Impact of retirement age changes on the old-age pension take up in Poland after 1990

The article presents an analysis of the retirement behaviour in Poland in the past 30 years within the context of evolution of the legal retirement age and access to early retirement benefits. It shows that any change in the law, particularly those that widen access to pensions, such as introducing early retirement opportunities or lowering the retirement age itself, lead to an increased take up of pension benefits. The majority of employees claim their pensions at the earliest age that they accrue pension rights, or no more than a couple of years afterwards. This behaviour has not changed over the course of the past 30 years, despite significant changes in a pension system that has moved from the defined benefit to the defined contribution principle, and which has increased the incentives to postpone retirement decisions. People above the age of 50 still want to retire as soon as possible. A shift towards a defined contribution system, combined with a lower retirement age, particularly for women, leads to a declining ratio between pensions and wages. Raising the retirement age and equalising it between sexes seems to be necessary to compensate for increasing live expectancy and to ensure the adequacy of pensions and for the reduction of the gender pension gap over the coming decades.

Key words: life expectancy, old-age, old-age pension, retirement age, retirement behaviour

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Introduction

The retirement decisions of individuals have an impact both on the individual situation of retirees as well as the overall situation of pension systems. On the individual level, the age of claiming a pension divides an individual life course between periods of economic activity and inactivity due to retirement and has an impact on the old-age income. On the macro level, the retirement behaviour of employees affects the ratio between contributors and pensioners – the system dependency ratio.

The legal retirement age and access to early retirement benefits are one of the most important parameters of a pension system, ones which have an important impact on retirement decisions. Nicholas Barr underlines that many people retire at the earliest permissible age, even at a pension that is low and which would be larger if they had delayed retirement. If pensions bear an actuarial relationship to a person's expected duration of retirement, the combination of longer lives and retirement at the earliest permissible date inescapably aggravates poverty amongst the elderly.

The aim of this article is to assess, how changes in the legal retirement age in Poland in the past three decades have influenced transitions to retirement and the pension system outcomes. I propose three research hypotheses:

- H1. Legal opportunities to retire are one of the most important factors affecting retirement decisions in Poland.
- H2. Changes in the legal retirement age led to a rise in the actual retirement age, but these changes are not sufficient to compensate for the increases in life expectancy.
- H3. Changes in legal retirement age affect the retirement expectations of subsequent cohorts.

The article is structured as follows. In the first part, presented is a review of the international and Polish literature related to retirement age policy. The second part briefly presents the changes to the pension system in Poland and the impact of retirement age on pensions. The third part discusses the retirement behaviour of employees in Poland over the past three decades, including the number of newly granted pensions, the use of early retirement transfers within the context of the employment rate of older employees and the pension system dependency rate. Finally, the changes in retirement expectations between 2006 and 2017 are discussed. The conclusions refer to the formulated research hypotheses and the retirement behaviour of older people in Poland.

¹ N. Barr, *Pensions: overview of the issues*, "Oxford Review of Economic Policy" 2006, No. 22, p. 8, https://doi.org/10.1093/oxrep/grj001.

Retirement age as an instrument of pension policy – evidence from the subject literature

In the past decades, many developed countries have introduced various measures that are aimed at prolonging working lives and increasing retirement ages. Hila Axelrad and Kevin J. Mahoney² in their review of policies aimed at increasing the pensionable age indicate that 19 out of 34 analysed Organisation for Economic Co-operation and Development (OECD) countries have increased the retirement age and 20 countries are planning further increases in the future. The European Commission in its *White Paper. An Agenda for Adequate, Safe and Sustainable Pensions*³ calls for linking retirement age to gains in life expectancy. By 2018, 17 European Union (EU) countries introduced measures that balance pension systems through automatic balancing mechanisms (Sweden, Germany, Spain, Lithuania), linking either pension benefits (Italy, Latvia, Poland, Sweden, France, Finland, Portugal, Spain) or retirement age (Italy, Finland, Portugal, Greece, Denmark, the Netherlands, Cyprus, Slovakia, and Malta) to life expectancy as recommended by the European Commission.⁴

Gwenith G. Fisher, Dorey S. Chaffee and Amanda Sonnega⁵ provide a comprehensive multidisciplinary and international review of the retirement literature as it relates to retirement timing. They propose a framework model that specifies a number of individual, family, work-related and macro-economic and socio-cultural factors that are antecedents to as well as consequences of retirement timing within the life course context. They underline that the trend toward the later retirement timing observed in many developed economies will undoubtedly be beneficial for both individual and public finances, the retirement of the large baby boom generation may present challenges without pursuing further policies to accommodate their retirement transition. That requires continuing research to track retirement trends over time and the impact on system finances, particularly based on longitudinal surveys (such as SHARE – Survey on Health, Ageing and Retirement in Europe).

There is also a gendered approach to policies increasing the retirement age. Clare E. Edge, Anna M. Cooper and Margaret Coffey⁶ focus on factors that are supporting a longer labour market participation of women. They conclude that special attention should be paid to the role of individual level factors such as caring responsibilities and macro level factors such as opportunities for training and development and challenging unhelpful social norms and stereotypes.

² H. Axelrad, K.J. Mahoney, Increasing the Pensionable Age: What Changes Are OECD Countries Making? What Considerations Are Driving Policy?, "Open Journal of Social Sciences" 5 July 2017, pp. 56–70, https://doi.org/10.4236/jss.2017.57005.

³ European Commission, White Paper. An Agenda for Adequate, Safe and Sustainable Penions, COM(2012) 55 Final, 2012.

⁴ European Commission Directorate-General for Economic and Financial Affairs, *The 2018 Ageing Report. Economic & Budgetary Projections for the 28 EU Member States (2016-2070)*, "Institutional Paper" 2018, https://doi.org/10.2765/615631.

⁵ G.G. Fisher, D.S. Chaffee, A. Sonnega, Retirement Timing: A Review and Recommendations for Future Research, 2016, pp. 1–32, https://doi.org/10.1093/workar/waw001.

⁶ C.E. Edge, A.M. Cooper, M. Coffey, Barriers and Facilitators to Extended Working Lives in Europe: A Gender Focus, Public Health Reviews, 2017, https://doi.org/10.1186/s40985-017-0053-8, and in some countries (e.g. the UK).

Finally, the need for a comprehensive approach to understand the interlinks between labour market and retirement policies. For example, Tuulia Hakola and Roope Uusitalo⁷ show that the experience-rating of early retirement benefits matters. The reduction in the exit rates was larger in firms that faced larger increases in the cost of early retirement. Introducing incentives in the pension system is one of the policies to increase the actual retirement age. Erik Hernæs, Simen Markussen and others⁸ suggest that transparent, substantial, and successfully communicated increases in work incentives may constitute a highly efficient strategy for increasing mature labour force participation. However, evidence from countries that have a similar pension system design as Poland also shows that introducing incentives to postpone retirement, without changing regulations on the legal retirement age, do not lead to the postponement of retirement decisions. In Sweden, a low retirement age and few incentives to prolong working lives were one of the arguments for introducing pension reform itself. When the earnings-related system was introduced in 1960, the standard legal retirement age was 67, then in the 1970s, several options to draw benefits early were introduced in the public scheme. In 1976, the legal retirement was lowered to 65. Benefits could be withdrawn early from the age 60 with an actuarial adjustment or postponed until the age of 70. A partial retirement benefit allowed older workers to reduce the number of hours worked and receive a benefit in lieu of lost earnings from the age of 60. As a result, the actual retirement age (that is the average age of retirement for men and women) has decreased over time and was at the time of the reform around 62 years old for men and remained around this level for women (slightly increasing in the late 1990s). As shown by Annika Sundén, ⁹ after the implementation of the pension reform in the late 1990s, the retirement age did not increase much, which indicates that the incentives embedded in the new system are not sufficient to prolong working lives.

Maciej Żukowski and Antoni Malaka¹⁰ in their monograph following the conference of the Polish Society of Social Insurance [Polskie Stowarzyszenie Ubezpieczenia Społecznego] have underlined that the retirement age is one of the most important parameters of any pension systems. They remind one that in the period following World War II, many countries reduced their retirement age, which was seen as an element of social progress, but currently, as a result of demographic and economic reasons developed countries have reversed these policies and in many countries retirement ages are increased. Also Gertruda Uścińska¹¹ analyses the trends related to changing retirement ages in European Union countries as well as any policy lessons for Poland. She presents arguments for the increase of pensionable age in European countries, including economic

⁷ T. Hakola, R. Uusitalo, *Not so Voluntary Retirement Decisions? Evidence from a Pension Reform*, "Journal of Public Economics" 2005, Vol. 89, Issue 11–12, pp. 2121–36, https://doi.org/10.1016/j.jpubeco.2004.12.001.

⁸ E. Hernæs, S. Markussen, *Pension reform and labor supply*, "Journal of Public Economics" 2016, No. 142, pp. 39–55, https://doi.org/10.1016/j.jpubeco.2016.08.009.

⁹ A. Sundén, *The Swedish Experience with Pension Reform*, "Oxford Review of Economic Policy" 2006, Vol. 22, Issue 1, pp. 133–48, https://doi.org/10.1093/oxrep/grj009.

¹⁰ M. Żukowski, A. Malaka, Wiek emerytalny, Kazimierz Dolny 2012.

¹¹ G. Uścińska, Wiek emerytalny w krajach Unii Europejskiej – obowiązujące rozwiązania i proponowane kierunki zmian [in:] Wiek emerytalny, op. cit., pp. 23–38.

ones (necessity to maintain the financial sustainability of the social insurance system), demographic (the necessity to prolong working lives given population ageing and its consequences) as well as social (the necessity to ensure adequate income and living standards at retirement).

The new pension system in Poland and gender-specific retirement age

The legal retirement age is one of the parameters of the pension system in almost every country, including also Poland. Evolution of the retirement age needs to be seen in the context of the pension system in the country. Therefore, considerations on retirement age changes can be divided into two periods: before the change of the pension system in 1999 and after this change. Prior to 1999, the Polish pension system was based on a traditionally defined benefit pay-as-you-go system and the retirement age did not affect the value of pension benefits. For each year of additional work, beneficiaries were credited 1.3% of their assessment base (that is individual earnings relative to the average salary in the economy).

The new pension system introduced in Poland in 1999 is based on the defined-contribution principle. It is based on the multi-pillar approach – the mandatory old-age contribution was split between two accounts: non-financial defined contributions (NDC account) and funded defined contributions (FDC account). This approach for reforming pension systems was common in the Central and Eastern European region. Throughout the past 20 years, these reforms underwent significant changes, including partial or full reversals of the funded components, something widely discussed in the subject literature.¹²

In Poland the financing mix of future pensions has changed and currently, according to the legislation, old-age pensions will be fully paid out from the non-financial part. At the same time, the defined-contribution nature of the pension system has remained, which is presented in detail by Sonia Buchholtz, Agnieszka Chłoń-Domińczak and Marek Góra.¹³

¹² See for example: S. Domonkos, A. Simonovits, Pensions in transition in EU11 countries between 1990 and 2015, 2016; J. Drahokoupil, S. Domonkos, Averting the Funding-Gap Crisis: East European Pension Reforms since 2008, "Global Social Policy" 2012, pp. 283–99, https://doi.org/10.1177/1468018112455653; M. Naczyk, S. Domonkos, The Financial Crisis and Varieties of Pension Privatization Reversals in Eastern Europe, "Governance" 2015; M.A. Orenstein, Privatising Pensions: The Transnational Campaign for Social Security Reform, Princetown 2008; M.A. Orenstein, Pension Privatization in Crisis: Death or Rebirth of a Global Policy Trend?, "International Social Security Review" 2011, Vol. 64, Issue 3; M. Heneghan, M.A. Orenstein, Organizing for Impact: International Organizations and Global Pension Policy, "Global Social Policy" 2019, https://doi.org/10.1177/1468018119834730; K. Bielawska, A. Chłoń-Domińczak, D. Stańko, Retreat from Mandatory Pension Funds in Countries of the Eastern and Central Europe in Result of Financial and Fiscal Crisis: Causes and Effects, Paper presented at 2018 ASSA Meeting in Philadelphia, 2018; K. Bielawska, A. Chłoń-Domińczak, D. Stańko, Retreat from Mandatory Pension Funds in Countries of the Eastern and Central Europe in Result of Financial and Fiscal Crisis. Causes, Effects and Recommendations for Fiscal Rules, 2015.

¹³ S. Buchholtz, A. Chłoń-Domińczak, M. Góra, The Polish NDC Scheme: Success in the Face of Adversity [in:] Progress and Challenges of Nonfinancial Defined Contribution Pension Schemes: Volume 1. Addressing Marginalization, Polarization, and the Labor Market, ed. by R. Holzmann, E. Palmer, R. Palacios, 2019, https://doi.org/10.1596/978-1-4648-1453-2_ch5.

The shift from a defined benefit to a defined contribution system also means that the role of the retirement age has changed. While in the old system it constituted one of the parameters important for the accrual of pension rights, in the new system – it also has an impact on the size of pension benefits, something discussed later in this chapter.

The retirement age in Poland prior to pension reform in 1999

Marcin Zieleniecki¹⁴ reminds one that the basic legal retirement age in Poland (that is the standard age set out in the relevant legislation) was set at 60 years for women and 65 years for men already in 1954. However, early retirement (5 or 10 years prior to reaching the retirement age) was introduced in many occupations. Early retirement expanded significantly in the 1970s. It was treated as an instrument to manage the labour supply. The policies followed the "lump-of-labour" fallacy, that retirement of older people would free workplaces for the baby boom generation. Upon economic transition, at the end of 1980s and beginning of 1990s the Council of Ministers used its legislative possibility to provide early retirement to those laid off by companies that were closing down as well as to the parents of children with disabilities. Early retirement was also granted to the long-term unemployed, who had long working lives (35 years for women and 40 years for men). Women could also retire at age of 55, if they had worked for 30 years. The last change affecting the retirement age of people covered by the old pension system was implemented in May 2008. According to the ruling of the Constitutional Tribunal of October 2007, early retirement was granted to men who had reached the age of 60 and who had 35 years of work experience (this applied to those born in the years 1943-1948).

The extent of such early retirement opportunities meant that the actual age of claiming old-age pensions in the old pension system was around 5 years below the one legally in force. The early retirement privileges were to have a significant economic and financial consequences, these being discussed by Damian Walczak. The need to raise the actual retirement age was one of the reasons for the implementation of the new old-age pension system.

The retirement age in the new pension system

The role of retirement age changed with the introduction of the new pension system in 1999. The new pension system is based on a defined contribution principle. This means that the pensions for those born in 1949 and later, ¹⁶ introduced was a close link between pension benefits and retirement age. Namely, old-age pensions are calculated by dividing the accumulated lifetime contributions indexed to wage and GDP growth by unisex life expectancy at retirement age.

¹⁴ M. Zieleniecki, Ewolucja wieku emerytalnego w ustawodawstwie polskim – perspektywa historyczna [in:] Wiek emerytalny, op. cit., pp. 8–22.

¹⁵ D. Walczak, Przywileje w zabezpieczeniu na starość w Polsce, Toruń 2019.

¹⁶ With exception of those covered by transitory rules, including those who fulfilled pension criteria by the end of 2008.

The issue of retirement age was also widely discussed during the development of the assumptions of the new pension system and after its implementation. The initial reform concept, presented in the report *Security through Diversity* included the proposal to equalise the retirement age of both men and women at 62 years.¹⁷ However, this proposal did not gain political acceptance and the standard legal retirement age remained unchanged. Igor Guardiancich, ¹⁸ in his analysis of the political economy of pension reforms, shows that the lack of political consensus to raise and equalise retirement ages was common in Central and Eastern Europe during the wave of pension reforms in the late 1990s and at the turn of the century.

While the legal retirement age remained the same as in the old system, in the new system the incentive to postpone retirement is higher. With each year of postponed retirement, the pension benefits increase both through increased accrued pension capital and reduced life expectancy.

This is illustrated in Table 1. As one can see, postponing the retirement decision by one year leads to an increase in the old-age pension of 10%. If someone decided to postpone retirement by five years, his or her pension doubles, compared to the potential benefit at retirement age. This is an important economic incentive to extend working life beyond the legal retirement age.

Table 1. Old-age pension simulation: value of NDC accounts and old age pensions at retirement age and with postponed retirement

Terrement age and with postponed retirement					
	Retirement age	Value of NDC-1 and NDC-2 accounts	Life expectancy at retirement age	Old-age pension	Old-age pension at later retirement age/old-age pension at legal retirement age
Women					
2016	60	321,054.93 PLN	259.5	1,237.21 PLN	
2017	61	347,749.49 PLN	254.2	1,368.02 PLN	110.6
2018	62	378,997.91 PLN	244.2	1,552.00 PLN	125.4
2019	63	420,796.58 PLN	234.1	1,797.51 PLN	145.3
2020	64	468,993.67 PLN	225.5	2,079.79 PLN	168.1
2021	65	575,400.63 PLN	217.1	2,650.39 PLN	214.2
Men					
2016	65	328,806.92 PLN	216.1	1,521.55 PLN	
2017	66	355,501.48 PLN	211.3	1,682.45 PLN	110.6
2018	67	386,749.90 PLN	201.8	1,916.50 PLN	126.0
2019	68	428,548.57 PLN	192.6	2,225.07 PLN	146.2
2020	69	476,745.66 PLN	184.6	2,582.59 PLN	169.7
2021	70	583,152.62 PLN	176.8	3,298.37 PLN	216.8

Assumptions: a person reached retirement age in 2016, the value of the NDC-1 and NDC-2 accounts is based on the average value of these accounts for the relevant cohort, as reported by Social Insurance Institution [Zakład Ubezpieczeń Społecznych, ZUS] individuals continue to work, and they earn the average national wage.

Source: own simulations based on Social Insurance Institution data (initial capital and pension accounts values)

¹⁷ For details of the proposal see for example: A. Chłoń, M. Góra, M. Rutkowski, *Shaping Pension Reformin Poland: Security through Diversity*, World Bank: SP Discussion Paper, 1999.

¹⁸ I. Guardiancich, Pension Reforms in Central, Eastern and Southeastern Europe: Legislation, Implementation and Sustainability, doctoral thesis, European University Institute, 2009, https://doi.org/10.2870/1700.

Over the past decade, the regulations on the retirement age in Poland have been changed many times. One of the important assumptions of the new pension system was to scale down access to early retirement after the transition period. From 2009, following the implementation of the so-called bridging pensions, access to early retirement was significantly limited, following the new definitions of work in special conditions and of a special character, which has led to an increase in the actual retirement age, which is discussed later in the article. This change, expected in 2007 was postponed by two years, due to strong social resistance. As underlined by Piotr Szukalski, early retirement was perceived as reward for a long period of work for relatively low remuneration and reducing access to early retirement was perceived as a withdrawal of this privilege. Recent research by Janusz Czapiński and Michał Góra suggests, however, that around a quarter of respondents in the survey focusing on pension awareness among Polish adults expects to work beyond retirement age (including more than a third of women and 13.5% of men).

Reduction of access to early retirement in 2009 was followed by the further rise and equalisation of the retirement age to 67 years that started in 2013. From October 2017, after the parliamentary elections and change of government, the legal retirement age was decreased again to the pre-2013 level. Both the increase in the retirement age and then the reversal of this process is widely discussed in the subject literature. Tomasz Jedynak²¹ raises the demographic and economic arguments underlying the need to increase and equalize the retirement age in Poland. M. Żukowski²² underlines that higher retirement age is necessary in response to increasing life expectancy and a rapidly shrinking working age population. Such a policy change leads to higher labour supply as well as improvement in the financial situation of the pension system, at the same time providing higher pensions to individuals. He also points out that the social insurance system needs to adjust to the changing socio-economic environment and the raising of the retirement age is indeed such an adjustment.

Joanna Ratajczak-Tuchołka²³ discusses the differences in the opinions and perceptions on different retirement ages for men and women. While equalising the retirement age does not raise controversies among experts, it is not supported by public opinion, which is a result of low pension literacy, combined with the fear of the lack of possibility to continue work until retirement. Some economists (for example Mateusz Guzikowski²⁴)

¹⁹ P. Szukalski, Wiek przechodzenia na emeryturę w Polsce, "Demografia i Gerontologia Społeczna – Biuletyn Informacyjny" 2016, Vol. 8, http://www.zus.pl/default.asp?p=5&id=5 (online access: 21.6.2019).

²⁰ J. Czapiński, M. Góra, Świadomość emerytalna Polaków, 2016, http://uczelnia.sgh.waw.pl/pl/uczelnia/badania/grupy_badawcze/ppg/Documents/Publikacje/Gora/SEM_EKF_2016.pdf (online access: 20.6.2019).

²¹ T. Jedynak, Naukowe przesłanki kształtowania wysokości minimalnego wieku emerytalnego, "Zeszyty Naukowe UEK" 2016, No. 10 (958), pp. 33–49, https://doi.org/10.15678/ZNUEK.2016.0958.1003.

²² M. Żukowski, Podwyższanie wieku emerytalnego w perspektywie demografii i sytuacji na rynku pracy [in:] Wiek emerytalny, op. cit., pp. 39–50.

²³ J. Ratajczak-Tuchołka, Wyrównywanie i podwyższanie wieku emerytalnego kobiet i mężczyzn [in:] Wiek emerytalny, op. cit., pp. 61–75.

²⁴ M. Guzikowski, *Dlaczego musimy podwyższać ustawowy wiek emerytalny?*, "Analiza FOR" 2012, No. 6, p. 26, http://static.presspublica.pl/red/rp/doc/mojaemerytura/Analiza_FOR_6_2012_Dlaczego_musimy_podwyzszac_ustawowy_w.pdf (online access: 21.6.2019).

have even argued that the pace of this increase (that is a quarter of a year per calendar year) was too slow. Retirement age regulations are also an instrument affecting the employment of older workers. J. Ratajczak-Tuchołka²⁵ underlines, following findings in the international literature, that raising the labour market participation of older employees also requires improved work conditions and its refer to adjustment of the needs and health conditions of older workers as well as better access to various LLL programmes and initiatives. Radosław Pacud²⁶ calls for a coherent long-term care strategy to reduce pressure on the need for informal care. Elderly care provided by family members is one of the pull factors supporting retirement decisions (particularly amongst women).

Reducing the retirement age back to the previous level from 2017 has also been widely commented on in the subject literature. Anna Ruzik-Sierdzińska²⁷ and Filip Wnęk²⁸ point out that reducing the retirement age will have a negative impact on public finance, levels of pensions as well as affecting a steeper decline of the labour force and economic growth potential in the future. Marek Szczepański²⁹ also clearly presents that there are no strong economic arguments that any support reduction of the retirement age to the level before 2012. He admits that there are some explanations of a social nature, related to the choice between claiming a pension and continuing to work further, particularly for people who due to their health, economic and social status want to continue being economically activity.

Changes in the legal retirement age and performance of the old-age pension system in Poland

Changes in the legal retirement age and the availability of early retirement pensions shape both retirement expectations and retirement behaviour. In this section, these developments are analysed within the Polish context. This includes the evolution of legal and actual retirement ages, people's expectations regarding the timing of retirement, inflows into the old-age pension system as well as changes in early retirement. Finally, the system dependency ratio is compared with the demographic dependency, to assess, to what extent changes in retirement age and retirement behaviour have affected the sustainability of the social insurance system in Poland.

²⁵ I. Mandrzejewska-Smól, Aktywność zawodowa osób starszych na współczesnym rynku pracy, "Problemy Profesjologii" 2014, No. 2, pp. 175–87.

²⁶ R. Pacud, Dylematy stanowienia wieku emerytalnego, "Polityka Społeczna" 2006, Vol. 43, Issue 2 (503), pp. 2-8.

²⁷ A. Ruzik-Sierdzińska, O zmianach wieku emerytalnego w Polsce, "Analiza" 2016, No. 9.

²⁸ F. Wnęk, Ekonomiczne skutki powrotu do niższego wieku przechodzenia na emeryturę, "Optimum. Economic Studies" 2018, No. 1 (91), pp. 33–49, https://doi.org/10.15290/oes.2018.01.91.03.

²⁹ M. Szczepański, *Analiza i ocena proponowanych zmian ustawowego wieku emerytalnego w Polsce*, "Finanse, Rynki Finansowe, Ubezpieczenia" 2016, Vol. 1, No. 79, pp. 739–51, https://doi.org/10.18276/frfu.2016.79-58.

Legal and actual retirement age

In the past three decades there has been a significant evolution in both the legal retirement age and the early retirement pathways that have affected the actual retirement age (Figure 1). As discussed earlier, the first marked change in the legal opportunities to claim old-age pensions is the limitation of access to early retirement that came into force from 2009, with the introduction of the bridging pensions. At the same time, broader access to early retirement was limited. This change affected particularly women aged 55 with work experience of 30 years as well as others who had worked in sectors or positions that had a right to early retirement (such as, for example, railway workers). Then, the raising of the legal retirement age from 2013 and its reversal from 2017 had an impact on access to retirement benefits.

Figure 1 also presents the evolution of the actual average age of retirement of people claiming pensions within the general social insurance system in Poland. The development of the actual retirement age follows the evolution in the relevant legislation and can be divided into four periods. First, prior to 2008, the retirement age of women evolved around 55-56 years and for men around 58-59 years. Second, from 2009, it started to rise gradually and in the case of women it was close to 60 years by 2011. In the case of men, the actual retirement age started to rise in 2014 and later, when men covered by the new pension system (born in 1949 and later) reached the legal retirement age. Third, from 2013 until 2017, there is a further increase in the actual retirement age due to the 2012 gradual rise of the legal retirement age. Finally, in 2017 and 2018 there occurs a stagnation in the actual retirement age at the level of around 60 years for women and below 65 years for men, following the reversal of the retirement age rise. Overall, the actual retirement age became closer to the legal retirement age and, if further changes are not introduced, it should stabilise at the currently observed values.

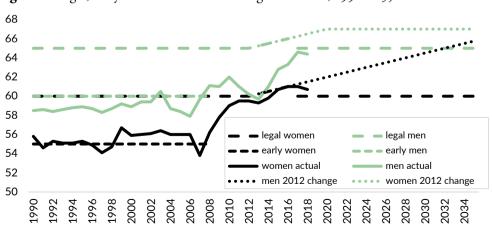


Figure 1. Legal, early and actual retirement age in Poland, 1990-2035

Source: own analysis and Social Insurance Institution data

Changes in the actual retirement age also affect the period of receiving old-age pensions. Figure 2 presents the average expected life span at the actual retirement age of men and women. There are two issues that emerge from these figures. First, women receive old-age pensions for around 8 years longer than men, due to their lower retirement age as well as higher life expectancy. Second, the expected time of receiving pensions increased between 1990 and 2006 by 3 years for both men and women. After 2006, following the observed increase in the actual retirement age, the expected time of receiving a pension dropped to around 16 years for men and 23.5 years for women, which is similar to the one observed in 1990.

90 MEN 85 75 ^{16.0} ^{15.7} ^{16.1} ^{16.1} ^{16.4} ^{16.5} ^{16.6} ^{17.4} ^{17.0} ^{16.9} ^{17.4} ^{17.7} ^{17.9} ^{17.1} ^{18.1} ^{18.9} ^{19.0} ^{17.7} ^{17.2} ^{17.2} ^{17.2} ^{16.9} ^{17.9} ^{18.6} ^{18.5} ^{17.0} ^{17.3} ^{15.9} 70 65 60 58.5 58.6 58.4 58.6 58.8 58.9 58.7 58.3 58.7 55 50 2003 2004 2005 2006 2007 2008 2010 2010 2011 2012 2013 2013 2002 200 90 WOMEN 26.5 24.8 24.3 23.8 23.8 24.7 24.3 23.3 23.623.5 85 23.3 23.9 24.2 24.3 24.6 24.7 24.8 25.9 25.3 23.7 24.9 25.2 25.5 25.6 25.9 26 26.2 28 80 75 70 65 60 50 2005 2004 2006 2007

Figure 2. Life expectancy at actual retirement age

Note: life expectancy is provided for the closest age expressed in years, separately for men and women.

Source: own analysis based on Statistics Poland (http://demografia.stat.gov.pl/bazademografia/ TrwanieZycia.aspx [online access: 30.6.2019]) and Social Insurance Institution data

Differences in the legal retirement age, but also the gender gap on the labour market also affect the size of pension benefits and the risk of obtaining only the minimum pension. In their analysis, Agnieszka Chłoń-Domińczak and Paweł Strzelecki³⁰ have shown that women have much a higher risk of obtaining minimum pensions, due to their shorter working lives, lower wage income and lower retirement age. The high price of a low retirement age in Poland understood as low pensions for women is assessed by Joanna Tyrowicz and Magda Malec.³¹

Summing up, withdrawal of the right to early retirement and the temporary increase in the retirement age were important factors affecting the change of the actual retirement age in Poland. The increase in the actual retirement age achieved in the past 30 years compensated for the increases in the life expectancy over the same period. These developments are not likely to continue, with reduction of the legal retirement age from 2019 and a low retirement age, particularly for women will lead to lower pensions in the future, particularly for women.

Inflows to the pension system

Changes in the retirement age legislation influence the number of people that claim pensions. As discussed in the first section, in the early 1990s access to early retirement was relatively broad, as the government could grant early retirement to workers laid-off for company reasons. In addition, the disability assessment was also very generous. This helped to absorb the excess labour force with outdated skills and qualifications who could not find jobs in the rapidly changing labour market conditions. Between 1990 and 1992 almost 1.8 million people claimed pensions from the social insurance system. The tightening of disability conditions and the elimination of discretionary access to early retirement led to a stabilisation in the new pensions granted between 2000 and 2006 at a level of below 200 thousand annually (Figure 3).

Legislative changes in 2008 also led to an increased inflow to old-age pensions. Between 2007 and 2009 (that is around the time of phasing out early retirement for working in special conditions as well as transitional rights to early retirement for men) the total inflow to old-age pensions was almost 800 thousand people and combined with disability pensions this was almost 950 thousand people. Finally, after the reversal of the retirement age increases in 2017 and 2018, also almost a further 800 thousand people claimed old-age benefits. This clearly illustrates that changes to the legal retirement age, particularly access to benefits at earlier age, leads to an increased interest in claiming old-age pensions.

³⁰ A. Chloń-Domińczak, P. Strzelecki, *The minimum pension as an instrument of poverty protection in the defined contribu*tion pension system — an example of Poland, "Journal of Pension Economics and Finance" 2013, Vol. 12 (3), pp.1-32, in which the pension distribution reflects to a larger extent the wage distribution. Additionally, relatively shorter working lives of those that have lower earnings increase the risk of receiving lower benefits. The aim of the paper is to present the changing role of a minimum pension as a tool of redistribution in the country that replaced a defined benefit (DB).

³¹ M. Malec, J. Tyrowicz, Low Retriement Age, High Price [in:] Population ageing, labour market and public finance in Poland, ed. by P. Lewandowski, J. Rutkowski, 2017, pp. 29–34, https://doi.org/10.2775/9.

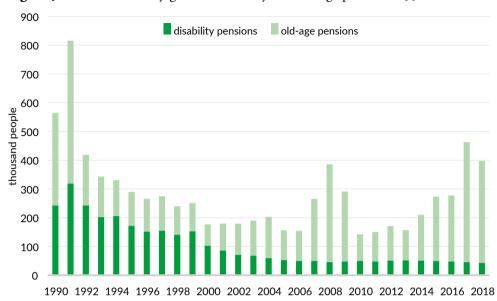


Figure 3. Number of newly granted disability and old-age pensions, 1990-2018

Source: Social Insurance Institution data

While the propensity to claim old-age pensions seems to be a common feature of the observed three discussed "peak periods," there are also differences, particularly in the age composition of the new benefits (Figure 4). In the period of 2007-2009 the bulk of both men and women claiming old-age pensions did not reach the legal retirement age. In recent years the majority of those claiming old-age pensions (both men and women) are at or above retirement age.

Figure 4 also shows that the inflow to old-age scheme around 2008 was related not only to the new pension rights of men, but also to a large extent by the retirement decisions of women who decided to actively use their accrued pension rights. This applied, in particular, to women born between 1949 and 1953, who could retire at the age of 55, according to the old pension system rules following the transitional arrangements in the pension legislation. In many cases early retirement decisions could be driven by an (unjustified) fear that they will not be able to claim their pension rights once the new legislation came into force.

The increase inflow to old-age pensions observed from 2014 is a combination of two developments. First, people who were born after 1949 (men) and 1953 (women) reached the legal retirement age and could claim their old-age benefits. Second, from October 2017, after the reduction of the legal retirement age old-age pensions could be claimed by women aged 60 and over and men aged 65 and over who had not retired due to the higher legal retirement age before, which almost doubled the number of new pensions granted in 2017 and 2018, compared to those observed in 2014-2016.

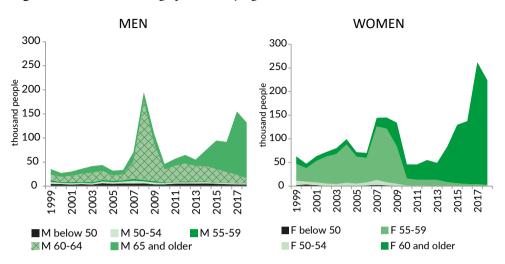


Figure 4. Inflows to old-age pensions by age and sex, 1999-2018

Note: decomposition initially proposed by Piotr Lewandowski. Source: own analysis and Social Insurance Institution data

The data on the inflow to the pension system indicates that people claim their old-age benefits as soon as it is possible also under the new pension system. This happens despite the increase incentives to postpone retirement decisions, embedded in the pension formula, that follows a defined contribution principle.

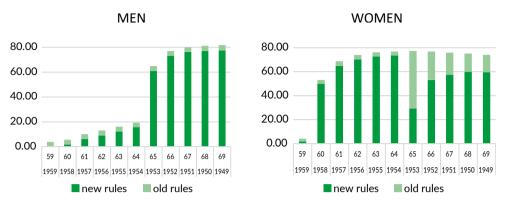
Pensioners and pensions in the new pension system

The dominant impact of the legal retirement age on retirement decisions is also visible when analysing the age distribution of old-age pensioners in the new system (Figure 5). Both for men and for women, there is a sharp increase in the share of the cohort receiving pensions at the legal retirement age.

In December 2018, around half of women aged 60 were receiving old-age pensions, for those aged 62 the share was above 74%. Interestingly, only around 30% of women born in 1953 receive pensions according to the new system, while almost 50% of women born in this year receive pensions according to the old rules. In the case of older women (those born between 1949 and 1952), the share of those receiving benefits according to the old rules is smaller. This indicates that the last cohort of women who could claim early retirement pensions according to the old system rules used this opportunity more often than the older groups. This might be an outcome of increased media discussion on this issue.

Men retire mainly at the age 65, and in 2018 around 65% of 65-year old men received old-age pensions. At the same year, the share of 67-years old receiving benefits was around 80%, which seems to be the total share of men receiving old-age pensions. Contrary to women, the share of men receiving pensions according to the rules of the old system is small (around 4%) and covers mainly miners.

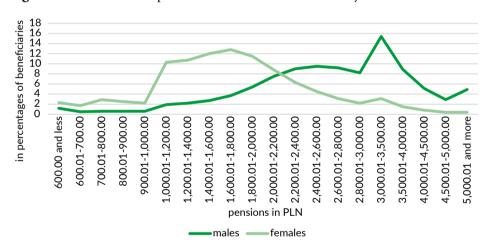
Figure 5. Recipients of old-age pensions payable by ZUS, by age and sex as of December 2018 as % of a birth cohort



Source: own analysis based on Social Insurance Institution data (old-age pensioners) and Statistics Poland (demography database)

Difference in the retirement age of men and women in the new system also leads to differences in pension levels (Figure 6).

Figure 6. Distribution of pension levels in December 2018 by sex



Source: Social Insurance Institution data

In 2017, with the reversal of the increased retirement age, the average pension granted to men (2,080.36 PLN) was by 67% higher than the average pension granted to women (1,614.39 PLN).³² The distribution of pension size is also significantly different for men and for women. Almost 60% of women receive pensions in the range of between 1,000 and 2,000 PLN, while over 60% of men receive benefits ranging from 2,200 PLN to

³² Zakład Ubezpieczeń Społecznych [Social Insurance Institution], Raport Roczny ZUS 2017 [Annual Report ZUS 2017], 2018.

4,000 PLN. Around 10% of women received pensions between 1,000 and 2,000 PLN, that is minimum pensions or slightly higher, while in the case of men this share was below 2%.

Take-up on early retirement and employment rate of older workers

Changes in the early retirement policy mean that there are fewer people receiving various types of early retirement transfers. While in the late 1990s and the beginning of the century, early retirement was widespread and increasing, mainly due to the introduction of per-retirement benefits and pre-retirement allowances that replaced early retirement due to difficulties at the company level, there was an increase in the number of people receiving early retirement transfers that reached a peak of 1.6 million people in 2004. Reduction in access to pre-retirement transfers from 2005 (following the increase of the eligibility age for such benefits) and a further reduction in early retirement possibilities after 2008 led to a sharp decline in the number of people with early retirement transfers that by 2016 had decreased 4 times compared to the peak year. At the same time, the employment rate in the age group 55-64 increased from 26.1% to 48.9% (Figure 7).

These developments also confirm that changes in regulations have a significant impact on the use of various types of social transfers. Reduction of access to early retirement, combined with the introduction of pre-retirement benefits resulted in the substitution of the former by the latter. Only after the eligibility age for pre-retirement benefits was raised and access to early retirement was significantly reduced, the take-up of social benefits before retirement age declined and the employment rate of older workers increased.

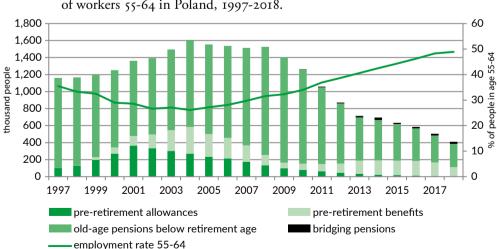


Figure 7. Number of people receiving early retirement transfers and employment rate of workers 55-64 in Poland, 1997-2018.

Source: own analysis based on Social Insurance Institution data (beneficiaries) and Eurostat (employment rate)

Old-age and system dependency rates

Changes in the access to old-age pensions discussed earlier also affect the overall performance of the pension system. One of the measures that can be used to assess the stability of the pension system is the system dependency rate expressed as the number of pensioners per 100 insured employees.

In the past three decades both the number of pensioners and the number of insured people has evolved, following both changes in the pension system, as described earlier as well as due to labour market developments (Figure 8). In the early 1990s, the number of employees insured in social insurance declined and at the same time the number of pensioners increased, which led to the sharp increase of the system dependency rate in less than a decade from 38.0 in 1990 to 56.4 in 1998. Between 2001 and 2005 the system dependency rate was relatively stable around 55. From 2007, the system dependency remains below 51 and from 2015 it is below 50.

year

■ insured ■ pensioners

Figure 8. Number of insured workers and beneficiaries in social insurance system in Poland, 1990-2018

Source: Social Insurance Institution data

Figure 9 presents the system dependency rate compared to the demographic dependency (the number of people in the age group 65 and over per 100 people in the age group 15-64). As one can see, the gap between these two measures widened at the end of the 20th century and narrowed recently. The difference between these two measures of dependency increased from around 22 in 1990 to more than 37 between 1998 and 2004. Afterwards it slowly declined again to around 22, mainly due to the rise in the demographic dependency.

The persistent large gap between demographic and old-age dependency rates is linked both to the relatively low employment rate of the working-age population, particularly among workers aged 50 and over and the lower retirement age of women.

Figure 9. System dependency and old-age demographic dependency in Poland, 1990-2018

Source: own analysis based on Social Insurance Institution data (system dependency), Eurostat and Statistics Poland (demographic dependency)

Retirement expectations

The quick transition to retirement is also confirmed by the retirement expectations. The data from the SHARE in Europe indicate that more than half of people aged 50 and over would like to retire as early as possible. These shares varied in the course of the past decade, which partially reflects the changes in the retirement age, they were the highest around 2011-2012 and 2015, with higher retirement age expectations, while they declined in 2017, after the retirement age was reduced. Still, 51% of men below the age 60 and 61% of women in the same age, declared retirement as early as possible (Figure 10). For those above the age of 60 the percentages also changed with the reduction of retirement ages, but also remain high (59% of men and 45% of women).

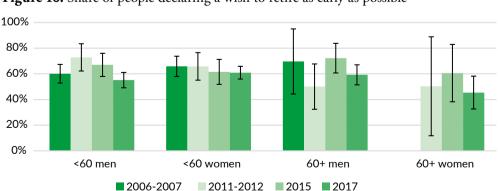


Figure 10. Share of people declaring a wish to retire as early as possible

Source: own analysis based on SHARE data: waves 2, 4, 6 and 7

The retirement expectations are also driven by the perception of health status. More than half of men (54%) and 45% of women between the ages of 50 and 60 in 2015 declared that their health might be an obstacle to work until the retirement age (Figure 11). These shares are relatively stable for those below the age of 60 and increasing for men above the age of 60 (probably due to the increased retirement age at the time of the respective SHARE waves, while for women there was a decline between 2011-2012 and 2015).

100%
80%
60%
40%
20%
0%
<60 men
<60 women
60+ men
60+ women
2006-2007
2011-2012
2015

Figure 11. Share of people who believed that they will not be able to work until retirement age due to their health

Source: own analysis based on SHARE data: waves 2, 4 and 6

There are several potential reasons why people in Poland wish to retire as early as possible. One of them are working conditions. SHARE results indicate that older workers in Poland are not satisfied with their work conditions. A. Chłoń-Domińczak³³ shows that employees above 50 in Europe can be divided into four groups: those who are satisfied with their work conditions, those that feel tired with a job that is demanding physically, those that feel tired with a job that is overly routine and those who are not satisfied with their work conditions. The share of satisfied workers in Poland is one of the lowest among European countries, while the share of those who are not satisfied or tired is one of the largest (Figure 12). Therefore, working conditions may be one of the reasons that push people to retirement.

More detailed analysis of the retirement expectations in Poland³⁴ based on the SHARE data shows that people with lower educational attainment more often declare the need to retire as soon as possible compared to people with higher education. Self-employed people declare a wish to retire as early as possible less frequently than those with permanent contracts. People whose health condition as well as the physical load related to their work in their own opinion may lead to dismissal or retirement more

³³ A. Chłoń-Domińczak, Analityczny Raport Uzupełniający Nr 3 Polacy po pięćdziesiątce: praca i emerytura, 2017, https://doi.org/10.6103/SHARE.w2.600.

³⁴ I.E. Kotowska, A. Chłoń-Domińczak, D. Holzer-Żelażewska, Pokolenia 50+ w Polsce i w Europie: aktywność, stan zdrowia, warunki pracy, relacje międzypokoleniowe i wykluczenie. Raport podsumowujący wyniki badań 7. Rundy badania SHARE: 50+ w Europie, 2019, p. 37.

often declare a desire for retirement as early as possible. Furthermore, people who often work in a painful position and those working in low temperatures have a higher desire to retire as soon as possible compared to those who have never worked in such a position. On the other hand, people who have contact with clients and other people often or sometimes in their work, are less likely to need to retire earlier. People 50+ in Poland have also poor health status. Analyses of Wróblewska and Antczak based on SHARE data³⁵ shows that among people aged 50+, the occurrence of various health problems is more common in Poland than in other European countries. This includes occurrence of chronic conditions limiting everyday functional and mobile activities and serious health problems that affect the ability to function independently and perform basic daily activities. Every tenth person aged 60-69 in Poland has limitations on independent functioning on a daily basis and the related necessity to rely on the help of others. In older age groups, the increase in the share of people with health problems occurs at a rapid pace that is not observed in other countries. There is also a high risk of obesity among those aged 50+.

Estonia Poland Denmark Sweden Germany 0 10 20 30 40 50 60 70 80 90 100 unsatisfied tired routine tired physically satisfied

Figure 12. Share of workers aged 50 and over according to their job satisfaction in selected SHARE countries

Source: own analysis based on SHARE date (wave 6)

Another potential reason for not postponing retirement decisions, particularly in the case of women, are the caring obligations related to caring for elderly parents or grandchildren. While the SHARE data shows that more than a third of people 50+ in Poland provide regular care for their grandchildren.³⁶

Another potential explanation of retirement as early as possible is the lack of trust towards the pension system and changing pension regulations that encourages people to take up their pensions as soon as they acquire pension rights. At the same time, as

³⁵ Ibid, p. 69-84.

³⁶ Ibid, p. 42.

discussed by J. Czapiński and M. Góra,³⁷ failure to recognise the scale and rate of increase in pensions together with the delayed retirement decisions indicates huge neglect in the field of retirement education. They claim that people would be much more open to the prospect of working longer if they took into account not only the concerns, but also the benefits that can be achieved by postponing the retirement.

Conclusions

The issue of retirement age is one of the most frequently discussed parameters of the pension system. The changes in the legal retirement age were followed by changes in the actual retirement age as well as increased inflow of new pensioners claiming their benefits, particularly with the changes leading to the reduction of the legal retirement age. This confirms the first hypothesis, that legal opportunities to retire are one of the most important factors affecting retirement decisions in Poland. This holds not only for people who were covered by the old pension system, but also those in the new one. The majority of this group claim their old-age pensions at retirement age or not more than two years after reaching retirement age, despite the incentives to postpone retirement.

Life expectancy in Poland is increasing gradually, which means that the expected time for retirement benefits is also changing. With a low actual retirement age until 2008, the life expectancy from retirement age was seen to increase, with it declining after the actual retirement age increased. However, the life expectancy at retirement in 2017 is similar to that in 1990, which confirms the second hypothesis that the changes in the legal retirement age led to a rise in the actual retirement age, but they were not sufficient to compensate for the increases in life expectancy.

Finally, there is also a small change in retirement expectations that can be observed in recent years. With reduction of the legal retirement age as well as the rise of the employment rate of older employees, there is some decline in the share of people stating that they expect to retire as soon as possible. However, still more than half of people expecting retirement in about a decade confirm that they would like to retire as soon as possible.

This means, that despite existing incentives people retire as soon as they can, with lower retirement benefits. With further rises in life expectancy this increases the risk of old-age poverty, particularly among women. Already more than one fifth of women receiving pensions from the new system have benefits below 1,200 PLN, that is below the minimum benefit, at this level or slightly above. Retiring at the earliest possible age in Poland seems to be a combination of a general lack of satisfaction with working conditions, poorer health status and foreseen caring obligations. At the same time, the awareness of the potential increases in pensions due to postponed retirement is very low.

³⁷ J. Czapiński, M. Góra, op. cit., p. 29.

Changing retirement behaviour in the future will not be possible merely through an increase in knowledge about the existing incentives in the pension system related to higher benefits resulting from a prolonged working life and a higher retirement age. An increase in legal retirement is necessary in the future to maintain the adequacy of pension benefits while maintaining the financial sustainability of the pension system.

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Wpływ zmian wieku emerytalnego na podejmowanie decyzji o przejściu na emeryturę w Polsce po 1990 roku

Artykuł przedstawia analizę zachowań emerytalnych w Polsce w ciągu ostatnich 30 lat w kontekście ewolucji ustawowego wieku emerytalnego i dostępu do świadczeń z tytułu wcześniejszej emerytury. Tekst dowodzi, że wszelkie zmiany w prawie, zwłaszcza te, które rozszerzają dostęp do emerytur, takie jak wprowadzenie możliwości wcześniejszego przejścia na emeryturę lub obniżenie samego wieku emerytalnego, prowadzą do zwiększonego wykorzystania świadczeń emerytalnych. Większość pracowników występuje o emerytury jak najwcześniej, czyli w wieku, w którym nabywają uprawnienia emerytalne, ewentualnie najwyżej kilka lat później. Zachowanie to nie zmieniło się w ciągu ostatnich 30 lat pomimo istotnych zmian w systemie emerytalnym: z systemu zdefiniowanego świadczenia w system zdefiniowanej składki, motywując do odkładania decyzji emerytalnych. Osoby w wieku powyżej 50 lat nadal chcą jak najszybciej przejść na emeryturę. Przejście w kierunku systemu określonych składek w połączeniu z niższym wiekiem emerytalnym, szczególnie w przypadku kobiet, prowadzi do malejącej stopy zastąpienia między emeryturą a ostatnią płacą. Podnoszenie wieku emerytalnego i wyrównywanie go między płciami wydaje się konieczne, aby zrekompensować wzrost oczekiwanej długości życia, zapewnić adekwatność emerytur oraz zmniejszyć różnicę ich wysokości między kobietami a mężczyznami w nadchodzących dziesięcioleciach.

Słowa kluczowe: starość, wiek emerytalny, zachowanie emerytalne, oczekiwana długość życia, emerytura