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Economic well-being in old age in Italy: does having children make a difference?

1. INTRODUCTION: IS OLD AGE ECONOMICALLY BETTER WITH OR WITHOUT CHILDREN?

Aging is a major demographic topic, and its various facets have frequently been investigated: examples are the quality of life of older adults, their likely future demand for formal and informal support, socio-economic conditions, health status, living arrangements, and, increasingly, the availability and composition of the family network that surrounds them (see, e.g., Strain, Payne, 1992; Pezzin, Steinberg Schone, 1999; GENUS, 2003; Gaymu *et al*., 2006; Murphy *et al*., 2006).

Several studies have assessed the role of children as a source of support and care for the aged, but only a few of them have empirically investigated the relationship between the number of children and the economic well-being of the older population in the developed countries. In this study, we are specifically interested in evaluating whether past fertility has an impact on the current economic well-being of the old, both when their (grown up) children live with them and when they live elsewhere.

The basic research questions that drive us are the followings: are parents better or worse off than non-parents, in their old age? Does the number of children count? Does co-residence with one's own (grown up) children matter? What economic variables, if any, are most affected (e.g. income, assets, poverty,...)? And, finally, how can one take into account all of the possible confounding variables?

There is a relative scarcity of adequate micro-data to investigate this topic in Italy. On the one hand, economic surveys typically do not gather information on past fertility, and only inform us on the current composition of the household. On the other hand, social and demographic surveys usually cover the economic sphere only marginally, if at all. In particular, in Italy, data on both economic conditions and number of surviving children – either co-resident or not – have become available only recently, since the 2000 wave of the SHIW (Italian Survey on Household Income and Wealth).

Although our analysis controls as many potentially relevant variables as the data set allows, our (cross-sectional) data only permit us to talk of

"meaningful associations" between covariates, while they do not prove the cause-effect relationship that we suspect exists between past fertility (decided in one's adult years) and current socio-economic conditions in old age. Future research, with better data, will hopefully scrutinise more in depth the causal mechanisms that, we submit, lead to the statistical associations that emerge from our analysis.

2. THEORETICAL BACKGROUND AND PREVIOUS RESEARCH

In most cultures, children surviving to adulthood are seen as a potential source of support for their aged parents: they provide emotional help (Friedman *et al.,* 1994), constitute a sort of insurance against dependency (Wenger, 2001), protect from economic hardship (Cigno, 1991), especially in old age (Nugent, 1985), and frequently play more than just one role (Lillard, Willis, 1997, Legrand *et al*., 2003).

In practice, however, empirical research does not provide unique indications on the relationship between the presence of children and the economic well-being of the aged, because this relationship depends on the context. In a developing setting, like East Java for instance, the proportion of poor among childless elderly is more than twice as high as among parents (Shröder-Butterfill and Kreager, 2005), but the absence of a well-developed pension system is probably crucial here.

Caldwell (1982) thought that, in a developed context, wealth would flow upwards, from the young to the old, and, although with qualifications, has recently reasserted his theory (Caldwell, 2005). In the developed countries, however, things may be more complicated than this interpretation suggests. In the first place, co-residence plays a part: in Italy, for instance, more than a third of parents aged 65 and over live with their children (ISTAT, 2006). With independent living on the rise, both in Italy and elsewhere (see, e.g., McGarry, Schoeni, 2000; Tomassini *et al*., 2004; UN-DIESA, 2005), co-residence has been progressively replaced by proximity: in Italy, for instance, more than half of non co-residing old parents live within a kilometre of at least one of their children (Tomassini, Wolf, Rosina, 2003, ISTAT, 2006). Independent living normally translates into lower exchanges. Besides, with or without co-residence, the exchange is normally on a mutual basis (e.g. Couch, Daly, Wolf, 1999; Murphy *et al*., 2006).

Finally, and most importantly, the prevalent direction is apparently downwards (ISTAT, 2006): the aged seem to give more than they receive (for a different view, see Rendall, Bachieva, 1998). This happens both in the developing societies (e.g. Stecklov, 1997; Lee, Kramer, 2002) and, privately,

in modern settings, although in the latter case the existence of an extensive social security system (with income flowing upwards, towards the old) more than compensates for the private downwards transfers (Lee, 2000; 2003). Although pay-as-you-go social security systems need not be actuarially unfair (De Santis, 2003), they normally are, and the average individual receives more (in old age) than he or she has paid for (in his or her adult years) – a mechanism that proves sustainable only as long as the age pyramid remains favourable. This means, among other things, that childless elders – and, more generally, people with fewer-than-average children – benefit from social security services for which they have not paid their full share, either as direct contributions or in terms of the formation of the next generation (Demeny, 1986; Sartor, 2004).

This brings into question the controversial issue of how costly it is to raise a child from conception to economic independency. Despite the huge literature that has developed around it, estimates fluctuate considerably, and they seem to depend not only on several, often neglected variables (e.g. age at parenthood, birth order, socio-economic status of the household, *etc*.), but also, and more worryingly, on how the cost is measured (De Santis, 2004). However, to give a rough idea, direct costs can be estimated at about 20% of the budget of a childless couple, per child, per year of economic dependency. On top of this, there is also a substantial amount of unearned income to consider, possibly about 20 to 30% of the potential lifetime earnings of a woman (Davies, Joshi, Peronaci, 2000; Joshi, 2002; Di Pino, 2004; Cigno, Werding, 2007). These considerations suggest that, from an economic point of view, childless and low-fertility elders, who escaped (part of) these costs, should be better off than parents, at least in economic terms.

However, there are also possible routes leading to the opposite outcome. People with few or no children are usually found to spend more and save less during their working lives (Bloom and Pebley, 1982). Besides, childless men are probably less motivated to increase their labour supply, as fathers usually do upon the birth of their children (Palomba, Sabbadini, 1994). Overall, therefore, do we expect older adults with low parity to have more or less, in terms of assets and pension income, than those with larger offspring? Later in life, the absence, or scarcity, of kin support may force low-fertility elders to purchase assistance on the market, which is expensive, although, frequently, publicly subsidized. Also worth considering is the fact that the financial plans of the childless may differ from those of parents, with implications on how things appear in old age (DeOllos, Kapinus, 2002). Finally, low-fertility elders may end up living in smaller households, with higher unitary costs, with less or no economic support from their grown up children in case of need.

In short, the impact of the number (or the mere presence) of children on the relative economic well being of an elder is not self-evident. Besides, one should keep marital status under control, because, due to selection at marriage (e.g. Sigle-Rushton, McLanahan, 2002) and co-operation between long-term partners (Becker, 1981; Wenger, 2001; Waite, Lehrer, 2003), the presence of a spouse is often found to be beneficial, and the economic conditions are typically worse for the aged who are unmarried (or divorced) and childless.

An additional concern relates to the causal link between childlessness and poverty: the lack of children can aggravate economic vulnerability in old age. On the other hand, it may be precisely the lack of resource that has reduced the likelihood of marriage and fertility earlier in life (Shröder-Butterfill, Kreager, 2005).

3. THE BANK OF ITALY SHIW DATASET

In order to asses how things currently stand in Italy in this respect, we will exploit the Italian Survey on Household Income and Wealth (SHIW), which is a cross-sectional survey[1] carried out every other year by the Bank of Italy, in order to collect detailed information on the (demographic and) economic characteristics of Italian households. The SHIW is based on a representative sample of the Italian resident population, with a two-stage sampling procedure: first municipalities and then households. At each round, the survey covers about 22 thousand individuals and 8 thousand households.

In 2000 for the first time, and then again in 2002, the SHIW also asked a question on the number of non co-resident children: this, together with the number of co-resident children, gives us the total number of children still surviving at the time of the survey, which is what we need for our study. After properly inflating the monetary values of the year 2000, so as to translate them into their 2002 equivalent, we pooled the two surveys of 2000 and 2002, in order to increase the sample size, which finally resulted in 8,129 people aged 65 or more, plus those who happened to live with them. Unfortunately, another question of interest, on "subjective economic well being" (see below), was first introduced only in year 2002: in this case, no pooling is possible, and we will use exclusively the data coming from the 2002 survey (4,299 elder people).

[1] Actually, there is also a panel part in it, but this is too short and concerns too few individuals to help us address the topics that we want to investigate here. For more details, see http://www.bancaditalia.it/statistiche/indcamp/bilfait

Notice that we only have information on the population living in private households, and we omit from our analysis those who live in residential institutions or collective households. This introduces a potentially serious bias, because, among the old, the chances of being institutionalised depend, among other things (health, in particular), on the fact of having at least one surviving child (Kendig, 1986; Grundy, 1996). In Italy, however, this limitation appears to be relatively minor, because only about 1.1% of old men and 2.4% of old women live in collective households (ISTAT, 2006, http://dawinci.istat.it/MD/).

More generally, however, readers should keep in mind that we concentrate on persons who are still alive to infer something on the causal chain that leads to better or worse economic outcome in old age (65+). As age progresses, selection plays an increasingly important role, which we cannot keep under control. If the connections that we are studying differ significantly between those who survive until late and those who die early, our results may be misleading, and we therefore caution our readers against hasty interpretations.

4. THE VARIABLES: DESCRIPTION AND CAUTION

Most of the variables that we use for our analysis are self evident, but a few of them may need a quick explanation. Firstly, let us note that our data source is cross-sectional: the several variables that refer to the past, and that we introduce in our models, derive from retrospective questions, which are unfortunately subject to recollection biases and selective omissions. Although we checked as much as possible for these problems (e.g., by comparing the observable characteristics of those who did or did not answer certain questions) and did not detect any particular form of distortion, our results should be considered with care.

Our main interest is concentrated on those who are now aged 65 or more. We have some information on their background, which includes the number of living siblings they still have[2], and how educated their parents were[3]. We also have information on their current household composition,

[2] This variable depends basically on two different causes: how many siblings there were at the time of the elderly person's youth (which is what interests us here), and how many of them have died since, which, in turn, depends on how old our subject is. This is a disturbing factor for us, which we keep (in part) under control by introducing the subject's age in our model.

[3] These are the parents of the aged that we are studying. The great majority of them have died at the time of the survey, or do not live with their children: in both cases, they are not sampled

distinguishing between co-resident children and other members of the household. When we talk of "grown up members" in these households, we refer to those aged 20 or more.

We also include the percentage of adult males in the household[4] – because we want to test the hypothesis that this correlates with higher household income, other things equal.

For the elders themselves, for their parents, and for all the grown-up family members, we consider education, which we translated into the number of years theoretically necessary to obtain the specific educational level reported for each individual. We can therefore treat education as a standard discrete quantitative variable. We also computed a variable called "household education", which averages the number of years spent at school by all the grown up members in the elders' current household. We found this a very convenient way of synthesising the general social level of each household.

Fertility is not asked directly. The household roster gives us the number of co-residing children and, for the elders who are household heads[5] or spouses, we also know the number of children living elsewhere. However the old people labelled 4 (=parents) have by definition at least one child; the old labelled 5 (=other relative) are frequently parents-in-law (and we *assumed* that they are, if the spouse is present, and if the age gap is compatible); in all the other cases (very few, actually), we *assumed* that no living child was available. In all cases, notice that we only consider living children, not total, ever-had children: given the low levels of mortality in Italy, both currently and in the recent past, this should not bias our analysis too much.

Household income is net per year, always expressed in 2002 Euros, by inflating the values for the 2000 round: it is obtained as the sum of all types of net yearly personal income of all household members. In the regression,

in the SHIW. We consider them because they form the family background, but they should not be confused with those who are parents *in* the SHIW. Note, incidentally, that "parents" in the SHIW can be identified in two ways: either by studying the household roster (in case of co-residence) or through the question on the number of children living elsewhere. The latter option, however, applies only to the household "head" (i.e first in the household roster) and his/her spouse.

[4] In combination with the household dimension, we found this variable more informative than the sex of the respondent.

[5] Household head has no legal meaning in Italy since 1975, but the expression is still used, for the sake of brevity, to designate the first person listed in the household roster. This is a position that the SHIW reserves, in principle, to the individual with the highest earnings in the household.

we sometimes found it more useful to consider its logarithm, instead, so as to minimise the impact of abnormally rich respondents.

Equivalent household income is household income divided by the OECD modified equivalence scale, which gives weight 1 to the first adult, 0.7 to all other adults, and 0.3 to all children (up to 14 years of age). Poverty is relative income poverty. As a cut-off point, we chose 60% of the median household equivalent income: an arbitrary, but frequent choice.

Household assets are the sum of personal assets of all household members, and they include, among other things, the (estimated) monetary value of own homes less residual mortgage and less other types of debt, if any. In order to obtain a per-capita evaluation of the worth of assets, however, we decided *not* to use the OECD modified equivalence scale in this case, and we simply divided the household total by the number of household members. The idea is that assets do not benefit from the same economies of scale that are possible in consumption, and, as a reserve capital, the potential service they render is better approximated by a strict per-capita measure. In both cases (income and assets) we are implicitly assuming that households pool their economic resources to satisfy their actual and potential needs, which, in our opinion, corresponds fairly closely to the Italian reality.

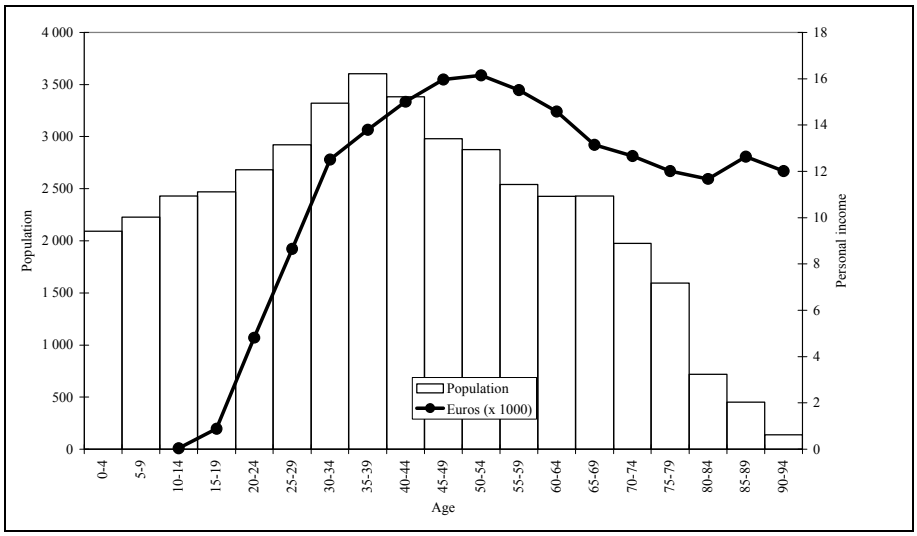
The question on subjective evaluation of the household economic condition (asked in 2002 but not in 2000) reads "Given the available income, how does your household manage to satisfy its needs?", and the possible answers are "1) very hardly; 2) hardly; 3) with some difficulty; 4) with relative ease; 5) easily; 6) very easily". In order to minimise random fluctuations, we pooled answers 5 and 6 into a unique category.

5. DESCRIPTIVE STATISTICS

Let us first take a general look at the socio-economic characteristics of our sample, focusing in particular on the older segment (65+). There are about 4 thousand elders in each survey (more than 8 thousand overall), although frequencies decrease with age. Generally speaking, older adults in Italy are nor economically bad off: their average personal income exceeds 12,600 Euros per year (in 2002 prices), and is only slightly lower than that of the population of working age (Figure 1).

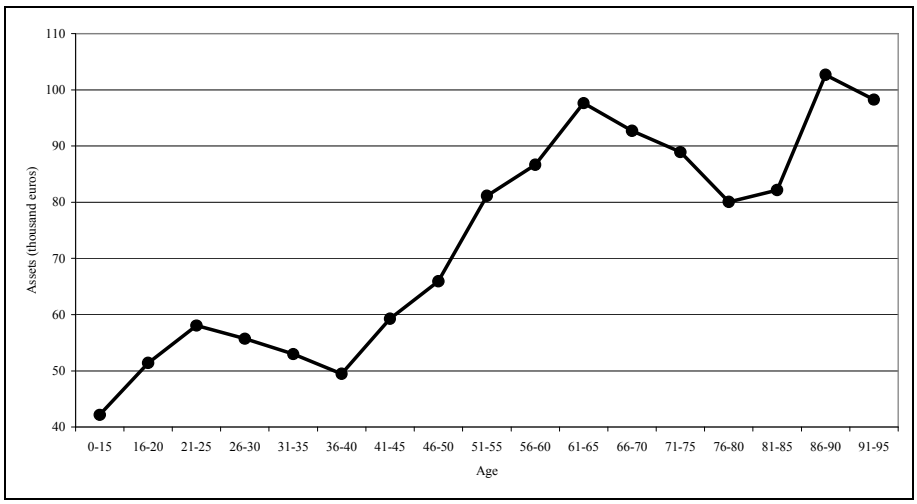
Beyond income, older people frequently own the house where they live (in more than 70% of cases), and have savings of various kinds, so that, overall, the worth of their assets, not far from 90 thousand Euros, is considerably higher than that of the rest of the population (Figure 2).

Figure 1 – *Sample frequencies and average personal income. Italy, 2000-2002*



Source: own elaborations on SHIW data, 2000 and 2002. Monetary values in 2002 prices (thousand Euros).

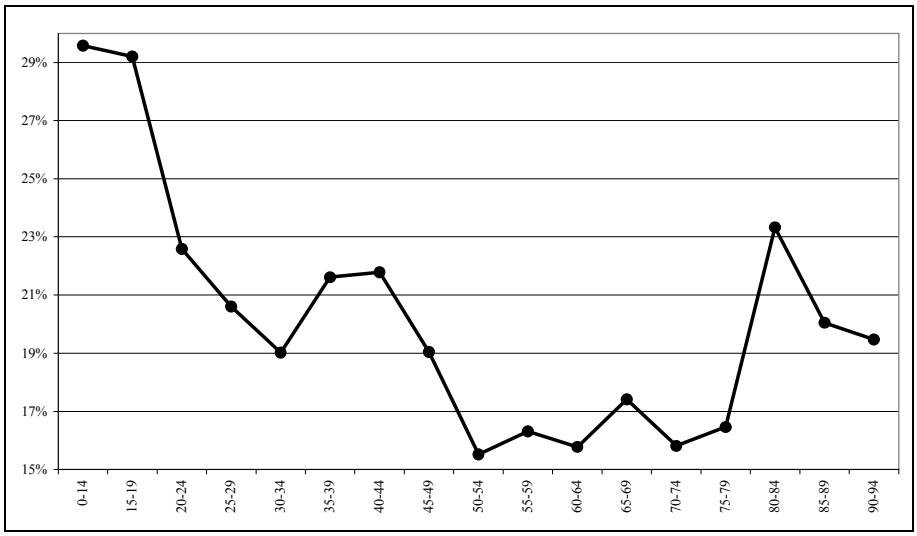
Figure 2 – *Per capita household assets by age. Italy, 2000-2002*



Source: own elaborations on SHIW data, 2000 and 2002. Monetary values in 2002 prices (thousand Euros).

Although average values are good, variability is high, and older people are not totally sheltered from poverty, especially past the age of 80 (Figure 3).

Figure 3 – *Proportion of poor by age. Italy, 2000-2002*



Source: own elaborations on SHIW data, 2000 and 2002.

There is also considerable variation according to gender (men earn almost twice as much as women, on average) and relationship to the household's head (Table 1).

The great majority of the elders are either head of the household or spouse, but there is also a non-negligible (12.7%) proportion of other positions, basically parent, or parent-in-law. Their presence causes a problem with our analysis, for the following reason: according to SHIW rules, the reference person in the household (first in the household roster – here simply called household head) is the one who contributes the most to the household budget, *i.e.* the one with the highest earnings. So "heads and spouses" are selected in more than one sense: they are younger than average (about 73, as against about 80 in the other categories), they live in smaller households (2.3 members vs. 3.8 for men; 1.8 vs. 3.4 for women), they earn more than others (especially women: 13 as against 7 thousand Euros per year), and they live in households with comparable equivalent incomes (slightly lower for female heads, actually), but higher wealth. The bias reverberates on co-residing (adult) children: if they earn relatively little, they are labelled "3" (children); if they are the main breadwinners, they appear as "1" (household head), while their old parents are labelled "4" (parent). Unfortunately, the questions on the family background (number of living siblings and a few characteristics of their ascendants, including education) and fertility (number of living children outside the household) have been asked of heads and spouses only. Therefore, in the analysis that follows, we

TABLE 1

will be forced to choose between a "complete" study with a biased sample (*i.e.* with full information on family background and number of living children, but focused on relatively rich elders), and an incomplete one with a more representative sample (*i.e.* no family background and only indirect estimate of the presence of children, but with all the elders included). In practice, however, this is probably less a problem than it appears, as we endeavour to show below.

Finally, for the 2002 round only, it is worth considering also the question on subjective well being. About 28% of the interviewed elders manage to make ends meet only hardly, or very hardly (Table 2). Their distribution is only partly coincident with that based on equivalent household income, the "hard" economic indicator used for the first part of our analysis: the correlation between the two series is only about 0.47.

Table 2 – *How the elders (65+) manage to make ends meet. Italy, 2002*

	All elderly		Only heads or spouses	
	N	%	N	%
Very hardly	577	13	356	13
Hardly	643	15	362	14
With some difficulty	1,349	31	825	31
With relative ease	1,272	30	812	30
Easily or very easily	458	11	309	12
Total	**4,299**	**100**	**2,664**	**100**

Source: own elaborations on SHIW data, 2002.

6. REGRESSION MODELS, ON TWO DIFFERENT SUBSETS

The temporal dimension is crucial in our analysis on the connection between the current economic situation of the aged and their past demographic behaviour, including fertility. Let us distinguish between two types of past. The remote past refers to the time when our elders were young or adolescents: we are interested in their family background at that time (parents' education and number of siblings). At a later stage, more or less grown into adulthood, these people made several decisions with long-lasting impacts, notably in the fields of education, marriage, and fertility[6]. Some of

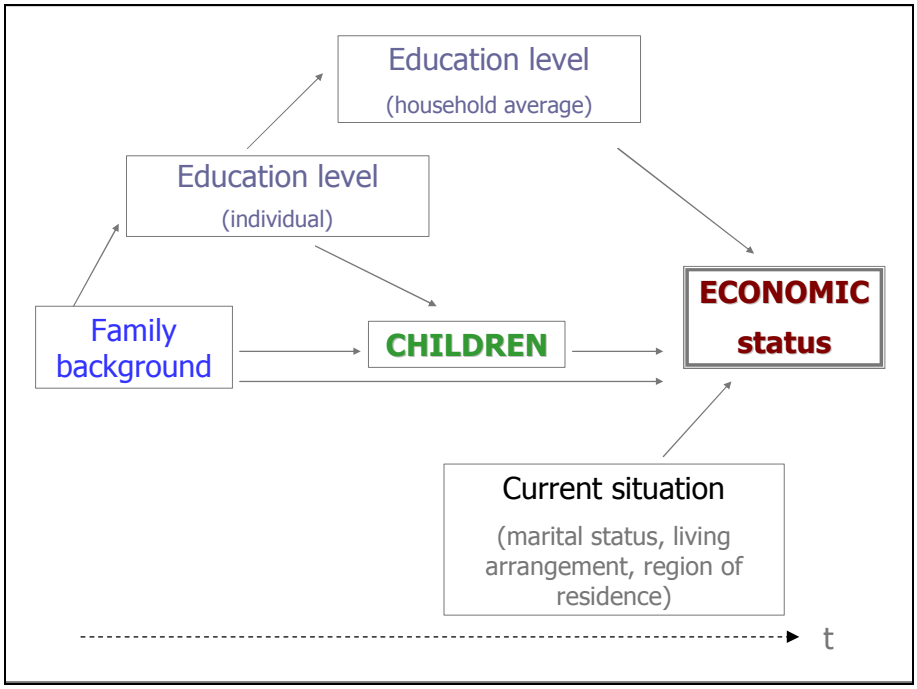
[6] And work, obviously. However, since labour market participation interacts with fertility in a complex and bidirectional way, we decided not to include this sphere in our analysis. Besides, we have very little information on the working history of our group: only detailed information on their *current* activity, if any.

these decisions bear consequences on the current situation of our elders, in terms, for instance, of living arrangements and economic conditions.

There are a number of interactions, at various levels, in these trajectories: most of them, unfortunately, are not documented in our data, or not well, and will go unnoticed: past labour activity is an example. But for some of them we have something to say. Since our main interest is on the connection between (past) fertility and (current) economic conditions, and since these have some covariates in common, one would ideally have tried an instrumental analysis, so as to consider only the net effects of the former on the latter. This, unfortunately, proves impossible, because all the instruments we tried for fertility were also closely linked to the current economic conditions, thus violating one of the basic conditions for the validity of this methodology.

We therefore resorted to a path analysis: the direct link between (past) fertility and (current) economic conditions does not emerge as clearly as we would have liked, but one can better grasp the general, and complex, picture of the interconnections between the various dimensions considered here. Figure 4, where the basic elements appear more or less in chronological order, highlights the type of interpreting scheme that we have in mind.

Figure 4 – *Path analysis: theoretical framework*



6.1 Complete analysis, on household heads and spouses only

Let us start with the 5,177 old people (aged 65+), who are heads or spouses, and who answered the question on family background: this is our complete, but potentially biased analysis, because, as mentioned, the elders labelled "1" or "2" in the household roster tend to be richer than average. Table 3 gives us a picture of the socio-demographic background of this group. Panel *A* says that the educational level reached by our elders (expressed in number of years profitably spent at school) depends very much on the education of their parents (average between numbers of years both parents spent at school) and, negatively, on the number of siblings they have. This confirms the importance of the intergenerational transmission of behaviour and values, but also stresses the role of opportunities and constraints: more siblings, some 60 or 70 years ago, meant fewer resources to invest in the formation of the "human capital" of each child.

Table 3 – *Modelling the social background of aged heads or spouses, who answered the question on family background (n=5177). Italy, 2000-2002*

	Coef.	Std.Err.	*t*	*P* > |*t*|	Beta
			A) Education		
Edu_ancestors	.7563179	.0138604	54.57	0.000	.6014422
Siblings	-.1668836	.0224345	-7.44	0.000	-.0819903
_cons	4.17983	.0815461	51.26	0.000	-
R^2=0.3799	sqrt(1-R^2)=0.7875				
			B) Children		
Education	-.024535	.0060272	-4.07	0.000	-.0706838
Edu_ancestors	-.017373	.0075138	-2.31	0.021	-.0398015
Siblings	.114768	.0100504	11.42	0.000	.1624439
Age	-.0032526	.0033645	-0.97	0.334	-.0136852
_cons	2.108355	.2584363	8.16	0.000	-
R^2=0.0423	sqrt(1-R^2)=0.9786				
			C) Edu_hhld		
Education	.8380734	.0059646	140.51	0.000	-8901206
_cons	1.414248	.0441414	32.04	0.000	-
R^2=0.7923	sqrt(1-R^2)=0.4557				

Panel *B* of Table 3 says that the number of living children these now aged 5,177 individuals had in their adult years depends negatively on their own and on their parents' education, but positively on the number of their siblings (intergenerational transmission of fertility behaviour?). Once again the importance of family background stands out very clearly, at least for the

generations considered here. Notice that these are all aged people, with complete fertility: the variable "age" is introduced to control not for timing, but for possible generational effects (including the mortality of siblings), which, however, do no appear to be meaningful, or, at least, not in the simple linear way that we consider here.

Panel *C* of Table 3 confirms that there is a very close connection between the general educational level of the household (average of all grown up persons) and the personal education of the elders that we are considering. In part this is spurious (the individual is him/herself part of the household), but we verified that the relationship holds also if run "properly" (*i.e.*, education of the aged vs. education of the *other* adult members in the household – not shown here). We keep the relation in this form because we need household variables in this analysis.

We can now move to Table 4, which "explains" the economic outcome for these old people, using the three indicators we introduced before: a) relative poverty, b) (log of) equivalent household income, and c) per-capita assets. In all three cases, the results are very consistent, and can be summarised as follows. First, those who live in the South of Italy are worse off: in part, this would be mitigated if one took regional price levels into account, because it is cheaper to live in the South, but this finding is consistent with what is amply known of geographical economic differences in Italy. Second, a higher educational level is beneficial: both that of the current household (average of all grown up members) and that of the ancestors. Third, as expected, the higher the percentage of males among the grown up members, the better the economic conditions of the household, because, as mentioned, gender differences in earnings still persist in Italy.

Fourth: children are systematically associated with a worse economic performance of the elders, in all possible senses. If we consider the number of living children (regardless of where they live), we can see that, *ceteris paribus*, the more one has, the more likely it is for him/her to end up in poverty, and to have a lower household equivalent income and fewer assets[7]. If at least one of these children lives in the same household[8] as his/her elder parent, than there is an *additional*, and strong, negative effect: a higher risk of poverty, and fewer resources in terms of income and value of assets.

[7] The last two coefficients are not statistically significant, but their sign is as indicated in the text.

[8] Obviously the fact of having at least a child available and living arrangements are correlated: the greater the number of children an individual has had in life, the greater his/her chance of living with one of them in old age (Légaré and Martel 2003).

Table 4 – *Modelling the economic conditions (poverty, income, assets) of aged heads or spouses, who answered the question on family background (n=5177). Italy, 2000-2002*

	Coef.	Std.Err.	*t*	*P* > |*t*|	Beta
			A) Poverty		
N. of children	.0095181	.0035055	2.72	0.007	.0384287
a) married	-.1128495	.025763	-4.38	0.000	-.1512518
a) sepdiv	-.023686	.0456262	-0.52	0.604	-.007452
a) widowed	-.1239752	.0228252	-5.43	0.000	-.1568011
b) Onlyspouse	-.0212683	.0182917	-4.16	0.245	-.0297694
b) Otheradlts	-.0767648	.026898	-2.85	0.004	-.0398572
Child_in	.0386186	.0177302	2.18	0.029	.0415053
Percmale	-.0841566	.0191926	-4.38	0.000	-.0648098
Edu_hhld	-.0152919	.0015783	-9.69	0.000	-.1674689
Edu_ancestors	-.0033293	.0018097	-1.84	0.066	-.0307947
N. of siblings	-.0013641	.0023289	-0.59	0.558	-.0077955
c) Center	.0034669	.0117906	0.29	0.769	.0040918
c) South	.2151741	.0112224	19.17	0.000	.2770751
_cons	.3279567	.0239214	13.71	0.000	-
R^2=0.1440	sqrt(1-R^2)=0.9252;	Reference poverty=.1495			
			B) Eq_Income		
N. of children	-61.02745	122.2228	-0.50	0.618	-.00664
a) married	1610.168	898.2539	1.79	0.073	.0581581
a) sepdiv	-267.7571	1590.807	-0.17	0.866	-.0022702
a) widowed	3672.094	795.8247	4.61	0.000	.1251602
b) Onlyspouse	619.7026	637.7593	0.97	0.331	.0233755
b) Otheradlts	2740.392	937.8271	2.92	0.003	.0383439
Child_in	-2253.484	618.1838	-3.65	0.000	-.0652678
Percmale	4032.198	669.1698	6.03	0.000	.0836821
Edu_hhld	1271.617	55.02951	23.11	0.000	.3752908
Edu_ancestors	466.354	63.09736	7.39	0.000	.1162475
N. of siblings	-9.0114	81.20066	-0.11	0.912	-.0013878
c) Center	-857.0807	411.0909	-2.08	0.037	-.0272609
c) South	-3864.205	391.2802	-9.88	0.000	-.134093
_cons	4072.325	834.045	4.88	0.000	-
R^2=0.2443	sqrt(1-R^2)=0.8693;	Reference eq. income=16,062			

Table 4 – cont'd

	Coef.	Std.Err.	*t*	*P* > |*t*|	Beta
			C) Assets		
N. of children	-2929.323	2074.429	-1.41	0.158	-.0202703
a) married	-14580.31	15245.63	-0.96	0.339	-.033493
a) sepdiv	-33727.34	27000	-1.25	0.212	-.0181865
a) widowed	26503.34	13507.15	1.96	0.050	.0574514
b) Onlyspouse	-2819.618	10824.38	-0.26	0.794	-.0067642
b) Otheradlts	-16304.41	15917.29	-1.02	0.306	-.014509
Child_in	-73633.64	10492.14	-7.02	0.000	-.135634
Percmale	48838.05	11357.5	4.30	0.000	.0644609
Edu_hhld	12315.7	933.9894	13.19	0.000	.231163
Edu_ancestors	7554.935	1070.921	7.05	0.000	.1197695
N. of siblings	-343.1453	1378.18	-0.25	0.803	-.0033609
c) Center	-1847.366	6977.249	-0.27	0.788	-.0037916
c) South	-24373.13	6641.011	-3.67	0.000	-.0537904
_cons	7969.692	14155.84	0.56	0.573	-

R^2=0.1195 sqrt(1-R^2)=0.9383; Reference assets per head=100,381

Note: Letters (a) to (c) denote different modalities of the same variables, *i.e.* a) Marital status (ref.=Never married); b) Presence of other adults in the hhld (Ref.=None); c) Region of residence (Ref. North).

The "effect" of other covariates is ambiguous. Take marital status for instance: in terms of flow variables (poverty risk and equivalent income), the widowed are apparently the best off, closely followed by the married. The separated come third, with lower equivalent income, but also less frequent poverty[9], and the unmarried, our reference category, are always the worst off – although we may observe that the (economically) negative "effect" of being unmarried is partly balanced by the fact that, in most cases, the unmarried are childless. When it comes to assets, however (Table 3, panel C), it is only the widowed who are clearly better off than all the remaining categories.

Household dimension affects economic well-being, but our data suggest that it is better to split this variable in two. Remember that our standard of reference is a single, older adult: now, as we saw before, the presence of children, even if they are grown up, always exerts a negative impact on the economic sphere. Apart from own children, the presence of other grown up

[9] This can be interpreted as follows: it is costly to separate, and only those who are relatively well off could afford it in the past (remember that we are talking about the elderly who, for the vast majority, separated or divorced when they were younger, some time before the survey). As a result, they are relatively worse off than the married, but not so much as to disproportionately fall into poverty.

members in the household is mainly beneficial in terms of income (higher equivalent income and less poverty), but not in terms of assets[10]. We obtained similar results (not shown here) using Carbonaro's equivalence scale (Istat, 2007), which is steeper than the OECD one, and does not distinguish between adult and child components in the household. In short, our estimates seem to be robust to (moderate) changes in the equivalence scale adopted.

6.2 Analysis on a subset of variables, all the elders

Let us now move to the analysis of the economic situation of all the elders in our sample, *i.e.* including those who are not household heads or spouses. We improve in terms of representativeness, with 8,129 aged individuals now under scrutiny, but lose in terms of family background (no information on parents or siblings), and therefore in the completeness of the analysis. We also lose in terms of fertility, because, as readers may remember, for all the elders labelled "3" or more in the household roster (*i.e.* other than head or spouse), we no longer *know* how many children they have: we can at best *infer* that they have at least one, if they live with him or her. One of our variables, therefore, changes from "number of children" to "being or not being a parent". Our results, presented in Tables 5 and 6, are now less complete, but also somewhat different from before, and this appears to be worth considering.

Table 5 – *Modelling the social background of all the elders (n=8129). Italy, 2000-2002*

	Coef.	Std.Err.	*t*	$P > \|t\|$	Beta
			A) Parent		
Education	-.0042698	.0010676	-4.00	0.000	-.0448156
Age	-.003821	.000637	-6.00	0.000	-.0672124
_cons	1.122647	.0486119	23.09	0.000	-
n=8129 R^2=0.0056 sqrt(1-R^2)=0.9972					
			B) Edu_hhld		
Education	-7988181	.0057605	138.67	0.000	.8384048
_cons	1.95722	.0399945	48.94	0.000	-
n=8129 R^2=0.7029 sqrt(1-R^2)=0.5450					

[10] Notice that we distinguish between the spouse and other adult members. The impact of the spouse is generally minor, because this effect is already captured, in large part, by the fact of being married (and, normally, co-residing).

Table 6 – *Modelling the economic conditions (poverty, income, assets) of all the elders (n=8129). Italy, 2000-2002*

	Coef.	Std.Err.	*t*	*P* > |*t*|	Beta
			A) Poverty		
Parent *(ref. childless)*	-.0200475	.0116637	-1.72	0.086	-.0208698
a) married	-.0149187	.0251442	-0.59	0.553	-.0196883
a) sepdiv	.0367783	.0382907	0.96	0.337	.0110007
a) widowed	-.0547436	.0191978	-2.85	0.004	-.0693789
b) Onlyspouse	-.0582292	.0215192	-2.71	0.007	-.0778518
b) Otheradlts	-.0615202	.0147601	-4.17	0.000	-.0572754
Child_in	.0512194	.0101537	5.04	0.000	.0599039
Percmale	-.0749777	.0158144	-4.74	0.000	-.0545658
Edu_hhld	-.0190545	.0010429	-18.27	0.000	-.1983673
c) Center	.003739	.0100434	0.37	0.710	.0041939
c) South	.2302094	.0088694	25.96	0.000	.2935751
_cons	.3106287	.0190658	16.29	0.000	-
R^2=0.1494	sqrt(1-R^2)=0.9223;	Reference poverty=.1661			
			B) Eq_Income		
Parent *(ref. childless)*	189.1652	359.0687	0.53	0.598	.006071
a) married	789.5419	774.0687	1.02	0.308	.0321229
a) sepdiv	-1033.538	1178.787	-0.88	0.381	-.0095305
a) widowed	1007.94	591.009	1.71	0.088	.0393814
b) Onlyspouse	-1201.002	662.4728	-1.81	0.070	-.0495033
b) Otheradlts	-1074.186	454.3926	-2.36	0.018	-.0308313
Child_in	-2152.661	312.585	-6.89	0.000	-.0776173
Percmale	3519.84	486.8485	7.23	0.000	.0789721
Edu_hhld	1350.172	32.10472	42.06	0.000	.4333351
c) Center	-1270.358	309.1886	-4.11	0.000	-.0439286
c) South	-4597.088	273.0469	-16.84	0.000	-.1807346
_cons	7625.216	586.9456	12.99	0.000	-
R^2=0.2339	sqrt(1-R^2)=0.8753;	Reference eq. income=15,509			

When the analysis is carried out on all the elders (65 and over), being a parent in itself is no longer associated with a higher risk of poverty or a lower equivalent income, although assets remain lower. What appeared in the previous tables was therefore most probably due to the implicit sample selection that derived from considering only household heads and their spouses. On the other hand, our data confirm that if an elder still has (grown up) children living with him or her, the average prevalence of poverty increases (by about 5%), equivalent income diminishes (by about 2 thousand Euros per year), and so do assets per head (by about 58 thousand Euros). This seems to reinforce the idea that, in Italy, in case of intergeneration

Table 6 – cont'd

	Coef.	Std.Err.	*t*	*P* > |*t*|	Beta
			C) Assets		
Parent *(ref. childless)*	-12843.7	5796.441	-2.22	0.027	-.0275102
a) married	30375.42	12495.78	2.43	0.015	.0824792
a) sepdiv	-31662.52	19029.14	-1.66	0.096	-.0194858
a) widowed	6451.001	9540.65	0.68	0.499	.0168216
b) Onlyspouse	-63243.83	10694.29	-5.91	0.000	-.1739767
b) Otheradlts	-52712.83	7335.253	-7.19	0.000	-.1009745
Child_in	-57911.37	5046.055	-11.48	0.000	-.1393571
Percmale	36299.07	7859.188	4.62	0.000	.0543536
Edu_hhld	13946.3	518.266	26.91	0.000	.2987282
c) Center	-4299.743	4991.227	-0.86	0.389	-.0099231
c) South	-31697.24	4407.792	-7.19	0.000	-.0831691
_cons	44824.36	9475.054	4.73	0.000	-

R^2=0.1107 sqrt(1-R^2)=0.9430; Reference assets per head=90,364

Note: Letters (a) to (c) denote different modalities of the same variables, *i.e.* a) Marital status (ref.=Never married); b) Presence of other adults in the hhld (Ref.=None); c) Region of residence (Ref. North).

cohabitation, it is the old parents who support their grown up children in economic terms, rather than vice versa. The analysis of the average earnings of the young adults who do or do not live with their parents (not shown here) reveals, perhaps not surprisingly, that those who live independently have higher earnings. Once again, this is consistent with the idea that a young adult would rather live on his or her own, and accepts to remain in his or her parental home only if forced to do so through lack of resources, and not in order to sustain his/her poor, old parents.

The other variables basically preserve the signs that we saw before. Notice, however, that the presence of other grown-up persons in the household (the spouse, or somebody else, or both) lowers per capita assets (by about 50 to 60 thousand Euros) and equivalent income (by about 1000 Euros per year), but protects from poverty (the average prevalence is now about 6% lower). In short, extremes are rarer in this group, and in fact only a few appear to be very rich or very poor (not shown here). Notice, also, that the separated and divorced start to emerge as a group with economic difficulties: more poverty, lower income and fewer assets. None of the coefficients is particularly meaningful, statistically speaking, but they all point in the same direction.

6.3 Subjective economic well being: all the elders, 2002 only

Finally, the 2002 round of the SHIW included a question on subjective economic well being, which can be treated in the same way as before, if we take the liberty of considering the answers to this question as a simple discrete variable[11]. We have information on 4,299 aged individuals, those included in the 2002 round.

Our results, not shown here (see De Santis *et al.,* 2005) confirm most of the preceding findings, and introduce some new ones. Apparently, it is the separated and divorced who live in the worst subjectively perceived economic conditions. This subjective feeling of relative deprivation matches only loosely our previous findings on objective economic conditions, where they appeared to be just slightly worse than average, and is possibly related to their feeling of loneliness. The same effect can be traced among widowers and widows: in "objective" terms they are slightly better off than the never married, our reference category (cf. Table 6), but it is more frequent for them to describe their own economic resources as insufficient. Indeed, the presence of other grown up members in the household is beneficial in this respect, although we saw before that they lower the equivalent household income (but protect from poverty see Table 6). Instead, the presence of (grown up) children in the household is, once again, detrimental in this respect, and is associated with a deeper feeling of economic inadequacy. Note that this is different from "being a parent", which, in itself, is scarcely related to this indicator. This result seems consistent with the outcome of a more refined research conducted on Danish twins (Kohler *et al*., 2005), which controls for unobserved heterogeneity: ever having had children does not contribute to the subjective well-being (not limited to financial matters, in Kohler's case) of both women and men aged 50-70 years.

7. DISCUSSION

Several caveats surround our analysis, and it is perhaps worth recalling a few of them here: selectivity may operate at various levels; the true causal chain is unknown, and may not match exactly the one that we suggest here;

[11] Remember that the answers range from 1 ("can make ends meet only very hardly") to 6 ("can make ends meet easily or very easily"). We tried alternative specification of the dependent variable, to account for possible non linear relationships, but the results (not shown here) did not change much. For the adequacy of considering this as a simple discrete variable and for the correlation between being and feeling economically well off, see Seghieri et al. (2006).

our data are not longitudinal, and the tentative time sequence that we imposed on them does not necessarily correspond to reality; *etc*.

However, a few, and in our opinion, important conclusions stand out from this study. The first is that the natural tendency to concentrate on the elders for whom the database of the Bank of Italy provides more information may be misleading: these old people (household heads and their spouses) are selected in various respects, in terms of household composition, marital status, and socio-economic characteristics. The alternative is to try to keep all the elders under observation: this leads to analyses based on fewer explanatory and less focused dependent variables, and proves therefore less precise. We tried both of them, and ventured a few inferences from what changes and what remains constant as one progressively shifts from the former to the latter type of analysis. We also examined several types of economic outcome (poverty, equivalent income, assets, and perceived adequacy of resources), which do not always change consistently as the target group gets implicitly reshaped.

In Italy, having had children in one's adult years does not yield very significant economic benefits: in the short run costs are probably high (a topic not discussed here); in the long run (that is, in one's old age), benefits do not accrue in any significant way. Income may not be particularly low, but assets surely are. Our study, in this respect, seems to confirm the results that have emerged in other developed countries: a childless old age is normally not an economically deprived condition. This may have policy implications: for instance, one could claim that the childless elderly can rely on more abundant economic resources, and can afford to pay at least some of their care needs.

If parenthood in itself is scarcely beneficial, even when one's children become of age, co-residing with one's (grown up) children is more frequently observed in relatively bad economic situations, where equivalent income is lower, poverty higher, accumulated capital scarcer, and the subjective appreciation about the adequacy of one's economic resources is negative. We would argue that this situation emerges mainly when the young adults fail to find their own way (a job, a house, *etc*.): in these cases, it is their aged parents who support them economically – a case that is observed much more frequently than its opposite, when a relatively rich young adult hosts his/her parents in his/her home, and transfers resources "upwards".

Our data do not permit us to tell whether the situation that emerges from our analyses depends on a sort of cultural norm regulating the private economic exchange between generations or on a system that protects the elders too much (through generous pensions and social security systems) at the expense of the young generations, who therefore frequently need to rely

on their families, even in their adulthood.

What we think we can surmise is that, from an economic point of view, children appear to be basically a liability throughout one's life, up into old age. Inferences on the connections between the children's economic status that emerges from our research and Italy's extreme and persistent low fertility may not be totally misplaced.

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Table 1 – *Basic characteristics of the elders (65+) by gender and position in the household. Average values. Italy, 2000-2002*

Code	Position in the household	Number		Age		Household size	
		Male	Female	Male	Female	Male	Female
1	Head	2,858	2,258	73.0	75.2	2.2	1.4
2	Husband/wife	422	1,594	72.4	71.3	2.6	2.3
3	Child	0	1	-	70.0	-	2.0
4	Parent	178	471	77.6	79.1	3.7	3.3
5	Other relative	76	277	77.1	79.0	3.9	3.6
6	Other non relative	7	28	79.1	80.4	3.9	4.3
	Total	**3,541**	**4,629**	**73.3**	**74.5**	**2.4**	**2.1**
Code	Position in the household	Personal income		Equivalent income		Per-head wealth	
		Male	Female	Male	Female	Male	Female
1	Head	19,324	13,107	16,425	13,838	99,656	90,578
2	Husband/wife	12,382	4,449	15,875	15,677	79,488	88,507
3	Child	-	9,544	-	14,027	-	63,900
4	Parent	9,402	7,142	15,769	16,130	76,395	69,215
5	Other relative	9,034	7,481	15,265	16,847	59,019	71,917
6	Other non relative	9,653	9,148	16,451	16,822	41,979	80,652
	Total	**17,758**	**9,158**	**16,301**	**14,903**	**95,097**	**86,509**

Source: own elaborations on SHIW data, 2000 and 2002. Monetary values in 2002 prices (Euro).