

# Monitoring and assessment of social security systems – review of the criteria proposed by the European Commission and the World Bank and proposals for their extension in the context of an aging population

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## Abstract

Social security in many countries is an essential part of the social security system. Due to the specific features of social insurance, inter alia, equivalence and claim ability of benefits or the separate sources of financing, it is necessary to ensure that stakeholders have constant access to reliable information about them, both in terms of the current state and in a sufficiently long time horizon. This should foster confidence in social security.

The aim of the article is to review the areas and criteria used to assess social security systems based on the adaptation of the recommendations of the European Commission and the World Bank with regard to pension systems, and to indicate areas, the assessment of which should become more important in the light of the aging of the population.

As the analysis shows, the assessment of the adequacy and financial stability is developed and constitutes a certain standard. On the other hand, the area related to the modernisation of social insurance, i.e. adapting it to the changing demographic and economic situation, is still a challenge. Too little is assigned to the assessment of gender equality, the scale of redistribution, transparency and credibility of social security information.

**Keywords:** assessment, social security, indicators.

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## Introduction

Social security systems in most developed countries are an important source of transfers replacing and/or supplementing the income of the population in the event of the materialisation of social risk. In many of these systems, the method of insurance plays a dominant role, as compared to other techniques of implementing social security, it is distinguished by specific features. According to the views of many authorities in the analysed area, which is shared by the author of this study, the use of the insurance method in social security systems is associated with the need to introduce certain exceptions from the classic features of insurance as a unique method of dealing with risk<sup>1</sup>. The development of social insurance and its obligations towards future generations are becoming an increasing challenge in the context of demographic change and its economic consequences. Also, socio-cultural changes (changing the family pattern, increasing individualism, increasing mobility and forms of earning money, etc.) require greater reflection in social insurance systems.

The aim of the article is to review the areas and indicators used to monitor and assess social security systems on the basis of the recommendations of the European Commission and the World Bank, and to indicate areas whose assessment should be more emphasised in the light of the aging of the population. The article implements the criteria described in the literature on the subject as used for the analysis of pension systems<sup>2</sup>. Many of them may be directly applicable to the assessment of social insurance systems in relation to long-term and short-term benefits, which was illustrated with examples and modification of selected indicators.

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1. An overview of the differences in insurance principles with regard to social and private insurance, presented in the Polish literature on the subject, is presented, inter alia, by M. Kawiński [in:] M. Kawiński, *Ubezpieczenia publiczne i prywatne w polityce społecznej. Skuteczność i efektywność*, Warszawa, Wydawnictwo C.H. Beck, 2011, p. 53 et seq. On the differences in the elements of social insurance in comparison to private insurance also [in:] S. Golinowska, *Polityka społeczna państwa w gospodarce rynkowej. Studium ekonomiczne*, Warszawa, Wydawnictwo Naukowe PWN, 1994.
  2. Cf. T.H. Bednarczyk, K. Bielawska, B. Jackowska et al., *Ekonomiczne i demograficzne uwarunkowania funkcjonowania i rozwoju ubezpieczeń*, Gdańsk, Wydawnictwo Uniwersytetu Gdańskiego, 2019, p. 68–70.

## Purposes of functioning and criteria for the assessment of social insurance

Social insurance is one of the techniques (methods) of dealing with social risk, the materialisation of which causes the loss (total or partial) of earning potential. From the point of view of people who make a living from dependent work, this means the loss or significant reduction of their main source of income. This is a significant problem, especially for those societies that have not yet achieved a satisfactory material status or/and do not use private insurance in this area due to an income barrier, lack of availability of appropriate insurance products or lack of awareness of certain needs (e.g. access to long-term care). Persons exposed to a certain type of social risk (illness, accident at work, loss of a breadwinner, reaching retirement age) form an insurance community by law, pay contributions (contributions may also be financed or co-financed by employers) to the insurance fund, and in the event of risk materialisation and after fulfilling the conditions, they receive the due benefit, which should be related to the contribution to the system<sup>3</sup>.

Due to the mechanism and principles of operation, as well as the social and economic dimension, the social insurance system should be monitored both on an ongoing and long-term basis in terms of achieving the set goals.

The objectives of the functioning of the social insurance system can be considered from the point of view of the individual (participant) and the state as the initiator and operator of social insurance. From the participant's perspective, it is important that the conditions of access to benefits (pensions, disability pensions, sickness benefits) and their amount are accepted by the insured (benefits should adequately replace the temporary or permanent loss of income from work), and that the period of payment of benefits should be adjusted to the effects of the risk (e.g. in retirement insurance, the payment should be life-long; for other benefits, an appropriate balance should be sought, so that too long a period of receiving the benefit does not demotivate people in terms of returning to the labour market, if it is possible). Minimum standards both in terms of the conditions of access to benefits and their relative amount, regardless of the technique of social security implementation,

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3. In Polish, the term "insurance premium" is used both in relation to private and social insurance, although these categories are not identical. The premium is the equivalent of insurance cover, while the social security premium is more of a contribution to an insurance fund, the calculation of which does not take into account the risk contributed to the insurance community. This also has consequences for the calculation of benefits. For more on these problems cf. T. Szumlicz, *Ubezpieczenie. W sprawie zastrzeżenia terminologicznego*, "Wiadomości Ubezpieczeniowe" 2009, nr 1.

for the so-called average recipient are designated by the Convention No. 102 of the International Labour Organisation, which Poland ratified in 2004<sup>4</sup>. By paying the contributions, the participant of the system limits the current consumption in order to be able to consume in the period of materialisation of social risk, which is why in the literature this goal is often referred to as equalising consumption in the life cycle<sup>5</sup>.

The most common goals for the operation of pension systems at the level of the system organiser are protection against poverty and redistribution of income<sup>6</sup>. However, as Chybalski points out<sup>7</sup>, income redistribution is not so much a goal in the pension system as a tool to reduce poverty among retirees. These goals can also be attributed to social insurance, as their structure is usually set so that participants can achieve the appropriate amount of benefits, and they allow for a redistribution of income beyond the random factor. At the same time, it would not be possible to ensure a minimum adequacy of benefits if the social security system was not financially stable in the long term. The reality of insurance protection in any system (public or private) should be ensured by effective financial management as well as the sustainability and sufficiency of financing sources.

Contemporary systems are also faced with goals related to adaptation to changing conditions (demographic, economic, socio-cultural). Such an approach can be found, inter alia, in documents of the European Commission, which in 2003 published a report entitled "Adequate and Sustainable Pensions. Joint Report by the Commission and the Council"<sup>8</sup>, in which the open method of coordination (OMC) identifies three areas (goals) of activities of the Member States in the field of pension security: adequacy, financial stability and modernisation. Social policy of the European Union Member States is not subject to harmonisation, but requires coordination due to the similar challenges and the need to exchange information on current and planned reforms<sup>9</sup>. Since then, reports on the impact of the aging population on the budgetary position of EU Member States, reports on pension adequacy

4. Convention No. 102 of the International Labour Organisation on Minimum Standards of Social Security, Journal of Laws 2005 No. 93 pos. 775.

5. N. Barr, P. Diamond, *Economic of pensions*, "Oxford Review of Economic Policy" 2006, Vol. 22(1); N. Barr, *Państwo dobrobytu jako skarbonka. Informacja, ryzyko, niepewność a rola państwa*, Warszawa, Wydawnictwo Wyższej Szkoły Pedagogicznej TWP w Warszawie, 2010.

6. Cf. N. Barr, P. Diamond, *Economic of pensions*, "Oxford Review of Economic Policy" 2006, Vol. 22(1).

7. F. Chybalski, *Pomiar redystrybucji w międzynarodowych analizach systemów emerytalnych* [in:] *Współczesne problemy systemów emerytalnych. Wybrane zagadnienia*, ed. F. Chybalski i E. Marcinkiewicz, Monografie Politechniki Łódzkiej, Łódź 2015, p. 18.

8. European Commission, *Adequate and Sustainable Pensions. Joint Report by the Commission and the Council*, Luxembourg 2003.

9. M. Żukowski, *Otwarta koordynacja zabezpieczenia emerytalnego w Unii Europejskiej – nowy etap europejskiej polityki społecznej?*, "Polityka społeczna" 2002, nr 11–12.

and fiscal sustainability, taking into account the costs of social programs sensitive to demographic change, have been prepared regularly (every 3 years)<sup>10</sup>. It is worth mentioning that due to the frequent interconnection of retirement and disability pensions in social insurance systems, the analyses presented in these reports refer to both types of long-term benefits. On the other hand, from the point of view of short-term benefits, adequacy is important and can be assessed in the same way as for pensions, while financial stability can be monitored on an ongoing basis through the prism of the balance of the fund financing benefits (provided that it is separate from long-term benefits).

Among international organisations, the World Bank also considers protection against poverty and smoothing consumption in the life cycle to be the overarching goals of the functioning of the pension security<sup>11</sup>. The secondary goals are: minimising disruptions in the labour market, promoting the mobilisation of savings and contributing to the development of the financial market.

However, the set of goals in the context of the assessment of the system and its reforms is more extensive in the World Bank's approach. The scope of system assessment should include: adequacy, affordability, system sustainability, equality, i.e. the same benefit for the same premiums (equity), robustness and predictability, which is understood as the lack of discretionary changes in the amount of benefits, protection against inflation or changes in the amount of wages or pension capital in the period immediately preceding retirement<sup>12</sup>.

Table 1 presents a comparison of the areas of assessment of pension security systems in the proposals of both institutions.

10. European Commission, *The 2018 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2016–2070)*, Institutional Paper 079. Brussels, 2018, doi:10.2765/615631 (online); European Commission, *Pension adequacy report 2018 – Current and future income adequacy in old age in the EU*, Brussels 2018; European Commission, *Fiscal Sustainability Report 2018*, Institutional Paper 094. Brussels, 2019, doi:10.2765/435292 (online).

11. R. Holzmann, R. Hinz, *Old Age Income Support in the 21st Century. An International Perspective on Pension Systems and Reform*, Washington, The World Bank, 2005, p. 6.

12. T. Bednarczyk, K. Bielawska, B. Jackowska et al., *Ekonomiczne i demograficzne uwarunkowania funkcjonowania i rozwoju ubezpieczeń*, Gdańsk, Wydawnictwo Uniwersytetu Gdańskiego, 2019, p. 68–69, based on: R. Holzmann, R. Hinz, M. Dorfman, *Pension Systems and Reform Conceptual Framework*, SP Discussion Paper 2008, No. 0824, Washington D.C.

## Monitoring and assessment of social security systems

**Table 1. Assessment areas and goals of reforming retirement security systems in the documents of the European Commission and the World Bank**

| Institution and source of information  | Systems assessment areas   |  |  |
|--|--|--|--|
|  | adequacy   | sustainability   | modernisation  |
| European Commission<br><i>Adequate and Sustainable Pensions. Joint Report by Commission and the Council (2003)</i>   | <ul style="list-style-type: none"> <li>– Protection against poverty and ensuring a decent standard of living</li> <li>– Universal access to pension security to achieve an adequate standard of living in retirement (public and private plans)</li> <li>– Intra- and intergenerational solidarity</li> </ul>                      | <ul style="list-style-type: none"> <li>– Actions for high employment</li> <li>– Caring for the organisation of the retirement pension system in such a way that it motivates to work</li> <li>– Reforming the systems taking into account the sustainability of financing</li> <li>– Spreading the cost of reform evenly across generations</li> <li>– Appropriate rules for the functioning of public and private plans (availability, efficiency, security and transferability of allowances/ capital)</li> </ul>                    | <ul style="list-style-type: none"> <li>– Adaptation of the system to changes in employment patterns and professional careers</li> <li>– Ensuring equal treatment of women and men</li> <li>– Transparency and credibility of information about the system and its prospects</li> </ul>                     |
| World Bank<br><i>Old Age Income Support in the 21st Century. An International Perspective on Pension Systems and Reform (2005)</i> and R. Holzmann, R. Hinz, M. Dorfman, <i>Pension Systems and Reform Conceptual Framework</i> , SP Discussion Paper 2008, No. 0824, Washington D.C (extension to equality and predictability)* | <ul style="list-style-type: none"> <li>– Protection against poverty among the elderly in the entire population at the absolute level appropriate for a given country (adequacy)</li> <li>– Providing access to instruments for smoothing consumption throughout life for the vast majority of the population (adequacy)</li> </ul> | <ul style="list-style-type: none"> <li>– Maintainability in a financial sense, i.e. taking into account the possibility of financing benefits by individuals and society without threatening the achievement of other important social goals and unsustainable fiscal consequences (affordability)</li> <li>– System durability, i.e. taking care of a good financial condition, which allows for its uninterrupted operation in a predictable time perspective, with a wide set of reasonable assumptions (sustainability)</li> </ul> | <ul style="list-style-type: none"> <li>– Resilience to adverse events, including those resulting from economic, demographic and political instability (robustness)</li> <li>– Equality of benefits in relation to contributions (equity)</li> <li>– Predictability of benefits (predictability)</li> </ul> |

\* In the original document of the World Bank, each of the areas listed in the table is treated separately; assignment to evaluation areas as proposed by the author.

Source: Own study based on: European Commission, *Adequate and Sustainable Pensions. Joint Report by Commission and the Council*, Luxembourg Publication Office, 2003 and R. Holzmann, R. Hinz, *Old Age Income Support in the 21st Century. An International Perspective on Pension Systems and Reform*, Washington, The World Bank, 2005.

As shown in Table 1, there are many common areas in the approach of the European Commission and the World Bank in the areas of assessment and monitoring of the functioning of pension security systems. Many of these areas can be operationalised by using appropriate measures with reference to social security.

### **Review of applied indicators in individual areas of assessment of social insurance systems**

It seems that in the assessment of social insurance systems (similarly to pension systems), the area of benefit adequacy is the most frequently and longest explored. Taking into account that the adequacy of benefits has both an individual and a collective dimension (protection against poverty of a given social group or the insured), it should be considered in a broad sense. That is, not only in terms of the amount of benefits, but also their availability. In the literature on the subject, such an approach is also called the assessment of the effectiveness of social insurance<sup>13</sup>. The subjective scope of social insurance should be as wide as possible, i.e. cover all dependent and self-employed workers (the self-employed). It is problematic to cover economically inactive people with social insurance, for example those who make a living from social transfers. Usually, if such persons are subject to insurance, contributions are financed from public funds (from the state budget or earmarked funds). The argument for covering the economically inactive with at least some types of social insurance (retirement or disability pension) is the possibility of meeting the condition of receiving a long-term benefit in the future (e.g. having a sufficiently long period of insurance required to receive a retirement pension or disability pension). Moreover, in many developed countries in the world, even if social insurance is the main technique of implementing social security, there are separate systems of securing certain professional or social groups (uniformed services, farmers, miners, etc.). This makes it difficult to assess the subjective scope of the system in a comparable manner, because the analyses most often take into account the system that covers the largest part of the population. The basic measure of the availability of benefits in social insurance is the percentage of economically active people covered by a given type of social insurance.

Moving on to measures of adequacy in the monetary dimension, from an individual point of view, the replacement rate is the most frequently used, which is the relation of the benefit (retirement pension, disability pension, allowance)

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13. M. Kawiński, *Ubezpieczenia publiczne i prywatne w polityce społecznej. Skuteczność i efektywność*, Warszawa, C.H. Beck, 2011, p. 204.

to previously obtained income expressed as a percentage. It reflects the income approach to the assessment of the adequacy of benefits (income adequacy). The individual replacement rate may be given in gross or net amounts (after tax), referring to the average or last salary of the insured person. It may also refer to the expected value of the benefit in relation to remuneration, assuming different career development scenarios. Then we are talking about the theoretical replacement rate (TRR).

Finally, the replacement rate can be calculated for individual parts of the social insurance system (sickness benefits, disability pensions, old-age pensions) on the basis of the average benefit amount to the average wage in the national economy<sup>14</sup>, which serves the purpose of assessing the adequacy of benefits in the collective dimension (system replacement rate). From the perspective of the state as a provider of social insurance, it is also important to assess the extent to which the system protects against poverty. For this purpose, absolute or relative poverty measures, the risk of poverty rate in various types of households or the rate of severe material deprivation in particular groups (e.g. retirees, pensioners) are often used.

It is debatable whether the assessment of the adequacy of benefits should have an income aspect (replacement of previous income) or rather an expenditure aspect (relating to the possibility of covering expenditure on consumer goods and services as needed). As already mentioned in previous studies<sup>15</sup>, the latter aspect is becoming increasingly popular in the literature<sup>16</sup>. In addition, it is also proposed to use multi-component measures to assess the adequacy of pensions. These include measures of the effectiveness of the pension system proposed, inter alia, by Chybalski, which combine the assessment of poverty among retirees, the level of income, and gender differentiation of poverty and income among retirees<sup>17</sup>.

The assessment of financial stability has appeared among the measures for assessing the functioning of social security systems relatively recently, as an expression of an increased interest in the economic conditions of system operation, which is increasingly influenced by demography. Financial stability is a guarantee of the promised benefits to which the insured acquire the right by contributing to the system.

14. K. Bielawska, *Adekwatność emerytur w świetle zmian polskiego systemu emerytalnego*, "Zarządzanie i Finanse" 2016, nr 4(14).

15. *Ibidem*, p. 32.

16. C.R Cole, A.P. Liebenberg, *An Examination of Retirement Income Adequacy Measures and factors affecting retirement preparedness*, <https://ssrn.com/abstract=1272067>, access; F. Chybalski, E. Marcinkiewicz, *The Replacement Rate: An Imperfect Indicator of Pension Adequacy in Cross-Country Analysis*, "Social Indicators Research" 2015, nr 1.

17. F. Chybalski, *Skuteczność i efektywność systemu emerytalnego. Koncepcja analizy i próba pomiaru*, Łódź, Wydawnictwo Politechniki Łódzkiej, 2012; F. Chybalski, *Adekwatność dochodowa* [in:] *Adekwatność dochodowa, efektywność i redystrybucja w systemach emerytalnych. Ujęcie teoretyczne, metodyczne i empiryczne*, ed. F. Chybalski, Warszawa, Wydawnictwo C.H. Beck, 2016, p. 22.



Certainty and timely receipt of benefits is an important tool for building trust in the insurance system and in the state. Hence, monitoring the financial condition of the social security system is one of the priority tasks. With regard to short-term benefits (e.g. benefits), the main activity should be the assessment of self-financing of benefits (assessment of financial balance), i.e. the coverage of expenses with contribution revenues. Theoretically, in the case of short-term benefits, it is easier to introduce changes that determine the financial situation (premium rate, personal scope, conditions of access to benefits). However, not always changes aimed at ensuring financial balance in the area of short-term benefits are actually implemented<sup>18</sup>. The analysis of expenditure or balances in social security funds can be carried out both in absolute terms and in relation to GDP, which facilitates comparison with systems in other countries. This relative measure also has the advantage that in the event of a deficit, its size can be assessed against the deficit limits of the entire public finance sector that apply to EU member states<sup>19</sup> and are often additionally defined in the form of fiscal rules (numerical restrictions on fiscal aggregates, e.g. or debt of the public finance sector) in national legislations. In the case of retirement and disability benefits, the key is to control liabilities and the possibility of covering them in the long term (50, 75 years). Therefore, measures such as gross and net pension liabilities<sup>20</sup> or more extensive measures presented in the *Fiscal Sustainability Report* in the UE, such as the S1, S2 indicators<sup>21</sup>, are used. The financial situation of social insurance is influenced, among others, by demographic and economic factors. Therefore, it is worth monitoring indicators reflecting the relationship between people of non-working and working age, inactive and economically active people or people receiving benefits and paying contributions to the social security system (demographic dependency indicator, economic dependency indicator, system

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18. An example of consolidating the deficit in sickness and maternity benefits may be the situation of the sickness sub-fund in the Social Insurance Fund (ZUS). The premium for this insurance has not changed (2.45% of the calculation basis) since 1999. However, as a result of many changes increasing the access to benefits and the period of receiving them, since 2010 there has been a deficit in this sub-fund in the amount of 50% of expenditure, which should be assessed strongly negatively. Cf. K. Bielawska, A. Rejmer, *Zakres wykorzystania bazy ekonomicznej ubezpieczenia społecznego określany przez przepływy środków pieniężnych* [in:] *Baza ekonomiczna ubezpieczenia społecznego*, ed. R. Pacud, Warszawa, Difin, 2019.

19. The social security sector is part of the General Government Sector, so its net revenues, expenditures and liabilities affect the results and debt of the entire sector. In Polish law, the term "public finance sector" is used, which differs from the definition of the general government sector in the EU, but ZUS and the funds managed by it are part of the public finance sector.

20. Publication of pension liabilities is obligatory for EU member states every three years, starting from 2015. Liabilities are valued according to uniform principles, which ensures the comparability of information.

21. European Commission, *Fiscal Sustainability Report 2018*, Institutional Paper 094., Brussels, 2019, doi:10.2765/435292 (online).

burden indicator, respectively). Assessing financial stability requires monitoring not only demographic changes (including migration), but also the situation on the labour market (increasing employment rates, especially among people aged 50+, or extending employment periods to better balance the periods of employment and retirement benefits). The latter elements are included in the area of modernisation as perceived by the European Commission, but they are undoubtedly related to the financial stability of social insurance (mainly pension insurance). The discussed indicators are presented in Table 2.

**Table 2. Operationalisation of the areas of assessment of social insurance systems through the use of indicators**

| Assessment areas and associated indicators  |   |   |
|---|---|---|
| adequacy  | austainability  | modernisation   |
| <b>Subjective adequacy:</b><br>1) Percentage of economically active people (dependent and self-employed) covered by social insurance  | <b>Short-term:</b><br>1) Balance of the system in absolute or relative values (e.g. in relation to GDP in %)<br>2) The rate of coverage of expenses with revenues from contributions (in %)   | 1) Average duration of economic activity (change over time)<br>2) In old-age pension insurance: the gap between the retirement age and the duration of a healthy life (change over time)                                |
| <b>Individual benefit adequacy:</b><br>1) Individual replacement rate (gross, net; relative to the last salary, relative to the average career salary)<br>2) Theoretical replacement rates for different careers (gross, net)   | <b>Long-term – conditions:</b><br>1) Demographic dependency indicator<br>2) Economic burden indicator<br>3) System load indicator   | 3) In old-age pension insurance: gap between retirement age and life expectancy at retirement age (change over time)<br>4) In old-age pension insurance: the period of receiving the old-age pension (including gender) |
| <b>Collective benefit adequacy:</b><br>1) System replacement rate (gross, net)<br>2) Percentage of people receiving minimum benefits or below the adopted value (change over time)<br>3) Absolute and relative measures of poverty in different types of households<br>4) At-risk-of-poverty rate in different types of households<br>5) The rate of severe material deprivation in various types of households | <b>Long-term – financial sphere:</b><br>1) Long-term balance in relations to GDP or the contribution assessment base (in %) – contribution gap<br>2) Liabilities from retirement and disability benefits (gross and net) in relations to GDP in %<br>3) S1 and S2 indicators* | 5) Analysis of the sensitivity of e.g. the balance of social security funds expressed in relation to GDP (or in absolute numbers) to changes in individual demographic and economic parameters                          |

\* Indicators used by the European Commission in *Fiscal Sustainability Reports*.

Source: *Own study*.

Another area of assessment is related to the postulates of such reform, especially long-term benefits, which will increase the ability to absorb shocks of a demographic nature (an increase in the share of people in the post-working age population in relation to people of working age), economic (economic, financial, fiscal crisis) and of a political nature. In quantitative terms, the monitoring of this resilience is carried out by analysing the sensitivity of, for example, the balance of social security funds expressed in relation to GDP (or in absolute numbers) to changes in individual demographic and economic parameters, in accordance with the assumed scenarios. Changing each parameter by one percentage point shows the strength of its impact on the balance and the possibility of absorbing negative changes in the system's environment. In the qualitative dimension, it is worth emphasizing, for example, that many countries use the so-called automatic balancing mechanisms in social insurance (especially in the part of retirement and disability insurance). These are mechanisms which, under the legal framework, operate automatically, improving the financial situation and solvency of the system and do not require making political decisions<sup>22</sup>. With regard to pensions, the key to both financial sustainability and adequacy of benefits is a better balance between working lives and retirement times. Therefore, one of the tools to increase resilience to demographic change is to automatically raise the retirement age in line with changes over the course of life.

Equality with regard to the amount of benefits is a relatively new and ambiguous area of assessment, especially at the level of operationalisation. J. Ratajczak presented a comprehensive study of the issue of equality, analysing this issue on the example of the Polish pension system<sup>23</sup>. When economists write about equality in the context of benefits, they mean the same benefit in return for the same amount of contributions. Meanwhile, this is only one of the areas of equality that may conflict with equality in other areas (equality of needs, equality of situations, equal opportunities)<sup>24</sup>.

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22. C. Vidal-Meliá, M. Boado-Penas, O. Settergren, *Automatic Balance Mechanisms in Pay-As-You-Go Pension Systems*, "Geneva Papers on Risk and Insurance" 2009, Vol. 34, p. 287–317. <https://doi.org/10.1057/gpp.2009.2>, access; T. Jedynak, *Automatic Balance Mechanisms as instruments of maintaining pension scheme financial sustainability*, "Rozprawy Ubezpieczeniowe. Konsument na rynku usług finansowych" 2018, nr 29, p. 66–85.

23. J. Ratajczak, *Równość w systemie emerytalnym. Emerytury kobiet i mężczyzn w Polsce*, Poznań, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, 2019.

24. Ibidem.

## Assessment areas in need of strengthening in the context of an aging population

From the author's perspective, it is necessary to take actions that will make the assessment of the social security system more realistic in terms of the affordability in the financial sense, the acceptability of the redistribution scale and transparency. Such a need arises especially in relation to the social insurance system in Poland.

The assessment of the possibility of maintaining the social insurance system should be considered both from the point of view of labour costs (rate of contributions) and the reconciliation of maintaining the system without interfering with other important social goals. In the area of public policies, almost everything is a matter of choice and prioritization. In the context of a dynamic aging of the population, it is necessary to take into account the interests of all generations to an equal extent. Meanwhile, many changes to the social security system or other social programs (financed from public funds) are introduced without analysing the long-term effects and the distribution of their costs over the next generations. The same can be said about the awareness of the scale of redistribution in the social security system. Redistribution in social insurance systems always occurs (in the individual dimension, within and between generations), while its intensity depends on many factors. Nor is it easy to operationalize and measure redistributive effects. J. Rutecka presented an extensive study on redistribution in the Polish pension system<sup>25</sup>. Intra-generational redistribution occurs between people born in a similar period, e.g. redistribution from men to women due to the use of universal life tables, subsidies to minimum pensions, while intergenerational redistribution occurs when the capitalized value of paid contributions does not correspond to the value of retirement benefits<sup>26</sup>. The scale of redistribution, especially in pension insurance, should be communicated to the public. It is not easy to measure the scale of redistribution, especially in a way that is understandable to society. Nevertheless, in the literature on the subject, you can find interesting proposals also in the dimension of the message. Chybalski proposes an indicator of redistribution symptoms based on the indicator of income inequality. If the ratio of the S80/S20 measure in the 65- population to the S80/S20 measure in the

25. J. Rutecka, *Zakres redystrybucji dochodowej w ubezpieczeniowym systemie emerytalnym*, Warszawa, Oficyna Wydawnicza SGH, 2012.

26. F. Chybalski, *Pomiar redystrybucji w międzynarodowych analizach systemów emerytalnych* [in:] *Współczesne problemy systemów emerytalnych. Wybrane zagadnienia*, ed. F. Chybalski i E. Marcinkiewicz, Monografie Politechniki Łódzkiej, Łódź 2015, p. 20.

65+ population is greater than 1, this means that there is a redistribution in the pension system, because in the retired population the income disparity is lower than in the economically active population<sup>27</sup>. Despite the limitations mentioned by the author of the Redistribution Symptom Index, it seems to be an interesting example of measurement to consider.

Transparency in the field of social security should be an element of the fiscal transparency assessment. These issues have been raised in the literature for years, and they gained practical significance at the beginning of the 21st century. Proposals for various measures of transparency assessment are proposed, for example, by international organizations such as the International Monetary Fund. "According to Copits and Craig, fiscal transparency is associated with easy access to reliable, comprehensive, timely, understandable, internationally comparable information on government activities, enabling the electorate and financial markets to accurately assess the financial situation of the state and the real benefits and costs of government activities, including their present and future economic and social consequences"<sup>28</sup>. In relation to the social security system, such a role could be played by an independent fiscal council or a domestic actuary, which, incidentally, was to be appointed after the introduction of the pension reform in 1999. However, there are no such authorities in Poland, and the scope and manner of providing information, especially on the future situation of social insurance and the assessment of social and economic effects of the changes introduced, leaves much to be desired.

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## Summary

The article analyses the objectives and areas of evaluation of social security systems, with reference to the recommendations of the European Commission and the World Bank for pension security systems. While the assessment of the adequacy and stability of the social security system is well recognized, the issues related to equality, the accepted scale of income redistribution (going beyond the random factor) and the transparency and credibility of information about the social security system are relatively less well understood. In times of dynamic aging of the population, the author considers it necessary to increase the transparency,

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27. Ibidem, p. 23.

28. Quote from: E. Malinowska-Misiąg, *Wprowadzenie do problematyki jawności i przejrzystości finansów publicznych* [in:] *Jawność i przejrzystość finansów publicznych*, ed. E. Malinowska-Misiąg, Warszawa, Oficyna Wydawnicza SGH, 2017, p. 11.

comprehensibility and transparency of information about the degree of achievement of goals, their possible modifications and effects on the functioning of social security systems, as well as social and economic effects in the long term. Due to permanent demographic changes, the working generation (covered by social insurance) should be informed about the scale of redistribution carried out by the social insurance system, about the financial consequences of proposed or introduced changes in social insurance systems, taking into account the appropriate time horizon. It seems that an effective and credible message regarding the social security situation should be delivered by an independent institution. With the introduction of the social insurance reform in Poland in 1999, it was proposed to create the Office of the National Actuary, but this office was not established. Membership in the European Union should oblige us to establish an independent fiscal council, but there is no such body either. The lack of independent bodies hinders communication and access to reliable information about the expected situation of social insurance in the future. The reliability of the information allows you to build trust in the system. Without trust, the achievement of social security goals could be jeopardised.

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