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Comments on  
*Notional Defined Contribution Pension Schemes  
and Income Patterns*

by  
*Sergio Nisticò and Mirko Bevilacqua*

The paper looks into the properties of NDC pension schemes in order to identify the determinants of the replacement rates, defined as the ratio of the first pension to the last wage, awarded to individuals with different income patterns. The topic is important and deserves attention.

The first round results in the paper are: (1) the steeper the income profile over working career the lower the replacement rate thus defined; (2) missing years for an individual whose wage growth exceeds the average wage growth has a smaller impact than missing years in late career (reverse for an individual with a lower-than-average wage growth). These results reported in Tables 1-4 are correct but also quite obvious, following from the basic arithmetic of NDC (and are valid also for a broader class of defined contribution schemes). They could be presented in a fraction of space and in non-technical language, basically providing the few numbers in Table 4. Mathematical expressions are not needed for experts who understand these simple results even without, and they only discourage readers who are not familiar with maths.

There is not necessarily any problem with these features. On the contrary, as also stated by the authors, NDC has the advantage of doing away the unfairness of the traditional Defined Benefit systems that often give/gave a higher return on pension contributions for individuals with steep career patterns (often in higher income groups), at the expense of those worse-off.

Also the presentation of the (simple) dependence on replacement rates on contribution rate in section 3.1 is correct but obvious. For the substance, it rather shows that the problem, given the current and projected demographics, is that the retirement age is too low and should be raised to obtain a better trade-off between contribution rate and benefit level.

The paper gets more interesting in the sections where the problems caused by short careers are treated. These are real issues, again not only for NDC but also for other schemes and the society at large. Yet, NDC can provide a solid framework where adequate pension be provided by filling the no-contribution parts of working-age life from other sources of the government. Extending this analysis with providing statistics on relevant problems and possible solutions would be highly appreciated, filling the space left from shortening the earlier sections of the paper.

The paper could benefit from references to the newly published edition of NDC systems in the changing pension world published in two volumes by the World Bank in 2012 (referred to under Nisticò 2012).

I hope these comments help the authors to produce a further version of their paper.

Heikki Oksanen

**Reference:**

Holzmann, Robert, Edward Palmer, and David Robalino (eds), 2012. *Nonfinancial Defined Contribution Pension Schemes in a Changing Pension World: Volume I—Progress, Lessons, and Implementation*. Washington, DC: World Bank, at <https://openknowledge.worldbank.org/handle/10986/9378>, and *Volume II—Gender, Politics, and Financial Stability*. Washington, DC: World Bank, at <http://www.scribd.com/doc/112929876/Nonfinancial-Defined-Contribution-Pension-Schemes-in-a-Changing-Pension-World>.