The Journal of the Economics of Ageing 5 (2015) 33–44

Contents lists available at ScienceDirect

The Journal of the Economics of Ageing

journal homepage: www.elsevier.com/locate/jeoa

Full Length Article

# Reallocation of resources between generations and genders in the market and non-market economy. The case of Italy

Marina Zannella

*Institute of Mathematical Methods in Economics, Vienna University of Technology, Austria*

ARTICLE INFO

*Article history:*
Available online 4 November 2014

*Keywords:*
Intergenerational relationships
Gender
Economic transfers
Household production
Time use

ABSTRACT

In this article the National Transfer Accounts (NTA) method is used to develop a comprehensive account of resource reallocations between population members in Italy, encompassing the age and the gender perspective, the public and the familial institutional sectors as well as the market and non-market dimensions of the economy. The inclusion of the non-market economy, referring to household and care time, allows for an insight into the gender division of labour and the strength of intergenerational obligations in the Italian *familistic* welfare regime. Results highlight the existence of large flows of resources within the family both between genders and toward young generations, with men and women giving rise to considerable monetary and time transfers, respectively.



## Introduction

Increasing life expectancies and low fertility are determinants of population ageing in industrialized countries. This process appears to be particularly severe in Italy, which shows the second highest share of population aged 65+ (21.2%) and old-age dependency ratio (32.7%) among European countries (Eurostat, 2014a). The scenario is expected to exacerbate in the future: according to Eurostat projections for 2050, the old-age dependency ratio will increase by 60% (Eurostat, 2014b).

Ageing poses relevant questions in terms of intergenerational relationships and equity, which are at the heart of the challenges contemporary welfare states are faced with. The debate on intergenerational equity has been mostly focusing on the public sector, with particular regard to fiscal sustainability (e.g. Auerbach et al., 1994). The main argument is whether the growing cost of old-age pensions and health care would excessively bias public transfers and overburden the working-age population, giving rise to a "generational conflict" (Preston, 1984). Nevertheless, a large body of literature has stressed the key role of families in the redistribution of resources across generations, highlighting the existence of strong ties and solidarity (for a review see Arber and Attias-Donfut, 2000).

The National Transfer Accounts (NTA) project (www.ntaccounts.org) has been the first effort to comprehensively measure and analyze intergenerational reallocations, including both the private and the public sector. The NTA method (United Nations, 2013) is based on the disaggregation of macro-economic measures by age and provides information on what people produce, consume, save, transfer and receive at different stages of the life course. Introducing age into national accounts, NTA greatly contributes to shed light on the "generational economy" that is the combination of mechanisms and institutions used to finance consumption at different ages and the contract, either formal or informal, regulating intergenerational economic relationships and reallocations (Lee and Mason, p. 7, 2011)

The "generational contract" (Bengtson and Achenbaum, 1993; Walker, 1996) relies, in turn, on a gender contract, "*a set of implicit and explicit rules governing gender relations which allocate different work and value, responsibilities and obligations to men and women and is maintained on three levels – cultural superstructure – the norms and values of society; institutions – family welfare, education and employment systems, etc.; and socialisation processes, notably in the family*" (European Commission, 1998). Gender division of paid and unpaid work is virtually universal, albeit at drastically different levels across countries. Women, beside their increasing participation in the labour market, continue to play a key role in household production generating many resources, in the form of goods and services, which are distributed across the family to meet the needs of its members. Despite its undeniable social value, unpaid domestic work and, thus, non-cash familial contribution to the welfare, is not recognized as an economic activity, and consequently, is invisible in the System of National Accounts ((SNA) United Nations, 1953).

The exclusion of household production from SNA has long been criticized for underestimating the value of total production and, in particular, of that of women who have been traditionally committed in housework and family care. A main concern regards

http://dx.doi.org/10.1016/j.jeoa.2014.09.003
2212-828X/

the perpetuation of gender inequalities, which is supported by the very strong argument that "*there is a very simple equation operating here: if you are invisible in a nation's economy, you are invisible in the distribution of benefits*" (Waring, 1999). The SNA revision (United Nations, 1993) has partly embraced those criticisms, suggesting the development of satellite accounts for household production. The idea has been reinforced by the United Nations *Fourth World Conference on Women*'s final recommendations (United Nations, 1995) toward national and international statistical organizations to develop time use surveys (TUS) as a tool to measure and evaluate unpaid domestic work. In recent years, thanks to the increasing availability of TUS, a number of scholars have made important efforts in order to evaluate the extent of household production and to develop satellite accounts (e.g. Goldschmidt-Clermont, 1999; Ironmonger, 1996; Landefeld and Mc Culla, 2000; Holloway et al., 2002; Abraham and Mackie, 2005; Krueger et al. 2009).

Household satellite accounts provide us with aggregate measures of unpaid domestic work, and thus ignore the age dimension. However, comparative studies on gender differences in time allocation have highlighted that household production varies significantly during the life course both for men and women, especially in correspondence of key events such as having a child or retirement (Apps and Rees, 2005; Anxo et al., 2007; Zagheni and Zannella, 2013). Recently, within the NTA project, a method has been introduced (Donehower and Mejia-Guevara, 2012) with the twofold objective of further disaggregating measures of market-based intergenerational reallocations by gender and accounting for non-market transfers within the family. The result is the creation of two satellite accounts for age and gender referring to the market and non-market economy, respectively, the latter termed *National Time Transfers Accounts* (NTTA).

This article aims to develop a systematic and comprehensive account of resource reallocations between population members for Italy in the year 2008, encompassing the age and the gender perspective, the public and the private sector and the market and non-market dimensions of the economy. For this purpose, the NTA methodology has been used, ensuring the possibility for the future to compare the results with those of other participating countries. In particular, four main objectives have been established: (i) to estimate intergenerational reallocations occurring within the market, namely constructing NTA for Italy; (ii) to disaggregate NTA measures by gender; (iii) to build an account of non-market transfers across generations and genders within the family, namely constructing NTTA for Italy; (iv) to combine the information related to the market and non-market economy as well as the age and the gender dimension to obtain a complete picture of the economy and of its related redistributive system.

The article is organized as follows: Section 'Principal data and methods' describes the principal data and methods, distinguishing between those used for market and non-market reallocations. Main results are presented in Sections 'The Italian age reallocation system: principal results for National Transfer Account', 'Introducing gender into National Transfer Accounts', 'Accounting for non-market reallocations within the family: National Time Transfer Account' and 'Completing the picture of the Italian age and gender reallocation system: some considerations on total economy'. More precisely, Section 'The Italian age reallocation system: principal results for National Transfer Account' shows results for the Italian age reallocation system in the market economy, which are extended to gender in Section 'Introducing gender into National Transfer Accounts'. Section 'Accounting for non-market reallocations within the family: National Time Transfer Account' presents estimates of household production, consumption and non-cash familial transfers. Results for the market and non-market economy are then combined in Section 'Completing the picture of the Italian age and gender reallocation system: some considerations on total economy', providing a complete picture of the Italian age and gender reallocation system. Section 'Completing the picture of the Italian age and gender reallocation system: some considerations on total economy' also presents an application, using demographic projections and estimated age profiles of production and consumption, to analyze the possible economic consequences of future ageing. Finally, Section 'Discussion and conclusions' discusses the cross-sectional picture of the economic relationships across generations and genders in Italy for the year 2008, offering an insight on the underlying generational and gender contracts.

## Principal data and methods

The economic life cycle, defined by age patterns of consumption and production, is a key concept in the NTA approach. The difference between consumption ($C$) and labour income ($Y^l$) at each age ($x$) provide us with a measure of the life cycle deficit (LCD) or surplus (LCS). A positive value of this difference indicates the existence of a deficit that must be funded through intergenerational reallocations. Conversely, a negative value indicates a life cycle surplus that can be either transferred to deficit ages or saved. In other words, the LCD or LCS must equal the age reallocations, composed by transfers and asset-based reallocations:

$$\underbrace{C(x) - Y^l(x)}_{LCD.or.LCS} = \underbrace{\tau^+(x) - \tau^-(x)}_{Transfers} + \underbrace{Y^A(x) - S(x)}_{Asset-based reallocations} \quad (1)$$

where $Y^A$ is asset income, $S$ is saving, $\tau^+$ and $\tau^-$ are transfers received and paid at each age $x$.

Age reallocations are mediated by both the public and the private sector. The latter consists of transfers between households (also termed inter-households transfers), direct or mediated by non-profit institutions, and transfers within the household (or intra-household transfers). However, in Italy, virtually all private transfers are represented by those occurring between members of the same household. Therefore I will refer to private transfers as familial transfers in this article.

Estimating NTA age profiles is a fairly complex process which requires several steps. First, per-capita age profiles are estimated relying on micro-level survey or administrative data. In a second step, aggregate age profiles are calculated by multiplying the per-capita values with the corresponding population size. Hence, at the aggregate level, age profiles reflect both population age structure and per-capita age profiles which, in turn, are largely influenced by the interaction of contextual and behavioural factors (Lee and Mason, 2011). Then, if necessary, age profiles are smoothed using Friedman's Super Smoother (Friedman, 1984).[1] Finally, age profiles are adjusted using a multiplicative factor to ensure their consistency with SNA measures, e.g. the sum over all age groups must equal the corresponding aggregate in SNA.

Age and gender reallocations occurring within and outside the market boundaries, given their different nature, require specific treatments and procedures. For this reason, the principal data and method used to construct NTA and NTTA are reported separately in the following sub-sections.

[1] Per-capita age profiles are mainly based on sample estimates. These estimates can be noisy due to the sample errors, particularly at ages with relatively few observations. However, in some cases, significant age variations are not an effect of sample errors but reflect the actual trend by age of the considered phenomenon. This is the case of the very high levels of health consumption for newborns compared with that of subsequent ages. Another example is public consumption for education, where expenditures are significantly age-targeted and can be subject to important changes from one year to another, reflecting changes in spending related to the transition to different levels of education. In all these cases the age profiles have not been smoothed.