Ageing and Public Pensions in Spain. Do We Face a Problem of Macroeconomic Sustainability?

As in many other populations, the age structure of the Spanish population has changed in last decades, as part of the ageing process. This new age structure, as well as the new demographic dynamics that produce it, are usually designated as part of an economic "problem", especially for sustainability of pensions systems. In this context, some reforms in social security which restrict protection are usually proposed. As the elderly is every day a larger part of populations, it implies going forward scenes with every day more people in poverty vulnerability. Faced the social relevance of these orientations of social policy, it is worth inquiring and review the idea of relation between ageing and an economic challenge.

By critically analyzing the limitations of the indicators traditionally used, we propose another approach to elucidate the material impact of aging. This approach is an alternative way to use the contributions of the project National Transfer Accounts to generational economy.

Methods:

1. The analyzes oriented by the support ratio tend to assume that a greater number of “dependents” individuals increases the general material challenge. The approach allowed by the NTA (United Nations, 2013) shows that this challenge is not about the “dependent” condition of the individuals, but their consumption levels, which do not necessarily vary related to this condition. Thus, a greater demand for transfers to dependents may not imply greater global economic demand, but rather a change in the age composition of that demand.

However, the calculation of the evolution of the consumption demands of a population, considering the age structure and their consumption patterns, does not distinguish between, on the one hand, the economic challenges that derive from vegetative factors and, on the other, those that result of the transformation of the structure by ages. Eider distinguish those explain by extra demographic factors. Therefore, following Minoldo and Peláez (2017), we will disaggregate consumption into three components. In the first place, the "vegetative consumption”, i.e. the part explained by the vegetative evolution of the population, estimated assigning for each individual an average consumption (corresponding to the reference year). Secondly, the “age consumption”, i.e. the part explained by the age structure, resulting from the differential between the vegetative consumption and the estimated consumption taking into account the age consumption patterns (corresponding to the base year). And thirdly, “extra-demographic consumption”, i.e. those explain by other variables that modify the levels of per

capita consumption, whether economic, distributive and / or cultural. This part is estimated as the differential between "demographic consumption" (resulting from the sum of vegetative consumption and age consumption) and verified consumption.

2. Regardless of its effect on consumption, the transformation of the age structure could have an impact on the capacity of societies to generate income, by reducing the weight of people in productive ages.

The NTA economic support ratio simulates the temporary stability of income patterns by age, to isolate the effect of the structure by age change. However, this may distort the final impression: if the effect of ages on income depends on age-based patterns, disregarding true patterns implies attributing to ages an impact that they actually lack. This calculation cannot account for the full impact of the transformation of the structure by age, which also explains some of the changes in the patterns. In addition, a deterioration in the relationship between consumption demands and estimated income, which do not coincide with the income actually generated, may not explain the effective challenges to economically solve such demands.

With an estimation of the “global income” actually generated, realistic information about available resources for social distribution would be obtained. To avoid confusing the real capacity of generate income with the effect of modifications in the primary distributive pattern between capital and labor, Minoldo and Peláez (2017) consider convenient not to use the really verified global income. Instead, they propose to estimate a "hypothetical global income" (H), based on the global economic production and assuming a stable primary distribution pattern. Thus, it is enough to have a GDP data (or a projection of it in various scenarios) in order to estimate, in turn, the H global income.

3. Minoldo and Peláez (2017) propose recalculate the economic support ratio with the H global income. The “H economic support ratio” allows to effectively quantify the possible tensions between the evolution of consumption demands and that of the wealth produced by the population. This calculation is able to establish for the extent to which the economic sustainability of consumer demands has been compromised (or not). Assuming an absolute GDP stagnation, a projection of future H global income can be made. So, the future H economic support ratio can be calculated for different scenarios.

Resources: The calculations of this work are based on data of the Annual Population by Age - Both Sexes made by United Nations (2017). On the other hand, they use data of the age patterns provided by NTA (2017).

Findings:

1. The consumption changes of the Spanish population is mainly explained by extra-demographic factors and, when only demographic evolution is considered, the relevance of the vegetative factor predominates. The contribution of the change in structure to per capita consumption has been almost irrelevant. Until 1970, it practically did not modify it (it varied between -0.1 and 0 respect to the per capita consumption of 1960). Subsequently, while the demand for per capita consumption grew 3.7% due to age factors between 1970 and 2015, consumption increased 135.4% due to extra demographic factors, in a context where per capita GDP grew 128%.

If the population projections drawn by the United Nations (2017) are fulfilled, it would reach an increase in GDP per capita of 1.26% in 20 years to neutralize the increase in consumer demands explained by the age structure, and sustain its current relationship with the wealth produced. When considering also the vegetative tendency of the population, we find that sustaining the same level of consumption in each age (as in 2015) will be possible even producing less wealth in global terms. If the GDP accumulates a growth of 1% in the next 10 years, and even if by 2050 it fell 2% compared to its level in 2015, the solvency of consumption would not be affected at any age. What does change is the composition of consumer demands, since the weight of older people increases.

2. The re-estimation of productive capacity with H global income evidences the enormous underestimation that resulted from forcing the stability of income patterns and aggravated the deterioration in the support ratio, attributing materially dramatic effects to the aging of the population.

3. We find that the decline in the H economic support ratio is more pronounced and begins earlier than the support ratio based on fixed income patterns or an exclusively demographic relationship. On the other hand, the H economic support ratio until 2050 does not increase, unlike the demographic and economic ratios.

Conclusions

We find that the aging challenge in Spain is not so related to economic sustainability but to a distributive problem: the imperative to adapt protection institutions to change in the composition of consumption by age.

To achieve per capita consumption evolve in tandem on all ages, changes are required in the participation of different age groups in global consumption. For the pension system, this would imply the mandatory need for a growth of pension resources in proportion to GDP. Faced with the challenge of adapting to these changes in the age composition of consumption, the social security financing design itself could be the problem that affects the viability of the pension system.

Bibliography

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