was finalized at the end of 1998 and implemented in early 1999, after three years of preparations, debates and intensive legislative negotiations. It aimed to introduce a multi-tiered pension system. The reform was one of the most radical pension reforms in Europe due to its shift to a DC scheme and individual accounts in all tiers of the pension system. While the first, mandatory tier remained financed through a PAYG scheme and was publicly managed (by the social insurance institution, Zakład Ubezpieczeń Społecznych, ZUS), the calculation of pension benefits follows DC rules. It is thus a «notional» DC or «non-financial» DC scheme (NDC) as opposed to a fully funded «financial» DC scheme (FDC). All contributions paid by or on behalf of insured persons adjusted periodically with the «notional» rate of return are recorded in an individual account and pension upon retirement is calculated by dividing the amount accumulated over the working life by life expectancy at the age the person retires. The second tier was originally introduced as a mandatory fully funded FDC tier, which was privately managed by open pension funds (Otwarte Fundusze Emerytalne, OFE), and operated by private pension fund companies (Powszechna Towarzystwa Emerytalne). The two mandatory tiers are complemented by a third, voluntary tier. This tier is also based on a FDC scheme, with members benefiting from certain tax incentives. At the time of the reform, only occupational plans were available.

In the (partial) privatization of the Polish pension system in 1999, of the total mandatory contributions of 19.52 per cent of the gross salary for old age pensions, 7.3 percentage points were transferred from the public system to private pension funds of the second tier, while 12.22 percentage points remained in the first, public tier.

Table 1. Key characteristics of the three-tier Polish pension system after the 1998 reform

	1st tier	2nd tier	3rd tier
Administration	Publicly managed	Private (open pension funds)	Private (mainly occupational plans)
Financing method	Pay-as-you-go (PAYG)	Notional Defined Contribution (NDC)	Defined contribution (DC)
Mandatory/voluntary	Mandatory	Mandatory	Voluntary
Contributions	12.22 per cent of gross salary	7.3 per cent of gross salary	

Membership in the second tier was mandatory for individuals under age 30 when the reform was introduced (and all new entrants to the labour market). Those between 30 and 50 years of age had until 31 December 1999 to decide whether they wanted to join the second private tier, thus directing a part of their old-age pension contribution to a selected private pension fund, or to keep all the contributions in the reformed (NDC) public tier. Those over age 50 at the time of the reform were not affected and remained in the pre-

reform DB system. Approximately 60 per cent of those who could opt for channelling part of their contribution to the private funds decided to do so. The main determinant was age – the younger a person was, the more likely he or she would join the private tier. In the younger cohorts of this group, women outnumbered men; in the older ones, the reverse was true.

1.1. Features and circumstances of the pre-reform pension system

The Polish pension system, as shaped by the pre-1989 Communist regime, was characterized by strong redistributive elements and a relatively generous benefit formula, as well as by many provisions for early retirement. The statutory retirement age was 60 for women and 65 for men, but the actual average age of retirement was about 55 for women and about 60 for men. Only employers paid contributions and there was one contribution rate set to cover all the risks insured by social insurance – old age, survivorship, disability, sickness, maternity and employment injury. Combined with many non-contributory benefits paid by the same institution and the significant participation of central budget financing, the social insurance financing system was confusing.

Poland's transition towards a market economy beginning in 1990 was marked by an extremely difficult macroeconomic context, notably hyperinflation and soaring unemployment and external public debt rates. At that time, early retirement was still incentivized to ease pressure on the labour market and to facilitate the restructuring of enterprises and whole branches of the economy. With the influx of early retirees as well as increases in benefits to compensate for the withdrawal of subsidies, pension costs rose substantially. There was clearly a need for reforms, particularly towards increasing the effective retirement age (Cichon, Hagemeyer and Ruck, 1997; Hagemeyer, 1999).

Several parametric changes were introduced in the early 1990s. These included:

- Lengthening the reference period used for calculating pension benefits from 12 months to 10 years. These could be selected out of 20 years preceding retirement;
- A reduction of the so-called non-contributory periods that could be considered when calculating the pension to the maximum of one-third of the total insurance history;
- A 50 per cent reduction in the accrual rate applied to non-contributory periods. Previously, an accrual rate of 1.3 was applied equally to contributory and non-contributory periods; and
- The so-called branch «privileges» in calculating pensions were phased out. The contribution base used to calculate pensions was capped to 250 per cent of an average salary.

However, consecutive governments were either unwilling or unable to resolve the issue of early retirement age and to introduce the necessary changes to incentivize later retirement. The major reason for this stagnation was political: During times of major structural adjustment and high unemployment rates, the possibility of early retirement had an important cushioning role and any reforms of these provisions would have been highly unpopular.

At the same time, during the mid-1990s, a number of more radical pension reform proposals were discussed – ranging from the introduction of deeper parametric changes, which would reduce the scope of redistribution and/or strengthen the link between

contributions paid during the years of employment and future benefits by shifting from the point system based on the French or German models to full privatization based directly on the Chilean model.

1.2. The Polish pension reform of 1998 – objectives, expectations and results

During the period 1996-1998, a broader political consensus was gradually reached around the final shape of the reform, with its two main features: the move to (N/F)DC schemes in calculating benefits (the major expectation was that it would provide incentives to make people work much longer, without the need for any government to undertake the political risk of increasing the statutory retirement age); and partial privatization (with the argument of reducing alleged political risks associated with public systems, of stimulating savings as well as supporting the development of capital markets and thus promoting growth).

As in many other countries, the main actors in the debate were officials, advisers and experts of two ministries: The Ministry of Finance and the Ministry of Labour and Social Policy. Initially, the Ministry of Labour and Social Policy argued for a rationalization of the existing system with a voluntary funded pillar, while the Ministry of Finance was in favour of a radical reform with a significant portion of mandatory funding. Trade unions, as well as some think tanks and academic centres, also developed proposals. For example, a proposal of the *Solidarność* trade union supported mandatory funding but emphasized the participatory governance of the pension funds and use of government bonds to finance the transition. Ultimately, however, the most important challenge was to reach consensus among the different political parties in Parliament. The Government Plenipotentiary for the Pension Reform, which also had support from the Tripartite Commission, played an instrumental role in this consensus.

The World Bank's blueprint of a three-pillar pension system laid out in its flagship report (World Bank, 1994) was broadly accepted across the political spectrum. While the reform was initiated by the centre-left coalition led by the post-Communist party, it was finalized by the centre-right coalition linked to the «*Solidarność*» trade union confederation. Trade union leadership across the political spectrum hoped for benefits to the trade union movement resulting from pension privatization. Some unions entered into joint ventures with financial service companies (one example is the open pension fund established by the «*Solidarność*» trade union with a Swiss insurance company, which lasted only a few years since the trade union sold its shares). A World Bank official of Polish nationality was released temporarily from the World Bank to become the director of the Office of the Government Plenipotentiary for the Pension Reform.

1.3. Promoting later retirement without increasing statutory retirement age

The main objective of the proposed reform was to introduce aggressive incentives to work and contribute much longer in all tiers of the pension system, as the alternative would be very low benefits. However, the scale of the potential benefit cut was never spelled out explicitly in the public and parliamentary presentations of the proposal. Warnings by the small group of experts opposing the reform were ignored. Instead, the strategic reform document prepared by the Office of the Plenipotentiary for the Pension Reform insisted that the replacement rate for the reformed system would be higher than in the existing system, assuming that workers would remain in the labour market much longer. For example, it estimated that the replacement rate of both mandatory tiers (first employed at

age 20, average salary, contribution of 18 per cent or 24 per cent, payroll increase of 1.5 per cent annually, second pillar rate of return of 2.5 per cent annually, inflation 0 per cent) would reach either 71 per cent or 80 per cent when retiring after contributing continuously for 47 years, compared with an average of 67 per cent for the old system (Office of the Plenipotentiary for the Pension Reform, 1997, p. 15). However, actual average contribution periods at that time were closer to 30 years for women and 35 years for men. None of the documents presented at that time showed what the replacement rates would be if people were unable to work and contribute longer due to labour market conditions or other constraints. Only a few years after the reform was adopted, other official reports listed future replacement rates under more realistic assumptions. The estimates published by the pension market regulator (UNFE) in 2001 and by the Supreme Audit Office (NIK) criticized previous simulations for their unrealistic assumptions (for example, not taking into account the actual impact of the private pension administrators' fees and charges on future benefits) and indicated that for women who had contributed for 35 years, expected replacement rates would range from 38 per cent to 39 per cent, while men contributing for 40 years could expect replacement rates ranging from 56 to 60 per cent (UNFE, 2000; NIK 2002).

The phasing out of early retirement provisions was delayed until very recently, for which reason the incentives to contribute longer could not be implemented. Although the share of benefits granted under pre-reform conditions (that is, where they are not based on individual accounts) is decreasing¹, persons retiring now and in the near future will not yet feel the full impact of the reform on benefit levels given that, as part of their notional contribution, these cohorts have capital amounts accumulated through the relatively generous pre-reform DB scheme, which compensate for the acquired pension rights. Only those entering the labour market after 1 January 1999 have pensions that reflect the new DC scheme – but these cohorts will start retiring well after 2040. Policymakers apparently no longer believed that these incentives were strong enough, for which reason they introduced a gradual increase in statutory retirement age in 2012, from 65 to 67 for men until 2020 and from 60 to 67 for women until 2040 (the original reform assumed that actually there was no need to increase the retirement age and a minimum retirement age of 62 for both sexes would suffice). The recent increase in retirement age occurred despite opposition from trade unions. There is continuing political pressure from trade unions and opposition political parties to re-introduce early retirement provisions or even reverse the retirement age increase. Most contributors, trade unionists and policymakers do not fully understand the logic of pension calculation based on (N/F)DC models.

Similarly, the reform did not have a major impact on coverage. Due to changes in labour legislation aimed at increasing labour market flexibility, the share of employees with contracts not covered by social insurance has significantly increased over the past decade. The mandatory DC pension insurance does not seem to provide effective incentives to formalize employment and to prevent employers from lowering labour costs through precarious forms of employment. The total number of persons covered is mainly a function of overall employment levels. In 1999, nearly 13.3 million individuals were paying old-age pension insurance, which declined to 12.7 million in 2003 due to rising unemployment rates. This was followed by a continuous increase until 2011 (when it reached almost 14.7 million insured), and then a slight decrease. The most recent available data indicate that 14.5 million people were covered in 2013.

¹ In 2012, 33 per cent of benefits were granted under pre-reform conditions; in 2013, the figure was 31 per cent, which declined to just 16 per cent in 2014.

Another argument in favour of the reform was risk diversification, especially in the context of an ageing society. According to the reformers, public systems are prone mainly to political risks of shifting pension promises while private systems are only exposed to economic risks. This argument was false from the beginning since the NDC pension model shifts a large share of demographic, labour market and economic uncertainty onto contributors and beneficiaries. Recent de-privatization has shown that private schemes are not immune to political risks. The losers are the contributors to the schemes because regardless of the diversification, the guarantees of minimum income security in old age were dramatically lowered by the reform.

1.4. Shifting from implicit to explicit pension debt in an ageing society

Reform promoters referred to the need to transform the implicit pension debt into an explicit debt. They argued that this would reduce the propensity to go beyond actuarially fair equity. They also viewed the reform as an answer to the alleged all-encompassing ‘bankruptcy’ of the PAYG model for financing pensions. This reform combined the existing DB formula, which used a relatively short reference period to calculate benefits and gave preferential treatment to some occupational groups (which could have been changed through parametric reforms) with general features of the PAYG system.

As reformers argued in 1997-1998, the overall shift to NDC combined with partial privatization was supposed to reduce gross public pension liabilities from 462 per cent to 198 per cent of GDP. The actual reduction was lower than predicted as many planned measures were delayed or never introduced due to the opposition from groups benefiting from the privileged entitlement conditions.

All available projections (like those of the EU Commission in 2015) demonstrated that old-age pension expenditure as a proportion of GDP will decline slightly over the next 50 years despite the ageing of the population. This expected decline is due mainly to benefit cuts (effect of both dramatically reduced replacement rates under the DC scheme and an indexation of benefits at a significantly lower level than wage growth), and to the likely later retirement of workers to a lesser extent. Although EU projections do not consider future costs of minimum pension guarantees and social assistance for the elderly living in poverty (ZUS recently estimated that in 40 years, the public budget would have to finance minimum pension top-ups of more than 0.5 per cent of GDP), it could be argued that the Polish reform went too far in terms of benefit level reductions.

The 2011-2013 re-reform once again revealed the inconsistencies of policymakers. Before the reform was enacted, policymakers reiterated their readiness to allocate the resources needed to cover the transition costs of privatization (and thus agreed to transfer the «implicit» public debt into an explicit one). A decade later, they changed their minds and prioritized medium-term fiscal concerns.

Poland has one of the fastest ageing populations in the European Union. The table below lists some indicators based on the European Commission’s Ageing Report (European Commission, 2015).

Table 2. Demographic trends – Poland and the EU

Year	Old-age dependency ratio		Life expectancy at 65				Support ratio (contributors/ 100 pensioners)	
	Poland	EU 28	Poland		EU 28			Poland
			men	women	men	women		
2013	32,70	41,47	15,40	19,60	17,64	21,02	173,4	
2020	40,39	45,29	16,30	20,50	18,42	21,76	171,5	
2025	47,14	48,68	17,00	21,10	18,95	22,28	163,0	
2030	51,14	53,06	17,70	21,70	19,48	22,80	157,3	
2035	53,60	57,59	18,30	22,20	20,00	23,30	154,3	
2040	57,15	61,04	18,90	22,80	20,52	23,80	150,4	
2045	63,55	63,75	19,50	23,40	21,01	24,27	139,6	
2050	72,61	65,55	20,10	23,90	21,49	24,74	126,9	
2055	81,03	66,51	20,70	24,40	21,95	25,18	116,4	
2060	86,74	66,47	21,30	24,90	22,42	25,64	110,6	

Source: European Commission, 2015.

Three systemic tools were included in the public tier of the pension system to reduce the risks involved for an ageing society. First was the NDC formula itself, which affects the level of newly-granted benefits in the case of increased longevity (the pension is calculated by dividing the value of accumulated contributions to the individual account by life expectancy at the age of retirement).

Second, a mechanism is in place to adjust the value of the notional individual account by the notional rate of return, which follows the annual increase in the value of the sum of wages of all insured persons. This solution was originally proposed by the designers of the Swedish pension reform. In Sweden, however, the proposal was rejected and individual accounts in that country are adjusted annually to reflect the increase in average earnings per insured person (corrected periodically using the automatic balancing mechanism). In Poland, the adjustment coefficient was initially adopted at the level of 75 per cent of the amount of wage increases and only later changed (also retroactively) to 100 per cent. In the future, when demographic ageing reduces the working age population and consequently, the numbers of contributors, accumulated pension credits for individual accounts will grow at a slower pace than average earnings – with potentially disastrous effects for future replacement rates (see above).

The third tool is the Demographic Reserve Fund, to which 1 percentage point of the 19.52 per cent is channelled. The ZUS administers the Fund, which has a relatively high rate of return. However, in recent years, resources from the Demographic Reserve Fund have been used faster than predicted given the growing deficit in the ZUS pension fund, as well as pressure from the European Union's EDP.

No systemic tools for adjusting other parameters of the pension system, especially retirement age, are included to respond to demographic shifts. Recently (2013) the system introduced gradual gender equalization and the gradual increase of the retirement age: until 2020, men's retirement age will gradually increase to 67 years, while that of women will increase to 67 years by 2040.

1.5. Promoting voluntary pension savings

The report «Security through diversity» (Office of the Plenipotentiary for the Pension Reform, 1997) stated that the introduction of a contribution ceiling of 250 per cent of an average salary would enable additional, voluntary savings. A further reduction of the contribution for the mandatory old-age insurance scheme was planned, so that individuals could prioritize voluntary saving for old age. The goal was to reduce public old-age pension expenditures. However, given the delays in phasing-out early retirement and other special pension provisions for political reasons, the deficit of the public pension tier continues to grow and thus there is no space for reducing contributions. Third-tier, voluntary pensions, despite the number of new solutions introduced over the past 15 years, still effectively cover only a small percentage of the employed. One explanation is the ban on establishing occupational pension schemes by public sector employers, which was introduced by the Ministry of Finance to control public deficits.

1.6. Promoting competition

The argument that competition between pension funds promotes efficiency (rate of return) was also presented to support the introduction of a model based on private fund administrators. However, the structure of the fund portfolios, rates of return and fees levels (see below), as well as the growing concentration of funds, points to a lack of competition. Instead, many cases of transfers from one fund to another were identified. This strategy, based on extensive and costly canvassing, sought to attract individuals with accumulated contributions rather than new labour market entrants. A 1999 survey found that less than one third of Poles knew that fees are charged for transferring between funds.

2. Reasons for re-reform and reversal of privatization

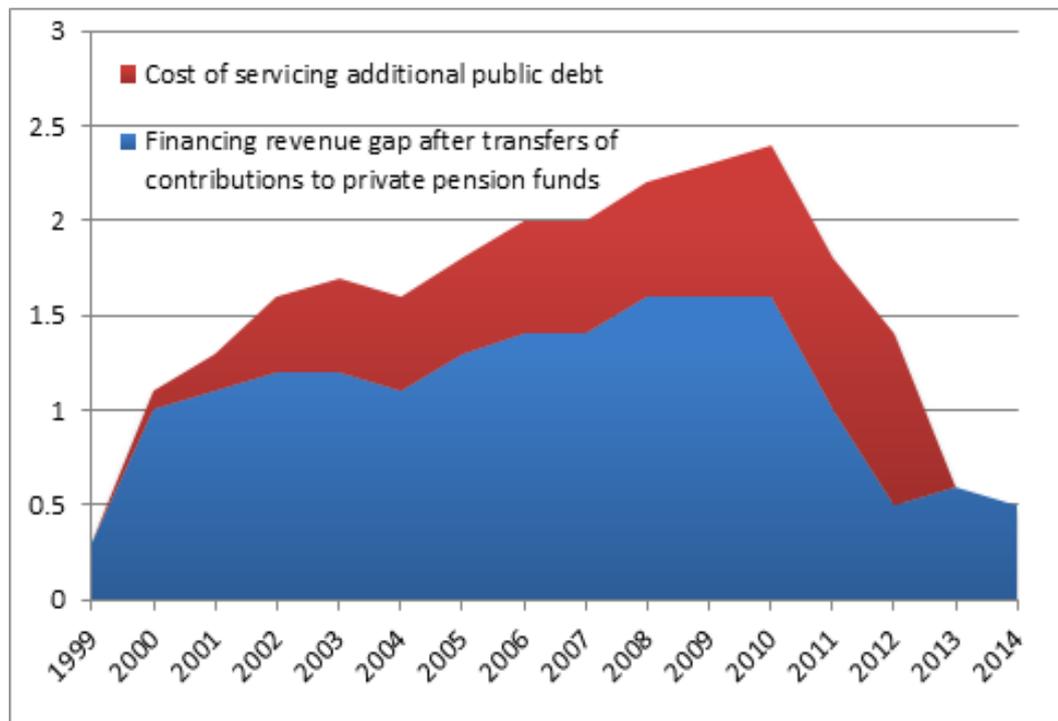
Subsequent government administrations were primarily concerned with financing the transition costs of the 1999 reform. The reform blueprint had already mentioned the risk to the public sector of financing the transition costs using fiscal resources. However, in the public discussion, this issue was (and is still) unclear. Privatization was presented as a way to ensure long-term financial sustainability of pensions in an ageing society. The resulting transition costs were not considered an additional burden but rather as necessary to make pension accounting sound – converting implicit pension debt into explicit debt. The financial stability of the reform was supposed to be guaranteed by two major sources: revenues from the privatization of state-owned enterprises and reduced public pension expenditures resulting from various cost-cutting measures, including elimination of early retirement provisions and other special-benefit provisions for selected categories of workers or limited indexation of benefits. Privatization revenues were presented to the public as the main source of funding of transition costs. However, actual proceeds from privatization resources were limited; they only exceeded the gap in the public pension tier during the first two years.

The designers of the reform viewed the expected savings from the ‘rationalization of the first pillar’ as the main source of financing transition costs in the long run. Due to the successful pressure from various occupational groups that protested the reduction in their pension entitlements, many planned cost-saving measures were delayed, modified or abandoned. Consequently, pension expenditures increased significantly more than expected (indexation of pensions well below wage increases proved insufficient for controlling rising expenditures). Transition costs had to be financed through public debt issues. Therefore, estimates of the total costs of privatization should include the funding

gap in the public tier caused by privatization as well as the cost of servicing additional public debt (Figure 2).

In the period 1999-2012, the accumulated costs of transfers to the second pillar were estimated at 14.4 per cent of 2012 GDP, as well as approximately 6.8 per cent of GDP consumed by servicing additional public debt. By contrast, the accumulated privatization revenues over the same period amounted to 5.24 per cent of 2012 GDP.

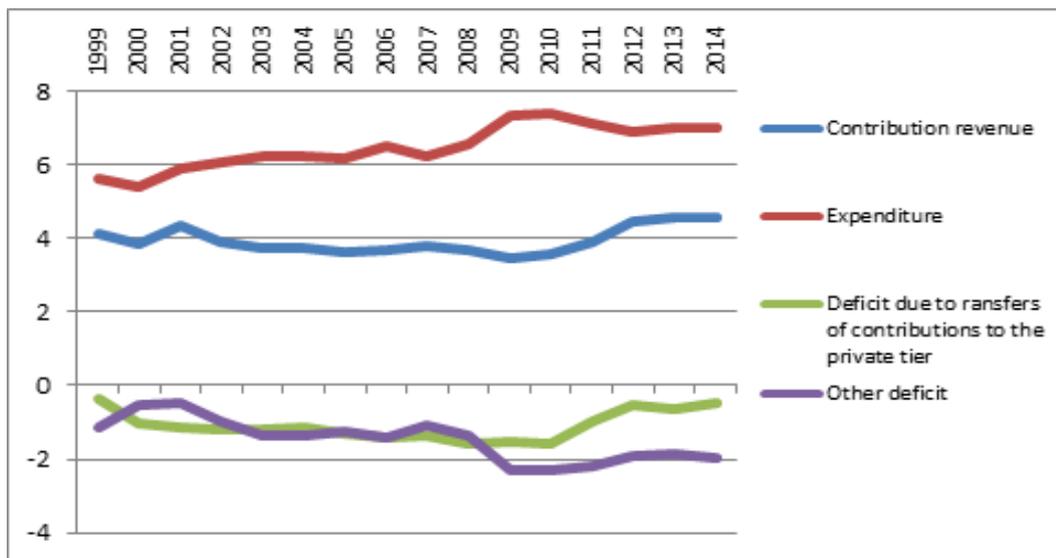
Figure 2. Costs of pension privatization (per cent of GDP), 1999-2014



Source: Own calculations based on data from the Polish Ministry of Finance and ZUS.

The pension fund of the public first tier administered by ZUS also has a growing deficit (Figure 3). Part of this deficit can be attributed to the implications of the reform. In addition to the cost of pension privatization (more than 1.5 per cent of GDP), the ceiling on contributions introduced by the 1999 reform resulted in an additional deficit in the ZUS Pension Fund (estimated at 0.5 per cent of GDP). Special government subsidies covered those deficits. Through a general budgetary subsidy to ZUS, the government covers most of the remaining deficit. In addition, the government supports ZUS with interest-free loans. Other sources of revenue include commercial loans and the special Demographic Reserve Fund financed by 1 percentage point of pension contributions (in 2011, the equivalent of 0.3 per cent of GDP was used, an amount that was reduced in subsequent years).

Figure 3. Financial situation of the ZUS pension fund, 1999-2014, per cent of GDP

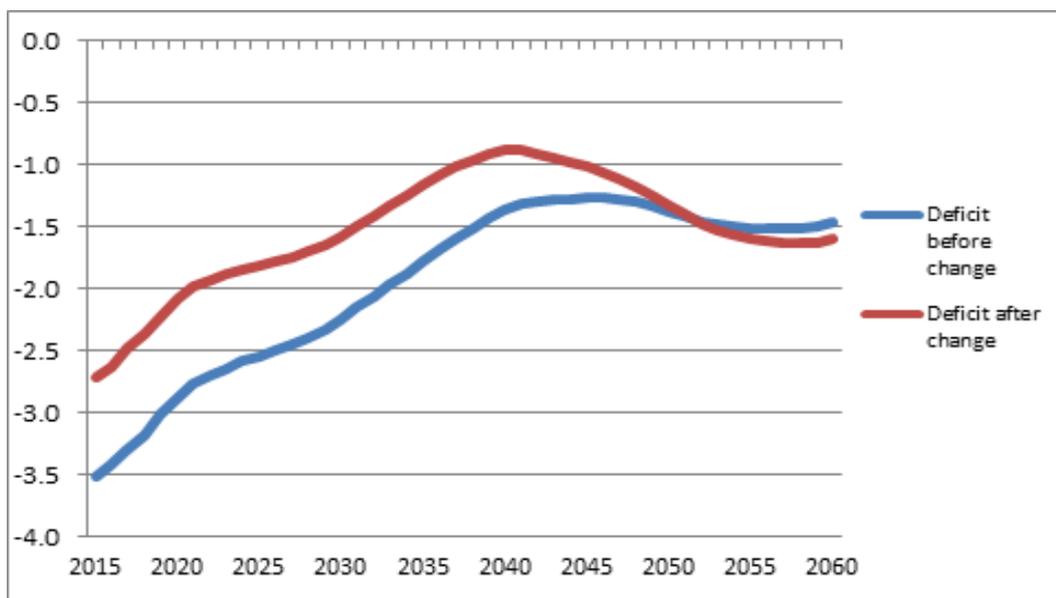


Source: Own calculations based on data from the Polish Ministry of Finance and ZUS.

When Poland joined the EU, the European Commission pressured the country to meet the Maastricht criteria and subjected it to the EDP. This was the main reason for the decisions to reduce the size of the privately managed tier in 2011 and then nationalize part of its assets (those held in government bonds) and make it voluntary. This policy seemed to have the desired effect given that the Commission announced that it would remove Poland from the EDP in July 2015.

The significant decrease in contributions channelled to private pension funds since 2011 was designed to halve the ZUS pension fund deficit. The 2013 change rectified the previous modification but went much further in significantly reducing the number of participants in the second tier and transferring a substantial portion of assets accumulated in private pension funds back to the ZUS and the public-financed system. This measure resulted in the further reduction of the ZUS deficit – at least in the medium term (Figure 4) – and the reduction of public debt by approximately 10-11 per cent of GDP, depending on the calculation method used.

Figure 4. Projections of the ZUS pension fund deficit (per cent of GDP) before and after re-reform



Source: Own calculations based on ZUS pension fund projections.

2.1. Other arguments for re-reform: Mixed assessment of the performance in terms of the investment portfolio and administrative charges, and high vulnerability to economic shocks

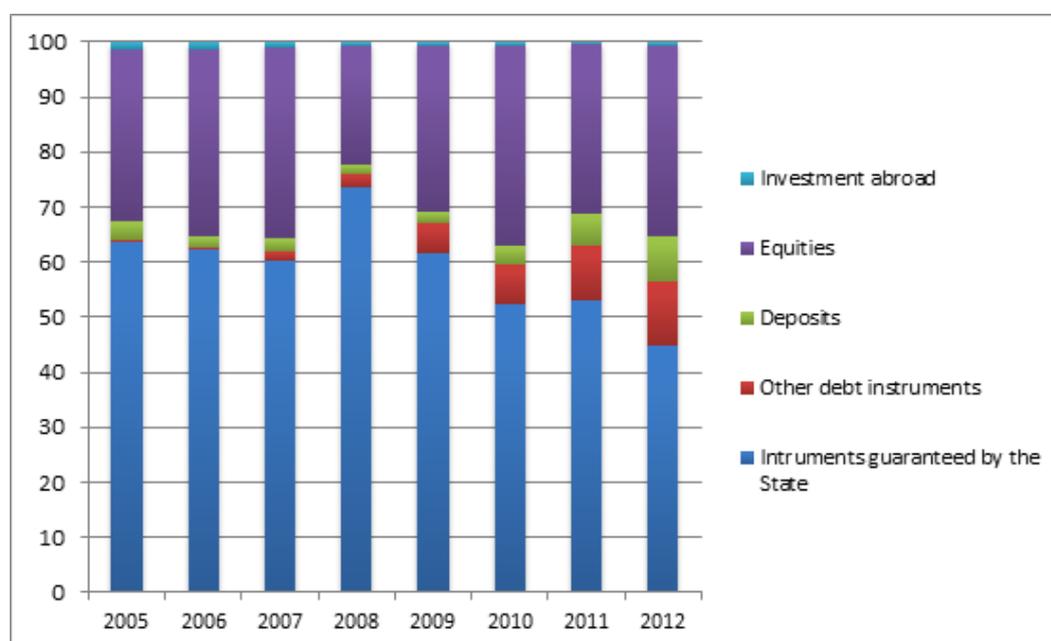
A notable feature of Polish private pension funds is the extensive investment in Polish government bonds, as well as investments in the Polish economy. This profile reflected the investment regulations in force until recently, according to which no more than 40 per cent of assets could be invested in equities and no more than 5 per cent of assets could be invested abroad.

The short-term performance of the pension funds early in the financial crisis (2008-2009), when the Warsaw Stock Exchange was affected by the outflow of investors, led the Ministry of Labour and Social Policy to severely criticize the system. The Ministry contrasted the poor performance of the funds with the high fees (see discussion below) and low levels of expected replacement rates (the latter resulting from the shift from DB to DC schemes in calculating pensions rather than from advanced funding or private management).

These arguments also reflected concerns of the Ministry of Finance related to deficit-financed transition costs and sparked the debate on reducing the size of the funded pillar (initially in terms of contributions). This unique coalition of two ministries led to the two waves of reforms in the pension system.

The statistics of the pension funds' market regulator clearly show that since the enactment of the reform, government-guaranteed bonds have accounted for more than half of the portfolio (Figure 5).

Figure 5. Pension fund portfolio (per cent of assets), 2005-2012



Source: Ministry of Finance (2013).

Assessing the rate of return of private pension funds always poses methodological problems regarding the impact of fees and charges. Table 3 presents the gross rate of returns of pension funds and the net rate of the estimated impact of fees and charges. The

data clearly show that the net values for the period 2000-2012 are more than 2 percentage points lower, which is a significant difference given that the net average rate of return was estimated at 6.3 per cent. By contrast, notional rates of return in the first public NDC tier were on average 7 per cent on the main account and 8.5 per cent on the subaccount during the same period.

Table 3. Rates of return of second-tier pension funds

	Rate of return	
	Gross	Net
2000	13,1	2,8
2001	7,3	-0,6
2002	13,6	3,9
2003	10,9	8,6
2004	14,0	12,5
2005	14,6	13,5
2006	16,3	15,1
2007	6,2	5,3
2008	-14,3	-14,9
2009	13,7	12,6
2010	11,2	10,7
2011	-4,6	-4,9
2012	16,4	16,2
Arithmetic average	9,1	6,7
Geometric average	8,8	6,3

Source: Ministry of Finance.

In the second tier, three types of fees affect members of pension funds. The first, the so-called distribution/sales fee, is a front-loaded fee, the second is the management fee and the third, a premium fee. There was also a transfer fee, abolished in 2010, which was charged when a pension fund member switched to another fund when membership lasted less than 24 months.

In a 1999 survey, 84.7 per cent of respondents did not know how much participation costs were in the second pillar. The pension industry regulator argued that this situation was due to the marketing strategy of PTEs, which focuses on the advantages of membership rather than on the accompanying costs. Crucially, awareness of the costs of participation in the second pillar did not differ significantly between those for whom participation was mandatory and those for whom it was voluntary (78 per cent and 79 per cent, respectively).

Both PTEs and ZUS benefit from the distribution fee (though the latter to a significantly lesser extent). Until 2004, the distribution fees charged remained unregulated and some PTEs charged as much as 10 per cent of the contribution value. Since then, maximum fee rates have been gradually reduced: to 7 per cent of a contribution between 1999 and 2009 and to 3.5 per cent until 2010. Currently, fees cannot exceed 1.75 per cent of contributions. In most cases, PTEs were charging maximum fee rates.

The management fee is charged monthly. Until 2004, the maximum fee was 0.05 per cent of the net value of assets. The fee was reduced to 0.045 per cent in 2004 and capped at 15.5 million PLN monthly when assets exceed 45 billion PLN.

The premium fee was introduced in 2004. This fee is based on a premium account, where a maximum rate of 0.005 per cent of a fund's assets are transferred by each PTE. This fee serves to reward PTE investments. Accordingly, a PTE administering the highest-yielding fund, as measured by the three-year rate of return, may transfer assets to the premium account, while the worst-performing fund must return the assets to a fund. The remaining funds share the premium in accordance with their performance.

The other issue related to the costs of second-tier pensions, which has been debated since the original pension reform was adopted in late 1998, was the cost of the pay-out phase, and the role of the annuity market and annuity providers. Many economists and representatives of the financial services industry argued in favour of private provision in the pay-out phase through annuity markets. Nevertheless, the financial services sector wanted guarantees to reduce the level of risk associated with the provision of annuities. Parliament passed this bill in 2008 after extensive lobbying of the financial services sector. The president successfully vetoed this bill, however. The 2013 re-reform of the pension resolved the problem by stipulating that assets accumulated in private pension funds must be transferred to ZUS at retirement and that the pension amount is calculated the same way as are public NDC pensions.

The overall administrative costs of public pension provision as designed by the 1998-1999 reforms were high. It is difficult to compare these expenses with the cost of public provision by ZUS previously because while this institution collects contributions and pays benefits related to old-age contingency, it also administers other branches of social insurance – disability and survivors' pensions, employment injury, sickness and maternity insurance. The administrative cost of ZUS is less than 2 per cent of its total social insurance benefit expenditure.

2.2. Progressive adjustment of the regulatory framework and concentration of pension funds

While entry in the pension fund market was heavily regulated, there were few investment rules. This led to adverse patterns of pension fund investments such as the herd effect. While the regulator identified oligopolistic practices (similar investment portfolios, similar rates of return, similar fees), it took no action. Additionally, regulation of the Polish pension fund market weakened when the former pension regulatory authority was merged with the general financial markets regulatory authority. The regulatory authority established at the beginning of the reform (UNFE) dealt solely with the functioning of the second- and third-tier pensions. Its governance structure included the Advisory Committee, where social partners actively participated, in compliance with ILO Convention No. 102, which requires stakeholder participation in supervision, especially when social security functions are commissioned to the private sector. In 2002, however, UNFE was merged with the institution supervising the insurance market and a new regulatory body was established: the Insurance and Pension Funds Supervisory Authority (KNUiFE). – In 2006, this body was integrated into the Financial Supervision Committee (KNF). These administrative changes eliminated direct involvement of social partners in oversight of private pension funds.

An example of relatively poor governance, especially in the early phase of the reform, was the extensive marketing and associated activity of PTE sales representatives. This activity led to overly optimistic perceptions concerning second-tier pensions (especially

given the initial problems with ZUS). Also, the phenomenon of so-called ‘dormant accounts’ was noted. In 1999, an estimated 5 to 15 per cent of accounts were dormant, that is, they received no contributions. These accounts existed because brokers aggressively marketed the funds, creating accounts even for people who were not eligible, or creating ‘double’ accounts. They also resulted, initially, from ZUS’s limited capacity to properly identify individual accounts when transferring contributions to the second tier.

The concentration of the pension industry became apparent soon after the reformed pension system was implemented. Initially, there were 21 funds, but after a series of mergers and acquisitions, the sector was consolidated into the 12 funds that exist today. Most mergers and acquisitions took place in the 2000s – four in 2001, and one each in 2002, 2004, 2008, 2013 and 2014, resulting in a high concentration of the market. In the mid-2000s, there were 15 funds, with the four largest funds covering 65 per cent of the market. These were PTE ING N-N Polska, PTE Commercial Union, PTE AIG and PTE PZU Żłota Jesień. Foreign investors (with some Polish shareholders) owned all but the last one. This concentration was subsequently reduced somewhat. In early 2015, the three largest funds (ING, Aviva BZ WBK and PZU Żłota Jesień) held 48 per cent of the market in the second pillar. The «pension fund lottery», which assigned a pension fund to new labour market entrants who did not explicitly choose a fund, favoured the largest funds and exacerbated the problem.

As mentioned, throughout the existence of the second tier, most PTEs charged the maximum fees permitted. Hence, the regulations, which aimed to reduce the maximum allowed fees, including the distribution fee (front-loaded), and the fee on profits, did not achieve their objectives. Additionally, regulatory gaps (the minimum rate of return, which is industry-specific) encouraged herding behaviour with respect to investment portfolios (and consequently, rates of return).

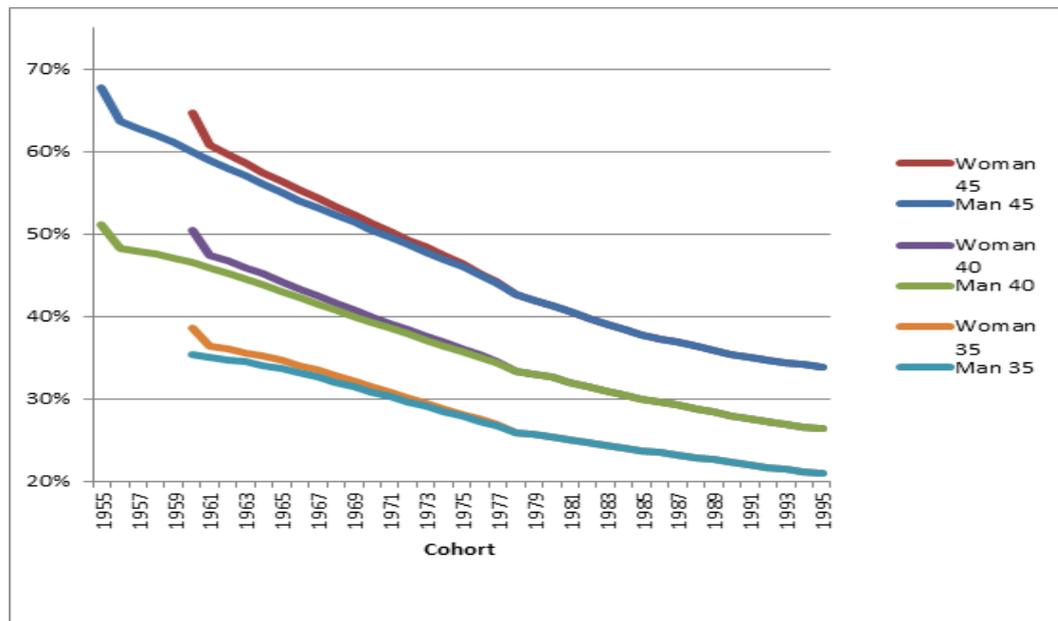
Most firms administering open pension funds were foreign-owned financial companies. This was due to the interest of the international financial sector, which also occurred in the pension industry in other countries, as well as to the strict requirements. The most important ones were the considerable own capital required to establish open pension funds and the inflexible legislation that required a joint-stock company. Large international firms purchased many of Poland’s banking, insurance and other financial service companies following the post-Communist transition. Consequently, while in late 1999, 61 per cent of PTE shareholders were Polish, actual ownership by Poles was significantly lower. After the exclusion of intermediaries (foreign-owned companies operating in Poland), the share of PTE assets owned by domestic shareholders declined to 16 per cent, 8 per cent of which were indirectly associated with the government (through state-owned financial service companies). Major players included Allianz, AXA, ING, Commercial Union, Generali, Nationale Nederlanden, Norwich Union and others. Aviva BZ WBK’s majority shareholder (90 per cent) is Aviva International Holdings Ltd; ING’s majority shareholder is NN Continental Europe Holdings B.V. (80 per cent); and PZU Żłota Jesień’s majority shareholder is PZU S.A. (58 per cent of shares owned by the state).

2.3. Low future benefits, regardless of the financing method

The decline of future replacement rates will result not from privatization itself but from the shift from DB to DC schemes for calculating pensions in both tiers. The expected decline in the working-age population and possible economic trends will result in a situation where rates of return in the NDC tier will be lower in real terms than real growth of average earnings. This, in addition to (N)DC schemes for calculating pensions, will dramatically reduce replacement rates for future pensioners compared with cohorts that are currently retiring. Unless minimum pension guarantees are significantly strengthened

(or a basic universal pension is introduced as a zero tier), achieving the 40 per cent replacement rate required by the Social Security Minimum Standards Convention No. 102 (1952) (ratified by Poland) will require contribution periods much longer than the 30 years foreseen by the Convention (Figure 6). When the reform proposal was being discussed, the ILO Office in Budapest warned the Office of the Government Plenipotentiary for the Pension Reform in Poland that the proposal fell short of the requirements set forth in ILO Convention No. 102. For the cohorts currently entering the labour market, achieving a 40 per cent replacement rate will be impossible, even if the individuals retire at 67 after 47 years of continuous contributions. Figure 6 illustrates the steep decline in replacement rates for future pensioners for different contribution periods by gender.

Figure 6. Expected replacement rates for both tiers for men and women from different cohorts and different contribution periods



Source: Own calculations (macroeconomic assumptions based on ZUS long-term projections).

The DC system does not allow for redistribution, for which reason there is no protection for low-earners as required by Convention No. 102. Low replacement rates for those with low earnings will mean that the contributory part of the pension system will not protect low-earners against poverty.

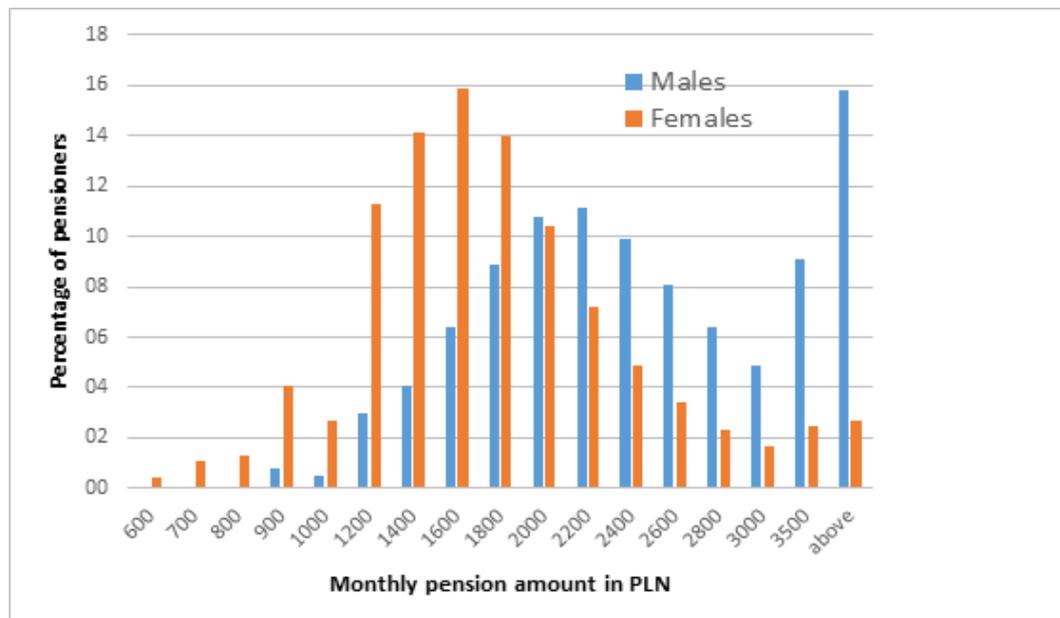
Achieving long contribution periods will be particularly difficult for women and workers with fragmented employment histories due to periods of unemployment or other reasons. Currently, women who retire have made contributions for far less than 35 years, on average. Despite efforts to reduce gender discrimination in the labour market and to promote sharing of family responsibilities, it will be difficult to increase contributory periods enough to ensure reasonable replacement rates.

Previous DB systems had a redistributive benefit formula, which provided higher replacement rates for those with lower earnings and shorter contribution periods. This protected women in particular and compensated for their fewer years in the labour market. The 1999 reform budgeted government resources to pay the contributions of individuals, in practice mainly women, to enable them to devote themselves to childcare. The main issue has been the amount of contributions that by the government pays for childcare leave (up to 36 months), which is quite low and for a short period. In recent years, legislation improved the conditions of childcare leave.

In addition, the current minimum pension provisions may prove to be insufficient (at 880.45 PLN gross in 2015). First, only workers who have contributed for 25 years have a right to the minimum pension. Second, under the current indexation rules (CPI plus 20 per cent of real wage growth), minimum pension levels will be significantly lower than average incomes and fall below relative poverty benchmarks.

Given that current pensioners have their benefits calculated according to the pre-reform rules, the amount of current benefits remains relatively high. The average gross old-age pension in 2014 was 2043.11 PLN. Figure 7 presents the distribution of gross old-age benefits in Poland as of December 2014. The share of individuals at risk of poverty among the population aged 65 and over is 19.7 per cent, lower than that of the population aged 25-54 (24.3 per cent, 2014 figures). The gender gap is apparent in the level of pension benefits and old-age poverty – while 15.2 per cent of men were at risk of poverty, the percentage for women reached 22.5 per cent. The gross minimum benefit in 2014 was significantly lower (844.45 PLN) than the social minimum wage, calculated as the cost of a basket of goods (1070.65 PLN). Approximately 4 per cent of pensioners receive benefits below the stipulated minimum, the overwhelming majority of whom are female.

Figure 7. The distribution of gross old-age pensions, December 2014



Source: ZUS database.

2.4. Regulations regarding minimum benefits

The reformed pension system included both the minimum benefit and the minimum rate-of-return guarantee for the second pillar. Pension eligibility before the increase of the retirement age required payment of premiums for at least 25 years for men and 20 for women (by 2040, it will be 25 years for both sexes). In the event that individuals meet these criteria but their pension from both tiers would be lower than the minimum guaranteed benefit, public budget resources will cover the difference to ensure the minimum pension amount. Currently, the role of the minimum pension guarantee is marginal, as individuals retiring now still have significant pension entitlements acquired through the previous DB system and reflected in their contribution capital. In the future, however, depending on which mechanism of minimum pension indexation is applied, the share of pensioners covered by the minimum pension guarantee is expected to rise sharply.

The minimum rate of return was an internal pension-sector benchmark. It was published twice a year based on the previous 36 months (initially, 24 months). First, a weighted average (that is, considering the assets of a given fund as a share of total pension-fund assets, but no more than 15 per cent) was used to calculate the rate of return and served as the basis for calculating the minimum required rate of return. In the case of an average rate of return over 8 per cent, the minimum rate of return is half of the average. When the average is lower than 8 per cent, the minimum rate is 4 percentage points lower. When a fund has a rate of return lower than the minimum, it needs to transfer assets from a reserve fund to cover the gap to reach the minimum rate. If this is insufficient, the reserve from the Guarantee Fund is used. If this measure is also insufficient, the PTE needs to use its own assets to complement the fund's assets. As a last resort, the main resources of the Guarantee Fund are used. The minimum return guarantee was abolished following the 2013 reform.

The KNF raised the issue of an irregularity implied by the mechanism of the internal benchmark. The insufficient regulation of PTE capitalization meant that it would not be possible to cover the loss of funds with large market shares.

3. The schedule and politics of the re-reform: actors and points of view

Originally, in the late 1990s, privatization was widely supported, even by trade union movements. The level of public trust in public social insurance institutions was very low and there was the equally widespread belief that the private-sector provision of pension funds would result in better returns and higher service quality. The media played an important role both in promoting a negative image of public social insurance and a positive one of private-sector systems. Like in many other countries, national and international financial service companies made intensive, effective lobbying efforts (see discussion in Hagemeyer, 2005). Also, people favoured the idea of individual accounts and the principle that the pension amount would be directly linked to individual contributions. Official documents presented overly optimistic estimates of future pension levels partially based on unrealistic or flawed parameters, such as not considering private pension administrators' fees and charges. In this context, the warnings of some experts that the reality might be otherwise did not affect the overall optimism of the main actors involved.

A few years after the reform, reports were prepared (when social partners still actively participated in pension fund oversight) and published by UNFE (2002, 2003) and its successor (KNUiFE 2003) and the Supreme Audit Office (NIK 2002). The reports presented more realistic simulations regarding future replacement rates as well as a critical performance assessment of the private pension funds, both in terms of administrative charges and investment policies. These reports raised some doubts about the social and economic effectiveness of pension privatization yet failed to make these issues a priority on the political agenda. At the same time, social partners were more concerned about shorter-term problems like indexation of pensions or the phasing-out of early retirement provisions.

Concerns about the performance of the reformed pension system and its second pillar started receiving political attention only after the onset of the global financial and economic crisis, the growing fiscal deficit and mounting pressure from the European Commission to reduce the deficit (public debt). Poland, like other new EU members, has a much weaker bargaining position regarding compliance with the Maastricht criteria compared with older EU members. Moreover, Poland's constitutional rules on maximum

public debt levels forced action as the debt was moving dangerously close to the limit of 50 per cent of GDP.

The Ministry of Labour and Social Policy and the Ministry of Finance were the driving forces behind the design and adoption of the waves of re-reforms in 2011 and 2013.

In May 2011, the contribution rate paid to the second-tier pension funds was reduced by more than half (initially to 2.3 per cent with a gradual increase to 3.5 per cent by 2016). The remainder of the former second-tier contribution was directed to a special subaccount in the public NDC tier with an individual account for each insured person.

The initial re-reform provisions also included a ban on pension fund marketing as it was believed to lead to higher pension funds costs and unnecessary transfers between funds, which were costly to members. Another provision promoted more aggressive pension fund investments by raising the maximum share of equities permitted in an investment portfolio. These changes were motivated by the high transition costs and related public debt increase. They were also in response to a study by the Ministry of Finance, which reported that debt refinancing would be a major burden for the budget and debt servicing a major expense. The 2011 law stipulated that the pension system should be reviewed before 31 December 2013. Publication of assessment reports every three years was mandatory.

On 27 September 2013, the ministerial cabinet submitted the assessment report, which recommended transferring part of the assets, equal to the share of government bonds, from the second to the first tier. It also called for regulating pay-out of benefits, determining the share of the contribution distributed to the second pillar, with the possibility of choosing between contributing exclusively to the first or to a mixed first-second pillar system. Additionally, it recommended eliminating the minimum rate of return, reviewing the fees in the second pillar and promoting participation in the third pillar.

Between 2010 and 2013, the ministries of Finance and Labour and Social Policy launched media campaigns focussed on different negative effects of the private tier on public finances (high transition costs) and on contributors and future pensioners (high administrative costs, reduced future pensions and poor investment returns). The Ministry of Finance argued that transition costs would be fiscally unsustainable and that PTEs were taking advantage of the situation. The ministry pointed out the socially wasteful circular flow of resources (the government issues bonds to cover the costs of transferring contributions to private pension funds, while contributions are used to buy government bonds), where the only winners are PTEs, which earn revenue from fees and other charges. The Ministry of Labour and Social Policy highlighted the more stable rates of return of the first pillar and promoted expansion of the voluntary, third tier (expansion was a part of the 2013 reform package but had negligible effects). The Minister of Labour and Social Policy was convinced that the contributory DC pension system was useless given the increase in precarious forms of employment in the labour market. In several interviews, the minister argued in favour of replacing it with a non-contributory flat-rate pension.

The debate grew heated and deeply divided the experts and politicians involved. The split ran evenly through the ruling party (Civic Platform) and there was strong opposition to changes among a group of senior government officials and advisors. This group insisted that the reduction of contributions to private pension funds introduced in 2011 should be only temporary. They opposed most of the changes introduced in 2013. Instead, they argued for reforms to improve the performance of the private pension funds while maintaining the mandatory nature of the second tier. This group, along other groups and organizations, advocated for the introduction of multi-portfolio pension funds, adapted to

the lifecycle (riskier investment strategies for younger members and safer ones for those closer to retirement) and new regulations to reduce fees and other administrative charges to lower the administrative costs of private pension funds.

Jacek Rostowski, the Deputy Prime Minister and Minister of Finance, eventually persuaded the Prime Minister and the government majority to adopt his position. Several economists who formally supported pension privatization changed their minds. However, most «mainstream» economists, led by the author of the Polish radical economic transition of the early 1990s, former Deputy Prime Minister and Minister of Finance Leszek Balcerowicz, strongly rejected reversing privatization. An umbrella organization of pension funds, IGTE (Chamber of Pension Funds, a member of the FIAP, the International Federation of Pension Administrators) played an important role in defending the interests of the pension industry. This organization, along with employers' organizations and the civic development forum Obywatelskiego Rozwoju (FOR), an organization founded by Leszek Balcerowicz, launched intensive media campaigns against the government proposals, targeting both politicians and the public. A group of influential experts formed an organization to defend mandatory private pensions. Their position was very strong given their access to the media and use of 'common sense' arguments, which were hard to discredit in the media debate. Re-reform opponents stated that the modification would lead to lower pensions, slower economic growth and higher taxes due to the increase in the implicit pension debt. Interestingly, the World Bank, which substantially contributed to the original reform, made no public pronouncements on the issue.

Projections by ZUS (Figure 4) demonstrated that the scaling down of the private pension tier would result in an improved balance of the pension fund until at least 2050. Others argued that in the long run, the re-reform would raise net public pension liabilities. Longer-term projections never confirmed this assertion, however.

The pension oversight agency also opposed changes. It focused on developing solutions to improve the performance of private pension funds, for example, by introducing multi-portfolio fund solutions and more sophisticated performance benchmarks.

The role of the unions was rather ambiguous given that they protested the planned gradual increase in retirement age and demanded the right of people with long contribution histories to retire before the statutory retirement age. However, two major trade union confederations clashed on these issues. One (Solidarność) had previously designed a pension system with a privately-managed tier and had defended the multi-tier solution during 2011-2013, while the other (OPZZ) criticized the second pillar, mainly on the basis of the high fees and other administrative charges, which several assessments of the funds' performance had reported.

Property rights proved to be one of the most controversial issues in the debate. Re-reform opponents argued that pension fund reserves were privately owned even though they were paid from government-mandated pension contributions. To support this argument, they pointed out that savings in the pension funds – as opposed to main NDC accounts – could be inherited under certain conditions. Additionally, the popular perception of the concepts of 'private' and 'individual accounts' was strongly associated with the notion of private ownership.

This issue triggered a legal debate, although the Supreme Court had previously confirmed the public nature of mandatory pension contributions. The pending issue was how to proceed with private assets in the portfolios. To resolve the problem, the government decided to move only pension fund assets that had been invested in government bonds or other state-guaranteed papers to the public tier (and the pension entitlements linked to them).

Eventually, the need to improve the country's fiscal position proved to be the most important argument and the pro-modification camp won as the ruling coalition gained enough votes in the Parliament. However, the aggressive tone of the discussion and the radicalization of arguments divided society. Many people still believe that shifting assets from the pension funds to ZUS was illegal, that it was an unconstitutional nationalization of their private savings. Several organizations took legal action: Initially, an employers' organization submitted a case to the Constitutional Tribunal, arguing that shifting assets from the second to the first pillar was a violation of property rights. The Tribunal rejected the case, however. Additionally, while the President of Poland signed the bill (despite intense pressure from re-reform opponents), he also submitted the case to the Constitutional Tribunal. These legal proceedings did not address asset transfer but rather other minor issues. The Polish Ombudsman also submitted the case to the Tribunal, arguing that the default switch to the first pillar was unconstitutional. The Tribunal was expected to rule on these cases in 2015.

Technical aspects of the operation included transferring government bonds and similar instruments to an account, where they were immediately written off. The Demographic Reserve Fund was responsible for other papers, bank deposits, equities and cash. The decision on the operation was announced on 4 September 2013, while the actual transfer took place in January 2014 (51.5 per cent of pension fund assets were transferred at their face value on 3 September 2013).

The period for declaring continued participation in the second pillar was 1 April to 1 July 2014. During this period, pension funds could not be advertised. Approximately 15.1 per cent of members of the private pension funds decided to continue to pay into the first and second tier. All other members had their contributions automatically transferred to the public tier. In the future, every four years, the insured will have the option of deciding where their contributions are distributed while new labour market entrants need to submit a statement agreeing to have part of their contributions going to the private fund.

An important part of the reform was introducing the so-called zipper mechanism (gradual, monthly transfer of savings from individual accounts in the second pillar to the subaccount in the first pillar within 10 years before retirement). In 2014, 4.7 billion PLN (out of 145 billion PLN in total assets) were transferred from the second to the first pillar through this mechanism. In 2015, 3.8 billion PLN were expected to be transferred.

The 2011-2013 reforms were accompanied by a series of measures to promote fiscal stability. In 2012, the retirement age started to be gradually raised from 60 to 67 for women and 65 to 67 for men. Some contributions (namely for disability and survivors' pensions) and taxes (valued-added tax) have been increased and stricter retirement rules for the military, police and similar institutions were introduced.

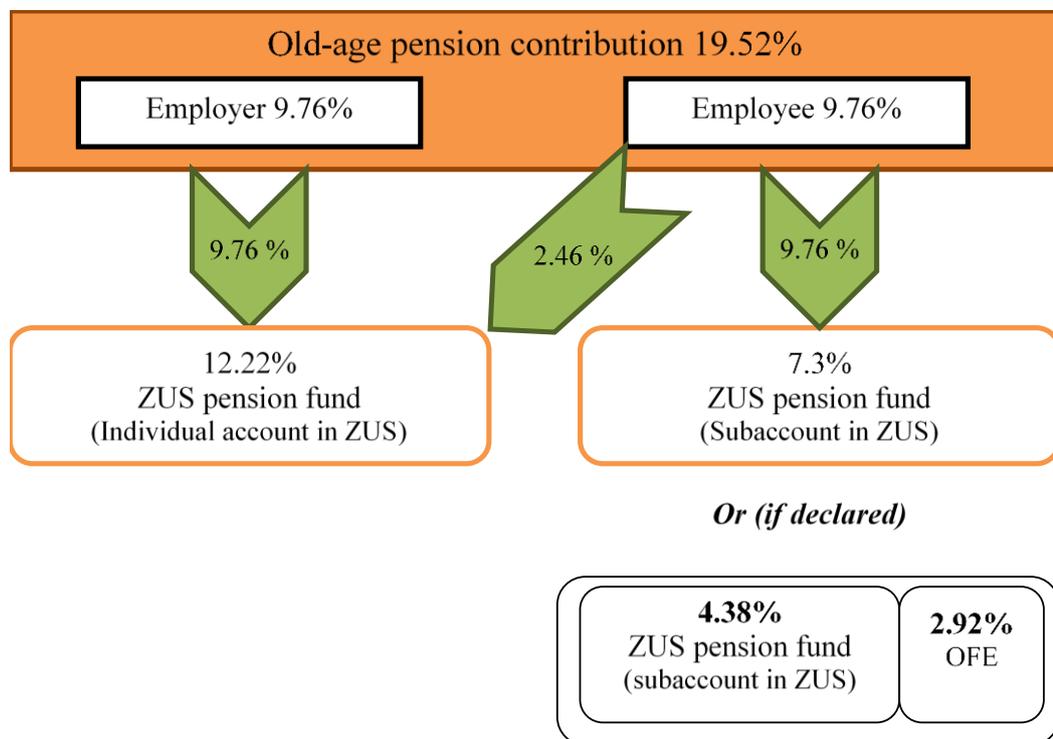
4. The Polish pension system following the 2013 re-reform

The Polish pension system following the additional changes in 2014 is still based on individual accounts. Thus, the DC formula remains the same, and as such, a low level of redistribution is expected. The main difference is that contributions (7.3 per cent of gross salary), formerly channelled to the second tier, are now transferred to a special subaccount in the NDC scheme administered by ZUS, with a rate of return equal to the five-year nominal average of GDP growth (as opposed to the main NDC account, where the rate of return is equal to the annual wage sum increase). The pension funds' rate of return was

equal to the actual investment return of PTEs, which affected the level of pension savings on individual accounts in OFEs.

The re-reform model continues to operate with mixed systems: PAYG/NDC in the first tier and privately-managed FDC in the second tier. What has dramatically changed is the size of the second tier and the fact that it is no longer mandatory. The contribution, which can be channelled to private pension funds, is now just 2.92 per cent of the gross salary, compared with the 7.3 per cent stipulated in the 1999 pension reform. For new entrants to the labour market, the default option is that all contributions go to the first public tier. The insured must complete specific procedures to opt for channelling part of the contribution to the second tier. Consequently, less than 2 per cent of new entrants to the labour market opt for the second pillar. Figure 8 demonstrates the logic of the pension system in Poland after the most recent modifications.

Figure 8. Mandatory part of the Polish pension system



Source: Rutecka 2014.

The 2013 re-reform changed the regulatory framework of second private-tier pensions. First, the investment in government bonds has been banned. Additionally, all assets owned by pension funds and invested in government bonds (51.5 per cent of all assets there) were transferred to the public-tier pension fund and credited to the individual NDC sub-account. The minimum return guarantee was also eliminated. Additionally, starting 10 years before an insured person reaches the minimum retirement age, his or her assets in the private pension fund are gradually transferred to the public tier and credited to the NDC subaccount (the so-called 'zipper' mechanism designed to prevent losses when retiring during a period when stock markets are down). Also, new contributions during the last 10 years before retirement are transferred only to the public tier. Finally, ZUS calculates and pays out the benefits from both pillars.

Until 31 January 2014, participation in OFEs was compulsory for those born after 1968. Since 2014, those entering the workforce for the first time may choose whether they

want to contribute to a private fund (OFE) or solely to ZUS. In 2014 and 2016, from 1 April until 31 July, private fund members could choose whether they wished to remain in an OFE. They are expected to be given the opportunity to decide again in 2020.

The new investment framework is shaped by the ban on investment in any state-guaranteed financial instrument. Also, the law stipulates minimum shares of equities in the funds' portfolios: 75 per cent in 2014, 55 per cent until the end of 2015, and 15 per cent until the end of 2017. The decision to force funds to invest in shares was meant to ensure that the Warsaw Stock Exchange would not be affected by the reduced flow of contributions to private funds, which are key institutional investors in the stock market.

The NDC subaccount to which former second-tier contributions and part of the assets were directed has a notional nominal rate of return, which equals the average nominal GDP growth rate of the previous five years. This rate cannot be negative, however. It thus guarantees that the level of pension entitlements is not reduced in absolute terms – a positive change for the insured compared with the degree of volatility of market rates of return. Main NDC accounts have a notional nominal rate of return equal to the nominal increase in the sum of wages of insured persons, but it cannot be lower than inflation as measured by CPI. This guarantees the maintenance of the real value of pension entitlements. In the long run, if the share of labour income in GDP remains stable, the two rates of return should be relatively equal.

The 2013 reform removed the minimum rate of return as a benchmark in the second pillar. The government has justified this by arguing that banning investment in government bonds increases the likelihood of more volatile financial results, making a required minimum unnecessary.

An important result of the 2011 and 2013 re-reforms was the introduction of the inheritance of contributions (pension rights) accumulated in the first subaccount, where former second-tier contributions and assets were transferred in the event that the insured person died within three years of retirement.

Between 1999 and 2013, with subsequent changes to the private pension funds regulatory framework, social partners played a lesser role in the governance of the second tier and thus the overall pension system. The significant increase in the size of the public tier in the pension system may increase the participatory nature of the governance framework, as representatives of the trade unions and employers are members of the ZUS oversight board. However, social dialogue in Poland has been negatively affected by the trade union walkout and boycott of the Tripartite Commission in September 2013. The Commission also deals with issues regarding the functioning of the social security system. Although discussions began in 2015 regarding the future of social dialogue in Poland, no final agreement has yet been reached.

The re-reforms did not address future benefit adequacy in light of falling replacement rates. There is a pending discussion of the characteristics of minimum income guarantee mechanisms that could prevent the elderly from falling into poverty at retirement.

In the Polish pension system, future pension levels in the public tier are determined by future GDP growth rates and growth of the wage share. Assuming that the share of labour income in GDP will remain constant in the future (this share is already very low in Poland and there are no signs of subsequent reductions or increases), in the long run, the rates will be the same and declining. At the same time, with falling employment, average productivity growth will outpace GDP growth. If average growth follows productivity growth, rates of return in the NDC tier will be smaller than wage growth and will also drive replacement rates down. This means that an increasing number of pensions will fall below

relative poverty levels. At the same time, if the minimum pension continues to be indexed well below real wage growth, it will eventually become meaningless in terms of its relation to average benefits and to relative poverty thresholds.

One way to improve future pension levels would be to increase contributions paid into the pension system. Draft legislation (under consultation with social partners and other stakeholders during 2017-2018) introduces quasi-obligatory (all employees are enrolled by default but can request to be withdrawn) retirement savings scheme. Gradually, all employers (including those in the public sector) will be obligated to offer a pension plan (through a contract with a licensed private fund manager), where employers will contribute at least 1.5 per cent (up to a maximum of 4 per cent) and employees at least 2 per cent (up to a maximum of 4 per cent). Annually, the government will contribute a fixed amount to each individual account. Currently, this amount is equivalent to about 1 per cent of the annual minimum wage.

It is impossible to assess how popular this new saving arrangement will be. It is equally difficult to predict its future impact on incomes of the elderly. The proposed legislation allows the insured to withdraw the saved amount at age 60 in the form of scheduled withdrawals over a 10-year period (25 per cent can be withdrawn as a lump sum). There is an option to convert savings into a life annuity, but this must be arranged through an individual contract with the insurance company so it may be an expensive option.

One problem identified in the 2011-2013 debates was the lack of an independent, trusted entity responsible for monitoring the pension system's financial stability and benefit adequacy. Different sides used many arguments supported by different estimates concerning the fiscal consequences of the changes and impacts on benefit adequacy. None of the institutions presenting these projections and estimates enjoyed enough public confidence and there were many accusations with respect to the manipulation of information to produce more plausible results. For that reason, the President's office, with support from the ILO, proposed the creation of a government actuary based on the UK model. The Ministry of Finance blocked this initiative, however.

Poland has several institutions that have developed and implemented adequate quantitative tools. The Ministry of Labour and Social Policy created the social budget model in the late 1990s, with support from the ILO. That model and expertise were subsequently transferred to the Ministry of Finance and used to develop the model for the EU's Ageing Working Group projections. The ZUS probably has the highest quality tools. It uses an actuarial cohort projection model to make periodic, long-term projections of pension fund finances and recently developed a dynamic micro-simulation model. The problem is that none of these institutions have garnered enough public confidence to be trusted when results are presented in policy debates.

5. Lessons from the Polish experience and other conclusions

The original pension reform, which shifted the Polish pension system to the DC scheme and channelled a significant portion of social security contributions to private pension funds, was developed and debated by a relatively small group of experts. They managed to successfully sell the reform to politicians (as a product that would make the country a European leader in developing a modern, financially sustainable pension system). They were equally successfully in convincing the public to support the reforms, promising a system that simply and transparently built pension entitlements with high

replacement rates and pension amounts that reflected an individual's contribution effort in a fair way, rather than distorted by redistribution. They also claimed that competitive private-sector providers would at least partially free the system from government bureaucracy.

Another attractive promise – especially for politicians and trade unions – was that there was no need to take the unpopular decision to increase the statutory retirement age. It was argued that the DC scheme would persuade people to work longer to increase their pensions.

Although appealing, these ideas, principles and promises were not accompanied by a full understanding of transition costs and the impact on future benefit levels – which the reform promoters presented using over-optimistic assumptions and manipulated results. Promoters never explained the realistic trade-offs to stakeholders.

That is why the 2011-2013 re-reforms were less popular than the original reform. Many earlier promises associated with the original reform appeared to be unrealistic and several ideas and beliefs were debunked. Nevertheless, the accompanying debate had some positive and hopefully long-lasting consequences. Perhaps for the first time since the transition began, the pension debate expanded beyond a narrow circle of experts to reach the wider public. The process of learning about actual trade-offs and realistic implications and of understanding diverse points of views has only just begun. It is a painful process as politicians, trade union representatives and citizens are finally learning about the actual costs of the reform; about realistic assessments of the performance of public and private providers; about realistic benefit levels; and about trade-offs with respect to retirement age.

This learning process is ongoing. The current political debate on reversing the increase in the statutory retirement age and allowing retirement at any age for people who have contributed for long periods reveals that many people still do not understand the functioning of the Polish pension system based on the DC scheme. There is also good news, however: For the first time in many years, pension system reforms, broader social policies and questions regarding taxation are being discussed in the pre-election political debate.

When analysing the Polish correction of the pension reform in terms of possible lessons for other countries, the specific characteristics of the Polish case should be considered. In comparison with other European countries, the Polish second-tier system was relatively large. Also, the prevailing negative image of the public social insurance institution further increased support for the private tier. Additionally, the possibility of inheritance of contributions accumulated in the second tier helped to create the widespread belief that contributions saved there belong to insured individuals. Finally, given that PTEs are joint-stock companies with links to major, often international financial institutions, their impact has been extensive.

Certain aspects of the way in which the government managed the 2011-2013 re-reforms risked undermining public trust in the sustainability of pension promises. This may be detrimental to the continuing efforts to expand voluntary supplementary pension savings to complement shrinking public pensions and may have implications for future attempts to improve the pension system.

However, if the goal of the reform is to effectively scale down the extent of the previous pension privatization and channel contributions and assets back into the public social security system, the following steps are recommended:

-
- Establish a monitoring system of pensions and regularly publish quality reports assessing the past, current and future performance of the pension system;
 - Disseminate the results of these pension system evaluations and make them user-friendly for politicians, experts, social partners and other stakeholders such as pensioners' organizations;
 - Organize information campaigns explaining the reasons for the changes, targeting all stakeholders and public opinion;
 - Build a broad coalition of key actors, including those responsible for public finances (the Ministry of Finance, Central Bank, etc.) and for social policy (the Ministry of Labour and Social Policy), as well as social partners, influential experts and journalists;

Design laws related to:

- The new regulatory framework for private pension funds, including a ban on pension-fund investment in government-guaranteed instruments;
- Making participation in the second tier voluntary;
- The gradual transfer of second-tier members' assets to the public tier within a given period before retirement;
- Plan enough time for consultation of draft legislation to enable a real debate, making all arguments and explanations public; and
- Ensure that all draft legislation is constitutional and meets international standards and other international agreements.

The purpose of this paper was to present the major arguments and actions regarding the recent re-reform of the Polish old-age pension system. In this context, it was also necessary to discuss the original reform, which took place 20 years ago. Special attention has been paid to the fiscal underpinnings and the costs of privatizing social security, given that they were the most important factors driving recent actions. While the original shift from DB to DC schemes in both pillars has major implications for benefit adequacy, the recent re-reform, which shifted financing from a mixed method (NDC+FDC) to NDC, will change relatively little in this respect.

Therefore, further corrections to the system or even major re-reforms can be expected to address benefit adequacy of contributory pensions and minimum income guarantees in old age. This will ensure that the system meets both social demands and international standards adopted by Poland, including ILO Convention No. 102 and Recommendation No. 202.

References

Legislation

2011 re-reform: Ustawa z dnia 25 marca 2011 r. o zmianie niektórych ustaw związanych z funkcjonowaniem systemu ubezpieczeń społecznych (Dz. U. z 2011 r. Nr 75, poz. 398, z późn. zm.) [The Law of 25 March 2011 to modify some laws related to pension system functioning, *Journal of Laws 2011*, no. 75, position 398, with further amendments].

2013 re-reform: Ustawa z dnia 6 grudnia 2013 r. o zmianie niektórych ustaw w związku z określeniem zasad wypłaty emerytur ze środków zgromadzonych w otwartych funduszach emerytalnych (Dz. Ustaw z 2013 r., poz. 1717) [The Law of 6 December 2013 to modify some laws related to establishing rules on pay-out of benefits from resources collected in open pension funds. *Journal of Laws 2013*, position 1717].

Other references

Biuro Pełnomocnika ds. Reformy Zabezpieczenia Społecznego (1997) *Bezpieczeństwo dzięki różnorodności. Reforma systemu emerytalnego w Polsce*. Warsaw: Biuro Pełnomocnika ds. Reformy Zabezpieczenia Społecznego.

Cichon, M.; Hagemeyer, K.; Ruck, M. 1997. *Social Protection and pension systems in Central and Eastern Europe*, ILO- CEET Report No. 21 (Budapest 1997).

European Commission. 2015. *The 2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060)*.

Golinowska, S. 2014. Funkcje państwa w zabezpieczeniu dochodów na okres starości. Zmiana warunków i paradygmatu na przykładzie polskiej reformy systemu emerytalnego». In: Frieske, K., Przychodaj, E. (eds.) *Ubezpieczenia społeczne w procesie zmian. 80 lat Zakładu Ubezpieczeń Społecznych*. (Warsaw: Zakład Ubezpieczeń Społecznych).

Hagemeyer, K. 1999. The Transformation of social security in Central and Eastern Europe, in: K. Müller, A. Ryll and H-J. Wagener (eds.): «Transformation of Social Security: Pensions in Central-Eastern Europe» (Physica Verlag, Heidelberg-New York 1999).

—. 2005. Sustainable, safe and adequate pensions in the ageing society. *Policy dilemmas*, *Polityka Społeczna*. 11-17 (2005).

—. 2006. The future of social security pensions (in Polish: Przyszłość emerytur z ubezpieczenia społecznego: wyzwania dla polityki społecznej, in: M. Boni, S. Golinowska: *New dilemmas of social policy* [In Polish: Nowe dylematy polityki społecznej], CASE (Warsaw 2006).

—. 2006. Social dialogue on pension reform strategy [Dialog wokół strategii emerytalnej], *DIALOG, Pismo Dialogu Społecznego*, No. 3/2006 (12), pp. 21-28.

—. 2009. Polish Pension Reform: Ten Years After (in Polish: Reforma emerytalna po dziesięciu latach), *DIALOG, Pismo Dialogu Społecznego*, No. 1-2/2009 (22), pp. 51-55.

-
- International Monetary Fund. 2014. *Republic of Poland selected issues. IMF Country Report No. 14/174* (Washington, D.C.: International Monetary Fund).
- . 2017. *Republic of Poland, Article IV Consultation, 2017* (Washington, D.C.: International Monetary Fund).
- KNF. (various years). *Sytuacja finansowa Powszechnych Towarzystw Emerytalnych*. (Warszawa: Urząd Komisji Nadzoru Finansowego).
- KNUiFE. 2003. *Wysokość emerytury w nowym systemie ubezpieczeń społecznych*. (Warszawa: Urząd Komisji Nadzoru Ubezpieczeń i Funduszy Emerytalnych).
- Ministry of Finance. 2013. *Pomiar przeciętnych stóp zwrotu w OFE i wskaźników waloryzacji w ZUS. Wpływ różnych technik pomiaru. Analiza kompleksowa*. (Warszawa: Ministerstwo Finansów).
- Ministry of Labour and Social Policy, Ministry of Finance. 2013. *Przegląd funkcjonowania systemu emerytalnego wynikający z art. 32 ustawy z dnia 25 marca 2011 r. o zmianie niektórych ustaw związanych z funkcjonowaniem systemu ubezpieczeń społecznych (Dz. U. z 2011 r. Nr 75, poz. 398, z późn. zm.)*.
- . *Bezpieczeństwo dzięki zrównoważeniu*. (Warszawa: Ministerstwo Pracy i Polityki Społecznej, Ministerstwo Finansów).
- Ministry of Labour and Social Policy. 2013. *Uzasadnienie projektu Ustawy o zmianie niektórych ustaw w związku z określeniem zasad wypłaty emerytur ze środków zgromadzonych w otwartych funduszach emerytalnych*. (Warszawa: Ministerstwo Pracy i Polityki Społecznej).
- NIK. 2002. INFORMACJA o wynikach kontroli realizacji postanowień ustawy o organizacji i funkcjonowaniu funduszy emerytalnych, Najwyższa Izba Kontroli, Departament Pracy, Spraw Socjalnych i Zdrowia(Warsaw).
- . 2014. *Informacja o wynikach kontroli. Przygotowanie Zakładu Ubezpieczeń Społecznych do realizacji zadań wynikających z Ustawy z dnia 6 grudnia 2013 r. o zmianie niektórych ustaw w związku z określeniem zasad wypłaty emerytur ze środków zgromadzonych w otwartych funduszach emerytalnych*. (Warszawa: Najwyższa Izba Kontroli).
- Office of the Plenipotentiary for the Pension Reform. 1997. *Security through diversity*.
- Polakowski, M. 2010. *The institutional transformation of social policy in East Central Europe* (Maastricht: Boekenplan).
- Rutecka, J. 2014. System emerytalny po zmianach od 2014 roku. *Ubezpieczenia Społeczne. Teoria i Praktyka* 1 (118) 2014.
- UKNF. (various years). *Rynek Otwartych Funduszy Emerytalnych* (Warszawa: Urząd Komisji Nadzoru Finansowego).
- UNFE. 2000. *Bezpieczeństwo dzięki konkurencji. Ocena realizacji reformy emerytalnej - analiza II filara* (Warszawa: Urząd Nadzoru nad Funduszami Emerytalnymi).

-
- 2002. *Bezpieczeństwo dzięki emeryturze. Raport na temat zakładów emerytalnych oraz sposobu wypłat emerytur z II filara.* (Warszawa: Urząd Nadzoru nad Funduszami Emerytalnymi).
- World Bank. 1994. *Averting the old age crisis: policies to protect the old and promote growth.*
- ZUS. 2004. *Rocznik statystyczny ubezpieczeń społecznych 1999-2002.* (Warszawa: Zakład Ubezpieczeń Społecznych).
- 2007. *Rocznik statystyczny ubezpieczeń społecznych 2003-2005. System pozarolniczy.* (Warszawa: Zakład Ubezpieczeń Społecznych).
- 2009. *Rocznik statystyczny ubezpieczeń społecznych 2006-2008.* (Warszawa: Zakład Ubezpieczeń Społecznych).