The four forms of wealth and happiness: how different forms of wealth affect the subjective well-being of the elderly in Europe

Caeteris paribus, to every particle of the matter of wealth corresponds a particle of the matter of happiness.

Bentham, 1954

Abstract

Wealth is far from being a homogeneous and monolithic concept. Wealth can be positive or negative (e.g. assets versus debts), more or less accessible (e.g. bank accounts versus housing wealth), and more or less time-constrained (e.g. cars versus bonds and mutual funds). These different *forms* of wealth are likely to influence in different ways the extent to which individuals are satisfied with their life. It is also likely that this influence varies across countries. In this chapter, we characterize four forms of wealth following two axes (positive/negative, mobile/immobile) and link them with the Subjective Well-Being (SWB) of the elderly in Europe. We find that positive mobile wealth is more strongly related to life satisfaction than positive immobile wealth. Negative mobile wealth is also more significantly related to life satisfaction than negative immobile wealth. Possible explanations are discussed using cultural theories.

Keywords: forms of wealth, seniors, SHARE, mobile, immobile

Introduction

Since the income paradox of Easterlin (1974), the relations between material prosperity and happiness have been one of the cornerstones of happiness studies. In most of the studies on SWB, the measures used for material prosperity, namely GDP at a macro level and income at an individual level, capture the *flow* of economic resources but fail to capture the existing *stock*, namely wealth. The reason for the preference of income over wealth in the study of the effect of economic resources on SWB was largely driven by the availability of satisfactory measures of wealth, which have become available only recently in surveys that include SWB.

In one of the first studies about wealth and well-being, Mullis (1992) showed that, among 55–69-year-old American men, income and wealth combined additively to affect a satisfaction index based on satisfaction with standard of living, housing, neighborhood, health, leisure, and 'life in general'. More than ten years later, a study run by Headey and Wooden used the first module of the Household, Income and Labour Dynamics in Australia (HILDA) with questions on wealth and documented the role of wealth for well-being in 2004. Household wealth in HILDA included housing, business assets, bank accounts, accumulated pension holdings, vehicles, and collectibles (e.g. art work). Headey and Wooden (2004) showed that wealth is at least as important to well-being and ill-being as income. In a related paper, Headey et al. (2004) explored this relation across five different countries (Australia, Britain, Germany, Hungary, and the Netherlands). The authors found that, in all five countries, wealth affected life satisfaction more than income. Wealth had the most influence in Australia and the least

in Hungary. Further results of the same study indicated that changes in wealth (as well as income and consumption) all produced statistically significant changes in satisfaction levels. In a review of recent literature, Senik (2014) presented the existing links between wealth and SWB, at a macro and at a micro level, as well as in developed and in developing countries. Overall, the positive association between household wealth and happiness seems indisputable.

Wealth is particularly relevant for the elderly as retirees do not have any labor income and their rents are negligible in comparison to their wealth. The elderly had opportunities to accumulate wealth during their lifetime. Consequently, they also represent the population for which most inequalities exist in terms of accumulation of wealth. According to Davies and Shorrocks (2000), considering the aging of industrialized societies, alongside with the growing importance of private savings in recent pension reforms in Europe (see e.g. Poterba et al. 2007), wealth is likely to play a crucial role for elderlies' well-being in the future. Currently, in some countries, consumption drops sharply after retirement, suggesting that many households have inadequately saved (Ishikawa & Yajima 2001). Survey research, however, finds that happiness after retirement does not decrease even though income and consumption decline significantly (Loewenstein, Prelec, and Weber 1999). For the elderly, this stability might be guaranteed by cumulated wealth in all its different forms.

Four forms of wealth

As noted by Wolff (2014), there might be more than one correct way of measuring household wealth. Wealth can be conceptualized in different ways and the reason for that is that wealth is a multidimensional concept. First, it can be characterized as being *mobile* or *immobile* depending on whether we consider financial assets or real assets. According to Vahabi (2016), the distinction between fixed and circulating capital is relevant in describing the transfer of value within market relationships. Landed property is a form of 'fixed' or immobile capital, even if it might no longer be considered a fixed asset in dynamic markets such as the British housing market (Lowe et al. 2011). However, all fixed capital is not immobile. A car is also part of the fixed capital, although it is a mobile asset (Vahabi 2016, p.243). Although not yet connected to subjective well-being, this classification between mobile and immobile wealth is regularly found in the literature (see e.g. Schmidt 2009, Gonzalez 2012, Bapuji & Mishra 2015). Second, although wealth is usually mentioned in a positive dimension in the form of assets, it can also endorse a negative dimension in the form of debts (see e.g. Domanski et al. 2016). Debts can include any type of negative wealth, such as mortgages on houses consumer debt and student loans. Mortgages are often seen as a particular type of loan (Benito, Thompson, Waldron, & Wood, 2006). We follow this classification and we consider mortgages and other liabilities as two distinct types of debt.

Therefore, using the two axes, immobile/mobile and positive/negative, we distinguish four forms of wealth: positive immobile, positive mobile, negative immobile and negative mobile. Each includes various components of wealth. Table 1 shows these different forms and components of wealth.

Table 1: the four forms of wealth

	Immobile	Mobile
Positive (assets)	Real assets	Financial assets

	• Housing (Main residence, Other real estate) • Car wealth and other material possessions • Business assets	• Stocks, Bonds, and Mutual funds • Savings
Negative (debts)	Mortgage	Financial liabilities

Although no study so far has analyzed the link between the different forms of wealth (immobile/mobile positive/negative wealth), a few studies have investigated the link between each separate wealth components and SWB. These links are presented below following the same sequence of Table 1. In the next section, we cover the links between wealth components and SWB at the individual level and the national level.

Components of wealth and SWB

Positive wealth is composed of real and financial assets.

Real assets

Real assets usually comprise the primary residence and other real estate, vehicles and other material possessions and businesses assets, (Keister 2000). Their relationship with SWB identified in the literature is reviewed below.

Housing: housing wealth is a rather solid and immobile form of wealth. It represents a major part of the total wealth of individuals. The "tenure wealth gap", i.e. the difference in wealth between owners and tenants, can be explained by institutional and housing market factors. Strong variations in "tenure wealth gap" across countries exist in Europe (Wind & Dewilde 2017). The gap is steered by more favorable taxations on homeownership and diminished by generous social security systems. There is a decent body of literature on the link between housing wealth and SWB, most of which questions whether owners are happier than tenants. There are indicators in the housing-studies literature that point broadly to the well-being of homeowners, usually by contrasting this with the poorer health and quality of life of renters (Rohe et al. 1997, Becchetti and Pisani 2014, Zumbro 2014).

The relationship is not only static, but also dynamic. It has also been shown that home ownership may provide a financial buffer against negative life events (see e.g. Benito 2007). Oswald et al. (2003), who introduce an ageing effect and demonstrate that home ownership could become a burden in later life, provide the only exception to these studies. Clark and Oswald (2002) showed that becoming a tenant can be linked to a significant drop in well-being. Several factors are provided to explain this difference: the quality and condition of the housing stock (see e.g. Macintyre and Ellaway 1998, Ineichen 1993), differences in living areas (Macintyre et al. 1998), differences in health (Smith and Easterlow 2005), security (e.g. Macintyre et al. 1998) or self-esteem (Hiscock et al. 2001).

Car wealth and other material possessions: cars are not only material goods, but also a form of wealth. The importance of car wealth is influenced by cultural factors, in particular the so-called "masculine" and

"feminine" values the former inviting more conspicuous consumption than the latter (Hofstede 1980). Although the links between car and well-being have mostly been investigated from the perspective of access to public transportation (e.g. Ballas and Tranmer, 2012; Bergstad et al. 2011; Morris and Guerra 2015), the link between car wealth and SWB has been under studied in the literature. Okulicz-Kozaryn et al. (2015) showed that luxury car ownership did not bring more happiness than frugal car ownership in the US. In Switzerland, Winkelmann (2012) found that the prevalence of Ferrari and Porsche has a negative impact on income satisfaction (but no impact on life satisfaction). These studies are however context specific because generally in Europe, car wealth is the most important component in terms of life satisfaction for senior car owners (Brulé, Ravazzini & Suter 2018). The relationship between SWB and expensive cars is moderated by the quality of infrastructures at the national level, and particularly by railroads infrastructures.

Other material possessions have been often studied in the relationship between material deprivation and SWB. Apart from having a car, usually having a phone, a TV set and a washing machine is associated with higher material well-being and therefore with more subjective well-being (Suter & Iglesias 2005, Gilbert 2009). These items are however considered more interesting to measure poverty than wealth. Items that are sometimes associated with wealth in surveys are arts, jewelry and other luxury goods. These items, including luxury cars, are often studied in the literature on conspicuous consumption (Hudders & Pandelaere 2012, Winkelman 2012).

Business assets: apart from a few exceptions (Boyd & Gumpert, 1983; Jamal, 1997), studies on wealth do not tackle the impact of business assets on well-being. When business assets and SWB are jointly considered, the studies tend to focus on the *activity* in a company (employed vs self-employed) rather than the *value* of the company and their impact on job satisfaction, positive emotions and stress. Self-employed usually report higher levels of life satisfaction than employed people in OECD countries (see e.g. Dolan et al. (2008)). Nikolova and Graham (2014) observe a similar pattern for seniors in late-life working. Henrekson & Sanandaji (2014) show that lower taxes, more venture capital investment, and lower regulatory burdens favor entrepreneurship but not self-employment. Cultural factors such as power distance also influence the relation to self-employment, because the main way to be independent is to become self-employed (Radziszewska 2014).

Financial assets

Financial assets usually include stocks, bonds, mutual funds and savings. The literature on financial assets and SWB is less diversified than the literature on real assets and SWB. To the best of our knowledge, no study has so far investigated the link between stocks, bonds and mutual accounts on wealth. There are however some studies on the importance of savings for SWB.

Savings: Higher savings make it easier for poor families to maintain consumption and increase SWB (Howell et al. 2006), also during financial shocks (Kast and Pomeranz 2014). In general, savings are considered to have a positive impact on SWB. Cumulated savings during the life-course are for instance studied analyzing wealth of the elderly. Haveman et al. (2006) measure savings adequacy, which they consider as "economic well-being", of newly retired workers. Life-course savings for this population group are found to have positive effects on their life satisfaction at the onset of illness or disability (Smith et al. 2005), although this might not be the case for the entire population (Kuhn & Brulé 2018).

Savings have been related both to cultural factors such as uncertainty avoidance, long-term orientation or collectivistic values (Shoham and Malul 2011, Kessler et al. 1993, Guin 2017) and to institutional factors, for example pension system and education system (Guin 2017).

Stocks, Bonds and mutual funds

To the best of our knowledge, there is not much about the link between this item and SWB. The only article we can quote is Guven (2009), who found a relation between risky assets such as stocks and bonds in Germany and less happiness.

Even if there is some evidence of the role of positive savings for the SWB of vulnerable groups, the literature is more extensive on the role of negative savings, namely debts.

Debts

In the literature, the presence of debt is associated with poor financial well-being: "Household liabilities or debts are also critically important of well-being; indeed, they were liabilities, particularly mortgage debt, that were at the heart of the financial crisis, and liabilities continue to distinguish top wealth holders from the rest of the population." (Keister & Lee 2014, p.18) At the household level, the DIR (Debt over Income Ratio) is a major factor in determining financial well-being (Vlaev & Elliott 2014). Debts are diversified and their role for subjective well-being might depend on the item with which they are associated. Some studies indeed show that the relation between debt and SWB is moderated by factors such as the levels of debt, overall financial resources and the source of debt (Searle et al. 2009; Tay 2016).

Mortgage: Concerns about mortgage financing have been significantly associated with a deterioration in psychological well-being (Nettleton and Burrows, 1998). On the same line, Cairney and Boyle (2004) found that outright owners have higher SWB than owners with a mortgage in Canada. Becchetti and Pisani (2014) observed a negative impact of household mortgages on life satisfaction of secondary school students. Although studies investigating the effects of mortgages on psychological well-being or distress exist (Bridges and Disney 2010; Selenko and Batinic 2011; Sweet et al. 2013), the studies looking at how it can influence SWB are scarcer. The contribution of Searle et al (2009) is important in this respect as it shows how mortgage can lead to different levels of well-being depending on the household financial situation. The authors distinguish between "housing investors", who are detached from the affective value of the house, but nervous about their investments, and the "general investors", whose assets are spread across a wider investment portfolio and who are therefore more financially protected and can be more physically and emotionally bound to their house. Depending on the share of general investors in a country, mortgages might therefore not be so detrimental for SWB. This is what was found in Poland after the sudden increase of the Swiss Franc over Zloty ratio in 2015. In this country, mortgages had no effect on SWB (Białowolska & Weziak-Białowolska 2016). In Europe, the difference between outright homeowners and mortgage holders among the elderly depends on the country; for some countries, there is no significant difference, whereas the difference is large for some other countries (Herbers & Mulder 2016). In addition, the relation between mortgage and financial distress across countries depends also on country-specific elements, such as social group comparisons and the social norm of homeownership (Christelis et al. 2010).

Other liabilities: The few publications addressing the implications of other forms of debt on well-being have mostly been addressed from a health perspective. Some studies have investigated the stress and adverse psychosocial effects that arrears of payments could generate on individuals (Brown et al. 2005, Bridges et al. 2006, Nettleton and Burrows 1998). There are clearly negative emotional costs of debt if debt is related to consumption activity (Brown et al., 2005, Bridges and Disney, 2003). In this respect, Tay (2016) showed there is an objective part of debt, i.e. the money owed, and a subjective part of debt, the feeling of indebtedness. In a Chinese study, the effect of debts on SWB was found to be positive (Knight and Gunatilaka 2014). In a Korean study, however, Han & Hong (2011) showed that debt is detrimental to the SWB of older people. A study comparing the relation to debt in Europe and in the US shows that the US institutional environment is favorable to contracting debts. This is primarily because a given level of collateral is associated with higher prevalence and larger amounts of collateralized debt in the United States (Christelis et al. 2017). The fact of being comfortable with debts seems to depend on the social context (Almenberg et al. 2016).

Overall, the existing literature shows diversified effects of different wealth components on SWB. In most of these studies, each wealth component is analyzed separately or altogether, for instance as net worth. Therefore, the relative effects of wealth forms are unknown. The present chapter aims at filling this gap. The contribution of the chapter is twofold. First, it presents a novel way of classifying the different forms of wealth. Second, it shows what form of wealth matters the most (mobile/immobile, positive/negative) in terms of SWB across 18 European countries. In this second part, we rely on cultural theories proposed by cultural psychologists (Tov & Diener 2007) to propose some explanations, which we present in the next section.

Theoretical background

There are several ways to differentiate quality of life studies. One of them is to distinguish *outside-in* perspectives, i.e. how much individual happiness is a matter of personal attitude from *inside-out* perspectives, i.e. how much it is influenced by external factors (Biswas-Diener et al. 2012). Although most of the current literature draws upon the former type of perspective (see e.g. Veenhoven and Hagerty 2006, Kahneman and Deaton 2010, Oishi et al. 2011), there also considerable work using inside-out perspectives (see e.g. Mathews and Izquierdo 2009, Mathews 2012). Studying culture is typically linked to this latter perspective (Biswas-Diener et al. 2012). Cultural theories suggest that the relationship between the determinants and SWB and SWB itself depends on the social and institutional context in which individuals live (Diener and Suh 2003). Although there are some universal tendencies that characterize people in all cultures, such as the need for respect and the resilience to happiness during difficult times, cultures differ in SWB to the extent that they provide people with different levels autonomy, meaning, and relationships (Tov & Diener 2007). There are several classifications that scholar use to characterize culture: identity(individualistic/collectivistic), time perspective, risk, authority (power distance), and competition(feminine/masculine) (Hofstede 1980, Hofstede and Hofstede 2001, Trompenaars and Hampden-Turner 2012, Lee et al. 2017). Cultural theories are supported by different findings in the field of SWB studies; for instance, some studies have shown that self-esteem correlates more strongly with life satisfaction in individualist than in collectivist cultures (Diener & Diener 1995).

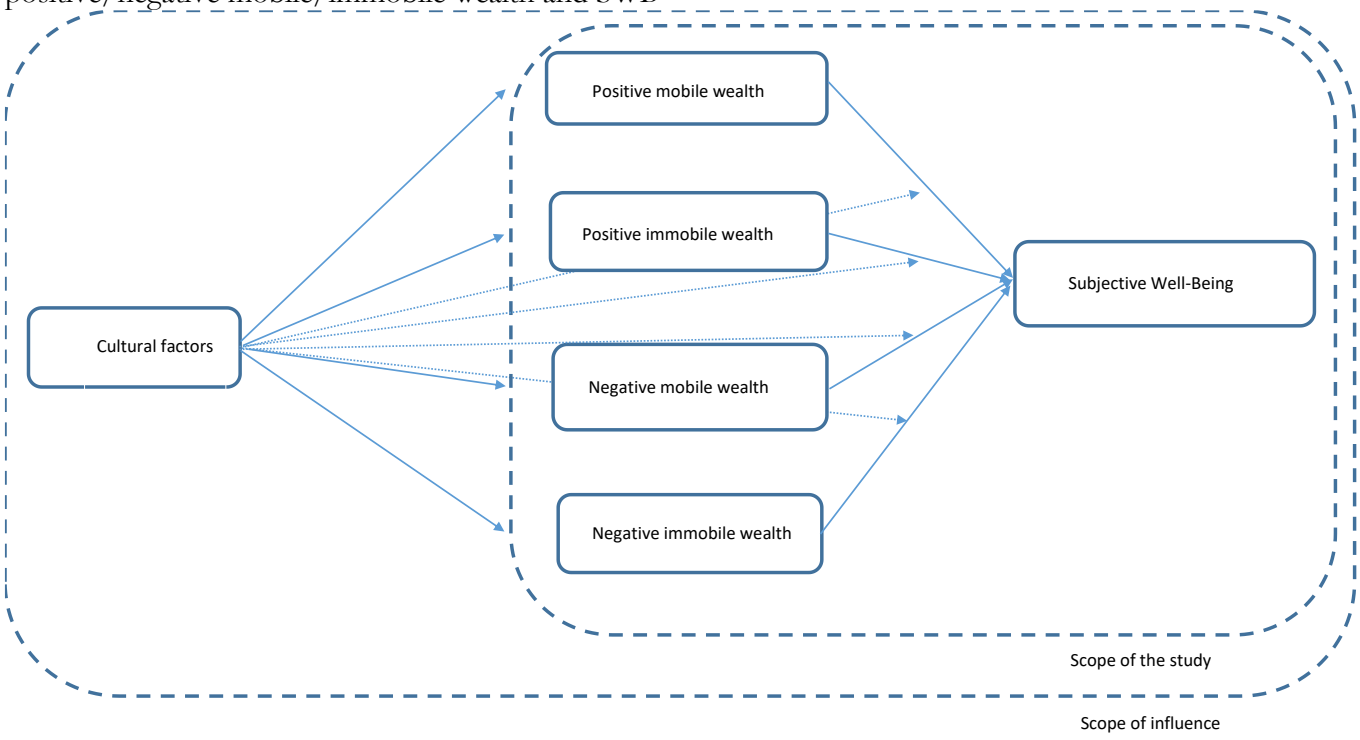
In the specific case of wealth, this means that the value placed on certain types of wealth could change depending on the cultural frame in which individuals live. Depending on the degree of individualism and masculinity, individuals might be more or less tempted to make themselves more visible to others

through conspicuous consumption. The relationship that people have with time in the different cultures might also change the satisfaction that people have with debt and consequently the preference of positive rather than negative wealth. In addition to this, individuals living in risk-adverse cultures could favor savings over risky investments and this could change the satisfaction derived from having a certain amount of mobile rather than immobile wealth.

Furthermore, cultural values define and influence the institutional composition of each country (Schwartz 1992). Thus, different forms of wealth are favored by institutional factors, e.g. home ownership, mortgage access, road infrastructure, interest rates, etc. These institutional differences might make one form of wealth more desirable than another. At the same time, institutional factors might be able to satisfy or frustrate people's desires affecting people's SWB.

In Figure 1, we distinguish the scope of this study from the entire scope of influence of cultural factors. Even though cultural and institutional factors could also influence the composition of the wealth portfolio, we are primarily interested in the links between the different forms of wealth and SWB. In this chapter, we study how different forms of wealth affect the SWB of people living in different countries.

Figure 1: The influence of cultural and institutional factors in the relationship between positive/negative mobile/immobile wealth and SWB



Hypotheses

According to the findings presented in the literature review and the theoretical background presented before, we formulate three hypotheses that will guide the analysis.

H1. The current literature indicates a positive role of both positive mobile wealth components and positive immobile wealth components on SWB. We assume that the total effect of positive wealth will

be an additive effect of all its components. Therefore, in line with previous literature, we expect to find a positive effect of both forms of wealth, with immobile wealth having a larger effect than mobile wealth.

H2. Although debts are always reported as negatively related with SWB, mortgages show a more contrasted picture. Mortgages, like other forms of debt, cause psychological distress, but in some contexts, they also assure a privileged way to access property, which is often valued by individuals. Therefore, we expect both forms of negatives wealth to negatively influence SWB. We also expect negative mobile wealth to have a more negative relationship with SWB than negative immobile wealth.

H3. Although not available for every form of wealth, the literature seems to highlight that the various wealth components play a different role for the SWB of individuals in different countries. According to cultural theories, the cultural contexts in which individuals live change the relationship between the different wealth forms and SWB. Without investigating the exact mechanisms, which is out of scope of this paper, we expect to find different relationships between the four forms of wealth and SWB according to the country.

Data & Methodology

We use the sixth wave (2014-2015) of the Survey of Health, Aging and Retirement in Europe (SHARE). SHARE is an international, representative panel study of the population aged 50+ in Europe. This survey is available in 18 countries for Wave 6 (see Appendix A). Our dependent variable is life satisfaction, which is measured on a 11-point scale through the following question: "How satisfied are you with your life as a whole?".

Wealth and wealth components

SHARE data provides detailed self-reported information on household wealth in the form of financial and real assets, as well as of various kinds of debt. The questions asked regarding wealth and wealth components are described below.

Wealth is measured at the household level in Euros. In SHARE, net worth is defined as follows: (1) gross real assets, that is, the ownership and current market value of the primary residence, other real estate, cars and the share owned of own businesses; plus (2) gross financial assets, that is, the ownership and value of bank accounts, government and corporate bonds, stocks, mutual funds, individual retirement accounts, contractual savings for housing and life insurance policies; minus (3) mortgages and financial liabilities (Christelis et al., 2005: 358). In this analysis, we consider all these wealth components. Respondents are asked to evaluate these different components. They can present a value, refuse to give a value or say that they don't know. In the latter case, they are presented with three values and can estimate if the value of the given component is below the first value, approximatively one of the first values, between two values or above the third one. These categories are used to compute imputed values. Longitudinal information is also used to perform imputations and the quality of this imputation technique is rather high. More information about quality of wealth data in SHARE can be found in Ravazzini et al. (2018). Being one of the main purposes of this survey, the quality of economic variables, including wealth, is highly precise in SHARE. However, Ravazzini et al. (2018) encountered a problem with respect to wealth components in SHARE concerning housing wealth: mortgages are likely to be underestimated in this survey due to a missing question about mortgages on

secondary residences and other real estate. The survey therefore underestimates the financial pressure on the "housing investors" defined by Searle et al (2009). Question items are summarized in the Appendix.

Methodology

We group the wealth components according to the definition of the forms of wealth (mobile/immobile positive/negative) proposed in Table 1. We then perform multilevel regressions where individuals are nested in households in each of the 18 countries surveyed by the sixth wave of SHARE. We apply robust standard errors. For the aim of this chapter, we present the results for the different countries. Future analyses could focus more on individual and institutional mediators and moderators of the relationship between the four wealth forms and SWB. We also analyze a static picture of wealth without investigating changes. Therefore, we can identify associations, but we cannot talk about a causal relationship of the different forms of wealth on SWB. As already the association between the different forms of wealth and SWB is new in the literature, we prefer to start from this country-static approach and leave the individual-dynamic perspective for future research.

The dependent variable used in the analysis is individual life satisfaction. The independent variables used in the same regression are positive mobile wealth, negative mobile wealth, positive immobile wealth and negative immobile wealth. Each of these forms of wealth is measured per-capita applying an inverse hyperbolic sine transformation (see Pence 2006). This transformation corrects for the highly skewed distribution of wealth without dropping the high number of people with no (or negative) wealth. In this analysis, we do not distinguish between wealth ownership and levels of wealth. The controls used in the regressions are age and education (in years), gender, household size, number of children, the logarithm of household income, the urbanization of the place of residence and self-reported health.

Analysis and results

Descriptive results

Table 2 below presents the average values of life satisfaction of the elderly and the different wealth components. Life satisfaction is lower in Estonia (6.72) and Greece (6.93) and higher in Denmark (8.57) and Switzerland (8.40). Positive mobile wealth is the highest in Switzerland and positive immobile wealth is the highest in Luxembourg. Negative mobile is the highest in Sweden and negative immobile is the highest in Luxembourg. Positive immobile wealth is always higher than positive mobile wealth and the ratio (positive immobile/positive mobile) varies from about 1 in Switzerland to more than 4 in Poland and Croatia. As for the negative wealth, the immobile component is also the main component, except in a few countries (Greece, Poland, and Sweden).

Table 2: Descriptive statistics of SWB and the forms of wealth by country

Country	N	SWB	Positive immobile	Positive mobile	Negative immobile	Negative mobile
Austria	3 348	8.24	100 310	42 483	3 587	2 156
Belgium	5 683	7.76	130 655	88 199	2 789	1 941
Croatia	2 423	7.09	41 785	9 951	662	381

Czech Republic	4 788	7.55	27 654	9 831	416	271
Denmark	3 648	8.57	138 803	105 038	35 359	3 625
Estonia	5 540	6.72	33 854	18 026	785	443
France	3 867	7.37	109 204	51 327	2 551	1 164
Germany	4 335	7.78	81 669	50 665	4 041	1 687
Greece	4 788	6.93	39 953	18 177	1 125	1 466
Israel	1 984	7.95	156 896	63 398	1 863	1 186
Italy	5 201	7.34	87 279	23 576	1 061	421
Luxembourg	1 542	7.96	304 801	144 149	7 111	4 568
Poland	1 798	7.12	16 307	3 864	187	305
Portugal	1 660	7.21	46 306	31 881	2 987	665
Slovenia	4 178	7.34	49 970	12 007	656	429
Spain	5 566	7.54	75 007	22 801	2 148	300
Sweden	3 876	8.35	128 176	98 421	3 392	5 166
Switzerland	2 771	8.40	262 971	242 307	75 354	2 722

Source: SHARE 6, weighted data. Per capita, untransformed wealth.

Results for all countries

The empirical results of the relationship between the four forms of wealth and life satisfaction are reported in Table 3. The results indicate that wealth in all its forms is significantly related with subjective well-being of the elderly in the 18 countries of this study. The relationship is positive for positive (mobile and immobile) wealth and negative for negative (mobile and immobile) wealth. On average, mobile wealth produces a stronger effect on subjective well-being than immobile wealth.

Table 3: Relationship between the four forms of wealth and life satisfaction

	Estimate	*Confidence Intervals*	
	SWB	*Lower bound*	*Upper bound*
Constant	*3.68****	3.1295	4.2268
Fixed parameters of interest			
Positive immobile	*0.03****	*0.0177*	*0.0328*
Positive mobile	*0.04****	*0.0335*	*0.0514*
Negative immobile	*-0.01****	*-0.0135*	*-0.0051*
Negative mobile	*-0.03****	*-0.0458*	*-0.0185*
Control variables			
Age	*0.01****	*0.0074*	*0.0151*
Gender	*0.01*	*-0.0370*	*0.0531*
Household size	*0.12****	*0.0919*	*0.1430*
Number of children	*0.04****	*0.0285*	*0.0556*
Income (log)	*0.11****	*0.0870*	*0.1343*
Place of residence (urban)	*-0.16****	*-0.1909*	*-0.1193*
Health	*0.47****	*0.4355*	*0.5111*
Years of education	*0.01*	*-0.0018*	*0.0123*
Random parameters			
Variance (countries)	*0.18*		

Variance (households)	*1.14*		
Residual variance	*1.72*		
Number of countries	18		
Number of households	45,573		
N of observations	66,811		

Source: SHARE 6, own computations.

These findings are in line with the literature on positive wealth components and support H1. However, on average, the effects on SWB are stronger and more often significant for the mobile part compared to the immobile part of wealth. This last evidence goes against what was expected in H1. The same holds for negative wealth, with the mobile form being significantly related to SWB than the immobile form. Results for negative immobile wealth are in line with the expectorations formulated in H2. This is probably because negative wealth is formed only by one component and the effect was easier to predict. In addition to this, most of the variability is between households, but, in line with H3, there is also some variability between countries.

Results per country

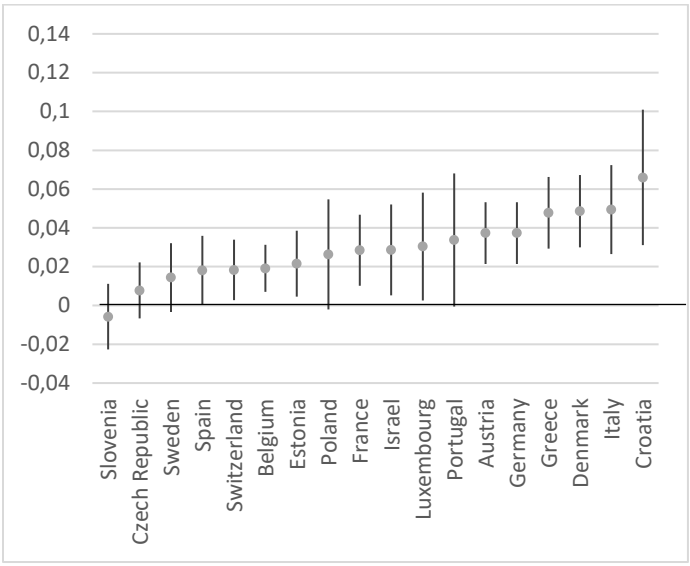
We now focus on the possible different effects that these forms of wealth have on the subjective well-being of the elderly in the different countries. Mobile positive wealth is positively related to life satisfaction in all countries. The relationship is significant everywhere expect from Sweden and Luxembourg. Mobile positive wealth is most important for the satisfaction of elderly in Portugal, France and Switzerland. Immobile positive wealth is positively related to life satisfaction in most countries, except for Slovenia (Figure 2). With 95% confidence intervals, the relationship is significant in 13 out of 18 countries (the relationship is no significant in Slovenia, Czech Republic, Sweden, Poland and Portugal). Immobile positive wealth is more important for SWB in Croatia, Italy, Denmark and Greece.

In most countries, negative immobile wealth is not significantly related to SWB. The relationship is negative and significant in Czech Republic, Luxembourg and Belgium and positive and significant in Croatia. This is in contrast to negative mobile wealth, which is significantly related in most countries, except Luxembourg, Portugal, Sweden and Israel.

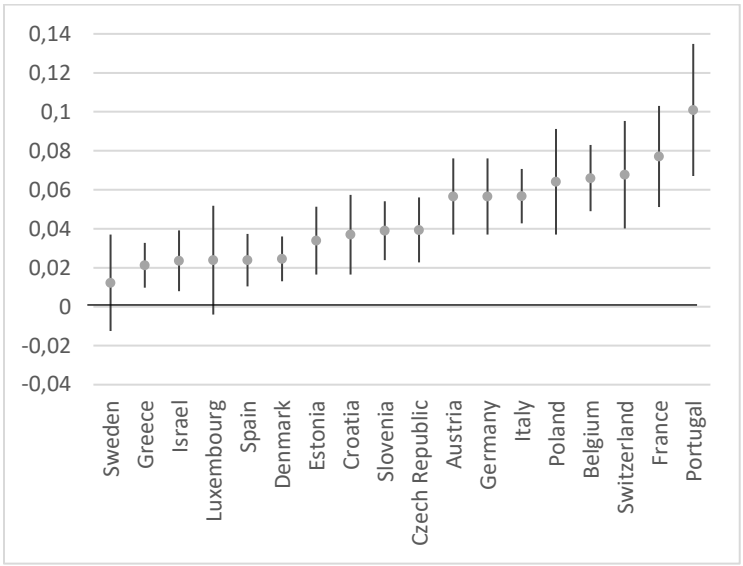
Overall, there are differences in the way individuals are affected by the various forms of wealth across countries, hence supporting H3. In Sweden, for instance, there is no significant relationship between any form of wealth and SWB. In Luxembourg, individuals are also not affected by mobile wealth, but they are affected by immobile wealth. Contrarily to Sweden, Belgium is one of the countries where individuals' SWB is linked both with mobile and immobile wealth. In most Western countries, individuals are affected positively by positive mobile and positive immobile wealth. In general, mobile wealth has a stronger effect on individuals than immobile wealth. This is true both for its positive part and for its negative part.

Figure 1: The relationship between the four forms of wealth and life satisfaction in 18 European countries

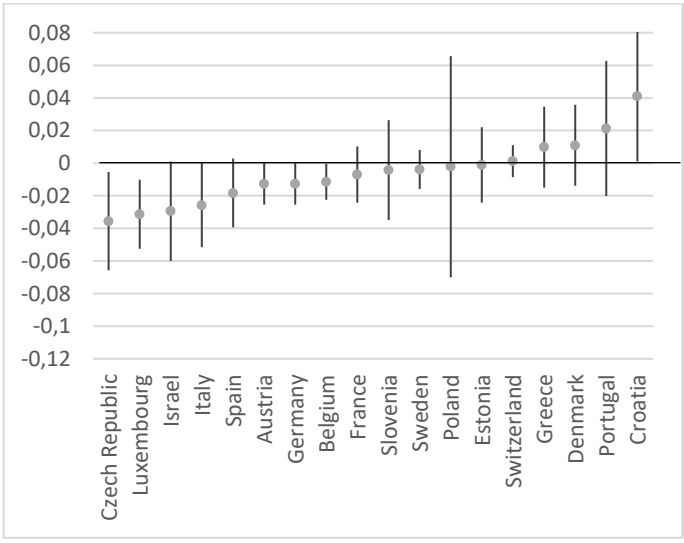
Positive immobile



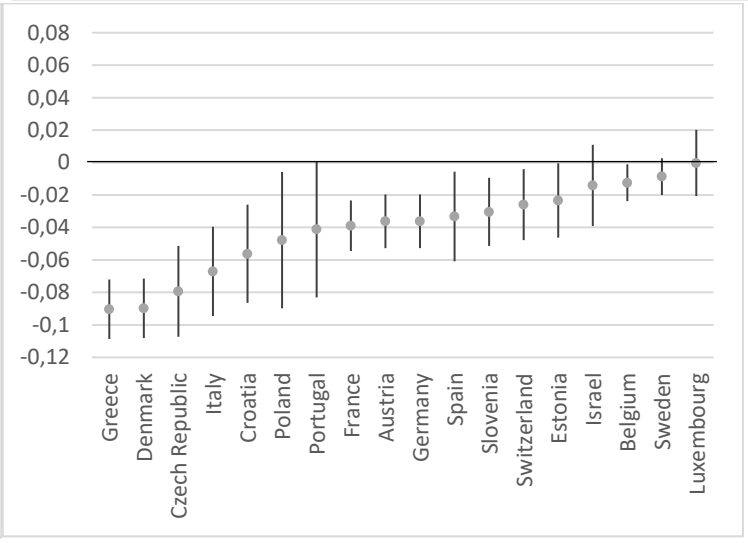
Positive mobile



Negative immobile



Negative mobile



Source: SHARE 6, own computations, 95% confidence intervals.

Discussion

As mentioned by Wolff (2014), wealth is a multidimensional concept. The various components of wealth affect differently the life satisfaction of individuals. In this chapter, we observed to what extent the four dimensions of wealth influence the SWB of seniors. In line with previous literature, we found positive wealth to be linked to individuals' life satisfaction and negative wealth to life dissatisfaction. We also found that the mobile part and the immobile part of both positive wealth and negative wealth influence SWB of seniors to different degrees.

Positive wealth: mobile vs immobile wealth

When looking at the two components of positive wealth, we saw that the influence of the mobile component on SWB is higher than the influence of the immobile component. This is true in terms of significance, i.e. the effect of mobile wealth on life satisfaction is significant in more countries than the effect of immobile wealth, and in terms of effect size, the effect is on average stronger. These results are rather surprising considering that the literature gives a high importance to housing wealth, and therefore to immobile wealth, for SWB.

There are some possible explanations for these results. Mobile and immobile wealth have different functions (see Orr 2003 for the general functions of wealth). In general, immobile wealth (e.g. houses, cars) has a more direct utility than mobile wealth. Immobile wealth can also be used to show people's social status or to socialize by, for instance, welcoming friends and community members at home or going at their place by car. Mobile wealth has a different function and it is usually associated to higher security because, when savings are considered, money is immediately available in case of needs. For the elderly, this security function might be particularly important considering a possible onset of illness or disability (Smith et al. 2005) and it might be also offer more means to change individuals' lifestyle after retirement. Despite the more varied functions of immobile wealth, in our study, money available for consumption appears on average more important than actual consumption for the SWB of the elderly in Europe. Otherwise stated, the *possibilities of consumptions* seem more important than *consumption* itself. The "security function" could also be called a "dreaming function", as wealth offers *possibilities*. In this sense, money available is the promise of future possibilities for seniors, whereas the dreaming function of past consumption is no longer existent. This is in line with the results presented by Kahneman (2003) who shows how individuals can be poor predictors in estimating how purchasing goods will make them happy.

Negative wealth: mobile vs immobile wealth

There are also differences in terms of negative mobile and immobile wealth, both in terms of significance and effect size. The negative contribution of negative mobile wealth is much sharper than the contribution of negative immobile wealth. This is not surprising and relates well to the existing literature. Debts bring psychological distress and decrease life satisfaction. The effect of negative immobile wealth is more uncertain: it is most of the time not significant, sometimes even positive. There could be several reasons for this. In case of immobile wealth, the positive side of ownership might counterbalance the negative effects of mortgage repayment. Mortgages can also be used for renovations and not only for buying a house. Therefore, negative immobile wealth might increase the standard of living of individuals. There could also be a selection effect that makes mortgages desirable as a symbol of belonging to a certain social class. Access to mortgages might not be given to everyone,

as shown by Orr (2003), who explains racial differences in wealth in the USA partly via a better access to mortgages for white people.

Cross-country differences

SWB is shaped at the same time by institutions and culture (Diener and Suh 2003). Although the mechanisms are out of the scope of this chapter, we see that the strength of the links between wealth forms and SWB vary from one country to another. There are multiple ways to consider these differences. Regarding culture, the prominent values and cultural settings of a country can steer individuals to spend their money on materialistic items or on the contrary, to save more for the future. Individuals will in turn derive more or less satisfaction depending on their cultural references.

We also notice that the effects of mobile and immobile wealth on people's SWB do not necessarily depend on the average level of wealth of the country. In the two wealthiest countries of our sample, namely Switzerland and Luxembourg, the relative importance of mobile on immobile wealth diverges. In Luxembourg, mobile wealth has no impact on SWB, whereas there is a rather important effect of this form of wealth in Switzerland. Moreover, having a mortgage in Luxembourg is associated with negative life satisfaction, whereas mortgages have no impact on people's SWB in Switzerland. This suggests that there are different psychological mechanisms and different institutional settings that lead to country-specific effects of the form of wealth on the SWB of the elderly. This is something that could be investigated further in future research.

Looking at the top-left pane of Figure 1, we could think that positive immobile wealth is preferred in countries where individualism, masculinity, authority and competition prevail. This could indeed be the case of countries such as Croatia, Italy and Greece, where individuals get the highest satisfaction from this type of wealth. The fact that satisfaction from positive immobile wealth is also high in Denmark, a country where feminine and collectivist values prevail, casts some doubts on this interpretation. Institutional differences and access to home ownership might also be relevant in this case.

The access to mortgage and property and the relationship with debt inform us not only on institutional differences, but also on the differences in considering indebtedness. In Croatia, for instance, mortgages are positively related with SWB. This might be because not everyone has access to mortgages, as in the case observed by Orr (2003) among Afro-Americans. In addition to this, in some countries, like Switzerland, having a mortgage might be also a strategic move to lower fiscal impositions through tax deductions (Basten & Koch, 2015). Moreover, home ownership is socially valued in many societies because real estate properties represent a good way to ensure inheritance for future generations (for Italy, see Jappelli & Pistaferri 2000). This could explain why in some countries both negative immobile and positive immobile wealth are positively related to SWB.

It is somewhat harder to find patterns for negative mobile wealth. The countries where it is the least negatively related to happiness are Sweden and Luxembourg, two relatively wealthy countries where long-term perspective prevail. In these countries, individuals might be more able to overcome the immediate indebtedness and enjoy the long-terms benefits of the loan.

Conclusion

The way elderly spend or place their money is related to their SWB. Positive mobile wealth influences SWB more than positive immobile wealth. The same holds for negative wealth, its mobile part (negatively) influencing more than its immobile form. This could be linked to the security function of positive mobile wealth (e.g. savings) and to the psychological distress of negative mobile wealth (e.g. consumer debt). Contrarily to negative mobile wealth, we find that negative immobile wealth (e.g. mortgages) does not necessarily translate into lower SWB.

We recall that our results are specific to the population of 50+ in Europe. The importance of mobile and immobile wealth for the SWB of the elderly might be different from the rest of the population and results for Europe might differ from the rest of the world. Future research could highlight which form of wealth is more important for people's SWB over the entire life cycle in different continents.

This chapter contributes to the current literature on wealth and SWB by giving a static picture of the importance of four forms of wealth for the elderly in Europe. In terms of similarities among European countries, the higher importance of mobile versus immobile wealth calls for an in-depth analysis on the psychological mechanisms that regulate this relationship. In terms of differences across European countries, the positive impact of mortgages in some countries and the significant impact of mobile wealth in some wealthy countries open new puzzles to could be solved in the future through the comparison of different institutional contexts in Europe. The effects of institutional and cultural factors could be further characterized in future research to understand how these factors influence the relation between the forms of wealth and life satisfaction for seniors.

References

Almenberg, J. Lusardi, A., Säve-Söderbergh, J., & Vestman, R. (2016) Attitudes Toward Debt and Debt Behavior. *European Investment Bank Institute*.

Ballas, D. & Tranmer, M. (2012). Happy People or Happy Places? A Multilevel Modeling Approach to the Analysis of Happiness and Well-Being. *International Regional Science Review*, 35(1), 70 – 102.

Bapuji, H. & Mishra, S. (2015). Inequality and organizations. In Willmott, H., & Greenwood, M. (Eds.), Companion to Philosophy in Organization Studies. London: Routledge.

Basten, C., & Koch, C. (2015). The causal effect of house prices on mortgage demand and mortgage supply: Evidence from Switzerland. *Journal of Housing Economics*, *30*, 1-22.

Beccheti, L., & Pisani, F. (2014). Family Economic Well-Being, and (Class) Relative Wealth: An Empirical Analysis of Life Satisfaction of Secondary School Students in Three Italian Cities. *Journal of Happiness Studies,* 15(3), 503–525.

Benito, A., Thompson, J., Waldron, M., & Wood, R. (2006). House Prices and Consumer Spending. *Bank of England Quarterly Bulletin*, Summer. Available at SSRN: https://ssrn.com/abstract=910468

Benito, A. (2007) Housing equity as a buffer: evidence from UK households. *Bank of England Working Paper* No. 324

Bergstad, C., A. Gamble, T. Gärling, O. Hagman, M. Polk, D. Ettema, M. Friman, and L. Olsson. (2011). Subjective well-being related to satisfaction with daily travel. *Transportation,* 38(1): 1–15.

Białowolska, P. & Weziak-Białowolska, D. (2016) What does a Swiss Franc mortgage cost? The tale of polish trust for foreign currency denominated mortgages: implications for well-being and health. *Social Indicators Research,* 133 (1), 285-301.

Biswas-Diener, R., Tay, L., & Diener, E. (2012) Happiness in India. In Selin & Davey (Eds) Happiness across cultures. Dordrecht: Springer.

Boyd, D., & Gumpert, D. (1983). Coping with Entrepreneurial Stress. *Harvard Business Review, 4*, 44-46.

Bridges, S. & Disney, R. (2010). Debt and depression. *Journal of Health Economics 29*, 388–403.

Brown, S., Taylor, K. & Wheatley Price, S. (2005). Debt and Distress: Evaluating the Psychological Cost of Credit. *Journal of Economic Psychology, 26*, 642-663.

Brulé, G., Ravazzini, L., & Suter, C. (2018). The four wheels of happiness: The relationship between car wealth and life satisfaction among the elderly across European countries. *Working paper*.

Cairney, J. & Boyle, M. (2004) Home ownership, mortgages and psychological distress. *Housing Studies 19*(2):161-174.

Christelis, D., Jappelli, T. & Padula, M. (2006). Cognitive Abilities and Portfolio Choice. *CSEF Working Paper No. 157*

Christelis, D., Lojschova, A., Ward-Warmednger, M. (2010) Mortgage indebtedness and household financial distress. *ECB Working Paper, No. 1156*.

Christelis, D., Ehrmann, M. & Georgarakos, D. (2017). Exploring Differences in Household Debt Across the United States and Euro Area Countries. *CSEF Working Papers 465*, Centre for Studies in Economics and Finance (CSEF), University of Naples, Italy.

Clark, A. E. & A. J. Oswald (2002). Well-being in panels. *Mimeo, DELTA*, Paris.

Davies, J. B., & A. F. Shorrocks (2000) The Distribution of Wealth, in Atkinson, A. B., and F. Bourguignon (eds), *Handbook of Income Distribution*, Vol. 1, Elsevier, Amsterdam, 605–76.

Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653-663.

Diener, E. & Suh, E. (2003) Culture and Subjective Well-being. Boston: MIT Press.

Dolan, P., Peasgood, T., & White, M. (2008) Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being**.** *J Econ Psychol*, 29(1):94–122.

Domanski, D, Scatigna, M., & Zabai, A. (2016). Wealth inequality and monetary policy. *BIS Quarterly Review, March 2016*.

Easterlin, R. (1974). Does Economic Growth Improve the Human Lot? In Paul A. David et Melvin W. Reder (Eds) *Nations and Households in Economic Growth : Essays in Honor of Moses Abramovitz*, New York, Academic Press.

Ferris, A.L. (2006). A Theory of Social Structure and the Quality of Life. *Applied Research in Quality of Life*, 1(1), 117-123.

Frick, M., & Grabka, M. (2009). Zur Entwicklung Der Vermögensungleichheit in Deutschland. *Berliner Journal Für Soziologie, 19*(4), 577–600.

Georgarakos, D., Haliassos, M. & Pasini, G. (2014). Household debt and social interactions. *The Review of Financial Studies, 27* (5), 1404-1433.

Gilbert, N. (2009). European measures of poverty and" social exclusion": Material deprivation, consumption, and life satisfaction. *Journal of Policy Analysis and Management*, *28*(4), 738-744.

Gonzalez, F. (2012). Creative Destruction? Economic Crises and Democracy in Latin America.

Guin, B. (2017). Culture and household saving, *European Central Bank Working paper No. 2069* http://dx.doi.org/10.2866/074530

Guven, C. (2009). Weather and Financial Risk-Taking: Is Happiness the Channel? SOEP Paper No. 218, 2009, Berlin, Germany.

Han, C. K., & Hong, S. I. (2011). Assets and life satisfaction patterns among Korean older adults: Latent class analysis. *Social Indicators Research, 100*(2), 225–240.

Haveman, R., Holden, K. & Wolfe, B. & Sherlund, S. (2006), Do Newly Retired Workers in the United States Have Sufficient Resources to Maintain Well-Being?. *Economic Inquiry*, 44 (2), 249-264.

Headey, B., Muffels, R., & Wooden, M. (2004). '*Money Doesn't Buy Happiness*...Or *Does* It? A *Reconsideration Based* on the *Combined Effects* of *Wealth*, *Income* and *Consumption*', IZA DP 1218.

Headey, B. & Wooden, M. (2004). The Effects of Wealth and Income on Subjective Well-Being and Ill-Being, IZA DP 1032.

Henrekson M, & Sanandaji T.(2014) Small business activity does not measure entrepreneurship. *Proceedings of the National Academy of Sciences of the United States of America*. 111(5):1760-1765. doi:10.1073/pnas.1307204111.

Herbers, D., & Mulder, C. (2016). Housing and subjective well-being of older adults in Europe. *Journal of Housing and the Built Environment*, 1-26. doi:10.1007/s10901-016-9526

Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills,CA: Sage

Hofstede, G. H., & Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Thousand Oaks, CA: Sage.

Howell, C. J., Howell, R. T., & Schwabe, K. A. (2006). Does wealth enhance life satisfaction for people who are materially deprived? Exploring the association among the Orang Asli of peninsular Malaysia. *Social Indicators Research, 76*(3), 499-524.

Hudders, L., & Pandelaere, M. (2012). The silver lining of materialism: The impact of luxury consumption on subjective well-being. *Journal of Happiness Studies*, *13*(3), 411-437.

Ineichen, B. (1993). *Homes and health: How housing and health interact*. London: Routledge.

Ishikawa, T., & Yajima, Y. (2001) Consumption and Real Assets of the Elderly in Japan and the U.S. How the Existing-Home Market Can Boost Consumption. *NLI Research Institute*. No.149

Jamal, M. (1997). Job Stress, Satisfaction, and Mental Health: An empirical Examination of Self-Employed and Non-Self-Employed Canadians. *Journal of Small Business Management. 35*(4): 48-57.

Jappelli, T., & Pistaferri, L. (2000). The dynamics of household wealth accumulation in Italy. *Fiscal Studies*, 21(2), 269-295.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences of the United States of America*, 107(38), 16489–16493. http://doi.org/10.1073/pnas.1011492107

Kast, F., & Pomeranz, D. (2014). Saving More to Borrow Less: Experimental Evidence from Access to Formal Savings Accounts in Chile. *Working Paper No. w20239*. National Bureau of Economic Research.

Keister, L.A. (2000) *Wealth in America: Trends in Wealth Inequality*. Cambridge: Cambridge University Press.

Keister, L.A. & Lee, H.Y. (2014). The one percent: Top incomes and wealth in sociological research. *Social currents*, 1 (1), 13-24.

Kessler, D., Perelman, S., & Pestieau, P. (1993). Savings behaviour in 17 OECD countries. *Review of income and wealth*, 39(1), 37-49.

Knight, J.B., & Gunatilaka, R. (2014) Memory and Anticipation: New Empirical Support for an Old Theory of the Utility Function. *Oxford Department of Economics Discussion Paper Series*, 2014, Nr. 721.

Kuhn, U., & Brulé, G. (2018) Buffering Effects for Negative Life Events: The Role of Material, Social, Religious and Personal Resources. *Journal of happiness studies.* Online, available at : https://link.springer.com/article/10.1007/s10902-018-9995-x.

Lee, D.J., Yu, G., & Sirgy, J. (2018) Culture and Well Being: A Research Agenda Designed to Improve Cross-Cultural Research Involving the Life Satisfaction Construct. In Brulé, G. and Maggino, F. (Eds) *Metrics of Subjective Well-Being : limits and improvements*. Dordrecht : Springer.

Loewenstein, G., Prelec, D., & Weber, R. (1999). "A psychological perspective on economic aspects of retirement." In Henry J. Aaron, ed., *Behavioral Dimensions of Retirement Economics*. Washington, D.C. Brookings Institution Press.

Lowe, S., Searle, B., & Smith, S. (2012). From Housing Wealth to Mortgage Debt: The Emergence of Britain's Asset-Shaped Welfare State. *Social Policy and Society, 11*(1), 105-116.

Macintyre, S., & Ellaway, A. (1998) Social and local variations in the use of urban neighbourhoods: a case study in Glasgow. *Health and Place, 4*, 91–94.

Mathews, G., & Izquierdo, C.(2009) *Pursuits of Happiness: Well-being in Anthropological Perspective*. New York: Berghahn Books.

Mathews, G. (2012). Happiness, culture, and context. *International Journal of Wellbeing*, *2*(4), 299-312.

Morris, E. A., & Guerra, E. (2015). Are we there yet? Trip duration and mood during travel. *Transportation Research Part F*, 33(1), 38-47.

Mullis, J. (1992). Measures of economic well-being as predictors of psychological well-being. *Social Indicators Research*, 26(2), 119-135.

Nettleton, S. & Watson, J. (eds) (1998). *The Body in Everyday Life*. London: Routledge

Nikolova, M. & Graham, C. (2014). *IZA Journal of Labor Studies 3*(5).

Noorderhaven, N., Thurik, R., Wennekers, S. and van Stel, A.J. (2003) Self-Employment Across 15 European Countries. *ERIM Report Series Reference* No. ERS-2003-081-ORG. Available at SSRN: https://ssrn.com/abstract=1265427

Okulicz-Kozaryn, A., Nash, T., & Tursi, N. (2015) Luxury car owners are not happier than frugal car owners. *International Review of Economic*, 62, 121–141.

Oishi, S., Kesebir, S., and Diener, E. (2011). Income inequality and happiness. *Psychological Science*, 22, 1095–1100.

Orr, A.J. (2003). Black-white differences in achievement: The importance of wealth. *Sociology of education*, *76*(4), 281-304.

Oswald, F., Wahl, H., Mollenkopf, H., & Schilling, O. (2003). Housing and life satisfaction of older adults in two rural regions in Germany. *Research on Aging, 25* (2), 122–143

Pence, K.M. (2006). The Role of Wealth Transformations: An Application to Estimating the Effect of Tax Incentives on Saving. *Contributions to Economic Analysis & Policy*, 5(1), 1-24.

Poterba, J. (2014). Retirement Security in an Aging Population. *NBER Working Paper* No. 19930.

Radziszewska, A. (2014) Intercultural dimensions of entrepreneurship. *Journal of Intercultural Management*, 6(2), 35–47.

Ravazzini, L., Kuhn, U., Brulé, G., & Suter, C. (2018) *Housing wealth in survey data*. Presentation, 9th International Conference of Panel Data Users in Switzerland, 7 June 2017, Lausanne.

Rohe, W. M., & Basolo, V. (1997). Long-term effects of homeownership on the self-perceptions and social interaction of low-income persons. *Environment and Behavior, 29* (6), 793–819.

Schmidt, K. (2009). Justi's concept of taxation. In Backhaus (eds) *The Beginnings of Political Economy*. Dordrecht: Springer.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in experimental social psychology*, 25, 1-65.

Searle, B., Smith, S., & Cook, N. (2009) From housing wealth to well-being? *Sociology of health and illness, 31* (1), 112-127.

Selenko, E., & Batinic, B. (2011) Beyond debt. A moderator analysis of the relationship between perceived financial strain and mental health. *Social Sciences Medicine* 73, 1725–1732.

Senik, C. (2014). Wealth and Happiness *Oxford Review of Economic Policy*, 2014, 30(2), 92-108.

Shoham, A. & Malul, M. (2012). The role of cultural attributes in savings rates. *Cross Cultural Management: An International Journal*, 19, 304-314.

Smith, D., Langa, K., Kabeto, M., & Ubel, P. (2005). Health, wealth, and happiness: Financial resources buffer subjective well-being after the onset of a disability. *Psychological Science, 16*(9), 663-666.

Smith, S. J., & Easterlow, D. (2005). The strange geography of health inequalities. *Transactions of the Institute of British Geographers, 30*, 173–190.

Suter, C., & Iglesias, K. (2005). Relative deprivation and well-being: Switzerland in a comparative perspective. In *Contemporary Switzerland* (pp. 9-37). Palgrave Macmillan, London.

Sweet, E., Nandi, A., Adam, E.K., & McDade, T.W. (2013) The high price of debt: household financial debt and its impact on mental and physical health. *Social Sciences Medicines*, 91, 94-100.

Tay, L., Batz, C., Parragon, C. & Kuykendall, L. (2016) Debt and Subjective Well-being: The Other Side of the Income-Happiness Coin. *Journal of Happiness Studies,* 18(3), 903-937.

Tov, W., & Diener, E. (2007). Culture and subjective well-being. In S. Kitayama & D.Cohen (Eds.), *Handbook of cultural psychology* (pp. 691-713). New York: Guilford.

Trompenaars, F., & Hampden-Turner, C. (2012) *Riding the Waves of Culture: Understanding Cultural Diversity in Business*. New-York: McGraw-Hill Education.

Vahabi, M. (2016) *The Political Economy of Predation. Manhunting and the Economics of Escape*, Cambridge: Cambridge University Press.

Veenhoven, R., & Hagerty,M. (2006) Rising happiness in nations. 1946-2004. *Social Indicators Research*, 79, 421-436

Veenhoven, R. (2009) How Do We Assess How Happy We Are? Tenets, Implications and Tenability of Three Theories. In Dutt and Radcliff (Eds) *Happiness, Economics and Politics*, London: Edward Elgar Publishing.

Vlaev, I., & Elliott, A. (2014) Financial Well-Being Components, *Social Indicators Research*, 118, 1103-1123.

Wind, B. & Dewilde, C. (2017) Net worth and financial wealth among tenants and Homeowners in 14 Eurozone countries with different institutional arrangements. *HOWCOME Working Paper Series* No. 18.

Winkelmann, R. (2012). Conspicuous consumption and satisfaction. *Journal of Economic Psychology*, *33*(1), 183-191.

Wolff, E. (2014) Household wealth trends in the United States, 1983–2010, *Oxford Review of Economic Policy*, 30(1), 21–43.

Zumbro, T. (2014). The relationship between homeownership and life satisfaction in Germany. *Housing Studies*, 29 (3), 319–338.

Appendix: questions and variables related to household net worth in SHARE

		Question
Positive mobile	Bank accounts	About how much do you [and your husband/wife/partner] currently have in bank accounts, transaction accounts, saving accounts or postal accounts?
	Retirement accounts	How much do you [and your husband/wife/partner] currently have in individual retirement accounts?
	Contractual savings	How much do you [and your husband/wife/ partner] currently have in contractual saving for housing?
	Bonds	About how much do you currently [and your husband/wife/ partner] have in government or corporate bonds?
	Stocks	About how much do you [and your husband/wife/partner] currently have in stock s or shares (listed or unlisted on stock mark et)?
	Mutual funds	About how much do you [and your husband/ wife/partner] currently have in mutual funds or managed investment accounts?
Positive immobile	Main residence	"In your opinion, how much would you receive if you sold your property today?"
	Secondary residence(s)	"In your opinion, how much would this or these properties be worth now if you sold it?"
	Cars	If you sold [this/these] [car/cars] about how much would you get?
	Business ownership	If you sold this firm, company or business and then paid off any debts on it, about how much money would be left?
Negative mobile	Liabilities	Not including mortgages or money owed on land, property or firms, how much do you [and your husband/wife /partner] owe in total?
Negative immobile	Mortgage	How much do you [or your husband/wife/ partner] still have to pay on your mortgages or loans, excluding interest?

Positive mobile wealth= bank accounts + bonds + stocks+ mutual funds +retirement accounts+ contractual savings

Positive immobile wealth= main residence*percentage of the house owned/100 + secondary residence + car+ business ownership*share of the business/100

Negative mobile wealth= liabilities

Negative immobile wealth= mortgage