Intergenerational economic transfers in the period of rapid population aging: The case of Slovenia

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The human being is a creature that needs help from other older humans for an extended period of time in the early stage of life to survive. For older individuals, this is not necessary in all cases, as some people work and take care of themselves through the end of their life. However, the production of older people is not enough to cover their consumption. Economic development has prolonged these two periods of dependency, and economic flows across age groups much cover the elderly's excess consumption. International researchers have been comprehensively analyzing those flows with the National Transfer Accounts (NTA) method. This method is synchronized with the well-established and worldwide System of National Accounts (SNA) but adds the age dimension to the SNA. Age profiles are formed for the components of consumption and labor income but also for economic flows, to cover the difference between the two categories. This is done by calculating age profiles from microdata (predominantly survey data) and adjusting them to aggregate values (predominantly SNA data). Some categories, including intrahousehold private transfers, are innovatively calculated as part of the NTA methodology.

Age is becoming an increasingly important dimension because of the aging of the population, which is causing profound changes in the age structure of the population. The combination of low fertility, decreasing mortality and the baby-boom generations entering retirement will dramatically increase the share of elderly people in Slovenia in future decades. Age is the most important attribute of determining people's economic behavior. In the past several years, the NTA methodology has been developed and the results for many countries worldwide have been prepared. In this paper, we present the latest NTA results for Slovenia and build further analyses on them.

Based on the data from 2004 people in Slovenia were producing more than they were consuming only from age 25 to (including) 55. In NTA language, only in this period the *lifecycle deficit* was negative, people's labor income exceeding their consumption. This narrow interval of only 31 years is a striking result considering that life expectancy at birth was at that time 74 years for men and 81 years for women. The most distinctive Slovenian result compared to other countries for which the NTA results have been calculated is the labor income age profile, which presents per capita labor income by age. In the Slovenian case it starts to rise late but falls first. Further, the general characteristic of the age reallocation system for the elderly (through which the identified lifecycle deficit is covered) in Slovenia as compared to other countries is a high share of public transfers.

Next, we use obtained age profiles to analyze long-term sustainability of the Slovenian public system by projecting public revenues and expenditures. Without further changes in the pension system this will bring about strong pressure on the public pension system. In the analysis we use the *age profiles-based model* combining age profiles with the demographic projections. As expected, the results reveal, *ceteris paribus*, an increasing gap of expenditures compared to revenues because of rapid population aging. We concentrate on the share of public expenditure on pensions in gross domestic product (GDP). Using the medium variant of population projections and current pension legislation system an increase from 10.1% of GDP in 2007 to 19.8% of GDP in 2060 is projected.

We believe that the government will not allow an increase in pension expenditures as a share of GDP to the levels presented in default scenario. The projected rise in pension expenditure will have to be mitigated at some point in the future. One of the options is reducing pension benefits. We analyze the effects on pension benefits of currently living cohorts on the assumption that the government caps pension spending at some point. Depending on the chosen ceiling level (cap) the extent of the pension cuts differs. We calculate the reduction in pension benefits that representatives of different cohorts will receive in their remaining lifetime, i.e. the reduction of their *pension wealth*.

The Slovenian pension legislation provides equity among pensioners who retire at different points in time. An equal reduction of pension benefits suggests an equal distribution of burdens arising from the ageing population. However, the model reveals very different effects of this measure in relation to different cohorts. Thus, when introducing the time dimension

into the analysis, the uniform (and so seemingly fair) distribution of future burdens over all generations has a very different distribution of burdens across cohorts.

We focus also on some other government measures to limit growing public expenditures. Based on the results about early withdrawal from the labor market in Slovenia the simulations of prolonging age at retirement are especially relevant. To keep pension expenditures at about an unchanged level, an increase in the retirement age of about 4 to 5 years in every 15-year period would be required. For the entire 2015-2060 period the required increase is thus between 12-15 years. Again, the distribution of burdens among age groups differs. In this case the contrast between burden being levied on younger cohorts and elderly is even sharper.

The results we found are in line with the elderly's aspirations to delay cuts in old-age benefits for as long as possible. Given that expenditures must balance with public-sector revenues, the elderly prefer tax increases, especially on labor, because this measure affects them much less than it does other age groups. However, this shifts burdens to younger generations and generations to come. It is difficult to clearly place limits on this burden (accumulating in form of increasing public debt), and in intergenerational negotiations, the elderly possess political power through the vote, unlike younger generations and those to come.