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ECONOMICS OF SOCIAL SECURITY

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ABSTRACT

Economics of social security is the discipline which is a relatively young science and if you refer to internet then you may not even find the exact definition of this subject. Nonetheless, the economics of social security is the basis of all social risks mitigation system and consists of the exact methods and parts which are reflected in this article in terms of old age security as a very representative exemple for explaining the matter.

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INTRODUCTION

Barr N. defines three main objectives of the pension system which are (i) consumption smoothing, (ii) insurance and (iii) poverty relief (Barr N., 2001) and it may be transformed to more exact definition if we consider a consumption smoothing as a method of old age poverty relief (which is an objective of a pension system) through the insurance as a technique to achieve this goal which is shown by classical social security (and old age security) equation stated by Barr (2001) sWL=PN, where "s" is a pension contribution rate, "W" is an average real wage, "L" is number of workers, "P" is average pension, "N" is a number of pensioners. First pension tier (pillar) might be conceptually different from flat rate basic pensions up to the income related contribution based, defined benefit or even defined contribution or notional accounts based and the common feature is that the pillar "is organized publicly and by the principle pay-as-you-go" (Barr N., 2001) and in most cases it covers overwhelming majority of the population by state pension and state social insurance.

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"Pay as you go" pillar of the pension system is usually public pension defined benefit scheme and covers most of the population and is one of the effective systems for income replacement. Using the parameters like average salary and service length for benefit size calculation the PAYG system uses solidarity principles for redistributing pension fund. The report of the EU Directorate General forinternal policies (2011) defines that major part of the EU Member States have a strong public sector involvement into pension insurance and the pension systems provide typical retirement, disability and survivorship pension benefits. Recently it was grown statutory habit to create and manage private pillar scheme for operating by private institutions: "provision and participation in the pension scheme is usually statutory". Approximately one third of the European Union Member States created "statutory funded private pension schemes" (EU Directorate General for internal policies, 2011, p.25-27). PAYG is considered as the main income security system in old age whereas a funded pillar, concerning the countries researched, is considered as an additional supplementary scheme for improving pension system adequacy.

Larry Willmore (2003) discussed pay as you go pension scheme through the problem of population ageing and specified that PAYG scheme is dynamically changing all the time and permanently depends on several macroeconomic factors as it was reflected in the formula: CR*AW*CONS = AP*PN , where, the pension system depends on the following primary factors: CR – contribution rate, AW – average wage, CONS – number of active contributors, AP – average pension, PN - number of pensioners (Larry Willmore, 2003, p.2). Larry Willmore (2003) also proposed financial stabilization measures based on the type of the pension benefit scheme: (i) basic flat rate pensions which financed from state revenue general: "maintain the gross value of the pension as a percentage of the average gross wage"; (ii) means-tested and not taxable as income: "will have to be indexed to average wages net of taxes rather than the gross wages" which allows to keep an average income level; (iii) contribution related pension: "restore financial solvency by cutting benefits rather than mandating higher contributions from current workers" (Larry Willmore, 2003, p.3-4).

Willmore also determines that PAYG contributory pension benefit schemes pensioners have the following advantages as a windfall gains: (i) accrual rate will be indexed to agreed adjustment rule (by wage increase or by CPI ratio); (ii) pensions will be increased anyway by the GDP positive ratio. Economics of the PAYG scheme presupposes that many pension systems keep constant contribution rate (S) and changeable support ratio (L/R) and replacement rate (P/W) and the real return of social (pension) insurance contributions is equal to the "sum of the rate of growth of the labour force plus the rate of growth of real wages (productivity)" (Larry Willmore, 2003, p.3).

The first pillar is an instrument for preventing poverty, providing minimum pension with basic level of adequacy and "together with additional means-tested pension income, keeps retired people out of poverty" (European Parliament, Pension Schemes, 2014, p.31). First pillar PAYG is represented by its different forms and among researched countries. Mainly pension systems of the studied countries may be divided into the following three groups:

- Basic pension which is a flat rate or rarely length of service and labour market participation tested benefit and normally not linked to the size of previous salary or social contributions. Studied countries: Luxembourg, Ireland, Denmark, Netherlands and Estonia are using this provision.
- Minimum pension concept is the most common type of redistribution of the benefits, but it is often combined with means tested pension. The minimum (social) pension is activated when basic pension was not reached by earnings related system. It is applicable for Belgium, Bulgaria, Finland, France, Greece, Latvia, Luxembourg, Poland, Romania, Spain, Sweden, United Kingdom.
- Means-tested/targeted: The means tested redistribution is a provision based on needs of individual and it applicable to the pension systems of Belgium, Bulgaria, Cyprus, Denmark, Germany, Italy, Latvia, Luxembourg, Malta, and the United Kingdom.

Above described three types may be existed in the country simultaneously and usually in some countries basic or minimum is supplemented by means tested benefits. The funded pension scheme allows to accumulate pension contributions (pension assets) investing them to various legal financial portfolios for gaining extra profit from the assets. Many pension systems, to different extend, implemented various compulsory or voluntary funded schemes and the assets are transferred to management or investment companies. The insured persons should be able to choose investment schemes.

This metrics can influence to pension fund budget sustainability as the fund doesn't finance public sector pension expenditures but extracts budget and invests special portfolios. This may shrink public fund and may affect to overall social security budget. DC Funded pillar always bears an investment risk which should be addressed by participants of the funding. No single part (individual) should be responsible solely. Government will guarantee minimum pension at least at the cost of social contributions, management companies is responsible for investing and financial return, individuals is responsible for choosing investment companies and investment portfolios - all this may "ensure a stable annuity in the payout period under MRS schemes" (Anne Drouin and Michael Chicon, 2009). Nicolas Barr stated in turn, that "just PAYG is argued to represent implicit debt, so can it be argued that mandatory private pensions have a strong implicit state guarantee" (Nicolas Barr, 2001, p.124).

The period of paradigmatic pension reform in many countries has failed the old age security sustainability requirements and now requires significant repairs for them to provide at least minimum subsistence level of pension benefits (old age and disability pensions), ILO suggests to reach first the "innovative ways to combine the DB principle with the DC approach". Funded system itself doesn't solve the problem poverty and as it was shown it apparently skip out the low income, poor and citizens who no longer earn wages being out of employment or disabled: in this case "poverty will continue and social stability will be threatened". Minimum income security is not a business of capital market but other levers like government and society itself and it relies on financial and social stability of the pension system. The system must monitor the situation permanently in order to turn on the mechanisms of financial or social stabilizations (Anne Drouin and Michael Chicon, 2009). For those stabilization measures being effective the multi-pillar pension system should be designed in innovative way to provide flat rate state pension system with coverage of minimum standards and proper DC system for those who has an ability to earn supplementary pension benefit from investing. Financial and social stabilization measures might be triggered any time the pension system will need it. The better designed system the less financial indicators are used whereas the social stabilization mainly oriented to the retirement age reset first of all.

One of the aspect of the DC pillar is its cost and the cost of the pillar is higher than public PAYG system: "the evidence that the administrative costs of individual accounts are higher – often considerably higher than PAYS schemes is well established" (Nicolas Barr, 2001, p.122). Anita Shwarz discusses about the cost of the DC funded scheme and around, namely, that first of all there is a transition cost to shift to a funded system "since the government must continue to pay pensions to current pensioners and acquired rights to current workers when they retire". This happens for all insured persons as the DC switchers still participate in the PAYG

within multi-pillar pension system. even as workers begin to put part or all of their contributions into individual defined-contribution accounts. By Anita Shwarz there might be other systemic changes which include a "noncontributory benefit which tends to be positively redistributive". The author again apply to World Bank concept of multi-pillar system where a "zero pillar" may provide means or income tested social benefits t the "people who previously had no access to pensions" or had no service length. (Anita Shwarz, Pension System Reforms, 2006). Creating of DC funded scheme requires preparatory actions through the arranging "room for second-pillar financial account systems" which include (i) reducing PAYG scheme (mostly) by freezing or reducing contribution rates; (ii) mobilizing the assets into the pension payout system in order to finance current pension obligations; (iii) create funded personal accounting system; (iv) Creating a budget surplus for financing PAYG pensioners.

Regarding the administration of the personal accounts: By Holzmann and other (2006) many countries entrust contribution collection to the centralized treasury: "the cost-efficiency argument has constituted a strong case for putting the collection of all public revenues and social insurance contributions under one roof". In defense of this statement, Holzmann brings the published example by Thompson (1999). Based on his assumption the centralized clearing house approach (and some index funds) "reduces gross benefits from DC account proceeds by 5 percent, whereas a system with decentralized administration with a Latin American annuity mandate reduces gross benefits by 25 percent". Another argument "against having a few big index funds in a small and developing financial environment unless they are competing "world-based" index funds (Holzmann et al, 200).

Conclusion

The parameter shows how affordable and accessible the pension system for categories of population. In the research we'll take into consideration average contribution rate for public service area and only for PAYG pension scheme. Within DC system, as stated by Anne Drouin and Michael Cichon "there is no pension guaranteed as the contribution rate is set" and replacement rate mostly "only arbitrarily set at the onset of reforms" (Anne Drouin and Michael Cichon, 2009, p.2). Within defined benefit system the contribution rate determined by analyzing many indicators such as number of pensioners and its demographics, categories of taxpayer, and "economic variables like GDP growth, productivity changes, employment, interest rates, wage growth and prices" (Anne Drouin and Michael Cichon, 2009, p.2). The contribution rate is the indicator which plays role of financial stabilizer but unpopular measure in the PAYG and partially funded pension schemes. Benedict Clements states that for financial stabilization "countries could… consider reducing pensions where these benefits are high". He suggested not to do it for those who are "close to the poverty line".

Contribution rates could be raised in the rates are relatively low: "we must keep in mind the vital role pensions play in reducing old-age poverty". But anyways, the author suggests to consider the problem of changing social contributions taking into account health care components as well: "tackling both pensions and health spending should be key components of countries' fiscal adjustment plans" (Clements, 2012). Author discusses the situation in advanced countries and concluded that "advanced countries face difficult choices as they undertake fiscal adjustment" (Clements, 2012). In the report of "Pension systems in the EU" of the EU Directorate General on Internal Affairs (2011) there are explanations how the organization do influence on some sensitive aspects of pension systems. For example "the influence of ageing population on the SGP" (The Stability and Growth Pact includes the fiscal rules of EU Members, ceiling of budget deficit, etc.) within the pension systems who financed from the contributions from employer and employees, "is smaller than more tax-financed systems". Moreover the report (EU Directorate General on Internal Affairs, 2011) states that "different weight of the three pension pillars has an influence on the amount of the public pension expenditures". Understandably the extensive public pension funds lead to high public pension expenditures than systems with a strong funded systems. Pension system affordability or social contribution rates refer to the economic and financial capacity of the business, individuals and whole society and uses contribution rate indicator which is balancing the social security equation sWL=PN regarding old age security and what is important, the contribution rate is in direct proportion to pension fund (s=PN/WL) meaning the more contributions the more pension fund but, on the other hand, the contribution rate is in the inverse proportion to wages and labour force (WL) and it says about economic pressure to employers and employees, hence, more contributions negatively affect wages and entire state budget.

REFERENCES

Baroni Eliza, 2007. "Pension Systems and Pension Reform in an Aging Society: an Introduction to the debate, InstitutetförFramtidsstudier.

Barr Nicolas 2001. "The welfare state as piggy bank. Information, risk, uncertainty and the role of the state", Oxford University Press.

Barr, Nicholas 2012. The Economics of the Welfare State, OUP, Ch. 7

Barr, Nicholas. 2000. "Reforming Pensions: Myths, Truths, and Policy Choices." IMF Working Paper, WP/00/139, International Monetary Fund, Washington, DC.

Bob Deacon with Michelle Hulse and Paul Stubbs,"Global Social Policy: International Organizations and the Future of Welfare", 1997, London.

Cichon Michael, 2004. Approaching a common denominator? An interim assessment of World Bank and ILO position on pensions, ILO Office, Social Protection Sector.

Clements B. 2011. Promises. Better measuring the effect of pension reform, IMFdirect.

Clements B. 2012. It's the years not the Mileages: IMF analysis of pension reforms in Advanced Economies.

Drouin Anne, Cichon Michael, 2009. Optimal financing and self-adjusting mechanisms for sustainable retirement systems, The social stabilisation of pensions in times of crises and beyond: A critical review of three decades of pension reform and their outcomes

Economic Policy Committee 2002. "Reform challenges facing public pension systems: the impact of certain parametric reforms on pension expenditure".

EU Directorate General for internal policies, Pension systems in EU - contingent liabilities and assets in public and private sectors, 2011, ECON

Holzmann R. 2000. "The World Bank Approach to Pension Reform".

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

Holzmann R., Hinz R., Dorfman M. 2008. Pension systems and reform conceptual framework, WB SP Discussion Paper N0824

Robert Holzmann and Richard Hinz together with Hermann von Gersdorff, Indermit Gill, Gregorio Impavido, Alberto R. Musalem, Robert Palacios, David Robolino, Michal Rutkowski, Anita Schwarz, Yvonne Sin, Kalanidhi Subbarao 2001, "Old-Age Income Support, in the 21st Century An International Perspective on Pension Systems and Reform", World Bank, Washington DC.

Tânia Cristina Simões de Matos dos Santos and Inmaculada Domínguez Fabián, 2009, Financial solvency of the pension system in the European Union

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