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Poverty in Europe: Sociodemographics, Portfolios and Consumption of Wealth Poor Households

Philip Müller

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Philip Müller[*]

University of Göttingen

Abstract

In this paper we describe the portfolio structure of poor households within the euro area using micro-data from the Household Finance and Consumption Survey (HFCS), the Luxembourg Wealth Study (LWS) and the Luxembourg Income Study (LIS). Our approach differs from existing ones in that we analyse the (net) wealth-poor instead of the income-poor households. We are able to identify households in the bottom net wealth decile and study their portfolio structure. From a methodological point of view, our study shows that a poverty indicator based on households net wealth needs to be designed and interpreted with great care. Given that wealth accumulates over time and (high income) households can borrow against their future income stream, it is not clear whether low net wealth holdings are really indicative of being poor, for exammple in the sense of material deprivation or consumption opportunities. Since consumption can be financed from wealth and income, an indicator combining wealth and income may be a solution. We find significant heterogeneity in the portfolios of households in the bottom net wealth decile across countries. The characteristics of the group of households with low wealth are different across countries as well. Real assets are held by fewer less wealthy households than financial assets and almost all wealth-poor households own deposits and sight accounts, but only a few have mortgage debt. Wealth-poor households are, on average, smaller than other households and their heads are younger. Additionally, less wealthy households are not the unemployed households with low education levels. In some countries high educated household heads and full-time employees belong to the wealth-poor. The poor households spend, on average, about 20 percent of their gross income on food.

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[*]University of Göttingen, Department of Economics, Platz der Göttinger Sieben 3, 37073 Göttingen, Germany. Mail: philip.mueller@stud.uni-goettingen.de.

1 Introduction

Poverty and inequality have become an important matter of public debate and political discussion in many countries, especially since the beginning of the worldwide financial crisis in 2008. The biggest part of the scientific literature on poverty and inequality focuses on households income and not wealth, although consumption, which is a building block of well-being, can be financed by both income and wealth. There are some reasons for the missing of wealth in the poverty debate, and one of these is the availability of data. While on one hand data describing household income exists for almost every country and from several different sources, data describing the wealth holdings and portfolio structures of households has been rare. With the Household Finance and Consumption Survey (HFCS) and the Luxembourg Wealth Study (LWS) this rareness has changed at least for the countries of the euro area and Europe. The HFCS and the LWS dataset provide a comprehensive coverage of households wealth holdings in euro-area and European countries and is representative of the composition of households within the various countries. Another reason why the wealth holdings of poor households may have received little attention is that the wealth distribution is usually more unequal than the income distribution, i.e. the wealth holdings of poor households are small. For some countries, the bottom half of the net wealth distribution accounts for less than 5 percent of total net wealth. We think that it is nonetheless interesting to see what these households asset and liabilities portfolios look like. We make use of the HFCS, the LWS and the Luxembourg Income Study (LIS) dataset and analyse the portfolio structure of poor households in Europe. In contrast to many other studies, we use a concept based on wealth instead of income and define wealth-poor[1] households as belonging to the lowest decile of the net wealth distribution of their respective country. The rich HFCS and LWS dataset, which covers all types of financial assets as well as real assets in detail, allows us to go beyond the traditional portfolio analysis, which has a strong focus on stock holdings and participation in financial markets. Given that few poor households tend to hold stocks, the analysis of their portfolios relies on a broad coverage of several asset and liabilities types. In this respect, our approach differs from the existing ones in that it consists of the analysis of different types of both real and financial assets as well as the structure of debt. Another contribution made by our study is that we present evidence for the whole euro area with its more than 330 million citizens. A large part of the existing research on households portfolios is concentrated on the US and other English-speaking countries. Besides the analysis of poor households portfolios, we also describe the sociodemographic characteristics of the households in the bottom of the net wealth distribution, including their income situation. We find significant heterogeneity in the portfolio of low-wealth households across countries. The differences between countries are particularly pronounced in debt holdings, which hints at the strong influence of institutional settings and credit conditions in the various countries. The characteristics of the group of households with low wealth diverge across countries. In some countries, households with high income and a high level of education are among the wealth-poor households, while, in other countries, households with low income and a low level of education are more prevalent, one reason for this being different institutions, for example with respect to mortgage credits.

The paper is structured as follows: The second part reviews some of the related literature on the relationship between wealth and income and portfolio structures. Section three introduces the HFCS, LWS and LIS survey data and discusses our definition of wealth-poor households. Section four presents the most important results and describes the portfolio structures and sociodemographics of wealth-poor households. This is followed by the conclusions and some ideas for future research in the last part of the paper.

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[1] Unless otherwise indicated, we will use the terms 'poor', 'low wealth' or 'wealth-poor' interchangeably to indicate households in the bottom decile of the net wealth distribution of the households country of residence.

2 Literature review

Our paper draws on two strands of literature, the literature on poverty and well-being as well as the literature on portfolio choice of households. In this section, we will review some of the recent literature on these two topics and show ways to integrate them.

2.1 The role of income and wealth in portfolio choices of households

The last few years have seen the publication of a large amount of literature on the portfolio choices of households. Most of this literature explores optimal portfolio choices or the reasons for particular portfolio preferences and behaviour. Several studies focus on households stock holdings or their participation in financial markets. The paper by Christelis et al. (2013) can serve as an example of this and is related to our study in that it compares portfolio structures across countries. Christelis and his co-authors decompose the international differences in asset ownership for households aged 50 or above. They find that households in the US tended to favour stocks over real estate when investing their money. The differences in asset class participation (extensive and intensive margin) across countries can largely be explained by different economic environments. They do not specifically address the link between income and wealth (poverty) and asset holdings. Key factors shaping the portfolio composition of a household are households income and wealth. Kelly (1995) reflects the portfolio diversification of households in the US in 1983 and points out that the top two percentiles of the income distribution own 30 percent of all financial assets and about 40 percent of all stocks. He argues further that only the very rich households own notable financial assets and that for most households the only kind of wealth is the house they live in. Massa and Simonow (2006) look at the inter-temporal portfolio choice of households under the influence of income risks. In their study, the group of wealthy investors represents 8 percent of the whole sample but holds over 70 percent of the assets. Similarly, Cocco et al. (2005) develop a model to describe optimal portfolio decisions and consumption over the life cycle and show that the higher labour income is, the higher is the demand for stocks. Bremus and Kuzin (2014) use a life cycle model to describe the influence of short- and long-term unemployment on households savings and portfolio choices in the United States and Germany. In the case of short-term unemployment, investors in both countries chose their equity shares as if they were facing no unemployment risk because unemployment benefits counteract the negative impacts of the risks. When facing long-term unemployment, households investment behavior in the United States becomes more conservative. Polkovnichenko (2005) describes the portfolio diversification of households and argues, following Vissing-Jorgensen (2002) , that financial market participants are substantially wealthier and that high participation costs could prevent investments by poorer households. Heaton and Lucas (2000) investigate the influence of background risks like labour income risks on portfolio decisions. They argue that stockholders are older, wealthier and better educated, while non-market participants tend to have limited income and wealth.

Angerer and Lam (2009) analyse the interaction of labour income risk and the portfolio composition and find that a permanent income risk which should affect many of the poor leads to a higher portfolio share of risk-free assets. While the above-mentioned studies mainly focus on the influence of income on portfolio choice, a few studies have investigated the link between wealth levels and portfolio structures directly. King and Leape (1998) , for example, explore the influence of wealth on households portfolio composition. They conclude that 'These estimates suggest that changes in total household net worth will change the structure of household balance sheets' (p.198). They find that holdings of most bonds and securities have a high elasticity with respect to wealth. Wachter and Yogo (2010) find that the portfolio share of risky assets rises with wealth. Vissing-Jorgensen (2002) considers reasons for heterogeneity in the portfolios of stockholders and

for non-participation in the stock market. Her results show that stock market participation increases strongly in financial wealth. Peress (2004) shows differences in household portfolios which arise from differences in private information resulting from variations in wealth. His results suggest that wealthier agents with more information hold more stocks. Cocco (2004) considers a households portfolio decisions under the influence of investments in housing with the result that younger and income-poor households are less wealthy and have limited possibilities to invest and participate in the stock market. Bertaut and Haliassos (1997) findings show that people with a higher net wealth own more stocks than poorer people do. Rosen and Wu (2004) do not only look at a specific type of finical assets, but also investigate financial asset holding in general. They find that households with low wealth are less likely to hold financial assets.

2.2 The link between wealth and well-being of households

The debate on poverty and well-being of households has long focused on income concepts alone. In recent years a wider perspective has been adopted and more emphasis has been placed on measures that capture the well-being of households and individuals in a broader context, even beyond financial indicators (see, for example, Stiglitz et al. (2009) ; OECD (2011) ; OECD (2013)). Indicators for defining and assessing the level of well-being of households that do not (solely) rely on income are just being developed, however[2]. While an accepted measure of income poverty has existed for quite some time (see Atkinson (2002)), a generally accepted measure of poverty based on wealth is still missing[3]. Nonetheless, some authors have argued for a positive link between wealth and subjective well-being, households vulnerability or ability to sustain periods of low income (e.g. Headey and Wooden (2004) ; Harper and Price (2011) ; Azpitarte (2012) ; Haveman and Wolff (2004) ; Graham and Pettinato (2002)).

One channel through which wealth and well-being are linked is consumption. Consumption can be financed by both income and wealth and should play a key role in determining the level of poverty and well-being of households (Meyer and Sullivan (2011a) ; Marlier and Atkinson (2010) ; World Bank (2001) ; Cutler and Katz (1992)).

Meyer and Sullivan (2011b) argue that 'conceptual arguments generally favour consumption over income for measuring economic well-being.' (p. 52)[4]. In an earlier work Meyer and Sullivan (2009) show for the last decade in the US that poverty measures based on income and those based on consumption have indicated developments in different directions, with income poverty gaps rising and consumption poverty gaps falling. Insofar as this relationship between consumption and well-being exists, there is also a case for defining poverty based on a wealth measure. According to the lifecycle model of consumption and savings, people can and try to smooth their consumption path over their life-cycle, by saving part of their income when they are young and consuming their assets when their income drops (Deaton (1991) ; Ando and Modigliani (1963)). Wealth can therefore help to sustain high levels of consumption for (currently) income-poor households. The OECD argues that 'Households that are asset rich and income poor can be expected to have higher material standards of living than would be indicated by their income alone.' (OECD (2013) p. 36).

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[2]See Brandolini et al. (2010) for a conceptual discussion about how income and wealth measures could be combined in defining and analyzing poverty.

[3] Brandolini et al. (2010) review some studies that use poverty measures based on net wealth (combined with income). These measures have not been very influential in the poverty literature and, what is more important, a generally accepted measure of wealth poverty has not evolved.

[4]See also Meyer and Sullivan (2003) .

2.3 Poverty and Portfolio Choice

The main contribution of our paper is to combine the two strands of literature described above. We will investigate the construction of an indicator of poverty based on wealth instead of income and analyse the portfolio structure of less wealthy households, which has not be done with great rigor in existing studies. Furthermore, most of the studies mentioned above are focussed on households within the US. Our paper is the first study to investigate poverty and portfolio choice within euro-area countries using truly harmonized databases.

3 HFCS, LWS, LIS and a definition of wealth poverty

In this section we describe the Household Finance and Consumption Survey (HFCS), the Luxembourg Wealth Study (LWS), the Luxembourg Income Study (LIS) and discuss how to define a poor household in terms of wealth.

3.1 The Household Finance and Consumption Survey - HFCS

One dataset we use for this analysis is the new 'Household Finance and Consumption Survey' (HFCS) of the Eurosystem[5]. This large scale survey was launched in 2009 with the aim of collecting harmonized micro-data on households assets[6] and liabilities[7] in all euro-area countries. The survey was conducted by each countrys central bank under common guidelines and is representative of each country as well as the euro area excluding Ireland and Estonia. Ireland and Estonia did not take part in the first wave of the survey, they only participated in the second wave in 2014. Most countries conducted the survey in 2010/11. France (2009/2010), Spain (2008/2009) and Greece (2009) started earlier. The reference period for most of the information on wealth is the time of the interview, which potentially causes some problems for comparability, e.g. with respect to asset prices. The prices for houses, which represent a large part of the households balance sheets, have, for example, been comparatively volatile as a result of the crisis in the euro area. The database currently contains information on 62,521 households from Austria (AT), Belgium (BE), Cyprus (CY), Germany (DE), Spain (ES), Finland (FI), France (FR), Greece (GR), Italy (IT), Luxembourg (LU), Malta (MT), the Netherlands (NL), Portugal (PT), Slovenia (SI) and Slovakia (SK). The HFCS data is well suited for our analysis, as it contains detailed information on the assets and debts of households in the euro area. It allows us not only to infer the distribution of net and gross wealth in each country, but also provides us with the opportunity to analyse the portfolio and debt structure of the households in detail. The HFCS contains, among other things, information on households main residence, other real estate, vehicles and valuables, business wealth, savings and sight accounts, mutual funds, shares, bonds, as well as mortgages and unsecured loans. In all cases, both the ownership as well as the level of asset or debt holdings are recorded. For the analysis we mainly refer to net wealth, which is defined as the sum of all assets (both real and financial) minus outstanding liabilities. In addition to the assets and liabilities, the HFCS also contains data on income and other sociodemographic characteristics of households. The harmonization of concepts and methodologies across countries allows it to calculate comparable indicators of wealth poverty for all countries participating in the survey.

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[5]See HFCN (2013a) and HFCN (2013b) for details.

[6]The assets covered are: real estate (owner-occupied and other properties), private businesses, valuables (e.g. gold, jewelry, works of art), vehicles, deposits, bonds, shares, mutual funds, managed accounts, private lending, voluntary pensions and whole life insurance contracts, as well as other financial assets, e.g. gold or money owed to the household.

[7]Liabilities include mortgage debt as well as unsecured loans (e.g. credit card debts, overdrafts, consumer loans).

3.2 The Luxembourg Wealth Study - LWS

The Luxembourg Wealth Study Database (LWS) provides harmonised household-level data on financial and non-financial assets, liabilities, as well as information on sociodemographic characteristics of households and behavioral information, for example attitudes towards risk or motives for saving money. The LWS is a program launched in 2003 by the Luxembourg Income Study (LIS) to collect and harmonize micro-data on household wealth from different sources and countries because international comparable data on household wealth has been relatively scarce, compared to data on household income. Therefore, the LWS uses available data on household wealth and harmonizes it to create an international comparable database, which is representative for the included countries. Most of the data is from national sample surveys and in some countries additional data from the public administration is used. Due to these national surveys and the different years in which the data was collected, the number of variables and items can vary between the countries. The LWS dataset contains information from 12 countries, most of them European nations. The oldest wealth datasets are from Finland and the United States (both 1994). We will analyse the European countries Austria, Cyprus, Finland, Germany, Italy and Luxembourg to combine the LWS data with HFCS data for these countries.

Like the HFCS, the LWS is well suited for our analysis. The LWS provides information on different types of debt, financial assets (deposits, bonds, stocks, mutual funds, life insurances, pensions), and real assets (residence, real estate, vehicles, collectibles / valuables) to name just some of the variables. We also look at the sociodemographic characteristics like the number of household members, the number of children in wealth poor households, the age of the household heads, their education and their main activities.

3.3 The Luxembourg Income Study - LIS

For information on household income and income-poverty we use data on equivalised gross household income from the Luxembourg Income Study Database (LIS) . The LIS dataset provides household- and personal-level data on income, demography, employment and demography and includes various countries from all continents. We analyse the european countries Austria, Belgium, Germany, Spain, Finland, France, Greece, Italy, Luxembourg, the Netherlands, Slovenia and Slovakia. Like in the HFCS, survey data from 2010 is available for all countries we explore, except for Austria and Belgium where the last available surveys took place in 2004 (Austria) and 2000 (Belgium).

3.4 Definition of a 'poor household', income vs. wealth

As already discussed above, we will not define a 'poor' household based on an income concept, but rather a concept based on wealth. The literature has used different indicators to define asset poor households. There are some papers available combining wealth and income concepts in assessing the well-being or poverty of households (see Brandolini et al. (2010) ; Azpitarte (2012) ; Haveman and Wolff (2004)). The asset poverty measure used mainly 'tries to capture whether a consumer unit could maintain a standard of living above the poverty line for a certain period if it had no income, nor any financial resources of borrowing ability other than accumulated wealth' (Brandolini et al. (2010) p. 280). Despite this growing literature there is no clear guidance on how to define a poor household in terms of wealth.

We therefore take an ad hoc definition and look at households in the bottom decile of the net wealth distribution . We favour this approach over other approaches, e.g. households with negative (net) wealth or households with less than 60 percent of the median wealth or absolute poverty lines, as it allows us to look at groups of households of similar size, i.e. one decile or 10 percent of the population of households across countries. This measure is well suited for an international comparison of poverty as it takes the specific wealth

distribution in the countries under analysis into account and does not require defining a specific value for a poverty line for each country. Despite being calculated independently of an income poverty concept, it is the indicator that is most closely linked to the classic poverty measure based on income (see Figure 1).

[Insert Table I and Table II about here]

Another choice we had to make is whether to look at the bottom decile of the net or the gross wealth distribution. For financial stability matters, the net wealth of a household is certainly the more relevant measure, but it is not always clear whether this measure is a good indicator of a household being poor. Take a household which recently bought a house that cost 1,000,000 euro and financed it with a mortgage of 900,000 euro. Its net wealth will be only minus 100,000 euro, although this household should arguably not be described as 'poor'. Relying on the gross wealth distribution would completely neglect the liabilities of the households, which would be even more problematic from our point of view. In terms of poverty the most important feature of wealth is that it provides insurance against income risks and allows households to smooth consumption (see, for example, Azpitarte (2012) or Haveman and Wolff (2004)). Haveman and Wolff (2004) argue 'We take this net wealth concept as our primary measure of wealth as it reflects wealth as a store of value that can be liquidated in a short period of time, and therefore a source of potential consumption' (p. 151)

The net wealth of a household is also more relevant in terms of its vulnerability and riskiness compared with gross wealth (see the literature on stress testing households, for example, Albacete and Lindner (2013)). In summary, we define wealth-poor households as belonging to the bottom decile of the net wealth distribution of the country in which it is situated.

Figure 1: Percentage of wealth-poor households (different concepts) with equivalised gross household income below 60% of median
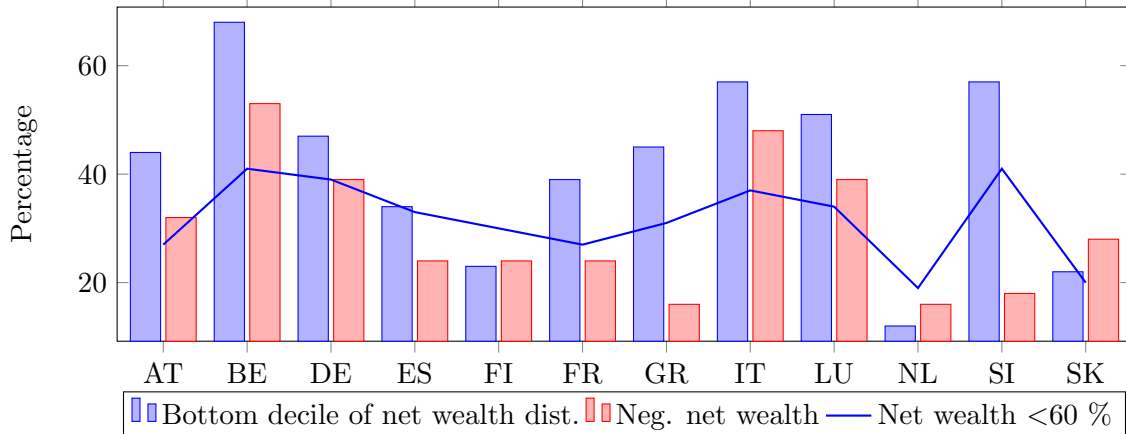
Source: Author's calculation.

4   Results

In this section we will present the main results of our analysis. We will start out by presenting some basic facts about the wealth holdings of wealth-poor households in the euro area countries. In the second part we will take a more in-depth look into the portfolio structure, socio-demographics and consumption expenditure of those households. The final part of the results section will revisit the link between income and wealth poverty.

4.1 Wealth holdings of households in the lowest decile of the net wealth distribution

Figure 2 presents information on the average net and gross wealth holdings of households in the bottom decile of the net wealth distribution and focuses on the big European countries and countries with relatively large wealth holdings. The values of gross and net wealth holdings for the countries not mentioned in the figure are very small on average and will be presented later in the text. The net wealth of households at the bottom of the wealth distribution is on average negative in all countries of the euro area except for Italy, Malta and Slovakia. In the Netherlands debts outweigh assets by almost 50,000 euro for households at the bottom of the distribution, the comparable figure for Austria is 30,000 euro. The euro-area (EA) average is minus 10,000 euro. Whereas gross wealth levels are comparatively low for most euro-area countries, households in the Netherlands hold substantial gross wealth, exceeding 120,000 euro on average. As we will argue below, this structure could very well be the result of the system of mortgage finance in the Netherlands, which allows households to maintain loan-to-value ratios of more than 100 percent. In every other country the amount of gross wealth is below 10.000 euro. The following numbers in brackets show the gross wealth as the first value and the net wealth as the second value: Greece (5,742 and - 2.750), Italy (5,458 and 514), Malta (6,474 and 4,283), Portugal (7,542 and - 2,468), Slovenia (2,587 and - 1,522), Slovakia (6,128 and 3,068).

Figure 2: Average net and gross wealth holdings of selected poor households
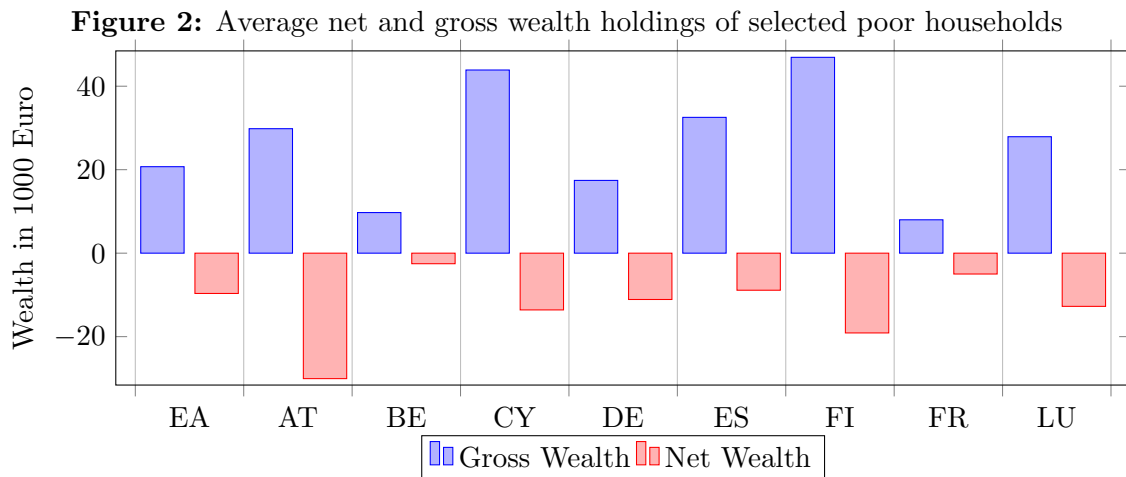
Source: Author′s calculation.

4.2 Portfolio structure of wealth-poor households

The wealth portfolio of households can be analysed at different levels of aggregation. A first distinction is between real and financial assets. Real assets mainly consist of real estate properties, (self-employed) business wealth and vehicles and valuables. Financial assets include deposits, shares, mutual funds and bonds, as well as other financial assets (excluding public and occupational pension plans).

[Insert Table III about here]

Almost all households in the euro area (91 percent) own at least one type of financial asset (see Table III). The average share of the value of financial assets in total assets is at 59 percent, which is almost 30 percentage points higher than in the population as a whole, underscoring the importance of financial assets for the situation of poor households.

Furthermore, the share of wealth-poor households with financial assets[8] is higher than 80 percent in all countries except for Cyprus, Greece, Italy and Portugal. These are also the four countries where the largest difference between wealth-poor households and the total population is observed. Real assets[9] are held by considerably fewer households than financial assets in all countries. There is also more heterogeneity in the participation rate for real assets across countries. With the exception of France and Italy, the difference between the ownership rates for the wealth-poor households are 30 or more percentage points lower than for the total population. For liabilities the picture is different. In some countries the wealth-poor households have a higher participation rate in debt than the total population, in other countries it is the other way around. In addition, the actual participation rates differ; they reach 100 percent in Finland and the Netherlands and 78 percent in Germany. At the other end of the spectrum, we find Italy with 23 percent and Malta with 25 percent. The specific institutional settings (access to loans, loan-to-value ratios, etc.) will certainly play a role in this respect. In Germany, for example, it is comparatively difficult for low-income households to get a secured loan, but it is easier to obtain access to short-term loans through overdrafts or loans from friends and families.

[Insert Table IV about here]

The low participation rate for real assets among the wealth-poor households can partially be attributed to the low rate of home ownership (see Table IV) compared to households from other deciles in the wealth distribution. Even in countries with generally high home-ownership rates (Spain and Italy), households in the bottom of the net wealth distribution do not own real estate. This is not surprising, because buying a home usually requires a down payment as well as the necessary income to service a mortgage credit. Low income coupled with low savings induces credit constraints that prevent wealth-poor households from buying real estate. For most wealth-poor households the only real asset they own are vehicles. HFCS and LWS focus on ownership of cars, but also collect information on other vehicles (HFCS) or expenditures for transport (LWS). Here, credit constraints seem to be less of an issue. The purchase of a vehicle does not usually involve a substantial amount of debt and households do not have to provide collateral for a consumer loan.

[Insert Table V about here]

The financial asset holdings of wealth-poor households are highly concentrated in one investment vehicle (Table V). Almost all of them have deposits and, to be more precise, sight accounts. In the larger euro-area countries, such as Spain, France and Germany, almost everyone has a sight account, in some south European countries (e.g. Cyprus, Greece, Malta), however, sight accounts are held by only about one-half of all wealth-poor households. Savings accounts are, in general, less prevalent than sight accounts. For the euro area as a whole, the difference between wealth-poor households and all households is 24 percentage points. Securities, like mutual funds or shares, are mostly absent from the portfolio of the wealth poor, confirming the findings from the literature on portfolio choice.[10] The figures for private pensions and whole life insurances reflect the pension system in the various countries (Table V). In Germany, for example, a country which puts a lot of emphasis on private pensions, the participation rates are higher than in coun-

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[8] Includes deposits, bonds, shares, mutual funds, managed accounts, private lending, voluntary pensions and whole life insurance contracts, as well as other financial assets, e.g. gold or money owed to the household.

[9] Includes real estate (owner-occupied and other properties), private businesses, valuables and vehicles.

[10] A notable exception is again the Netherlands, where more than 10 percent of households in the bottom part of the distribution hold mutual funds and shares. See below for why our measure of wealth poverty may capture a different group of households in the Netherlands compared to other countries.

tries such as Austria and Belgium. What is more surprising than the heterogeneity across countries in this respect is that about 16 percent (Germany 26 percent) of all wealth-poor households in the euro area manage to save money for retirement at all.

[Insert Table VI about here]

The findings for the liability side of the wealth-poor households balance sheet are in line with the previous observations; few households have mortgage debt (Table VI). Non-collateralized loans (consumer credits, etc.) and overdrafts are more prevalent. The high prevalence rate for these types of debt points to a link between income and wealth: The wealth-poor households do not seem to be able to finance and smooth their consumption using their current income and therefore need to make use of short-term debt vehicles, such as overdrafts. Wealth-poor households in the Netherlands and, to a certain degree, those in Finland, too, seem to be systematically different from the rest of the euro area. For the Netherlands, the explanation for this difference may have its roots in the mortgage and tax system. Banks in the Netherlands are willing to provide mortgages with loan-to-value rates (LTVs) of 100 percent or more. They do not require their debtors to pay back the mortgage either. Since interest payments on mortgages are tax-deductible, there are no incentives for households to pay back their mortgage. As a result, households with LTVs above 100 percent and only few other real and financial assets will have little if any net wealth. This group of persons will, however, differ substantially from households with no real assets/gross wealth. This is consistent with the finding that about half of wealth-poor households in the Netherland own their main residence and the same share of households has a mortgage (Figure 3). This indicates that the group of wealth-poor households in the Netherlands is not the same as in other countries. We will investigate this further in the next section when we describe the composition, structure and income situation of the wealth-poor households in the respective countries.

Figure 3: Percentage of poor households holding certain assets and debts
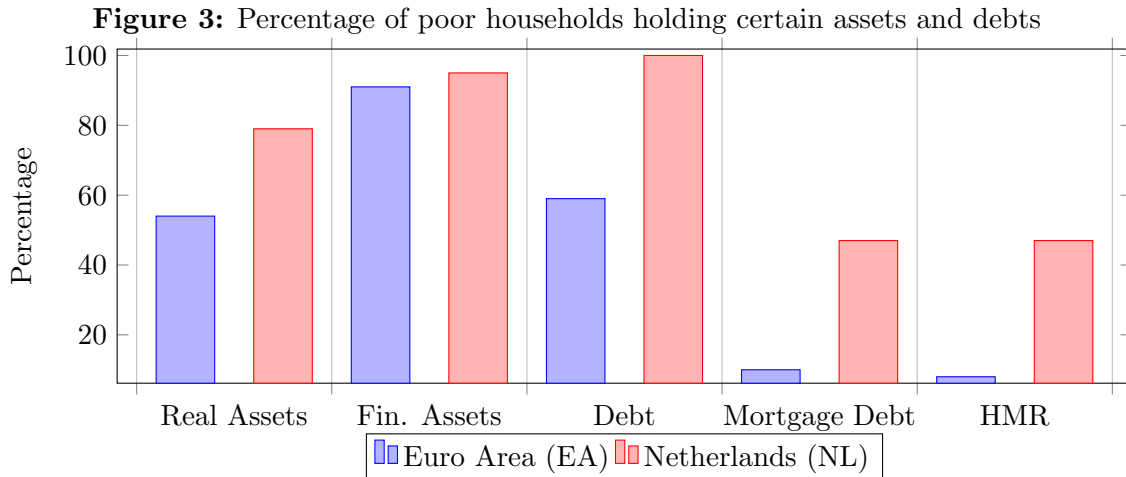
Source: Author's calculation.

4.3   Sociodemographic characteristics of wealth-poor households

So far, we have looked at the wealth holdings and portfolio composition of wealth-poor households. In this section, we will take a closer look at how these households are structured. This type of analysis can help in understanding the link between household characteristics and net wealth, as well as shed some light on the heterogeneity within the lowest decile of the wealth distribution. We first look at the relationship between income and wealth. As mentioned above, the link between income and wealth is not perfect; nonetheless, the annual gross household income is, on average, substantially lower for households

in the bottom part of the distribution than it is in the population as a whole. In the euro area as a whole, the average gross income for the lowest decile of the net wealth distribution is about 60 percent of that for all households in the euro area. Comparable ratios are observed for the individual countries. Again, the Netherlands presents an exception; here, the average income of the wealth-poor households is almost the same as for the rest of the population, lending credence to our argument that the population of net wealth-poor households is different in the Netherlands than in other countries.

[Insert Table VII and Table VIII about here]

This is confirmed by the figures for education levels and employment status. While the share of highly educated household heads (ISCED 5) among the wealth-poor households is 58 percent in the Netherlands, it is below 15 percent in almost all other euro-area countries. In the euro area as a whole, the share of highly educated household heads is at 15 percent. What is surprising at first glance is the fact that in several countries the group of households with a high level of education (ISCED 3 and 4 secondary and post-secondary education) makes up the biggest part of the population of wealth-poor households. However, the share of this group in the overall population is also the highest. Calculating the difference between the population and the wealth-poor households with respect to education, one can see that the lowest two educational classes (ISCED 0-2) are more prevalent among the wealth-poor households compared to the population at large. These education classes account for almost 40 percent in the euro area. Given that we are looking at the bottom of the wealth distribution, we would have expected a larger figure. Education alone does not seem to be a good predictor of where households are in the net wealth distribution. Cohort effects and different education systems may influence these results. A similar picture emerges for the employment status. It is clear from Table VIII that the prevalence of unemployed household heads is much higher among the wealth-poor households, but we are far from a situation where every household head in this group is unemployed. In the euro area as a whole, almost half (47 percent) of the household heads from the bottom 10 percent of the net wealth distribution are employed. There are considerable differences between countries, but only Belgium, Cyprus, Malta and Portugal have less than 40 percent of employed or self-employed household heads among the wealth-poor households. Besides the two island states, Malta and Cyprus, the percentage of retired heads is much lower in the wealth-poor household group than in the overall population. This is consistent with a life-cycle model: households have accumulated wealth and repaid their debt before they retire. At least up until now, a large part of the retired population seems to have been able to accumulate positive net wealth before retiring.

With respect to the classic socio-demographic variables, we find that wealth-poor households are, on average, smaller than other households and that their heads are younger. This indicates that at the earlier part of the life-cycle (unmarried, young) households tend to hold less net wealth than at the end of the life-cycle, as the theory predicts.

4.4   Low wealth and consumption

In this section we investigate the consumption behavior of wealth-poor households with HFCS data. As discussed above, consumption is closely linked to well-being. The consumption information provided by the HFCS is very limited, to be more precise, only food consumption is currently available. This lack of micro-data, which is also prevalent in other surveys, is certainly one of the reasons, why researchers have used more widely available measures like income to identify poor households. Figure 4 shows that euro-area households in the bottom part of the wealth distribution spend, on average, about 20 percent of their gross income on food, shown by the blue bars. This number is only slightly higher than the figure for the total euro-area population, which stands at 16.7 percent.

Again, we see considerable heterogeneity across countries. Wealth-poor households in Portugal, Greece and Slovenia spend around 40 percent of their gross equivalized income on food. All three of these are countries with relatively low annual gross income (see HFCN (2013a)), with median income for Portugal estimated at 14,600 euro, Greece 22,000 euro and Slovenia 18,000 euro. The euro area median gross income is 28,600 euro.

Figure 4: Food consumption as a percentage of gross household income
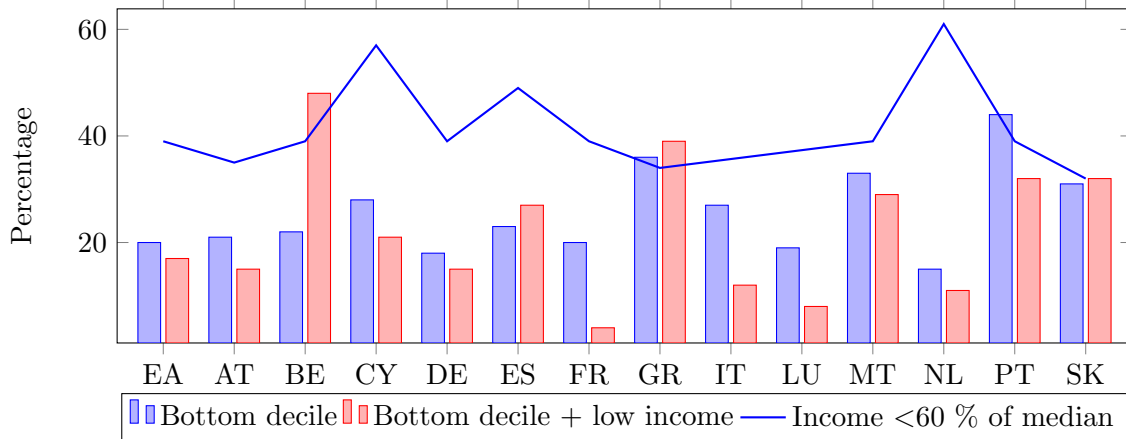
Source: Author′s calculation.

At the very beginning of this paper we argued that consumption can be financed by income and (financial) wealth. Therefore a definition of poor households based on just one indicator may not suffice. We combine a wealth measure of poor households with one of the classic income measures, ie. gross equivalized income below 60 percent of median equivalized income, shown by the red bars. The impact of a narrower definition of poverty on the consumption pattern of wealth-poor households is depicted by the red bars in Figure 4. It is easy to see that, using the combined measures (values of blue and red bars combined), we clearly identify households that have to spend a significant part of their income on food. The percentage almost doubles for a number of countries. Belgium, Greece, Malta, Portugal, Solvenia and Slovakia reach ratios of more than 60 percent. Analyzing consumption based on an income measure alone seems to lead to similar results for most countries, as the blue line in Figure 4 shows.[11] This should not be seen as indicating that both procedures lead us to describe the same households as poor. The households looked at using only the income concept are different from those looked at when using both concepts combined (cf. section 3.4).

4.5 The link between income and wealth poverty

We already touched upon the link between income and wealth at the beginning of the paper. In light of the findings on the portfolio structure of households, we now consider the link between poverty measures based on the classic income concepts and our measure of wealth poverty.[12] Again, our income-poverty measure is equivalised gross household income below 60 percent of the median. Given that income (tax) policy and transfers are used by many European countries to tackle poverty, net income would be the better measure. For the euro area, 22 percent of all households have gross equivalized gross income below 60 percent of the median, but by construction only 10 percent of households belong to the category of wealth-poor households. Two-thirds (18 percent) of the 22 percent of households with median income below 60 percent do not belong to the bottom

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[11]In terms of average levels, too, consumption expenditure on food is similar for wealth only and for the income concept. What is more, combining the income and wealth measures of poverty does not lead to any significant changes in the average consumption expenditure on food observed for the poor households.

[12]For a similar analysis of the US and Spain, see Azpitarte (2012) or Haveman and Wolff (2004) .

of the wealth distribution. The households at the bottom of the wealth distribution are split about halfway between income-poor households (4.5 percent) and income-rich households (5.5 percent). Only 4 percent of all households are both in the bottom decile of the net wealth distribution and have income below 60 percent of the median. The wealth poverty measure seems to be better able to identify households that are poor both in terms of income and wealth, even taking into account the fact that the group of wealth-poor households is already smaller.

[Insert Table IX about here]

5   Conclusions and future research

In this paper we have proposed a measure of poverty based on wealth with data from the Household Finance and Consumption Survey (HFCS), the Luxembourg Wealth Study (LWS) and the Luxembourg Income Study (LIS). The results indicate that the portfolios of wealth-poor households, i.e. those in the bottom decile of the distribution, differ from country to country. These differences seem at least to some degree to be driven by country-specific institutions. There are some common features, as well. A pattern that can be observed in most countries is that wealth-poor households tend to be renters rather than owners. In general, wealth- poor households tend to participate less in real assets than the population at large, a difference that cannot be observed for participation in financial assets. However, only very few wealth-poor households participate in securities markets, confirming the existing literature on stock market participation. For the sociodemographic indicators some surprising results show up. The wealth-poor households are not the unemployed households with a low level of education, but also include households with highly educated household heads who are full-time employees.

We have proposed an indicator based on wealth only, while most other studies investigate poverty based on an income concept. We have shown above that the correlation between the income and the wealth measures of poverty is not very high. Only about one-half of all wealth- poor households are income poor, as well. We have also discussed that just relying on a definition of wealth may not be enough to identify poor households. Income-rich households and households at the beginning of the wealth accumulation process may be among the group of wealth-poor households. Simply looking at the position of a household in the wealth distribution may therefore not be enough to assert its poverty level or well-being. We suggest that combining a wealth concept and an income concept to define a poor household can help to identify households which have neither the income nor the assets to maintain sufficient levels of consumption. An advantage of the combined measure may be that it allows for more targeted strategies, as the group of households with low income that also belong to the bottom decile of the wealth distribution is rather small (about 5 percent of all households).

Which measure to choose and where to set the threshold for being considered poor in terms of net wealth is still an open question, however. Future analysis should investigate further how income and wealth are related and how best to use these indicators to ascertain the well-being of households in Europe. Our findings on food consumption also warrant further analysis, combining an indicator of wealth with the income measure of poverty leads to basically the same picture for food consumption, even though the group of households described as poor is different. We think these results can provide valuable insights for European and national policymakers in terms of trying to understand and improve the living conditions of Europes poor.

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Appendix

Table I: Net wealth and equivalised gross household income (in thousand euro)

	Net wealth			Gross hh income		
	Bottom Decile	Median	Top Decile	Bottom Decile	Median	Top Decile
AT	1.0	76.4	542.2	18.0	35.2	67.1
BE	2.8	206.2	705.1	n.a.	n.a.	n.a.
DE	0.1	51.4	442.3	15.0	34.7	75.2
ES	5.7	182.7	607.7	8.0	20.7	45.7
FI	- 0.6	85.8	397.3	16.7	35.0	67.7
FR	1.6	115.8	511.6	6.3	21.1	44.7
GR	2.0	101.9	331.8	8.9	19.3	42.2
IT	5.0	173.5	577.1	9.5	23.8	50.5
LU	5.0	397.8	1375.4	23.3	44.2	93.6
NL	- 3.8	103.6	427.6	22.8	43.8	80.6
SI	4.2	100.7	317.2	n.a.	n.a.	n.a.
SK	12.9	61.2	151.9	8.6.	15.7	28.4

Source of Net wealth: Eurosystem Household Finance and Consumption Survey, Statistical Tables. Data for Gross hh income obtained from LIS Web Tabulator.

Table II: Information on income-poor households with equivalised gross household income below 60% of median

	AT	BE	DE	ES	FI	FR	GR	IT	LU	NL	SI	SK
(1)	29	12	14	23	11	31	23	19	15	5	13	11
(2)	44	68	47	34	23	39	45	57	51	12	57	22
(3)	32	53	39	24	24	24	16	48	39	16	18	28
(4)	27	41	39	33	30	27	31	37	34	19	41	20

Source: Author′s calculation. (1): Share of households with equivalised gross household income below 60% of median, obtained from LIS Web Tabulator. (2)-(4): Percentage of wealth-poor households (different concepts) with equivalised gross household income below 60% of median. (2) Bottom decile of net wealth distribution, (3) Negative net wealth, (4) Net wealth below 60 % of median.

Table III: Selected assets, wealth, and debt indicators for households in the bottom decile of the net wealth distribution

Household has	EA	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Real Assets	54	40	38	65	34	58	58	100	34	81	61	67	79	34	65	62
	(-38)	(-45)	(-52)	(-31)	(-46)	(-37)	(-27)	(0)	(-58)	(-17)	(-33)	(-28)	(-11)	(-56)	(-31)	(-34)
Financial Assets	91	97	89	54	95	96	100	98	47	65	93	85	95	76	87	90
	(-6)	(-2)	(-9)	(-34)	(-4)	(-2)	(0)	(-2)	(-27)	(-27)	(-5)	(-12)	(-3)	(-18)	(-7)	(-1)
Debt	59	62	38	44	78	51	100	57	33	23	59	25	100	31	37	31
	(15)	(26)	(-7)	(-21)	(31)	(1)	(40)	(10)	(-4)	(-2)	(0)	(-9)	(35)	(-7)	(-8)	(5)
Total Real Assets	33,379	57,946	21,057	61,487	42,543	51,509	74,363	6,248	15,883	5,848	40,200	3,350	139,765	20,416	2,911	7,872
	(-201,280)	(-181,982)	(-267,589)	(-659,491)	(-177,612)	(-252,919)	(-125,124)	(-203,180)	(-144,050)	(-258,404)	(-709,849)	(-341,074)	(-65,693)	(-145,769)	(-145,502)	(-70,907)
Total Fin. Assets	3,107	6,913	1,957	7,485	3,010	2,605	4,006	1,786	805	1,149	3,752	5,003	16,744	782	810	1,416
	(-41,482)	(-49,235)	(-110,807)	(-63,618)	(-44,454)	(-30,849)	(-25,617)	(-47,922)	(-14,208)	(-30,046)	(-85,691)	(-46,999)	(-49,104)	(-21,432)	(-8,660)	(-5,986)
Total Liabilities	51,368	97,296	31,985	130,384	36,568	81,196	66,030	22,665	25,905	21,302	69,394	8,719	175,193	32,444	11,196	9,773
	(-9,667)	(39,185)	(-35,987)	(21,422)	(-19,962)	(15,864)	(5,261)	(-30,428)	(-6,624)	(-25,466)	(-70,767)	(-27,075)	(48,370)	(-13,546)	(-26)	(-2,703)
Real Assets as Share of Gross Wealth	41	30	32	71	27	51	47	54	45	74	51	38	61	32	62	50
	(-28)	(-29)	(-35)	(-15)	(-25)	(-35)	(-23)	(-15)	(-42)	(-10)	(-27)	(-37)	(3)	(-46)	(-28)	(-38)
Fin. Assets as Share of Gross Wealth	59	70	68	29	73	49	53	46	55	26	49	62	39	68	38	50
	(28)	(29)	(35)	(15)	(25)	(35)	(23)	(15)	(42)	(10)	(27)	(37)	(-3)	(46)	(28)	(38)

Source: Author′s calculation. Notes: Differences between total population and households in the bottom decile (in percentage points) in parenthesis.

Table IV: Participation rates (in percent) for real assets for households in the bottom decile of the net wealth distribution

Household has	EA	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Real Assets	54	40	38	65	34	58	58	100	34	81	61	67	79	34	65	62
	(-38)	(-45)	(-52)	(-31)	(-46)	(-37)	(-27)	(0)	(-58)	(-17)	(-33)	(-28)	(-11)	(-56)	(-31)	(-34)
HMR	8	12	3	9	8	12	33	2	2	1	4	0	47	7	2	18
	(-52)	(-36)	(-67)	(-68)	(-37)	(-71)	(-35)	(-53)	(-70)	(-68)	(-63)	(-78)	(-10)	(-65)	(-80)	(-72)
Vehicles or Valuables	52	37	37	63	32	55	48	100	33	79	61	67	72	31	65	47
	(-33)	(-43)	(-44)	(-26)	(-42)	(-25)	(-20)	(0)	(-41)	(-16)	(-28)	(-21)	(-11)	(-43)	(-16)	(-21)
Vehicles only	32	35	36	62	31	53	48	0	32	55	57	65	69	30	65	42
	(-29)	(-40)	(-42)	(-27)	(-40)	(-25)	(-20)	(0)	(-41)	(-29)	(-30)	(-20)	(-12)	(-42)	(-16)	(-20)
Valuables only	23	6	3	4	4	5	0	100	1	59	8	8	14	4	0	10
	(-20)	(-17)	(-12)	(-6)	(-9)	(-12)	(0)	(0)	(-2)	(-27)	(-16)	(-11)	(-2)	(-4)	(-1)	(-12)

Source: Author's calculation. Notes: Differences between total population and households in the bottom decile (in percentage points) in parenthesis.

Table V: Participation (in percent) for financial assets for households in the bottom decile of the net wealth distribution

Household has	EA	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Financial Assets	91	97	89	54	95	96	100	98	47	65	93	85	95	76	87	90
	(-6)	(-2)	(-9)	(-34)	(-4)	(-2)	(0)	(-2)	(-27)	(-27)	(-5)	(-12)	(-3)	(-18)	(-7)	(-1)
Deposits	90	97	89	49	95	96	100	98	47	64	93	85	91	76	87	90
	(-6)	(-2)	(-9)	(-33)	(-4)	(-2)	(0)	(-2)	(-27)	(-27)	(-5)	(-12)	(-4)	(-18)	(-7)	(-1)
Sight Accounts	88	97	88	44	95	92	100	94	47	56	92	48	90	75	87	88
	(-6)	(-2)	(-9)	(-30)	(-4)	(-5)	(0)	(-4)	(-26)	(-29)	(-4)	(-26)	(-3)	(-18)	(-7)	(-1)
Saving Accounts	35	44	39	6	30	11	0	63	0	12	31	58	80	4	6	14
	(-24)	(-43)	(-38)	(-29)	(-48)	(-14)	(0)	(-23)	(-4)	(-14)	(-42)	(-24)	(-5)	(-40)	(-17)	(-12)
Mutual Funds	3	3	0	0	5	0	17	2	0	0	2	0	14	0	4	1
	(-8)	(-7)	(-17)	(-1)	(-12)	(-6)	(-10)	(-9)	(-1)	(-6)	(-17)	(-8)	(-4)	(-3)	(-8)	(-2)
Shares	1	1	1	13	0	0	6	2	0	0	0	1	11	1	0	0
	(-9)	(-5)	(-14)	(-21)	(-10)	(-10)	(-16)	(-13)	(-2)	(-5)	(-10)	(-12)	(0)	(-4)	(-10)	(0)
Money owed to HH	7	15	10	3	12	4	0	3	4	0	9	4	13	4	8	7
	(0)	(4)	(2)	(-6)	(-2)	(-2)	(0)	(-2)	(0)	(-1)	(2)	(-1)	(5)	(-4)	(2)	(-3)
Voluntary Pensions / Whole Life Insurance	16	8	7	9	26	6	19	12	0	3	10	2	20	2	5	10
	(-17)	(-10)	(-37)	(-37)	(-20)	(-17)	(-5)	(-26)	(-4)	(-15)	(-24)	(-23)	(-30)	(-12)	(-12)	(-5)

Source: Author′s calculation. Notes: Differences between total population and households in the bottom decile (in percentage points) in parenthesis.

Table VI: Participation rates (in percent) for debts for households in the bottom decile of the net wealth distribution

Household has	EA	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Debt	59	62	38	44	78	51	100	57	33	23	59	25	100	31	37	31
	(15)	(26)	(-7)	(-21)	(31)	(1)	(40)	(10)	(-4)	(-2)	(0)	(-9)	(35)	(-7)	(-8)	(5)
Mortgage Debt	10	13	3	12	10	14	36	5	6	1	9	0	47	8	2	7
	(-13)	(-6)	(-28)	(-33)	(-11)	(-19)	(3)	(-20)	(-12)	(-10)	(-29)	(-16)	(3)	(-19)	(-12)	(-2)
Credit Line /	23	35	15	9	37	1	0	21	12	3	13	2	40	6	31	13
Overdraft Debt	(13)	(21)	(9)	(-15)	(17)	(1)	(0)	(14)	(6)	(0)	(5)	(-4)	(20)	(3)	(7)	(5)
Credit Card Debt	3	2	9	8	1	12	0	0	14	0	9	7	13	6	0	7
	(0)	(1)	(3)	(-11)	(-2)	(5)	(0)	(0)	(0)	(-1)	(3)	(-6)	(9)	(1)	(-3)	(2)
Non-Collateralised	46	36	27	38	65	42	96	42	14	22	49	20	81	22	20	19
Loans	(23)	(25)	(9)	(8)	(43)	(14)	(44)	(14)	(1)	(7)	(18)	(7)	(56)	(8)	(-7)	(7)

Source: Author′s calculation. Notes: Differences between total population and households in the bottom decile (in percentage points) in parenthesis.

Table VII: Selected socio-demographic characteristics of households in the bottom decile of the net wealth distribution

	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Number of HH-members	1.89	2.20	2.20	1.75	2.65	2.08	2.19	2.00	2.29	2.17	2.36	2.07	2.50	1.68	2.32
	(-24)	(-11)	(-56)	(-29)	(-3)	(0)	(-5)	(-64)	(-24)	(-31)	(-49)	(-15)	(-20)	(-89)	(-51)
Number of Children	0.49	0.76	0.49	0.41	0.69	0.51	0.77	0.45	0.64	0.70	0.54	0.60	0.72	0.40	0.72
	(10)	(16)	(-27)	(1)	(8)	(5)	(17)	(-12)	(4)	(3)	(-19)	(1)	(9)	(-18)	(4)
Age of Reference Person	46	41	57	43	45	35	45	43	52	41	.	38	53	51	39
	(-5)	(-11)	(6)	(-9)	(-8)	(-15)	(-7)	(-7)	(-4)	(-9)	.	(-14)	(-2)	(0)	(-9)
(ISCED 0,1) - Low	0.00	0.16	0.44	0.03	0.35	0.00	0.43	0.29	0.38	0.48	0.39	0.02	0.77	0.16	0.00
	(0.00)	(0.06)	(0.25)	(0.01)	(0.00)	(0.00)	(0.12)	(-0.02)	(0.12)	(0.23)	(0.15)	(-0.01)	(0.13)	(0.12)	(0.00)
(ISCED 2) - Medium	0.30	0.20	0.13	0.20	0.22	0.15	0.06	0.11	0.33	0.12	0.48	0.09	0.13	0.19	0.07
	(0.12)	(0.04)	(0.04)	(0.08)	(0.02)	(-0.13)	(0.00)	(0.00)	(0.06)	(0.00)	(0.08)	(-0.14)	(-0.01)	(-0.01)	(0.01)
(ISCED 3,4) - High	0.63	0.42	0.28	0.62	0.27	0.56	0.37	0.42	0.24	0.31	0.11	0.29	0.06	0.60	0.82
	(-0.04)	(0.06)	(-0.04)	(0.05)	(0.08)	(0.14)	(-0.01)	(0.06)	(-0.10)	(-0.06)	(-0.10)	(-0.08)	(-0.07)	(0.07)	(0.05)
(ISCED 5) - Highest	0.05	0.20	0.13	0.13	0.13	0.28	0.12	0.16	0.03	0.07	0.01	0.58	0.03	0.03	0.11
	(-0.07)	(-0.16)	(-0.25)	(-0.15)	(-0.12)	(-0.00)	(-0.11)	(-0.03)	(-0.07)	(-0.18)	(-0.13)	(0.24)	(-0.06)	(-0.19)	(-0.05)

Source: Author's calculation. Notes: Differences between total population and households in the bottom decile in parenthesis. Differences in percentage points for the Number of HH-members and the Number of Children. Differences in Years for the Age of the Reference Person. ISCED describes the Level of Education of the Reference Person.

Table VIII: Additional socio-demographic characteristics of households in the bottom decile of the net wealth distribution

	EA	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Labour Status																
Employed	0.47	0.44	0.26	0.28	0.47	0.45	0.56	0.48	0.38	0.46	0.72	0.29	0.69	0.34	0.51	0.65
	(2)	(1)	(-17)	(-25)	(-1)	(4)	(14)	(1)	(5)	(9)	(16)	(-6)	(15)	(-6)	(12)	(9)
Self-employed	0.03	0.05	0.00	0.06	0.03	0.03	0.07	0.01	0.06	0.04	0.00	0.00	0.04	0.02	0.00	0.05
	(-5)	(-4)	(-5)	(-4)	(-3)	(-5)	(1)	(-7)	(-9)	(-6)	(-6)	(-8)	(0)	(-8)	(-4)	(-2)
Unemployed	0.16	0.13	0.33	0.08	0.19	0.21	0.07	0.17	0.05	0.08	0.07	0.04	0.00	0.19	0.16	0.12
	(11)	(9)	(24)	(3)	(14)	(12)	(-1)	(12)	(2)	(5)	(5)	(2)	(-1)	(12)	(6)	(7)
Retired	0.16	0.28	0.14	0.38	0.09	0.11	0.04	0.17	0.19	0.31	0.04	0.35	0.02	0.35	0.28	0.14
	(-15)	(-7)	(-19)	(15)	(-20)	(-9)	(-23)	(-17)	(-8)	(-8)	(-20)	(8)	(-22)	(0)	(-13)	(-12)
Other	0.16	0.08	0.25	0.18	0.19	0.18	0.24	0.15	0.29	0.08	0.16	0.30	0.22	0.07	0.04	0.02
	(6)	(2)	(17)	(11)	(10)	(-2)	(8)	(10)	(10)	(0)	(5)	(4)	(7)	(3)	(-2)	(-3)
Total Household Gross Income	22,179	24,878	29,837	22,433	22,887	20,571	38,762	21,568	14,912	15,180	35,293	15,262	45,198	10,814	9,967	8,593
	(-15,668)	(-17,010)	(-19,863)	(-20,169)	(-20,793)	(-10,827)	(-6,379)	(-15,350)	(-12,869)	(-19,164)	(-48,242)	(-11,225)	(-637)	(-9,518)	(-12,301)	(-4,905)

Source: Author's calculation. Notes: Differences between total population and households in the bottom decile (in percentage points) in parenthesis for the Main Labour Status of the Reference Person. Differences in Total Household Gross Income in Euro.

Table IX: The link between income and wealth measures of poverty

	Income-rich Household	**Income-poor Household**	**Total**
Wealthy Household	72	18	90
Wealth-poor Household	6	4	10
Total	78	22	100

Source: Author's calculation. Income-rich households are households with gross equivalized income above 60 percent of median gross equivalized income. Income-poor households are households with gross equivalized income below 60 percent of median gross equivalized income. Wealthy households are households in the top nine deciles of the wealth distribution. Wealth-poor households are households in the bottom decile of the wealth distribution.