PRELIMINARY

ASSET-RELATED MEASURES OF POVERTY AND ECONOMIC STRESS

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Abstract

Poverty is generally defined as income or expenditure insufficiency, but the economic condition of a household also depends on its real and financial asset holdings as well as on the possibility to access the credit market. This paper investigates measures of poverty which rely on indicators of household net worth. We review and assess three main approaches followed in the literature: income-net worth measures, asset-poverty, financial vulnerability. We provide fresh cross-national evidence based on data from the Luxembourg Wealth Study and the European Union Survey of Income and Living Conditions.

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1. Introduction[1]

Researchers in social sciences have growingly emphasised the importance of moving beyond income in the analysis of poverty and inequality, and many have contended that assets and liabilities also play a central role of (e.g., Bourguignon 2006). The global crisis which has exploded in 2008 has dramatically confirmed this assertion. The collapse of stock market values has hurt the wealthy by causing large capital losses on their wealth holdings, but has potentially harmed all retirees whose pensions are paid by private intermediaries suffering considerable losses in financial markets. Plummeting house prices have hit almost all middle-class households for which owned homes account for the largest part of their personal wealth. And it has zeroed out possibilities of consuming from increased housing values while also lessening ability to borrow against home equity for other uses. In turn, the lesser flexibility in housing due to stalled sales has limited geographic mobility and likely also the ability of younger adults to leave the family home. As the financial crisis has infected the real economy, job losses and falling incomes have impaired the living conditions of many households, only in part offset by welfare states put under considerable stress (Atkinson 2009). They have also spread a sense of insecurity and vulnerability across families, which may have led them to reduce consumption and save more to cope with sudden negative income shocks. These cursory observations all point to the close link between stocks and flows and to the need to better grasp how net worth affects the economic position, real income flows, consumption possibilities and more generally the economic well-being of the households.

The standard approach, in research as well as policy analysis, is to define poverty as income, or expenditure, insufficiency relative to some minimally acceptable level. Many measurement aspects, prominently the choice between an absolute and a relative line, can be dealt with in different ways, but in both developed and developing countries a consumer unit is generally taken as poor if its income, expenditure or consumption falls below a predefined

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poverty threshold. In the United States (US), for instance, a family and every individual in it are considered in poverty if the family's total money income before taxes is less than a threshold that varies by family size and composition and is updated annually for inflation (US Census Bureau 2008). This measure has fallen from almost 50 percent of the median income in the early 1960s to less than 30 percent in the early 2000s (Blank 2008; Smeeding 2006). In the European Union (EU), the population at risk of poverty comprises all persons with equivalised disposable income below 60 per cent of the median value in each country (European Commission 2008a). In Italy, Istat (2008) classifies as poor all households whose equivalised expenditure falls below a line set on the basis of per capita expenditure.

These definitions account for household wealth only through the cash income flow it generates in the current year. Income generally includes cash rent, interests, dividends and other returns on financial assets, possibly net of interest paid on mortgages and other household debts. The inclusion of noncash imputed rent for owner-occupied dwellings is uncommon in almost all poverty measures, although it has been made mandatory in EU statistics since 2007.[2] Realized capital gains and losses are rarely included in the income concept, especially when one considers the calculation of poverty statistics.

The commonly used income-flow measures of poverty are correctly defined, but therefore fail to represent the full amount of resources on which a consumer unit can rely to cope with the needs of everyday life as well as in times of economic expansion and now severe contraction. This practice is also somewhat at odds with the standard economic theory of consumption behaviour, where the budget constraint typically embodies current net worth together with the discounted value of current and future income streams.

There are two main reasons why we may want to go beyond a purely income-based measure of poverty. First, consumer units with total earnings below the poverty threshold may have considerably different standard of living depending on the value of their net assets, including business assets as well as homes, private pensions and other financial wealth. A sudden income drop need not result in lower living conditions if they can decrease accumulated

[2] Imputed rent tend to benefit a wide range of low to high income units, especially the elderly, but their overall effect may vary across countries, depending on the level of housing prices and the diffusion of home-ownership (Frick and Grabka 2003).

wealth, or can borrow. As stressed by Morduch (1994), the case of a household with current consumption below the poverty line but permanent income above it is radically different from that of a household whose fundamental earning capacity has been impaired so that consumption and permanent income both fall below the poverty line: for the former poverty only occurs because it cannot borrow against future incomes, whereas for the latter is has a more structural nature. On the other hand, income can be above the poverty threshold, yet a family can feel vulnerable because it lacks the financial resources to utilise in the case of an adverse income shock. Assets and liabilities are fundamental to smooth out consumption patterns when income is volatile; their insurance role is intertwined with the existence of and access to private or public insurance mechanisms.

There is a second, somewhat deeper, reason to broaden our focus and embody wealth into the analysis of poverty and inequality. The chances in one's life much depend on the set of opportunities open to a person which are, in turn, a function of the person's endowments both intellectual and material. Bowles and Gintis (2002) show the importance of material wealth in the intergenerational transmission of inequalities both inter-vivos and as bequests/inheritances. Thus, whenever the policy objective is to level the playing field more than to ensure a decent standard of living, wealth redistribution may be more effective than income redistribution in creating equality of opportunity. This concern is at the basis of the idea to establish a capital endowment for the young entering adulthood, as proposed by Ackerman and Alstott (1999) and Livi Bacci (2004) or implemented by the Child Trust Fund (2008) in the United Kingdom. The advantage of an asset-based redistribution supposedly derives from the fact that an initial minimum endowment reinforces the sense of responsibility of individuals and their attitude to pursue more efficient behaviours (Bowles and Gintis 1998).

In this paper we examine the role of net worth in affecting household economic well-being from the first perspective. While the two perspectives are clearly not mutually independent, our main purpose here is to investigate measures that may help us to better monitor the social situation of a community more than to understand the causes, and the remedies, for structural economic inequalities. The paper is organised as follows. We first review, in the next Section, three lines of enquiry of asset-related measures of poverty and economic stress: income-net worth measures, asset-poverty, and financial vulnerability. We briefly describe the data at our disposal in Section 3, and present comparative results from

applying the three approaches in Sections 4 to 6. In Section 7 we provide an assessment of these alternative approaches and draw some conclusions.

2. Asset-related measures of poverty and economic stress: some definitions

2.1. Income-net worth measures

It is standard to define the poverty status as the insufficiency of current income, CY_t, relative to a pre-fix threshold which represents the minimum acceptable level of command over resources. CY_t equals the sum of all incomes from labour, pensions and other transfers received in year t, Y_t, plus property incomes $r_t NW_{t-1}$, where r_t is the rate of return on (beginning-of-the-period) net worth NW_{t-1}:

$$CY_t = Y_t + r_t NW_{t-1} \tag{1}$$

This definition underestimates the resources that an individual can use to meet his needs, in particular it ignores the possibility to decrease accumulated savings. Weisbrod and Hansen (1968) suggested that the economic position of a person is better captured by "income-net worth", an augmented income definition where the yield on net worth in year t is replaced with the n-year annuity value of net worth:

$$AY_t = Y_t + \left[\frac{\rho}{1-(1+\rho)^{-n}}\right] NW_{t-1} \tag{2}$$

with n and ρ being the length and the interest rate of the annuity. In (2) net worth is converted into a constant flow of income, discounted at the rate ρ, over a period of n years. If n goes to infinity, the annuity consists entirely of interest, and (2) would coincide with (1) for ρ equal to r_t. At the other extreme, if the time horizon is one year, AY_t is simply the sum of current income and net worth. Weisbrod and Hansen proposed to equate n with the person's life expectancy, under the assumption that no wealth is left at the death of the person–even though the formula could easily allow for a bequests, though this rarely takes place.

Rendall and Speare Jr (1993) generalised (2) by separating the component of Y_t that is not replaceable by pensions, X_t, and by decomposing the life expectancy of a consumer unit into remaining working time, T_W, time to the death of the member in the couple who dies first, T_1, and time to death of the survivor, T. Thus, the income-net worth indicator becomes:

$$AY_t = Y_t - X_t + \left[\frac{\rho}{1-(1+\rho)^{-n}}\right]\left[NW_{t-1} + \sum_{\tau=0}^{T_W}\frac{X_t}{(1+r)^{-\tau}}\right] \quad (3)$$

where r denotes the (average) real rate of return on net worth in future periods, and n is equal to T for an unmarried elderly person, and $T_1 + (T - T_1)b$ for a married elderly person, b being the reduction in the equivalence scale coefficient following the death of a member in the couple; for non elderly members, resources are assumed to be allocated over an infinite horizon and n is taken to go to infinity. In their comprehensive Levy Institute Measure of Economic Well-Being (LIMEW), which augments disposable money income by the value of in-kind public benefits and the value of household production, Wolff and Zacharias (2007) replace actual property income with the annuity from net worth excluding home equity. They take n to be equal to the maximum value between the life expectancies of the head of household and the spouse (which amounts to Rendall and Spears Jr's formula with $b = 1$), and assume that ρ is a weighted average of asset-specific historic real rates of returns.

As made clear by Weisbrod and Hansen (1968, pp. 1316-7), the income-net worth indicator must be seen as a conceptually consistent way of combining current income and net worth independently of its practical feasibility: in particular, it does not imply "… either that people generally do purchase annuities with any or all of their net worth, that they necessarily *should* do so, or that they *can* do so". Yet, the approach was criticized by Projector and Weiss (1969) who objected that the choice of n is arbitrary, as there is no way to judge the preferable span of time over which net worth should be spread evenly while still allowing for end of life contingencies, and that the comparisons of consumer units at different ages based on (2) ignore the life-cycle patterns of saving and consumption and fail to account for the higher saving potential of young units. Possibly for these objections, possibly for the lack of suitable databases, few researchers have so far followed Weisbrod and Hansen. All applications summarised in Table 1 relate to the United States, and most focus on the elderly alone. The elderly focus is evidence that income net worth measure is best when used to examine the elderly and not for the population in general.

It is important to account for the fact that wealth contributes to the living standard of people, and indeed assets are often considered together with income in determining the

eligibility to means-tested public benefits in countries like Australia ad the United States.[3] Weisbrod and Hansen's approach provides a theoretically neat solution to this problem, which is consistent with the lifecycle model of consumption, but it is crucial to assess the sensitivity of results to alternative choices about the underlying hypotheses: the length of the annuity, its interest rate, the wealth aggregate that is annuitized, the treatment of couples, the population subgroups whose wealth is annuitized, the allowances for bequests and for precautionary saving.

More importantly, it must be made clear that this method in practice results in the elderly looking much better, on average, than they would be viewed using income alone. This is shown in Figure 1 which reports, separately for males and females, the annuity rate at different ages obtained by applying the expression in (2) to the life tables for Italy in 2002 for two values of the interest rate (2 and 6 per cent). The annuity rate is always higher than the interest rate, as it implies that some fraction of wealth is run down even at young ages. The annuity rate rises rapidly with age: for instance, with a 2 per cent interest rate, it goes from 4.5 per cent for women and 5.1 per cent for men at age 55 to 8.9 and 11.0 per cent, respectively, at age 75 (see, also, Disney and Whitehouse 2001, pp. 73-80). Thus, annuitization with zero bequests increases income net worth as a person ages, almost in a monotonic fashion, and especially when net worth does not decline in old age (see Hurd and Smith 2001 on bequests in the US).

2.2. Asset-poverty

Combining income and net worth imposes considerable structure on the measurement, starting with the need to choose the values of various parameters. An alternative approach is to supplement income-based notions of poverty with asset-based measures. While the former refer to a static condition of insufficiency of economic resources in order to maintain a certain living standard, the latter tend to capture the exposure to the potential risk that such

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[3] David and MacDonald (1992) discuss the role of assets in determining the eligibility for food stamps in the US. Smeeding (2002) examines asset testing in many income maintenance schemes in the US, including SSI, Medicaid and AFDC-TANF. In Australia the old age pension is asset-tested but excludes the value of one's home (Yates and Bradbury 2009). In Italy, the "Indicator of the equivalent economic situation" (ISEE), which has taken the place of taxable income in the definition of eligibility conditions for some cash and in-kind public benefits, depends also on the amount of bank deposits and home equity.

insufficiency arises. Following this distinction, it may be useful to understand asset-based measures as referring to "vulnerability" more than "poverty". Indeed, according to the World Bank (2001, p. 139), "vulnerability measures the resilience against a shock–the likelihood that a shock will result in a decline in well-being. … [It] is primarily a function of a household's asset endowment and insurance mechanisms–and the characteristics (severity, frequency) of the shock".

A straightforward application of these ideas is to consider a consumer unit as asset-poor whenever its wealth holdings are not sufficient to secure it the socially determined minimum standard of living for a given, usually short, period of time. Haveman and Wolff (2004) take this period to be three months, and consequently set the asset-poverty threshold at one fourth of the expenditure-based absolute poverty line proposed by the US National Academy of Science panel. They use two different wealth concept: "net worth", which includes all marketable assets net of all debts and is seen as an indicator of "the long-run economic security of families"; and "liquid assets", which include only financial assets that can be easily monetised and are an indicator of "emergency fund availability" (Haveman and Wolff 2004, p. 151). Similar hypotheses are adopted by Brandolini (2005) and Short and Ruggles (2005). Gornick et al. (2009) define asset-poverty as financial assets less than half the relative income poverty line (or one fourth of the median equivalent disposable income) in their cross-national examination of older women's poverty based on LWS.

2.3. Financially vulnerable households

A third strand of literature tries to identify financially vulnerable households. Given the strong increase in household debt observed in recent years, financial vulnerability has been frequently linked to indebted households, particularly those taking up a mortgage to buy their home, the main asset in household wealth. In the literature, vulnerable households are frequently identified with those that experience difficulties in paying back their loans. In a recent paper written on behalf of the European Commission (2008), households are considered over-indebted if they are having difficulties meeting (or are falling behind with) their commitments, relating either to servicing secured or unsecured borrowing or to the payment of rent or utility.

The most important factor influencing the probability of households to be in arrears appears to be the debt-service ratio, i.e. the share of disposable income needed in a period to pay interests on debt and, in the case of housing and durables, to pay back the principal. Dey, Djoudad and Terajima (2008) find a critical threshold for the debt-service ratio of 35 per cent, above which there is a significant increase in households' propensity to be delinquent on their mortgages. Many reports on financial stability and studies on this topic identify a similar threshold, in the range of 30-40 per cent (e.g., for the US, Dynan and Khon 2007).

3. Data issues

3.1. The LWS database[4]

Cross-country comparative analysis is based on the Luxembourg Wealth Study (LWS) database. The LWS was a joint project of the Luxembourg Income Study (LIS) and institutions from ten countries (Austria, Canada, Cyprus, Finland, Germany, Italy, Norway, Sweden, the United Kingdom, and the United States) carried out between 2004 and 2007.[5] The primary goal of the project was to assemble and to organize existing micro-data on household wealth into a coherent database harmonised ex post, in order to provide a more sound basis for comparative research on household net worth, portfolio composition, and wealth distributions. After a testing phase, the LWS database was released in December 2007 to the research community world-wide through the LIS remote access system (see

[4] This section draws on Sierminska, Brandolini and Smeeding (2008). See also OECD (2008a), Chapter 10.

[5] Sponsoring institutions included statistical offices (Statistics Canada, Statistics Norway), central banks (Central Bank of Cyprus, Banca d'Italia, Österreichische Nationalbank), research institutes (Deutsches Institut für Wirtschaftsforschung–DIW, U.K. Institute for Social and Economic Research–ISER, through a grant awarded by the Nuffield Foundation), universities (Åbo Akademi University), and research foundations (Finnish Yrjö Jahnsson Foundation, Palkansaajasäätiö–Finnish Labour Foundation, Swedish Council for Working Life and Social Research–FAS, U.S. National Science Foundation). Different stages of the project saw the participation of representatives from several other public institutions (Statistics Sweden, Banco de España, De Nederlandsche Bank, U.S. Federal Reserve Board, U.S. Internal Revenue Service, U.K. Department for Work and Pensions, Organisation for Economic Co-operation and Development, World Bank) as well as researchers from many universities.

http://www.lisproject.org for further details). The dataset is maintained and updated as part of the regular LIS activities.[6]

The LWS project has illustrated the difficulties of conducting comparative analysis of household wealth. Although all LWS countries rely on sample surveys among households or individuals, there are important differences in collection methods. Some surveys have been designed for the specific purpose of collecting wealth data, whereas others cover different areas and have been supplemented with special wealth modules; in some countries, information from administrative records, mostly wealth tax registers, is also used. Some surveys over-sample the wealthy and provide a better coverage of the upper tail of the distribution, though at the cost of a rather low response rate. Others ask only a small number of broad wealth questions, but achieve better response rates. Definitions are also heterogeneous. The unit of analysis is generally the household, but it is the individual in Germany, and the nuclear family (i.e. a single adult or a couple plus dependent children) in Canada. A household is defined as including all persons living together in the same dwelling, although sharing expenses is an additional requirement in Cyprus, Italy, Finland, Norway, Sweden and the United States. This implies that demographic differences reflect both the definition of the unit of analysis and true differences in the population structure. Other methodological differences relate to the way assets and liabilities are recorded (as point values, by brackets, or both), their accounting period (time of the interview vs. end of year) and the valuation criteria. In most cases, wealth components are valued on a "realization" basis, or the value which could obtained in a sale on the open market as estimated by the respondent, but there are important exceptions, such as the valuation of real properties on a taxable basis in Sweden and Norway.

Sierminska, Brandolini and Smeeding (2008) provides a synthetic assessment of the information contained in the LWS database and compare the LWS-based estimates with their aggregate counterparts in the national balance sheets of the household sector. The LWS estimates appear to represent non-financial assets and, to a lesser extent, liabilities better than

[6] By establishing a network of producers and experts of data on household net worth, the LWS project hopefully paved the way to a much-needed process of ex ante standardization of definitions and methodologies, and to the elaboration of guidelines for the collection of household wealth statistics, as done for income by the Expert Group on Household Income Statistics–The Canberra Group (2001).

financial assets. In all countries where the aggregate information is available, the LWS data account for between 40 and 60 per cent of the aggregate household net worth. Discrepancies are somewhat amplified by the narrower LWS wealth concepts imposed by the minimum-common-denominator approach to cross-country comparability; they reflect in part the under-reporting in the original micro sources of the LWS database, in part the different definitions of micro and macro sources. Despite the considerable effort put into standardizing wealth variables, there remain important differences in definitions, valuation criteria and survey quality that cannot be adjusted for. Moreover, the degree to which LWS-based estimates match aggregate figures varies across surveys. These caveats have to be borne in mind in reading the results discussed below.

We consider all countries included in the LWS database, except for Cyprus because of the large number of missing values for net worth. The list of the original surveys and their acronyms, the agency producing them, and some summary characteristics are reported in Table 2. We use three wealth variables: total financial assets (TFA1), total debt (TD), and net worth (NW1). NW1 does not include business equity, as the information is only available in some countries. Disposable income is the sum of wages and salaries, self-employment income, capital income (interest, rent, dividends, private pensions), and cash and near-cash public income transfers including social insurance benefits, net of direct taxes and social security contributions (LIS_DPI); the imputed rent on owner-occupied houses is not included, nor are subtracted interest paid on mortgages or consumer loans.[7]

While only total financial assets are available for Austria, we have deliberately excluded the net worth variable for Norway and Sweden, as the valuation of real property on a taxable basis make the results for these two countries less comparable to those of the others. The tax values registered in the Swedish survey are adjusted by the statistical office on the basis of purchase prices for several types of real estate and geographical locations, but average values appear to be lower than in the other countries. No adjustment is performed for the Norwegian data, although in the 1990s the taxable value of houses was estimated by Statistics Norway to be less than a third of the market value (Harding, Solheim and Benedictow 2004, pp. 15-6).

We equivalise LIS_DPI with the "square root equivalence scale", whereby the number of equivalent adults is given by the square root of the household size. For each country, we define two types of poverty thresholds: the first is a standard relative line set at 50 per cent of the national median of the equivalised disposable income;[8] the second, a proxy for a common absolute line, is taken to coincide with the US-PSID line and is converted to other currencies by using the OECD (2008b) purchasing power indices for GDP. The importance of data collection methods shows up in the rather different median values found for the US on the basis of the SCF and the PSID.

3.2. EU-SILC

The EU Statistics on Income and Living Conditions (EU-SILC) provides comparative statistics on income distribution and social exclusion at the European level (Clemenceau and Museux 2007). In 2005 it covered the 25 EU member states plus Norway and Iceland; it has been extended to Bulgaria, Romania, Switzerland and Turkey since 2007. For our analysis we select from the EU-SILC database seven countries for which we can satisfactorily identify the households with a mortgage or a consumer loan: Finland, France, Ireland, Italy, the Netherlands, Spain, and the United Kingdom (UK). (Some doubts concerns Ireland and France.) Altogether around 80,000 households are considered.

As we take as an indication of financial vulnerability the emergence of arrears in the payment of mortgages, consumer loan instalments, rents, and utility bills it is important to properly identify the reference population in each case. With regards to the households with a mortgage, we can use either the variable "interest repayment on mortgage" (HY100G, HY100N; not available for Spain) or the variable "arrears on mortgage or rent payments in the last twelve months" (HS010), once it is crossed with home-ownership (as indicated in the variable description this question should not be applicable to outright owners or rent free). The results from the two variables may differ because the coding of the answers may fail to distinguish "not applicable" from "missing", and because the time window is different, being

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[7] As we exclude households where DPI_LIS or TFA1 are missing, 960 observations are dropped for the UK and 3 for Canada.

[8] The relative poverty line for Austria is computed using the Austrian income data in the EU-SILC database.

the calendar year before the interview for the first question and the twelve months preceding the interview for the second. Luckily, the share of households with mortgage is virtually the same regardless of the variable chosen in all countries, except France; in this case we retain the value calculated with the second variable, which is in line with other Insee estimates.[9] Likewise, households with a consumer loan are identifiable using either the variable "arrears on hire purchase instalments or other loans payments in last twelve months" (HS030), or the variable "financial burden of the repayment of debts from hire purchase or other non-housing related debts" (HS150). Similar figures are found in four countries, but not in France, the UK, and Ireland; here, we take the estimates based on the second variable, although only for the first two countries it was possible to validate the values with external information. Households that pay a rent can be straightforwardly identified using the specific question on the home tenure status (HH020). As utilities are typically paid by every household, the entire population is taken as a reference to compute the share of households in arrears on utility bills (HS020).

In order to maintain comparability with official publications, when we discuss indicators on arrears drawn from the EU-SILC database we follow Eurostat's recommendation and equivalise the total household disposable income (adjusted for the non-response inflation factor available in the database) by the OECD modified equivalence scale, which assigns value 1 to the first adult, 0.5 to any other household member aged 14 and over, and 0.3 to any household member younger than 14.

4. Income-net worth measures

The available information on the household balance sheets at the aggregate level shows that the ranking of countries by wealth level tends to be loosely related with that based on mean income. For instance, in 2005 Italy exhibited the lowest per capita gross national income among G7 countries, 66 per cent of the US level; the corresponding ratio was comprised between 71 and 82 per cent in the other five countries. But Italy fared much better in wealth

[9] The figure for Spain, where only the second variable is available, is consistent with the value estimated by the Bank of Spain on its household survey. Wherever small differences occur (Italy, the Netherlands), we use the first variable (interest repayment on mortgage).

terms, with a ratio of net worth to national disposable income equal to 9.3, against 8.2 in the UK, about 7.4 in France and Japan, and below 6 in Canada, Germany, and the US.[10]

This is qualitatively confirmed by the LWS evidence. Table 3 reports the available per capita values of income, total financial assets and net worth. Notice that the wealth-to-income ratios are much lower than those just mentioned, based on aggregate balance sheets. Definitions and different coverage can explain some part of this difference; another part is due to sampling errors and under-reporting in surveys, which are more serious for wealth than for income–hence the lower wealth-to-income ratios.[11] The impact of different survey characteristics is well illustrated by the comparison between the two US sources: total financial assets are about 50 per cent higher in the SCF than in the PSID, thanks to the specific focus on wealth and the over-sampling of the rich in the former. However, only *mean* net worth, which includes the value of real estate and debt, is higher in the SCF, by 33 per cent; the *median* is instead almost a tenth higher in the PSID, suggesting that the latter may perhaps better cover middle classes.[12] These problems aside, Table 3 reveals how constructing a measure which combines income and wealth is likely to affect significantly country comparisons. The Finnish and Italian mean incomes are relatively close, 14-20 per cent lower than the German one. But the evidence on mean net worth is strikingly different: the wealth of the Italians is twice as much as that of the Finns and almost 1.4 times that of the Germans. The mean Italian even looks wealthier than the mean US person, on the basis of the PSID data. Differentials are further amplified by considering the medians.

For Finland, Germany, Italy and the US, Table 4 shows how measured poverty changes as income is replaced by the income-net worth indicator. (All income and asset variables are equivalised.) With the national poverty lines, the largest share of income-poor is found in the US, the more so if the SCF is used instead of the PSID; Germany and Italy follow, preceding

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[10] Data on per capita national income are from OECD (2008c), while those for household wealth are from OECD (2008d). According to more recent estimates by the Bank of Italy (2008), in 2005 household wealth was in Italy lower than that reported by the OECD, but still higher than in the other G7 countries except the UK.

[11] In the case of Germany, financial assets, durables and collectibles, and non-housing debt are only recorded when their respective values exceed 2,500 euros. Missing values are later imputed. This may help to explain the nil value of the median of total financial assets.

[12] See Niskanen (2007) for a comparison between the income variables in the LWS and the LIS databases.

Finland. If we take the US-PSID line as the standard, the incidence of poverty looks considerable higher in all three European countries, which have much lower median real incomes than the US. Note that a perceptible increase in the headcount also occurs for the SCF, owing to its much lower median than the PSID one.

In all countries, replacing the actual annual yield of net worth in the income definition with its annuity value brings about a sizeable reduction of poverty ratios. Figures in Table 4 are computed by applying definition (2) at either net worth or total financial assets (top and bottom panels, respectively), for two values of the interest rate, 2 and 6 per cent. When the household head is older than 54 years, cash property income is replaced with a zero-bequest annuity whose length is given by the remaining years of life of the household head, as indicated in the country's life table by sex and age for the year of the survey; when the head is 54 or younger, this replacement is not implemented. By substituting income with income-net worth, with the national poverty lines, the share of poor falls by around three percentage points in the US and Italy, and a little less in Finland and Germany; the impact is far larger with the common US-PSID threshold. The change of the annuity interest rate from 2 to 10 per cent makes some difference only when the common line is used. The country ranking does not vary, but the higher wealth holdings of Italian households produce the biggest reductions in measured poverty.

The comparison based on net worth is somewhat biased because net worth includes home equity, while income does not include the rental value of owner-occupied housing. (Note that such inclusion would make many households richer, but would also raise the poverty line, which is set as a fraction of the median income.) On the other hand, home ownership provides not only a store of value but also a direct benefit by allowing people to satisfy the basic need of being sheltered. This means that the house may not be a perfectly fungible asset, even if new financial instruments allow households to cash part of house price increases. Indeed, Wolff and Zacharias (2007) include in the LIMEW the imputed rent on owner-occupied housing rather than the annuity value of home equity. Another possibility is to narrow the wealth concept which is annuitized. By considering total financial assets, the reduction in measured poverty turns out to be fairly modest, at most one percentage point with the national lines (bottom panel of Table 4).

The results just discussed refer to the whole population and consider jointly the unadjusted income of younger households with the income-net worth of older households. Table 5 presents the same statistics for the latter group alone. Income poverty is higher for this subgroup than for the whole population in Finland and the US, while it is lower in Italy and Germany. The adoption of the income-net worth indicator has understandably a much larger impact on this subgroup. More interestingly, there is a pronounced narrowing of the differential between the US and the European countries, indicating that the North-American elderly are relatively richer. Italy, on the other hand, exhibits the lowest incidence of (relative) poverty among households with head aged 55 or more. In neither case do we attempt to estimate the asset value of social retirement (see Burkhauser, Butler and Wilkinson 1985).

5. Asset-poverty

The notion of asset-poverty is more straightforward and less demanding, from the theoretical viewpoint, than the income-net worth measure. It simply tries to capture how long a consumer unit could maintain a standard of living above the poverty line had it no income, nor any financial resources and borrowing ability other than accumulated wealth. Asset- and income-poverty are compared for nine LWS countries in Table 6. The figures for income are the same as in Table 4, but now we find Sweden at the bottom of the poverty ranking together with Finland, Norway in the middle with Italy and Germany, and Canada close to the top US. Net worth poverty is two to three times income poverty in most nations.

Most interestingly, the fraction of units who are both income and liquid asset poor are not terribly different from those who are income poor (first vs. last column in Table 6). When we take the asset non-poor from the income poor, poverty falls by about 2-3 percentage points in all countries using the national lines, except in Norway, the UK and Sweden, where the drops are larger, in the 4-5 percent range. Using the US poverty line and the extant PPP's we find that poverty drops are even larger, with Norway and Sweden again being the least poor countries. Using the US poverty line, most nations have about 20-30 percent of their populations who are both income- and asset-poor.

In Table 7 we report the time series for asset- and income-poverty for the US and Italy drawn from Haveman and Wolff (2004) and Brandolini (2009), respectively. In both papers,

asset-poverty is calculated on the basis of either total net worth or liquid assets, i.e. the financial assets that can be easily monetised (practically, IRAs and pension assets are excluded in the US). Poverty status is reached whenever either stock falls below a fourth of the annual poverty line. The poverty line is defined in absolute terms and is updated over time only for changes in the cost of living; it varies by household size in Italy, and by household size and structure, and geographic area of residence in the US. Figures are not comparable between the two countries, but poverty appears to be higher in the US, as seen above. In both countries, the net worth-poor are roughly twice as many as the income-poor, but interestingly there is very little overlap between the two populations. There are many households that are not classified as poor, but have not enough private assets to sustain their consumption standards for a three month period. The incidence of the asset-poor slightly declined between 1993 and 2006 in Italy, while it remained substantially stable in the US, though it rose and then fell from 1983-2002 (Figure 2).

6. Households in arrears in their payments

Countries differ considerably with respect to the level of household indebtedness (Figure 3). The extent to which household borrow depends on many causes, both on supply and demand factors (Magri 2007; Girouard et al. 2006; European Central Bank 2009; Dynan and Kohn 2007; Jappelli, Pagano and Di Maggio 2008). A rise in household debt, which has occurred in most countries over the last decade, can increase household vulnerability to adverse income shocks, but by itself is no indication of a growing household poverty. A more informative indicator about household financial vulnerability may be the proportion of indebted household which fail to repay their debt. In this Section we consider these indicators, as computed on the basis of the EU-SILC data. We analyze the shares of both home-owners in arrears in repaying their mortgage, and of households that are in arrears in repaying consumer loans. We include two further indicators of financial stress: the share of home-renters in arrears in paying the rent, and the share of households in arrears in paying utility bills. Unlike European Commission (2008), we do not pool them together to calculate the overall share of households in arrears, but we separately examine each of them. Results for the total are reported in Table 8, while detailed results can be found in the Appendix Tables A1-A7.

Arrears in the repayment of mortgage – Housing debt is spread differently across countries: the share of households with a mortgage ranges from 11 per cent in Italy to 47 per cent in the Netherlands, with Spain, Finland, France and Ireland around 30 per cent and the UK near 40 per cent. This highest share is generally found in the age class 35-44, and then decreases with age; it is increasing with household income, and is typically low among households in the lowest income fourth (Girouard et al. 2006; European Central Bank 2009). The fraction of households in arrears on mortgage payments in the last 12 months is similarly heterogeneous across countries: almost 5 per cent in Spain and Italy, around 3 per cent in Finland, France, and Ireland, and less than 2 per cent in the Netherlands and the UK. This percentage is also decreasing with household income, but less variable across age classes. On the whole, Spain and Italy appear to be the countries where households indebted for the house of residence are most vulnerable.

Arrears on rent payments – Households are more likely to rent their house of residence in Finland, France, the Netherlands and the UK, where they account for 30 per cent or more of the total; this proportion falls to roughly 20 per cent in Italy and Ireland, and to 10 per cent in Spain. (These figures include all tenants regardless of whether their rent are at market or lower rates.) The share of home-renters is much higher in the lowest income fourth, and among households with a single parent and dependent children, a young head, or a head who is unemployed or hired on a temporary contract.

The share of home-renters in arrears on rent payments is generally much higher than that of home-owners in arrears on mortgage repayment. It goes from 5.3 per cent in the Netherlands to 8.9 per cent in Spain, 11-12 per cent in the UK, Finland and France, and around 14 per cent in Italy and Ireland. This share is also decreasing in household income, but it does not vary much with age, though it is generally lower in older classes. At about 20 per cent, the fraction of renters in arrears in the young class appears to be in Italy higher than in the other countries. Household size also matters, as the percentage of households in arrears rises roughly 25 per cent in Finland and Ireland and 20 per cent in Spain, Italy and France among households with five or more members. Lastly, the share of renters in arrears is almost double if the household head has a temporary job rather than a permanent job, with the exception of the UK; this is especially the case of France and Italy.

Arrears on utility bills – The percentage of households in arrears on utility bills varies a great deal across countries: from 0.2 per cent in the UK to 9.3 per cent in Italy, with the Netherlands, Spain and Finland at 3-4 per cent and France and Ireland at 6 per cent. The correlation is strong with income and age: for the youngest households and those in the lowest income quartile, the share is particularly high, particularly in France, Finland and Italy. Arrears on utility bills occur more frequently among large households, with five or more members, households with single parents and children, and households where the head is in temporary employment. In some countries, the probability of home-renters to be in arrears in paying their utility bills is almost three times that of home-owners.

Arrears on repayment of consumer loans – Increasing household indebtedness in the last decade has been driven from the growth of consumer loans, not only of mortgages. Financial vulnerability can be closely linked with consumer loans, as they are frequently not guaranteed (personal loans) and in general very expensive. These loans are often the only credit available to households lacking the guarantees to borrow through other channels.

The share of households with consumer loans ranges from around 14-16 per cent in the Netherlands and Italy to roughly 50 per cent in the UK and Ireland; in France and Finland the share is roughly 40 per cent, and in Spain 23 per cent. Consumer loans are widespread in the youngest age class and, unlike mortgages, also in the lowest income quartile. The proportion of households with consumer loans is increasing in household size, is a bit higher among renters than owners, is much higher among single parents or couple with children, is high also among unemployed or part-time workers and for employees with temporary contract. This evidence therefore confirms the fact that, compared to mortgages, consumer loans are certainly more widespread among households that use them as a sort of last option of getting money; they could therefore be more vulnerable to shocks such as losing jobs or increasing interest rates.

The percentage of households in arrears on repayment consumer loans is particularly high in Italy (13.1 per cent); in the Netherlands is roughly 9 per cent, in Spain 7 per cent and is between 4 and 6 per cent in the other countries. As for other indicators previously commented, this percentage is strongly decreasing in income; it does not overly vary with age. The share is higher for very large households, for renters, for single parents with children, for unemployed

and for employees with temporary job (in Italy the share reaches 30 per cent in this last group of households).

To sum up, if we consider the house of residence as the main service or asset that a household has to buy during its life, in most countries renters appear to be more financially vulnerable than owners with a mortgage. Moreover, indicators based on arrears show that the households most vulnerable to external shocks, such as job loss, decreasing income, sudden disease or increasing interest rates for households with debt, are in the lowest income quartile, are single parents with children, work part-time and have a temporary salaried job. Italy often ranks as the country with the highest share of financially vulnerable households; other countries that sometime rank similarly are Spain and Ireland.

6.1. Total housing cost ratio: an analysis of the extreme values of the distribution

A total debt-service ratio above some critical threshold is an important determinant of the probability of being in arrears in repaying debt. In the EU-SILC data the total debt-service ratio can not be calculated since only interests paid on mortgages are available and no information is provided on the payback of the principal. An indicator which could help us to understand the occurrence of arrears is how much households spend for their house of residence.

We focus on the ratio between total housing cost and household disposable income (THC); utilities are always included in this indicator; for people with mortgages only the payment of interests is included, while the payback of the principal is excluded. Rather than on the typical household represented by the median, we focus on households that are more likely to experience arrears by selecting the 90th percentile of the total housing cost distribution. (We drop all observations under the 1 percentile and above the 99 percentile.) We calculate this value for the whole sample of households, for some sub-groups such as owners, owners with mortgages and renters and other sub-groups based on household characteristics. The aim is to verify whether there is any association between these statistics and the frequency of households in arrears analyzed in the previous section. Detailed results are in Tables A8-A11 in the Appendix.

The 90th percentile of the THC is very high in Italy and the Netherlands (50-53 per cent) and above all in the UK (59 per cent); it is around 30 per cent in Ireland and Spain and 40 per

cent in Finland and France. This can explain the high ranking of Italy in the occurrence of arrears, but seems also to show that the Dutch and the British manage to cope well with the very high cost for their house, given the low percentage of households in arrears.

In line with the previous evidence on the frequency of arrears, the 90th percentile of the THC is much higher for home-renters than for home-owners: in most countries this statistics is around 50-60 per cent, but it is 73 per cent in Italy and 80 per cent in the UK.[13] Italy and the UK also show a very high share of renters in arrears on paying rent, together with Ireland, France and Finland, countries for which the 90th percentile of THC for renters is lower, around 50 per cent.

The corresponding THC ratio for owners is always lower than 50 per cent and in Spain, Finland, France and Ireland it is roughly around 20 per cent. Analogous results hold for owners that bought their house by taking up a mortgage with a bank, although it should kept in mind that the payback of the principal is not included in this ratio as not available in the EU-SILC data. A possible explanation is that mortgages are more widespread among high-income households, which in general show a lower incidence of the total housing cost on the disposable income. For people that have taken up a mortgage, the highest 90th percentile of THC is in the Netherlands and the UK (46-47 per cent), where nevertheless households are not very likely of being in arrears on mortgage; the frequency of households in arrears on mortgage is the highest in Italy and Spain, where the corresponding value of the 90th percentile of THC ratio is a bit lower, around 33-34 per cent.

When looking at some other specific household characteristics new evidence emerges that helps explaining some of the evidence of the previous section. The 90th percentile of the THC is generally very high for the households in the lowest income quartile; in Italy and the UK this statistics is respectively above 80 and above 90 per cent. The situation is even worse for renters in the lowest income quartile: the 90 percentile of THC is above the value of 100 per cent both in Italy and the UK, while the values for the other countries are much lower. High value of this statistics can also be found in the youngest age class, specifically for renters (80 per cent in Italy and the UK; in this class Italy has also a high percentage of households in

[13] Italy also shows a very high value for this statistics for households who have had their house for free.

arrears), for household with just one member or single parent households, for part-time workers, unemployed and among employees with a temporary contract (in this last category Italy has again a very high frequency of arrears).

Overall, we can conclude that looking at the extreme values of the THC distribution helps to explain some of the evidence on the frequency of households in arrears, specifically that concerning renters and Italy. However, it is not always true that countries where some households bear very high THC ratio are always more likely to have a higher percentage of households in arrears. One possible explanation, stressed in some empirical studies, is that the institutional and legal framework can also influence the probability that a household is on time in his payment related to the house of residence (Jappelli, Pagano and Di Maggio, 2008).

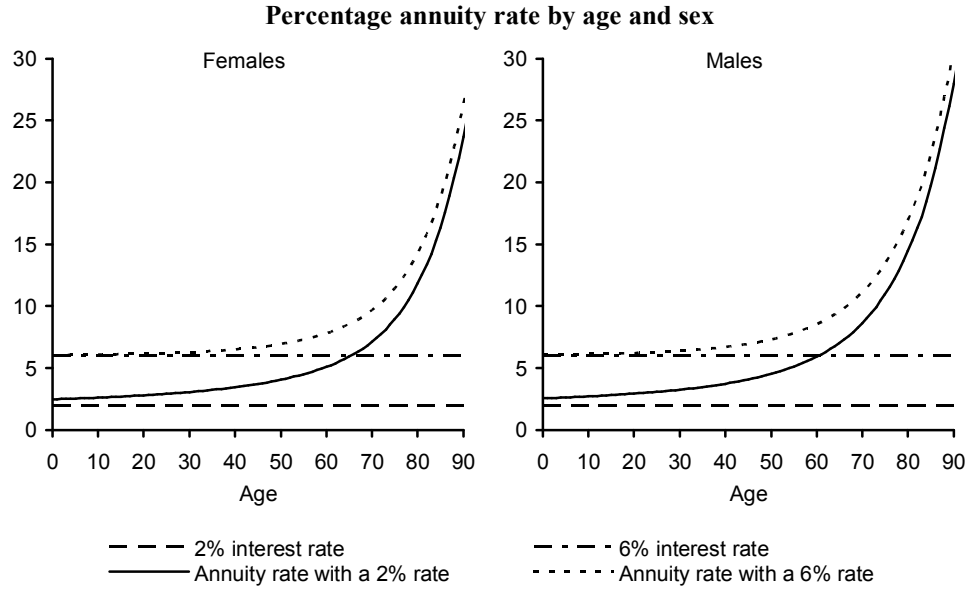
7. Discussion and conclusions

In this paper we have outlined how wealth can be integrated into the analysis of poverty and inequality. There are both empirical and conceptual problems. On the empirical side, in many countries there are household-level data which can help us to shed light on cross-national differences in household finances. Thanks to the meticulous work made to construct and document the LWS database, we now have some broadly comparable national wealth datasets, but we are also aware that many problems remain which impose us to take with caution comparative results. The challenge is to begin a much needed process of ex ante standardization of methods and definitions which involves wealth data producers. The LWS database provides a starting point, and the launch of the new Eurosystem Household Finance and Consumption Survey will give further impetus to this process (Eurosystem Household Finance and Consumption Network 2009). On the theoretical side, our concise review of the literature and empirical results suggest that asset-related measures of poverty may have a distinctive informative value with respect to income-based statistics. The pools of asset-poor and income-poor do not coincide, and their incidence in the overall population need not move synchronously, nor differ in the same way across countries. We need to better understand the properties of these alternative indicators, and to assess their sensitivity to different assumptions, especially in the case of the income-net worth measure. But of course paying attention to household assets and debts is of increasing importance in the current economic

crisis which is seriously affecting housing values, mortgage debt arrears, and financial assets in all rich nations.

Changes in the functioning of advanced capitalist economies and developments such as the ageing of the population contribute to shift the emphasis from income to wealth. In a society where employment tends to be permanent and where the welfare state generously supplies education, health and housing benefits, covers against the risk of unemployment and protects old-age income levels, the regularity of actual and expected income flows ensures living standards are maintained and holdings of wealth are less important. When these conditions cease to hold, on account of greater job insecurity or reduced social expenditure, wealth takes on a new significance for household prosperity. Personal wealth has a crucial role in cushioning against life's uncertainties, and the possibility of relying on a buffer stock makes people feel less vulnerable and sometimes permits additional consumption out of higher asset values. But the implications are even more far-reaching, as wealth is a crucial determinant of what people can do for their children at the beginning of their lives. For all these reasons, it is important to monitor the evolution of wealth in the same way that we have been monitoring the evolution of income. This consideration is dramatically confirmed by the current phase of the world economy.

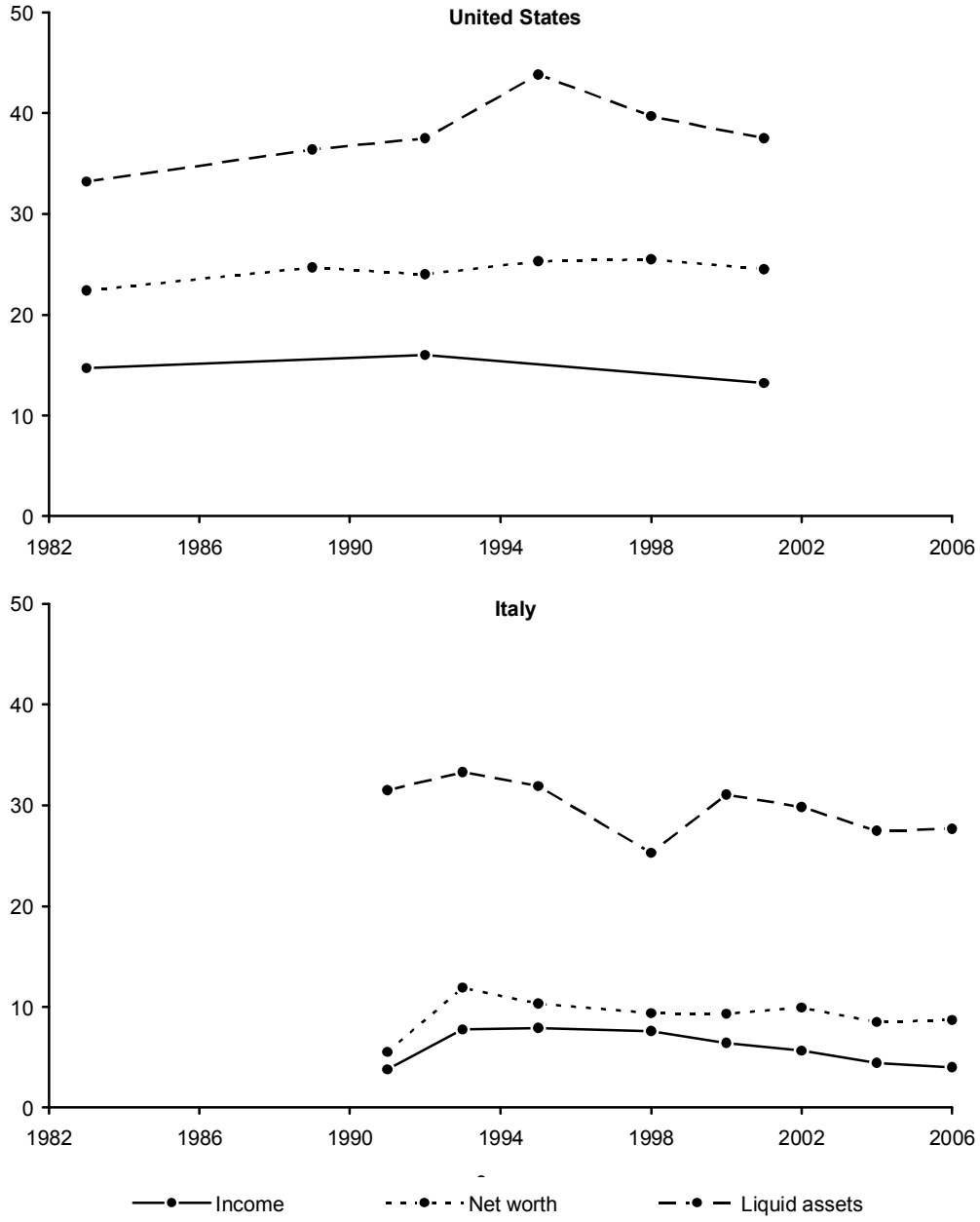
Figure 1



Source: authors' elaborations based on the life tables for Italy in 2002.

Figure 2

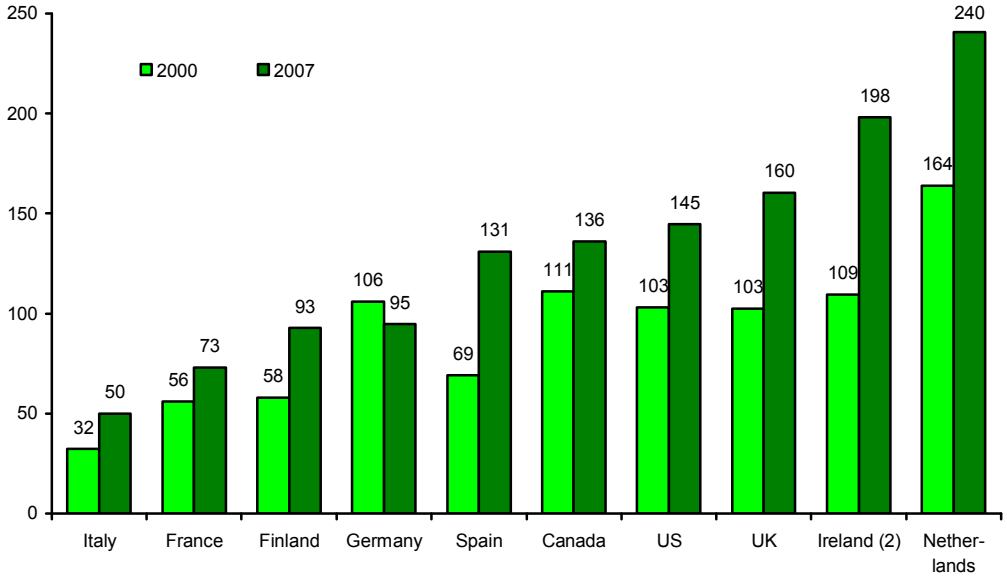
Share of income-poor and asset-poor households, Italy and the United States



Source: Italy: authors' elaborations on SHIW data; United States: Haveman and Wolff (2004).

Figure 3

Percentage ratio of household financial debt to disposable income (1)



Source: Eurostat for Germany, Spain, France, Netherlands and UK; Federal Reserve System, Board of Governors, *Flow of Funds Accounts of the United States* for the United States; Bank of Italy, *Financial Accounts* for Italy. (1) Consumer and producer households; only consumer households for the United States. (2) Figure refers to 2002 instead of 2000.

Table 1

Applications of the income-net worth measure to micro-data [INCOMPLETE]

Authors	Country	Year	Source	Reference population	Length of annuity (n)	Annuity interest rate (ρ)	Wealth concept	Impact on mean		Poverty line	Headcount ratio (%)		Other adjustments
								Income (1)	Income-net worth		Income (1)	Income-net worth	
Carlin and Reinsel 1973	US	1966	Pesticide and General Farm Survey	All farm families	Life expectancy of wife assumed two years younger than spouse	6%	Net worth	$5,300 $4,200 (2)	$7,600 $6,100 (2)	$2,500	32	15	–
Taussig 1973	US	1967	Survey of Economic Opportunity			6%							
Moon 1976	US	1967	Survey of Economic Opportunity	All families with a person aged 65 and over	Average life expectancy of aged family member and spouse	4%	Net worth	$2,427 (2)	$3,743 (2)	$2.000	40.4	25.2	Downward adjustment of home equity
Burkhauser, Butler and Wilkinson, 1985	US	1969-1979	Retirement History Study	Household aged 55-64		5%	Net worth	1969: $20,179 1979: $11,207	1969: $35,076 1979: $19,875	–	–	–	–
Crystal and Shea 1990	US	1983-84	Survey of Income and Program Participation	All persons	Individual life expectancy	2%	Total assets	0-64: $22,780 65+: $23,109	0-64: $23,410 65+: $28,637	–	–	–	70% of home equity as fungible; adjustment for underreporting.
Rendall and Speare Jr 1993	US	1984	Survey of Income and Program Participation	All households with a person aged 65 and over	Life expectancies of family head and spouse; infinite horizon for non-elderly.	-0.4% 1.6%	Total assets	1.77 (3) 1.97 (3)	2.42 (3) 2.57 (3)	1.25 × SSA line	15.1 12.0	8.9 8.2	Correction for: remaining work lifetime; death of partner
Short and Ruggles 2005	US	1996	Survey of Income and Program Participation	All persons	Life expectancy of family head	2% 4% 2%/6%	Total assets Net worth Total assets/Debt	–	–	Official	13.3	11.3 11.0 12.6	–
Wolff and Zacharias 2007	US	1989 1995 2001	Survey of Consumer Finance	All persons	Maximum life expectancy between head and spouse	Weighted average of historic real rates	Net worth less gross value of owner-occupied housing	$42,198 (2)	$45,392 (2)	–	–	–	Income adjusted by household production and public services

Source: authors' elaboration. (1) The income concept varies across studies. (2) Median. (3) Ratio of the median to the poverty line.

Table 2

LWS household wealth surveys

Country	Name	Agency	Wealth year (1)	Income year	Type of source	Over-sampling of the wealthy	Sample size	No. of non-missing net worth	No. of wealth items
Austria	Survey of Household Financial Wealth (SHFW)	Österreichische Nationalbank	2004	2004	Sample survey	No			10
Canada	Survey of Financial Security (SFS)	Statistics Canada	1999	1998	Sample survey	Yes	15,933	15,933	17
Finland	Household Wealth Survey (HWS)	Statistics Finland	End of 1998	1998	Sample survey	No	3,893	3,893	23
Germany	Socio-Economic Panel (SOEP)	Deutsches Institut Für Wirtschaftsforschung (DIW) Berlin	2002	2001	Sample panel survey	Yes	12,692	12,129	9
Italy	Survey of Household Income and Wealth (SHIW)	Bank of Italy	End of 2002	2002	Sample survey (panel section)	No	8,011	8,010	34
Norway	Income Distribution Survey (IDS)	Statistics Norway	End of 2002	2002	Sample survey plus administrative records	No	22,870	22,870	35
Sweden	Wealth Survey (HINK)	Statistics Sweden	End of 2002	2002	Sample survey plus administrative records	No	17,954	17,954	26
United Kingdom	British Household Panel Survey (BHPS)	ESRC	2000	2000	Sample panel survey	No	4,867 (2)	4,185	7
United States	Panel Study of Income Dynamics (PSID)	Survey Research Center of the University of Michigan	2001	2000	Sample panel survey	No	7,406	7,071	14
	Survey of Consumer Finances (SCF)	Federal Reserve Board and U.S. Department of Treasury	2001	2000	Sample survey	Yes	4,442 (3)	4,442 (3)	30

Source: Sierminska, Brandolini and Smeeding (2008), Table 1. (1) Values refer to the time of the interview unless otherwise indicated. (2) Original survey sample. Sample size can rise to 8,761 when weights are not used. (3) Data are stored as five successive replicates of each record that should not be used separately; thus, actual sample size for users is 22,210. The special sample of the wealthy includes 1,532 households.

Table 3

Per capita equivalent disposable income, total financial assets and net worth

Country	Disposable income		Total financial assets		Net worth		Net worth to disposable income ratio
	US dollars	Index: US-PSID=100	US dollars	Index: US-PSID=100	US dollars	Index: US-PSID=100	
				Mean			
Austria (2004)	–	–	17,122	61.0	–	–	–
Canada (1999)	14,215	68.9	10,962	39.1	36,475	55.3	2.6
Finland (1998)	11,277	54.7	6,547	23.3	33,968	51.5	3.0
Germany (2002)	13,146	63.7	8,448	30.1	51,492	78.1	3.9
Italy (2002)	10,546	51.1	10,800	38.5	70,342	106.6	6.7
Norway (2002)	17,168	83.2	17,819	63.5	–	–	–
Sweden (2002)	12,776	61.9	12,441	44.3	–	–	–
UK (2000)	12,892	62.5	12,011	42.8	57,051	86.5	4.4
US-PSID (2001)	20,629	100.0	28,061	100.0	65,957	100.0	3.2
US-SCF (2001)	18,325	88.8	42,155	150.2	87,437	132.6	4.8
				Median			
Austria (2004)	–	–	6,827	512.1	–	–	–
Canada (1999)	11,938	77.8	863	64.8	13,020	91.7	1.1
Finland (1998)	9,603	62.6	1,301	97.6	18,545	130.6	1.9
Germany (2002)	10,879	70.9	0	0.0	12,914	90.9	1.2
Italy (2002)	8,868	57.8	2,817	211.4	42,268	297.7	4.8
Norway (2002)	14,569	94.9	3,754	281.6	–	–	–
Sweden (2002)	11,256	73.3	2,461	184.6	–	–	–
UK (2000)	10,907	71.1	1,544	115.8	26,071	183.6	2.4
US-PSID (2001)	15,349	100.0	1,333	100.0	14,200	100.0	0.9
US-SCF (2001)	12,459	81.2	1,950	146.3	13,000	91.5	1.0

Source: authors' elaborations on LWS data (as of 27 February 2009). All values are in US dollars at purchasing power parities.

Table 4

Share of income-poor and income-net worth-poor households, all households

Country	National lines			US-PSID line		
	Income-net worth poor	Income poor	Difference	Income-net worth poor	Income poor	Difference
			Net worth			
Annuity interest rate: 2%						
Finland (1998)	8.4	10.6	-2.2	30.8	39.8	-9.0
Germany (2002)	11.3	12.9	-1.6	25.8	30.6	-4.8
Italy (2002)	9.2	12.5	-3.3	29.8	42.3	-12.5
US-PSID (2001)	14.5	17.4	-2.9	14.5	17.4	-2.9
US-SCF (2001)	16.6	19.5	-2.9	23.7	27.5	-3.8
Annuity interest rate: 10%						
Finland (1998)	8.4	10.6	-2.2	28.5	39.8	-11.3
Germany (2002)	11.2	12.9	-1.7	24.9	30.6	-5.7
Italy (2002)	8.9	12.5	-3.6	27.8	42.3	-14.5
US-PSID (2001)	14.5	17.4	-2.9	14.5	17.4	-2.9
US-SCF (2001)	15.9	19.5	-3.6	22.9	27.5	-4.6
			Total financial assets			
Annuity interest rate: 2%						
Finland (1998)	10.2	10.6	-0.4	39.6	39.8	-0.2
Germany (2002)	13.4	12.9	0.5	30.5	30.6	-0.1
Italy (2002)	12.3	12.5	-0.2	40.5	42.3	-1.8
US-PSID (2001)	16.3	17.4	-1.1	16.3	17.4	-1.1
US-SCF (2001)	19.0	19.5	-0.5	26.6	27.5	-0.9
Annuity interest rate: 10%						
Finland (1998)	10.0	10.6	-0.6	38.6	39.8	-1.2
Germany (2002)	13.1	12.9	0.2	29.6	30.6	-1.0
Italy (2002)	12.1	12.5	-0.4	39.7	42.3	-2.6
US-PSID (2001)	16.3	17.4	-1.1	16.3	17.4	-1.1
US-SCF (2001)	18.5	19.5	-1.0	26.2	27.5	-1.3

Source: authors' elaborations on LWS data (as of 27 February 2009). All values are in US dollars at purchasing power parities and are equivalised by the square root equivalence scale.

Table 5

Share of income-poor and income-net worth-poor households, households with head aged 55 and over

Country	National lines			US-PSID line		
	Income-net worth poor	Income poor	Difference	Income-net worth poor	Income poor	Difference
			Net worth			
Annuity interest rate: 2%						
Finland (1998)	6.7	13.3	-6.6	26.9	52.8	-25.9
Germany (2002)	7.8	11.4	-3.6	22.5	33.3	-10.8
Italy (2002)	5.2	11.9	-6.7	22.1	47.2	-25.1
US-PSID (2001)	8.9	18.0	-9.1	8.9	18.0	-9.1
US-SCF (2001)	13.5	21.9	-8.4	18.3	29.5	-11.2
Annuity interest rate: 10%						
Finland (1998)	6.5	13.3	-6.8	20.6	52.8	-32.2
Germany (2002)	7.4	11.4	-4.0	20.2	33.3	-13.1
Italy (2002)	4.5	11.9	-7.4	18.0	47.2	-29.2
US-PSID (2001)	8.9	18.0	-9.1	8.9	18.0	-9.1
US-SCF (2001)	11.6	21.9	-10.3	15.9	29.5	-13.6
			Total financial assets			
Annuity interest rate: 2%						
Finland (1998)	12.2	13.3	-1.1	52.3	52.8	-0.5
Germany (2002)	12.6	11.4	1.2	33.0	33.3	-0.3
Italy (2002)	11.4	11.9	-0.5	43.7	47.2	-3.5
US-PSID (2001)	14.6	18.0	-3.4	14.6	18.0	-3.4
US-SCF (2001)	20.5	21.9	-1.4	26.8	29.5	-2.7
Annuity interest rate: 10%						
Finland (1998)	11.6	13.3	-1.7	49.5	52.8	-3.3
Germany (2002)	11.8	11.4	0.4	31.1	33.3	-2.2
Italy (2002)	10.9	11.9	-1.0	41.9	47.2	-5.3
US-PSID (2001)	14.6	18.0	-3.4	14.6	18.0	-3.4
US-SCF (2001)	19.1	21.9	-2.8	25.6	29.5	-3.9

Source: authors' elaborations on LWS data (as of 27 February 2009). All values are in US dollars at purchasing power parities and are equivalised by the square root equivalence scale.

Table 6

Share of income-poor and asset-poor households, selected countries

Country	Poverty line	Income poor	Net worth poor	Income and net worth poor	Liquid asset poor	Income and liquid asset poor
			National lines			
Austria (2004)	10,013	–	–	–	13.8	–
Canada (1999)	10,327	16.5	33.8	11.3	56.5	13.4
Finland (1998)	7,956	10.6	28.3	5.7	49.0	7.7
Germany (2002)	8,736	12.9	38.0	8.4	52.3	10.4
Italy (2002)	7,591	12.5	14.3	4.4	31.7	9.2
Norway (2002)	12,123	12.0	–	–	36.1	6.8
Sweden (2002)	8,934	10.2	–	–	42.8	6.0
UK (2000)	8,979	14.6	24.7	5.4	46.0	9.7
US-PSID (2001)	12,989	17.4	33.2	11.0	52.6	14.7
US-SCF (2001)	10,562	19.5	31.7	11.2	44.6	15.1
			US-PSID line			
Austria (2004)	12,989	–	–	–	17.8	–
Canada (1999)	12,989	26.8	18.4	16.5	60.1	21.0
Finland (1998)	12,989	39.8	11.3	19.1	57.9	29.0
Germany (2002)	12,989	30.6	20.9	18.8	55.8	23.6
Italy (2002)	12,989	42.3	5.2	11.1	40.3	26.8
Norway (2002)	12,989	14.8	–	–	37.5	8.2
Sweden (2002)	12,989	32.3	–	–	47.4	19.6
UK (2000)	12,989	31.8	13.2	12.6	50.4	21.3
US-PSID (2001)	12,989	17.4	22.2	11.0	52.6	14.7
US-SCF (2001)	12,989	27.5	17.0	15.4	47.2	21.1

Source: authors' elaborations on LWS data (as of 27 February 2009). All values are in US dollars at purchasing power parities and are equivalised by the square root equivalence scale.

Table 7

Share of income-poor and asset-poor households, Italy and the United States

Country and year	Income poor	Net worth poor	Income and net worth poor	Liquid asset poor	Income and liquid asset poor
Italy					
1991	3.8	5.5	1.1	31.5	3.1
1993	7.7	11.9	3.0	33.3	5.8
1995	7.9	10.3	3.2	31.9	6.1
1998	7.6	9.4	2.6	25.3	4.8
2000	6.4	9.3	2.5	31.1	5.2
2002	5.6	9.9	2.4	29.8	4.7
2004	4.4	8.5	2.0	27.5	3.6
2006	4.0	8.7	1.4	27.7	2.9
United States					
1983	14.7	22.4	7.6	33.2	
1989		24.7		36.4	
1992	16.0	24.0		37.5	
1995		25.3		43.8	
1998		25.5		39.7	
2001	13.2	24.5	7.9	37.5	

Source: Italy: Brandolini (2009); United States: Haveman and Wolff (2004).

Table 8

Percentage incidence of arrears on mortgages, rents, consumer loans and utility bills

Household characteristic	Year	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Home-owners with mortgage	2005	27.8	28.3	28.5	28.1	11.1	44.7	38.4
	2006	28.6	32.1	28.2	27.5	11.3	47.4	39.0
– in arrears on instalments	2005	4.8	2.8	3.1	3.7	4.8	1.6	2.1
	2006	4.7	3.1	2.6	2.7	4.7	1.1	1.6
Home-renters	2005	10.4	32.8	37.4	21.0	18.4	45.3	29.9
	2006	10.4	31.8	36.8	21.4	18.2	44.1	29.3
– in arrears on rent	2005	10.1	10.0	12.3	16.0	13.6	6.2	12.2
	2006	8.9	11.5	12.1	14.1	14.3	5.3	11.3
With a consumer loan	2005	24.2	38.0	35.8	49.2	16.7	14.2	50.6
	2006	22.9	38.8	35.7	48.5	16.5	14.5	50.4
– in arrears on instalments	2005	7.9	8.9	5.7	5.8	14.8	6.6	4.3
	2006	7.0	5.6	6.2	5.2	13.1	9.1	4.2
In arrears on utility bills	2005	3.3	6.4	6.4	6.1	9.0	3.0	0.1
	2006	3.4	4.0	6.0	6.2	9.3	2.7	0.2

Source: authors' elaborations on EU-SILC data.

Appendix

Table A1

Percentage share of households with mortgage

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	28.6	32.1	28.2	27.5	11.3	47.4	39.0
Age							
Less than 35	44.6	32.4	24.8	29.8	16.3	37.5	43.4
35-44	47.2	54.8	47.2	51.2	20.8	62.3	64.6
45-54	31.8	44.8	40.1	38.9	14.2	62.1	58.5
55-64	16.1	27.8	26.0	14.3	8.6	55.4	32.2
65 and over	3.5	8.6	11.2	3.2	1.6	24.2	5.4
Income quartiles (1)							
1st	14.8	9.5	14.4	10.9	4.9	18.6	16.1
2nd	23.2	24.8	22.5	19.6	8.4	37.6	29.3
3rd	32.4	41.3	34.8	34.5	14.1	59.8	48.4
4th	44.4	52.6	41.2	45.2	17.6	73.7	62.4
Household size							
1	16.4	17.5	13.7	11.3	6.3	22.5	21.7
2	25.4	29.1	21.2	20.6	9.2	52.0	35.2
3	32.4	48.1	39.5	34.6	15.2	62.7	51.9
4	36.7	59.8	55.2	42.2	17.3	72.8	65.7
5 or more	28.2	66.7	53.5	38.3	12.5	75.1	53.7
Household type							
One adult, no children	16.4	17.5	13.7	11.3	6.3	22.5	21.7
Two adults, no children	24.9	28.8	21.5	20.9	8.9	53.3	35.5
Single parent	34.4	43.4	25.5	37.3	13.1	33.0	41.9
Couple with children	48.4	63.2	53.9	50.5	21.4	74.6	68.8
Other households	18.3	33.2	29.9	17.2	8.9	54.6	37.7
Working status							
Full-time	40.4	49.4	40.1	41.0	17.6	67.1	61.8
Part-time	25.5	19.0	25.3	21.7	12.3	44.7	30.3
Unemployed	24.8	12.8	13.3	15.8	5.9	22.0	11.6
Retired	5.3	10.0	14.8	5.3	3.4	33.3	4.8
Other non working	10.8	12.6	9.5	5.9	2.4	15.2	12.1
Job contract (2)							
Permanent	33.7	47.0	38.3	32.3	13.5	60.0	60.2
Temporary	25.1	17.1	16.2	18.2	6.1	25.8	31.1
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Households with mortgage	3,187	4,017	3,099	1,318	2,429	5,572	3,843

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) only for employees. Sample weights are used.

Table A2

Percentage share of households with mortgage in arrears on mortgage

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	4.7	3.1	2.6	2.7	4.7	1.1	1.6
Age							
Less than 35	5.1	3.6	3.1	4.4	5.9	1.0	1.8
35-44	3.5	2.8	3.4	1.9	4.0	1.7	1.9
45-54	5.9	2.5	2.6	2.1	4.1	1.3	1.2
55-64	5.2	3.8	1.6	3.0	7.0	0.7	1.5
65 and over	4.4	3.2	1.0	1.7	2.3	0.3	1.6
Income quartiles (1)							
1st	8.2	11.3	4.4	8.4	12.0	4.2	5.5
2nd	5.3	5.0	3.9	6.3	6.8	1.3	2.1
3rd	5.3	2.3	2.8	0.8	4.2	0.9	1.3
4th	2.7	1.3	1.2	1.1	2.1	0.4	0.7
Household size							
1	4.5	4.9	2.3	3.2	4.0	1.4	2.0
2	3.7	1.5	1.6	3.1	3.6	0.8	1.2
3	4.6	3.8	2.3	3.9	3.9	1.2	1.0
4	4.6	2.4	3.3	2.9	4.8	1.6	1.8
5 or more	9.0	3.8	4.9	0.4	13.8	0.9	3.5
Household type							
One adult, no children	4.5	4.9	2.3	3.2	4.0	1.4	2.0
Two adults, no children	2.9	1.4	1.1	0.4	3.7	0.7	1.1
Single parent	11.2	5.3	1.1	10.8	2.5	3.9	3.0
Couple with children	4.2	3.2	3.1	1.7	5.2	1.3	1.9
Other households	7.7	2.4	4.6	6.3	5.5	1.0	1.4
Working status							
Full-time	4.2	2.2	2.8	1.4	4.6	1.1	1.2
Part-time	14.5	7.5	1.3	7.4	3.4	1.5	2.6
Unemployed	8.9	20.8	8.0	7.8	12.6	0.0	15.8
Retired	6.0	3.6	1.0	1.6	6.2	0.3	1.1
Other non working	3.1	7.8	7.0	22.3	0.4	2.7	8.2
Job contract (2)							
Permanent	3.3	1.8	2.4	2.5	3.8	1.4	1.0
Temporary	8.9	11.8	4.6	0.4	5.5	2.2	4.9
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Households with mortgage	3,187	4,017	3,099	1,318	2,429	5,572	3,843
Households with mortgage in arrears	154	127	93	33	96	50	65

(1) Source: Eu-silc data, 2006 equivalised disposable income; (2) only for employees. Sample weights are used.

Table A3

Percentage share of home-renter households (1)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	10.4	31.8	36.8	21.4	18.2	44.1	29.3
Age							
Less than 35	14.1	61.9	64.9	47.9	26.8	57.7	48.3
35-44	13.5	31.8	39.8	20.6	21.7	33.4	26.7
45-54	8.2	25.4	31.0	10.4	18.1	33.0	23.0
55-64	8.9	19.5	27.4	12.6	13.9	36.2	19.1
65 and over	7.2	19.6	23.8	11.1	13.9	57.0	26.2
Income quartiles (1)							
1st	13.5	51.3	50.2	33.8	25.0	70.5	43.1
2nd	11.0	37.5	44.7	27.2	19.7	55.2	38.3
3rd	9.6	25.8	31.0	14.5	16.2	33.2	24.0
4th	7.6	12.6	21.3	9.9	12.1	17.4	11.9
Household size							
1	14.6	46.3	48.5	22.6	22.8	69.3	38.7
2	10.1	24.5	31.1	20.5	15.5	37.2	24.0
3	9.2	23.4	35.9	27.2	16.7	29.2	28.7
4	8.6	19.1	27.7	16.5	15.1	22.2	21.0
5 or more	12.4	16.0	35.2	20.3	24.6	17.9	32.3
Household type							
One adult, no children	14.6	46.2	48.5	22.6	22.8	69.3	38.7
Two adults, no children	9.9	22.7	27.3	14.5	15.1	35.6	20.2
Single parent	17.6	42.0	61.3	39.6	29.9	63.7	50.5
Couple with children	9.7	20.2	32.4	14.9	19.2	20.0	20.3
Other households	8.6	24.1	37.9	35.1	13.6	35.5	37.7
Working status							
Full-time	10.9	27.0	39.6	16.2	19.6	27.8	21.4
Part-time	17.1	50.4	49.5	31.8	28.3	48.6	37.4
Unemployed	19.4	67.3	68.5	43.4	33.4	71.7	77.9
Retired	7.0	19.2	23.5	10.4	12.9	50.6	25.6
Other non working	10.2	60.3	58.6	37.8	19.2	74.1	70.9
Job contract (2)							
Permanent	8.5	30.6	38.1	19.4	18.1	37.0	23.3
Temporary	19.6	69.7	71.8	46.7	29.5	69.8	48.7
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Home-renters households	1,255	2,551	3,347	1,012	3,417	2,689	2,604

Source: Eu-silc data, 2006. (1) Renters either at market price or at reduced rate. (2) equivalised disposable income; (3) only for employees. Sample weights are used.

Table A4

Percentage share of home-renter households in arrears on rent (1)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	8.9	11.5	12.1	14.1	14.3	5.3	11.3
Age							
Less than 35	9.9	12.2	13.7	13.1	20.2	8.1	14.0
35-44	9.1	14.2	12.0	19.0	14.9	8.5	19.6
45-54	15.7	15.2	14.2	17.2	14.9	6.2	10.1
55-64	4.2	14.2	13.2	20.1	10.9	5.4	7.3
65 and over	4.5	0.9	6.8	2.7	9.1	0.6	2.9
Income quartiles (1)							
1st	16.7	17.4	18.8	20.2	21.3	7.8	15.4
2nd	9.8	9.9	13.1	12.3	14.9	4.4	10.8
3rd	3.4	6.3	5.4	9.1	8.9	3.0	8.1
4th	1.8	2.8	4.1	6.5	5.9	2.6	4.8
Household size							
1	2.8	10.1	10.4	10.3	15.7	5.0	8.7
2	9.0	10.3	10.3	11.0	8.5	3.6	10.8
3	6.7	16.1	15.3	12.9	16.0	8.0	14.3
4	13.6	17.0	16.7	16.5	15.2	8.9	15.5
5 or more	21.5	24.9	18.5	25.2	19.5	9.4	15.7
Household type							
One adult, no children	2.8	10.1	10.4	10.3	15.7	5.0	8.8
Two adults, no children	8.1	8.7	8.7	9.4	7.9	2.9	7.5
Single parent	14.4	17.4	11.4	22.9	21.8	4.4	18.4
Couple with children	15.7	15.5	17.6	17.6	16.6	7.8	16.1
Other households	7.6	25.4	15.3	15.0	14.8	12.3	15.3
Working status							
Full-time	8.0	9.2	10.7	10.7	13.8	5.4	10.9
Part-time	7.8	9.5	21.4	12.0	22.5	9.3	20.2
Unemployed	30.1	29.1	25.2	30.7	30.8	15.0	28.6
Retired	5.0	1.0	6.8	5.0	6.3	0.9	2.6
Other non working	6.8	16.4	15.3	17.5	20.2	5.0	12.6
Job contract (2)							
Permanent	7.9	7.6	10.1	13.3	10.4	4.2	12.7
Temporary	11.5	14.6	20.0	16.3	25.9	11.6	9.6
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Home-renter households	1,255	2,551	3,347	1,012	3,417	2,689	2,604
Home-renter households with arrears on rent	98	274	407	137	436	120	288

Source: Eu-silc data, 2006. (1) Renters either at market price or at reduced rate. (2) equivalised disposable income; (3) only for employees. Sample weights are used.

Table A5

Percentage share of households in arrears on utility bills

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	3.4	4.0	6.0	6.2	9.3	2.7	0.2
Age							
Less than 35	4.1	6.9	10.2	12.0	14.0	5.1	0.1
35-44	4.7	5.9	7.5	7.2	11.1	2.7	0.2
45-54	3.7	3.8	6.7	5.0	11.3	3.6	0.1
55-64	2.2	2.6	4.7	4.2	8.5	2.2	0.1
65 and over	1.9	1.3	2.3	1.5	5.1	0.3	0.4
Income quartiles (1)							
1st	4.8	6.8	12.5	11.4	18.4	5.5	0.3
2nd	4.8	5.0	6.9	7.9	9.2	3.5	0.1
3rd	2.4	3.0	3.2	3.9	5.9	1.3	0.2
4th	1.7	1.3	1.5	1.7	3.9	0.6	0.1
Household size							
1	3.5	4.0	5.5	4.3	7.7	3.5	0.2
2	2.1	2.7	4.9	5.3	6.4	1.5	0.3
3	3.4	4.7	8.2	8.6	9.5	3.2	0.1
4	4.1	6.0	6.1	7.3	12.3	2.8	0.2
5 or more	6.3	7.1	11.6	6.4	22.1	3.3	0.2
House tenure (2)							
Owner	2.8	3.3	2.4	2.9	6.7	1.1	0.2
Renter	7.3	5.4	11.9	17.9	19.3	4.8	0.2
Free house	4.5	4.8	4.9	6.5	10.5	0.0	0.0
Household type							
One adult, no children	3.5	4.0	5.5	4.3	7.7	3.5	0.2
Two adults, no children	1.9	2.4	3.7	2.9	6.1	1.2	0.3
Single parent	8.0	13.7	16.4	12.1	19.1	6.9	0.0
Couple with children	4.7	5.1	7.3	5.8	13.1	2.5	0.1
Other households	3.2	5.2	10.0	11.8	10.6	4.8	0.3
Working status							
Full-time	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Part-time	0.1	0.1	0.1	0.1	0.2	0.0	0.0
Unemployed	0.0	0.1	0.2	0.2	0.3	0.1	0.0
Retired	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other non working	0.0	0.1	0.1	0.1	0.1	0.0	0.0
Job contract (2)							
Permanent	2.6	3.9	5.2	5.3	7.8	2.3	0.1
Temporary	6.3	6.8	15.9	14.4	20.1	8.7	0.0
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Households with arrears on utility bills	324	426	603	281	1,732	167	18

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) renters either at market price or reduced rate. (3) only for employees. Sample weights are used.

Table A6

Percentage share of households with a consumer loan

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	22.9	38.8	35.7	48.5	16.5	14.5	50.4
Age							
Less than 35	30.3	58.2	45.6	62.6	21.7	22.5	60.4
35-44	31.9	54.7	48.1	60.6	25.2	17.3	63.6
45-54	27.9	44.5	47.0	57.4	22.8	16.7	59.1
55-64	20.8	33.7	36.3	43.8	15.3	14.3	48.5
65 and over	6.5	9.9	12.3	17.5	4.7	2.8	26.4
Income quartiles (1)							
1st	16.6	28.5	25.9	33.3	13.3	17.9	36.8
2nd	23.2	37.5	35.8	46.7	15.7	14.6	44.2
3rd	24.6	45.4	41.1	57.0	18.1	14.6	58.3
4th	27.2	43.9	40.0	56.9	18.9	10.7	62.2
Household size							
1	11.9	29.1	23.5	24.8	8.5	14.2	36.5
2	18.2	37.2	31.7	42.3	13.1	11.5	50.0
3	26.3	51.4	49.0	57.6	21.4	19.3	60.4
4	30.2	54.6	52.6	61.6	25.7	17.0	65.5
5 or more	30.3	60.1	50.4	68.0	27.1	15.1	61.5
House tenure (2)							
Owner	22.1	34.1	31.9	48.4	14.8	10.2	52.9
Renter	26.8	49.0	40.9	49.3	21.5	19.9	45.0
Free house	25.8	27.4	44.0	37.5	19.6	10.6	41.0
Household type							
One adult, no children	11.9	29.1	23.5	24.8	8.5	14.2	36.5
Two adults, no children	17.8	36.8	30.6	40.1	12.5	11.1	49.7
Single parent	30.4	47.4	42.4	59.6	25.6	25.5	54.3
Couple with children	32.7	57.6	53.0	62.5	28.3	16.6	67.3
Other households	23.9	44.0	45.2	62.0	18.1	19.3	55.0
Working status							
Full-time	29.8	51.8	48.9	60.7	23.3	16.8	64.9
Part-time	26.6	45.1	39.6	53.4	22.0	16.7	48.9
Unemployed	24.2	36.2	33.6	40.9	18.1	18.0	33.4
Retired	8.1	10.4	17.2	20.0	6.8	4.0	26.5
Other non working	12.3	39.7	20.7	30.3	7.2	17.5	40.2
Job contract (2)							
Permanent	24.4	46.9	45.7	50.1	18.1	16.1	64.0
Temporary	26.5	49.5	36.6	49.1	17.0	29.2	59.5
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Households with consumer loans	2,635	4,808	3,716	2,382	3,479	1,165	4,985

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) renters either at market price or reduced rate. (3) only for employees. Sample weights are used.

Table A7

Percentage share of households with a consumer loan in arrears on consumer loans

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	7.0	5.6	6.2	5.2	13.1	9.1	4.2
Age							
Less than 35	10.1	5.1	8.3	7.2	15.2	12.4	6.2
35-44	5.9	5.6	7.0	5.2	14.1	10.8	5.9
45-54	7.2	5.8	6.0	2.9	11.6	8.0	3.4
55-64	4.6	6.5	3.7	6.2	10.2	4.0	1.5
65 and over	4.0	5.4	3.5	2.6	13.4	0.0	1.5
Income quartiles (1)							
1st	13.7	13.7	12.5	14.2	25.1	11.0	9.1
2nd	8.7	6.3	9.1	7.5	14.6	14.0	5.3
3rd	5.4	3.6	4.3	2.0	9.9	7.4	3.5
4th	3.0	1.7	1.5	0.8	6.5	1.4	1.3
Household size							
1	7.7	8.0	9.8	3.5	15.2	11.1	3.8
2	6.2	3.4	4.5	5.8	10.8	5.0	3.7
3	3.7	5.2	6.9	6.2	11.8	9.1	4.5
4	8.2	4.7	4.7	3.6	12.9	10.6	4.0
5 or more	14.1	7.7	7.0	6.1	19.8	10.2	7.6
House tenure (2)							
Owner	5.7	2.6	3.0	2.7	10.5	5.2	2.0
Renter	17.0	9.8	10.7	14.5	19.9	11.6	10.7
Free house	4.6	13.0	3.1	0.0	13.7	0.0	0.0
Household type							
One adult, no children	7.7	8.0	9.8	3.5	15.2	11.1	3.8
Two adults, no children	5.9	2.9	4.0	3.2	10.1	4.8	2.3
Single parent	16.1	8.1	3.3	5.6	17.3	16.0	16.6
Couple with children	7.1	4.9	5.9	4.6	13.8	9.4	3.4
Other households	6.9	8.2	7.0	8.4	12.5	9.1	7.0
Working status							
Full-time	7.3	3.6	5.7	3.2	11.7	8.4	3.0
Part-time	9.8	7.0	12.6	5.7	18.0	14.9	9.1
Unemployed	6.3	27.2	12.1	22.7	31.5	4.5	19.8
Retired	2.8	4.1	3.6	2.1	11.9	0.0	1.0
Other non working	7.7	9.6	15.4	15.0	23.0	9.2	13.1
Job contract (2)							
Permanent	5.4	3.3	5.2	4.2	10.4	9.0	3.3
Temporary	11.1	8.4	15.2	13.9	30.6	20.6	8.3
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902
Households with consumer loans	2,635	4,808	3,716	2,382	3,479	1,165	4,985
Household with arrears on consumer loans	165	253	205	106	419	86	201

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) renters either at market price or reduced rate. (3) only for employees. Sample weights are used.

Table A8

Total housing cost (90 percentile - percentages)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	30.8	39.0	41.0	27.8	50.0	53.2	59.3
Age							
Less than 35	37.5	47.6	50.2	41.6	56.1	58.9	64.3
35-44	33.5	35.0	38.7	25.0	48.1	50.5	55.4
45-54	26.6	35.0	35.4	20.0	39.5	49.0	59.1
55-64	25.5	33.5	36.6	23.8	36.7	50.1	58.5
65 and over	25.9	36.0	39.8	25.2	57.0	53.9	59.0
Income quartiles (1)							
1st	47.3	53.6	56.3	35.7	83.3	66.7	94.8
2nd	32.4	37.8	40.9	33.9	49.3	50.3	55.9
3rd	25.2	26.8	31.7	21.2	35.4	43.2	41.4
4th	19.5	19.7	22.9	19.7	24.6	39.2	32.9
Household size							
1	39.5	47.2	50.8	33.6	70.8	60.6	75.0
2	30.2	30.8	36.1	26.9	42.1	45.3	50.6
3	29.1	28.7	35.1	30.1	38.7	44.3	54.5
4	27.0	26.6	29.8	21.0	37.4	43.0	46.7
5 or more	25.2	27.5	31.5	18.1	37.3	45.3	44.4
House tenure (2)							
Owner	25.4	22.6	20.4	21.4	32.1	45.3	44.2
Renter	62.4	50.1	54.0	48.7	73.1	57.8	80.2
Free house	18.9	9.4	21.1	17.3	74.8	41.6	40.2
Household type							
One adult, no children	39.5	47.2	50.8	33.6	70.8	60.6	75.0
Two adults, no children	29.7	27.8	33.1	22.5	39.5	45.1	44.8
Single parent	43.2	40.9	48.8	31.3	66.6	50.6	70.4
Couple with children	31.3	27.2	31.4	22.1	42.9	45.2	46.0
Other households	21.6	34.4	40.7	33.4	28.9	40.2	59.5
Working status							
Full-time	30.7	30.7	36.7	23.4	41.9	45.5	44.3
Part-time	41.1	48.6	52.7	27.9	75.6	52.6	77.7
Unemployed	46.4	56.3	56.8	46.5	84.0	62.9	136.5
Retired	23.8	36.6	38.3	23.4	50.1	51.9	60.1
Other non working	40.7	50.7	60.7	44.4	73.8	60.5	91.1
Job contract (2)							
Permanent	26.1	33.3	36.9	25.7	43.0	47.8	45.2
Temporary	39.1	50.7	55.6	35.7	65.0	64.7	58.8
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902

Source: Eu-silc data, 2006(1) equivalised disposable income; (2) renters either at market price or reduced rate. (3) only for employees. Sample weights are used.

Table A9

Total housing cost for homeowners (90 percentile - percentages)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	25.4	22.6	20.4	21.4	32.1	45.3	44.2
Age							
Less than 35	31.3	27.1	21.4	24.2	33.0	50.4	46.1
35-44	26.9	21.2	18.1	19.9	29.1	49.7	43.4
45-54	22.7	19.9	15.8	16.8	23.9	44.6	44.1
55-64	21.9	20.3	17.3	20.2	26.1	41.3	43.5
65 and over	22.9	24.2	23.1	24.8	41.0	36.8	44.9
Income quartiles (1)							
1st	40.7	31.8	32.3	32.0	58.5	64.2	79.8
2nd	25.5	22.1	20.2	18.6	31.9	47.1	42.6
3rd	20.6	19.1	16.4	15.9	24.4	45.2	36.2
4th	17.6	16.3	13.1	16.3	17.4	40.8	31.4
Household size							
1	32.2	27.4	25.6	30.4	52.6	51.6	54.5
2	25.7	18.2	18.4	18.3	29.9	42.8	38.9
3	24.2	19.3	18.9	18.1	23.7	44.4	40.6
4	22.9	19.5	16.1	17.3	24.3	43.9	39.2
5 or more	19.4	20.2	15.2	14.9	24.2	49.6	41.0
Household type							
One adult, no children	32.2	27.4	25.6	30.4	52.6	51.6	54.5
Two adults, no children	25.3	17.7	18.2	17.9	29.2	42.5	37.6
Single parent	32.8	24.0	22.5	21.4	42.1	50.6	58.2
Couple with children	27.6	20.3	17.5	18.2	27.5	47.1	40.7
Other households	16.8	17.5	14.0	13.9	20.3	35.9	33.7
Working status							
Full-time	25.2	20.7	17.5	18.1	26.1	47.0	39.6
Part-time	35.3	20.7	22.5	20.6	42.9	45.9	57.2
Unemployed	39.6	27.4	24.5	34.1	37.2	51.6	161.7
Retired	21.6	24.3	21.9	22.6	35.7	38.1	45.7
Other non working	37.5	23.2	25.8	29.5	53.3	43.2	81.0
Job contract (2)							
Permanent	22.8	22.0	17.7	20.7	27.3	48.2	39.6
Temporary	29.6	29.2	21.4	29.5	35.5	59.9	46.0
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) only for employees. Sample weights are used.

Table A10

Total housing cost for renters (90 percentile - percentages)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	62.4	50.1	54.0	48.7	73.1	57.8	80.2
Age							
Less than 35	63.7	52.8	55.6	50.5	82.8	64.7	78.9
35-44	62.4	45.0	50.7	50.7	62.6	52.5	73.3
45-54	65.8	46.1	51.4	43.2	56.3	56.8	79.8
55-64	47.2	52.1	52.5	33.5	65.6	58.5	95.4
65 and over	63.1	49.6	56.1	29.2	82.7	57.1	80.1
Income quartiles (1)							
1st	81.3	59.1	65.3	49.1	106.3	67.5	105.7
2nd	64.5	42.7	47.5	54.9	61.2	50.8	66.3
3rd	57.7	33.7	42.9	36.4	48.1	40.8	53.8
4th	36.3	24.9	34.3	28.5	38.7	32.5	40.9
Household size							
1	71.3	54.5	60.5	44.0	88.0	62.3	93.5
2	57.7	42.8	50.9	55.8	61.6	47.9	64.8
3	59.7	39.9	47.6	56.0	75.3	44.1	74.7
4	64.0	37.4	42.0	42.4	52.5	41.7	64.1
5 or more	43.9	37.8	38.7	35.7	51.6	38.9	50.8
Household type							
One adult, no children	71.3	54.5	60.5	44.0	88.0	62.3	93.5
Two adults, no children	57.7	41.0	47.7	43.6	58.9	46.9	61.3
Single parent	68.2	48.2	51.1	40.7	77.8	54.1	82.1
Couple with children	62.4	37.6	41.0	38.6	62.8	42.6	59.7
Other households	57.3	46.7	53.7	58.5	49.7	44.5	86.0
Working status							
Full-time	59.7	37.8	47.2	36.6	58.7	43.0	56.9
Part-time	80.6	53.7	59.5	50.7	108.1	59.0	93.4
Unemployed	81.3	59.5	62.0	51.2	101.0	66.1	135.1
Retired	57.9	49.6	55.4	34.3	77.9	55.8	81.9
Other non working	71.3	57.5	69.3	59.4	92.8	61.3	94.8
Job contract (2)							
Permanent	57.1	39.4	47.8	42.9	62.8	47.3	58.8
Temporary	63.7	54.5	58.7	50.7	85.8	64.7	65.6
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) only for employees. Sample weights are used.

Table A11

Total housing cost for homeowners with mortgage (90 percentile - percentages)

Household characteristics	Spain	Finland	France	Ireland	Italy	Nether-lands	United Kingdom
Total	33.8	24.3	19.4	22.2	33.0	47.2	46.0
Age							
Less than 35	37.5	30.1	21.6	30.4	37.5	52.7	47.5
35-44	31.1	22.6	18.9	20.4	33.0	50.2	45.2
45-54	32.4	22.3	15.0	18.9	28.8	44.6	45.6
55-64	31.5	22.4	16.4	24.4	29.4	43.6	47.1
65 and over	48.7	28.8	22.5	17.7	34.5	44.0	46.6
Income quartiles (1)							
1st	73.4	42.3	32.5	38.2	56.6	69.6	103.0
2nd	36.3	27.1	20.6	20.9	38.6	50.2	49.8
3rd	27.5	22.5	17.3	18.9	30.5	46.0	39.6
4th	22.6	19.0	14.9	20.4	21.9	41.9	33.3
Household size							
1	55.1	30.8	22.0	32.1	46.7	57.7	54.3
2	33.8	23.1	20.3	21.3	30.9	44.4	43.0
3	33.9	20.8	20.6	21.8	31.2	45.3	46.7
4	29.7	21.1	16.4	19.9	28.7	43.7	40.5
5 or more	28.9	22.1	15.8	17.8	28.4	49.7	41.6
Household type							
One adult, no children	55.1	30.8	22.0	32.1	46.7	57.7	54.3
Two adults, no children	33.2	21.3	20.1	19.8	29.5	44.3	41.6
Single parent	47.3	26.8	22.5	21.4	47.7	52.2	59.9
Couple with children	33.5	21.6	18.2	20.1	30.4	47.2	41.9
Other households	25.7	24.5	14.4	18.1	28.6	38.6	38.1
Working status							
Full-time	31.3	22.9	18.8	20.8	32.0	47.5	40.8
Part-time	63.6	25.3	22.2	24.0	47.7	46.9	69.9
Unemployed	52.0	25.5	20.4	34.1	33.7	51.6	173.4
Retired	37.3	28.8	20.3	34.3	34.3	43.5	54.8
Other non working	85.6	31.3	24.0	43.2	57.9	55.3	100.9
Job contract (2)							
Permanent	29.1	24.5	18.8	22.2	30.1	48.8	40.8
Temporary	39.6	30.5	21.7	34.1	33.7	65.5	52.3
All households	12,205	10,868	10,036	5,836	21,499	8,986	9,902

Source: Eu-silc data, 2006. (1) equivalised disposable income; (2) only for employees. Sample weights are used.

References

Ackerman, B., and A. Alstott (1999). *The Stakeholder Society*. New Haven: Yale University Press.

Atkinson, A. B. (2009). "We Need to Stress Test Europe's Welfare States". Mimeo.

Banca d'Italia (2008). La ricchezza delle famiglie italiane. Anno 2007. In *Supplementi al Bollettino Statistico. Indicatori monetari e finanziari*, vol. 43 (n.s.), no. 76, December.

Blank, R. M. (2008). "How to Improve Poverty Measurement in the United States". *Journal of Policy Analysis and Management*, vol. 27, no. 2, pp. 233-254.

Bourguignon, F. (2006). "From Income to Endowments: The Difficult Task of Expanding the Income Poverty Paradigm", in D. B. Grusky and R. Kanbur (eds.), *Poverty and Inequality*, pp. 76-102. Stanford, CA: Stanford University Press.

Bowles, S., and H. Gintis (1998). "Efficient Redistribution: New Rules for Markets, States and Communities", in E. O. Wright (ed.), *Recasting Egalitarianism. New Rules for Communities, States and Markets*, pp. 3-71. London: Verso.

Bowles, S., and H. Gintis (2002). "The Inheritance of Inequality". *Journal of Economic Perspectives*, vol. 16, pp. 3-30.

Brandolini, A. (2005). "La diseguaglianza di reddito in Italia nell'ultimo decennio". *Stato e Mercato*, no. 74, pp. 207-229.

Brandolini, A. (2009). "L'evoluzione recente della distribuzione del reddito e della ricchezza in Italia". Forthcoming in C. Saraceno and A. Schizzerotto (eds.), *Dimensioni della disuguaglianza in Italia: povertà, abitazione, salute*". Bologna: Il Mulino.

Burkhauser, R. V., J. S. Butler and J. T. Wilkinson (1985). "Estimating Changes in Well-Being Across Life: A Realized versus Comprehensive Income Approach". in D. Martin and T. M. Smeeding (eds.), *Horizontal Equity, Uncertainty, and Economic Well-Being*, pp. 69-90. Chicago: University of Chicago Press.:

Caner, A., and E. N. Wolff (2004). "Asset Poverty in the United States, 1984-99: Evidence from the Panel Study of Income Dynamics". *Review of Income and Wealth*, vol. 50, no. 4, pp. 493-518.

Carlin, T. A., and E. I. Reinsel (1973). "Combining Income and Wealth: An Analysis of Farm Family 'Well-Being'". *American Journal of Agricultural Economics*, vol. 55, no. 1, pp. 38-44.

Child Trust Fund (2008). *Statistical Report 2008*. HM Revenue & Customs. Available at: http://www.hmrc.gov.uk/ctf/statistical-report-2008.pdf.

Clemenceau, A., and J.-M. Museux (2007). "EU-SILC (community statistics on income and living conditions: general presentation of the instrument)", in *Comparative EU statistics on Income and Living Conditions: Issues and Challenges – Proceedings of the EU-SILC conference (Helsinki, 6-8 November 2006)*, pp. 13-36. Luxembourg: Office for Official Publications of the European Communities.

Crystal, S., and D. Shea (1990). "The Economic Well-Being of the Elderly". *Review of Income and Wealth*, vol. 36, no. 3, pp. 227-247.

David, M. H., and M, MacDonald (1992) "Inflation, Asset-Testing, and Food Stamp Eligibility: Better Tests without Increased Program Cost?". Institute for Research on Poverty, Discussion Paper, no. 971-92, April.

Dey, S., R. Djoudad and Y. Terajima (2008). "A Tool for Assessing Financial Vulnerabilities in the Household Sector", *Bank of Canada Review*

Disney, R., and E. Whitehouse (2001). *Cross-Country Comparisons of Pensioners' Incomes*. Department of Social Security, Research Report No 142. Leeds: Corporate Document Services.

Dynan, K. E. and D.L. Kohn (2007). "The Rise in U.S. Households Indebtedness: Causes and Consequences", Federal Reserve Board, Washington D.C.

European Central Bank (2009). "Structural Issue Report on Housing Finance", forthcoming.

European Commission (2008a). *The Social Situation in the European Union 2007. Social Cohesion through Equal Opportunities*. Luxembourg: Office for Official Publications of the European Communities.

European Commission (2008b). *Towards a Common Operational European Definition of Over-Indebtedness*.

Eurosystem Household Finance and Consumption Network (2009). "Survey Data on Household Finance and Consumption. Research Summary and Policy Use". ECB, Occasional Papers, no. 100, January.

Expert Group on Household Income Statistics – The Canberra Group (2001). *Final report and recommendations*. Ottawa: The Canberra Group.

Frick, J. R., and M. M. Grabka (2003). "Imputed Rent and Income Inequality: A Decomposition Analysis for Great Britain, West Germany and the U.S.". *Review of Income and Wealth*, vol. 49, pp. 513-537.

Girouard, N., M. Kennedy and C. André (2006). "Has The Rise in Debt Made Households More Vulnerable?", *OECD Economic Outlook*, no. 80.

Gornick, J. C., E. Sierminska and T. M. Smeeding (2009). "The Income and Wealth Packages of Older Women in Cross-National Perspective". Forthcoming in *Journal of Gerontology: Social Sciences*.

Harding, T., H. O. Aa. Solheim and A. Benedictow (2004). "House ownership and taxes". Statistics Norway, Research Department, Discussion Papers, no. 395, November.

Haveman, R., and E. N. Wolff (2004). "The Concept and Measurement of Asset Poverty: Levels, Trends and Composition for the U.S., 1983-2001". *Journal of Economic Inequality*, vol. 2, pp. 145-169.

Haveman, R., and E. N. Wolff (2005). "Who Are the Asset Poor? Levels, Trends, and Composition, 1983-1998". In M. Sherraden (ed.), *Inclusion in the American Dream: Assets, Poverty and Public Policy*, pp. 61-86. New York: Oxford University Press.

Hurd, M. D., and J. P. Smith (2001). "Anticipated and Actual Bequests". In D. A. Wise (ed.), *Themes in the Economics of Aging*, p. 357-392. Chicago: University of Chicago Press.

Istat (2008). *La povertà relativa in Italia nel 2007*. Statistiche in breve, 4 November. Rome: Istat.

Jappelli, T., M. Pagano and M. Di Maggio (2008), "Households' Indebtedness and Financial Fragility", Centre for Studies in Economics and Finance, Working Paper No.208

Livi Bacci, M. (2004). "A Fund for the Newborn. A Proposal for Italy". Paper presented at the Annual Conference of the Population Association of America, Boston, 1-3 April.

Magri, S. (2007). "Italian Households' Debt: The Participation to the Debt Market and the Size of the Loan". *Empirical Economics*, vol. 33, no. 3, pp. 401-426.

Moon, M. L. (1976). "The Economic Welfare of the Aged and Income Security Programs". *Review of Income and Wealth*, vol. 22, no. 3, pp. 253-269.

Morduch, J. (1994). "Poverty and Vulnerability", *American Economic Review Papers and Proceedings*, vol. 84, pp. 221-225.

Niskanen, E. (2007). "The Luxembourg Wealth Study: Technical Report on LWS Income Variables". Luxembourg Income Study, June. Available at: http://www.lisproject.org/lws/incomevariablereport.pdf.

Organization for Economic Cooperation and Development (OECD) (2008a). *Growing Unequal? Income Distribution and Poverty in OECD Countries*. Paris: Organization for Economic Cooperation and Development.

Organization for Economic Cooperation and Development (OECD) (2008b). "Rates of conversion", in *OECD Factbook 2008: Economic, Environmental and Social Statistics*, available at: http://titania.sourceoecd.org/vl=945493/cl=11/nw=1/rpsv/factbook/040201.htm.

Organization for Economic Cooperation and Development (OECD) (2008c). "National income per capita", in *OECD Factbook 2008: Economic, Environmental and Social Statistics*, available at: http://titania.sourceoecd.org/vl=537452/cl=11/nw=1/rpsv/factbook/020102.htm.

Organization for Economic Cooperation and Development (OECD) (2008d). *Economic Outlook*, n. 84, December.

Projector, D. and G. Weiss (1969). "Income-Net Worth Measures of Economic Welfare". *Social Security Bulletin*, vol. 32, no. 11, pp. 14-17.

Rendall, M. S. and A. Speare Jr. (1993). "Comparing Economic Well-Being Among Elderly Americans". *Review of Income and Wealth*, vol. 39, no. 1, pp. 1-21.

Sierminska, E., A. Brandolini and T. M. Smeeding (2008). "Comparing Wealth Distribution across Rich Countries: First Results from the Luxembourg Wealth Study". In Banca d'Italia, *Household wealth in Italy. Papers presented at the conference held in Perugia, 16-17 October 2007*, pp. 167-190. Roma: Banca d'Italia.

Short, K., and P. Ruggles (2005). "Experimental Measures of Poverty and Net Worth: 1996". *Journal of Income Distribution*, vol. 13, no. 3-4, pp. 8-21.

Smeeding, T. M. (2002). "The EITC and USAs/IDAs: Maybe a Marriage Made in Heaven?". *Georgetown Public Policy Review*, vol. 8, n. 1, pp. 7-27. Reprinted in M. Sherraden (ed.), *Inclusion in the American Dream*, pp. 323-347. New York: Oxford University Press, 2005.

Smeeding, T. M. (2006). "Poor People in Rich Nations: The United States in Comparative Perspective". *Journal of Economic Perspectives*, vol. 20, no. 1, pp. 69-90.

Taussig, M. (1973). *Alternative Measures of the Distribution of Economic Welfare*. Princeton: Princeton University, Industrial Relations Section.

US Census Bureau (2008). *Income, Poverty, and Health Insurance Coverage in the United States: 2007*, prepared by C. DeNavas-Walt, B. D. Proctor and J. C. Smith, Current Population Reports, P60-235. Washington, DC: U.S. Government Printing Office.

Weisbrod, B. A., and W. L. Hansen (1968). "An Income-Net Worth Approach to Measuring Economic Welfare", *American Economic Review*, vol. 58, no. 5, pp. 1315-1329.

Wolff, E. N., A. Zacharias and T. N. Masterson (2009). "Long-Term Trends in the Levy Institute Measure of Economic Well-Being (LIMEW), United States, 1959-2004", Levy Economics Institute, Working Paper, no. 556, January.

Wolff, E. N., and A. Zacharias (2007). "The Levy Institute Measure of Economic Well-Being United States, 1989-2001". *Eastern Economic Journal*, vol. 33, no. 4, pp. 443-470.

World Bank (2001). *World Development Report 2000/2001. Attacking Poverty*, Oxford and New York: Oxford University Press.

Yates, J., and B. Bradbury (2009). "Home Ownership as a (Crumbling) Fourth Pillar of Social Insurance in Australia". Mimeo.