3 THE COMPOSITION OF WEALTH: INCOME-RICH — ASSET-POOR?

A slightly different German version of this chapter has been published in *Berliner Journal* für Soziologie (Skopek, Kolb, Buchholz, and Blossfeld 2012).

3.1 Introduction

Socio-economic status as a key variable in social stratification research has, until now, been mapped primarily via occupational position and income. Considering the significant increase in employment uncertainty and employment risks since the 1980s (Blossfeld et al. 2007; Giesecke 2006; Kurz et al. 2008), it appears more and more inadequate to attempt to capture social inequalities via indicators that are solely related to the individual labor market position, particularly with regard to income. Income is a flow measure which can, for example, only partly account for individuals who do not participate in the labor force (e.g. homemakers) or for life stages in which a person does typically not participate in the labor market (especially retirement). In contrast to income, wealth typically defined as financial plus real assets net of debts on them (i.e. net worth) - is a stock figure. Wealth can, for example, serve as a protection against foreseeable and unforeseeable financial difficulties resulting from job loss, divorce, or retirement. Thus, the consideration of accumulated wealth - alongside earned income - allows researchers to account for all persons in all life stages. In addition, wealth, or indeed its absence, can have more far-reaching and long-term implications for the individual's economic well-being than income alone. Despite the obvious relevance of wealth as an indicator of socio-economic status, for a very long time, social stratification research paid little attention to it. Only very recently, there can be observed a growing interest among social stratification scholars in addressing wealth as a determinant - but also as a dimension – of economic and in a broader sense social inequality.

Just like the one preceding it, this chapter has a strong empirical focus. My aim is to present empirical validation for the theoretical understanding of wealth as a separate dimension of social stratification and social inequality. In a first step, I will empirically determine the income-wealth relationship. If the income-rich (income-poor) and the asset-rich (asset-

poor) were the same group of persons, this would indicate a very strong accumulation of financial advantages for this particular group. In a second step, I will analyze the composition of wealth to establish whether households in different income groups hold different types of assets. Determining the composition of wealth is relevant for social stratification research, as different types of assets entail different advantages and disadvantages. A particular focus is set here on the distribution of owner-occupied housing as the quantitatively most important component of wealth in most countries (e.g. Kolb, Skopek, and Blossfeld 2013; Lewin-Epstein, Elmelech, and Semyonov 1997; Krivo and Kaufman 2004). Finally, I am also interested in the marginal impact of the various wealth components on national levels of wealth inequality, which have been described in chapter 2. Carrying out a decomposition analysis, I intend to find out whether a certain wealth component has an equalizing or disequalizing effect on overall levels of wealth inequality.

For my empirical analyses, I make use of the data from the second wave of the Survey of Health, Ageing and Retirement in Europe (SHARE), which provides comprehensive information on the financial situation of older households in 13 European countries. Studying the distribution of wealth within a population segment who have either already entered retirement, or are close to it, offers at least two undeniable advantages: first, it provides information on how successful individuals have been in accumulating wealth over their life course, and thus enables me to analyze the outcomes of the process of wealth accumulation. Second, because a substantial fraction of individuals over 50 are already out of the labor force, they will rely more on wealth than on income, which makes wealth a very important source of financial well-being for this population segment. This applies even more in the light of population aging, which is accompanied by cuts in public pension generosity, and consequently in an increasing importance of private provision for old age.

3.2 THEORETICAL CONSIDERATIONS AND PREVIOUS RESEARCH

3.2.1 THE INCOME-WEALTH RELATIONSHIP

The study of social stratification has, until recently, been characterized by an almost exclusive focus on inequalities deriving directly from the labor market, above all (earned) income. However, income is only one dimension of economic well-being. Recent studies increasingly emphasize the importance of wealth for a comprehensive understanding of social stratification (Spilerman 2000; Elmelech 2008; Semyonov and Lewin-Epstein 2011). While both income and wealth represent important components of an individual's economic standing, each has different properties. Income, generally understood as earned income, is a flow measure that represents an economic entity's financial situation at a certain point in time, or over a minor interval (usually a week, month or year). Income can considerably vary from one period to the next, and is usually bound to persons that are or have been actively engaged in the labor market. Wealth, on the other hand, is a stock figure that is accumulated over a longer period. Compared to income, which can be either consumed or saved (invested), wealth has many functions. These include an income function, an utility function, a security function, a power function, a social status maintenance function, a socialization function, and an inheritance function (Frick and Grabka 2009: 62). Whereas earned income stems from labor market activity, wealth can be derived through two channels: it can either be self-accumulated (saved/invested income), or it can stem from transfers (inter vivo transfers or bequests). Unlike income, the stock of wealth accumulated represents resources of the individual's past, present, and future (potential) financial well-being (Cowell, Karagiannaki, and McKnight 2012). Another important characteristic of wealth, further distinguishing it from income, is that once a certain amount of wealth has been accumulated it will replicate itself through the mechanism of compound interest. The growth in wealth will be exponential, as future accumulation depends on current accumulation. At the same time, the state of having no or only low wealth is likely to be persistent over time. From this it follows that the process of wealth accumulation is a typical process of cumulative advantage (DiPrete and Eirich 2006: 272f.). Inequality of advantage

grows over time. This is one important reason why the distribution of wealth is likely to be more unequal than the distribution of income. If, moreover, income and wealth prove to be strongly positively correlated this would indicate an even stronger process of cumulative advantage: fundamentally, those with high (low) income are those with high (low) wealth, and this status is characterized by an increase of advantage (disadvantage) over time. High (low) income individuals thus profit from a "double advantage (disadvantage)" with regard to financial well-being.

Previous studies indicate that a sole focus on earned income may lead to a one-sided or even inaccurate picture of economic inequality. For example, it has been found that levels of wealth inequality differ significantly from those of income inequality in a number of countries, among them Sweden, for example. This country is known for its equal distribution of income, but exhibits a very high level of wealth inequality (Cowell, Karagiannaki, and McKnight 2012; Sierminska, Brandolini, and Smeeding 2006). Other countries, however, exhibit similar levels of inequality in income and private wealth, among them the USA and Germany (Sierminska, Brandolini, and Smeeding 2006; Davies et al. 2008). Obviously, determinants of wealth inequality differ from those of income inequality, at least in some countries. As already explained above, wealth inequalities are typically more pronounced than income inequalities. Empirical studies support this argument (Díaz-Giménez, Quadrini, and Ríos-Rull 1997; Davies and Shorrocks 2000; Keister and Moeller 2000). In addition, the correlation between income and wealth is weaker than often assumed, with correlation coefficients around 0.5 for earned income in the USA and Canada (Budria Rodriguez et al. 2002; Díaz-Giménez, Glover, and Ríos-Rull 2011; Brzozowski et al. 2010) and 0.6 for disposable income in the USA (Budria Rodriguez et al. 2002; Díaz-Giménez, Glover, and Ríos-Rull 2011). Wolff (1996) states that this rather weak relationship can be partly traced back to the fact that the top wealth deciles earn very little compared to the wealth they hold, as they can generate income from their assets. This points to a previously mentioned characteristic of wealth (or of the wealthy themselves): the characteristic of self-reproduction. The relationship between earned income and wealth is further weakened by the fact that consumption in retirement is financed through transfers (public pensions) and accumulated

wealth. Consequently, Henretta and Campbell (1978) understand wealth as "an important aspect of economic and social status, particularly for the elderly".

Based upon these arguments, and on the findings presented in chapter 2, I assume that, a sole concentration on the distribution of income can only partly capture individual economic welfare —especially with regard to the older population — and that, secondly, the level of income inequality alone is an inadequate predictor of social inequality.

3.2.2 THE COMPOSITION OF WEALTH

Various studies have been able to show that the composition of wealth differs between countries (Christelis, Japelli, and Padula 2005), but also within countries along the income and wealth distributions, as well as according to socio-demographic variables such as age, gender or race (Oliver and Shapiro 1995; Choudhury 2003; Thompson 2013; Keister 2004). These differences in the wealth portfolio are of relevance for social stratification, as different types of assets entail different advantages and disadvantages. Financial assets, especially money in bank accounts, can be accessed quickly and easily, and can thus be used to facilitate consumption, while real assets, like housing, cannot. On the other hand, compared to real assets, financial assets are much more subject to interest rate changes and inflation, as compared to real assets. Furthermore, different types of assets are associated with different rates of return (Davies and Shorrocks 2000: 644). Assuming that the composition of wealth held by individuals is stable over time, information about interest rate changes of various types of assets can help to explain temporal variations in the distribution of wealth (Davies and Shorrocks 2000).

In quantitative terms, residential property occupies a central position in the wealth portfolio of households (Kolb, Skopek, and Blossfeld 2013; Lewin-Epstein, Elmelech, and Semyonov 1997; Krivo and Kaufman 2004). Nonetheless, when looking at wealth distributions internationally, differences in the quantitative importance of residential property in the population as a whole as well as over the different income quartiles may emerge. For Spain, Azpitarte (2010) showed that the wealth portfolio of households in the upper wealth deciles is fairly balanced, containing

residential property and other housing, as well as stocks and shares. For the middle wealth deciles, residential property is by far the most important wealth component. The wealth portfolio of the lower wealth deciles is mainly made up of consumer goods such as cars or televisions. Similar findings have also been reported for other countries, among them the USA (Kessler and Wolff 1991; Wolff 1994), Italy (Brandolini et al. 2006), and France (Denis Kessler and Wolff 1991).

As I am especially interested in the income-wealth relationship, in this chapter I will analyze and compare the wealth portfolio of different income groups in the 13 European countries that participated in the second SHARE wave. According to the findings of Azpitarte (2010), I expect homeownership to be the dominant asset in the wealth portfolio of the lower and middle-income groups, especially in countries with high homeownership rates, such as Spain. The wealth portfolio of the higher income groups I expect to be more diversified, with a higher importance of financial assets compared to the lower income groups. Financial assets I expect to be more prevalent in countries with lower homeownership rates.

3.2.3 THE DECOMPOSITION OF WEALTH INEQUALITY

In a third step, I will decompose national levels of household wealth inequality, which have already been presented in the previous chapter, to find out about the contribution of certain wealth components to the level of overall wealth inequality. A decomposition of total wealth inequality for the different components of wealth has rarely been conducted so far. Exceptions are the works of Azpitarte (2010) for Spain and Brandolini, Cannari, Alessio, and Faiella (2004) for Italy. Azpitarte (2010) was able to show that housing wealth in Spain, where homeownership is very widespread, can be considered as an equalizing component in total wealth inequality, at least from a pure relative inequality approach. He identified financial assets as disequalizing factors, whose value and portfolio share increase with the level of household wealth. Brandolini et al. (2004) found an increase in wealth inequality in Italy during the 1990s, which they trace back to an increase in the concentration of financial wealth.

I am especially interested in the question as to whether housing wealth has a disequalizing effect on overall levels of wealth inequality not only in countries with high homeownership rates, like Spain, but also in countries with low homeownership rates.

3.3 DATA AND METHODS

3.3.1 DATA

In my analysis, I make use of the second wave of the SHARE data.¹¹ This survey is an international, representative panel study of the population of Europe aged 50 years and older. It provides detailed, internationally comparable information on the financial and housing situation of older households. Compared to the overall population, the SHARE population is likely to possess higher wealth holdings: firstly, they have simply had more time to accumulate wealth (although of course also to "de-accumulate" some of it); secondly, they are more likely to have received an inheritance; and thirdly, a large part of the debt of this population is likely to have already been repaid.

In the second SHARE wave, conducted in 2006/2007, 33,281 people in 22,721 households from 13 EU member states participated. Table 4 illustrates the sample sizes per country. I decided to work with the second wave only as, at the time of writing this chapter, it covered the broadest range of countries and contained the most detailed information on private wealth holdings. A typical problem of questions addressing financial aspects is a high rate of item-nonresponse (Riphahn and Serfling

[&]quot;This paper uses data from SHARE release 2.5.0, as of May 24th 2011. The SHARE data collection has been primarily funded by the European Commission through the 5th framework programme (project QLK6-CT-2001-00360 in the thematic programme Quality of Life), through the 6th framework programme (projects SHARE-I3, RII-CT-2006-062193, COMPARE, CIT5-CT-2005-028857, and SHARELIFE, CIT4-CT-2006-028812) and through the 7th framework programme (SHARE-PREP, 211909 and SHARE-LEAP, 227822). Additional funding from the U.S. National Institute on Aging (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, Y1-AG-4553-01 and OGH A 04-064, IAG B SR06-11, R21 AG025169) as well as from various national sources is gratefully acknowledged (see http://www.share-project.org for a full list of funding institutions)."

2005). The SHARE team is tackling this problem by applying a multiple imputation strategy for filling in missing values.¹² All financial values are adjusted for differences in the purchasing power of money across countries and over time (the reference is Germany in 2005; see Mannheim Research Institute for the Economics of Aging 2011 for further information) and refer to the household level.

Table 4: Sample size

| | Country | Observations | Percent |
|----------|---------------------|--------------|---------|
| | AT - Austria | 897 | 4.28% |
| | BE - Belgium | 2,022 | 9.65% |
| Central | CH - Switzerland | 967 | 4.62% |
| Europe | DE - Germany | 1,550 | 7.40% |
| | FR - France | 1,844 | 8.80% |
| | NL - Netherlands | 1,710 | 8.16% |
| Northern | DK - Denmark | 1,663 | 7.94% |
| Europe | SE - Sweden | 1,725 | 8.24% |
| Southern | ES - Spain | 1,279 | 6.11% |
| Europe | GR - Greece | 2,083 | 9.95% |
| - | IT - Italy | 1,786 | 8.53% |
| Eastern | CZ - Czech Republic | 1,722 | 8.22% |
| Europe | PL - Poland | 1,697 | 8.10% |
| | Total | 20,945 | 100.00% |

Note: SHARE wave 2 (release 2.5.0). Own calculations.

The key variables in my analysis are net income and net worth which I disaggregate into the following components: net financial assets (gross financial assets net of debts on them), net real assets (gross real assets, excluding housing wealth, net of debts on them) and net housing wealth (i.e. owner-occupied housing). In order to prevent problems of comparability of values of net worth across countries to the greatest extent, and in consistency with previous research, I further divide median net worth at time t by median net income at time t, and express net worth in terms of yearly income. I label this measure as "wealth rate".

Five values were estimated for every missing value. All the analyses reported below I ran across the five imputations. A more detailed description of the imputation method used in the SHARE can be found in Christelis (2011). For further information on multiple imputation see Rubin (1987).

3.3.2 METHODS

I apply descriptive methods and correlation analyses to empirically determine the income-wealth relationship and the composition of wealth, measured as net worth. To examine the marginal impact of various wealth sources on overall wealth inequality in the 13 European countries in question, I apply the Gini decomposition, as proposed by Lerman and Yitzhaki (1985). The Gini coefficient is a widely-used measure for economic inequality in the social sciences. For the analysis presented in this book, it is also the most appropriate measure, since the Gini coefficient allows for zero and negative values, which are likely to emerge for net worth. For income and wealth (net worth) as discrete variables, the Gini coefficient is defined as the ratio to the mean of half the average over all pairs (i, j) of absolute deviations of income (γ) or wealth (w) between (in this case) households, as has been illustrated in Formula 2.

The Gini coefficient ranges between zero (total equality) and one (total inequality). ¹⁴ In a next step, I will decompose overall wealth inequality G(w) by the different wealth components. According to the decomposition method of Lerman and Yitzhaki (1985), which is based on the work of Shorrocks (1982), overall wealth inequality G can be decomposed as follows:

$$G = \sum_{k=1}^{K} S_k G_k R_k \tag{3}$$

Sk is the share of the wealth component k in total wealth, Gk is the Gini of wealth component k, and Rk (the so-called Gini correlation) is the correlation of wealth component k with the distribution of total wealth.

However this applies only as long as mean net worth is not lower than zero (Jenkins and Jäntti 2005), which is the case here.

The Gini coefficient might, however, take on values above one, if the mean of a certain wealth component is lower than zero. This results in a loss of explanatory power regarding quantitative differences between the inequality of two distributions of income/wealth (e.g. inequality in country A is twice as large as in country B), but not in terms of qualitative differences (e.g. inequality in country A is larger than in country B).

Rk indiates whether a certain wealth component k has an equalizing or disequalizing effect on overall wealth inequality. It is similar to Pearson's product-moment correlation (Pearson 1896) as well as to Spearman's rank-order correlation (Spearman 1904) and is defined as ranging between minus one and one. A positive (negative) value of Rk means that k has a disequalizing (equalizing) effect on overall wealth inequality G (Lerman and Yitzhaki 1985: 152). Finally, the percentage contribution P of a certain asset component k to overall wealth inequality G can be rewritten as:

$$P_k = S_k \frac{G_k R_k}{G} \tag{4}$$

3.4 RESULTS

3.4.1 THE INCOME-WEALTH RELATIONSHIP

In a first step, I intend to establish the empirical determination of the income-wealth relationship. Figure 5 shows the percentage share of total wealth by the four income quartiles for all 13 European countries in my sample. If the two measures were perfectly correlated, wealth would be equally distributed over the income quartiles, which is obviously not the case. Substantiating both theoretical considerations and past research, income and wealth show a positive correlation (see Figure 7). Higher income quartiles possess higher wealth holdings. Yet in Greece, Poland, and Spain, the percentage share of total wealth of the first income quartile is higher than that of the second one. The share of total wealth of the two lower income quartiles is relatively small (less than 30%) in Switzerland, Germany, France, and the two Scandinavian countries Sweden and Denmark. In contrast to this, the two lower income quartiles can be labeled as "asset rich" in the Southern European countries (Spain, Greece, Italy) as well as in the two post-socialist countries (Czech Republic, Poland), where they hold around 40% of total net worth.

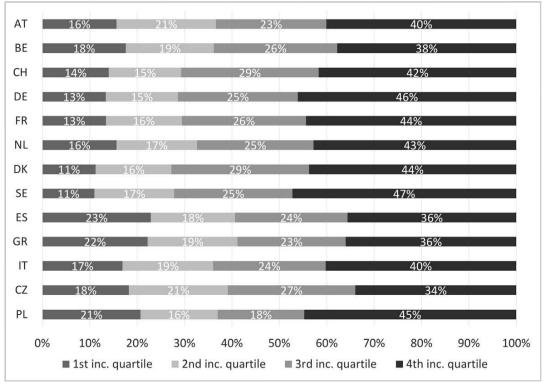
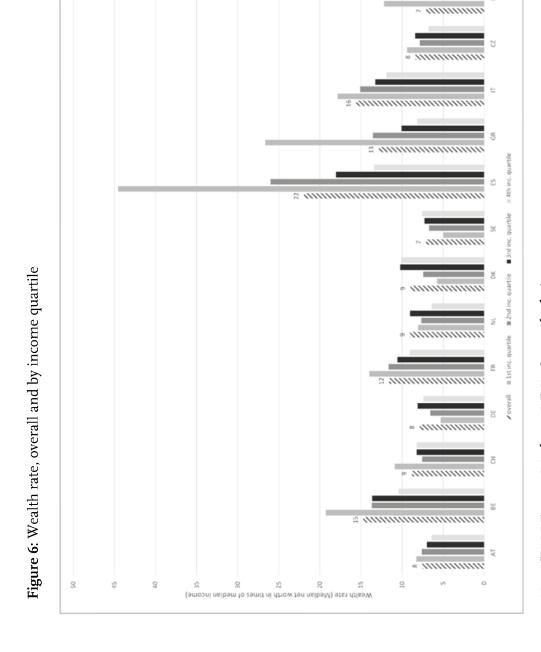


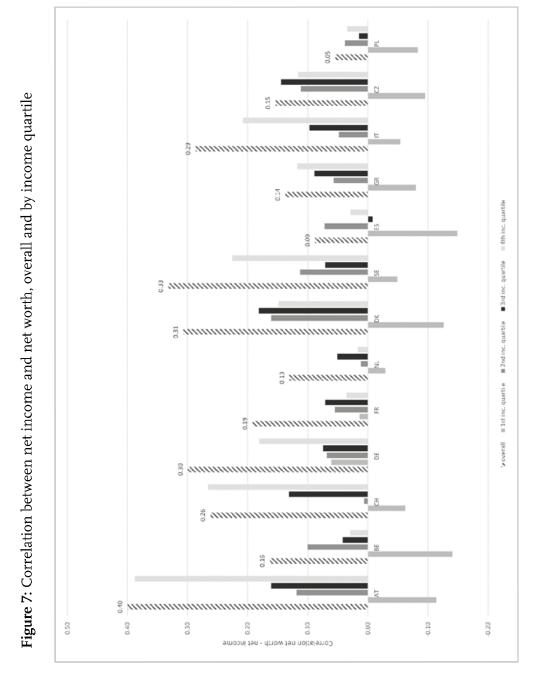
Figure 5: Percentage share of total net worth by income quartile

Note: SHARE wave 2 (release 2.5.0). Own calculations.

Figure 6 shows median wealth holdings for the overall population in the 13 countries and by income quartiles. My wealth measure is median net worth in terms of median income – the wealth rate. This relative wealth measure expresses each quartile's wealth holdings relative to their (last) annual income. The highest overall wealth rates can be found in Spain, followed by Italy, the lowest in Sweden and Poland. In most countries, the wealth rate actually decreases over the income quartiles. A very impressive example is Spain, where the first income quartile holds, on average, wealth to the value of 45 times that of their annual income. In Greece, too, the wealth rate of the first quartile is extraordinarily high. In the two Scandinavian countries Denmark and Sweden, but also in Germany, the wealth rate increases over the income quartiles. Also very interesting is the fact that in all countries, even the lowest income quartiles hold wealth equal to at least five times their annual income. Although this might partly be explained by the age structure of the SHARE population, this is still a quite remarkable number. It seems as if the SHARE population has been fairly successful in the accumulation of wealth over their life course.



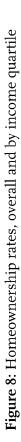
Note: SHARE wave 2 (release 2.5.0). Own calculations.

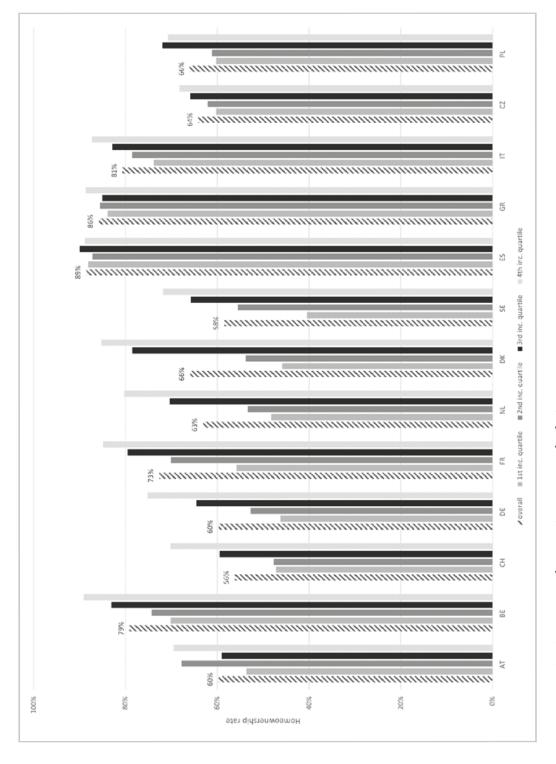


Note: SHARE wave 2 (release 2.5.0). Own calculations.

3.4.2 THE COMPOSITION OF WEALTH

My next step is to analyze the composition of wealth. Again, I will present a breakdown by income quartile, to see whether the composition of wealth of low-income households differs from that of high-income households, or if the latter just possess more of everything. In a first step, however, I will examine the homeownership rates across the 13 countries, as illustrated in Figure 8. In line with past findings, home ownership is not very common in Central and Northern European countries such as Austria, Sweden, Germany and Switzerland. On the other hand, homeownership is a widespread phenomenon in the three Southern European countries represented in SHARE. The high homeownership rates in these countries might explain the high share of wealth of the lower income quartiles within these countries, as illustrated in Figure 5, as well as their high wealth rates, as illustrated in Figure 6. The high homeownership rates in these countries might explain the high share of wealth of the lower income quartiles within these countries, as illustrated in Figure 5, as well as their high wealth rates, as illustrated in Figure 6. Castles and Ferrera (1996) state that the Southern European countries are an interesting exception among the advanced industrialized countries, as they combine high rates of homeownership with very generous public pensions. At the same time, however, these countries are characterized by a strong insider-outsider labor market: although welfare services are comparatively generous, they are only provided to those in core sector employment, while the increasing number of "outsiders" (i.e. those persons who are either unemployed or working in the informal sector, especially if they don't have family) receive very little (Allen and Maloutas 2004: 191). In this regard, the high homeownership rates in Southern Europe can be understood as a compensation for the poor safety net, an argument originally presented by Kemeny (1981). In most countries, homeownership rates increase over the income quartiles. In Spain and Greece, however, homeownership rates stay almost constant over all income quartiles.





Note: SHARE wave 2 (release 2.5.0). Own calculations.

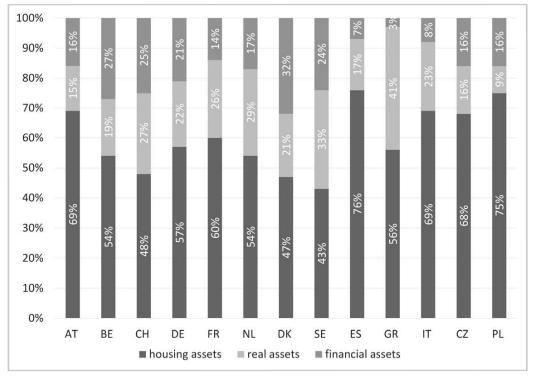


Figure 9: Composition of household wealth, overall

Note: SHARE wave 2 (release 2.5.0). Own calculations.

Figure 9 shows the composition of wealth across the 13 countries in my sample. Corresponding to past research, housing wealth is the quantitatively most important component of the households' wealth portfolio in all countries. In the Southern European countries Spain and Italy, the two post-socialist countries, and in Austria, the contribution of housing to total wealth is around 70%.

Overall, the relative importance of financial wealth, as compared to housing wealth, is fairly low. While financial wealth has only a minor importance for the household wealth portfolio in the Southern European countries (8% or less), in the Northern European countries, but also in Belgium and Switzerland, financial wealth accounts for at least 24% of total household wealth. Christelis, Japelli, and Padula (2005: 317) suggest a lower risk-adversity among the people in Nordic countries as a possible explanation for this finding. Alternative explanations might be country-specific cultural and historical factors that shape preferences for holding specific types of assets (Cowell, Karagiannaki, and McKnight 2013), country-specific historical experiences (inflation or war experi-

ence) (Feldstein 1995), or national differences in financial literacy (Lusardi and Mitchell 2011).

Figure 10 again shows the composition of wealth, but now by income quartile. In fact, there are huge differences in the household wealth portfolio across income quartiles. In contrast to the homeownership rate (Figure 8), the share of housing wealth decreases over income quartiles in most countries. This is, however, less the case in the Southern European countries. In Poland, the share of housing wealth on total wealth actually increases over income quartiles. Housing wealth is quantitatively the most important component of total household wealth in all countries, especially within the first and second income quartile. The wealth portfolio of the higher income quartiles is much more diversified compared to the lower ones, which implies greater stability in the case of financial or housing market crises, as well as better protection against inflation. The overall trends in our results corroborate the results of past research.

3.4.3 THE DECOMPOSITION OF WEALTH INEQUALITY

In this final section, I shall consider inequality patterns with regard to the various wealth components. Using the Gini decomposition method as proposed by Lerman and Yitzhaki (1985), I will also determine the relative contribution of each wealth component to each country's overall level of wealth inequality. The columns of Table 5 refer to the components of the Gini decomposition by Lerman and Yitzhaki (1985), discussed at greater length in the paragraph on my methods. The first column shows the Gini coefficient for overall wealth (G). Overall wealth inequality is high in Poland, the Netherlands, Switzerland and Sweden, while it is relatively low in Austria, Belgium, the Czech Republic and the Southern European countries. This is in line with the results presented in chapter 2. A closer look at the Gini of the various wealth components (Gk) reveals an extraordinarily high level of inequality in real assets, especially in Poland and the Netherlands. Housing wealth is, however, relatively equally distributed. The level of inequality in financial assets lies between those of housing wealth and of real assets. Yet, in France,

Greece, Poland, Sweden and Spain, financial assets are less equally distributed than real assets.

1st quartile 2nd quartile 40% 40% 30% 30% 20% 10% 10% 0% SE 3rd quartile 4th quartile 100% 90% 80% 70% 60% 50% 40% ■ housing assets ■ real assets ■ financial assets

Figure 10: Composition of household wealth by income quartile

Note: SHARE wave 2 (release 2.5.0). Own calculations.

 P_k shows the percentage contribution of each wealth component to the overall level of wealth inequality. In Germany, for example, 19% of total wealth inequality is attributable to financial assets, 27% is attributable to real assets, and 54% is explained by housing wealth. The effect of each wealth component on overall wealth (S_k) is somewhat different, as already seen in Figure 5. Housing wealth, for example, accounts for as much as 57% of total wealth in Germany, while it accounts for only 54% of total wealth inequality there. This indicates an equalizing effect of housing wealth on total wealth inequality. In general, the contribution of

housing wealth to the explanation of total wealth inequality is relatively high (60% and more) in Austria, Italy, and Spain, as well as in the Eastern European countries. These countries also show high rates of homeownership. In Belgium, France, and Greece, however, where homeownership rates are also very high, housing wealth contributes comparatively little to overall wealth inequality. The same applies for Denmark and Sweden. Conversely, these two countries also exhibit low homeownership rates. Real assets contribute considerably to overall wealth inequality (between 34% and 54%) in Greece, Italy, the Netherlands, and Sweden. In Belgium (31%), Denmark (33%) and Switzerland (25%), on the other hand, financial assets make a strong contribution to the explanation of overall wealth inequality. Finally, Rk shows the Gini correlation of the various wealth components. Negative (positive) values indicate an equalizing (disequalizing) effect of a certain wealth component kfor overall wealth inequality G. In most countries, an increase in financial assets as well as in housing wealth would, ceteris paribus (c.p.), lead to a decrease in overall wealth inequality (negative correlation). Exceptions to this are Belgium, Denmark, Greece, and Poland. In these countries, an increase in financial assets would, c.p., lead to an increase in overall wealth inequality (positive correlation). An increase in real assets would, c.p., result in an increase in overall wealth inequality in all countries of our sample (positive correlation).

3.5 CONCLUSION AND DISCUSSION

The aim of this chapter, as well as of the whole thesis, is to find empirical validation for the theoretical understanding of wealth as a separate determinant of economic standing – alongside income – and as a distinct dimension of social inequality. In a first step, I determined the income-wealth relationship. Commensurate with theoretical considerations and past research, I found income and wealth to be positively correlated. Older European households, even those in the lowest income quartile, possess considerable amounts of wealth, equal to at least five times of their annual income.

 Table 5: Gini decomposition by wealth component

| | Net | | Housing | Housing wealth | 1 | | Real | Real assets | | _ | Financial | al assets | 82 |
|---------------|---------------|------|---------|----------------|-------|------|-------|-------------|-------|------|-----------|-----------|-------|
| | worth | | | | | | | | | | | | |
| | \mathcal{C} | Ğ | S_k | P_k | R_k | Ğ | S_k | P_k | R_k | Ğ | S_k | P_k | R_k |
| | | | (%) | (%) | | | (%) | (%) | | | (%) | (%) | |
| DK | 0.63 | 0.67 | 47 | 43 | 04 | 0.84 | 21 | 24 | 0.03 | 0.79 | 32 | 33 | 0.01 |
| \mathbf{SE} | 0.67 | 0.73 | 43 | 40 | 03 | 0.85 | 34 | 38 | 0.04 | 0.88 | 23 | 22 | 01 |
| AT | 0.56 | 0.58 | 69 | 29 | 02 | 98.0 | 15 | 19 | 0.04 | 0.83 | 15 | 14 | 02 |
| BE | 0.51 | 0.44 | 54 | 40 | 14 | 98.0 | 18 | 28 | 0.0 | 0.74 | 27 | 31 | 0.02 |
| CH | 69.0 | 0.79 | 48 | 48 | 0.00 | 0.89 | 25 | 27 | 0.01 | 0.88 | 27 | 25 | 02 |
| DE | 0.63 | 0.64 | 57 | 54 | 04 | 0.88 | 22 | 27 | 0.05 | 0.80 | 21 | 19 | 02 |
| FR | 0.61 | 0.61 | 09 | 49 | 90:- | 98.0 | 29 | 31 | 0.07 | 0.87 | 11 | 10 | 01 |
| N | 69.0 | 0.68 | 54 | 46 | 05 | 0.94 | 24 | 36 | 0.08 | 0.76 | 22 | 18 | 03 |
| ES | 0.59 | 0.61 | 9/ | 73 | 02 | 0.85 | 16 | 20 | 0.03 | 0.87 | 8 | 7 | 01 |
| GR | 0.55 | 0.47 | 26 | 41 | 15 | 0.80 | 40 | 54 | 0.13 | 1.54 | 4 | 2 | 0.02 |
| H | 0.56 | 0.54 | 69 | 09 | 80:- | 0.88 | 24 | 34 | 0.09 | 0.84 | ^ | 9 | .01 |
| CZ | 0.54 | 0.59 | 89 | 99 | 02 | 0.84 | 20 | 24 | 0.04 | 0.76 | 12 | 10 | 02 |
| PL | 0.75 | 0.74 | 75 | 72 | 03 | 0.95 | 19 | 12 | 0.01 | 1.01 | 15 | 17 | 0.02 |
| All | 0.64 | 0.64 | 62 | 58 | 05 | 0.89 | 24 | 29 | 0.05 | 0.88 | 14 | 13 | 01 |

Note: SHARE wave 2 (release 2.5.0). Own calculations.

In a second step, I analyzed the composition of wealth. In accordance with past research, I found significant differences in wealth portfolios across the income distribution. While owner-occupied housing is the most important wealth component in the countries' overall wealth portfolio, it is most meaningful for the middle income quartiles. Housing wealth is the dominant asset in the wealth portfolio of Spain and Italy, which exhibit very high rates of homeownership, but this is not the case in Belgium, where homeownership is also very common. The wealth portfolio of the top income quartiles is much more diversified than the lower ones', and thus less sensitive to financial shocks. In the Southern and Eastern European countries, households' wealth portfolios are strongly dominated by owner-occupied housing, while in the Northern European countries, financial wealth is relatively important for the households' wealth portfolios. Households in Northern Europe can thus relatively easily access - and consume or reinvest - their wealth, while the wealth of the households in Southern European countries is less easy accessible and much less mobile. Compared to the Southern European countries, households in the Northern European countries are, however, more sensitive to financial shocks.

In a third step, I analyzed the contribution of the specific wealth components (financial assets, owner-occupied housing, and real assets) to the countries' overall level of wealth inequality. Real assets are the most unequally distributed wealth component in all countries. The portfolio share of real assets increases with the level of household income. In all countries, an increase in real assets would result in an increase in the level of wealth inequality. Housing wealth and financial assets, on the other hand, were found to have an equalizing effect on wealth inequality in most countries. Overall, my results provide empirical evidence that the income rich are also the asset rich. The higher diversification of their wealth portfolios indicates the self-reinforcing nature of wealth, as well as that of wealth inequalities.

Coming back to the second chapter of this thesis, the results presented here indicate a positive relationship between high levels of owner-occupied housing – combined with the high importance of housing wealth in households' wealth portfolios – and low levels of overall wealth

inequality. This relationship is also indicated by the disequalizing effect of housing wealth on overall levels of wealth inequality.

My results can be understood as empirical support for the theoretical understanding of wealth as a separate dimension of social stratification. Knowledge regarding the levels and composition of household wealth can shed new light on the ongoing debate on old-age poverty. Even now, both poverty and richness are largely defined by disposable income, which is an incomplete definition of economic standing, as my results have shown. Depending on the wealth status of households in the various countries discussed here, it may be the case that the problem of oldage poverty has, until now, been both underestimated and overestimated.