

IMSERSO / European Centre / UNECE

Workshop

Sustainable Ageing Societies: Indicators for Effective Policy-Making

Thematic session 1b

Population ageing, economic growth,
wealth and well-being

Madrid, Spain, 14-16 April 2004

Economic Growth in an Ageing Society: Indicators

András Simonovits

March 30, 2004.

Economic Growth in an Aging Society: Policy-relevant Indicators: Revised

by András Simonovits (Institute of Economics, HAS, Budapest)

All over the world, the population is aging in an unprecedented way. There are two direct reasons for this sharp aging: (i) the dramatic drop in the total fertility rate (TFR) and (ii) the apparently unlimited increase in the life expectancy at birth or at minimal retirement age, say 60 years. We have not yet developed a good economic theory that told us how the per capita economic growth would continue in an aging society. While the total dependency rate may be stagnant, young-age dependency rate will drop and old-age dependency rate will rise. No doubt, the structure of total consumption will change: demand for schooling (especially for pre-university education) will drop and demand for hospitals and nursery homes will jump. Since in modern societies, the role of the government is much stronger in old-age support than in child support, the responsibility of the government will increase. We can exclude as absurd that the tax rates will rise parallel with the old-age dependency rate: sure, the rise of health care/GDP ratio should be contained and old-age pension replacement rates should be diminished, considering all mandatory (public and private) systems. The key issue is the following: how will the labor force react to these changes? How will the earning–age profile change? How will employment increase? How will the real wages increase?

Do not forget about the other variables, either. Nobody knows exactly how the interest rates and more generally, the asset prices will drop. Nobody gauges how the government debt and the external debt will evolve. Nobody has a clear idea about the future of immigration. And returning to the starting point: nobody knows the future evolution of fertility.

According to the invitation, I am asked to identify "the most important policy-relevant issues... and suggest appropriate indicators to measure policy outcomes". "Keep the number of proposed indicators to no more than 12, and include a very brief justification,... identify the data sources and protocols for calculation."

To be specific, I do not mention those indicators that cannot be influenced by the governments or are independent of aging. I confine my attention to those indicators that can be influenced by the government and are age specific. Here is a list.

1. *Family support.* According to certain theories and observations, the fertility rate depends on the level and structure of family support. For example, a good indicator

is the ratio of family allowance and family tax allowance to the average or the minimal wage.

2. *Education.* The more educated the population, the more productive it is. Higher level of average education may make up for the smaller number of population. *The average school years of the population, controlling for quality.* This calculation is very difficult, especially where the extension of education is very fast. For example, in Hungary the share of people entering higher (university) education has doubled in the past years and obviously, the quality of education must have been diminishing. Put it simply: just giving an unskilled worker a university diploma, his productivity and his salary will not be increased correspondingly.
3. *Wage policy.* Different countries have different wage-age profiles. In those countries, where the seniority pay rise is not too steep, older people are not forced to retire. There is also a selection bias here: in those countries (like France) where the majority of people are incited to early retirement, only the really well-paid stay in employment after 60. A good indicator: *the ratio of the average full-time earnings during 55-60 to the average wage.*
4. *Payroll tax rates.* Many economists are convinced that high payroll tax rates (needed to finance public pensions and public health insurance) diminish the employment of working-age population and promote early retirement, at least in the formal sector. At the same time, low payroll taxes yield low replacement rates and undermines the very idea of forced pension saving. *Both average and marginal payroll tax rates are relevant.* Note that the payroll tax rate has at least two components: one paid by the employer and the other by the employee. In most OECD countries (like the USA or Germany or Poland since 1999) the two rates are equal but in other countries (especially in Eastern Europe), the employer's contribution rate is much higher than the employee's. (As an outlier, in the Netherlands and Chile, there is no employer's contribution!) This warrants the standardization in the international usage: either calculate with the total wage cost or replace the artificially determined gross wage by a corrected one, calculated with equalized employer and employee's contribution rates.
5. *Public pension system.* A most menacing burden of aging is a generous public pension benefit. What are *the replacement rates* (individual: first benefit/last pay, social: average benefit/average wage) and how they depend on the *number of working years or more generally on lifetime earnings?* Note here that different

benefit indexation rules yield different results: for example in France the pension benefits are indexed to prices while in Germany, to wages. Due to this difference, identical initial replacement rates imply higher lifetime replacement for a German pensioner than for a French one.

6. *Implicit debt due to the public pension system.* It has become quite customary to calculate the implicit debt due to public pension system. There are various definitions of the implicit debt and all are expressed as the percentage of the current GDP. Auerbach and Kotlikoff's Generational Accounting is a very popular although controversial method of expressing the intergenerational tensions in the public economy.
7. *Health care.* The most dangerous impact of aging is the secular rise in health-care cost. *What is the expected ratio of health expenditures to output? How does it influence the health status of the working and the retired population?*
8. *Public investment.* As is sensible to buy new apartment and durable goods before retiring, it seems to be sensible to prepare for the coming population aging with anticipated public investment. *The share of public investment to the GDP.*
9. *Public debt.* As is sensible to repay personal debt before retiring, it is equally sensible to diminish public debt before the baby boomers retire. The proposed indicator: *the ratio of explicit public debt to GDP.*
10. *Foreign debt.* Quite surprisingly, the relative size of foreign debt is very seldom discussed in the pension literature, although its accumulation is also a significant burden for the future. Comparing the USA and Western Europe, it is evident that public debt and foreign debt need not move parallel. For example, around 2000, the USA had a sizable government surplus and a sizable foreign trade deficit, while the opposite characterized the continental countries, including France. The proposed indicator: *the ratio of foreign debt to GDP.*
11. *Tax rebates.* The proponents of private pension and health systems are not worried by the high level of tax rebates enjoyed by participants in voluntary private schemes. This is wrong and induces perverse redistribution from the poor to the rich. *The ratio of tax rebates on private financial investment.*
12. *Private assets and liabilities.* The proponents of private pension systems are not worried by the low level of private assets and the high level of private liabilities. This distinction between public and private spheres exaggerates the distance between the two fields, especially if the private pension and health system is also

mandatory (as is the case of Latin America and Eastern Europe). Proposed indicator: *the ratio of net private assets to the final pay.*

Organising Committee:

Hosted by



Organised by



in collaboration with



Under the auspices of

