Cultures of Finance in Flux

Financialization and Private Household Wealth

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1. Introduction – The Rise of Finance and Contemporary Society

Since the 1980s at least, the world witnessed the 'rise of finance'. At the core of our contemporary "world risk society" (Beck 1999) is a system of finance, a network of institutions and actors organizing gigantic flows of credit and money, of information and risk. Finance is "the infrastructure of the infrastructure, the most integrated 'playing field' in the world order" (Cerny 1993: 10). The creation of multiple forms of money and access to credit are the mechanisms by which the international financial world structures the global economy (Carruthers and Kim 2011; Strange 1988; Castells 1996). Contemporary global financial markets have to be viewed as both a catalyst and a result of globalization. Financial markets and related economic ideas and interests which structure and reproduce them connect national economies to each other and create mutual dependencies at a global level (Lash and Urry 1994; Beck 1999). The proliferation of 'virtual money', driven by informational, tele-communicational and digital progress, has produced a global field, increasingly unregulated by national or international regimes but structured by market actors themselves.

Of course 'finance' – the management of money and credit by various economic actors – and financial activities as such are not just phenomena of our times. Finance has both a long history and a long past. Financial investment and transactions, saving and the accumulation of wealth have been present throughout human history (Weber [1927]1961; Braudel [1979]1983; Finley 1973). The roots of modern finance in its capitalistic form can be traced back to 16th century Netherlands (Neal 1990; Tracy 1985) or 18th century England (Dickson 1967; Carruthers 1996; Michie 1999, 2006) and are closely linked to the raising of funds by the modern nation state. However, most of the practices and institutions of modern finance were invented much earlier in the 14th century city-states of Northern Italy – Genoa, Venice and Florence in particular (Arrighi [1994]2009; Braudel [1979]1983; see also Munro 2003). For a long time in history, financial activities were restricted to a 'power elite' – landed nobility and clergy in ancient times, aris-

tocracy, the church and merchant elites in the Middle Ages. However, in specific times of economic prosperity even the middle and lower classes engaged in financial investment activities. For instance, this holds true for financial instruments such as the Genoese *loca* (Byrne 1930) or municipal annuities in 16th century Antwerp (Van der Wee 1977).[1]

'Ordinary' people became involved within finance on a larger scale for the first time in the 18th century (Neal 1990; Laurence et al. 2009; Glaisyer 2006; Preda 2009). In the course of the 19th century and in the beginnings of the 20th century, financial investment became a widespread and popular practice in the United States and Western Europe (Ott 2011; O'Sullivan 2007; Preda 2001). Nowadays however, the seemingly unprecedented expansion of finance appears to outrun its historical origins. In academic accounts, these developments are interpreted as both outcome and condition of an elementary change in economic culture and social organization. Since the 1990s, the term 'financialization' has been used by various authors to describe the shift from industrial capitalism to 'finance capitalism'. Nowadays, it seems "difficult to escape the impression that we live in a world of finance" (Krippner 2005: 173).Today, we live in financialized times which are marked by the increasing control over wealth, power and size of the financial industry and the diffusion of financial activities and logics throughout society as a whole.

As we will see throughout this book, the genuinely sociological issues of social order and social change can be studied along the dynamics of private wealth in such an era of financialization. Although processes of financialization represent a 'commonality' of contemporary capitalist societies, we find national-specific varieties of household finance. Despite the last decades witnessed a trend towards mass-participatory finance, we find remarkable differences in investment practices and asset ownership between groups in the social strata.

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[1] Credit and debt, however, were also available to the poor (Graeber 2011; Gelpi and Julien-Labruyere 2000). From the 15th century, institutions sprang up imbued with the Franciscan desire to counter usury through granting of loans backed by pledged goods: the *monti di pietà*.

Although the sociology of finance has flourished over the last decade, research has mainly focused on the professional world of finance or private and public debt. We bring private wealth back in. Backed by the 'sociology of wealth' and recent research which documents that 'wealth matters', we argue that the rise of finance and private wealth are closely interrelated. One the one hand, the rise of finance and basic processes of marketization and privatization cause pressures on people and give rise to 'new' insecurities, one the other hand, the rise of finance involves new opportunities and options for many people. We can observe what is called a "duality of structure" (Giddens 1984) with finance shaping and being shaped by practices of investment and the accumulation of wealth.

Against the backdrop of the rise of finance and interrelated social dynamics, we discuss the development of private wealth over the last four decades. We choose to start our analysis in the 1970s for two reasons. First, for a larger number of countries, detailed and comparable data on private wealth are only available since the 1960s and 1970s. Second, most of the literature on financialization identifies the origins of the rise of finance in the 1970s (Krippner 2011; Dobbin and Jung 2010; Fligstein 1990; Crouch 2011). We take a look at the historical trajectories of level, composition and distribution of private wealth in a cross-national perspective and explore to what extent there are variations across social structure. The following five intertwined questions are guiding our research:

- How have levels of private wealth developed over the last decades?
- How has the composition of private wealth developed over the last decades?
- How has the distribution of private wealth developed in the long run?
- What drives dynamics of private wealth and what makes them vary across countries?
- How does the social structure of private wealth and investment look like? Which social groups rely on which forms of assets?

To that, we analyze a range of different types of data. We draw on official aggregate data as well as on existing up-to-date household-level survey data.

Outline of the study

Since this book deals with the development of private wealth throughout the last decades from a cross-national perspective, perhaps you might ask: Didn't Thomas Piketty told us this story yet? We would like to say that Piketty's popular work tells only a part of the story and tells it from an economist's point of view. We will provide a sociologically-grounded story of the development of private wealth in an era of financialization. What is lacking so far is a thorough analysis which explicitly discusses the evolution, composition and distribution of wealth against the backdrop of transformative processes of financialization taking place in capitalist societies since several decades now. We will focus solely on private (household) wealth and not on national wealth like Piketty. And, unlike Piketty and his partner Gabriel Zucman (2014), we are mainly interested in explaining the development of the composition of wealth across time and cross-nationally and not chiefly concentrate on the movements of the net wealth-to-income ratio. Last but not least, we dig deeper. This means that we extend the number of countries under analysis for which longitudinal data is available, plus we take a look at survey data to explore the micro-level of wealth dynamics. In analyzing aggregate data, we discuss historical trends in the dynamics of private wealth – its patterns, components and its distributions over time – and the reasons for cross-national differences and similarities. In analyzing survey data, we take a look at the determinants of the ownership of different types of assets at the household level and to what extent there are cross-national variations.

After we give a short overview of classic and more recent sociological research on private wealth, we start with discussing financial inclusion in historical perspective. We can trace investment practices from ancient and pre-modern societies when land, lending and trade represented the economic

foundation, to the creation of basic financial, collective or charitable investment forms, to the emergence of a range of specialized and sophisticated vehicles, products and funds. We can trace investment as an economic activity restricted to a 'power elite' to mass-participatory finance in contemporary capitalist society.

In order to describe the prominent role of finance in our world and the current mass-participation within global financial markets, researchers from a variety of disciplines make use of the concept of 'financialization'. So, in a second part, we briefly outline financialization as a concept in the social sciences.

Against this backdrop, we explore the trajectories, patterns and distributions of private wealth throughout the last decades in cross-national perspective. As we will show, we cannot analyze the dynamics of private wealth in isolation from broader social transformations and other parts of society, nor can we look at them in isolation from their socio-structural, institutional and cultural environment. Whereas prior research has looked at the development of aggregate private wealth and the evolution of wealth inequality, less attention has been paid to the development of the composition of private wealth. This surprises since the longitudinal analysis of private debt has flourished in the aftermath of the US *Subprime Crisis* and the European sovereign debt crisis.

The findings raise the question if and how one can explain the dynamics of private wealth since the 1970s. Thus, we examine what impacts private wealth accumulation. On the basis of previous research, we argue that welfare state arrangements and the organization of corporate finance are mainly responsible for private wealth accumulation throughout the last decades, using panel models of 13 OECD countries from 1970 to 2012.

From the perspective of the 'embeddedness' of economic action (Granovetter 1985; Dobbin 2004; Beckert 2003), economic practices not only vary across historical contexts, institutional regimes and societies, but between social groups within a distinct context as well. Thus, in a final part, we investigate the social structure of financial investment. After a brief out-

line of existing approaches for explaining investment decisions from economics, we draw on three sociological concepts to explain financial practices and the choice of investing in specific financial products (investment funds, life insurance and pension funds and stocks). We draw on the concepts of 'investment habitus' (Bourdieu [1979]1984), 'special assets' (Zelizer 1989) and 'conspicuous investment' (Veblen 1899) in order to explain different financial practices across the social structure of society. Using household-level survey data, we conduct an analysis for four different countries (Germany, Italy, Netherlands and the United States).

Nearly every domain of social life has been touched by financialization – from inequality and social mobility to national politics and state power, from corporate business and labor markets to social movements and everyday life. This development makes financial markets and logics an increasingly powerful force that shapes the future of our society. In spite of research accumulation, when it comes to private wealth, the relationship between financialization and the social dynamics of private wealth still represents a sociological lacuna. This becomes even more striking in face of the increasing significance of private wealth for macro-economic stability and price bubbles, old age provision and socio-economic security or future inequality and ongoing public debates on the introduction of an inheritance-tax. In looking at mechanisms and consequences behind the developments, patterns and distributions of private wealth in a 'financialized world', this study not only fills empirical gaps in sociological research, but contributes to a comprehensive uncovering of socioeconomic processes and structures which are essential for our understanding of contemporary and future society. We aim at encouraging a more expansive sociological focus on private wealth and financial investment, on issues of social order and change in an era of financialization.

2. Background

2.1. Private Wealth and Social Dynamics

At least since Thomas Piketty's controversial bestseller *Capital in the 21st Century* (2014) everyone has recognized that 'wealth matters'. In the aftermath of Piketty's work, private wealth has developed into a research issue *par excellence* for the social sciences.[2] Inequality research increasingly turns to wealth as a powerful determinant of social stratification. However, much before the Piketty-hype both sociologists and economists have been interested in private wealth. Classical economists like Adam Smith, Karl Marx, Thorstein Veblen, Simon Kuznets or Raymond Goldsmith as well as sociological classics like Max Weber and Georg Simmel engaged in analyzing the role of private wealth for social structure and economic development.

Wealth has been a longstanding topic in sociology (Weber [1920]1950, [1922]1978; Simmel [1907]2004). For Max Weber, the 'spirit of capitalism' appeared first and foremost in the accumulation of wealth, a spirit fueled by protestant ethical norms. Weber also integrated wealth (property ownership) in his class concept in distinguishing between acquisition classes and property classes (Weber [1922]1978). In his *Philosophy of Money*, Georg Simmel ([1907]2004: 218) conceptualized the possession of money as an embodied potentiality since a "fortune is encircled by innumerable possibilities of use". He uses the German word 'Vermögen' which means 'to be able to do something' to describe this. But although wealth took a central role in the classic works, later sociological accounts have neglected wealth for a long time. Wealth was either treated as a topic in elite studies (see Mills 1956) or was only exceptionally integrated in sociological research on stratification and families (see Henretta and Campbell 1978, 1980). Typically, income has been taken as the main indicator of economic well-being and was investigated extensively (see e.g. Parkin 1971; Grusky et al. 2008). However, a look at the income variable alone is not enough to understand

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[2] Throughout the text household wealth and private wealth are used interchangeably.

the true nature of economic inequality and social structures. Studies at the aggregate level and the household level show that income and wealth measures are only weakly correlated (Keister and Moller 2000; Wolff 2006; Skopek et al. 2012). Besides, and perhaps even more important, research has continuously found wealth distributions to be more equal than income distributions (Wolff 2006; Davies 2008; Piketty 2014).

Towards a sociology of wealth

For a sociologist wealth is too essential and fascinating to ignore. Wealth ownership significantly impacts social outcomes and *vice versa* – a thing already noted by Georg Simmel ([1907]2004) in his *Philosophy of Money*. In other words, wealth "provides for both short- and long-term financial security, bestows social prestige, contributes to political power, and can be used to produce more wealth" (Keister and Moller 2000: 64). Indeed, we can distill four 'wealth-effects' from the literature: (1) wealth as security, (2) wealth as inherited advantage, (3) wealth as income, (4) wealth as power and (5) wealth as capabilities.

Wealth as security

Wealth provides security in multiple forms (security-effect). Next to economic security, wealth ownership guarantees and secures social position in the social structure and additionally creates "ontological security" (Giddens 1991) in a world marked by transitions, crises and risks.

Wealth can function as a safety net in critical life phases like illness, unemployment or old age – a role which is particularly important in less generous liberal and family-based welfare states (Skopek et al. 2014). This safety net character, however, increasingly becomes important in conservative and social-democratic welfare states, too. Traditionally, wealth accumulation and investment are important strategies to handle status uncertainty, especially for the middle classes (Groh-Samberg et al. 2014). Against the background of welfare state re-building, however, property ownership gains increasing importance (Mau 2015; Schimank 2011). For securing one's fu-

ture standard of living, particularly when it comes to retirement, accumulation of wealth becomes a necessity and basic condition for status maintenance. Property promises to offer security and certainty in an uncertain world. In times of growing status insecurities across developed capitalist societies (Beck 2001; Sennett 2006), asset ownership provides status maintenance for present and future generations – in particular for the struggling middle classes (Mau 2015; Nachtwey 2016).

This holds particularly true for a society in which intergenerational wealth transfers take a key role for financial well-being (Korom 2016). Indeed, previous research shows that parental wealth has effects on children's educational attainment (Conley 2001), and education is in turn related directly with wealth (Keister 2003). Parents' wealth is strongly associated with their children's wealth (Charles and Hurst 2003; Keister 2004), mainly via the acquisition of homeownership. Wealthy people also seem to be healthier (Semyonov and Lewin-Epstein 2013) and report higher levels of subjective well-being (Hochman and Skopek 2013).

Wealth as inherited advantage

Unlike for the intergenerational transfer of education or income, there is a direct mechanism for the transmission of wealth inequality (Kohli 2004; Beckert 2007). Wealth and its "superadditum" (Simmel [1907]2004) can be transferred across multiple generations (inherited advantage-effect). Wealth accumulation represents a typical case for the "Matthew-effect" (Merton 1968) and social mechanisms of "cumulative advantage" (DiPrete and Eirich 2006).

A lot of recent research has investigated the ambivalent mechanism of inheritance which seemingly contradicts with the meritocratic principles of modern market society. Recent research not only emphasizes that inherited wealth is distributed uneven across the social structure of society (Korom 2016; Szydlik 2004; Szydlik und Schupp 2004), but also that inheritance of family wealth has profound, long-lasting effects on social mobility across several generations (Clark 2014). For example, Clark and Cummins (2014)

use the distribution of rare surnames in England and find significant correlation between the wealth of families that are five generations apart. In a similar study on Florentine surnames, Barone and Mocetti (2016) find evidence of substantial real wealth inheritance across generations that are six centuries apart.

There are at least two main mechanisms through which wealth is accumulated: (1) labor market income or self-earned wealth and (2) inheritance or intergenerationally transferred wealth (Semyonov and Lewin-Epstein 2013; Skopek et al. 2014). However, prior research also points at education (Keister 2003), marriage (Zagorsky 2005), homeownership (Killewald and Bryan 2016), and self-employment (Quadrini 1999) as possible channels of wealth accumulation.

Today, there is a widespread debate on the extent to which inheritance as a source of wealth accumulation is growing in importance (Piketty and Zucman 2015). For instance, France Piketty (2011) shows that the annual flow of inheritance in France rose from less than 5 per cent of national income in 1950 to 15 per cent in 2010. Schinke (2012) finds that the annual inheritance flow in Germany increased from 2 per cent to about 11 percent of national income between 1960 and 2010.

Usually, intergenerational inheritance is suggested as playing a key role for the perpetuation of wealth inequality and the preservation of the largest fortunes from generation to generation (Szydlik 2004; Spilerman 2000; Piketty and Zucman 2015; Nau and Tumin 2012). In a recent study, Adermon et al. (2016) show that inheritances and gifts can explain the greater part of the intergenerational correlation in wealth. However, in the course of economic recovery after both World Wars, middle class wealth spread – particularly through homeownership – and the role of inheritance has become more ambiguous. Empirical studies partly differ (1) in the relative importance they assign to inheritance as a source of wealth and (2) in whether it has equalizing or disequalizing effects on the distribution of wealth. Partly, this stems from the fact that data on inheritance are even rarer than data on wealth, making it difficult to ascertain the correct relation-

ship between inheritance and wealth ownership (see Miller and McNamee 1998).

Whereas Semyonov and Lewin-Epstein (2013) attribute equal importance to labor market income generated and intergenerational wealth transfers, recently, Korom (2016) finds evidence that wealth transfers contribute more to wealth accumulation than higher incomes. Analysis based on US survey data suggests that inherited wealth accounts for 19–35 percent of total aggregate net worth (Wolff 2002). Corresponding estimates for Sweden put the size of transfer wealth somewhere in the range of 10–20 percent (Klevmarken 2004). Modigliani (1988) estimates that transfer wealth, consisting of both inter-vivos (made between living persons) and bequests (made after the death of the giver), account for only 20 percent of the net worth of families in the United States. In a previous analysis, in contrast, Kotlikoff and Summers (1981), find that transfer wealth accounts for at least 80 percent of total US net worth. In a later study Gale and Scholz (1994) estimate that inter-vivos transfers and bequests account for more than 50 percent of family wealth in the United States. On the basis of an extensive literature survey, Davies and Shorrocks (2000) conclude that a reasonable rough estimate is that inheritance contributes some 35–45 percent to aggregate net wealth.

In addition to the controversy over the size of inherited wealth, studies vary with respect to their conclusions on whether inheritance makes the distribution of wealth more or less equal. As some investigations suggest, inheritance has an equalizing effect (Laitner 1979; Tomes 1981). Others point to ways by which inheritance can exert a disequalizing effect with respect to the distribution of wealth (Davies 1982; De Nardi 2004; Leitner 2016). McNamee and Miller (1998) argue that inheritance inevitably leads to increases in the wealth ownership of top wealth holders. Also a recent study on the Forbes list by Korom et al. (2015) demonstrates that despite declining power of inheritance, family wealth continues to play an important role in the longevity of fortunes among the super-rich. Further recent research suggests that inheritance can probably best be seen as maintaining rigidity in

the wealth structure rather than either narrowing or widening them (Karagiannaki 2011a, b).

Wealth as income

However, wealth not only perpetuates inequality via the institution of inheritance, creates security and provides a safety net, it also can produce income (dividends, property income, rent, capital income) (income-effect). Wealth can create more wealth when it is reinvested and thus, wealth ownership involves the potential to commit resources with the goal of achieving a return. But income which derives from the ownership of wealth (assets, property, land) is very unequally distributed across the income distribution (Nau 2013). Indeed, empirical analyses on OECD economies reveal that capital incomes witnessed considerable increases throughout the 1980s and 1990s (Epstein and Jayadev 2005; Godechot 2012). As a consequence, research speaks of the "return to hegemony of the financial fraction of ruling classes" (Duménil and Lévy 2001: 578), also known as the 'rentier class' (Epstein and Jayadev 2005). Besides, more recent research documents that capital incomes partly contributed to the recent rise in income inequality across capitalist democracies. In a micro-data-based study, Adler and Schmid (2013) illustrate a positive association between capital income shares and market income concentration. Using EU-SILC data covering 17 EU countries from 2005 to 2011 also Schlenker and Schmid (2014) find that capital income shares are positively associated with the concentration of gross household income. Both Fräßdorf et al. (2011) in an analysis for the United Kingdom, Germany and the United States within the years between 1984 and 2004, and García-Penalosa and Orgiazzi (2013) in a cross-country comparison covering Canada, Germany, Norway, Sweden, the United Kingdom and the United States over the last three decades of the 20th century show the relevance of capital income for the evolution of income inequality.

Wealth as power

As many commentators note, the clear neglect of wealth in previous decades of sociological research surprises (Spilerman 2000; Keister and Moller 2000). This becomes even more striking since wealth concentration in Western societies remained significantly high from the mid-18th century to the early 1900s, declined during the World Wars, only to go up again since the 1970s. In this more recent "New Gilded Age" (Bartels 2009), wealth concentration has been observed most remarkably in the United States (Saez and Zucman 2016; Kopczuk and Saez 2004; Keister 2014). According to Piketty (2014), we are currently witnessing the resurgence of "patrimonial capitalism": in spite of a democratization of wealth with an increasing accumulation of property by the middle class, capitalism is once again characterized by extreme wealth inequalities.

This matters because wealth goes hand in hand with power – "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance" (Weber [1922]1978: 53) (power-effect). Wealth can provide access to political power, with significant implications for participatory democracy. Already classic elite studies point at the power deriving from wealth ownership (Pareto 1950; Mills 1956; Rubinstein 1977). As contemporary commentators note, in times of growing wealth inequalities in capitalist societies, the political power of wealth owners has great implications for democracy – for citizen participation, government responsiveness and patterns of policymaking. Various works discuss the political consequences of wealth concentration (Hacker and Pierson 2010; Bartels 2009; Keister 2014). As recent research confirms, the top 1 percent of wealth holders have much more political influence than the rest of the population (Gilens 2012; Page et al. 2013). Hager (2014, 2015) shows that US public debt has come to serve as an institution of power working in the interests of the top one per cent of the wealth distribution over the past three decades.

Wealth as capabilities

But wealth is more than just one driver of inequalities among many candidates. Wealth matters because it embodies the capability and freedom to choose between different options (capability effect) (Simmel [1907]2004; Deutschmann 2001) – a feature which Grundmann (2011) calls "Handlungsvermögen". So, unlike Piketty and Bourdieu, we should not speak of 'capital'. Based on the *sociology of money*, we prefer to speak of 'wealth' – like Georg Simmel at the beginning of the 20th century. In his sociological analysis of money and society, Simmel ([1907]2004) emphasizes freedom as the essential potential of money because money is transferable in nearly everything. The advantages deriving from the ownership of money can be understood as an inevitable addition – the "superadditum of wealth" (Simmel [1907]2004). Through the formation of ties among innumerable individuals in modern society, money secures personal freedom and liberty. Money allows being free to choose and decide, it "is a mere potentiality which stores up a merely subjectively anticipatable future in the form of an objectively existing present" (Simmel [1907]2004: 243). Thus, money does not only represent liquidity and a claim upon existing goods, it embodies a wealth-potential and an imaginative dimension as well. However, whereas the wealth-poor by necessity have to use whatever little money they have as they spend it for specific purposes, the wealth-rich have the opportunity to reshape the purpose of money and can spend, save or invest money to accumulate more wealth.

Monetary resources not only possess a past and a present dimension, but also a future dimension. Typically, wealth was accumulated and generated in the past, is invested, stored and accumulated in the present, for returns or benefits in the future. Wealth ownership puts people in the position of being able to make choices and decisions – to realize their interests and ideas, to control uncertainty.

> "Since money is not related at all to a specific purpose, it acquires a relation to the totality of purposes. Money is the tool that has the greatest possible number of unpredictable uses and so possesses the maximum value attainable in this respect. The mere possibility of unlimited uses that money has, or represents, on account of its lack of

any content of its own, is manifested in a positive way by the restlessness of money, by its urge to be used, so to speak" (Simmel [1907]2004: 212).

Wealth ownership means that people are not only able and free to choose between different material and social options, but between different spaces and temporalities as well. People are in the position to generate and stock up future options in the present. They gain control over material, social, spatial and temporal uncertainties.

> "This usurious interest upon wealth, these advantages that its possessor gains without being obliged to give anything in return, are bound up with the money form of value. For those phenomena obviously express or reflect that unlimited freedom of use which distinguishes money from all other values. This it is that creates the state of affairs in which a rich man has an influence not only by what he does but also by what he could do" (Simmel [1907]2004: 218).

According to Simmel ([1907]2004), money in modern society is, therefore, not simply a means of economic exchange, it is an 'absolute means'. He conceptualizes this potential using the German noun 'Vermögen', glossed as 'wealth', 'fortune' or 'means'. However, the semantics of the German 'Vermögen' go beyond these denotations. 'Vermögen' actually denotes 'the status of being able to do something' in sense of a capacity, ability or power.

Because wealth ownership is encircled by numerous possibilities of use, "which extend far beyond the employment of the income from it on the benefits which the income brings to other people" (Simmel [1907]2004: 218), wealth is not only closely associated with the mechanisms of 'individualized society' (Beck [1986]1992; Gross 1994) but also with the "colonization of the future" (Giddens 1991) – the management of future uncertainty as *the* basic foundation of economic action (Wilke 2012; 2016; Beckert 2014).

This is of major importance, since the new economic sociology has indeed chosen the management of uncertainty by various economic actors as its starting point for inquiry (Granovetter 1984; Beckert 2007, 2009). From the perspective of economic sociology, economic action and decisions in capitalist society are always oriented towards an unknown, uncertain and open future. Uncertainties result from (1) problems of double contingency, that is one's own economic success depends on the actions of others and (2)

future events which are unknown in the present (Esposito 2011; Beckert 2009, 2014; Luhmann [1991]1993). One the one hand, uncertainty produces insecurity and problems for the coordination of economic activities, on the other hand, uncertainty represent a source of opportunities (Esposito 2011, 2013; Luhmann 1979).

People try to influence future outcomes with present decisions – the future becomes the "present future" (Luhmann 1979). In this sense, people act in a way that is oriented towards "imagined futures" (Beckert 2013, 2011).

> "Present-day action is not to be understood just as the ultimate outcome of past events but rather as an outcome of perceptions of the future: it is not just that 'history matters', but also that the 'future matters'" (Beckert 2014: 17).

Whereas such a future represents unlimited possibilities and the "promise of absolute wealth" (Deutschmann 2001), it simultaneously means unpredictable, incalculable dangers and permanent threat to economic status. The indefinite future represents both a "storehouse of possibilities" (Luhmann 1976: 131), "a space of promises and hopes" and at the same time always "a space of possible damage and anguish" (Esposito 2011: 32).

Perhaps this holds true for economic decisions made with regard to wealth in particular. On the one hand, wealth (or better, the 'prudent' management of it) serves as a 'tool-kit' to be able to "colonize the future" (Giddens 1991). Assets can be used for speculation or for insuring against the unanticipated risks of an uncertain future. On the other hand, wealth itself is at risk from unforeseen future events and dynamics (crises, price movements, competition, political events or environmental catastrophes). Wealth and risk – as the explicit and implicit goods of an advanced modernity – are inextricably interwoven (Beck [1984]1992: 18).

> "Risk comes into play when, beyond mere fate, one considers the way future events depend on present behaviour – that is, as opportunities to build or as possible failures (the two aspects are linked in that if we do not expose ourselves to possible damages, we cannot enjoy possible benefits" (Esposito 2011: 32).

Since people have to decide without being able to anticipate the economic outcomes, even decisions to delay or not to decide have to be made under conditions of fundamental uncertainty. Any and all decisions and, therefore,

also any and all non-decisions are risky (Esposito 2011; Luhmann [1991]1993). As any and all decisions are ‘bets on the future’, then, safety is an illusion.

How, then, decisions are made in face of uncertainty of the outcomes of decisions? Problems of the uncertainty and openness of the future are managed differently in different economic constellations, depending on the “embeddedness” of economic action in institutions, cultural frames and social structure (Granovetter 1985; Dobbin 2004; Beckert 2009, 2003). Such a perspective involves the view of economic action as a special case of social action (Weber [1922]1978; see also Luhmann 1988) which cannot be explained by a “natural propensity to truck, barter and exchange one thing for another” (Smith [1776]1993: 21). Accordingly, economic rationalities are shaped by the contexts in which they are socially “embedded” (Granovetter 1985, 1992). Economic rationality cannot be analyzed abstractly, by isolating the economy from the influences of external social structures. Economy and society are intimately intertwined. Seemingly irrational behaviors are frequently motivated by considerations inappropriate to pure economic logic, but are nevertheless meaningful and in no case arbitrary. “[T]he behavior and institutions to be analyzed are so constrained by ongoing social relations that to construe them as independent is a grievous misunderstanding” (Granovetter 1985: 482). The ‘social embeddedness’ of economic action refers to “the extent to which economic action is linked to or depends on action or institutions that are non-economic in content, goals or processes” (Granovetter 2005: 35).

Since economic life is situated and embedded in social life, courses of economic action are formed by institutional structures, social networks, and horizons of meaning (Beckert 2009; Fligstein and Dauter 2007; Zukin and DiMaggio 1990). Previous research has, thus, detected a number of social mechanisms – social networks, institutions, power relations and cognition – that provide the contexts, conduits, and categories integral to economic action (Dobbin 2004; Fligstein 2001; Beckert 2009, 2010).

2.2. The Economic Sociology of Finance and Private Wealth

Over the last fifteen years, 'finance' has developed into a renewed topic for sociology (Carruthers and Kim 2011; Preda 2007; Knorr-Cetina and Preda 2005, 2012; Kalthoff and Vormbusch 2012; Kraemer and Nessel 2012). The sociology of finance typically concentrates on the professional world of finance (Knorr-Cetina and Bruegger 2002; Abolafia 1996; MacKenzie 2006; MacKenzie and Millo 2003; Beunza and Stark 2004; Beunza and Garud 2007; Lépinay 2011). Finance capitalism is mainly studied along the practices and discourses related to stock exchanges, banks and funds, analysts and traders and sometimes non-financial firms.

However, in the aftermath of the US *Subprime Crisis*, research has increasingly explored private households and their place in the 'global game' of finance. Yet, although we can witness increasing interest in household finance, sociologists have mainly looked at private debt and credit practices (Streeck 2014; Mertens 2015; Prasad 2012; Kus 2013). In contrast, private wealth and investment in an age of financialization are relatively unexplored topics in sociological research. Small investors and savers rarely occupy an own place in sociological studies dedicated to finance, despite economic sociology has recognized the role of popular investment beginning in the 1980s (Lowry 1984; Useem 1996; Gaskin 1998). This recent neglect of private investment surprises since the household is regarded as a

> "key institution in a financialised economy, where savings and investment circuits divert middle class long term savings and expectations for retirement onto the stock market and where the household buffers the consequences for individuals who have not made the necessary savings" (Froud et al. 2002: 125).

The focus on 'popular finance', 'private finance', 'amateur financiers' and 'small investors' involves exploring the reception of a distinct (financial) context. How do households react and respond to socio-economic transformations and how new situations are perceived and utilized? The apparent neglect of ordinary people's wealth in sociological research on financial topics appears surprising, because private wealth represents such a traditional subject of economic sociology dating back to the works of Weber

([1922]1978; [1927]1961) and Simmel ([1907]2004) to later works by Mills (1956) or Bourdieu (1963, 2005).

Only around the turn of the century, sociologists began to show increasing interest in issues of wealth. More recently, researchers have produced various studies that explore the composition, evolution and distribution of private wealth, making use of various types of available data. In particular, the role of wealth for social inequality became a central issue in prominent sociological works: Lisa A. Keister's *Wealth in America* (2000) or Conley's *Being Black, Living in the Red* (1999), Oliver and Shapiro's *Black Wealth/White Wealth* (1995), Seymour Spilerman's *Wealth and Stratification Processes* (2000) or Jens Beckert's *Inherited Wealth* (2007).

However, the changing level, composition and distribution of private wealth in an age of financialization has absorbed little interest by empirical research. Although the 'metamorphosis of private wealth' is often discussed by sociologists (Deutschmann 2011, 2010; Schimank 2011; Davis 2009; Preda 2009; Langley 2008), there are only a few works which draw an empirical picture.

A number of recent works by economists study the movements of wealth inequality in a cross-country comparative framework (Roine and Waldenström 2015; Piketty 2014; Wolff 2006) and examine cross-national private wealth inequality for single points in time (Cowell et al. 2012a, b; Sierminska et al. 2007; Davis 2008). Up to now, however, no sociological research has tried to look at dynamics of wealth inequality in a cross-country perspective and to place it in a broader social context. This surprises because a number of more recent sociological studies explore the mechanisms behind wealth ownership within a cross-country comparative framework (Semyonov and Lewin-Epstein 2013; Skopek et al. 2014; Korom 2016)

What is true for dynamics of wealth inequality is also true for dynamics of private wealth in general. So far, we miss sociological research which studies the historical trends, patterns and variations of private wealth in cross-country comparative perspectives. Perhaps this becomes even more

striking since economists have produced a number of stimulating works over the last couple of decades. Recent comparative research from the field of economics has explored the development of wealth-to-income ratios over time (Piketty and Zucman 2014; Piketty 2014), the evolution of household portfolios across time and space (Guiso et al. 2002), and long-term trends in household financial assets (De Bonis et al. 2013; Bartiloro et al. 2012; Ynesta 2008).

Despite the prominence of the concept of financialization across the social sciences and the increasing interest in private wealth as a topic, contemporary sociologists have rarely addressed the interrelationship between financial markets and private wealth. Nevertheless, sociologists have not been totally ignorant. In analyzing German survey data, Wahl (2011) shows that risk perception and risky investment decisions are closely associated with social position and are manifestations of a distinct lifestyle. In the period 1993–2003, certain groups of the middle and upper classes moved their financial wealth from deposits, bank accounts and insurance towards investment funds and stocks. Also Wilke (2016) analyzes German survey data and takes a look at the development and social structure of private pension investment over the last decade. His findings reveal that investment decisions are product of a complex interaction between social, economic, mental and cultural factors. For the United States, Fligstein and Goldstein (2015) and Harrington (2008) discuss the emergence of a 'finance culture' and 'investment culture' within large segments of the American middle and upper classes. Whereas Fligstein and Goldstein (2015) trace the socio-structural embeddedness of financial practices and beliefs from 1989–2007 by making use of household survey data, Harrington (2008) explores community-building via 'investment clubs' during the *Dot.com* bubble in a mixed-methods design. There are also two qualitative studies for Germany which explore the 'inner life' of small investors. Both, Legnaro et al. (2005) and Schimank and Stopper (2012) show that financial activities of small investors are driven by profit-seeking and 'making a quick buck' on the one

hand, but are motivated by motives of old age provision and future-related fears on the other hand.

However, these studies are single-country studies, either referring to the German or the US case. What we miss are sociological investigations which look at investment practices and asset ownership within the framework of financialization in cross-national perspective. Up to now, research which explicitly deals with trends of private wealth in an era of financialization comes from heterodox (political) economists. In a comparative study which explicitly links financialization and private wealth dynamics, Erturk et al. (2005) find that household portfolios converge towards riskier investment, by making use of aggregate data for four European economies (France, Germany, Italy and the United Kingdom) over the years 1980–2003. Gerba and Schelkle (2013) provide an aggregate data-based discussion of a 'household finance-welfare state nexus'. Their findings point at a two-way effect of public policy on household asset building, which is either complementary or substitutive, depending on country context. In another study, the same authors find a significant linkage between welfare state reforms and household asset formation in a case study for the United States (Gerba and Schelkle 2014).

2.3. Wealth and Income: Defining the Concepts

Before we start, we should make clear what we technically mean by the term 'wealth'. Whereas income is a flow, wealth is a stock. Income as a flow of funds has to be defined in relation to a period of time – yearly, monthly, weekly, daily, and hourly). Typically, sources for income are wages, salaries or own businesses, interest or dividend payments, gifts or social transfers. Income is either quantified at the household or the individual level.

In contrast to income, wealth as a stock refers to the assets people own at one single point in time. Typically, wealth is measured as net worth – all assets minus all debts. Assets include non-financial assets, also known as real assets, and financial assets. Generally, wealth as net worth is quantified

at the household level since assets, such as the main residence, tend to be jointly owned by married couples or the whole family. The category of non-financial assets consists of real estate (home or primary residence, holiday homes and other real estate), business equity, vehicles as well as valuable art or jewelry. Financial assets consist of saving accounts and deposits, bonds, stocks, mutual funds, retirement accounts and insurance assets. Debts include home mortgages, student loans, consumer debt and other short-term liabilities.

As research has shown and as we will see later, wealth, compared to income and earnings, is substantially more unequally distributed. In general, however, financial assets are even distributed more unequally than non-financial assets (especially when it comes to housing wealth).

2.4. Financial Inclusion in Historical Perspective

Investment may be defined as the commitment of financial resources for future returns. While there exist multiple ways of making financial investments, the very existence of investment as such – defined as– has been a universal phenomenon throughout history. In antiquity and pre-modern times, from Mesopotamia to Egypt, from Greece to Rome, land was the basic investment vehicle. Although also lending on interest represented another pillar of investment in pre-modern times, it was limited in its development by its capital limitations on the one hand and usury laws on the other (Graeber 2011; Gelpi and Julien-Labruyere 2000; Esposito 2011; Le Goff [1986]1990). Trade and commerce as investment vehicles based on exchange value and spatial mobility gained importance and influence much later in medieval Europe – first in Genoa and Venice.

Throughout history the dominant forms of investment vehicles changed. Whereas agricultural land represented the main investment medium in ancient times, by the Middle Ages, investment in trade and commerce increased heavily through financial instruments like marine insurance or early futures contracts. The Commercial Revolution, however, witnessed another shift in the main investment form towards lending on interest. Finance and

merchant elite families of the Italian city-states who had become wealthy and influential by maritime trade, engaged in lending to sovereigns, governments and the Catholic Church all over Europe.

Although investment via lending to state powers continued to be an important investment practice, the emergence of the corporate form of the joint-stock company and the advent of public markets for shares, bonds or bills of exchange gave birth to the parallel existence of a larger set of investment forms for an increasing public. Eventually, investment became accessible and necessary for everyone with the emergence of the concept of retirement, which was reinforced further with the privatization of old age security over the second half of the 20th century.

Throughout history, the actors who mainly engaged (or were allowed to engage) in investment activities changed. In ancient and pre-modern times, investment was typically restricted to a 'power elite' including aristocracy, administrative or political elites and clergy. In the medieval city-state economy, during the Commercial Revolution, merchant elites and financiers increasingly gained access to investment opportunities including international trade and lending to state powers. Broader parts of the population became involved within finance and investment in the course of the Industrial Revolution with growing public markets for investment in railroads, mining and construction. Financial investment became a mass activity in the first part of the 20th century. Markets for war bonds made large parts of ordinary households becoming investors. Then, the privatization of old age security took the financial inclusion of populations in advanced societies to a next level.

In the following, we take a brief look at precursors to modern forms of financial investment. However, neither we hypothesize causations, nor do we give comprehensive historical accounts of ancient and pre-modern investment environments. Rather, we show that investment and its institutional and cultural environment was historically contingent and that practices of organizing investment changed throughout history.

2.4.1. Investment in Ancient and Pre-modern Times: Land, Lending, Trade and the Power Elite

We can find an ample collection of approaches to ownership, trade, commerce and lending in early societies. All of these share a general understanding of the concept of investment, which at its basic level represented the principle of increasing wealth over time. Such an understanding implied that resources had to be organized and managed, so that in spite of Aristotle's aversion against the productiveness of money, individual and collective prosperity in the future could be realized (Esposito 2011).

From today's point of view, pre-modern economic organization and practices of investment are unquestionably bizarre. For example, throughout early history, different societies had to cope with how to ensure repayment of loans. In different contexts, different solutions were developed in order to handle such future uncertainty. While the ancient Egyptians relied on oaths given to gods (Rathbone 1991), the Persians made it possible to take a borrower's child as repayment and the Greeks and Egyptians made use of trustworthy and financially solvent local cosigners (Manning 2001).

Ancient and pre-modern societies developed complex political and religious frameworks that governed the organization of investment. This holds true of the (1) Jewish *'isqua* investment partnership (~1200) which was forced by rabbinical law and involved that the agent must be eligible for a greater percentage of the profits than he was liable for the losses (Udovitch 1962), (2) the Byzantine investment instrument by maritime law called *chreokoinonia* (~600 BC) which exposed the agent to liability (his proportional liability in the case of loss was equal to his proportional gain in the case of profit) (Laiou 2002), (3) the Islamic legal framework called *mudaraba* (~800) which was a contract between an investor and an agent who deployed the capital of the investor for long-distance trade (Cizakca 1996), or (4) the *commenda* structure in medieval Italy (~1300) which resembled the Islamic *mudaraba* and featured an active and a passive partner, with no liability to the former (Weber 1961[1927]; de Roover 1941) and an

underlying profit breakdown amounting to about one-quarter for the agent and three-quarters for the investor.

Investment and land

In antiquity, agricultural land was the main store of wealth, source of income and resource of gains for investors (Weber [1927]1961; Braudel [1979]1983). In the ancient and pre-modern world, land literally referred to title, authority and rule. It was determined by factors of nobility, military rule or claims to divine right. The major characteristic of land investors in ancient societies was their high economic, social and political status. These investors can be described in what C. Wright Mills (1956) once called the "power elite". Given that ancient and pre-modern societies associated agriculture with nobility and commerce or trade with low status, the dominant practice of storing and accumulating wealth in land and estates is not really surprising. However, the ancient landowners of the societal elite typically delegated the management of their assets to the hands of special managers – lower status people or slaves – because the landowners usually held other occupations or positions (political, military, administrative).

In Mesopotamia, the first known civilization, land was typically owned by the temple or the government. However, there is also evidence for the existence of private property which belonged to wealthy urban Mesopotamians who owned land in the countryside (Van De Mieroop 1999). Landownership by the temple and state was managed by a rather advanced bureaucracy which decided on when and how public property should be rented out. Farmers then had to compensate the temple or state for the license of farming with silver (van Driel 1999).

Estate management also played an important role in ancient Greece. However, Greek landowners, who were mostly privileged and well-born members of society, did not farm the land themselves but either hired managers or made use of slaves (Michell 1957). In ancient Rome, estate management became more and more central (Kehoe 1997). Ownership of property and land all over the rapidly expanding empire became increasingly

common. Investment in real estate played a great role for family wealth accumulation. The Roman elites were owners of numbers of land, estates and farms, which were either awarded for military or political reasons or purchased as investments. Investments in the provinces (Greece, Spain and Africa) accelerated as the Roman Empire witnessed further expansion (Frank 1959). Like the Greek social elite, also the Roman elite delegated the management of their assets to the hands of procurators, financial and property managers and slaves (Andreau 1999).

Investment and lending on interest

Along with agriculture, lending was another practiced investment activity which existed already in antiquity (Gelpi and Julien-Labruyere 2000). Typically, lending was interpreted as a low-prestige and only fairly accepted activity. However, this does not mean that only lower classes of society engaged in lending activities. Lending was practiced, either overtly or secretly, by the privileged and wealthy. Coinage as well as increasing demand for capital by manufacturers and merchants fuelled investment activities (Toutain 1996). In the ancient and pre-modern period, interest-rates varied across time and space. Usually, non-interest-bearing consumption loans were made among relatives, friends, neighbors or respectable business people. For credit that could not be obtained on an interest-free basis, people had to go to bankers who typically gave credit at high interest rates (Millett 1991; Cohen 1992). During certain periods of Greek or Egyptian history, loans were made with extremely high interest rates (from 12–18 percent in Greece and from 50–100 percent in Egypt). Nevertheless, already in ancient times, lending was heavily regulated by state authorities and since lending and interest are tightly interrelated, questions of usury became part of economic and religious discourse.

Maritime loans were a financial investment instrument actively used in ancient Greece. Contrary to modern lending however, in the case of sinking or shipwreck, the sailor was not held liable and the loss was borne in full by the lenders (Homer and Sylla 2005). Nevertheless, Greek maritime loans

were potentially beneficial for the lender. In general, a profit rate of 23–30 percent could be realized for voyages between Athens and Istanbul.

Also in Rome, non-interest lending continued but on a much smaller scale. In comparison to other ancient societies, the Roman society seems to have been a comparatively more financialized and economically more liberal one. Next to the emergence of more complex financial relations and more sophisticated practices, Roman bankers and financiers attained higher social status (Andreau 1999). Whereas wealthy and powerful Greek bankers typically continued to belong to the lower classes, some of the Roman bankers' sons later became senators. In Rome, lending at interest seems to have been very lucrative. The Roman upper class participated in lending for centuries – as lenders and borrowers. Politically ambitious noblemen, like Caesar for instance, usually were highly indebted because financing campaigns and wining voters required significant funds. It seems that they paid up to four times the legal cap of 12 percent interest (Toutain 1996).

Investment and trade

Historically, trade represented the riskiest form of investment in antiquity and medieval Europe. This holds true for long-distance trade on land and for maritime trade. Whereas trade by sea was limited by weather and piracy, trade by land was even more dangerous and arduous. Of course, these ventures bore high risks of loss, but also the chance of extraordinary profit margins. Trade and commerce, craft and manufacturing, were typically practiced by lower classes (strangers or lowborn). The members of the elite and high society only rarely engaged in such businesses, even though they partly did investing in maritime trade operations.

While serious investment in trade and commerce had existed for large parts of history, a transition from investment leadership in agriculture to investment leadership in trade occurred only by the 11th century. Although a certain kind of market economy had already emerged during the Roman Empire (Scheidel et al. 2007), the Middle Ages witnessed further development in the organization, scope and sophistication of trade. At the same

time, with the increasing importance of trade, the new class of traveling merchants took a special position within the social structure – they were neither unfree and poor, nor did they belong to the elite and nobility (Pirenne 1952).

Although, by that time, trade was by no means the key economic sector in Europe, trade and commerce grew dynamically. Merchants as a social group became increasingly powerful and wealthy, with regard to the old landowners as well as to craftsmen and manufacturers (Lopez 1976). The eventual historical transition from an economy based on agricultural production towards a trade-based economy, the so called Commercial Revolution, was a chief precursor to the later Industrial Revolution, which on her part embodied an economic shift towards investment as the cornerstone of a global economy.

By the 10th century, trade and commerce at an international level started to emerge in Southern Europe. The beginnings of the so called Commercial Revolution and the emergence of a new mode of capitalist development can be dated back to the Italian city-states of Genoa and Venice and, somewhat later, Florence (Arrighi [1994]2009; Braudel [1979]1983; Lopez 1976; Goldthwait 2009). During the Commercial Revolution, trade was mostly maritime trade and port cities, like Genoa and Venice, witnessed an explosion in international trade and commercial activities. These trading activities required large sums of capital for financing of cargoes and for insuring against risks. Here, merchant banks as financiers and investors, such as the famous families of Peruzzi, Bardi and Medici, started to become increasingly important. These banks innovated economic business in various ways: from corporate structure (decentralized), corporate finance (shareholders), geographical reach (branches) and diversification and investment beyond banking activities. The power and growth of these early banking and investment activities resulted from the networks formed by the merchants and businesspeople of the Italian city-states (Padgett and McLean 2011).

The commercial and financial elites of the Italian city-states were typically involved in lending money to European governments and sovereigns. On

the one hand, the commercial and financial elites had control over the required funds, on the other hand the large loans also gave access to political power, government contracts and other commercial missions. The Genoese heavily engaged in lending to King Phillip II of Spain, the Peruzzi and Bardi to King Edward III of England and the Medici mainly to the Catholic Church.

2.4.2. The First Wave of Financial Inclusion: Joint-Stock Companies, Industrialization and the Ascent of Public Markets

The 17th to 19th centuries witnessed the initial stages of powerful political democratization, as privileges and rights were extended to an ever-broader part of the population. The old ruling classes (aristocracy, clergy and landowners) of antiquity, Middle Ages and Renaissance had to give up large parts of their power. This prominent political democratization, with its origins in revolutions, political and religious conflicts and novel philosophical ideas, was inextricably related to an economic and financial democratization. The democratization of investment – the inclusion of people who were not part of the elite in financial investment activities – is deeply rooted in three interrelated economic developments: the invention of the joint-stock company, the growing affluence during the Industrial Revolution and the ascent of public markets.

With the development of joint-stock companies it became possible for people and institutions to participate in investment as partial owners. In creating surpluses, the Industrial Revolution created the willingness and opportunity for investment for broader parts of society who were not part of the power elite. The emergence of public markets allowed people to participate in financial activities, who were exclude form such markets before. A growing middle class that consisted of financiers, rentiers, entrepreneurs, merchants and manufacturers engaged within financial activities.

The joint-stock company as a corporate form

The first of these developments was the appearance of a new form of corporate organization characterized by limited liability, shared ownership, sepa-

ration of ownership and management, stable existence and transferability of possession – the so called joint-stock company. This form of organizing corporate business made businessmen able to act flexible, limit risks, do durable business and handle even complex and large financial activities.

Precursors to the joint-stock company can be found in the Roman *societas publicanorum*, the *commenda* and *compagnia* of medieval Genoa and Venice and other medieval forms of organizing and financing economic enterprise (Braudel [1979]1983). The so called *societas publicanorum* were related to financing public services. As Rome expanded, government revenues and expenditures increased. In Rome, however, public services – collection of tax revenues, public provision of goods and services and management of public property – were mostly put up for bid to private providers (Malmendier 2009). These responsibilities were allocated through public auctions. Since participation in such auctions required large funds, businessmen pooled their capital – in so called *societas publicanorum* (Malmendier 2005). In Rome, a variety of collective financial investment forms existed for private transactions as well – *societas unius rei, societas alicuius negotiationis, societas omnium bonorum quae ex quaestu* or *societas omnium bonorum*. These financial societies were joint-stock companies managed a *magister* in Rome and managers in the provinces (a so called *pro magistro*). The shareholders were to be found in all parts of Roman society, from noblemen and senators to common citizens (Toutain 1996). By the 2nd century BC, share ownership was a popular activity, not only for raising funds, but also for speculative purposes (McMorran 1925).

Commenda and *compagnia* partnership forms in 13th century Genoa and Venice depended on the use of shares and in such a way differed from classical partnership forms in which all other partners had to agree to the sale of interests. In 12th century Genoa, it became increasingly common to finance sea trade business with so called *loca* (shares). The ship could be split into several shares, typically between 16 and 70, with the investment lasting one voyage. In the course of the 13th century, the practice of dividing a ship into *loca* began to disappear as maritime insurance gained of popularity which

made it no longer necessary to spread risk and raise capital to finance sea voyages. But for a short period of time, *loca* were widely *en vogue* among Genoese financiers and even investors who did not belong to the powerful and wealthy participated in the market for *loca* (Byrne 1930).

The first companies which possessed the full range of modern corporate characteristics were the Dutch and English joint-stock companies founded in the early 17th century – amongst them the prominent V*ereenigde Oostindische Compagnie* (VOC or Dutch East India Company) and the *British East India Company*. These companies had great market capitalizations, united many shareholders who not engaged in the company's business activities, were of limited liability in the modern corporate sense and existed as permanent enterprises. Furthermore, the capital for the right to a share of the profits could not be claimed back from the company – the shares could only be traded and sold on the market (de Vries and van de Woude 1999).

The Industrial Revolution and wealth accumulation

The second development was the Industrial Revolution (~1760–1980) which brought about radical innovations in production, manufacturing and technology and changed global economy and labor on a large scale. Industrialization, however, would have been impossible without the development of investment and banking systems.

First, industrialization contributed to economic growth, economic prosperity and wealth accumulation on a broad range. In the course of industrialization, the elite lost its exclusive control over wealth and economic resources. The 19th century witnessed a slowly growing possession of economic resources and accumulation of wealth by ever-broader segments of society (Stearns 2007). Although this was a slow process which often went hand in hand with bad conditions for the working classes, the economic life of people changed sustainably (Cipolla 1994). Especially the commercial and financial middle classes started to get a bigger share of national wealth. Slowly, those beyond the upper classes accumulated savings, which of course could be used for investment purposes. Table 1 shows the develop-

ment of GDP per capita from ~1000–2000. The figures leave little doubt that the industrialization of Europe and North America represents a significant transformative and historically unprecedented process of increasing prosperity and sustained economic growth. For instance, the United Kingdom – the earliest 'industrializer' – witnessed GDP per capita triple from 1700 to 1900. When compared with the slowly growing economies in the years leading up to the Industrial Revolution, this new 'growth regime' seems to represent indeed a historical singularity. Consistent with this economic data, there are further measures (like sugar consumption) which hint at a rising standard of living over this period (Braudel [1979]1981; Hobsbawm 1999).

Year	France	Germany	Italy	United Kingdom	United States
1000	425	410	450	400	–
1500	727	688	1,100	714	–
1600	841	791	1,100	974	–
1700	910	910	1,100	1,250	527
1820	1,135	1,077	1,117	1,706	1,257
1850	1,597	1,428	1,350	2,330	1,806
1870	1,876	1,839	1,499	3,190	2,445
1900	2,876	2,985	1,785	4,492	4,091
1920	3,227	2,796	2,587	4,548	5,552
1930	4,532	3,973	2,918	5,441	6,213
1950	5,186	3,881	3,502	6,939	9,561
2000	20,422	18,944	18,774	20,353	28,467

Data: Maddision (2001), Note: Values expressed in 1990 Int. GK$

Table 1: GDP per capita (1990 Int. GK$), 1000–2000

The ascent of public markets

To be honest, public markets for securities (loans) had already existed for a long part of history. Because trade in public loans and shares in private companies were unknown in ancient times, as economic historians note, the concept of public debt is one of the few economic phenomena that does not have its roots in ancient Greece and Rome (Andreau 1999; Goldsmith 1987). Early markets for debt developed in the city-states of 12th century, early Renaissance Italy (Michie 2006; Obstfeld and Taylor 2004).

Practices of securitizing public debt were particularly widespread and popular in Genoa. As early as 1164, the Genoese created a form of public debt in which members of an association (*compera*) paid to receive a share (*luoghe*) on the debt. A bit later in 1262, the city-state of Venice consolidated all of its outstanding liabilities in one fund – the *Monte* (Neal 1997). The shares earned 5 percent interest and were fully transferable. To be true, most investors were wealthy citizens, albeit some members of the middle classes and also some foreigners invested in *Monte* shares.

The center of financial activity and power shifted from Italy to northern Europe in the 15th and 16th centuries. Here, various exchanges, so called *bourses*, emerged. In particular, Antwerp became a very powerful financial center by the latter part of the 16th century. Nevertheless, *bourses* were established also in Paris (1563), London (1571) and Frankfurt (1585). At first, the *bourses* were places where commodities, crafts and financial products were exchanged side by side – much like in the fairs of late medieval France (Braudel [1979]1983). In the course of time, however, trade in goods and trade in securities became separated. Especially the market for municipal annuities became popular. In Antwerp, most participants in the market for municipal annuities were wealthy citizens – noblemen and landowners. However, some participants also belonged to a middle class. For instance, in 1545, 25 percent of purchasers were craftsmen, 21 percent were administrative officials, 17 percent were widows and 16 percent were merchants (Van der Wee 1977).

By the beginning of the 17th century, negotiable securities (shares of a business or of government debt) became popular across Europe. As investment in such securities became increasingly common, formal markets were established for purchase and sale. The first stock market in its modern form developed in Amsterdam at the beginning of the 17th century (Braudel [1979]1983; Neal 1993). Amsterdam was established as the center of the European financial world, later followed by London in late 17th century. Of course, as we saw above, markets for public debt existed already earlier, but what was new at Amsterdam was "the volume, the fluidity of the market

and the publicity it received, and the speculative freedom of transactions" (Braudel [1979]1983: 101). Amsterdam's powerful position was based on two major developments: (1) the creation of the Amsterdam *Wisselbank* clearinghouse in 1609 as the centralized location for account settlement and (2) the creation of a joint-stock company whose shares were bought and sold on a public market – the *VOC*, the Dutch East India Company (Obstfeld and Taylor 2004).

The English stock market developed at the turn of the 18th century in the coffeehouses on Exchange Alley, a street near the Royal Exchange marketplace in London. In 1760 there were 60,000 holders of British government debt, indicating the level of public participation in the financial markets (Michie 1999).[3] There were even smaller numbers of shareholders in joint-stock companies, although trading in equity was more common than in government debt at this time because company dividends were subject to much speculation. And, speculation was built into the stock market from the beginning. Amsterdam witnessed the Tulip Mania (1634) and London the South Sea Bubble (1720).

The time period between the late 19th century and the early 1900s witnessed the emergence of a truly global market for the first time in history, largely driven by historical context and technological progress. The Industrial Revolution increased corporate demand for capital that was primarily directed towards investment in fixed capital such as machines and factories. At the same time, governments worldwide relaxed restrictions on corporate formation and finance (Verdier 2002). As a consequence, the combined capitalization of enterprises which issued equity exceeded the gross debt of nations for the first time in the early twentieth century (Michie 2006). Furthermore, technological innovations played an important role in the development of public capital markets. Most influential were those path-breaking technologies that made information spread faster and easier, given the importance of accurate data in making financial decisions (Preda 2009). The

[3] This figure amounts to just over 1 percent of the English population at that time, estimated to be 5.75 million.

first in a row of such innovations came in 1844 with the invention of the telegraph, which resulted in a relatively convenient and immediate flow of communication between marketplaces and cities. By 1866, the first transatlantic cable made possible immediate communication between the global financial centers of New York and London. Such innovations were followed by the stock ticker in 1867 and the telephone in 1876. As a result of these new technological innovations that facilitated information flow, a network of buyers, sellers and intermediaries forming a global financial marketplace developed for the first time by 1870 (Preda 2001, 2009). Market participation reached unprecedented highs. It is suggested that there were £32.6 billion (nominal value) of securities outstanding in the world by 1910, owned by around 20 million investors worldwide (Michie 2006: 9–10).

In 1894 Max Weber ([1894]2000a: 316) wrote:

> "[…] in Germany, with about 50 million persons (comprising 11million families), about 10 million of them possess passbooks for savings accounts, about 2.5 to 4 million receive interest from capital in some form, and of these about 1.5 to 2 million receive that interest in the form of interest paid on securities or 'dividends'".

Beginning in the mid-1840s, financial investing was established as a widespread, legitimate and socially attractive practice in Western Europe (Preda 2001, 2009; Engel 2013; Stäheli 2013). In the late 19th century, ownership of financial securities was relatively widespread in France, Great Britain and the United States, even among farmers and factory workers (Weber [1894]2000b: 268). The middle classes – described as "spinsters, widows, retired naval and army officers, magistrates, retired merchants, parsons and orphanages" (Kindleberger and Aliber [1978]2005: 268) – actively engaged in financial speculation. A large amount of the literature in the second half of the 19th century dealt with changing experiences and perceptions of economic risk. Émile Zola's *"La Curée"* (1872) and *"L'Argent"* (1889) or Giovanni Vergas's *"Don Gesualdo"* (1889) which deal with speculations in the banking and real estate sector provide good examples. But also novels like Charles Dickens's *"Little Dorrit"* (1857), Honoré de Balzac's *"César Birotteau"* (1837), Robert Louis Stevenson's *"The Wrecker"* (1892) or Friedrich Spielhagen's *"Sturmflut"* (1877) and Anthony Trollope's *"The*

Way We Live Now" (1873) are dedicated to economic action in financial markets and speculative businesses.

Economic historians diverge in at which point in history, we can speak of 'popular finance'. Of course, these different positions often refer to different contexts. While some investigate the historical constellation in the United States, others identify waves of popular investing and their role in shaping modern financial markets much earlier in Europe – in France and England.

As one group of economic historians claims, considerable popular financial investments occurred for the first time in the United States during WWI, when governments promoted investment in war bonds – so called 'Liberty Bonds' or 'Victory Bonds' (Geisst 1997; Mitchell 2008; Ott 2009; O'Sullivan 2007). Others argue that financial inclusion of broader parts of the population came about around 1900, due to the concentration of an increasing middle class in financial centers (Baskin and Miranti 1997). A prominent position emphasizes the special significance of the railway business for widespread involvement of larger parts of the population within the dynamics of financial markets in mid-19th century Western Europe (Michie 1999, 2006; Chancellor 1999). Railways and particularly 'railway manias' deeply influenced the structure of the capital market and the level of investment (Reed 1975; Kindleberger 1984). Accordingly, the wave of railway investments in the 1840s – culminating in the 'Great Railway Mania' – mainly contributed to the consolidation of financial markets in London and Paris (Kynaston 1994; Preda 2001). In England and France, railroad manias took place in the 1840s (Jenkins 1973; Morgan and Thomas 1962; Studeny 1995; Guiral 1976) and in Germany a little bit later around 1870 (Borchardt 1978). Although stock ownership in railway companies partly differed by region or city, in general, stock owners could be found all over Europe. Typically, owners of railway stocks belonged to the trading, manufacture and liberal professions (Reed 1975) and investment in railways attracted many small investors (Jenkins 1973; Caron 1979; Colling 1949). In 1853, railway stocks made up 21 percent of all securities quoted at the London Stock Exchange, by 1893 the number had increased to 50 percent (Michie

1999). The corresponding figures for the Paris bourse are 12 and 30 percent (Verley 2010). Via a law from 1839, the French state guaranteed interest payments on railway bonds (Adam 1972; Dobbin 1994), which resulted in a widespread popularity of railway investments. As a consequence of such investment waves all over the modern world, railway finance became the 'epitome of finance' and occupied a central place in economic life for a long period of time.

Indeed, on the basis of historical data, we can show that ever broader parts of society became involved in financial investment since the beginning of the 20th century – with ups and downs of course (Table 2).

	United States	Great Britain	Germany	France
1901		1.5%		
1907	1%			
1911		2.5%		
1924	2%			
1927	3–5%			
1929	6–8%			
1932	8–10%			
1940	6–7%	3%		
1950	4%			
1960	7%	6%		
1970	15%	4%		
1980		5%	5%	4.5%
1990	21%	19%	6 %	16%
2000	56%		10%	13%
2010			6%	9%

Note: Only direct shareholdings (excluding shareholdings in mutual funds).
Data: For the United States: 1907 (Warshow 1924), 1924 (McCoy 1927), 1927 (McCoy 1930; Berle and Means 1932; Berneim and Schneider 1935), 1929 and 1932 (Berle and Means 1932; Berneim and Schneider 1935), 1937 (Cox 1963), 1952 (Kimmel 1952), 1959 and 1965 and 1970 (Traflet 2013), 1990–2000 (Deutsches Aktieninstitut Fact Book 2013). For Great Britain: 1901 (Register of Investors), 1911 (Foreman-Peck and Hannah 2012), 1941 (Ellinger and Carter 1949), 1960 (Vernon et al. 1973), 1965 and 1968 (London Stock Exchange Fact Book 1965, 1968), 1980–1990 (Deutsches Aktieninstitut Fact Book 2013). For Germany and France: 1980–2010 (Deutsches Aktieninstitut Fact Book 2013).

Table 2: Fraction of shareholders in total population, 1901–2010

The United States is probably the most impressive case demonstrating the emergence of a 'popular investment culture'. Whereas the fraction of shareholders was about 1 percent in the first decade of the 20th century, this number reached 56 percent by 2000 – the peak of the *Dot.com* bubble. Most

of the historical research on retail investors is carried out for the United Kingdom and the United States. A number of authors document the expansion of the US stock market from the mid-19th century to the early 1930s (O'Sullivan 2009; Ott 2008, 2009, 2011). However, there are also works which study the social structure of the widening ownership of stocks and shares in Great Britain between 1870 and 1935 (Rutterford et al. 2011).

The internationalization, liberalization and popularization of global capital markets was stopped and reversed by the WWI and a bit later by the aftermath of the *Great Depression* in the 1930s. From mid-20th century onwards, the international flow of capital began to recover. While trade in financial markets and financial agreements were limited and only bilateral in the 1950s, the second half of the 20th century experienced an increase in international capital mobility. By the 1980s, the volume and mobility of financial of flows was finally at the level it had reached almost a century earlier (Obstfeld and Taylor 2004). New stock exchanges emerged around the globe, first in developing countries since the 1950s and later on in post-communist countries (Weber et al. 2009). We will deal with these developments in more detail later on.

2.4.3. The Second Wave of Financial Inclusion: Funding Retirement and the Collectivization of Investments

While the advent of public markets and economic growth made many people familiar with trade in financial markets, the emergence of the concept of retirement as such and the forms of its funding took the democratization of investment at a next level. As Harmes (2001: 105) notes: the "origins of mass investment lie in the privatization of pensions".

Retirement as a legitimate and supported concept began to evolve by the second half of the 19th century and has witnessed steady expansion since (Wilke 2016; Haber and Gratton 1994). Although the concept of retirement was a novel innovation of that time, historically, the first known pension system was developed in ancient Rome. The Roman pension systems were designed for members of the military and for largely political purposes rather than altruistic ends. Already early, the Roman rulers granted land in

some parts of the Roman Empire to returning legionnaires and veterans. In 13 BC under Augustus, a formal military pension system was established (Clark et al. 2003). However, already Augustus's pension disbursements became under pressure, so that the years of service required to gain access to the pension plans were extended from sixteen years of active commitment and four years in the reserves to twenty years of active commitment and five years in reserves.

Of course, the inevitable coming of age is nothing new. Retirement was not wholly missing in previous ages, but it tended to have a different character. What is rather new is that old age became a distinct phase of life. This life stage is much less structured by labor market activities whereas leisure and consumption become increasingly important (Kohli 1988). For a long part of history, retirement was either non-existent (people worked until they died) or mainly organized within families or small communities (guilds, neighborhoods). In the past, societies actually required children to support their retired parents. In the United States, the *English Poor Law* of 1601 prescribed the family as the initial provider of support for parents and grandparents (Haber and Gratton 1994). Also in pre-modern times, state officials and soldiers received state assistance, while old age security for craftsmen was organized within guilds. However, in the course of urbanization, industrialization and increasing life expectancy, more institutionalized forms of public assistance for the retired emerged. New but rather uncommonly institutions at the time – so called almshouses – were founded in the 17th century. Poor elderly often resided in almshouses, not only a place for elderly but for ex-convicts and orphans as well.

Before its modern formation, retirement was effectively involuntary for those who were simply unable to participate in economic life. This called for the complicated and usually not very generous support by third parties. However, there were also forms of retirement which look much more modern in their character. But these forms were only accessible to a small fraction of society – either those who had wealth (or at least were able to put something aside regularly) or those who belonged to groups which had de-

veloped a sophisticated mechanism of community-support (church, state, army, guilds, etc.).

The 19th century saw the development of institutions which were dedicated not just to generate profit, but to serve the social function of creating a place for the less moneyed to bank – so called *saving fund societies* in the United States or *Sparkassen* in Germany. These institutions intended to enable a 'good' later-life for those who were able to put aside money over the course of their working life but did not have money to gain access to conventional banks. Whereas the wealthy and powerful had already access to savings institutions, less affluent had only limited access to such services. As research shows, ownership of such accounts was strongly determined by social structure. Certain depositors – namely, female servants – had a savings pattern resembling a deliberate attempt to store funds, although they had only little incomes (Alter et al. 1994; Wysocki 2005; Bracht 2013). Next to savings funds, the 19th century gave also birth to the institution of life insurance, which, however, was mainly restricted to a relatively wealthy middle class. Both in Germany and the United States life insurance was not regarded as a legitimate form of provision for a long time of the 19th century (Borscheid 1998; Zelizer 1979).

Historical works document that private saving for retirement was a relatively new mode of managing future uncertainty (Hardach 2003). For a long time in history, other, collective forms of old age provision prevailed (Conrad 1988). In Germany, the development of retirement provision was driven by bourgeois middle class attempts which aimed at establishing individual future provision as a normal, rational and emancipatory practice (Borscheid 1983). With the introduction of public social security, this development took a temporary peak.

Whereas the emergence of the concept of retirement as a social idea, the establishment of institutions which gave larger parts of society access to financial instruments directed at old age provision and the introduction of public social security made retirement funding a central part in economic

life, development since mid-20th century took retirement funding as an investment purpose at a higher level.

The second half of the 20th century experienced a major transformation in public pension provision. The privatization of public pensions and the global diffusion of pre-funded pension schemes changed economic life and thinking dramatically. The transformation of national pension systems was initiated and supported by transnational institutions like the *World Bank*, the *IMF* and the *OECD*. From the 1970s onwards, rising public debt and new ideological attractions have forced governments to retrench the post 1945 welfare arrangements (Streeck 2013; Castles 2007; Münch 2009). Consequently, people across the Western world experienced the erosion of state-backed guarantees, which made them increasingly turn to financial markets to achieve access to housing, education and protection against unemployment, ill health – and old age security. One the one hand, this "great risk shift" (Hacker 2006, 2008) resulted in increasing demand for investment opportunities. One the other hand, this shift provided banks and financial actors with stable and continuous financial flows.

We are able to draw on historical aggregate data on household financial asset allocation for two countries for which data for a longer period of time is available to take a look at the development of financial investment over the course of the 20th century (Figure 1). We display the development of equity wealth and insurance wealth in Sweden and the United States from 1914–2012.

Whereas equity wealth constituted a large part of private financial wealth in the first decades of the 20th century, it lost its significance in the course of time. In Sweden, equity assets made up around 60 percent of total financial wealth in the 1920s, decreased by more than 35 percent until the 1970s, witnessed a comeback in the late 1990s and early 2000s and make up around 25 percent of private financial assets today. In contrast to equity assets, insurance assets became of increasing significance throughout the last century. While in both countries (Sweden and the United States) insurance wealth constituted less than ten percent by 1930, insurance assets experi-

enced substantial growth during the 1930s and skyrocketed since the 1970s and early 1980s. Today, insurance assets amount to about 50 percent of total financial assets in Sweden and more than 40 percent in the United States.

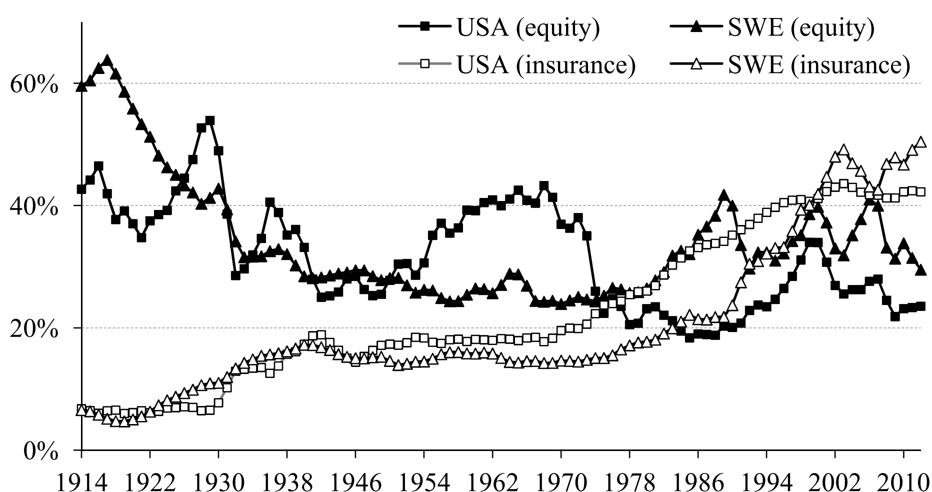

Figure 1: The development of equity and insurance assets (as % of total financial assets), 1914–2012 (Data: WID)

As a consequence of the privatization of old age security, a new group of financial actors entered the arena of global finance: institutional investors (also called organized investors or collective investors). These institutions – pension funds, life insurance companies and investment funds – emerged as a result of changes in pension legislation and resulting changes in saving behavior among the population. Assets managed by institutional investors increased massively and made institutional investors powerful and heavy-weight global actors (Useem 1996; Davis and Thompson 1994; Jung and Dobbin 2012). These collective funds have increasingly more money at their disposal and invest a growing proportion in financial markets. As Table 3 shows, whereas share ownership of private households witnessed massive declines since 1970, collective investors (insurance companies and pension funds, investment funds) increased their holdings in financial markets.

Investor	France				Germany				United Kingdom			
	1977	1990	2000	2010	1970	1990	2000	2010	1969	1990	2000	2010
Households	20%	19%	14%	12%	31%	20%	12%	9%	50%	26%	16%	11%
Nonfinancial Corporations	36%	33%	17%	21%	37%	38%	34%	36%	5%	3%	2%	2%
Banks	12%	9%	5%	3%	9%	14%	14%	5%	2%	0%	1%	1%
Insurance/Pension Funds	5%	7%	5%	4%	4%	8%	5%	9%	21%	49%	39%	13%
Investment Funds	5%	9%	14%	12%	3%	2%	15%	6%	13%	8%	6%	21%
Government	12%	7%	6%	9%	10%	4%	3%	2%	2%	2%	0%	3%
Foreign Investors	10%	17%	40%	39%	12%	17%	17%	33%	7%	12%	37%	48%

Data: Banque de France; Deutsches Aktieninstitut; Statistics United Kingdom; FESE

Table 3: Aggregate share-ownership structure, 1970–2010

Throughout the time period from 1980–2010, financial assets of institutional investors increased in many countries (Figure 2). In the United States financial assets of institutional investors made up 80 percent of GDP and increased by 150 percent until 2010. Also in Austria, a country not really famous for its financial culture, institutional investors increased their financial assets from 1980 to 2010 by 90 percent – from 10 percent of GDP in 1980 to 100 percent of GDP in 2010. Institutional investors have become financially powerful particularly in the United States, the United Kingdom and the Netherlands. Institutional investors play a much smaller role in Belgium, Austria or Spain. This apparently gradual shift from private to collectively managed investments was initially interpreted as an unseen socialization in property relations. Most famously, Peter Drucker (1976) wrote of the advent of "pension fund socialism". In reality, however, the collectivization of investment led not so much to improvements in the position of employees or small investors, but rather to greater shareholder power, and ultimately to the emergence of an "investor capitalism" (Useem 1996).

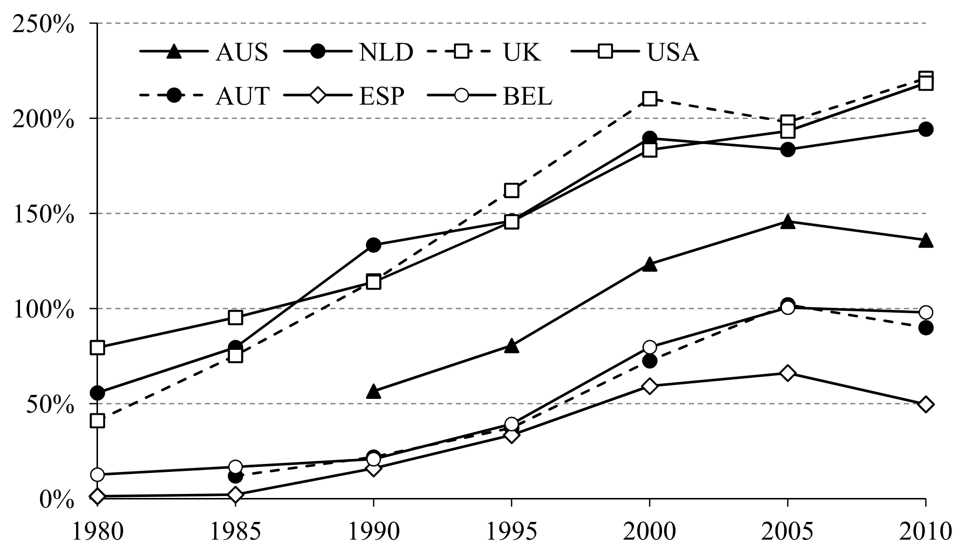

Figure 2: Financial assets of institutional investors (as % of GDP), 1980–2010 (Data: OECD)

Retirement provision as a central object of investment and the related rise of collective investors, however, was not only fueled trends of privatization but

also by rising economic prosperity and growing private financial well-being during the economic recovery since the end of WWII.

> "[T]he growth of a true 'patrimonial (or propertied) middle class' was the principal structural transformation of the distribution of wealth in the developed countries in the twentieth century" (Piketty 2014: 260).

Between 1970 and 2010, private wealth-to-national income ratios rose from about 200–300 percent in 1970 to 400–600 percent in 2010 (Piketty and Zucman 2014). The rising ownership of financial assets in the "affluent society" (Galbraith 1958) and numbers of potential middle class investors searching for profitable investment opportunities stimulated an increasing demand for financial products and professional wealth management (Deutschmann 2010; Schimank 2007).

Although asset ownership is unevenly distributed in that the largest part of private wealth is owned by those belonging to the top 1 percent of the distribution (Kus 2016; Carroll 2002), also the middle classes had been able to accumulate a considerable level of property and wealth over the prosperous post-WWII decades. This holds true for European societies in specific (Mau 2015; Piketty 2014).

2.4.4. Concluding Remarks – Private Investment and the National State

While financial markets as such are an institution with a long history and a long past and financial activities were a part of economic life ever since, the recent growth of financial markets and the mass-participation within global finance are rather novel phenomena. For thousands of years, investment as an economic activity belonged almost exclusively to those with great wealth and power. Only those who were part of the 'power elite' in society could possess and organize resources in order to earn a return. The majority had neither the wealth nor the power to participate in investing their money for future returns. Nowadays, the majority has become investors – in general with the aim of providing funds for a happy and healthy retirement without worries.

In ancient and pre-modern times, investment happened mostly via land, lending or trade, as the main investment vehicles. Financial investment was not only limited by the lack of necessary financial resources, but also by prevailing institutions, norms and beliefs. As we have seen, investment practices witnessed substantial transformation throughout history. From land as the main investment vehicle in ancient times and the early Middle Ages, investment was increasingly directed towards trade and commerce in the Renaissance. At this time, a larger fraction of people also got in touch with trade in public debts.

In the course of industrialization in the 18th and 19th century, due to demands for capital, growing prosperity and technological progress, more and more people became involved within financial investment. The ascent of public financial markets and recurrent investment crazes in the railroad business, construction or mining made financial products available for a broader public. Especially during WWI, many people in Western Europe and North-America became small investors through the purchase of war bonds (so called 'Liberty Bonds' or 'Victory Bonds' in the United States).

What eventually made finance a mass-participatory activity was retirement funding. The development of funding retirement as a major objective of investment has brought about deep consequences for society, including the emergence of pension funds, the growth of retirement savings plans, and the still lasting discussion about the future of the welfare state and social security in general. Still by the mid 19th century, family, friends or neighbors provided old age security in most cases. Therefore, we take a more detailed look at two key trends which contributed to the privatization of old age security and the unprecedented rise of finance since the 1970 across the developed world. We identify 'marketization' and 'individualization' as the most fundamental trends which made finance as such, and the accumulation of private wealth in specific, so powerful and significant. Marketization as the "process of taking goods and services that had previously been provided under bureaucratic, political, or professional means of resource allocation and transferring them to market arrangements" (Crouch 2009b: 878), made

markets the solution for economic coordination and distribution. This process is closely intertwined with another prominent social diagnosis – individualization. In the course of individualization, people have become ‘disembedded’ from traditional social forms (like state-provided-welfare, trade unions or the church) and became ‘re-embedded’ into ‘new’ competition-dominated arrangements (like financial markets). Thus, we can speak of a new mode of societalization via the re-embedding of people into the destinies of global finance.

The financial inclusion of ever larger parts of society arose in combination with processes of economic growth and state formation. With the expansion of trade and industry, the money economy expanded in Europe and larger parts of society accumulated financial resources. Simultaneously, closely intertwined with the growth of the money economy, modern states began to develop. These states had to raise funds to finance their political and military rivalry. So states started to issue loans. As these government loans became more widespread, they also became more easily transferable and tradable. The state was also partly responsible for the emergence of joint-stock companies. The first Dutch and British joint-stock companies were established at government’s initiative and were also equipped with certain privileges from the government. At least in the beginning, joint stock companies were organizations with primarily public or semi-public tasks (colonial oversea trade, railroad building, etc.). Also the emergence of collective investors was a result of action by the state – namely pension policy. Many citizens and employees turned into investors for funding their retirement, in particular in the course of the privatization of public social security arrangements.

2.5. The Resurrection of Finance

At least since the 1980s, financial markets have once again become the central arenas of economic globalization (Cohen 1996; Germain 1997). Since then, commentators speak of growing global economic integration. We can witness the ‘resurrection of finance capitalism’, which means that ‘finance’

has become the central function in the economy and has expanded its influence to other areas of social life. These developments make national-level economic regulation and control increasingly more difficult and exert pressures on actors worldwide – including states, organizations, corporations and households. Nevertheless, this process seems by no means a novel and unique phenomenon in modern economic history (Hirst et al. 2009). The 'first globalization wave' (~1870–1914) can be characterized as a peak phase of worldwide financial expansion and integration and is, therefore, regarded as the "first global century" (Williamson and O'Rourke 2002; Baldwin and Martin 1999; O'Rourke and Williamson 1999). The second half of the 19th century witnessed an unleashing of market forces and a growing prominence of finance comparable to the dynamics the global economy experienced since the 1980s (Bairoch and Kozul-Wright 1996; Wade 1996). The decades before 1913 are widely considered a 'golden age' of international investment and trade. By mid-19th century, commentators speak of a "world market" (Kuznets 1966) and a "world economy" (Cameron 1993). Prior to the disruptions of the two World Wars and the collapse of commodity and financial markets in the *Great Depression* – when worldwide economies turned inward, the world economy started to disintegrate and a broad public mistrust in 'the financial' gained ground – capital markets were as internationalized and integrated as since the 1980s (Wade 1996; Kenwood and Lougheed 1994; O'Rourke and Williamson 1999; see also Koechlin 1995; Obstfeld and Taylor 2004). Accordingly, it is argued that

> "the reemergence of a global, capitalist market economy since 1950, and especially since the mid-1980s, in an important sense reestablishes the global market economy that had existed one hundred years earlier" (Sachs and Warner 1995: 5).

Today, however, the heavy expansion and omnipresence of finance seems even to exceed its historical origins. Financial markets have witnessed extreme growth and became integrated on a global level. The size of net transnational flows of bank capital, investment capital, bonds and derivatives cut out the revenues of major corporations or even states. As a consequence,

financial markets, financial logics and financial actors are now playing a key role in the economy. The omnipresence of finance in everyday life is reflected by the position of stock market news and reports from the financial world within the popular media (Knorr-Cetina and Preda 2005; Preda 2009). The world of finance occupies a big part within the 'popular culture' as well (Czarniawska 2005), which shows up in the guides on successful financial investment, biographies of famous financiers as well as belletristic literature and blockbuster movies which deal with the Wall Street.

The global neoliberal transformations which originated in the 1970s changed the situation of a regulated and controlled environment which had existed since the end of the first globalization wave, and in particular since the financial collapse of 1929 (Djelic 2006; Simmons et al. 2008; Fourcade-Gourinchas and Babb 2002). The causes underlying these developments are manifold. A series of events that occurred since the late 1960s weakened the financial regime of the 'Golden Age of Modern Capitalism'. Typically, the re-emergence of modern global finance is linked to the breakdown of the *Bretton Woods System* (Strange 1986; Helleiner 1994). The Bretton Woods agreements of 1944 were central to the creation of a multilateral consensus around the liberalization of world trade and the establishment of a system of fixed exchange rates pegged to the US dollar. Due to experiences of hyper-inflation, the Great Depression and war, a return to the economic liberalization of the pre-WWI period seemed impossible. Therefore, a cooperative framework for economic development of the Western world was established via a system of fixed exchange rates, controls on the movement of private capital and two major international institutions, the *World Bank* and the *International Monetary Fund (IMF)*. After the collapse of the *Bretton Woods System* of fixed exchange rates at the beginning of the 1970s (Kindleberger 1984; Eichengreen 2007), controls on the movement of capital were removed, which created the basis for globally circulating investments (Simmons 2001). In the course of the post-*Bretton Woods* era, states deregulated and liberalized restrictions on financial transactions. Trade in shares and 'innovative' financial products flourished. As the old regulative financial

arrangements were unraveling, financial markets grew at speed. In the first decade after the demise of the old regime, financial market growth took place in an environment in which the 'rules of the game' set by regulative actors were changing dramatically and market conditions turned out to be volatile. The United States represented *the* financial super-power. However, the US economy did not remain the only one to experience a 'free market' financial transformation. The new model was quickly exported and reproduced around the world. As already mentioned above, the deregulation of domestic finance and the liberalization of cross-border movements of financial flows were central mechanisms for the spread of neoliberal market ideology around the world.

Simultaneously, a stepwise structural shift of financial business took place since the 1980s, which involved the devaluation of the 'traditional' credit business (commercial banking) in favor of trade in stocks (investment banking). Whereas 'banks as credit institutions' provided capital for an agreed interest rate, 'banks as investment institutions' engaged in trade in securities and received a provision for every transaction. Consequently, long-term credit relationships were replaced by tendentiously short-term transactions and risks were increasingly shifted from the banks towards the investors (Rajan and Zingales 2003; Davis and Mizruchi 1999).

These changes, however, have to be viewed against the background of further important developments – namely, technological developments. Digitalization and technologization played a key role for growth and spread of modern financial products and markets (Preda 2006; Callon 2004; Barry and Slater 2002). As a consequence, volume and speed of transactions multiplied, which resulted in the emergence of a global market (Castells 1996; Sassen 2005). In the course, trade in shares, derivatives and loans developed into an enormously lucrative business and profit margins grew steadily (Dore 2008).

Since the 1980s, market capitalization of national stock exchanges increased heavily (Rajan and Zingales 2003). Whereas stock market capitalization (the total value of all listed shares in a stock market) witnessed slow

but continuous growth throughout the 1980s in most advanced economies, numbers exploded in the mid-1990s and reached a peak around the millennium (Table 4). For instance, in 1990 stock market capitalization in Germany made up to around 20 percent of GDP, whereas 10 years later it arrived at its peak level of 67 percent of GDP. In the United Kingdom, stock market capitalization was about 83 percent of GDP in 1990 and reached about 173 percent of GDP in 2000. The burst of the *Dot.com* bubble made stock market capitalization shrink across economies worldwide. This, however, was only of short duration and levels of stock market capitalization recovered until 2007/2008 when the US *Subprime Crisis* reverberated throughout the world.

	France	Germany	United Kingdom	United States
1913	0.78	0.44	1.09	0.39
1929	n.a.	0.35	1.03	0.75
1938	0.19	0.18	1.92	0.56
1950	0.08	0.15	0.86	0.33
1960	0.28	0.35	1.15	0.61
1970	0.16	0.16	1.99	0.66
1980	0.09	0.09	0.38	0.46
1990	0.25	0.21	0.83	0.51
2000	1.09	0.67	1.73	1.47
2010	0.75	0.43	1.35	1.15

Data: Germany, United Kingdom, United States, 1913–1980 (Rajan and Zingales 2003); France, 1913–1990 (Bozio 2002); 1990–2010 (World Bank)

Table 4: Stock market capitalization to GDP ratio, 1913–2010

Another key driver next to digitalization and financial product innovation was the rise of finance as a science. The development of new theoretical paradigms within the field of financial economics and their dissemination across business schools worldwide, has contributed considerably to the construction of a standardized set of techniques. The rise of finance as an economic discipline has not only produced a number of Nobel-Prize winners but also a set of practical mathematical formulae, models and theorems – Efficient-Market-Theory, Capital-Asset-Pricing-Model, Option-Pricing-Model, Black-Scholes-Theorem (Bernstein 1992, 2007; MacKenzie 2006;

MacKenzie and Millo 2003). Today, these instruments belong to the standard repertoire utilized by traders worldwide.

To sum up, since the collapse of the *Bretton Woods System* and the emergence of a *Eurodollar Market*, financial deregulation and technological innovation have resulted in a global exchange network of capital flows and transactions. Whereas the traditional credit business lost importance, financial market instruments gained widespread significance for the operations of national governments, corporations and private households. In such a way, finance is not only linked to re-orientations in corporate strategies and changes in national financial institutional frameworks but also to new pressures on private households and the emergence of new opportunities for investors and savers.

2.6. Marketization and Individualization

The rise of finance, transformations in investment practices and the dynamics of private wealth since the 1970s cannot be understood without taking a look at two fundamental processes which have been taking place over the last part of the 20th century: *marketization* and *individualization*.

Generally, most of the literature claims that financial globalization since the 1970s was mainly driven by the demise of the *Bretton Woods System* in unleashing market forces. However, such an explanation seems too simplistic. The rise of finance over the last decades was only possible due to the re-emergence of a whole set of ideas, beliefs, practices and institutions strengthening global networks of finance.

Marketization – The Real Great Transformation?

In contemporary society, 'markets' have become absolute (Barber 1977; Fourcade 2007). They seem to represent *the* fundamental foundation of modern society. It is a myth that markets have ever been completely unregulated but the intellectual tide of the past 40 and more years has unquestionably been in favor of the primacy of markets and against regulation. Throughout the last decades of the 20th century, the world witnessed the

paramount trend towards "marketization" (Djelic 2006; Fourcade-Gourinchas and Babb 2002; Crouch 2011) – sometimes also called "economization" (Schimank and Volkmann 2008). The rise of finance has to be seen as closely intertwined with this development. Marketization entails both (1) market ideologies and (2) market-oriented reforms. A market ideology reflects the belief that markets are more efficient in allocating resources, creating affluence and guaranteeing steady growth than bureaucracies, managers, cartels or state governments. Such a belief results in the introduction and diffusion of market principles on a national and global level and eventually leads to the 'commodification' of nearly all spheres of social life. Market-oriented reforms refer to policy attempts shaped by market logics, which aim at cultivating the emergence of markets and weakening alternative institutional arrangements at the same time.

The striking increase in the size and power of global financial markets has been both constitutive of and coterminous with the spread of neoliberal processes of marketization across the globe. It is impossible to analyze one in isolation from the other. Marketization is closely interwoven with financial liberalization and deregulation, which meant structuration of the financial field on a global level (Van Zandt 1991; Ventresca et al. 2003) and global development of isomorphistic financial discourses, institutions, actors and practices (Simmons 2001; Kleiner 2003; Weber et al. 2009; Gordon and Roe 2004).

The transition from 'organized' post-war capitalism towards '(neo)liberal' capitalism is widely attributed to the re-discovery of liberal ideas in the 20th century (Djelic 2006; Mirowski and Plehwe 2009; Simmons et al. 2008; Lash and Urry 1987). Since the 1970s, liberal thinking became popular on a global level, a way of thinking which supports free market trade and limited state intervention – generally described as "neoliberalism" (Duménil and Lévy [2000]2004, 2011; Crouch 2011). According to the neoliberal idea, the state is only responsible for guaranteeing freedom and law but in no case for intervening in the social outcomes created through economic activity (Swedberg 1994). At least since the beginning of

the 1980s, the spread and diffusion of marketization has given rise to profound social, economic and political transformations. In the course, free-market-orientated economic policy, in form of deregulation, privatization and liberalization, has spread rapidly all around the globe (Simmons et al. 2008; Fourcade-Gourinchas and Babb 2002; Ikenberry 1990; Eising 2002; Henisz et al. 2005; Kogut and Macpherson 2008; Simmons and Elkins 2004; Brune et al. 2004).

In particular, processes of marketization imply a new understanding of the role of state action and therefore have great impact on regulation by the state (Carruthers et al. 2001; Helleiner 1994; Fligstein 1996). This development can be illustrated by at least four aspects: (1) States delegate elements of their rule-making and monitoring power to independent regulatory actors (Gilardi 2005; Krippner 2007). (2) Regulatory thinking is moving towards structured self-regulation. Former regulatory fields experience privatization and transformation into markets, which means the introductions of competitive mechanisms and efficiency principles. At the same time, “audit” replaces former “control” (Power 1997), which means the replacement of political authority by (scientific) professional expertise. (3) Public administrations experience re-structuring and modification (LeGalès and Scott 2008; Schimank 2005; Christensen and Laegreid 2001). This means a ‘managerialization’ of state bureaucracies including the implementation of market mechanisms and ideas of competition. In the course, state bureaucracies experience shifts towards greater transparency. In the course, efficiency criteria and customer-orientation become more important. (4) The role of the state has changed when it comes to welfare arrangements and social security. Consequently, the last decades saw the retrenchment of the welfare state from many traditional domains. This holds true for the emergence of private pension schemes (Weyland 2005; Dixon 2008; Ebbinghaus and Whiteside 2012) but as well for the fields of education and health care which had to submit to the principles of markets (Ramirez 2006; Eaton et al. 2016; Schimank 2005).

In face of such changes, it is, however, important to mention that the "re-birth of the liberal creed" (Fourcade-Gourinchas and Babb 2002) resulting in the global spread of market logics is far from being the first wave of global-reaching economic change. For instance, the *Treaty of Westphalia* in 1648 resulted in the spread of the territorially bounded nation-state (Krasner 1993; Thomas and Meyer 1984) with deep effects for economic life. Later, mercantilism, orthodox macroeconomic policies, socialism and Keynesian-ism occupied certain *en vogue*-periods as global models for economic organization (Gourevitch 1986). The "first globalization wave" (O'Rourke and Williamson 2002) from mid-19th century until the beginning of WWI involved heavy consequences for economies on a global scale. What is, nonetheless, more distinctive about the late-20th century economic developments of liberalization, is its rapidness, its extensive global reach and its conjoining of political and economic reform (Simmons et al. 2008).

The spread of neoliberal marketization has to be understood as the interplay of different social forces within a distinct historical context. The distinct historical context which provided the ground for the global diffusion of market logics can be characterized by five distinct developments. (1) The 1970s experienced heavy economic disruptions, mainly created by oil shocks with global impact. As a consequence, economic depression existed in parallel with rising inflation (so called 'stagflation'), which demonstrated both the limits of Keynesian economic policy and the structural fragility in Western economies. (2) The crisis of the 1970s led to increasing dependency of governments worldwide on international financial institutions like the *IMF (International Monetary Fund)* and the *World Bank*. (3) The end of the Cold War meant a victory of capitalistic economic organization over communism and its interventionist features. (4) As a consequence, the United States represented the only remaining super-power and cemented its global hegemonic status. Already since the end of WWII, the diffusion of ideas, models and practices has happened chiefly from the United States towards other Western societies (Djelic 1998; Zeitlin and Herrigel 2000; Useem 1998). However, after the end of the Cold War this tendency even intensi-

fied (see Simmons et al. 2008; Beck et al. 2003). (5) Both as an “epistemic community” (Haas 1992) and as ‘policy-makers’ or ‘modern gurus’, economists have achieved influence, power and reputation on a global level.

The global spread of market principles was strongly associated with the powerful influence of liberal economists and authorities (Djelic 2006). The institutionalization of neoliberalism started with the foundation of the *Mont Pelerin Society* in 1947, a ‘think-tank’ and international social network of influential and prominent economists (Mendes 2003; Plehwe 2009). In parallel, the *Chicago School* achieved growing popularity, attraction and influence. Chicago economists – especially Milton Friedman as its ‘public leader’ – publicly propagated the advantages of market principles and their potential to solve the contemporary economic problems created through Keynesian economic policy. While in the course of economic disruptions of the 1970s, Keynesianism became increasingly discredited, liberal ideas promised to provide solutions and increasingly caught political attention. Instigated by the rebirth of the liberal intellectual ideas, economists and policy-makers blamed heavy regulation and state intervention for structural economic problems. Under the influence of the *Chicago School* around Milton Friedman, fundamental market-liberal reforms as a remedy for economic depression were implemented in different countries – first in Chile under the Pinochet regime, then in Great Britain under the Thatcher government, then in the United States under the Reagan administration (Valdès 1995; Foxley 1983; Keegan 1984).

Individualization – Liquid Life in the Risk Society

The trend of ‘economic liberalism’ and the resulting central position of ‘the market’ is interacting with trends of ‘cultural liberalism’ of “modern actorhood” (Meyer and Jepperson 2000) and the central position of ‘the individual’ in modern society. Increasingly, life cannot follow fixed forms, predetermined courses or ‘normal’ patterns. People, in contrast, are permanently forced to decide on their own and for themselves – in a ‘liquid’ society which lacks orientations. One the one hand, options increase, whereas, on

the other hand, risks increase as well. The task of performing individual identities has not only become a choice but rather a compulsion. Nowadays, people have to "seek biographical solutions to systemic contradictions" (Beck and Beck-Gernsheim 2001: xxii), at the same time as everybody experiences disintegration of previously existing collective social forms such as family, class, nation and welfare state.

These developments in the relation between society and individual started to become clear already at the end of the 19th century (see Simmel [1907]2004; Weber [1922]1978) and gained speed after WWII in most Western societies. The last century witnessed a kind of "metamorphosis" in the relation between individual and society, eventually leading to a "new mode of societalization" (Beck [1984]1992: 127). In general, this process is termed "individualization" (Beck [1984]1992; Giddens 1990, 1991; Bauman 2000, 2001; Beck and Beck-Gernsheim 2001). The process of individualization happens along three dimensions (Beck [1984]1992: 127ff): the (1) "liberating dimension" means a disembedding from historically prescribed social forms and commitments in the sense of traditional contexts of dominance and support, the (2) "disenchantment dimension" refers to the loss of traditional security with respect to practical knowledge, faith and guiding norms, the (3) "control or reintegration dimension" means a "re-embedding" – a new type of social commitment – into modern institutions like financial markets, labor markets, education institutions or mass consumption. The dimensions of individualization, (1) disembedding, (2) loss of traditional security, (3) re-embedding, refer to a weakening, perhaps even a collapse, of normative certainties and traditional modes of living. In the course, marriage and family, national state, industrial firm, trade union, parties and church lose their binding force, since they contradict needs for freedom and flexibility. On the one hand, individualization refers to the erosion and disintegration of previously collective forms of social life and the decreasing necessities of previous modes of life. One the other hand, individualization means a widening of scope and the free choice of alternatives leads to emancipation and self-fulfillment. Individualization described as "collec-

tive fate" (Beck [1984]1992) has to be regarded as a universal social transformation. Thus, individualization represents a social phenomenon which happens beyond the individual influence. The increase in options to choose from goes hand in hand with a loss of orientation. In the face of the totality of alternatives, everyday life becomes more complex and future becomes more uncertain.

Processes of marketization, transformations that took place with regard to industrial production (Boltanski and Chapiello [1999]2005; Fligstein 1990, 2001) and the rebuilding of welfare state security (Pierson 2001; Crouch 2009; Bourdieu 1999; Münch 2009) gave rise to a general sense of insecurity ad precariousness. The transformations lead to more freedom and autonomy, but at the same time more self-responsibilities and uncertainties (Beck [1984]1992, 2001; Sennett 1998, 2006). Contemporary market-orientation, thus, can be characterized as

> "a political rationality that tries to render the social domain economic and to link a reduction in (welfare) state services and security systems to the increasing call for 'personal responsibility' and 'self-care'" (Lemke 2001: 203).

These developments reflect a shift towards liberal thinking which involves to take control over one's life, to actively design and arrange one's life and to take responsibility for success and failure. The ideas of freedom and success and their prominent place in society bring about fundamental consequences for requirements and expectations.

> "[T]he responsibility for resolving the quandaries generated by vexingly volatile and constantly changing circumstances is shifted onto the shoulders of individuals – who are now expected to be 'free choosers' and to bear in full the consequences of their choices. The risks involved in every choice may be produced by forces which transcend the comprehension and capacity to act of the individual, but it is the individual's lot and duty to pay their price, because there are no authoritatively endorsed recipes which would allow errors to be avoided if they were properly learned and dutifully followed, or which could be blamed in the case of failure" (Bauman 2007: 3f).

Within a "risk society" (Beck [1984]1992; see also Giddens 1991) decisions are made without being sure that these are the 'right' decisions. Future is marked by uncertainty. Therefore, risk can be understood as a "deadlock situation" (Esposito 2011): There are always worries that things cannot be avoided. This means, all decisions made – and also all decisions not made –

imply risk. Security is, thus, only an illusion. In the course, liberal mentalities and orientations as well as competitive attitudes become central, which make actors actively design their lives and take responsibility for success or failure (Neckel 2010). Risk can be regarded as the universal condition of modernity, a condition which inevitably arises from increasing contingencies, from the need to choose between various options. This holds not only true for economic life alone but for social life in general and thus also affects areas such as family, education or politics.

The pressure to increasingly make one's basic needs and one's future depended on financial markets is, nevertheless, only one side of the story. In an age of 'finance capitalism', the likelihood that a situation might occur is not to be feared but to be exploited as well (Sennett 2006; Boltanski and Chiapello [1999]2005; Voß and Pongratz 1998; Bröckling 2007). The pressures resulting from the replacement of a tradition-bounded (passive) certainty by an active autonomy increase with the promises of an individualized society – Try hard and you will be successful. The neoliberal climate in society suggests that everyone is responsible for his well-being. And, well-being seems to be possible for everyone. 'Do-it-yourself' is the message. Thus, well-being seems only to be a question of entrepreneurial virtues and economic spirit. The goal of a self-determined and successful life can only be achieved by the price of self-governance, self-discipline and self-control. As a consequence, large parts of the population increasingly perceive risky financial investments as an option which has to be taken into account when making financial decisions. Risk itself becomes an encouraging factor to engage in financial markets for retirement provision, education or protection against unemployment and ill-health. By actively handling risk, people can prepare for a future marked by multiple uncertainties. In its essence, this means that life itself turns into a type of asset to be managed (Martin 2002; Davis 2009). Via policy reforms or marketing campaigns, people are forced or encouraged to actively engage in financial concerns (Langley 2008). "What emerged can be called a portfolio society, in which the investment

idiom becomes a dominant way of understanding the individual's place in society" (Davis 2009: 6).

According to the neoliberal idea, everyone is free and equally able to check his chances and options and to calculate their efficiency. In the course of this generalization of freedom, mechanisms of economic integration change. The "entrepreneurial self" (Amoore 2004; Langley 2006; Bröckling 2007) describes a social figure who is permanently called on to combine economic success with self-realization. Freedom does not only involve the unbinding from previously existing norms and traditions, but also the compulsion to make use of this freedom – in the form of a self-responsible 'entrepreneurship'. This freedom, however, is always threatened by the danger of failing – economically and socially – and is therefore inevitably related to the pressure to be successful, no matter how success is created and achieved. Market outcome increasingly represents the only simple measure for justification, evaluation and social-standing (Neckel 2008, 2010).

2.7. Financialization as a Present-day Diagnosis

Processes of marketization and individualization meet each other in the concept of financialization. This means by no case that other prominent social trends like digitalization and medialization, globalization and Europeanization, or precarization and flexibilization are irrelevant for the rise of finance. But drawing on the historical discussion by Doering-Manteuffel and Raphael (2008), we identify the shift from state towards market and from society towards individual as the most characteristic developments of our times since the 1970s.

The increasing role of financial markets and their underlying financial logics have radically transformed economic life in present-day capitalist societies. To describe and articulate contemporary socio-economic phenomena and transformations, researchers from a range of disciplines make use of the concept of 'financialization', signaling the growing importance of finance and financial markets as being of elementary significance for economic ac-

tion and the trajectories of modern societies (Krippner 2005; Epstein 2005; Van der Zwan 2014).[4]

Throughout the last four decades, research in political economy has mainly been a comparative effort in studying the complex nexus of economy and social institutions, with the consequence of outlining distinct "varieties of capitalism" (Shonfield 1965; Albert 1991; Hall and Soskice 2001; Amable 2003). However, in particular since the financial crisis of 2008, discussions on capitalism, rather focusing on its 'common' trends than its 'varieties', became of increasing interest (Regini 2014; Streeck 2011b). The idea of financialization represents such an attempt, since financialization as a universal process is not confined to one distinct economy, but happens globally and thus affects economies all around the globe – albeit to different degrees. Financialization represents a 'commonality' of contemporary capitalistic economies.

Such an understanding asks for a view of financialization as a multifaceted phenomenon which happens at different levels (Deutschmann 2011). Indeed, so far, research has identified different contours of financialization:

- Current processes of financialization are an expression of 'long waves' of capitalistic development and the rise and decline of financial supremacy (*longue durée perspective*).
- Financialization involves economic transformations at the sector-level of economies. Research has demonstrated realignments in the structure of the economy, in the distribution of national income between profits, rents, wages and taxes, and in the international division of labor (*sector perspective*).
- Processes of financialization relate to changes at the organizational and firm-level. A number of studies have examined transformations in corporate governance and shifts in the power balance between

[4] It should be mentioned, nevertheless, that the concept of financialization is far from being new. Its origins can be found in the early 20th century literature (Hobson 1902; Hilferding 1910) and in the interwar years (Tawney 1921; Berle and Means 1932; Keynes 1936). A historical introduction on this is found in Erturk et al. (2008).

corporate owners, management, shareholders, state, unions and employees. As a consequence, corporations embraced a stock market-oriented conception, and non-financial firms started to act as banks and engaged in financial activities (*shareholder value perspective*).

- Last but not least, financialization also relates to changes at the individual and household level, reflected by the rise of credit financed consumerism and the spread of a middle class investor culture (*everyday life perspective*).

Nevertheless, the question still remains: What is financialization? What do we exactly mean by this term? The related literature offers various definitions. We will present some oft-cited and prominent ones. One of the most prominent and most encompassing definitions of financialization is presented by Epstein (2005: 3), which for him means "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies".

A few years earlier, for Dore (2000: 116f) financialization

> "refers to the increasing dominance of the finance industry in the sum total of economic activity, of financial controllers in the management of corporations, of financial assets among total assets, of marketed securities, and particularly of equities, among financial assets, of the stock market as a market for corporate control in determining corporate strategies, and of fluctuations in the stock market as a determinant of business cycles."

In a similar manner, Palley (2007: 1) conceptualizes financialization as

> "a process whereby financial markets, financial institutions and financial elites gain greater influence over economic policy and economic outcomes. Financialization transforms the functioning of economic system at both the macro and micro levels. Its principal impacts are to (1) elevate the significance of the financial sector relative to the real sector; (2) transfer income from the real sector to the financial sector; and (3) increase income inequality and contribute to wage stagnation. Additionally, there are reasons to believe that financialization may render the economy prone to risk of debt-deflation and prolonged recession."

While these definitions offer good descriptions of financialization processes from a broader perspective, they invoke the impression that financialization does only imply quantitative change: The 'financial' gains far greater weight compared with the 'real'. These conceptualizations also seem to use

‘the financial’, ‘the financial sector’ and ‘financial institutions’ interchangeably. Financialization, however, encompasses economy as a whole – including not only the financial sector but also the governmental state, non-financial corporations, various economic organizations and private households. Hence, it seems to be misleading to view the ‘real sector’ against the ‘financial sector’ as if they were separate and opposing domains. Rather, contemporary financialization can be considered as a qualitative change in the logic of profit accumulation. This change is linked with the process of profit maximization – in our case financial profit in specific – in conditions of global economic crisis. There is no principled distinction between the ‘real sector’ and the ‘financial sector’ (for any longer), since the ‘financial sector’ *is* (now a part of) the ‘real sector’ – and *vice versa.*

Accordingly, financialization could be conceptualized as a “pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production” (Krippner 2005: 174). Or in other words, financialization is “the growing importance of financial activities as a source of profits in the economy” (Krippner 2011: 27). ‘Financial’ refers to the economic activities transferring financial resources in the expectation of future profit or capital increases. Therefore, this ‘accumulation-centered’ interpretation of financialization concentrates on how and where profits are created. Such a view implies not only mere numbers and fixed boundaries between sectors and actors but incorporates the meaning related to finance.

2.7.1. The Longue Durée of Capitalism and Financialization

Contemporary financialization has to be understood against the background of the ‘longue durée’ of capitalist development – recurring ‘long waves’ in economic history, which entail hegemonic and geographic shifts (Braudel [1979]1984; Arrighi [1994]2009; Arrighi and Silver 1999; Langley 2002; Phillips 1993). According to the economic historian Fernand Braudel, financial expansion occurs as a response to capital over-accumulation – i.e. in

response to the accumulation of capital on a scale beyond the 'normal' channels for investment.

> "[F]inance capital is not a particular stage of world capitalism, let alone its latest and highest stage. Rather, it is a recurrent phenomenon which has marked the capitalist era from its earliest beginnings in late medieval and early modern Europe" (Arrighi [1994]2009: xi).

Hence, financialization does not represent a completely new phase of present-day capitalist development but is a regular and recurring phenomenon in the conjuncture of capitalist economies throughout economic history since the mid-13th century. For Braudel, periods of financial expansion are not just recurrent phenomena and fundamental periods of re-organization and re-production of world capitalism. Periods of financial expansion represent critical phases in history during which the center of capital accumulation moves towards another location.

The 'long waves' consist of two parts (Arrighi [1994]2009). Whereas the upswings are marked by increasing manufacturing and trade, the downturns are characterized by a process of financialization, which means a shift towards financial activities to ensure further growth as "the predominant capitalist response to the joint crisis of profitability and hegemony" (Arrighi 2007: 161). Financial expansion represents "a sign of autumn" (Braudel [1979]1984: 246), a mark for the maturity of a distinct phase in the evolution of capitalist economies and the decline of hegemonic power positions. Throughout 'autumn', the scale of financial expansions skyrockets to encompass most of the globe (Arrighi 2003). The 'autumn' of the hegemonic country, however, is the 'springtime' for the rise of the next hegemonic power.

In his empirical study, Giovanni Arrighi ([1994]2009) illustrates the dynamics of the world economy as a sequence of "systemic cycles of accumulation". Each cycle represents the ascent and the decline of the hegemonic economy of world capitalism. Arrighi identifies four overlapping systemic cycles of accumulation since the 14th century:

- The Genoese cycle, dating from the 15th to the early 17th centuries, was mainly rooted in the financial interrelations between Habsburg-Spain and the pecuniary power of Genoese financiers.
- The Dutch cycle, from the late 16th to the late 18th centuries, derived from the colonial expansion of the United Provinces and the importance of Amsterdam as Europe's commercial and financial center.
- The British cycle, from the mid 18th to the early 20th centuries, was based on the economic development after the Industrial Revolution and rise of London as an international financial hub.
- The following US cycle covers the period from the late 19th century to the early 2000s. Here, the crisis of the 1970s signals the switch from commodity to money trades in the leading capitalist economy. The recent turmoil could be considered as a 'terminal crisis' of US hegemonic power.

Following Braudel and Arrighi, the Mediterranean city states (Genoa, Venice) and later Amsterdam and England witnessed processes of financialization, when their hegemonic domination began to shrink, resembling processes occurring today. Consistent with this perspective, the post-1980 era represents such a financial expansion cycle of global capitalist development – the US hegemonic cycle.[5] However, what makes the present-day era of financialization so unique is the far more brisk and striking dynamics of financialization, when compared with earlier expansions of finance (Arrighi et al. 1999). Originating from the profitability crisis of the 1970s, current financialization is both outcome and integral element of processes of neoliberal marketization since the 1970s (Arrighi [1994]2009; Stein 2011; Streeck 2014). The period from 1950–1970, which was not

[5] In a similar vein, also Boyer (2000a; see also Stockhammer 2007) speaks of the emergence of a new »finance-driven regime of accumulation« which indicates a systemic shift in capitalistic organization – from the »Fordist« form of capitalistic (manufacturing) production towards a form of capitalism dominated by financial markets. The finance-driven regime of accumulation describes the economic constellation that developed from the economic situation in the 1970s, characterized by declining productivity and wage stagnation.

characterized by a financialized economy, was marked by a greater proportionality between the development of the productive and the financial spheres. During this period of time, finance was heavily regulated by state authorities and international agreements that restricted the international movement of financial flows. The situation changed in the course of the economic crisis of the 1970s, which was mainly caused by falling profit-rates in Western major economies – with the United States at the top. Reactions to the crisis initiated various interrelated dynamics: liberalization of foreign trade, deregulation of goods and financial markets and welfare state reforms.

2.7.2. Shifts in the Economy: The Growth of the Financial Sector

Cut down to the bone, financialization shows up in the rising income share of finance (Figure 3). The share of GDP achieved in the financial sector has increased by around 3 percent in the United States since 1970, rising from around 4 to 7 percent (Greenwood and Scharfstein 2013). Other OECD countries witnessed similarly sharp increases over that period of time (Philippon and Reshef 2013).

Corresponding figures for the Netherlands make up 4.5 percent and 4 percent for the United Kingdom, whereas French and German financial sectors witnessed increases from about 1 percent over the last four decades. The development of the FIRE sector (Finance, Insurance, Real Estate) draws a similarly impressive picture (Appendix Figure 26). This development goes hand in hand with the increasing cost of financial services (Bazot 2014) and of economic rents (Tomaskovic-Devey and Lin 2011) fueled by financial deregulation (Krippner 2011) and extracted by high-paid financial elites (Godechot 2012; Bell and Van Reenen 2013; Denk 2015).

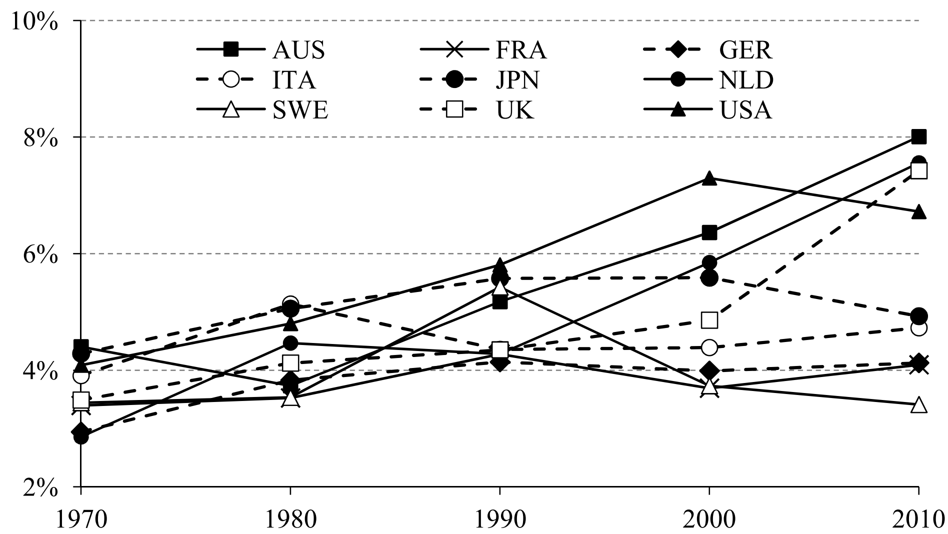

Figure 3: Finance share in GDP, 1970–2010 (Data: EU-KLEMS; OECD)

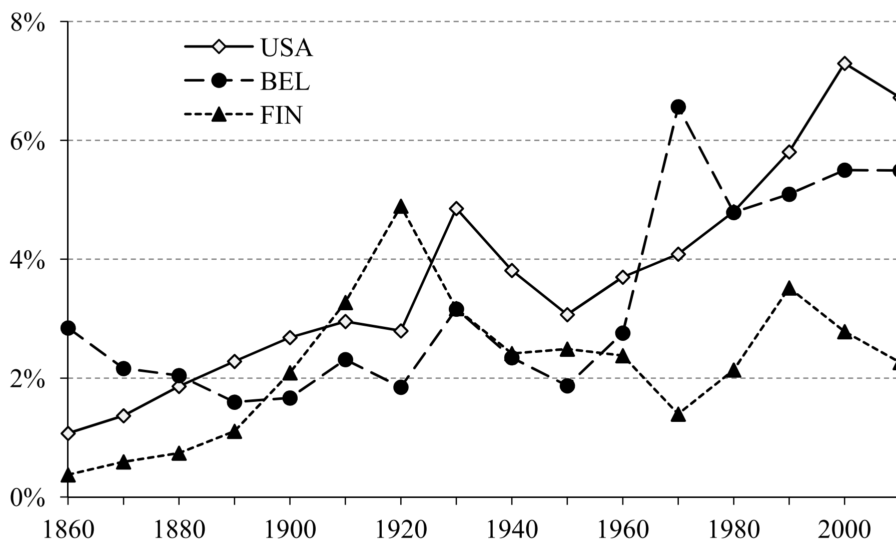

Figure 4: Finance share in GDP, 1890–2010 (Data: Phillippon (2012); Smits et al. (2009); EU KLEMS)

When looking at the development of the financial sector in a long-term perspective of 150 years, we can observe that there is something special of our age (Figure 4). We present the development of the financial sector throughout the last 150 years (1860–2010) for three countries (Belgium, Finland, United States) for which such long-term data is available. Although finance exploded in the period between the two World Wars and amounted to about 5 percent of GDP, the years after the Great Depression made the finance

sector shrink. Since the 1960s or 1970s respectively, the financial sector in the countries under analysis increased in size reaching historically unprecedented level.

2.7.3. Shareholder Value and Financialization

But not only has the financial sector increased its share of GDP, also the non-financial sector has increased its financial activities. This shows up in the change of revenue sources for non-financial firms towards portfolio income. A number of studies illustrate that corporate profits now derive mainly from dividends, interests and capital gains (Orhangazi 2008; Krippner 2011). In her seminal paper, Greta Krippner (2005) demonstrates that the US economy has witnessed economic growth principally via financial activities since the 1970s. Whereas manufacturing declined, at least from the mid-1990s, the FIRE sector (finance, insurance, real estate) witnessed extraordinary growth and developed into the major source of total corporate profit. Accordingly, financialization denotes that firms shift from making money with products and customers to increasingly making money by financial engagement. Here, financialization involves the "engagement of nonfinancial businesses in financial markets" (Stockhammer 2004: 721).

The internationalization of global markets represents the main driver for non-financial firms' withdrawal from manufacturing and productive activity. In the face of increasing international competition and domestic demands for profitability, firms engaged in off-shoring and control of foreign supply chains in order to reduce costs. However, profits and gains have not been reinvested into the respective corporation, but have rather been handed over to shareholders or used for investments in financial markets (Crotty 2005; Milberg 2008; Baud and Durand 2012; Aglietta and Breton 2001).

The financialization of the non-financial corporation is closely intertwined with the modification of management methods of the modern corporation (Lazonick and O'Sullivan 2000; Fligstein 1990, 2001; Froud et al. 2000, 2002; Zorn et al. 2004). Financialization has to be attributed to the emergence of the "shareholder value conception of the firm" (Fligstein

1990, 2008; Dobbin and Zorn 2005) as the chief guiding principle of corporate behavior. Over the last decades, corporate governance and management practices witnessed a transformation from "retain and reinvest" to "downsize and distribute" (Lazonick and O'Sullivan 2000). Financial results provide the basis for assessing competitiveness (Froud et al. 2000; Williams 2000) in ways that shape management orientations, expectations and strategies (Froud et al. 2006; Widmer 2011). These 'new' practices of organizational management imply a distinct "conception of control" (Fligstein 1990) interpreted as a device for maximizing invested capital utilized by managers under the pressure of shrinking growth rates, shareholder power and institutional investors (Fligstein and Shin 2007).

The function of the modern corporation is subjected to the needs of short-term profit. What matters now is the stock value of the corporation. Shareholder value describes a set of ideas and practices that makes managers view the firm as a collection of assets and primarily serve the interests of their shareholders, thus concentrate on making profit and increasing the market value of the corporation, extracting maximum returns and raising the share price for the stock of the firm. Corporate managers are guided mainly by financial considerations and pressures to raise profitability, including also indirect pressures resulting from powerful rating processes (Sinclair 2005). The spread of this set of ideas led to a restructuration of the relations between boards of directors, management and financial markets (Fligstein 2001; Davis and Stout 1992; Useem 1996: Zorn et al. 2004).

Since the financial sector of the economy has increased its status in the economy by increasing profit shares over the last decades, managers of non-financial firms were driven to increasingly make use of financial instruments in order to create profits. This also pushed managers of nonfinancial firms to increasingly making use of financial tools to produce profits. Thus, increasing the firm value via leveraged buyouts, stock re-purchases mergers and acquisitions or increasing profitability through active participation in financial markets as such became a common business strategy (Fligstein 2001, 1990; Dobbin and Jung 2010). For meeting financial targets and

shareholders' expectations, upper-level managers frequently receive shares and bonuses, which then ends up in a circulative self-perpetuating process.

Although at the beginning shareholder value implied a power shift towards shareholders, it promoted top-level managers to exceptional degrees of income and wealth (Goldstein 2012). This functioned in particular via incentive payments. Caused by a shift in CEO compensation from a product market share benchmark towards stock options, executive payment has witnessed steady increases since the 1980s and has created a "winner-take-all" constellation (Frank and Cook 1995). The CEOs of large corporations receive several hundred times higher incomes than the average employee (DiPrete et al. 2010; Godechot 2012; Bebchuk and Grinstein 2005; Tomaskovic-Dewey and Lin 2011; McCall and Percheski 2010). Although most of the research has its focus on the US case where new compensation practices emerged, stock market performance evaluation has increasingly been adopted by large European and Japanese corporations (Chizema 2010; Miyajima 2007).

The extent of executive compensation payment has continually increased, in spite of slumping corporate performance (Erturk et al. 2007). Thus, it seems that the "power of managers has been more significant than the power of financiers" (Boyer 2005: 40; see also Goldstein 2012). The shift from 'managerialism' to the 'shareholder value conception of the firm' brought about massive social consequences for employees and contributed to increasing income inequality (Fligstein and Shin 2007; Sjöberg 2009; Lin and Tomaskovic-Devey 2013; Dünhaupt 2014).

2.7.4. Finance and Everyday Life

Processes of financialization also involve private households and determine to what extent financial markets and financial motives play a crucial role for the way of household economic action. From this perspective, financialization is as much a matter of formal and informal institutional change as subject-formation and increasing integration of financial calculation into daily life (Martin 2002; Langley 2008; Davis 2009; Leyshon and

Thrift 2007). On the one hand, the emergence of "pop finance" in the 1980s guided household savings into securities (Harrington 2008; Schimank 2011; Erturk et al. 2007). On the other hand, the last decades witnessed the ascent of household debt (Jordà 2014a, b; Coletta et al. 2014). It is claimed that, in a slow-growth-world and in face of the welfare state re-building, households use credit to maintain or increase their standard of living in times of stagnant wages (Streeck 2014; Prasad 2012; Rajan 2010; Leicht and Fitzgerald 2006; Crouch 2009). Recent research also relates increasing household debt with the emergence of a culture of aggressive financial risk-taking embraced by the upper and middle classes (Fligstein and Goldstein 2015).

Processes of financialization increasingly create an environment in which households are supposed to be financially independent and self-responsible 'entrepreneurs' – 'their own financial economists' – who take on risk over their future financial security. The penetration of finance into daily life, described as the "financialization of everyday life" (Langley 2008; Martin 2002), finds its reflection in the increased exposure of private households to financial risks. Households are increasingly involved within the dynamics of financial markets more directly than before and thus are exposed to numerous risks which were previously absorbed by collective actors or intermediaries. While in preceding times, insurance and social security were provided by the welfare state, the employers or the savings account, there is now a must to own financial products in order to be protected against the uncertainties of life.

Accordingly, contemporary financialization is characterized by massive shrinkage in the distance between 'high finance' and 'everyday life', which implies blurring boundaries between international banking and private household finance. Saving and borrowing are increasingly connected to global financial markets, which results in the emergence of a new form of 'finance rationality' actors routinely perform. In particular for the Anglo-American context, it has been suggested that private households increasingly act as investors, weighing up the risks and awards related to financial

practices. Thus, everyday life is increasingly framed as an arena of investment, yielding both financial and personal profits (Davis 2009).

> "This [financialization of everyday life] not only makes material consumption more and more aspirational, but also positions the individual as an investor in a life project that requires the constant pursuit of opportunities and the negotiation of risks in order to yield rewards. With the growing calls for individuals to secure their own independence and autonomy not via the state but through financial markets, practices of investment, calculation, and speculation become associated less with financial distortion than with normalization and domestication and their embrace by ordinary individuals taken as a sign of personal initiative, self-management, and enterprise rather than moral or budgetary imprudence" (Allon 2010: 367).

Consequently, such an interpretation of financialization does not merely involve the distributive outcomes of financialization for larger parts of the population, but as well its impact on the subjective understandings and interpretations of one's position and responsibility within the political economy.

> "Finance, the management of money's ebbs and flows, is not simply in the service of accessible wealth, but presents itself as a merger of business and life cycles, as a means of the acquisition of the self. The financialisation of daily life is a proposal for how to get ahead" (Martin 2002: 3).

Finance, thus, becomes crucial for identity formation and for the individual position in society. Described as "commercially inspired selfhood" (Martin 2002: 76), financialization implies that households undertake greater financial responsibilities and risks – mainly as a result of the replacement of state-provided welfare benefits by personal pensions, private insurance and investment funds. Financial investment inevitably becomes a 'life-strategy'. As a consequence, financial market dynamics become absolutely central to the unfolding and social diffusion of such strategies, as the performance – past, present and future – of assets and debts directly affects choices in everyday life. By participating in financial markets and performing a new culture of risk-taking, households and individuals develop novel subjectivities as investors or financial wealth owners, whereby finance develops into 'governmentality' (Langley 2007b, 2009; Aitken 2003, 2005, 2007, 2010; DeGoede 2005). This process is deeply intertwined with the production of instability in daily life, the demand for flexibility and the need for financial literacy leading to a deeper polarization and segmentation within society.

The "investor subject" (Aitken 2005; Langley 2008; Martin 2002) is understood as the autonomous individual who handles and solves life-cycle risks via self-discipline and financial literacy. What differentiates the investor subject form previous identities is an unconditional individualism. The investor subject acts all on his own, only for the benefit of his household.

2.8. Towards a Financialized Society?

Although the concept as such has its origins in the 1920s, the term was reinvented by Giovanni Arrighi in his *Long Twentieth Century* in 1994 and made famous by Greta Krippner in her seminal paper *The Financialization of the American Economy* in 2005. Based on previous studies, we show that financialization is a multifaceted phenomenon, which takes place at different levels of society. And, although financialization represents a 'commonality' (Streeck 2010) of contemporary capitalist societies, numerous studies demonstrate that its shape and extent differ cross-nationally.

Financialization can be analyzed in the 'longue durée' of capitalist development, in the increasing size of the financial sector, the rise of the 'shareholder value conception of the firm' and the penetration of finance into everyday life of ordinary people. Research on financialization documents the size, power and wealth of the financial industry over the last decades. Authors from different academic disciplines take a look at the origins and spread of financialization, including its effects on nation states and governments (Trampusch 2015), organizations, firms (Krippner 2005; Orhangazi 2008) and households (Davis 2009; Langley 2008). Financialization has been linked to increasing income inequality (Kus 2012; Dünhaupt 2014; Flaherty 2015; Godechot 2015), growing political power of the financial industry (Johnson and Kwag 2010; Montagne 2006) as well as increasing economic instabilities (Jordà et al 2011a, b). However, this is only one part of the story because financialization entails the diffusion of financial activities and logics throughout the rest of society. The rapidly expanding size and role of financial markets has reshaped nearly all arenas of social life in modern market societies – at least since the 1980s. Indeed, a

more recent definition of financialization thus speaks of a "web of interrelated processes – economic, political, social, technological, cultural etc. – through which finance has extended its influence beyond the marketplace and into other realms of social life" (van der Zwan 2014: 101).

Typically, financialization is handled as an exogenous social fact. From such a perspective, people are rather victims of the increasing significance of financial markets and are only able to respond and react. However, as we show in line with Doering-Manteuffel and Raphael (2008), financialization is the outcome of the interrelation of several social forces. Perhaps even more important, people and organizations are not just exposed to the destinies of financial markets, as typically described in the literature. Throughout this book, we show that processes of financialization are actively shaped, negotiated and forced by various actors in contemporary capitalist societies. Against this backdrop, the 'rise of finance' cannot be portrayed as an exogenous 'shock' for people. The financial sector and household finances are reciprocally intertwined. Trends and patterns of financialization reflect the complexity and unevenness of social life as well as its ambivalences.

3. Empirics

3.1. A Short Note on Data

Throughout the study, we draw on three types of data to explore the temporal development, the composition, the distribution and the social structuration of private wealth in cross-national perspective. We compiled aggregate data on private wealth from national statistical offices, national central banks and a number of unofficial historical sources. Data on wealth inequality derive from wealth tax returns and were collected from by various authors. We also analyze household-level survey data on private wealth, which were collected by national survey institutions.

3.1.1. Data on Aggregate Private Wealth and its Components

When taking a look at the evolution of private wealth for a set of advanced capitalist economies, we will rely on an assembled dataset with yearly data of OECD countries covering the years from 1970 to 2012. Although a time period of over 40 years may appear as a long one, Raymond Goldsmith (1985) starts his investigation into the development of wealth in the United Kingdom from the late 17th century onwards. More recently, also Daniel Waldenström (2015, 2016) collected detailed long-run wealth data for Sweden covering the period from 1810–2014. As already mentioned, also Piketty and Zucman (2014) trace the development of private wealth over a longer period of time.

Our sample includes 14 countries for the following years: Australia (1976–2012), Canada (1970–2012), Denmark (1973–2012), Finland (1975–2012), France (1970–2012), Germany (1970–2012), Italy (1970–2012), Japan (1970–2012), The Netherlands (1990–2012), Portugal (1980–2012), Spain (1980–2012), Sweden (1970–2012), United Kingdom (1970–2012), United States (1970–2012). Since the coverage varies, the sample makes up an unbalanced panel. For all countries data on private wealth and debt was compiled by making use of official national sources (National Central Banks, National Statistical Offices), with the exception of Portugal (1980–

1995), Sweden (for 1970–1995) and the United Kingdom (1970–1987), where we had to rely on unofficial sources to construct longer series.[6] For Sweden pre-1995 data come from Waldenström (2015, 2016), pre-1988 data for the United Kingdom come from Sbano (2008), pre-1995 data for Denmark come from the WID (World Wealth and Income Database) and in the case of Portugal pre-1995 data comes from Cardoso et al. (2008).

Financial instrument	Description
Currency and deposits (Deposits)	This item includes currency in circulation, transferable and non-transferable deposits and repos, in national or foreign currency.
Securities other than shares (Bonds)	This asset class includes bearer financial assets that are negotiable on the market, such as securities issued by the general government, firms and banks.
Shares and other Equity (Shares)	This category includes financial assets that represent property rights on corporations and quasi corporations. These assets can be divided into quoted shares, unquoted shares and other equity. Following ESA95 the item includes also mutual fund shares.
Insurance technical reserves (Insurance)	This item includes the provision of insurance corporations and pension fund products for future payments to beneficiaries. According to the current international statistical rules, this category does not include the assets linked to public pension schemes.
Other (Other)	This item subsumes several financial asset types. For instance, households may also have loans on the asset side of their balance sheet but the figures are zero in some countries and negligible in others.
Liabilities (Debt)	Household debts are liabilities which include home mortgage debt, consumer credit, bank loans not elsewhere classified, marginal loans, and loans against life insurance policies. However, they do not include fiscal or social debts and similar forms of ("unofficial") liabilities.
Housing (Housing)	This category includes real estate, dwellings and land underlying buildings owned by households.

Table 5: Technical description of wealth items

The main variable of interest *private net wealth* is measured as *household financial assets* (deposits, bonds (securities), shares (equity assets) including mutual funds, insurance (life insurance and pension funds), other) plus *household housing assets* (buildings and underlying land) minus *household debt* (liabilities including mortgage debt and consumer credit) as a percent-

[6] See the appendix for a detailed list of the specific sources of the variables in the analysis.

age of GDP.[7] We decided to include housing wealth only to arrive at comparable values, since non-financial assets (which usually comprise machinery and equipment or business assets) are not available for a larger number of countries.

3.1.2. Data on Wealth Inequality

It is fair to say that the majority of research on economic inequality has focused on incomes, which is mainly due to data availability. Despite the convincing arguments for studying private wealth and its distribution, the empirical literature on wealth inequality is still limited, in particular when it comes to long-run perspectives.

As Davies and Shorrocks (2000) and Davis (2008) point out, there are five commonly used sources of wealth data: (1) wealth tax returns, (2) estate tax returns, (3) investment income, (4) household surveys (like the US Survey of Consumer Finance) and (5) journalistic rich list (like the Forbes list). Historical data on wealth distribution comes primarily from wealth and estate taxation statistics (Roine and Waldenström 2015; Piketty 2014; Piketty and Zucman 2015; Atkinson and Morelli 2014). Of the historical series presented below, all data derive from estate tax statistics and, specifically, samples of individual estate tax returns. However, the OECD data presented in the figures for a broader set of countries for around 2010 are compiled on the household level. Consequently, country values sometimes diverge (depending on whether we plot household level or individual level data) and both figures are of course only partly comparable.

3.1.3. Survey Data on Wealth at the Household Level

In the household-level analysis, we make use of data from the Eurozone Household Finance and Consumption Survey (HFCS), the US Survey of Consumer Finances (SCF), the Canadian Survey of Financial Security

[7] Due to statistical issues and data comparability, household data from the national accounts includes households (S14) and non-profit institutions serving households (S15). In general, the share of non-profit institutions is, however, negligible or very small.

(SFS), and the UK Wealth and Assets Survey (WAS) and the Australian Household, Income and Labour Dynamics survey (HILDA). These surveys have varying release schedules, so our data span the time-period between end-2008 and start-2012.[8] All these surveys capture the balance sheets of representative national cross-sections, only the Australian HILDA survey is a longitudinal panel.

Asset holdings and liabilities are measured using current market values. Typically, datasets on household income and wealth like the HFCS or the SCF show significant rates of non-response or partial response. All surveys use regression-based imputation methods to correct for non-response, missing or unreliable values, but only the SCF and the HFCS release multiple replicates. Results were estimated on the five sets of imputations contained in these datasets. Sampling weights were used to obtain unbiased results in the descriptive analyses, while regression models were performed with unweighted data.

Comparable assets and debt definitions are constructed from the variables in the surveys. Combining the surveys thus allows analyzing distinctions and similarities in financial market participation across countries during the 'Great Recession'. We present an empirical analysis for Australia, Austria, Belgium, Canada, Finland, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain, the United Kingdom and the United States.

3.2. The Anatomy of Private Wealth in Historical Perspective

We have shown in the sections above that finance has developed into a global field throughout the last decades, increasingly infiltrating social life and economic reality in contemporary societies. But can we really speak of a universal trend on a global level as much of the financialization literature suggests? In what follows we take a look at the evolution of private household wealth over the last three decades. In a further step, we examine the cross-country variations in more detail, also when it comes to distribution,

[8] The actual dates of the interviews are country-specific, but field-work was mostly conducted in 2010.

and isolate factors which help to understand national distinctions in wealth dynamics in a next section.

One the one hand, contemporary economic globalization is characterized by an expansion in the reach of networks of consumption, production and finance across the globe, but also by a deepening and an intensification of interconnectedness (Held et al. 1999). Research suggests the existence of homogenizing pressures of globalization understood as the "diffusion of practices, values and technology that have an influence on people's lives worldwide" (Albrow 1997: 88). Most prominent this is expressed in modernization theory (Williamson 1996; Bell 1973), cultural sociology (Ritzer 1993) and the world society approach (Meyer and Hannan 1979; Meyer et al. 1997). As a result, "the world as a whole shows increasing structural similarities of form among societies without, however, showing increasing equalities of outcomes among societies" (Meyer and Hannan 1979: 3, 13ff). This also includes the homogenizing force of global finance, the global diffusion of neoliberal logic and the universalization of 'market-based' principles (Strange 1987, 1988; Helleiner 1994, 1995; Djelic 2006). Economic globalization is closely intertwined with the emergence and spread of a (global) money economy. The sociology of money emphasizes instrumental rationality and the potential to transform social relations into abstract and numerical equivalents as the principal features of money (Simmel [1907]2004; Deutschmann 2001). Consequently, the expansion of a money economy – as a significant feature of globalization – is closely related with an increasing homogenization and convergence of social relations.

One the other hand, however, as relations and practices of accumulating, saving and investment have developed they have taken different institutional configurations across state-societies (Zysman 1983). A number of works document that financial market structures continue to be embedded in and regulated by national and regional institutions (Hall and Soskice 2001; Vitols 2004; Vogel 1996). This is confirmed by a strand of research which emphasizes that logics of economic order differ in many ways around the world (Crouch and Streeck 1997; Guillén 2001; Streeck and Thelen 2005;

Lamont and Thévenot 2000; Dobbin 1994; Hamilton and Biggart 1992; Whitley 1999).

For instance, in order to understand the dynamics of crises and bubbles, institutional market structures like regulations and laws as well as interest constellations between professionals, insiders and state regulators have to be considered (Abolafia and Kilduff 1988; Abolafia 1996). State politics or media coverage may trigger or intensify a speculative mania and may also try to interfere in times of euphoria. Of course, the *US Subprime Crisis* in 2007 has exhibited that the financial world represents a global field. Subprime mortgages connected various actors all over the world, including borrowers, investment banks, rating agencies, insurance companies, mortgage providers, mutual funds as well as hedge funds and insofar created unanticipated and striking outcomes (Fligstein and Goldstein 2010; Fligstein and Habinek 2014). The fallout from the crisis, however, informs on remarkable local, regional and national distinctions (Harvey 2010; Schelkle 2012; Hardie and Howarth 2009). The effects of the credit crunch varied across financial centers at a global level (Engelen and Grote 2009) and across national economies as such (Fligstein and Habinek 2014; Tridico 2013; Schwartz and Seabrooke 2009; Aalbers 2009). Not every national or supranational government had to intervene in its financial system to the same degree. For instance, governments of the Netherlands, Switzerland, the United States and the United Kingdom had to bail out large financial institutions. Whereas the credit crisis has evidently revealed global interconnectedness, not every locality has been connected to the same degree.

Thus, not surprisingly, previous research has found distinctions in household financial practices across countries. Cross-country comparisons of wealth and investment practices at the household level reveal substantial differences in household portfolios and stock market participation between Continental European countries, the United Kingdom and the United States (Guiso et al. 2002, 2003; Sierminska and Doorley 2012; Christelis et al. 2013; Sierminska et al. 2007). A plurality of social relations have been detected that structure private wealth within and across societies. Previous

comparative research documents the unequal distribution and varying composition of private wealth across different 'welfare regimes' (Skopek et al. 2014; Conley and Gifford 2006), 'varieties of capitalism' (Erturk et al. 2005; Vitols 2004), 'pension systems' (Jackson and Vitols 2001; Davis and Steil 2001; Mertens and Eppler 2014), 'residential capitalisms' (Kemeny 1980; Castles 1998; Schwartz and Seabrooke 2008; Kurz and Blossfeld 2004), 'intergenerational transfer regimes' (Albertini et al. 2007; Albertini and Kohli 2013) and 'financial systems' (De Bonis and Pozzolo 2012; Bianco et al. 1997; DeBondt 1998).

These findings suggest that state-firm-household interactions in different societies have produced unique 'cultures of household finance'. Processes of financialization are culturally constructed as designed popular appeals (Davis 2009; Langley 2008; Harrington 2008). Financialization has to be understood as nationally-specific: Economic activities and practices in general are formulated and regulated by state authority (Fligstein 1996, 2001), which suggests that financialization as such is contingent upon national and regional forms (Engelen and Konings 2010).

Already Max Weber understood financial markets as political institutions and argued that financial trading cannot be separated from interests and power relationships (Weber [1894]2000a, b). In his historical investigation into the relationship between politics and the rise of financial markets in 18th century England, Bruce Carruthers (1996) points out that economic thoughts influence politics and *vice versa*. Accordingly, modern financial markets – the emergence of which is at the closest related to public debt – are marked by the intertwinement of economic with national political interests.

Diffusionist research has revealed that different economies are differentially affected by transnational processes (Fourcade-Gourinchas and Babb 2002; Djelic 1998; Westney 1987; Jacoby 2000). Thus, as a result of varying nationally-specific regulatory regimes, financialization (as a transnational process) unfolds differently in different contexts. Cross-national quantitative research (Garrett 1995) and careful comparative case studies

(Fourcade-Gourinchas and Babb 2002; see also Djelic 1998) have revealed that national institutional structures affect the process of neoliberal reforms. The global diffusion of neoliberal policy reforms is also mediated by elites and state authorities (Clift and Tomlinson 2004; Prasad 2006) and the degree of integration into global ideological and economic networks (Swank 2006; Frenkel 2005; Simmons and Elkins 2004; Henisz et al. 2005; Djelic 2004).

Besides, national institutions form interlocking arrangements with high mutual 'complementarity'. The distinct ways of coordination of partial orders results in country-specific packets of institutions (Hall and Soskice 2001; Crouch and Streeck 1997; Friedland and Alford 1991) between the domains of education and employment, family, labor markets and welfare state, between religion, politics and law – and, of course, finance. This high complementarity of nationally-grown patterns implies a certain "power of inertia" (Becker 1995) – a certain rigidity and path-dependency of structures and practices, which make it difficult for actors to react fully flexibly to external pressures and trends (North 1990; Pierson 2000a, b; Dobbin 1994).

3.2.1. Trajectories of Private Wealth

Levels of private wealth differ cross-nationally (Figure 5). Data for 2012 reveal that private net wealth ratios are the highest in Spain (around 620 percent of GDP), as result of skyrocketing property prices, and in Italy (around 420 percent of GDP), as a result of economic stagnation. In contrast, private wealth ratios are much lower in Portugal and Finland, making up 290 percent and 178 percent respectively.

Recent studies document that the second half of the 20th century has seen a comeback of increasing private wealth ratios (Piketty 2014; Piketty and Zucman 2014; De Bonis et al. 2013; Erturk et al. 2005). Indeed, as our data show, average private net wealth ratio has increased by around 180 percent

for our sample of 11 countries between 1970 and 2012 (Figure 6). [9] Around 1970, the average private wealth-to-GDP ratio in the 11 countries under study was about 200 percent. Private wealth witnessed its unprecedented high in 2006 when the figure was slightly over 380 percent of GDP and experienced a drop of about 30 percent in the aftermath of the financial crisis of 2007/2008. By 2012, however, average private net wealth ratio has recovered and reached old levels amounting to nearly 380 percent of GDP.

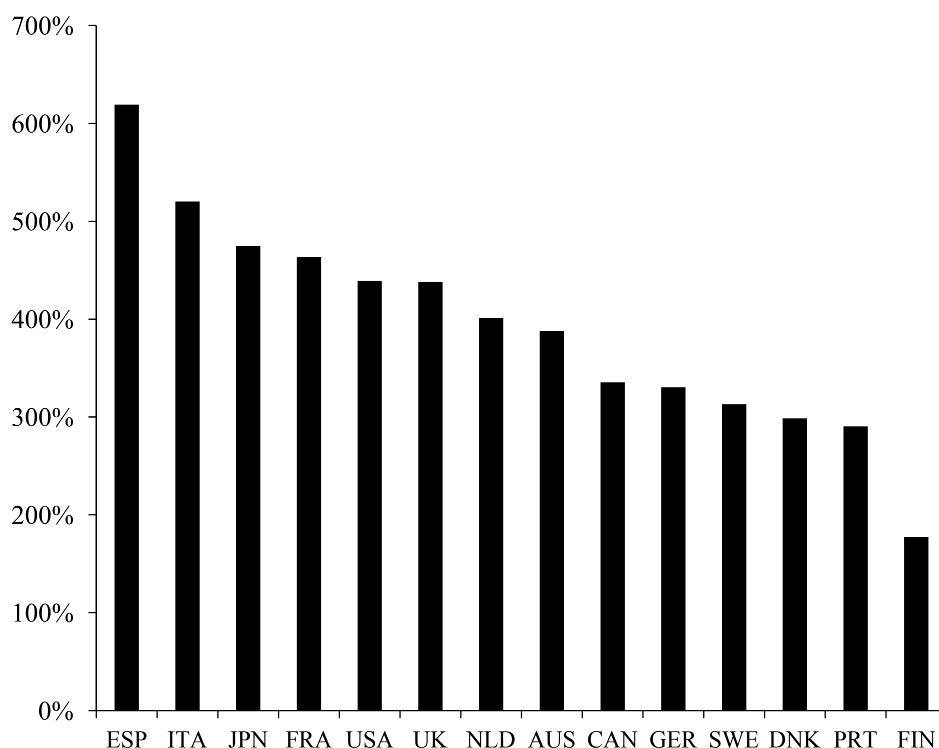

Figure 5: Private wealth as % of GDP across countries

[9] We do not include data for the Netherlands, Portugal and Spain in this analysis in order to avoid biased results because data is only available since 1980 for Portugal and Spain and since 1990 for the Netherlands.

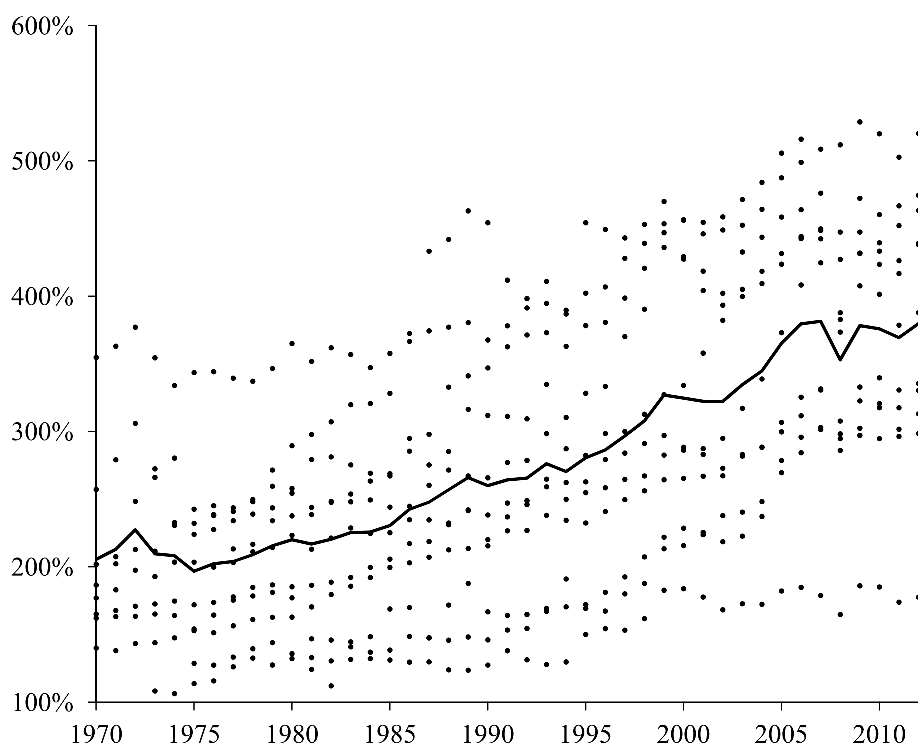

Figure 6: Private wealth as % of GDP since 1970

Looking more closely at the performance of individual countries, the first thing that meets the eye is the big variation among the 11 advanced countries in the sample. The growth of private wealth happens on different levels across different (groups of) countries. The notion of a uniform or converging trend in increasing private net wealth-to-GDP ratios across Western countries throughout the last decades is wrong and misleading, as shown in Figure 7. On the contrary, the visual impression underscores the divergence of household financial performance in recent decades. While household wealth increased by 300–400 percentage points of GDP in Italy, France and Japan since 1970, growth was far slower in Finland and the United States, where ratios increased by around 50–100 percent of domestic GDP (Figure 8). Whereas in Spain, private net wealth witnessed extreme growth since 1980, Portugal experienced a decline in the net wealth ratio of 65 percent, mostly due to stagnating real estate prices.

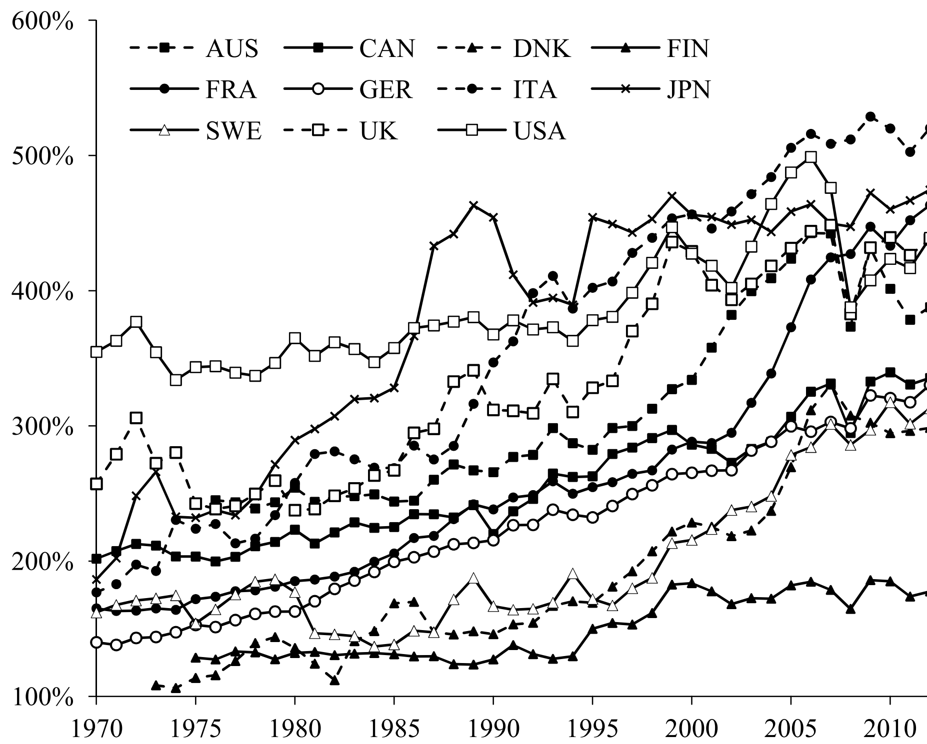

Figure 7: Development of private net wealth in eleven countries, 1970–2012

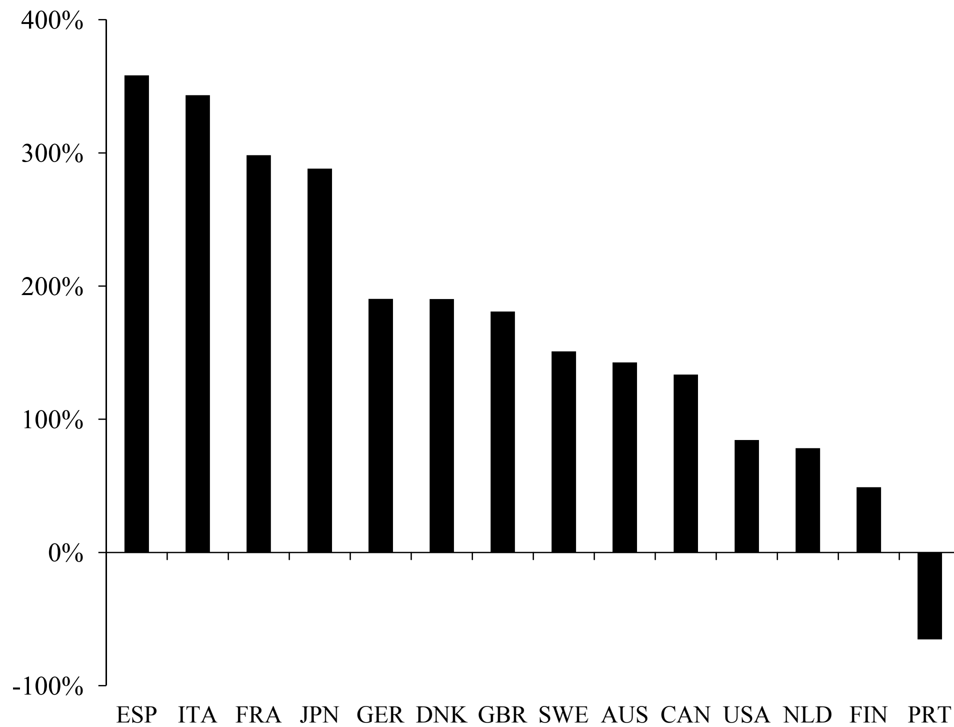

Figure 8: Increases in private wealth since 1970

As already presented in Figure 7, the evolution of private wealth can in no way be regarded as a continuous and stable process of growth over time. Next to the cross-national variation, the development of private wealth is marked by temporal ups and downs – an 'uneven development' which can be divided into six distinct phases:

- *1970–1992* These 'moderate years' were characterized by slowly growing private wealth ratios. However, we should mention the rather turbulent years at the beginning of the 1970s in some countries (United States, United Kingdom and Japan).
- *1993–1999* The 'new economy boom' in the second half of the 1990s led to sharp increases asset prices and resulted in wealth levels reaching an historical high.
- *2000–2002* The burst of the *Dot.com* bubble in the years from 2000 to 2003 resulted in a heavy 'destruction' of private financial wealth.
- *2003–2007* During these years, private wealth levels recovered until the US *Subprime Crisis* which reverberated throughout the world.
- *2008–2009* The effects of the financial crisis from the second half of 2007 until 2009 had considerable impact on the development private assets.
- *2010–2012* During the aftermath of the crisis, different trends can be observed across countries. Whereas some countries witness a stagnation of their wealth levels, private wealth ratios are on the rise again in other countries.

3.2.2. The Trajectories of the Components of Private Wealth

Next to levels and their temporal dynamics, countries also differ in the composition of private wealth. As previous studies based on survey data for single points in time reveal, household portfolios and asset allocation show substantial cross-country variation (Sierminska et al. 2007; Christelis et al. 2013; Sierminska and Doorley 2013). Our aggregate data show that whereas financial assets are especially prominent in the United States, Japan, Canada

and Denmark, comprising 70, 62, 61, and 60 percent of total assets respectively (Figure 9 and Appendix Figure 27), housing assets constitute the main part of household wealth in Spain (76 percent), France (62 percent) or Australia (55 percent). In other countries like Finland or the United Kingdom, the composition of household wealth is rather 50/50 balanced. A look at the composition of private financial wealth reveals further remarkable cross-national differences. Whereas bank deposits play a large role in Japan and Portugal, equity assets (shares) are of significance in Canada, Sweden and the United States in particular. Whereas bonds play only a minor or negligible role in most of the countries, such assets are more important in Italy. Insurance wealth constitutes a larger part of private financial assets in the Netherlands (37 percent), Denmark (30 percent) and the United Kingdom (28 percent of total financial assets). Private debt, measured in relation to private financial wealth, is highest in Denmark and Finland, making up 32 percent and 28 percent of total financial assets respectively.

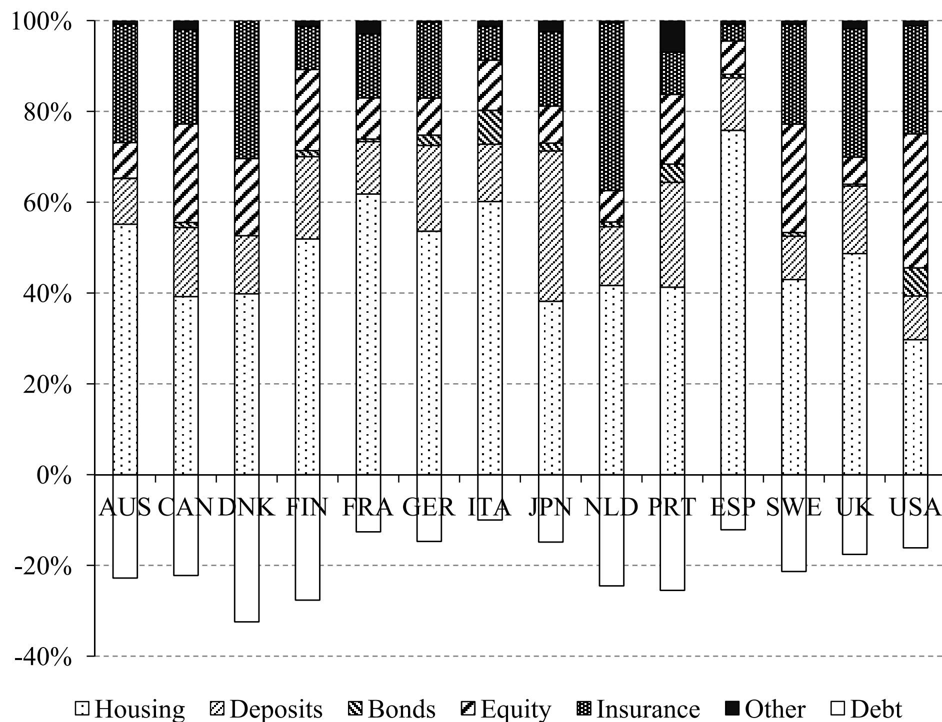

Figure 9: The composition of private wealth across countries (Data for 2010)

When taking a look at what forms of wealth are responsible for making private wealth ratios increase on average (Figure 10), we can see that 'wealth is not wealth'. Depending on country context, the dynamics of economy-wide private wealth levels have been either driven by increases in its (1) housing, its (2) financial or its (3) debt component. Whereas growing private wealth levels are primarily driven by increases in housing wealth in Spain, France, Italy and the United Kingdom, financial wealth represents the main driver in Sweden, the United States, Finland and Japan in particular. Debt has increased the most in Australia. It should be noted, however, that those countries with the sharpest increasing household wealth levels (Spain, Italy and France) are also countries in which growing housing wealth mainly contributed to the overall increases in private wealth.

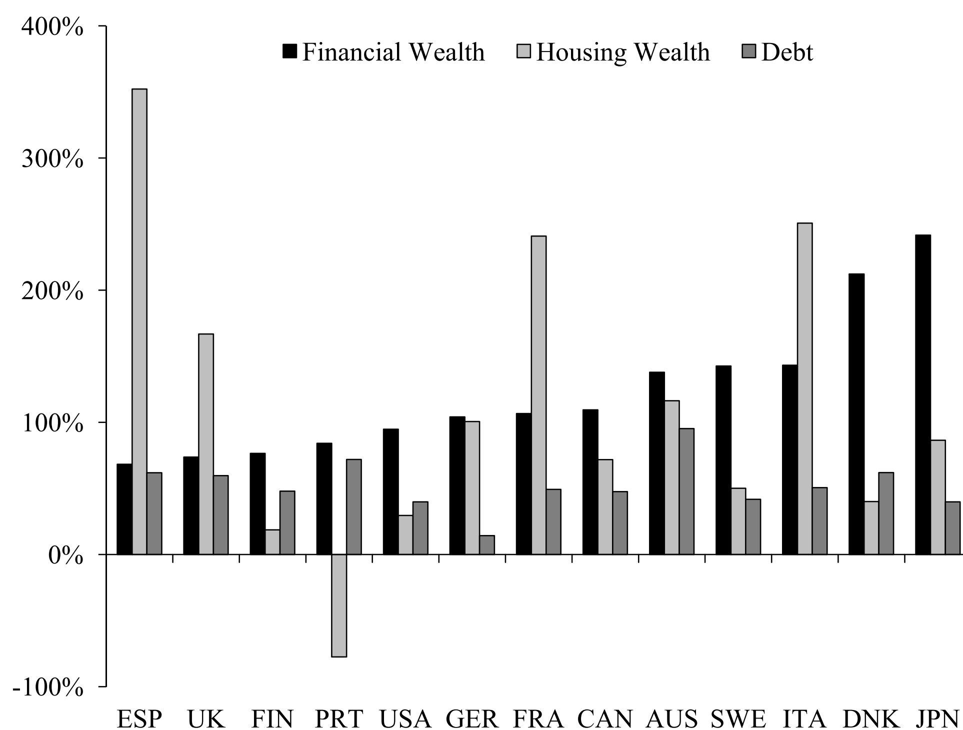

Figure 10: Dynamics in the composition of private wealth since 1970

Although the significance of financial wealth witnessed substantial increases across all selected countries over the last three decades, this process seems to happen on different levels across (groups of) countries (Figure 11). Throughout the whole period 1970–2012, households in the United States

and Japan possess the highest financial wealth ratios. Also the United Kingdom and Denmark show high ratios. Sweden, Italy and Australia households take a position in between, followed by France and Germany. Finnish (and not shown in the graph, Spanish and Portuguese) households hold financial assets to a much lesser extent. Although the data show increasing financial wealth ratios across all countries in the analysis throughout the last 42 years, it is striking that the volatility of private financial assets has increased, in particular since 1999.

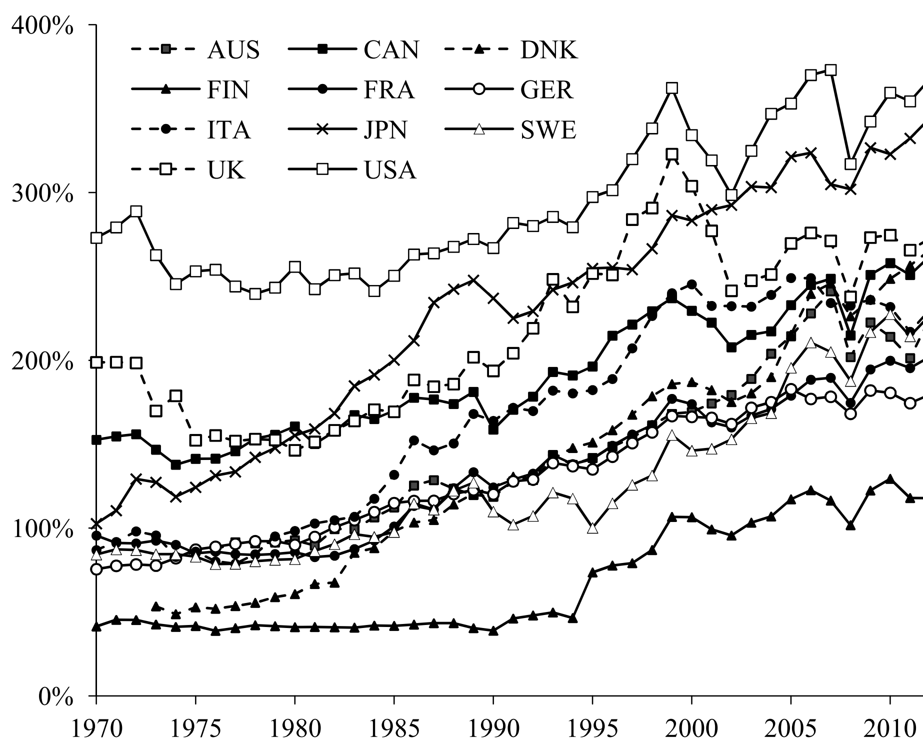

Figure 11: Development of private financial wealth in eleven countries, 1970–2012

There are also substantial cross-national differences when it comes to the development of housing assets (Figure 12). In Italy, France, Australia and the United Kingdom the private housing wealth-to-GDP ratio lies between 260 and 345 percent. In Italy the importance of housing assets is ascribable to many structural phenomena like the social role of the family and its effects on intergenerational transfers (Bernardi and Poggio 2004). Traditionally, real estate is regarded as a safe investment against inflation in an environment marked by relatively underdeveloped financial markets and a small

and unregulated market for rented property. Like in other Southern European welfare states, housing is central part of retirement strategies of an ageing population, pressured by deep reforms in public pension provision.

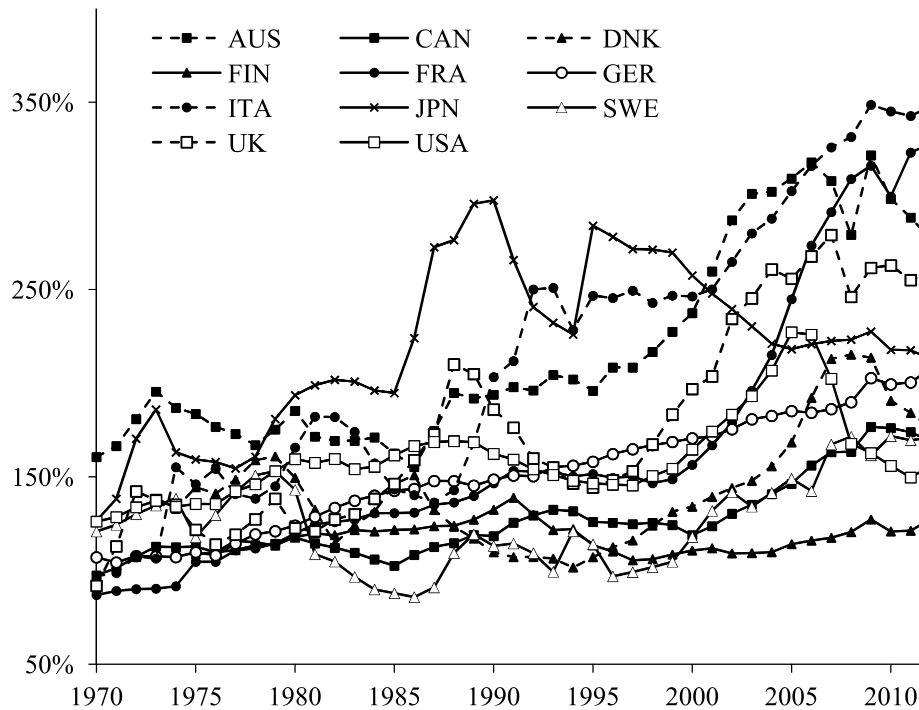

Figure 12: Development of private housing wealth in eleven countries, 1970–2012

The United Kingdom witnessed massive increases in housing wealth since the mid-1990s, mostly driven by mounting real estate prices in the center of London. Also in France, growth in housing assets was mainly fueled by rising prices and the massive concentration of people in Paris. In Finland, the United States, Denmark, Canada and Sweden private housing wealth ratios are lower. Private housing assets make up between 127 percent of GDP (Finland) to 170 percent (Sweden). As already mentioned above, housing assets are lower in the United States when compared to other countries. The United States are characterized by a traditionally strong reliance on financial market investments. Also, the real estate boom between 1998 and 2006 was mainly a phenomenon related to coastal areas, touching metropolitan areas in particular and leaving inner states largely unaffected. However, during the boom, the ratio of housing assets in the United States approached the

levels of Japan but as soon as the bubble burst the value of housing assets arrived at a level comparable to the 1980s.

Although we are only able to analyze Spanish data on private housing wealth for the time since 1980, Spain represents a special case as far as the significance of housing assets is concerned (Figure 28 in the Appendix). Housing wealth was already considerable in the 1990s, like in other Southern European societies, probably reflecting the low investment of households in financial products as discussed above. This incomparable predominance of housing wealth in Spain was exacerbated by the boom in property prices from 2000–2007. According to our data, the ratio of private housing assets was around 540 percent of GDP in Spain in 2012.

The composition of financial wealth over time

Financial wealth consists of various categories of asset. In the following, we trace the development of the composition of private financial wealth for a number of fourteen countries from 1970–2012 for which data is available. In specific, we trace the evolution of four different forms of assets: (1) deposits, (2) bonds (securities), (3) shares (including mutual funds) and (4) insurance (including pension funds) (see also Table 5 above).[10]

First, we can see a decline in deposit assets over time (Figure 13). While, on average, deposits made up 45 percent of total financial wealth in 1970 and reached a maximum of 53 percent in 1983, deposit assets witnessed steady decreases until the end of the 1990s and remained relatively constant around the 30 percent mark since the turn of the millennium. Bonds kept a relatively constant average level of around 8 to 10 percent throughout the 1970s and 1980s, experienced strong shrinkage during the 1990s and stayed at constant levels of around 3 percent of total financial wealth since 2000. Average wealth held in shares (including mutual funds) constituted around 20 percent of total private financial assets throughout the 1970s and 1980s. At the beginning of the 1990s shares witnessed steady increases and made

[10] An additional fifth category (»other assets«) accounts for forms of wealth which are difficult to classify. This category, however, is negligible for most countries.

up 34 percent at the turn of the century. After the burst of the *Dot.com* bubble shares as investment lost a little of significance and moved around a proportion of 25 percent afterwards. The striking discovery when looking at the evolution of private financial wealth is the constantly rising proportion of insurance assets in total financial wealth. While insurance wealth made up fewer than 20 percent until the late 1980s, insurance assets experienced sharp growth in the 1990s and continued to rise more slowly but stable. Nowadays the proportion of insurance assets in total financial household wealth amounts to 35 percent.

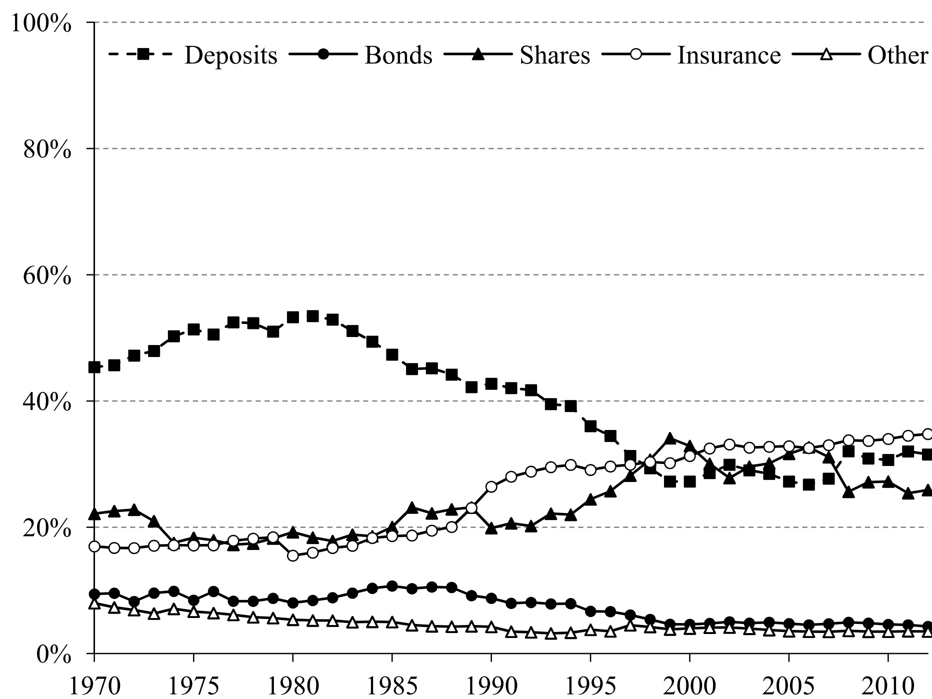

Figure 13: Development of the composition of private financial wealth, 1970–2010 (mean values for 14 countries)

In the following, we display figures on the development of the composition of wealth for a number of countries separately. We present detailed figures for the United States and Japan (two countries with very high levels of private financial wealth), for Canada, Italy and Sweden (three countries with medium levels of financial wealth) and for Germany (a country with relatively low levels of financial wealth) (Figures 14–19). We present detailed figures for other countries in the appendix (Figures 30–37).

One of the paradoxes of financialization is the seemingly undisputed significance of deposits in many Western economies (see also Cingolani 2013; Erturk et al. 2005). Despite an average downward trend over the last four decades, deposit wealth is of ongoing significant in Germany and Spain, but particularly in Japan. While the importance of deposits witnessed partly massive decreases in many countries until 2001 (or 2007 at least), the proportion of deposits as the principle element of private wealth remained stable over time in Japan, accounting for about 50 percent of total financial wealth. The financial crisis of 2007/2008 resulted in a real 'comeback' of deposit wealth in many countries. Private wealth organized in deposit accounts expanded in all analyzed countries since the US *Subprime Crisis*. Nevertheless, in some countries (particularly the United Kingdom and Germany), this general trend can already be observed since the burst of the *Dot.com* bubble in 2001. Although previous research discusses the escape in 'safe' investments (Vitols 2001) subsequent to crisis-events, the phenomenon as such remains largely overlooked in the literature. Household financial market investment behavior seems to follow a regular pattern of 'boom–enter–crisis–exit'.

While private wealth held in bonds (or debt securities) remained stable in most economies and experienced considerable decline in Germany, they represent a significant wealth component in Italy (see Figure 16). Whereas the proportion of wealth held directly in bonds is considerable high in Italy (20 percent), the corresponding number in other countries is smaller than 5 percent. Nonetheless, in many other countries households hold bonds indirectly through banks, other financial intermediaries or institutional investors.

Shares and equity represented a main component of private financial wealth in the United States throughout the last four decades (see Figure 19). The same holds true for France in the early 1990s, when political authorities and economic elite networks promoted financial market development via reform attempts (Schmidt et al. 1999; Goyer 2006, 2007; O'Sullivan 2007). But also in Italy, households strongly turned to investment in the stock mar-

ket in the years from 1997 to 2007 (Filippa and Franzosi 2001; Coraggio and Franzosi 2008). The item 'shares (and other equity)' is characterized by a lot of heterogeneity since it does not only include publicly traded shares and mutual funds shares, but unquoted shares as well. For instance, whereas quoted shares are of great significance in the United States, unquoted shares issued by small and medium enterprises (SMEs) represent a crucial investment vehicle in France, Spain and Italy (Bartiloro et al. 2012). Shares are of minor importance in Germany where the level of shares as a percentage of private financial wealth was only 18 percent in 2012. Besides, the United Kingdom, the Netherlands and Japan are characterized by low wealth in directly held shares. In these countries, however, household participation in financial markets happens rather indirectly via investments in life insurance and pension funds, as we will show soon.

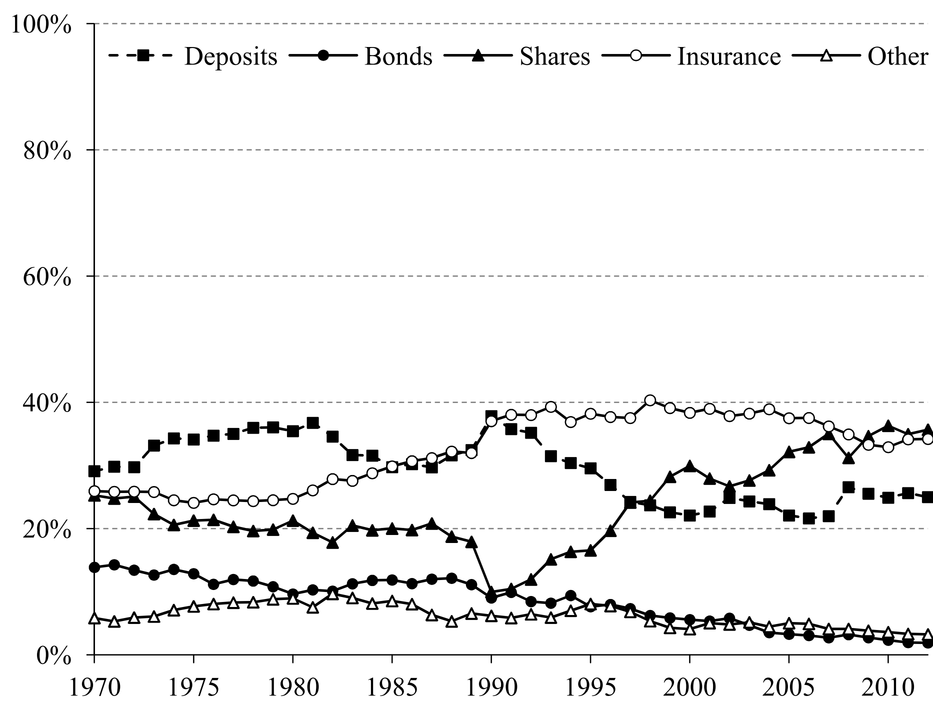

Figure 14: The composition of private financial wealth (Canada), 1970–2012

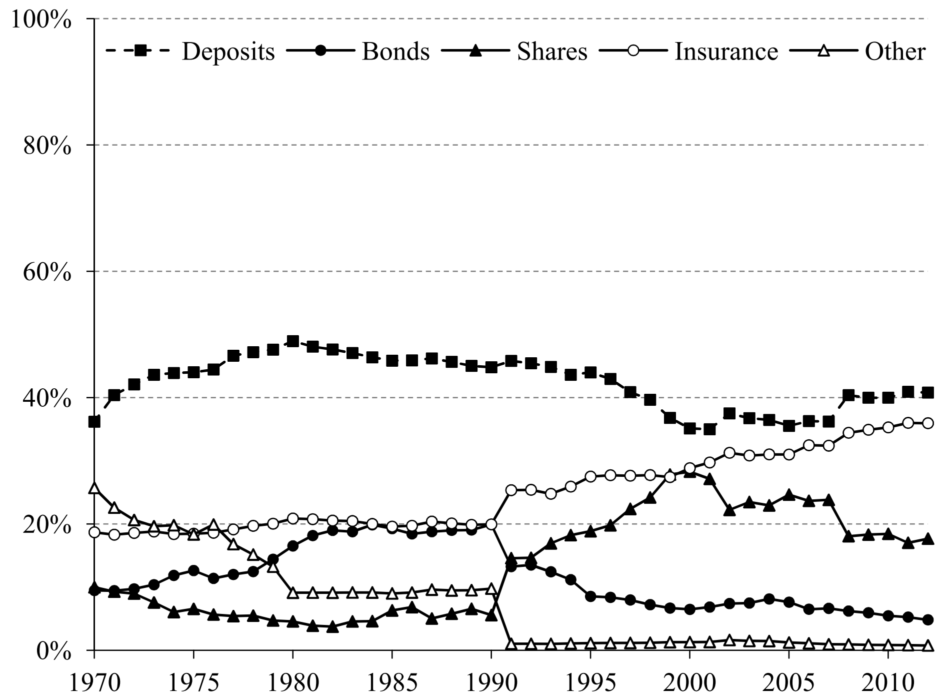

Figure 15: The composition of private financial wealth (Germany), 1970–2012

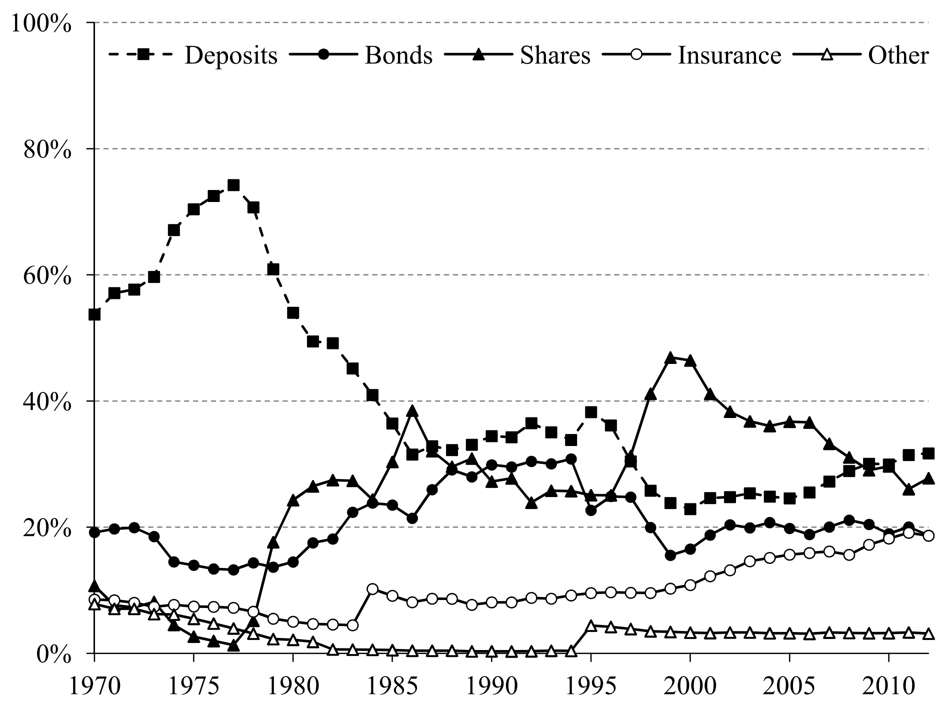

Figure 16: The composition of private financial wealth (Italy), 1970–2012

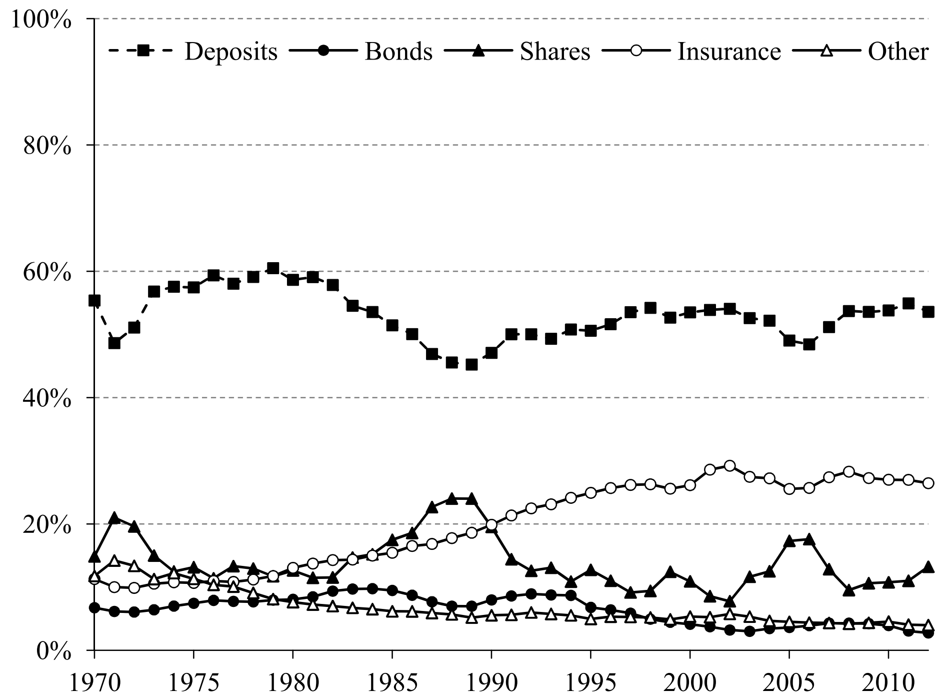

Figure 17: The composition of private financial wealth (Japan), 1970–2012

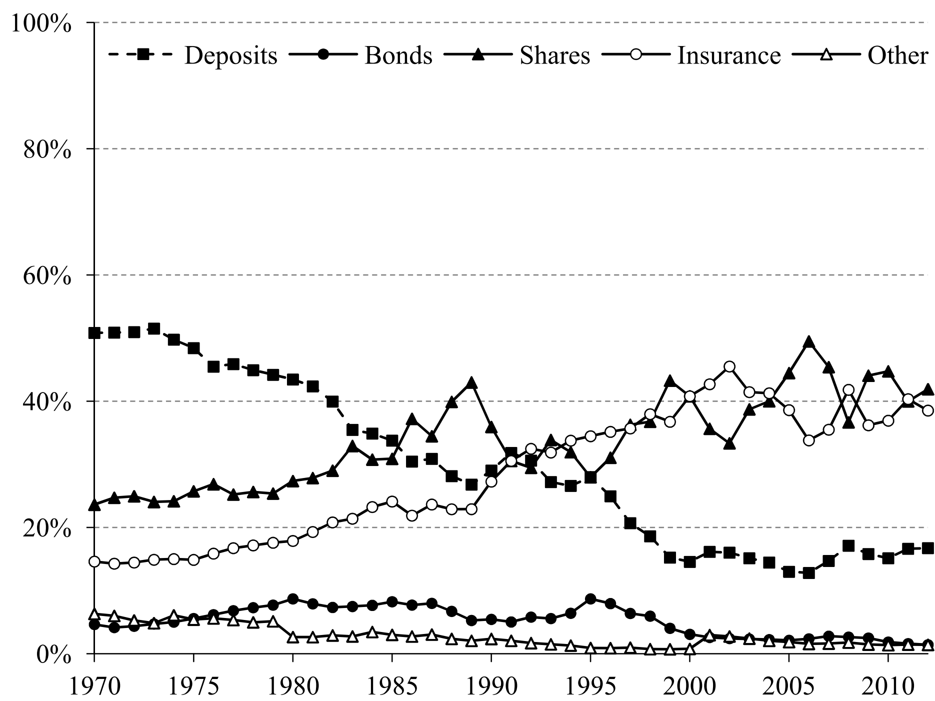

Figure 18: The composition of private financial wealth (Sweden), 1970–2012

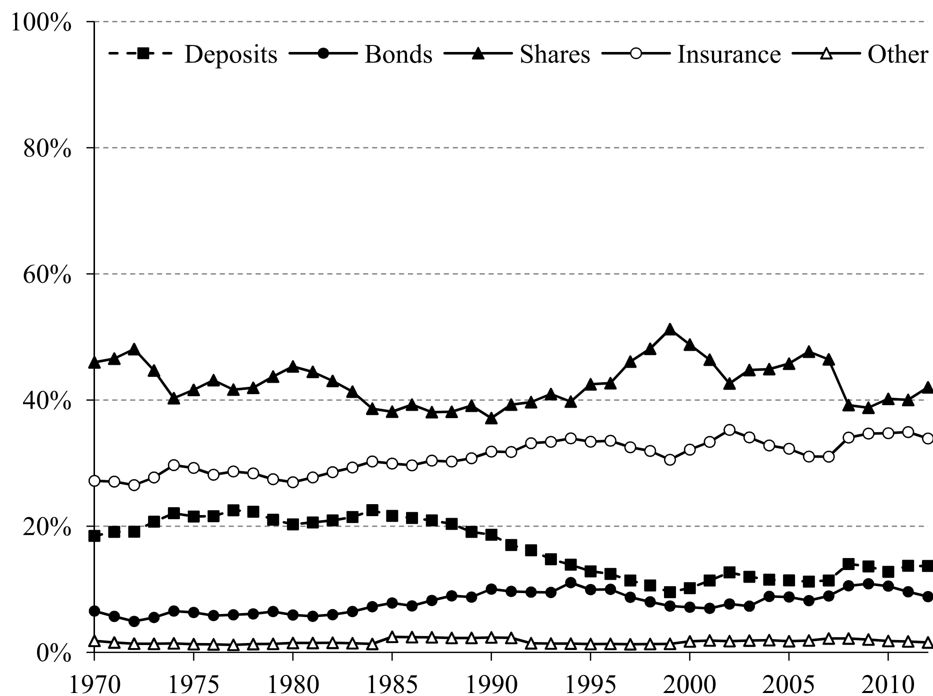

Figure 19: The composition of private financial wealth (United States), 1970–2012

As already mentioned, the perhaps most outstanding phenomenon since the 1970s, and at the same time most common feature across all countries, is the steady expansion of private insurance and pension wealth. The increasing significance of professional organization and control of private wealth reflects the tendency of households to delegate the management of their wealth to institutional investors – namely pension funds, life insurance companies (and mutual funds). Due to welfare state re-building and public policy reforms, people are increasingly forced to take responsibility for their own life-cycle needs, including retirement but also unemployment, health or education. Institutional investors offer expert knowledge and standardized investment services, which makes it possible to diversify and pool financial risks. But the possibility for households to minimize investment risk through institutional investor services represents only one side of the story. With the trend of organized wealth management by institutional investors, households are in no case liberated from the risk financial market investment. Traditional risks related to the volatility of equities partly disappeared, but 'new' risks (financial scandals, principal-agents problems) emerged.

Whereas 'Do-It-Yourself-Finance' is typically characterized by a lack of financial knowledge and monetary resources, the institutionalization of private wealth is in no case free of limitations. The effects of the US *Subprime Crisis*, the *Euro Crisis* and the following *Great Recession* made this clear when market dynamics had also heavy effects on assets in the portfolios of global players.

The organization of wealth in collective funds

For all countries in the analysis, today the portion of insurance and pension wealth in total financial wealth show higher levels than 40 years ago. The delegation of financial wealth to the hands of institutional investors is most pronounced in the Netherlands, but also in Australia, Denmark and the United Kingdom (Figure 20, 21).

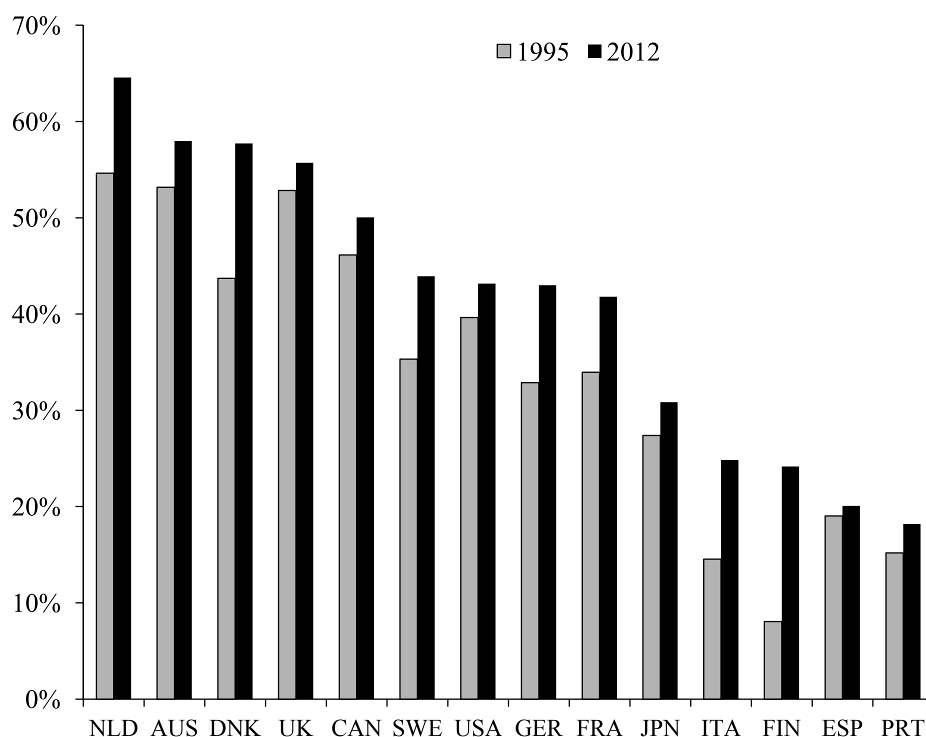

Figure 20: The delegation of private wealth to institutional investors, 1995–2012

Countries like Denmark, Finland, the Netherlands and Italy witnessed the sharpest increases since 1995. Although private insurance wealth is on the rise since 1995 in many non-liberal welfare states, levels in Italy and Fin-

land are only half as high as in the Netherlands, and in countries like Germany or France household institutionalized wealth only makes up two-thirds of the figure in the Netherlands. It is remarkable that lowest degree of private insurance wealth is especially reported for 'family-based' welfare states (Esping-Andersen 1999) like Italy, Spain and Portugal.

Because we can detect large cross-national differences in the proportion of household wealth either delegated to the management of organized investors or held directly by the households themselves (Figure 21), a closer look at the composition of private wealth held by institutional investors seems promising. We present a finer-grained analysis for 2010 (Figure 22).[11] Investment in pension funds make up the bulk of wealth delegated to collective investors in Australia (95 percent of total private financial assets managed by institutional investors), Netherlands (80 percent), United States (71 percent), Canada (62 percent) or Sweden (60 percent).

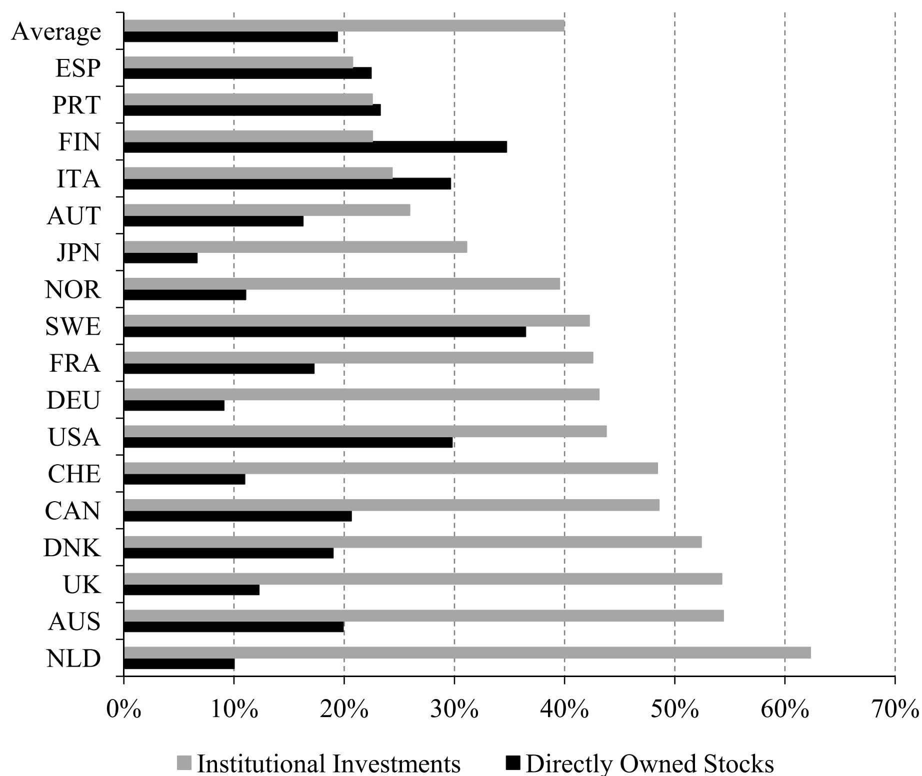

Figure 21: Direct and managed ownership of private financial wealth (Data for 2010)

[11] For the United Kingdom, we only have data available which aggregates life insurance and pension assets.

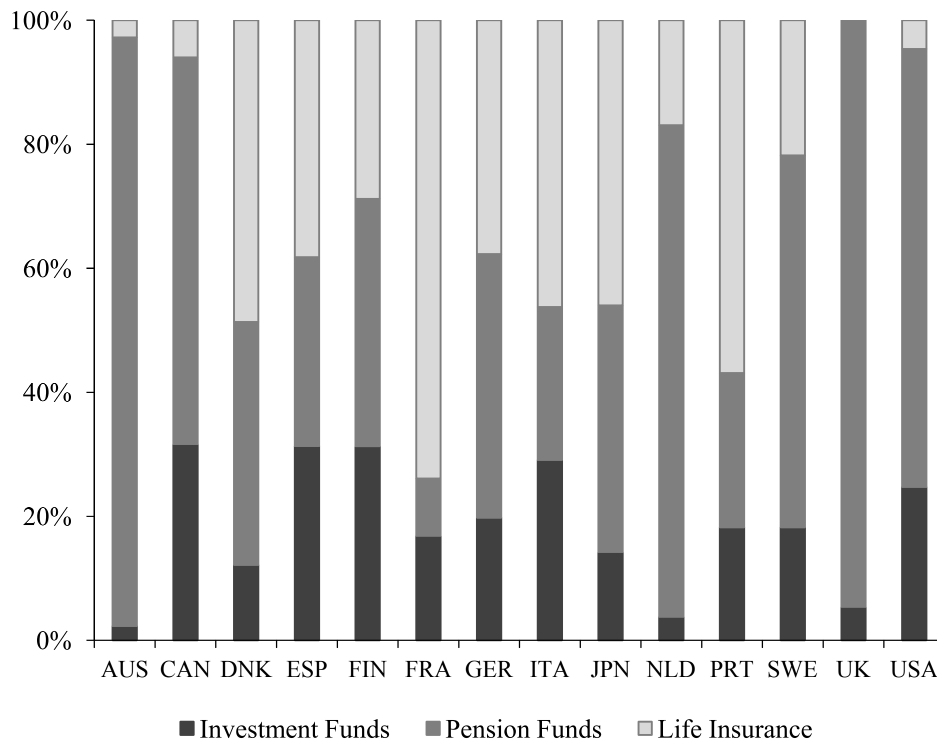

Figure 22: Private wealth delegated to different types of institutional investors (as % of total wealth managed by institutional investors) (Data for 2010)

When it comes to pension funds, France represents a notable exception. Here, pension funds are nonexistent, due to 'Pay-As-You-Go' (PAYG) second pillar vehicles. Whereas life insurance plays a historically less significant role in the United States, life insurance investments are important in France where such investment amount to 74 percent of all private assets held by institutional investors. Investment funds play a prominent role in Canada, Finland, Spain, Italy and the United States, contributing to about 30 percent of all financial assets held in institutional investments.

Although increasingly larger parts of private wealth were delegated to the hands of global institutional investors over time across the countries under analysis, this development happened at different nationally-specific levels. But the evolution of private wealth managed by institutional investors seems only to be broadly linked to the institutional make-up of capitalistic market societies as proposed by the comparative capitalism literature (Amable 2003; Hall and Soskice 2001; Crouch and Streeck 1997). We can distinguish an 'Anglo-Saxonized' group of countries (Australia, United Kingdom,

Canada, the Netherlands, Denmark) but without the United States. The United States (and also Sweden) can be rather located in the 'Coordinatedized' group of countries (Japan, France, Germany). We can clearly identify a 'Mediterranean' group of countries (Italy, Spain, Portugal). Finland seems to be an outlier. Perhaps the most outstanding finding is that Dutch households are the largest consumers of financial products offered by institutional investors to private households since the turn of the millennium.

Throughout human economic history, we can observe a radical historical transformation: the transition to a democratization of investment, i.e. the increasing inclusion of larger parts of the population within investment activities. For the most part of history, land, lending and commerce have functioned as the chief investment vehicles. However, in ancient and partly also in medieval times, investment activities were restricted to members of the 'power elite' – aristocracy, government and clergy and later also merchant elites. Even though, the management of investment in land and trade was regularly delegated towards slaves, peasants or commoners of lower status. For instance, the Roman elite typically owned a number of properties in a variety of regions of the Empire, whether awarded for military or political services or acquired as investments (Frank 1959). The Roman elites were usually absentee owners and the management of their assets was normally delegated to family members, procurators, financial and property managers or slaves (Andreau 1999).

Nowadays, this has changed. We can rather observe the opposite: whereas financial investment is accessible to the majority in contemporary society through various financial products, the management of investment is typically delegated to the hands of financial elites and experts who accumulate fortunes by systematically taking fees on financial transactions and activities. This trend of delegating one's wealth to the hands of investors is an expression of an "advised society" ("*beratene Gesellschaft*") (Schützeichel 2004) which itself is an expression of the rise of a "service society" (Bell 1973; Castells 1996). Responsibilities and decisions in the 'liquid life' of

contemporary ‘risk society’ are increasingly handled with the help of third-party-professionals (advisors, coaches, managers, every kind of ‘experts’). In an era of financialization, investors resort to professional financial experts to handle the complexity and uncertainty in global financial markets. As research shows, professional financial advice is an integral part of the everyday life of finance and a private ‘finance culture’ (Bode and Wilke 2014; Fligstein and Goldstein 2015). As a result of transferring investment decision towards professional hands, private household are increasingly thrown into the workings of a financialized “asymmetric society” (Coleman 1982) which is marked by a loss of power and autonomy for private investors although they are the ones who risk their assets and are responsible for investment performance at the end of the day.

3.2.3. Private Wealth Distributions

Thanks to Atkinson and Piketty (2007, 2010) we have a good idea of the development of income inequality in a great number of countries over the last century. Compared to this, research on historical and cross-national trends in wealth inequality has been rather modest. There are single-country studies for Britain (Atkinson and Harrison 1978), France (Piketty et al. 2006, 2013), Sweden (Roine and Waldenström 2009) and the United States (Kopczuk and Saez 2007; Saez and Zucman 2016), which look at the evolution of wealth inequality from a long-run perspective (see also Wolff 2006; Davies 2008). Although we can draw on a few cross-national studies on wealth inequality for single points in time (Vermeulen 2014; Skopek et al. 2014; Cowell et al. 2012a, b; Sierminska et al. 2007), cross-national comparisons over longer period of time are much rarer. To our knowledge, there are only two attempts which provide a systematical cross-country comparative analysis of wealth inequality over several decades in a descriptive manner. Whereas Piketty (2014) and (Piketty and Zucman 2015) compare developments of wealth inequality for the United States and Europe (France, Germany, Sweden, United Kingdom), Roine and Waldenström (2015) compare time series for a larger set of countries. As a result, Kus (2016) in a re-

cent literature overview points at the urgent need for sociologists to study the dynamics of wealth distributions. In the following, we will take a look at wealth inequality in cross-country comparisons and discuss some development throughout history.

We have to be cautious in using traditional inequality measures like the Gini index for cross-national comparisons on household wealth. Although the Gini index is the most commonly used measure of economic inequality and distribution, it is not very helpful for measures of wealth because there are large fractions of households with zero or negative wealth, values with cannot be handled with the Gini index. Therefore, more recent comparative research on wealth distribution has largely relied on top-shares, i.e. the top 10 or top 1 percent of the wealth distribution.

Trajectories of wealth inequality

As Figure 23 shows, at the beginning of the 20th century wealth concentration at the top (top 1 percent) made up 60–70 percent in European societies (France, Netherlands, Sweden, United Kingdom) and was little bit lower in the United States accounting for 45 percent. This is also confirmed by Piketty (2014) who demonstrates that in 19th century Europe, the top 10 percent of wealth-owners possessed 80–90 percent of total wealth, and the top 1 percent owned 50–60 percent (Piketty 2014). These 'patrimonial societies' were characterized by a massive concentration of private wealth. Inheritance, marriage and rentier-incomes, rather than labor incomes or education, guaranteed social status and economic well-being.

Inequality was compressed in the course of the two World Wars and the Great Depression. The top 1 decile-share fell around one-third in European societies throughout that period. Private wealth became increasingly located in the hands of a "patrimonial middle class" (Piketty 2014: 346). This has been a similar trajectory across European nations – the emergence of a prosperous middle class represents a distinct 'commonality' in the European socio-structural transformation since WWII (Mau 2015; Piketty and Zucman 2015). Since the 1970s, however, levels of wealth concentration

have started to recover. This holds true for the United States, in particular. Although, when compared to Europe, wealth inequality was much less pronounced in 19th century United States, since mid-20th century wealth ownership became increasingly concentrated in the hands of the top 1 share and wealth inequality eventually exceeded European levels (Saez and Zucman 2016). Today, the top 10 percent in the United States and the United Kingdom own more than 70 percent of net wealth, whereas levels in Europe are less alarming since they make up around 60 percent in France and Sweden.

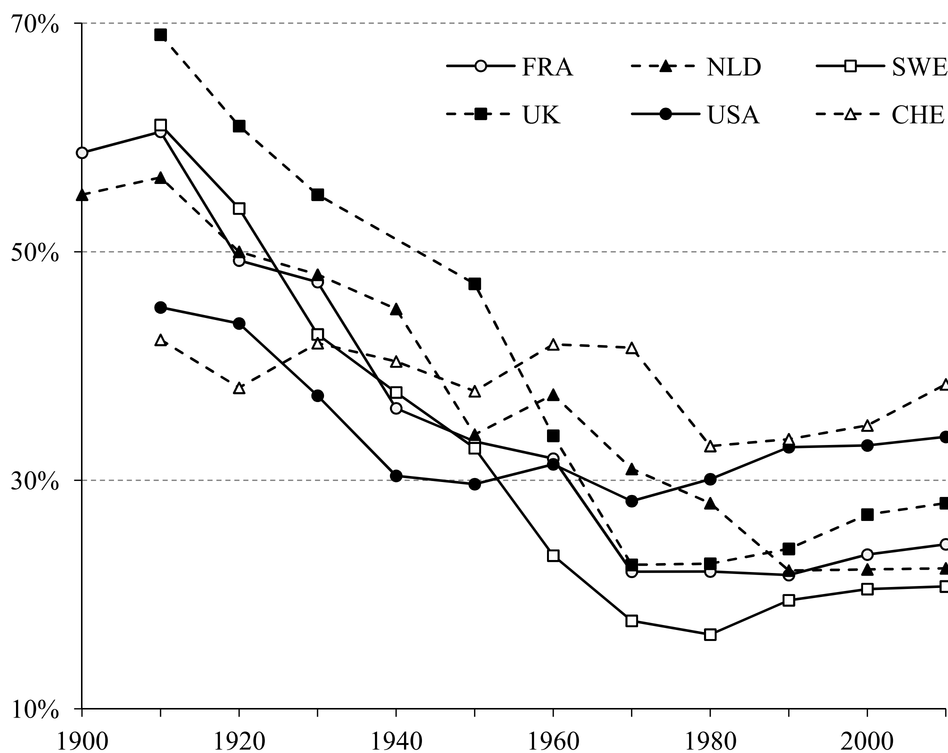

Figure 23: Wealth concentration, 1900–2010

Although the 'social democratic' Nordic countries are typically regarded as welfare societies characterized by equality in life chances and generous social protection, in the past, wealth ownership was highly concentrated and unequally distributed there as well. For instance, the top 1 percent owned about half of the total private wealth in Sweden and Denmark up until the early 20th century (Roine and Waldenström 2015). Around 1800 figures were less dramatic (Soltow 1989; see Table 6). In Finland and Norway, wealth concentration was less high with the top 1 share amounting to about

a third of total wealth. After WWI, however, wealth inequality witnessed massive decline in all of the Nordic countries.

Country	Wealth owned by the top 1 percent
Denmark	47%
Finland	19%
Norway	33%
Scotland	32%
Sweden	31%
United States	13%

Data: Soltow (1989)

Table 6: Top 1 wealth shares around 1800.

Thanks to studies by economic historians, we know a few things about wealth inequality in earlier periods of history. By analyzing data from the Florentine *Catasto* of 1427 (the tax census for Florence and Tuscan cities), Herlihy and Klapisch-Zuber (1985) and Goldthwaite (2009) find that the wealth share owned by the top 1 (no more than 100 families) percent made up approximately 30 percent. More recently, Alfani (2010, 2015) studies wealth inequality in 16th to 17th century Piedmont Italy based on records of the *estimi*, a tax on the value of real estate owned by households. He shows that the top 10 wealth share lied between 45–60 percent around 1300 and increased to between 60–80 percent around 1700. By 1911 England could look back on more than 30 years of democratic reform and challenges to dominance of the landed aristocracy. However, the wealthiest 1 percent owned 66 percent of total wealth (Soltow and van Zanden 1998). Also in the United States of the so called 'Gilded Age', the top 1 percent in the United States in 1912 owned about 56 percent of total wealth (Williamson and Lindert 1980; for a bit smaller estimates, see Saez and Zucman 2016).

Of course, the quality of all these data presented here differs substantially across countries and in some cases even within single countries over time. However, we try to draw broad conclusions from the data. First, looking at the development of the wealth share of the top percentile among the countries analyzed here, industrialization seems to have resulted in increased wealth shares for the top percentile. We can observe much lower top shares in the Renaissance and around 1800 compared to the skyrocketing levels at

the beginning of the 20th century. Research from economic historians confirms this finding (Roine and Waldenström 2015: Piketty et al. 2006). Second, top wealth shares peaked in the first decade of the 20th century, but decreased sharply in the course of the two World Wars in all countries studied here – with the exception of Switzerland and the United States. In Switzerland the top wealth share kept relatively constant, with a short period of decrease from 1970 until the turn of the millennium. In the United States, the fall during the first half of the 20th century has been small, but historical levels also were not as high as in most European countries. In the other countries, on average, the magnitude of the decrease seems to be that the top percentile lost its share of total wealth by about a factor of two (from around 50–70 percent in the first years of the 20th century to around 20–30 percent today). It seems that the low-point in most countries was around 1980 and that the top 1 percent wealth share stared to climb after that.

Wealth inequality in cross-national perspective

There exists broad agreement in the literature that (1) wealth inequality is bigger than income inequality and that (2) that income and wealth inequality are positively correlated (Davies 2008; Spilerman 2000). Whereas, wealth represents a stock, which allows for seemingly indefinite accumulation, as Simmel ([1907]2004) already discussed more than 100 years ago and also Piketty (2014) reminds us of, income earnings consist of flows which are naturally limited. The proposed close correlation between income and wealth derives from a simple logic which assumes that high income earners have more opportunities to save and invest parts of their income and accumulate assets. With other word: wealth is stated to generate additional income. As a consequence of such a seeming logic, authors have directly inferred wealth inequality estimates from income inequality estimates (Davies et al. 2009).

As recent research reveals, the relationship between wealth inequality and income inequality is not that straightforward. On the basis of Gini measures for income and wealth derived from survey data, Skopek et al.

(2014) demonstrate that wealth inequality in egalitarian, social democratic welfare states (Sweden, Denmark) is much higher than their low levels of income inequality would suggest. And, conversely, Southern European societies with high income inequality exhibit low levels of wealth inequality. The findings can be explained by tax policies which make wealth accumulation more difficult, by public pension provision which make private wealth accumulation less necessary, by debt levels and by 'winner-take-all' labor markets. To cut a long story short: for many countries the distribution of wealth is driven by mechanism which go beyond labor market processes. This is confirmed by a number of studies that find rather weak correlations between income and wealth (Skopek et al. 2012; Keister and Moeller 2000).

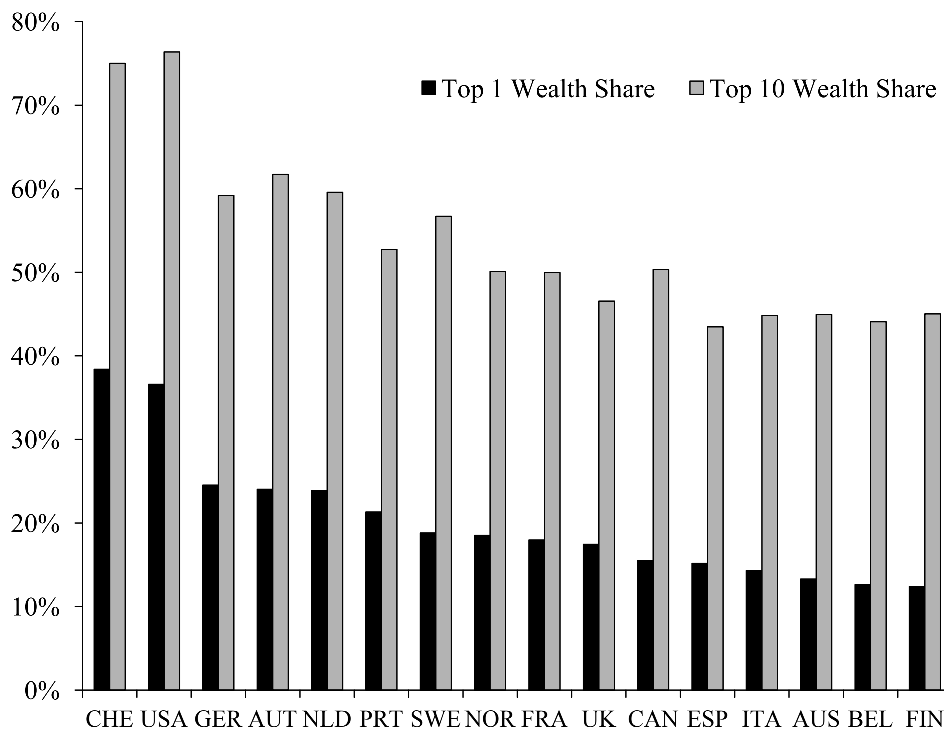

Figure 24: Top shares in net wealth (Data for 2010)

Our findings show that, indeed, wealth distributions are heavily skewed – much more so than income distributions. Across all countries in our analysis top wealth holders hold the vast majority of total household wealth (Figure 24). According to our data, the top 1 percent of the wealth distribution in Switzerland and the United States own nearly 40 percent of total private net

wealth, whereas the top 10 percent in these countries owns around 75 percent. The lightest concentration of wealth can be observed for Finland, Belgium and Australia, where the top 1 share makes up 13 percent and the top decile of the distribution owns about 45 percent of total private net wealth.

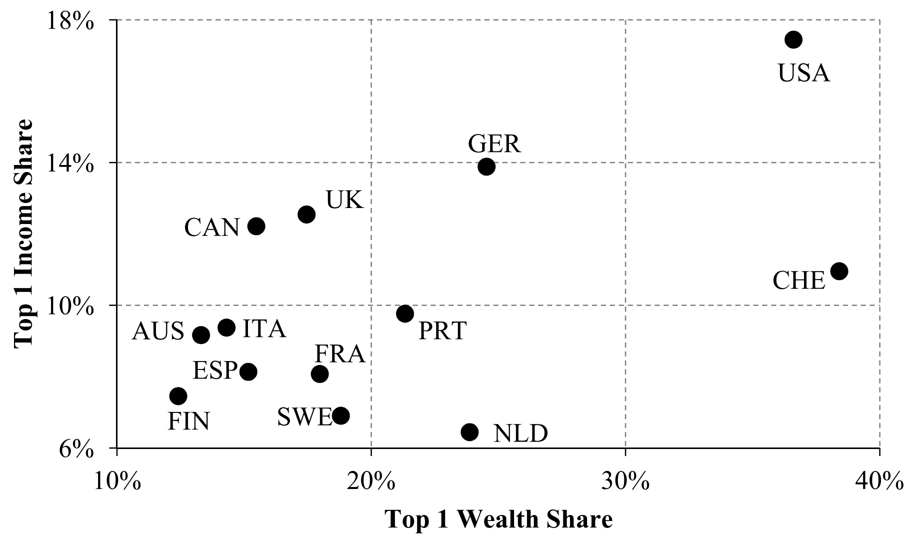

Figure 25: Top 1 shares in wealth and income (Data for 2010)

We can observe clear cross-national differences in the combination of levels of income and wealth inequality. We display the combinations of income and wealth inequality, using the top 1 shares, for a set of 12 countries for which comparable data on both items is available (Figure 25).[12] We distinguish four different groups of countries with the United States and Switzerland representing clear outliers. The group of countries in the lower-left side of the plot (Finland, Spain, Australia and Italy, perhaps also Sweden and France) combines low wealth inequality with low income inequality. A second group of countries in the mid-left side of the graph (United Kingdom, Canada) is marked by a combination of high income inequalities and relatively low level of wealth inequality. In contrast, a third group of countries (Portugal, Netherlands) in the mid-right part is characterized by high wealth inequality and comparably low inequality in incomes. Germany, in the up-

[12] For a plot displaying top 10 shares see Figure 37 in the appendix. Here, we get a similar picture with only slight differences.

per-middle area of the plot, combines high income inequality with high wealth inequality. The United States are located in the furthest upper-right part of the plot, far away from the field of the other countries. Switzerland is located in the furthest lower-right area of the graph, far away from the main field.

Based on our findings, we can conclude that conventional welfare regime typologies (Esping-Andersen 1990, 1999) and varieties of capitalism (Hall and Soskice 2001; Amable 2003) are only able to explain income distribution – the stratification of society through the position in the labor market. When it comes to wealth, as a further separate dimension of inequality and stratification, conventional typologies are of little explanatory power. Both levels of wealth inequality as well as combination of wealth and income inequality seem to follow patterns which go beyond existing models of capitalism. Future research will have to engage in a comprehensive examination of such phenomena.

3.2.4. Discussion

In this analysis, we studied the dynamics of private household wealth in advanced economies over more than 40 years (1970–2012). Above all, the findings point at the complex relations between the 'global' and the 'local' and the ambivalent relationship between 'individual risks' and 'collective risks'.

Like financialization, also the growth of private wealth (the 'wealthization' or 'patrimonialization') represents a 'commonality' of advanced capitalist societies. Throughout the last four decades, private wealth levels witnessed massive increases across advanced economies – albeit with nationally distinctions. This historical development has also been discussed in previous research (Piketty and Zucman 2014; Piketty 2014; De Bonis et al. 2013). Apart from this universal trend in the 'longue durée', specific events (financial crises, stock-market booms, political events) have a temporal impact on the evolution of private wealth across the whole set of countries under analysis. However, also here, there is cross-national variation in

extent and duration. As the findings show, wealth accumulation and financialization have to be considered with their institutional distinctions and cultural constructions as well as its contradictions, contingencies and ambivalences. Overall, we can find both converging as well as diverging trends across advanced capitalist societies.

What becomes clear, when looking at the long-term dynamics of private wealth over the last decades, is a universal shift towards investment in more risky forms of assets and a decline of traditional investment forms like bonds and bank deposits. This trends can be detected across the whole set of countries under investigation. We interpret this development as an expression of a 'world risk society' (Beck 1999) in which local events can have great global financial impact – and *vice versa*.

However, it would be misleading to confuse banking disintermediation and the decline of deposits and savings with a loss of importance of banks in the new financial structure. Although commercial banks have lost penetration in traditional deposit and credit markets, they represent key participants in the global financial markets and are characterized by enormous financial power and influence to control financial markets. "[B]anks should be considered as major capitalist actors in their own right rather than primarily as intermediaries or servants of other actors" (Erturk and Solari 2009: 386). In a more recent study, Orsi and Solari (2010) examined the changes in financial systems of Southern European economies throughout the last fifteen years. The authors show that Southern European economies are indeed 'bank-based' because banks control all credit, the stock market and financial investment by functioning as advisers, mediators, issuers, treasurers and investors at the same time. Consequently, in Southern Europe, universal banks are in the position to decide who can invest or borrow, where investments can be placed, who makes profits and who suffers from losses. Besides, and perhaps even more important, the 30 years lasting 'decline of deposits' found an abrupt end with the burst of the *Dot.com* bubble in 2001. Since then, the development of deposit wealth was rather marked by stagnation

(like in the United States, Japan or France) or even by re-climbing levels (like in Spain, Portugal or Finland).

When we take a look at the development of the composition of private wealth, housing wealth and private insurance wealth can be identified as mainly responsible for the increases over the last 40 and more years. Thus, on the one hand, we can detect the reliance on supposedly 'safe' housing assets in times of increasing financial instability and complexity. On the other hand, we can observe an increasing 'collectivization' of assets in the hands of organized investors (so called institutional investors). The phenomenon of the collectivization of financial assets expresses the full ambivalence of contemporary 'finance capitalism'. In times of individualization and self-responsibilization, people increasingly resort to the professional management of their wealth by experts and specialists who promise to provide 'certainty in an uncertain world'. We interpret this delegation of assets into the hands of experts and financial collectives as a strategy to reduce uncertainty and handle risk in "liquid times" (Bauman 2000) marked by fundamental uncertainty and seemingly unmanageable complexity.

Reforms of national pension systems are creating novel relations between households and global financial markets. Local institutions of old age provision become increasingly integrated in actor-networks, cultures and practices of international finance. Throughout the last decades, numerous continental European economies witnessed a change from unfunded 'pay-as-you-go' to funded 'capital market-based' pension plans (Ebbinghaus and Gronwald 2011; Orenstein 2008; Myles and Pierson 2001). Consequently, large and powerful pension funds are not any longer a phenomenon of countries like the United States, the United Kingdom, the Netherlands or Switzerland (Ebbinghaus 2011; Dixon 2008; Clark 2000). The privatization of old age pension and the rise of pension funds seem to be major drivers in deepening the financialization of national political economies.

Due to globalization, these partly ambivalent developments are subject to globally-dynamic influences. As the analysis reveals, phenomena like manias and crises, bust and booms have synchronous effects on whole economies

and economic action in general. This overtly demonstrates the global interdependencies and the network-character of the financial world. Today indeed, financial investors and savers live in a 'world risk society', to employ Ulrich Beck's famous social diagnosis. The enmeshment of household wealth into global financial markets means that certain locals are influenced by global dynamics, while local incidents may have worldwide consequences (Aalbers 2008; Gotham 2006). Globalized processes of financialization are clearly reflected in their "linking of localities" (Robertson 1995).

Price bubbles, boom years and times of economic euphoria in financial markets are not novel phenomena, as already recognized widely (e.g. Kindleberger and Aliber [1978]2005; Weber [1927]1961; Carruthers 2012; Neal 1990). That markets are subject to fluctuations and cycles has been accepted at least since the Napoleonic Wars, with their reappearing booms and crashes in the beginning of the 19th century. Economic crises can already be found in the 17th century – the *Kipper- und Wipperzeit* and the *Tulip Craze* (Kindleberger and Aliber [1978]2005; Posthumus 1929; Weber [1927]1961: 214ff). Generally speaking, crises with their effects on economic life have existed "always and everywhere" (Weber [1927]1961: 217), including the Ancient World as well as Far Eastern and Oriental societies (Morris and Manning 2005). However, the first 'modern' crises, described by 'rational' speculation and calculation, date back as far as the first half of the 19th century (Weber [1927]1961; Kindleberger and Aliber [1978]2005). Ever since that time, financial crises seem to have followed a 'regular' and cyclical pattern of booms and busts (Kindleberger and Aliber [1978]2005; Reinhart and Rogoff 2009; Laeven and Valencia 2008, 2012).

The first decades following WWII were characterized by a financial oasis of calm. Domestic finance was tightly regulated and the *Bretton-Woods System* put heavy restrictions on international capital movements. As a consequence, the three decades from the end of WWII until 1974 did not witness a big, severe financial crisis (Jordà et al. 2013; Reinhart and Rogoff 2009). From the mid-1970s onwards, financial instability witnessed a dramatic comeback in national economies. The frequency of financial crises and their

severity has heavily increased since the 1980s (Jordà et al. 2013; Reinhart and Rogoff 2009). But although financial booms and crises are of global nature, extent and precise temporal occurrence of crises varies across countries (Kindleberger and Aliber [1978]2005). We therefore need to place investment waves within a broader social context by taking account of the social and political conditions which create the basis for the spread of financial practices. This suggests that dynamics of financial markets cannot be conceptualized as exogenous, social factors like state institutions or politics are of major significance. 'Herding', 'collective contagion', 'financial exuberance' as well as 'panics' are driven by "fictional expectations" (Beckert 2013, 2014) which are based on contingent interpretations of the situation in the context of prevailing institutional structures, cultural templates, and social networks.

To cut a long story short: financial phenomena take on different shapes in different national contexts. It seems that "the economy […] differentiates and proliferates culturally in much the same way as other spheres of social life do, without losing national and even international connectedness" (Zelizer 1999: 207). The data show that although across all countries in the analysis households became more financialized throughout the last four decades, this trend happened at different levels with graduations across countries and groups of countries. Cross-country comparison reveals contextual differences regarding shape and evolution of financialization. In particular, national patterns and developments are marked by a characteristic stability. In this way, the results resemble findings from research on corporate governance practices and shareholder value structures suggesting the possible existence of 'hybrid forms', which combine the 'new' practices within a 'traditional' framework of capitalism (Guillén 2001; Vitols 2004; Fiss and Zajac 2004; Deeg 2005, 2010; Salento 2013).

This implicates that household reactions to the changing conditions and events of the last decades seem to be more complex than both the literature on financialization and multiple capitalisms make believe. On the aggregate country level, the investigation shows 'path-dependence' in financial prac-

tices as well as quick shifts and 'ricochet-effects'. We can observe a 'solid' financialization transforming into a 'liquid' financialization, which means that trajectories of financialization cannot keep their shape for any longer. Although global processes of financialization seem to be undeniable and financialization can be understood as a "commonality" (Streeck 2011b) of contemporary capitalism, there are clear limits in reach, shape and extent. Financialization *per se* is neither inevitably occurring nor resulting in convergence (Boyer 2000b). Rather, the analysis suggest the existence of different trajectories of financialization (Engelen and Konings 2010; Davis 2012; Erturk et al. 2005) since financialization is refracted differently in different national contexts.

Although the analysis of wealth inequality has flourished more recently, there are only few current studies which discuss the dynamics of wealth ownership in a comparative long-term perspective. Of course, this is mainly due to the unavailability of adequate longitudinal and comparable data. In taking a look at existing longitudinal data as well as cross-sectional data from 2010 for a larger number of countries, we find that wealth inequality is on the rise again in advanced economies – at least since the 1970s. Nevertheless, the levels are still relatively low when compared with the levels of wealth inequality at the beginning of the 20th century. In cross-national comparison, levels of wealth inequality exhibit large differences. Also when looking at wealth inequality and income inequality levels simultaneously, we can discover large differences between countries. However, the structure of inequality combinations fits only partly into traditional typologies of capitalist societies (Hall and Soskice 2001; Esping-Andersen 1990). While Germany combines high income inequality with high private wealth inequality, countries like Finland, Australia, Italy and Spain combine low income inequality with low private wealth inequality. While countries like Canada and the United Kingdom combine high income inequality with low private wealth inequality, in turn, countries like Sweden and the Netherlands combine low income inequality with high private wealth inequality. Solely,

the United States is a clear outlier in combining very high income inequality with very high private wealth inequality.

3.3. Explaining Variations in Private Wealth

What can explain the dynamics in private wealth throughout the last decades – cross-nationally and across time? And, perhaps more important, what can explain the growth in the two components which are mostly responsible for the growth in private net wealth-ratios – housing and insurance? While there is a great deal of variation in the levels of private wealth across countries, what we have seen is a common trend of increasing private wealth-ratios across the whole spectrum. To provide an empirical backing for the discussion of private wealth in the last decade, we propose a set of cross-country regressions relating the dynamics of the private wealth-to-GDP ratio to a number of explanatory factors. Which variables can potentially account for the variations in private wealth ratios in advanced economies over the last four decades?

3.3.1. Theoretical Background

Although we have a lot of research on the variations of wealth ownership at the micro-level, up to now, there is no study which systematically and comprehensively examines the determinants of private-wealth ratios at the macro level for a larger sample of countries (13) and for a long time span (from 1970 to 2012). Even though Piketty (2014) and Piketty and Zucamn (2013) study the cross-national movements in wealth-to-income ratios, their analysis remains descriptively and their explanations rather hypothetically. However, classical as well as more recent studies link different factors with cross-national and temporal variations in private wealth or private saving. Based on that, we can distill at least two distinct vantage points on cross-national differences in private saving and wealth, which have proved to attract continuing interest in academic research: (1) welfare state arrangements, especially with regard to old age pension provision and (2) national organization of corporate finance.

Private finance and the welfare state

The welfare state represents an essential factor in defining dominant strategies among private households (Esping-Andersen 1990, 1999). Because welfare states differ in their mix of private and public ways of guaranteeing citizens' welfare, household strategies differ across different welfare states.

The relationship between publicly-provided welfare and private finance has already been explicitly discussed in the welfare state for the case of retirement provision and housing finance. The well-known "welfare trade-off"-thesis (Kemeny 1980; Castles 1998) suggests that private finance substitutes public welfare – and *vice versa*. However, both authors argue for different motivations and causal linkages. Kemeny states that resistant tax-payers are responsible for low public pensions in welfare states where homeownership rates are high ('tax-payer effect'). Castles claims that less generous welfare states provide incentives for the accumulation of housing assets which function as a private insurance ('nest-egg-effect'). Indeed, more recent research confirms this 'nest-egg effect' (Conley and Gifford 2006; Ansell 2014).

More recently, research increasingly addresses the nexus of interrelationships between welfare state policies and financial markets (Crouch 2009, 2011; Prasad 2012; Schwartz and Seabrooke 2008, 2009; Gerba and Schelkle 2013). Accordingly, welfare arrangements and policies directed towards private organization of insurance, including (debt-financed) homeownership, make public welfare states increasingly becoming redundant – and *vice versa*. This means, homes increasingly serve as savings, investments and mortgage collateral for private old age pensions as well as education and health care expenditure. Such argumentation is backed by research which finds an association between asset-ownership and attitudes towards government redistribution and welfare state policies (Ansell 2014; André and De Wilde 2015).

Much of the economic literature has also paid a lot of attention to the relationship between public social insurance and individual private saving.

Empirical evidence on how and to what extent the welfare state arrangements impact private wealth accumulation is, however, rather mixed.

On the one hand, research has detected a strong negative relationship between social security and private saving (Feldstein 1974, 1976, 1980; Callen and Thimann 1997). Accordingly, expectations about future public pensions reduce the incentive to accumulate private wealth and create a 'wealth replacement effect'. Or with other words: welfare state generosity tends to crowd out private savings. On the other hand, however, research has found the relationship between public security and private wealth to be positively related, or at least non-existent (Barro 1978; Kopits and Gotur 1980; Leimer and Lesnoy 1982). Further research demonstrates that social insurance reduces private saving via institutional rules which prohibit the combination of private wealth and social benefits (O'Brien 2008). People in positions marked by (anticipated) precarious incomes do not have incentives to accumulate wealth because public welfare is only accessible in the case of non-asset-ownership.

Although the last decades saw the rollback of the welfare state in many societal fields and a general demise of the welfare state as a "collective piggy bank" (Barr 2001), there still are considerable differences in shape, generosity and outcome of welfare state arrangements across Western advanced societies (Esping-Andersen 1999; Prasad 2012; Castles 2007; Pierson 2001). Whereas some contributions (e.g. Crouch 2009, 2011; Prasad 2012) rely on a conventional welfare state typology and thus contrast the 'Anglo-American' model with 'Continental' Europe, other studies, however, show that the strong relationship between welfare policy and financial deepening is not a unique phenomenon of 'liberal' welfare states, but also applies to 'conservative' or 'social democratic' welfare regime types (Gerba and Schelkle 2013; Schwartz and Seabrooke 2008, 2009; Engelen et al. 2010; Trampusch 2006; Belfrage 2008; Belfrage and Ryner 2009).

National pension arrangements represent one, perhaps even the most prominent, arena where processes and distinctions of household financialization become strikingly observable. Already 1976, Peter Drucker

(1976) recognized the increasing influence of pension funds on capitalist dynamics – though from a rather optimistic viewpoint. Since then, public pension insurance cutoffs and a continuing fiscal crisis in advanced economies have resulted in the globally increasing significance of private pension plans (Ebbinghaus and Gronwald 2011). In particular, individualized old age contribution plans are supported politically – on the level of national governments as well as on the supra-national level (EU, OECD, IMF). As a consequence, institutional investors – pension funds, insurance companies and investment funds – who manage private wealth have grown considerably and have become powerful and heavyweight global actors (Useem 1996; Davis and Thompson 1994; Jung and Dobbin 2012).

Although the last decades witnessed processes of pension financialization across all developed economies, these dynamics are in no way marked by linearity and uniformity. The embeddedness of global investment practices in distinct local contexts takes place through complex processes of endogenous institutional change (Dixon and Sorsa 2009). Depending on the distinct context, institutional change takes the form of "displacement", "layering", "conversion", "drift" and "exhaustion" (Streeck and Thelen 2005; Mahoney and Thelen 2010). This means that pre-existing institutional arrangements and practices survive and that new financial institutions are created by powerful actors and 'institutional entrepreneurs'; i.e. the "increasingly relational proximity of a particular political economy to global finance does not require necessarily a major 'convergence' to other capitalist forms" (Dixon and Sorsa 2009: 348).

The literature proposes that the public-private mix of pension provision is closely related to household financial practices (Jackson and Vitols 2001; Gerba and Schelkle 2013). The welfare state shapes the accumulation of pension savings by defining the mix of public and private pension provision, as well as by regulation of investment policies of private pension capital. Typically, household financial market participation is thus higher in 'individualistic' welfare states emphasizing capitalized private pension schemes. On the contrary, 'solidaristic' retirement arrangements are usually character-

ized by transfer between generations – at the societal, firm or family level (Jackson and Vitols 2001). While 'solidaristic' welfare states publicly provide many services which are prime motives for household saving, such as education and retirement, 'individualistic' welfare state arrangements are supposed to create incentives and needs for private 'safety nets' via the accumulation of private wealth and engagement in financial markets.

Private finance and corporate finance

Forms of corporate finance have undergone fundamental change throughout the last decades. In the course, many Continental and Southern European economies' financial systems were renovated in a 'market-based' fashion since the 1990s (Deeg 2005, 2010; Jackson and Deeg 2012) – with deep implications for household saving and investment. A prevalent view involves the general trend of convergence towards a 'market-based' financial organization (Rajan and Zingales 2003; Allen and Gale 2000; Hölzl 2006). However, despite such universal trends (or 'commonalities') can be detected across all advanced economies and "changing them [financial systems] has ripple or knock-on effects throughout" (Deeg 2005: 522; see also Deeg and Jackson 2007), empirical research demonstrates that all financial systems have changed in different ways and to varying degrees (Deeg 2005, 2010; Bianco et al. 1997; Bruno et al. 2012) and that institutional and cultural changes are of limited extent depending on the concrete national institutional and cultural context (Amable 2003).

Traditionally, corporate finance is organized in different ways depending on the distinct context, with banks, markets, firms, households and the state taking on different roles (Zysman 1983; Hall and Soskice 2001; LaPorta et al. 1998; Verdier 2002). The literature on comparative capitalisms suggests that household saving and investment is embedded in a broader institutional and cultural environment (Hall and Soskice 2001; Jackson and Deeg 2008, 2012; Vitols 2001). This means that there is a variety of investment strategies and possible allocation of savings. Economic historians have long recognized significant national variations in the relative roles played by banks

and financial markets in financing economic development (Rajan and Zingales 2003). Whereas early 'industrializers' like Great Britain were characterized by highly developed, liquid securities markets (Carruthers 1996), for late 'industrializers' such as Germany or Italy, universal banks functioned as a substitute for financial markets throughout the 19th century (Gerschenkron 1966; Cameron 1972). Although this thesis has been widely criticized (Vitols 2001; Verdier 2002, 2003), the basic underlying distinction between banks and markets remains central in comparative research. Typically, financial environments are distinguished as "bank-based" or "market-based", depending upon which financial channel is more central (Zysman 1983; Allen and Gale 2001; Albert 1993; Vogel 1996). The first type, exemplified by Germany, France and Japan, involves trust-based relations between firms and banks and firms rely on bank loans and develop long-term relationships. The second type, exemplified by the United States and the United Kingdom, involves arms-length relations between firms and stock markets and firms generally mobilize capital through capital markets, relying on a balance of publicly traded stocks and bonds. This distinction is integral to the well known, ideal-typological *varieties of capitalism* approach (Hall and Soskice 2001). Accordingly, so called 'Coordinated Market Economies' (CMEs) supposedly benefit from patient, long-term and low risk financial capital investments, while 'Liberal Market Economies' (LMEs) benefit from short-term and high-risk capital investments.

Household investments are not only expected to meet the requirements of institutional complementarity, but any possibility of 'path-departure' would be constrained attributable to historical legacies in governance and horizons of investment. Since practices of household saving and investment are embedded in a broader institutional environment, we suppose that accumulation of private wealth – and household finance as such – is closely associated with the size and power of the financial sector. A financial organization based on shareholder value and 'market-based' finance is supposed to show heavy effects on dynamics of private wealth.

3.3.2. Data and Methods

We conduct a panel-data analysis to examine the relationship between our main explanatory variables of interest – namely, *welfare state size*, *welfare state generosity* and the *organization of corporate finance* – and the dependent variables, the dynamics of (1) *private net wealth*, (2) *housing wealth*, and (3) *insurance wealth*. The analysis involves data from 13 OECD countries[13] for which data covering the period of 1970–2012 is available. The units of observation of dependent and independent variables are the country-years. To help isolate the relationship between the main explanatory variables and the dependent variable, we include a set of control variables derived from the literature – namely, old age dependency, life expectancy, household saving rates, income inequality, property and equity prices, economic growth, inflation, GDP per capita, the occurrence of a financial crisis and private indebtedness. This makes up an unbalanced panel, in that neither the dependent nor the independent variables are always available uniformly for the entire period 1970–2012. Table 17 in the appendix provides the summary statistics for the variables included in the analysis.[14]

We will estimate a panel regression with year effects, country fixed-effects and a lagged dependent variable of the following form:

$$\Delta Y_{i,t} = \beta_1 Y_{i,t-1} + \beta_2 X_{i,t} + \eta_i + \theta_t + \varepsilon_{it}$$

where ΔY denotes the annual change in the private wealth-to-GDP ratio, Y_{t-1} is the lagged private wealth-to-GDP ratio and X is a vector of explanatory variables, whereas η_i are country fixed-effects, θ_t represents a full set of time dummies and ε_{it} captures all the omitted factors.

The country fixed-effects take into account the constant unobserved heterogeneity. It enables us to measure the impact of within-country variation of the dependent variables on within-country variation in private wealth-to-GDP ratios. The period year fixed-effects capture temporal variations com-

[13] Australia, Canada, Denmark, Finland, France, Germany, Italy, Japan, Portugal, Spain, Sweden, United Kingdom and the United States.

[14] Data sources and definitions are given in Table 18 in the appendix.

mon to different countries. The parameters for the independent variables will therefore capture only the effects of specific within-country variations in time in each country. It is well-known that panel-data analysis has several statistical challenges – most notably, that of autocorrelation and heteroskedasticity in the error term. To circumvent these problems, we calculate panel-corrected standard errors, following Beck and Katz (1995), and estimate Prais-Winsten regressions.

As already mentioned our main explanatory variables of interest are the organization of public welfare and the organization of corporate finance. We measure welfare state size in terms of *social transfers as a percentage of GDP*. As measures of welfare state generosity, we include three variables covering different welfare state domains – the *pension replacement rate,* the *unemployment replacement rate* and the *sick pay replacement rate*. We use the *stock market capitalization as a percentage of GDP* as an indicator to capture the organization of corporate finance.

Next to our main independent variables of interest, we include a number of control variables deriving from the literature. As prior research suggests, a variety of factors (demographic, social, economic, political, cultural) determine the ownership of wealth. We already argued for looking at macro-level factors concerning economic development, institutions and policies. However, much research has explored micro-level factors of wealth ownership – the characteristics of individuals and their families (age, education, race, gender, and marital status). Among the countless factors that might influence private, we consider a number of variables which are well documented by the literature and available as aggregates for the time period 1970–2012.

Consistent with sociological theory, it can be presupposed that we find a so called "Matthew-effect" (Merton 1968) in the dynamics of private wealth (see also DiPrete and Eirich 2006). Accordingly, past wealth levels (Y_{t-1}) have an impact on present-day dynamics. The famous "life-cycle" hypothesis (Ando and Modigliani 1963; Modigliani and Brumberg 1954; Modigliani 1988) states that people start saving during early adulthood, reach peak lev-

els of savings during middle age, and spend down their assets in retirement. Accordingly, it can be assumed that older societies (captured by the *dependency ratio*, i.e. the population older than 65 as a percentage of the total population) are less motivated to accumulate wealth, whereas *life expectancy* at birth will have a positive impact on household asset building. Already John Maynard Keynes (1936) made the claim that differences in saving behavior are related to differences in income. As prior research suggests, income inequality plays a significant role for investment decisions since different income groups have different preferences for various types of assets (Carroll 2002; Keister 2000; Kremp 2009). Therefore, volatility in *asset and property prices* as such will not only affect the dynamics of private wealth, but also investment practices deriving from income disparities will show up in the dynamics of private wealth. We, thus, use the share of the *top 1 percent of the income distribution* as our indicator of economic inequality. We enter real *GDP growth* and *inflation* (CPI) as explanatory variables: GDP growth and inflation determine the development of nominal GDP, the denominator of the wealth-to-GDP ratio. Also Thomas Piketty (2014) highlights slow economic growth and high saving rates as the main factors contributing to constantly rising wealth levels in contemporary capitalist societies. The numerator for the saving-to-GDP ratio is *gross saving*. *Financial crises* have become an important risk factor for household finances (Bucher-Koenen and Ziegelmeyer 2011; Ampudia et al. 2014: Fligstein and Rucks-Ahidiana 2016). We have demonstrated this phenomenon already in the descriptive time-series analysis above. The impact of crises on private wealth trajectories is approximated through a dummy variable. Further covariates include *per capita GDP* and *private debt* calculated as total household liabilities as a percentage of GDP.

3.3.3. Findings

We estimate two Models (Model 1 and Model 2) for each of the three dependent variables (private net wealth, housing wealth, insurance wealth). Model 1 is always estimated with welfare state size (social transfers as a

percentage of GDP) as an explanatory variable, Model 2 is always estimated with welfare state generosity in different domains (pension, unemployment and sick pay generosity) as explanatory variables. The tables below show the results for the changes in *private net wealth* (Table 7), *housing wealth* (Table 8) and *insurance wealth* (Table 9).

ΔPrivate Net Wealth	Model 1			Model 2		
	Coef.		SE	Coef.		SE
Private Net Wealth $^{t-1}$	-0.662	***	*0.029*	-0.777	***	*0.027*
Welfare State Size	-0.203	*	*0.520*	–		–
Pension Generosity	–		–	-0.680	***	*13.837*
Unemployment Generosity	–		–	0.241	***	*7.013*
Sick Pay Generosity	–		–	0.036		*9.933*
Stock Market Size	0.403	***	*0.034*	0.415	***	*0.025*
Dependency Ratio	-0.251	**	*0.482*	-0.238	***	*0.314*
Life Expectancy	0.259		*1.619*	0.455	**	*1.430*
Saving Rate	-0.120		*0.250*	-0.132	*	*0.215*
Income Inequality	-0.342	***	*0.656*	-0.124		*0.657*
ΔEquity Prices	0.023		*0.001*	0.028		*0.001*
ΔProperty Prices	0.198	***	*0.090*	0.181	***	*0.075*
Inflation	-0.229	***	*0.352*	-0.365	***	*0.306*
GDP Growth	-0.053	**	*0.469*	-0.173	***	*0.363*
GDP per capita	0.266		*45.075*	0.264		*31.327*
Financial Crisis	-0.122	***	*3.703*	-0.134	***	*3.484*
R-Squared	.486			.525		
Obs. / Countries	440 / 13			418 / 13		

Note: OLS regression with panel-corrected standard errors. Models estimated with constant. We display country demeaned standard estimates. * $p<0.1$, ** $p<0.05$, *** $p<0.01$ (two-sided tests). Models include country fixed effects and year effects. Time period: 1970–2012.

Table 7: Determinants of the change in the private net wealth-to-GDP ratio, 1970–2012

We begin with examining the effect of our main explanatory variables of interest, welfare state arrangements and modes of corporate finance, on private net wealth, housing and insurance wealth. Controlling for a set of various other potential factors, we find that welfare state size displays a significant negative association with increasing private net wealth ratios. When looking at welfare state generosity, this relationship becomes a bit more differentiated. Whereas pension generosity has a highly significant negative effect on private wealth dynamics, unemployment generosity exhibits a clearly significant positive influence on private wealth accumulation. Wel-

fare state size shows also negative effect on the private housing wealth-to GDP ratio, but it is not significant. Contrary, once again, pension generosity is negatively associated and unemployment generosity positively associated with the accumulation of housing assets. When looking at the models for insurance wealth, we can find a significant negative association with welfare state size once again. Not surprisingly, also pension generosity shows a significant and negative effect on dynamics of insurance wealth. However, different from the models for net wealth and housing wealth, unemployment generosity possesses a highly significant negative relationship with accumulation of insurance assets.

The results lend support to research which finds close linkages between welfare state policy and household finance (Prasad 2012; Gerba and Schelkle 2013; Schwartz and Seabrooke 2008; Fessler und Schürz 2015). The data suggests that the re-building of public welfare has contributed to households seeking private substitutes, which is consistent with the hypothesis that increasing commodification has led to the financialization of private social safety nets.

However, to understand the influence of welfare on private wealth and household finance in general, the quality of welfare spending matters more than quantity. The institutional make-up of different welfare regimes may influence people in different ways to accumulate wealth. Thus, we can observe a 'substitution effect' as proposed by much of the welfare-trade-off literature, next to a 'complementary effect' (Gerba and Schelkle 2013), namely that more generous welfare state arrangements push people towards the accumulation of assets because the state provides the socio-economic security to do so. In countries with generous unemployment provision, higher wealth ratios are more common because social protection is more extensive, which allows people to continue saving and investing. A generous unemployment protection creates more stable income prospects for families in the labor market, who can expect to be assured of a minimum income all their life. As a consequence, such welfare programs make people less risk adverse and more confident, so they can invest their money or take

on debts to accumulate assets. In contrast, in countries characterized by less generous pension schemes, where benefits are more narrow and tend to target the already employed and the elderly, people have to accumulate assets as nest-eggs and their safety-net. Much of the welfare state literature shows that public welfare re-shapes and re-stratifies society (Esping-Andersen 1990), and therefore not only affects income and wealth or the stability of positions in society, it also contributes to people's prospects for the future, and people's prospects for the future influence their willingness and need to take accumulate assets.

The mode of corporate finance matters for each of the wealth variables in our estimations. Households in countries with a more shareholder value oriented organization of corporate governance, expressed by the size of a countries stock market, have significantly accumulated more housing assets, more insurance assets and more wealth as such.

ΔPrivate Housing Wealth	Model 1			Model 2		
	Coef.		SE	Coef.		SE
Private Housing Wealth $^{t-1}$	-0.242		*0.028*	-0.287	**	*0.025*
Welfare State Size	-0.272		*0.450*	–		–
Pension Generosity	–		–	-0.578	***	*9.173*
Unemployment Generosity	–		–	0.371	***	*6.643*
Sick Pay Generosity	–		–	-0.103		*6.385*
Stock Market Size	0.242	**	*0.031*	0.279	***	*0.018*
Dependency Ratio	-0.367	**	*0.444*	-0.292	***	*0.294*
Life Expectancy	0.081		*1.242*	0.094		*1.116*
Saving Rate	-0.206	**	*0.200*	-0.147	*	*0.164*
Income Inequality	-0.429	***	*0.371*	-0.233	***	*0.365*
ΔEquity Prices	0.021		*0.001*	0.028		*0.001*
ΔProperty Prices	0.329	***	*0.080*	0.314	***	*0.059*
Inflation	-0.165	*	*0.277*	-0.262	***	*0.226*
GDP Growth	0.044	**	*0.413*	-0.073		*0.289*
GDP per capita	0.996		*42.075*	0.780	**	*19.333*
Financial Crisis	-0.069	*	*2.996*	-0.085	**	*2.338*
Private Debt	-0.005		*0.066*	0.085		*0.061*
R-Squared	.375			.413		
Obs. / Countries	441 / 13			419 / 13		

Note: OLS regression with panel-corrected standard errors. Models estimated with constant. We display country demeaned standard estimates. * $p<0.1$, ** $p<0.05$, *** $p<0.01$ (two-sided tests). Models include country fixed effects and year effects. Time period: 1970–2012.

Table 8: Determinants of the change in the housing wealth-to-GDP ratio, 1970–2012

Across all models, the estimates reveal that countries with already high private wealth levels have accumulated less wealth, whereas households in countries with smaller levels have generally accumulated more throughout the last four decades. Economic growth and inflation play a significant role for private net wealth dynamics; housing wealth and insurance wealth remain unaffected by economic growth dynamics. High growth and inflation dampened the increase in the private net wealth-to-GDP ratio. The negative coefficients on economic growth and inflation also indicate an overall counter-cyclical stance of private wealth accumulation.

ΔPrivate Insurance Wealth	Model 1		Model 2	
	Coef.	SE	Coef.	SE
Private Insurance Wealth $^{t-1}$	-0.921 ***	*0.040*	-0.952 **	*0.044*
Welfare State Size	-0.216 *	*0.171*	–	–
Pension Generosity	–	–	-0.309 **	*5.051*
Unemployment Generosity	–	–	-0.096 **	*3.344*
Sick Pay Generosity	–	–	0.306	*5.377*
Stock Market Size	0.303 **	*0.013*	0.304 **	*0.013*
Dependency Ratio	0.291	*0.191*	0.235	*0.209*
Life Expectancy	0.171	*0.547*	0.274	*0.614*
Saving Rate	0.320 **	*0.103*	0.277 *	*0.099*
Income Inequality	0.183 *	*0.228*	0.219 *	*0.225*
ΔEquity Prices	0.090 ***	*0.000*	0.084 ***	*0.000*
ΔProperty Prices	-0.147 ***	*0.029*	-0.151 ***	*0.030*
Inflation	-0.041	*0.134*	-0.126 ***	*0.156*
GDP Growth	0.005	*0.173*	0.009	*0.171*
GDP per capita	-1.665 ***	*14.928*	-1.244 *	*14.155*
Financial Crisis	-0.185 **	*1.673*	-0.187 ***	*1.653*
Private Debt	0.286	*0.039*	0.298	*0.038*
R-Squared	.363		.374	
Obs. / Countries	445 / 13		423 / 13	

Note: OLS regression with panel-corrected standard errors. Models estimated with constant. We display country demeaned standard estimates. * p<0.1, ** p<0.05, *** p<0.01 (two-sided tests). Models include country fixed effects and year effects. Time period: 1970–2012.

Table 9: Determinants of the change in the insurance wealth-to-GDP ratio, 1970–2012

As expected, financial crises go hand in hand with significant decreases in private wealth – a result which refers to each of the wealth variables under analysis. A prevalent view in the literature treats the increasing accumulation of private wealth as a consequence of financial euphoria that carries

equity (or property) prices to unsustainable levels (Shiller 2000, 2008). Because phases of “financial exuberance” (Shiller 2000) typically lead to a panic and a financial crisis (Kindleberger and Aliber [1978]2005; Minsky 1980, 1982, 1986), investment functions the other way round as well. Every new investment craze ends up with the destruction of massive amounts of wealth for large parts of the population who became involved in global financial markets. Usually, financial market participation rates diminish after a great investment craze or stock market boom (Kremp 2009).

Other than those, three more variables stand out as important drivers of private wealth in recent decades: income inequality, the dependency ratio and household saving. The strong relation between private wealth and income inequality underlines the importance of looking at wealth accumulation and inequality jointly. This result is not new since it plays a key part in Piketty’s (2014) famous work. However, surprisingly, the results are rather mixed depending on the wealth component under analysis. Since 1970, higher income inequality had a substantial dampening effect on the rate of increases in private net wealth and private housing wealth, whereas private insurance wealth generally witnessed more increases in countries with higher levels of income inequality. A potential channel may be located on the micro-level. As we know, households with higher incomes tend to make significantly higher investment in private pension products (Wilke 2012). In any case, the results lead further support to the thesis that growing inequalities and the trajectories of private wealth cannot be looked at in isolation – especially when it comes to financial assets like pension products.

The age profile of a society seems to matter too. All else equal, countries with a larger proportion of elderly people showed a tendency to accumulate less wealth – particularly with reference to net wealth and housing assets. While this finding may be explained by the ‘life cycle thesis’, the old age dependency ratio can also function as a rough proxy for pressure on pension systems. In this case, we point at the private finance-welfare nexus described above. In the long run, wealth is typically linked to the accumulation of saving (Piketty 2014), but in the short run this connection is more diffi-

cult to detect. As the models show, higher saving rates have even a negative effect on private wealth dynamics for the case net wealth and housing wealth. However, we can find a significant positive association of saving with the accumulation of insurance assets. Accordingly, we can conclude that savings alone can only partially explain variations in private wealth. Besides, the propensity to save declined in most OECD countries due to low interest rates, unrealized capital gains, increasing access of credit, ageing and slowly growing disposable income (Hüfner and Koske 2010).

Yet, it is equally interesting to note what factors do not matter: a greater life expectancy did not make households accumulate more assets. Furthermore, GDP per capita, a rough proxy for the overall affluence of an economy, shows only significant (negative) associations in the models for private insurance. Also levels of private debt bears no meaningful relation to changes in private wealth ratios. Since we display country demeaned standard estimates, we can compare the effects of different variables. Pension generosity, stock market size, dependency ratio and also income inequality and financial crises have comparably great effect on dynamics of private wealth.

3.3.4. Discussion

As our analyses of cross-country panel data show, it is not so much the size of the welfare state which impacts private wealth accumulation. The welfare state displays only partly significantly negative associations with private wealth. However, this picture becomes more differentiated when looking at the effect of welfare state generosity in different areas (pension, unemployment and sick pay generosity) on different wealth components. Net wealth, housing and insurance wealth are significantly and negatively associated with pension arrangements. Besides, a more shareholder-oriented organization of corporate finance exhibits significantly positive effects on private wealth across all models.

The results suggest that the increasing accumulation of private wealth in contemporary capitalist societies has to be seen as being part of processes of

"individualization" (Beck [1984]1992; Bauman 2001; Giddens 1991). Nowadays, people search for "biographical solutions to systemic contradictions" (Beck and Beck-Gernsheim 2001: xxii). We can witness a disintegration of past collective social forms (welfare state, unions). Today, re-embedding happens within processes of 'financialization'. This also means the emergence of a new form of societalization.

Due to the erosion of social security provided by post-war welfare state arrangements, the consequences of shareholder value and flexibilization of work life, plus the volatility of financial market movements, households are increasingly situated in a "risk society" (Beck [1984]1992) – or even a "world risk society" (Beck 1999) – in which they themselves are responsible for coping with the uncertainties of life (Cutler and Waine 2001; Watson 2007). This "big risk shift" (Hacker 2006, 2008) has structured life-chances and strategies in modern market societies. Financial risks are increasingly shifted directly onto households who were protected from such risks in the past via labor market regulations or state provision. As a consequence, households are confronted with increased risk over the whole life course and at the same time are facing a decrease of support and resources for managing economic challenges. It is claimed that reliance on solidarity within family, trade unions or welfare state is increasingly replaced by the necessity to rely on self-assistance and to take responsibility for one's life. This includes to be prepared for life-events such as job loss, ill health of oneself or a family member, birth of children and retirement.

For many commentators, "the origins of mass investment lie in the privatization of pensions" (Harmes 2001: 105). Ordinary private households are not in the market just to make quick profits – although this factor is always relevant – but rather as a result of institutional changes that include the transformation of provision of old age insurance from a collective responsibility into a problem that everyone has to solve for himself. In many advanced economies the social safety net for citizens is shrinking. The demise of the welfare state as the "collective piggy bank" (Barr 2001) has produced a number of social, political and economic problems. The public sector is

withdrawing from social security provision at the very time that large parts of the population is approaching retirement age. The coincidence of demographic change and institutional transformations has initiated the need for private retirement savings. For many people, financial markets seem the only way to make enough money to evade old age poverty – or at least to fund an adequate consumption level in retirement.

> "The end result is, in some respects, a 21st century reinvention of the buffer role the household played in 19th century industrial society before the development of modern social security" (Froud et al. 2002: 145) .

The last decades witnessed major path departures in pension policy across all advance economies (Orenstein 2008), most prominently demonstrated by the shifts from 'pay-as-you-go' pension schemes to funded pension schemes, from defined-benefit to defined-contribution plans, and from publicly to privately managed pension systems (Clark 2003; Engelen 2003; Langley 2006, 2008; Blackburn 2006). By this, personal pension plans which involve individual decisions on investment strategies and risk profiles increasingly replace solutions which are collectively arranged and do not entail making crucial decisions. Consequently, these areas "become a playground for the notoriously capricious and inherently unpredictable market forces and/or are left to the private initiative and care of individuals" (Bauman 2007: 2).

These deep transformations are the results of pension privatization (Orenstein 2013; Ebbinghaus 2011), containment of public finances (Myles and Pierson 2001) and more general re-negotiating of responsibilities between public and private actors (Clark and Whiteside 2005; Ebbinghaus and Whiteside 2012). Due to these processes public pension provision cannot be regarded as safe – at least for younger generations. This holds true, especially, within a situation where trust in the institutional framework decreases (e.g. Buhlman 2003). This makes necessary financial attempts of one's own, reflecting over financial issues and planning one's financial future. Of course, economic action and decision-making was already oriented towards an uncertain and open future in pre-capitalist societies; today in "liquid

times” (Bauman 2007) however, one’s ‘own’ secure future seems as important as never before.

In the analysis, we developed a framework to study variations in private wealth across time and space. The regression models reveal that private wealth occurs at significantly greater levels in countries with a less generous welfare state and a higher developed ‘market-based’ organization of corporate finance. In such a way, the regression results broadly confirm arguments from the comparative capitalisms literature which attributes household saving to a country’s financial system and its pension arrangements (Vitols 2001; Jackson and Vitols 2001).

The findings add to a growing literature which takes a look at private households within times of financialization. Household participation in financial market appears either via the ‘credit-channel’ or via the ‘investment-channel’. While much of the literature has focused on credit and debt, little research has engaged within investment issues, perhaps with housing assets representing an exception. The analysis contributes to a central agenda in economic sociology, to understand how social structures encourage certain kinds of economic practice and, more specifically, the socio-structural foundations for increasing financialization and financial activity within contemporary capitalism.

3.4. The Social Structure of Financial Investment

A lot of empirical research suggests that wealth ownership and investment decisions differ across social categories. From a cross-country perspective, previous empirical studies based on survey data document a variety of factors that shape patterns of wealth ownership and investment practices at the household level. While there are a number of country case studies based on survey data, which study wealth ownership when it comes to life course dynamics (Ando and Modigliani 1963; Modigliani 1988), social class (Wolff 1988), inheritance (Szydlik 2004; Nau and Tumin 2012), race and ethnicity (Oliver and Shapiro 1995; Conley 1999; Henretta 1979; Semyonov and Lewin-Epstein 2011), religion (Keister 2008, 2011) or household structure

(Keister 2004; Zagorsky 2005), cross-national studies at the household level have been rarely undertaken. In one of the few early comparative, survey data-based studies, Semyonov and Lewin-Epstein (2013) find that in spite of considerable cross-country variation in the distribution of wealth, the effects of income and inheritance on net worth are uniform across societies. Recently, also Korom (2016), Arrondel et al. (2014) and Fessler and Schürz (2015) highlight wealth transfers and income as the major determinants of household net wealth.

However, while there are studies which deal with the determinants of wealth ownership, both at the national and cross-national level, fewer studies have engaged in investigating the determinants of the ownership of different types of assets. Perhaps we should mention that the determinants of housing wealth are an exception since there is a traditionally great interest in homeownership by sociologists (Kurz and Blossfeld 2004; Kemeny 1992). For instance, previous work shows that class, labor market position, ethnicity and parental status are closely associated with homeownership (Kurz 2004; Henretta 1979; Filandri and Olagnero 2014).

Comparative research on household wealth portfolios for European countries not only underscores cross-national differences in average wealth portfolios, but differences in the social structure of national wealth portfolios (Skopek et al. 2012; Cowell et al. 2012b). As a study by Christelis et al. (2013) reveals, households of comparable characteristics tend to have quite different probabilities of participating in different assets and holdings in different assets across countries. In a data analysis for Canada, Germany, Italy, Luxembourg, Spain and the United States, Sierminska and Doorley (2013) show that socio-economic characteristics (income, education, birth cohort) explain a sizable portion of asset participation, with variations across countries and types of assets.

Next to the research on the micro-level determinants of homeownership, there are a small number of empirical investigations dedicated to specific types of assets (stock and private pension investments). In a longitudinal study for Germany, Wahl (2011) examines the determinants of risky and

conservative assets and finds significant effects for labor status and education on the riskiness of investments. In a cross-nationally comparative investigation, Guiso et al. (2003) demonstrate that stock market participation is robustly associated with wealth and education, which have only small effects, however, on the asset share invested in stocks. A study on the cross-national differences in portfolios of the 'rich' (top 1 and top 5 percent of the net worth distribution), finds that the 'rich' hold larger parts of their wealth in risky forms and own entrepreneurial projects than the rest (Carroll 2002). A striking difference across countries is in the relation of financial and non-financial forms of wealth. The United States and Italy represent two extreme cases. Whereas the ratio of non-financial to financial wealth for 'rich' in the United States is about 1.5, this ratio is approximately 7 in Italy. Wilke (2010, 2016) shows that ownership of private pension products is deeply embedded in social structure. He finds positive effects of children, income, education, status in the labor market and region on investment in private pension assets. For the United States, Kremp (2009) finds that stock market investment is significantly determined by economic, cultural and social capital (income, wealth, education, networks), but also by a socially-embedded subjective risk tolerance. In a similar vein, using an own survey of more than 3,100 investors in six European countries, De Bondt (2005) shows how stock market investment strategies are determined by investors' values and beliefs which themselves are found to be embedded in national and social structures.

While economists have shown interest in explaining the choice between different types of financial products, sociologists have only rarely addressed investment decisions. Although sociological research has explored the determinants of wealth ownership as such and has dealt with the determinants of homeownership in specific, as we have seen, only very little research has discussed the ownership of specific types of financial assets. It still remains underinvestigated why do some households engage in the accumulation of financial investments such as stocks, shares and mutual funds and others do not?

As we have already shown, recent trends in the financialization of private wealth are marked by two aspects: (1) the increasing popularity of risky assets and (2) the delegation of wealth to the hands of institutional investors (insurance companies, pension funds and investment funds). Consequently, in what follows, we take a look at the household-level determinants of making such investment decisions.

3.4.1. Theoretical Background

Sociological explanations of investment decisions differ in many ways from their counterparts in economics. Before we take a look at a sociologically-grounded approach towards investment decisions, we will briefly discuss existing approaches in financial economics.

The view from economics

While orthodox capital market theory assumes financial markets as informationally efficient in sense of the "efficient market theory" (Fama 1970), behavioral finance perspectives account for departures of stock values from their "rational level" (Shleifer 2000) and offer psychological explanations of investment behavior. Where psychology comes in, and hence where behavioral finance makes its contribution, is in questioning assumptions of economic rationality and market efficiency in financial markets (Shiller 2000; Malkiel 2003).

From the perspective of standard portfolio theory in economic science, the willingness to invest one's wealth in risky assets is conceptualized as a function of one's degree of risk aversion/indifference/preference (Merton 1969 1971; Samuelson 1969). Accordingly, investors marked by a higher degree of risk aversion hold safer wealth portfolios – and *vice versa*. The literature suggests that all differences in portfolio composition across investors derive from differences in risk preferences (Gollier 2001). Furthermore, it is argued that households invest at least a part of their wealth in risky assets to take advantage of equity premiums. Indeed, empirical research documents significant effects of self-reported attitude towards risk on the likeli-

hood of having investments in risky assets (Haliassos and Bertaut 1995; Guiso and Paiella 2008; Keller and Siegrist 2006).

There exists evidence that standard theory explanations fail because decisions in financial markets “cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist” (Keynes 1936: 162f). Behavioral finance accounts depart from the assumption of efficient markets and of utility maximization as the basis of investors’ financial decision-making. Empirical research shows that small investors act far from what can be regarded as rational and rather perform poorly (Barber and Odean 2000). Research under the umbrella of behavioral finance explains why small investors invest in stocks and participate in financial activities directly although direct stock-ownership and active wealth management proof not to be an inevitably rational strategy. The underlying idea is that small investors systematically overestimate their own skills and abilities to manage their wealth portfolios (Odean 1998). Consequently, direct stock-ownership and engagement in active wealth management is a function of an investor’s degree of so called ‘overconfidence’. However, the operationalization of overconfidence as an analytical concept has shown to be very problematic. One possible strategy practiced within empirical research in the field of behavioral finance has been to draw on gender as a proxy-variable for overconfidence (Barber and Odean 2001) since psychological investigations have documented significant differences in overconfidence between men and women (Prince 2003; Lundeberg et al. 1994). Indeed, empirical economic studies found that gender (women vs. men) is a relevant factor for risk aversion in investment decision-making processes (Badunenko et al. 2009; Yao and Hanna 2005)

In face of the existence of liquidity constraints (Deaton 1991), the assumption of efficient markets and rational economic behavior cannot be maintained. At least a part of the low degree of stock market participation among households located in the lower half of the income distribution can be explained by missing opportunity of low-income households to either save or borrow to invest in financial products (Haliassos and Michaelides

2003; Vissing-Jorgensen 2003). To cut a long story short, making stock market investments requires at least a minimum level of income.

In general, financial decisions can be regarded as marked by high complexity. Here accounts from sociology and economics agree. From the perspective of financial economics, information costs in form of lacking transparency represent an important barrier of entry in stock market activity. Low cognitive abilities are likely to increase these costs substantially because information – if available and collected – has to be interpreted by market participants. Thus, if stock-market investment calls for a special know-how – what is typically called 'financial literacy' – households will decide not make investments unless they are capable of 'making sense' of information, which depends on their cognitive abilities (King and Leape 1998). In fact, empirical investigations have revealed that stock-market participation is associated with cognitive skills (e.g. Christelis et al. 2010; Grinblatt et al. 2011), financial literacy and education (van Rooij et al. 2011; Bertaut 1998; Cole et al. 2014; Campbell 2006).

Economic sociology I: The investment habitus

From the perspective of economic sociology, economic action and decisions are always oriented towards an unknown, uncertain and open future (Beckert 2009, 2013). Economic actors must decide without being able to anticipate the economic outcomes. Since the prediction of the proper strategies to follow is impossible, actors resort to socially anchored "scripts" or "conventions" (Biggart and Beamish 2003) that serve as a "collectively recognized reference" (Beckert 2009: 251).

Different social groups develop different responses to a given economic context, depending on a distinct (economic) 'habitus' – a subjectively embodied, structured set of (economic) 'dispositions' that generate practices and perceptions (Bourdieu 1984, 1990, 2005). Economic dispositions involve logics of action (DiMaggio 1997: 277) which have both a limiting and an enabling effect on (1) the perception of incentives and opportunities and on (2) the practical realization of economic strategies. In shaping how peo-

ple relate to their interests and are aware of their position (Bourdieu 1992; Swedberg 2005), dispositions have to be conceived as relationally constructed. The knowledge of the 'rules of the game' conditions the perception of motives and incentives which can then 'add up' to individuals. In these terms, economic dispositions can be linked to attitudes towards risk and future expectations – or "imagined futures" (Beckert 2011):

> "[T]he 'rational' habitus […] is the product of particular economic condition, the one defined by possession of the economic and cultural capital required in order to seize the 'potential opportunities' theoretically available to all. […] The art of estimating and seizing chances, the capacity to anticipate the future by a kind of practical induction or even to take a calculated gamble on the possible against the probable are dispositions that can only be acquired […] in certain social conditions" (Bourdieu 1990: 62f).

Thus, higher levels of economic and cultural capital imply the (cap)ability to calculate and seize economic chances or opportunities and thus to make financial investments marked by higher risk. This is because higher levels of cultural and economic capital are generally bound to a lower exposure to economic insecurity and market volatility and involve being more familiar with and also more motivated to familiarize oneself with the 'field-specific logics', codes and scripts of household finance (Aldridge 1998).

From such a perspective, variations in attitudes towards financial risk and economic calculation have to be understood as the product of internalized economic dispositions which are anchored in the accessible economic and cultural resources. Economic practices – including investment decisions – are result of one's position in the social structure (Fourcade 2007).

Economic sociology II: Conspicuous investment

That investment practices function as an important aspect of defining and showing one's position in the social structure seems particularly true in financialized societies. Recent research discusses the diffusion of financially-oriented cultural frames (Preda 2009; Davis 2009; Fligstein and Goldstein 2015). In a society characterized by increasing uncertainties with re-

gard to old age provision, education of the children, health-care and future consumption, alongside the general necessity for self-determination and self-fulfillment, inflation of status symbols via investment or consumption becomes elementary. Possession of financial assets and property becomes condition of social integration, for present days and even more for the future. In a society wherein aspirations are shaped by "concrete indices of the accessible and the inaccessible" (Bourdieu 1990: 76) and "signs of social value" (Bourdieu 1984) accessible via money ('economic capital'), household financial market investment has to be viewed as a manifestation of social status.

Research on stratification and consumption has revealed that people demonstrate their social status position by adopting forms of "conspicuous consumption" (Veblen 1992). Accordingly, class and status boundaries are not so much determined by relations of production but are rather the outcome of people's (conscious and unconscious) strategies aiming at signaling their social position (see also Bourdieu 1984; Simmel [1907]2004; Frank 2007; Weber [1922]1978). This idea can be applied to investment decisions as well, so that investments and financial activities become a form of 'conspicuous investment'.

Economic sociology III: 'Special assets'

Money exhibits multiple definitions and uses. There are different cognitive classifications and evocative meanings associated with money in different social domains. This includes the values, attitudes and beliefs of people that influence their behavior with respect to money.

People earn, spend, save and invest their money for different reasons and with different intentions. This means that money as an "absolute means" (Simmel [1907]2004) is often 'earmarked' or 'pinned' and refers to specific purposes and functions. Zelizer's (1989) analysis of money, for instance, shows that men's income and women's earnings ('pin money') are conceptualized and treated much differently. Accordingly, a euro of 'pin money' – although numerically equivalent to a euro of a man's salary – is not viewed

as ‘serious’ or ‘real’ money. ‘Pin money’ is rather supplementary, like a gift, and is spent less freely and for different purposes (household expenses). Even while the sociology of money considers multiple money uses – economic and non-economic – money is restricted in important social ways. People attach “special meanings to particular amounts” (Zelizer 1997:29). Money is indeed not as colorless, neutral and objective as economic theories of money suggest. Money is shaped by social relations and meanings (culture). “Culture and social structure mark the quality of money by institutionalizing controls, restrictions, and distinctions in the sources, uses, modes of allocation, and even the quantity of money” (Zelizer 1989: 342). Here, Zelizer (1989) develops the concept of “special monies” to denote that money is not restricted by social limitations but rather represents more socially composed ‘currencies’ linked to social circumstances and invested with specific motives, values and norms, especially where social interaction is marked by specific interests. Of course, this idea refers not only to the ways money is spent, but to the ways money is saved and invested as well. Accordingly, we can speak of ‘special assets’, investments made with a special function (e.g. old age provision, safety net) and directed towards a special motive.

3.4.2. Data and Methods

In the following, we study the embeddedness of financial practices. Who makes what kind of financial investments?

We make use of data from the Survey of Consumer Finances (SCF) and the Eurosystem Household Finance and Consumption Survey (HFCS) conducted in 2010. The SCF dataset contains 6,482 US households, whereas the HFCS dataset contains 3.565 households for Germany, 7.951 for Italy and 1.301 for the Netherlands. The countries were selected because they are individually important and together illustrate a range of different economic traditions. The United States (LME) and Germany (CME) represent opposing poles of capitalist societies, what makes them ideal cases to investigate (Hall and Soskice 2001; Crouch and Streeck 1997). In between the ‘classic’

poles, Italy and the Netherlands represent interesting cases. The Netherlands is often regarded as a Nordic country and an early 'financializer'. In contrast Italy is often described as a Southern-style mixed-market economy (MME) marked by traditional financial practices.

To examine how socio-structural variables are associated with financial investment practices, we use logistic regression models to predict the odds of having investments in three different forms (*mutual funds*, *life insurance and pension funds*, *stocks*) for each of the households within the four countries. The columns show the coefficients of binary logit models of the odds of having investments in one of the three forms for each country in the analysis separately (see Long 1997).

Whereas behavioral finance assumes risk tastes as exogenous individual preferences, economic sociology assumes that distinct 'risk mentalities' are product of the economic and cultural resources people can draw on. From this perspective, attitudes towards financial risk are embedded in the social structure of society. By entering the whole set of variables into the models, we control for the embeddedness of subjective risk-taking. In order to study the role of risk mentalities in making financial investments, we include a measure of *attitude towards financial risk*, as an independent variable (entered as a set of dummy variables) in the models. This variable measures subjective risk on an ordinal-scale (see Grable and Lytton 2001). Higher levels indicate a greater willingness of financial risk-taking. Respondents were presented a selection of four financial reasonings linking risk and expected returns and asked to pick the statement that came closest to the degree of financial risk they were willing to take when they save or make investments: (1) *not willing to take any financial risk*, (2) *take average financial risks expecting to earn average returns*, (3) *take above average financial risks expecting to earn above average returns*, (4) *take substantial financial risk expecting to earn substantial returns*.

To study the effect of 'special assets', we enter a set variables related to investment motives. We distinguish between investment reasons (1) related to big investment projects (*purchase an own home, major expenses, set*

up/finance own business), (2) related to a safety-net and buffer (*to be prepared for unexpected events, old age provision*), (3) related to consumption purposes (*travels/holidays*) and (4) related to descendants (*education of (grand)children, bequests*).

To account for the effects of socio-structural variables, we enter a variable *gender of the household-head* (with *female* as the reference category) and a variable for the level of *education* (coded 1 for *university degree* and 0 for lower educational categories). Economic capital is operationalized via the household *income* variable, an additional household financial *wealth* variable and a *homeownership* dummy variable (1=home-owner; 0=no owner/renter). Because previous research reveals differences in homeownership rates and motives for owner-occupation (Schwartz and Seabrooke 2008; Kurz and Blossfeld 2004), it can be hypothesized that households owning residential property tend to invest in financial assets to a lesser extent. Throughout the analyses, we use financial wealth including *deposits and saving accounts, bonds, managed accounts, voluntary pension and life-insurance assets* as well as *other financial assets* difficult to classify. However, depending on the model we exclude either investments in *mutual funds, life insurance and pension funds* or *shares and stocks* from this category, in order to avoid reverse causation bias. Income is measured as household gross income defined as *earnings from employment, self-employment income, income from pensions and other regular social transfers* as well as *income from renting and financial investments*. As in the case of financial wealth and due to the same reason, we exclude dividend and interest income.[15] The models also include a control variable for *profession* (1=managerial and professional occupations; 0=other occupations) as a measure for social status.

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[15] We choose to work with wealth and income indicators defined at the household level and not per capita figures or figures normalized by any equivalence scale. Theoretical arguments to use equivalence scale in the case of consumption indicators are well documented (e.g. Atkinson et al. 1995), while wealth is usually considered at the household level. Controls for the structure of the household are included in the empirical models.

We include a set of different socio-demographic variables as controls in the models. These include *marital status* (1 signifies married and 0 signifies other), since previous empirical research has demonstrated that wealth portfolios vary by family structure (Zagorsky 2005). We also add a variable on *ethnicity* coded as a dummy variable (0=native/white; 1=immigrant/non-white). Prior sociological studies on wealth inequality point to systematic differences in patterns of wealth accumulation between racial and ethnic groups (Conley 1999; Oliver and Shapiro 1995; Semyonov and Lewin-Epstein 2011). Also studies from the field of financial economics have shown that race matters when it comes to financial decisions (Yao et al. 2005). We include a set of controls for *age* (three dummy variables, with under 35 years as the reference category) because age is an important predictor of savings behaviors within the "life-cycle" framework (Modigliani and Brumberg 1954; Ando and Modigliani 1963). From the life-cycle perspective, people start saving during early adulthood, reach peak levels of savings during middle age, and spend down their assets in retirement. The idea is that individuals simultaneously maximize and smooth out consumption across the life course and that retirement savings out of current income is the chief driver of wealth accumulation.

The variable on household *debt* includes all kinds of outstanding liabilities. On the one hand, debt causes constraints on household financial opportunities and thus may reduce engagement in financial investments. However, on the other hand, debts have to be understood as integral part of contemporary processes of financialization, as already mentioned earlier (Montgomerie 2013; Langley 2008). Private indebtedness evolves as social norms interact with both cultural trends and institutional changes in household finance (Prasad 2012). This means that indebtedness – like forms of investment and saving – may be interpreted as a specific element of a "finance culture" (Fligstein and Goldstein 2015; Heiberger 2016) – a culture which entails actively engaging in one's financial issues.

3.4.3. Findings

Our comparative analysis of aggregate data allowed us to reconstruct paths in investment practices across countries and to identify national peculiarities and commonalities. When looking at portfolio composition, however, we should keep in mind that: (1) It is impossible to detect whether a change in asset shares in the last years is due to a change in participation or just to the amounts invested. (2) Aggregate data do not provide information whether national differences in participation and composition of household wealth attributes to wealth as such, to household socio-economic characteristics, or are due to other cross-country differences. (3) As a result, we cannot infer any indication about representative portfolios and representative investment practices from macro financial data directly. Hence, survey data has to inform us about how financialization and finance culture function on the micro-level.

Descriptive analysis

Before we turn to multivariate techniques of analysis, we take a look at descriptive data. Table 10 documents large cross-country differences in participation rates (the fraction of households that own a particular type of asset or have a particular type of liability).

Within financial assets, the highest participation rate is for bank deposits (including transaction accounts). In most countries, the second highest financial asset participation rate is for retirement assets held in defined-contribution pension plans and life insurance. Participation rates do vary considerably across countries, with high levels in Australia, the United Kingdom, and Canada, and quite low levels in Portugal, Italy, Austria and particularly Greece. Of course the main reason for this cross-country variation in private pension participation lies in the difference between DC and DB pension systems. Some countries rely primarily on defined-benefit pensions, which are claims to future income, but are not well measured in the survey data and are not counted as financial assets in our analysis.

	Deposits	Bonds	Mutual Funds	Directly Owned Stocks	Direct and Indirect Stockhold-ings	Retirement Assets and Life Insurance	Main Residence	Other Housing Assets	Private Business	Debts	Mortgage Debt
AUS	97.4	1.7	3.3	34.5	–	82.6	67.4	20.5	12.2	69.1	36.7
AUT	99.4	3.5	9.9	5.3	12.9	17.6	47.7	13.4	9.4	35.8	16.8
BEL	97.7	7.6	17.5	14.7	25.6	43.1	69.7	16.4	6.6	45.0	28.5
CAN	93.6	7.4	11.6	10.0	–	70.5	62.5	18.4	17.1	71.1	33.8
GER	99.0	5.2	16.9	10.6	23.7	46.3	44.2	17.8	9.4	47.4	18.1
ESP	98.1	1.4	5.6	10.4	25.1	23.6	82.8	36.2	15.0	50.0	26.8
FIN	100.0	0.8	27.4	22.2	33.9	23.7	69.2	29.8	13.8	59.8	32.8
FRA	99.6	1.7	10.7	14.7	23.0	37.5	55.3	24.7	10.7	46.9	16.9
GRC	73.4	0.5	1.3	2.7	4.7	3.8	72.4	37.9	9.8	36.7	13.9
ITA	91.8	14.6	6.3	4.6	11.5	18.0	68.7	24.9	18.4	25.2	9.6
NLD	94.2	5.9	17.8	10.5	19.3	50.0	57.1	6.1	4.8	65.4	43.9
PRT	94.3	0.4	2.8	4.4	6.3	14.1	71.5	27.1	7.7	37.7	24.5
UK	97.4	28.2	5.4	17.5	–	76.1	68.0	10.9	–	63.2	36.2
USA	92.6	13.3	8.7	15.1	49.8	57.6	67.3	14.4	12.1	75.0	47.0
Mean	94.8	6.5	10.3	12.6	21.4	40.3	64.5	21.3	11.3	52.0	27.5

Data: HFCS 2010, SCF 2010, SFC 2012, WAS 2012, HILDA 2010; sample weights

Table 10: Asset participation rates in 2010

There is also considerable variation across countries in the participation rates for directly held stocks and mutual funds. In spite of the well-known risk of active and direct stock-ownership, participation rates are substantially lower in mutual funds than in directly held stocks. The participation rates in bonds (fixed-income products outside retirement accounts) are overall relatively low, albeit with substantial cross-national variation. The United Kingdom, Italy and the United States show relatively high participation rates in these products, which include both public debt and long-term debt issued by banks.

To get an idea of households' exposure to financial markets (their investment culture), we construct an inclusive equity participation rate that takes account of indirect holdings of equities in retirement accounts and mutual funds as well as direct equity holdings (direct and indirect stockholdings in Table 10). The analysis shows that the this participation rate is about one half in the United States, about one third in Finland, about one fourth in Belgium, France and Spain and no more than one fifth in other Continental European countries.

The homeownership rate (measured as the fraction of households owning their main residence, rather than the more common definition in the real estate literature of the fraction of housing units that are owner-occupied) is above 50 percent everywhere except Germany and Austria, i.e. countries in which renting is prominently more common. The ownership of second homes is especially widespread in Southern Europe (Greece, Spain, Portugal and Italy) but also in Finland. In almost all countries about 10 percent of households own private businesses with particularly high levels in Canada and Italy.

On the liability side, data shows substantial cross-country heterogeneity. About 75 percent of households are indebted in the United States. This fraction is only slightly lower in Canada (71 percent), Australia (69 percent), the Netherlands (65 percent) and the United Kingdom (63 percent). However, this figures are very different from Italy, where only one quarter of households has any debt, from Greece, Austria and Portugal, where about 35 per-

cent of households are indebted, or even France, Spain, and Germany, where about half of all households have debts. Given that all countries in our data are developed industrialized societies with established market economies and many of them are even members of the same currency area, this cross-country variation may seem surprising. Of course, this phenomenon has emerged as a major topic of debate in the social sciences (Prasad 2012; Coletta et al. 2014; Kus 2013). We can also find great cross-country variation in the use of mortgage debt. For instance, only 10 percent of Italians and less than 20 percent Germans, Austrians and Greeks have a mortgage, whereas almost half of US-American households do. Note that this heterogeneity is not sufficiently explained by the homeownership rate, which indeed is low in Germany, but is close to the United States level in Italy.

	AUT	BEL	GER	ESP	GRC	ITA	NLD	PRT	USA	Mean
Not willing to take any financial risk	62.7	73.0	63.7	84.3	77.3	49.5	71.8	92.2	47.4	71.5
Take average financial risks	28.8	21.8	33.2	13.4	16.6	31.6	26.2	6.2	35.8	22.8
Take above average financial risks	6.5	4.4	2.7	1.8	3.6	17.9	1.6	1.0	13.4	4.4
Take substantial financial risks	2.0	0.8	0.4	0.5	2.5	1.0	0.4	0.6	3.5	1.3

Data: HFCS 2010, SCF 2010; sample weights

Table 11: Risk attitudes across countries

Descriptive data also reveals wide cross-country variation in subjective attitudes towards financial risk-taking (risk mentalities) as shown in Table 11. US-American households are more willing to take financial risks than Spain, Portuguese or German households, with Belgium, Italy, Austria and Greece somewhere in between. The fraction of people who say of themselves to take substantial risks when making financial investments is highest in the United States (4 percent) and lies above the average in Austria and Greece. However, Italy represents an interesting case since about 18 percent of households state to take above average risks when it comes to financial investments. These findings point at fundamental ambivalences in investment practices and cross-national perceptions of household finance. Note

that households' direct exposure to financial markets is comparatively low in Greece, Austria and Italy, i.e. in countries which have above average levels when it comes to subjective tastes for risks. The data reveals that this functions the other way round in Spain and particularly in the Netherlands. In the United States objective financial practices (high exposure to markets) and subjective perceptions of risk (risk-loving mentality) fit each other well. This is also the case for Portugal with low levels of direct participation in the 'finance game' and a corresponding high national risk-aversion.

	AUT	BEL	GER	ESP	GRC	NLD	PRT	USA
Purchase own home	10.2	12.0	7.9	4.5	5.4	18.9	14.9	6.4
Major purchases	34.9	15.9	36.1	23.4	7.1	66.7	2.8	15.8
Set up private business	2.4	1.2	0.5	3.8	1.5	7.4	1.1	0.7
Financial investment	3.1	2.1	1.4	11.1	2.4	20.1	1.6	1.1
Unexpected events	66.7	54.1	42.8	52.7	71.6	88.7	54.5	55.3
Paying off debts	9.3	5.0	3.0	7.5	13.3	25.3	8.3	2.5
Old-age provision	37.0	35.6	35.9	27.6	34.8	70.8	40.8	40.9
Travels/Holidays	34.9	23.6	28.7	39.9	21.0	74.2	6.3	9.7
Education of children	22.9	22.9	19.5	31.2	22.5	52.2	26.1	13.0
Bequests	7.7	14.2	0.8	9.2	3.6	23.0	9.3	9.8

Note: Expressing multiple purposes was possible. Purposes in rows represent dummy variables. Data: HFCS 2010, SCF 2010; sample weights

Table 12: Investment reasons

As Table 12 shows, old age provision and provision for unexpected events (like unemployment or illness) represent important investment motives across all countries. In contrast, we can find striking cross-country differences for the fractions of households who invest their money to cover major expenses, to pay off debts, to finance travels and to leave bequests. Not surprisingly, investing for purposes of future provision (unexpected events and retirement) is more widespread in the Netherlands and the United States, where welfare state arrangements are more 'market-oriented'. However, also 'family-based' welfare states like Greece and Portugal show high levels when it comes to investing in order to reduce future uncertainty. Whereas investment for consumption purposes (travels, major expenses) is high in the Netherlands, corresponding figures are considerably lower for Portugal and the United States. Investment for one's descendants (children's

education and bequests) is relatively common in the Netherlands, Spain, Belgium and Portugal, whereas such intentions seem to be less important in Germany or Greece.

Multivariate analysis

We present the estimates for the effects of having direct investments in one of the three financial assets: *mutual funds* (investment funds), *life insurance and pension funds* (private pension assets) and *publicly traded stocks* (stocks) (Tables 13–15). The columns present predictions for whether or not a household has investment in that kind of assets for each of the four countries separately. We run models for countries separately and refrain from pooling the data because analysis of aggregate data and descriptive findings reveal large cross-country differences which cannot be attributed to individual, household-level characteristics. For instance, homeownership rates are particularly high in Southern Europe and low in Germany. And, the direct exposure to financial markets dynamics (equity participation rate) is larger in Anglo-Saxon countries than in Continental Europe.

The results of the logistic regressions indicate that investment decisions are strongly influenced by attitudes towards risk. This finding goes for each of the countries under analysis. Generally, the odds of having invested in one of the three assets are significantly higher among households with an above average taste for risk (level 3 and 4) than the odds for the households expressing a strong risk aversion (level 1). A distinct risk mentality plays a significant role when it comes to investments in investment funds and particularly when it comes to stocks, whereas risk attitude is only of significance for the ownership of private pension assets in Germany and the United States. Even more, we find that households with a higher risk tolerance are more likely to own private pension assets in the United States, but in Germany risk-loving investors are less likely to have such assets. In Italy and the Netherlands risk mentalities do not seem to play a role for investments in private pension assets at all.

	GER		ITA		NLD		USA	
Takes average financial risks	1.370	***	0.768	***	1.816	***	0.555	***
Takes above average financial risks	1.874	***	0.419	**	2.508	***	0.736	***
Takes substantial financial risks	0.057		1.193	***	2.159	**	0.570	**
Save/Invest: own home	0.010		n.a.		-0.022		0.510	**
Save/Invest: major expenses	0.345	**	n.a.		-0.107		-0.017	
Save/Invest: own business	-0.731		n.a.		-0.086		-0.816	
Save/Invest: unexpected events	0.149		n.a.		0.225		0.150	*
Save/Invest: old-age	0.254	**	n.a.		0.197		0.191	**
Save/Invest: travel/holidays	-0.236	*	n.a.		0.138		0.042	
Save/Invest: children's education	-0.200		n.a.		-0.215		0.105	
Save/Invest: inheritance	0.230		n.a.		-0.068		0.189	
Male	0.136		0.292	**	0.275		-0.145	
University education	0.407	***	0.311	*	0.330	*	0.614	***
Managerial/professional occupation	0.075		n.a.		0.022		0.130	***
Age 35–50	0.194		0.483	**	0.655		0.049	
Age 51–65	-0.206		0.302		0.888	+	0.141	
Age >65	-0.219		0.161		0.912	**	0.166	
Married	0.164		-0.062		-0.049	**	0.056	
Number of persons in household	-0.199	***	-0.156	**	-0.230	**	-0.059	+
Immigrant	-0.878	***	-0.934	**	n.a.		-0.248	**
Household income	0.039		0.740	***	0.235	**	0.175	***
Household financial wealth	0.385	***	0.343	***	0.348	***	0.394	***
Homeownership	0.286	**	0.228		0.205		0.191	+
Household debt	-0.011		0.009		-0.014		-0.041	***
Constant	-6.339	***	-14.228	***	-8.858	***	-7.681	***
Pseudo R^2	.223		.185		.218		.345	
Observations	3347		7951		1224		6363	

Note: Logistic regression of the determinants of the log-odds of mutual fund investment, with robust standard errors. Significance levels: *** p< 0.001, ** p<0.01, * p<0.05, $^{+}$ p<0.10 (two-sided tests). Variable values for household financial wealth, household income and household debt are logged values. Household financial wealth excludes mutual fund investments and household income excludes interest and dividend income from financial investments. "n.a." denotes categories for which data has not been collected. Data: HFCS 2010, SCF 2010; no sample weights.

Table 13: Determinants of the log-odds of investment in mutual funds

The regression models show that the functions and intentions attributed towards investments exhibit significant effects on financial investment decision-making. In Germany, the likelihood of owning shares of investment funds is higher for households who invest and save for major expenses and old age, whereas people who invest their money in order to finance travels and holidays are less likely to own investment fund assets. In the Netherlands, investment motives have no significant effects on buying investment funds assets.

	GER		ITA		NLD		USA	
Takes average financial risks	0.103	***	0.045		0.227		0.499	***
Takes above average financial risks	-0.157	***	-0.081		0.705		0.658	***
Takes substantial financial risks	-1.366		-0.301		-0.360		0.011	
Save/Invest: own home	0.124		n.a.		0.305		0.124	
Save/Invest: major expenses	0.164	+	n.a.		-0.068		-0.168	
Save/Invest: own business	0.005		n.a.		0.223		-0.248	
Save/Invest: unexpected events	0.207	**	n.a.		-0.040		0.001	
Save/Invest: old-age	0.572	***	n.a.		0.332	**	0.429	***
Save/Invest: travel/holidays	0.055		n.a.		-0.078		0.366	**
Save/Invest: children's education	-0.085		n.a.		-0.271	+	0.030	
Save/Invest: inheritance	-0.294		n.a.		0.204		-0.068	
Male	-0.010		0.242	**	0.061		-0.101	
University education	-0.045	***	0.136	*	0.427	***	0.106	
Managerial/professional occupation	0.320		n.a.		-0.299	+	0.182	**
Age 35–50	0.002		0.436	**	0.510	**	0.286	**
Age 51–65	-0.492		-0.109	+	0.993	***	0.269	**
Age >65	-2.241		-1.266	***	0.355		-0.213	+
Married	0.060		-0.026		0.292	+	0.394	***
Number of persons in household	0.240	***	0.034		0.271	***	-0.092	***
Immigrant	-0.710	***	-0.582	***	n.a.		-0.147	+
Household income	0.275		0.650	***	0.004		0.183	**
Household financial wealth	0.128	***	0.068	***	0.066	**	0.361	***
Homeownership	-0.065	**	0.284	**	0.109		0.192	**
Household debt	0.027		0.045	***	-0.007		0.055	***
Constant	-4.023	***	-9.242	***	-2.050	***	-5.684	***
Pseudo R²	.225		.158		.074		.368	
Observations	3347		7951		1124		6363	

Note: Logistic regression of the determinants of the log-odds of life insurance and pension fund investment, with robust standard errors. Significance levels: *** p< 0.001, ** p<0.01, * p<0.05, + p<0.10 (two-sided tests). Variable values for household financial wealth, household income and household debt are logged values. Household financial wealth excludes investments in whole life insurance and pension funds and household income excludes interest and dividend income from financial investments. "n.a." denotes categories for which data has not been collected. Data: HFCS 2010, SCF 2010; no sample weights.

Table 14: Determinants of the log-odds of life insurance and pension funds investment

In the United States, people who invest their money with the intention to buy a home, to be prepared for unexpected events and who invest for retirement provision are more likely to own investment fund shares. Not surprisingly, people who make financial investments for retirement provision are more likely to have life insurance assets and pension fund assets. This finding is consistent across all models. In Germany, investing and saving for the reason of financing travels and holidays has a significant negative effect on the probability of holding stocks. In the Netherlands people who invest in order to finance the education of their children are less likely to hold stocks. For the United States, the functions attributed to investments do not seem to contribute to the decision to buy stocks.

	GER	ITA	NLD	USA
Takes average financial risks	1.401***	1.098***	1.937***	0.665***
Takes above average financial risks	2.147***	1.249***	2.393***	0.892***
Takes substantial financial risks	2.581**	2.470***	2.480**	0.912***
Save/Invest: own home	0.174	n.a.	0.032	0.227
Save/Invest: major expenses	-0.176	n.a.	-0.217	0.235
Save/Invest: own business	-0.075	n.a.	0.576	-0.039
Save/Invest: unexpected events	0.095	n.a.	0.582	0.073
Save/Invest: old-age	-0.061	n.a.	0.354	0.128
Save/Invest: travel/holidays	-0.232**	n.a.	-0.054	0.013
Save/Invest: children's education	-0.090	n.a.	-0.440**	0.074
Save/Invest: inheritance	-0.789	n.a.	-0.073	0.183
Male	0.373**	0.493***	0.035	0.252*
University education	0.307**	0.213	0.110	0.661***
Managerial/professional occupation	-0.024	n.a.	0.395^{+}	-0.014
Age 35–50	0.535**	0.847**	0.168	-0.136
Age 51–65	0.402*	0.795**	0.421	-0.175
Age >65	0.849**	0.611^{+}	0.745^{+}	0.040
Married	0.054	0.184	0.226	0.092
Number of persons in household	-0.160**	-0.226**	0.012	-0.053^{+}
Immigrant	-0.011	0.141	n.a.	-0.255**
Household income	0.410***	0.552**	0.032	0.068
Household financial wealth	0.409***	0.557***	0.322***	0.370***
Homeownership	0.249^{+}	0.218	0.304	0.367**
Household debt	0.011	0.024^{+}	-0.012	-0.005
Constant	-11.909***	-15.759***	-7.540***	-7.507***
Pseudo R^2	.267	.244	.203	.307
Observations	3347	7951	1124	6363

Note: Logistic regression of the determinants of the log-odds of investment in publicly traded stocks, with robust standard errors. Significance levels: *** p< 0.001, ** p<0.01, * p<0.05, $^{+}$ p<0.10 (two-sided tests). Variable values for household financial wealth, household income and household debt are logged values. Household financial wealth excludes investments in directly held publicly traded stocks and shares and household income excludes interest and dividend income from financial investments. "n.a." denotes categories for which data has not been collected. Data: HFCS 2010, SCF 2010; no sample weights.

Table 15: Determinants of the log-odds of investment in stocks

Gender plays a particularly significant role for investment decisions in the estimated models for Italy, while gender is only of marginal importance in the other countries. In Italy, males are significantly more likely to own investment fund assets, private pension plans and stocks, than females. Whereas, gender is of no importance in the Netherlands, males are more likely to own stocks in Germany and the United States. We find that university education has a significant positive effect on the probability to have invested in investment funds across all countries. It has a significant positive effect on private pension investments in Germany but a negative in the Netherlands and it is positively associated with stock-ownership in Germany and the United States. In general, these findings refer to social status mech-

anisms but also to what is commonly called 'financial literacy' in media and public. Occupation shows no significant effect for the probability of owning stocks, pension funds or investment funds across all models, except for the United States. A professional or managerial occupation has a significant and positive effect on the probability of mutual fund investment and the ownership of private pension assets.

From a 'life-cycle' perspective, age should be significantly associated with investment practices. This is, however, only partly true. The models show no age-effects for mutual fund investment, except for the Netherlands where seniors (older than 65 years) are more likely to own investment fund assets. Age has also no significant association with private pension investments in Germany, whereas in Italy the retired are less likely to own such assets and the people in their midlife (35–50 years) are more likely to have invested in private pensions than younger people. For the Netherlands and the United States coefficient behave as expected: people between 35 and 65 years old are significantly more likely to have pension investments than the young (younger than 35 years) and the elderly (65 and older). While older people (seniors) are more likely to invest in stocks in Germany and Italy, we cannot find a significant relationship for the Netherlands and the United States.

To some extent these findings appear plausible since demographic change and the fiscal crisis of the welfare state have resulted in pension reforms which led to the emergence of multi-pillar pension systems and a 'double-payment problem'[16] for younger generations in many countries (Myles and Pierson 2001; Dixon 2008). Our data reflect this phenomenon for the more 'market-based' economies (Netherlands, United States), whereas this effect is wholly absent in Germany and only partly observable for Italy. Besides, since direct stock-ownership is significantly more widespread under seniors in Germany, investment in stocks seems to be rather a hobby activity for well-educated and affluent retirees, here.

[16] This means: paying for current retirees while saving for one's own retirement.

Marital status only marginally affects financial practices. Being married increases the likelihood of having private pension assets in the United States, reduces the likelihood of holding investment fund shares in the Netherlands and exhibits no effect on stock-ownership. In contrast, ethnicity turns out to be a significant determinant of the probability to make financial investments. Being immigrant significantly reduces the probability to own investment fund and private pension assets across all countries. This finding is particularly pronounced in Germany and Italy. However, migrant status bears no meaningful effect when it comes to stock-ownership. We can find a highly significant negative association only for the United States model.

With Germany being an exception, household income increases the probability of investment fund ownership. Whereas higher income households are more likely to own private pension assets in Italy and the United States, we cannot find an equivalent significant association for Germany and the Netherlands. Household income shows a highly significant and positive association with stock-ownership in the models for Germany and Italy, but seems to play no significant role in the Netherlands and the United States.

Generally, the probability of investment increases with household wealth. Financial wealth exerts substantial and significant positive effects on the likelihood of having investment in each of the three asset types across all models. This relationship is particularly apparent for the ownership investment fund assets and stock ownership. Also homeownership increases the probability to ownership of financial assets but not to the same extent as financial wealth.

Home owners are significantly more likely to own investment fund assets and stocks in Germany and the United States while there is no significant effect for the case of Italy and the Netherlands. In Germany, the odds of have investments in pension funds or life insurance decrease for households which own housing property. These findings hint at different roles of homeownership within different countries. Homeownership not only indicates economic well-being or has a "symbolic meaning" (Doyle 1992), but it can function as private insurance (Conley and Gifford 2006), in particular for

old age retirement. Household debt increases the likelihood of having private pension assets in Italy and the United States, decreases the likelihood of owning investment fund shares, and has no effect on whether or not being a stock-owner. Financial investing and taking on debts are partly two interrelated elements of a distinct ‘culture of finance’. However, we have to be aware of credit market access mechanisms. Research has shown that particularly the middle and upper classes are able to borrow money at ‘good’ conditions and are willing to get indebted (Fligstein and Goldstein 2015). In this way, debt seems to be another ‘stratification tool’ – just as financial market investment (Fourcade and Healy 2013; Langley 2008).

3.4.4. Concluding Remarks

Our findings show that financial investment is indeed highly contingent on social position (income, assets and education) and the social meaning attributed towards investments. The findings also support that there is a strong relationship between subjective risk (risk mentality) and financial investment decisions as economic and sociological literatures suggests. From a sociological point of view, however, attitudes towards financial risk cannot be understood as an exogenous factor and are deeply constrained by socio-economic characteristics which are a result of the internalization of economic dispositions. Indeed, factors ignored by the standard economic theory of portfolio choice and dismissed as ‘market imperfections’ exert substantial effects on financial decisions. The findings support sociological accounts which point at economic dispositions in playing a significant role for investment decisions in financial markets. In particularly, the social position in the income and wealth distribution exhibits a significant influence on investment strategies.

Our study makes use of different approaches in economic sociology to explain investment decisions and thus provides a micro-foundation of financial market participation in an era of financialization. The results indicate that research should treat “interests, preferences, and group identities as the

product of endogenous social processes” (DiMaggio 2002: 94) for a better understanding of economic action (see also Beckert 2013).

While economic research concentrates on psychological factors to explain financial market participation, economic sociology focuses on social context, cultural frames and socio-economic characteristics in affecting decisions to invest or not to invest in different types of financial assets – determinants which are handled as simple control variables supplementing a set of psychological main predictors in many investigations by economists. Our cross-sectional data analysis of investment practices demonstrates that the phenomenon of financialization is performed and carried by distinct social groups. As suggested by economic science, such ‘carriers’ are characterized by a subjective-attitudinal willingness to take on greater risks. Our findings show the extent to which investment decisions are significantly influenced by risk preference, as standard economics suggests. Indeed, mentality and beliefs play a great role when it comes to financial investments. These, however, should not be handled as exogenous factors – like financial economics (Odean 1998; Campbell 2006; Merton 1971; Akerlof and Shiller 2009) make us believe. Subjective perceptions of risk are always socially embedded. The results point out that financial investment is an economic practice that is situated in specific places in the social structure of society. People with a high social status who are able to draw on economic resources are more likely to make financial market investments as integral element of deliberate economic action. The diagnosis of a ‘democratization of finance’ and a ‘financial market inclusion’ are indeed more complex and highly ambivalent phenomena as often suggested (Erturk et al. 2007). Although we can observe rising participation rates in financial markets and increasing wealth in private pension products, our survey data analysis points at mechanisms of “social closure” (Weber [1922]1978) when it comes to financial investment. Such findings gain crucial importance in times of rising income and wealth inequality and growing importance of private savings for socio-economic security – especially for retirement. Private pension and insurance

investors tend to be young, native, educated, indebted and, especially, higher-income earners and wealth owners.

However, we find variations in effect-sizes and statistical significances across countries, which clearly points out that investment practices cannot be isolated from country-level contexts (institutions, conventions, laws, historically-grown habits). Behavioral finance typically takes on a perspective that centers on the individual in explaining investment practices while ignoring sociological factors (Abolafia 2010) and context variables (Froud et al. 2001). Approaches from behavioral finance ignore the effects of collective patterns of interpretation, socialization, social milieus, or reference groups on investment decisions. Such approaches also overlook the impact of institutional frameworks on investment decisions. Cultural patterns, power relations, political institutions and social structures are neglected. Our results point at significance of the institutional arrangement of a national social order for household financial decisions. It is therefore crucial to treat purely individualistic models of explanations with caution. As relations and practices of the accumulation, saving and investment of wealth have developed they have taken different institutional configurations across state-societies (Zysman 1983; Allen and Gale 2000). Research demonstrates that financial market structures continue to be embedded in national, supranational or regional contexts (Amable 2003; Hall and Soskice 2001). Indeed, our prior cross-country comparisons of wealth and investment practices at the household level reveal not only cross-national differences in the social structure of financial investments, but also substantial differences in aggregate portfolios, participation rates and social meanings of assets across countries – a finding confirmed by economic research (Guiso et al. 2002, 2003; Christelis et al. 2013; Siermiska and Doorley 2012).

Against this backdrop, future research has to engage deeper into the mutually related dynamics of institutions and practices in the field of household finance. We will have to look at longitudinal survey data to examine the socio-structural dynamics of market bubbles, political reforms and financial crises. Longitudinal data (preferably with panel structure) will enable to ex-

plore the democratization of financial market participation and point out mechanisms which make people enter or exit markets. Further studies will also have to engage in exploring network-effects in household investment decisions. Social relations, either conceptualized as 'network ties' or as 'social capital' represent a sociological vantage point *par excellence*, but have remained largely under-investigated by sociological research.

More recently, studies find a significant effect of asset ownership on political attitudes and voting behavior (Ansell 2014; André und DeWilde 2014). In the course of increasing wealth ratios and homeownership rates, research points at emerging liberal and market-oriented attitudes in large parts of the middle classes (Mau 2015). Therefore, financial practices and beliefs remain a rich research field of crucial societal and thus political relevance.

4. Discussion – Uncertain Securities in an Uncertain World

As we have documented throughout this study, the last decades experienced an increasing financial inclusion – an ever broader participation of ever more parts of society. At the same time, ever larger parts of growing private wealth became invested in risky types of assets and, even more pronounced, delegated to the hands of collective investors – so called institutional funds.

Accumulation of wealth and financial investment are important strategies of status maintenance. Cut down to the bone, wealth promises to provide certainty in an uncertain world. On the one hand, wealth ownership puts people in the position to face the insecurities and precariousness of "world risk society" (Beck 1999). On the other hand, however, wealth itself is not safe from the risks our contemporary world – life course risks, financial risks, the risk of personal failure. Wrong decisions, low interest rates, market dynamics, complexity of financial products or wrong advice can quickly transform ones wealth into zero – or even into debts. The uncertainties and risks anchored in "liquid modernity" (Bauman 2000) can be curse and blessing at the same time: the uncertain future represents the danger to lose one's money, but also the opportunity to make profit and receive returns. Although wealth ownership can function as a tool-kit to 'colonize the future', 'have-littles' can immediately become 'have-nots'. Additionally, ordinary investors and savers often lack information and overview. Thus, as a result of welfare state re-building, demographic change and great medial attraction, small investors often become 'speculators against their will' (Schimank 2011). Such a world can be described as a 'society of investors' where households experience an "endless, diffuse, yet ubiquitous exhortation to trade and invest: […] 'Invest, or the future will be closed to you'" (Preda 2009: 4).

Over the past four decades financial markets have spread across geographic space and social structure. Stock markets have developed in many new countries, particular since 1980, changing how business is done. Numerous countries privatized their industries, removed constraints on domestic and foreign investment and guaranteed their central banks independence.

Some governments even employed US-trained economists to realize neoliberal orthodoxy and free-market ideologies. Ever more types of assets became securitized – from student loans to lawsuit settlements. Many things not generally tagged as 'assets' experienced transformation into tradable financial products – such as predicted increases in property tax revenues in the future. It seems that today almost any kind of cash flow could be securitized and transformed into a financial product.

As a result, we witness the introduction of dynamics and logics of financial markets into areas where they have been previously absent – with pervasive social consequences. The consequences include the transformation of the corporate sector, state finances, household financial practices, increasing inequality and emergence of new social movements (like #Occupy). In our empirical part, we demonstrated evidence on how financialization varies cross-nationally and how national institutions and private households interact with the dynamics of financial markets.

This last section provides a broader discussion of the findings, its implications and the need for further research. We suggest that the impact of today's financial markets on the investment decisions of private households and the dynamics of private wealth is profound and pervasive. However, the 'rise of finance' cannot be handled as an exogenous cultural 'shock' for private households. The destinies of finance and private households are reciprocally related. People in capitalist societies do not solely 'react' to changing conditions. New ideological frames emerging out of processes of individualization changed existing stances towards financial risk and made households engage in finance activities. From such a perspective, structures of financialization reflect the complexities, the unevenness and the ambivalences of modern economic life. Financialization has to be regarded as an ongoing process that is always "partial, uneven and in the making" (Langley 2004: 554).

Universalities of Private Wealth

At first sight, as the financialization literature suggests, we can observe a universally increasing importance of assets tied to financial market dynamics. The composition of private wealth became increasingly more risk-orientated and private wealth is increasingly managed by organized investors with financial expertise. This evolution partly contrasts with the development of private housing wealth which shows no clear pattern of universal global growth (Figure 10). Since financialization is closely interwoven with marketization and commodification, with individualization and self-responsiblization within contexts of a "world risk society" (Beck 1999), households expand their holdings of risky assets (shares, mutual funds, pension funds) whose capital value can go up or down because risk-taking is perceived as a rational economic strategy. As a consequence, an old distinction between "bank-based" and "market-based" capitalistic organization (Zysman 1983; Hall and Soskice 2001; Amable 2003) seems to be outdated. Markets become increasingly important everywhere. It seems that it is impossible to speak of an 'old' divergence between the 'Anglo-Saxon' and 'Continental European' countries. Over the last three decades, investment and saving patterns across the Western world increasingly shifted from saving money in bank deposits to more risky, sophisticated and flexible forms such as directly held stocks or mutual funds – a phenomenon which is already well established (Bartiloro et al. 2012; De Bonis et al. 2013; Ynesta 2008; Guiso et al. 2002). As the data reveal, US American households were certainly ahead of their European counterparts in pioneering these trends.

Variations in Private Wealth

Nevertheless, our findings show that it would be misleading to speak of a uniform global trend. Financialization of private wealth represents a multi-faceted process. Structures of financialization are more complex since they take on different shape in different contexts (national, regional, temporal, social). Depending on context, financialization is associated with different social meanings.

Not surprisingly, capitalistic development is indeed not that simple and steady. Even though we can find trends of convergence towards the US-way, the "social embeddedness" (Granovetter 1985) of private wealth in distinct institutional, cultural and socio-structural contexts seems to limit such developments. A main finding refers to the variation in trajectories of private wealth dynamics and its manifestation in distinct national patterns and local logics. Although financialization is often conceptualized as a uniform global trend of convergence towards a US-American style, national differences in investment patterns and distinct national preferences for certain asset types continue to persist across financialized societies. Private wealth is subject to a "power of inertia" (Becker 1995). Thus, the findings rather provide support for 'diversity within convergence'. Financialization cannot be viewed as that homogenizing. In reality, it seems to promote the capitalistic development of an uneven and polarized economy (Sewell 2008).

On the Evolution of Private Financial Wealth

As the analyses of aggregate household sector data show, the current era of financialization is typically linked to a retreat from deposits and savings accounts. Nevertheless, traditional bank savings still play an important role in Japan, Spain and Germany and even witnessed an unexpected comeback in Italy and the United Kingdom since the start of the 2000s. To some extent, financialization is a highly contradictory process which not only consists of increasing financial activities and the emergence of a financial risk culture. Financialization dynamics seem to produce 'ricochet-effects' as well as resistance and a re-orientation towards 'classical' and 'traditional' frames of economic action. This seems to be especially true for economic 'events' (like financial crises) which deeply influence national trajectories of financialization as well as global trends in household financial practices. For instance, this shows up in the comeback of deposits after the burst of the *Dot.com* bubble in 2001 or the *US Subprime Crisis* in 2007. After 2001, private wealth held in bank deposits was marked by stagnation. The decline of

bank saving seems to have found an end since 2001 – or 2007 at least. Throughout the last decades, also bonds and debt securities lost significance. Bonds, however, still possess some importance in Italy. The last decades witnessed increasing wealth in stocks and shares, particularly in the United States, Canada, Finland and Sweden. However, private financial wealth in stocks and shares is extremely exposed to market volatility. In most of the countries, the boom in shares experienced its peak around the turn of the millennium during the *Dot.com* hype and then interest in shares declined.

These dynamics suggest the existence of shifting 'channels of financialization'. While at the end of the 1990s and beginning of the 2000s financialization of private wealth was mainly driven by the boom in stocks and shares, the channel shifted. Currently, the financialization of private wealth functions mainly via private insurance and the delegation of financial wealth to the hands of institutional investors.

Financialization and the 'Insurance Society'

This last point is directly linked to the increasing significant role of private insurance wealth. Provision against future risks is increasingly organized via individualized market arrangements instead of collective arrangements via welfare institutions and the principle of solidarity. The "insurance society" (Ewald 1986) witnessed massive transformations over the last decades. Processes of financialization and private insurance became more and more interrelated throughout the last decades. Not surprisingly, we find a universal trend of rising private insurance wealth consisting of pensions fund assets and life insurance reserves. Private wealth is increasingly allocated to institutional investors like pension funds, mutual funds and life insurance companies, who play a key role in the Netherlands, Australia, Denmark and the United Kingdom. Nevertheless, we can detect significant cross-national distinctions. Whereas pension fund investments are of major significance in Australia, the Netherlands and the United States, investment in life insurance is particularly important in France.

Since the re-arrangement of welfare states in Continental Europe represents an unfinished project which is expected to continue over the next decades, we have to relate the increasing private insurance investments in (still) generous welfare states to trust in institutions and status insecurity – or even status anxiety. A high level of private insurance wealth may indicate a low level of trust in the future stability of the current welfare state arrangements. This overlaps with current social diagnoses which hint at 'fears of falling' and status insecurities within the European middle classes (Mau 2015; Bude 2014; Nachtwey 2016). It seems that people in Continental and Southern European societies want to be prepared for an upcoming era of market-provided retirement provision. At the moment it seems that in generous Continental European welfare states, private pension provision is perhaps not so much a substitution to publicly provided old age security, but it may rather function as an option to raise one's standard of living in old age for wealthier segments of society. Of course, this is 'insurance' too – however, insurance with the aim of social distinction through raising the level of consumption rather than insuring one's level of existence. It thus represents the 'bet' on the chance of 'having enough', of being able to live a 'good life' in retirement.

However, what is 'promised security' and 'financial prudence' at first glance, turns out to be a risky financial enterprise. Also private wealth delegated to institutional investors, who manage large pools of investment capital, is exposed to the dynamics and volatilities of global financial markets.

Financialization, Risk and Stratification

When we take a look at the social structure of financialized society, practices of saving and investment turn out to be socially embedded. Household financialization is mainly determined by socio-economic characteristics – mainly income and wealth, whereas education is less important. The findings also demonstrate a close association between financial investment practices and 'cultures of financial risk'. We can find cross-nationally varying risk mentalities. When it comes to investment behavior, the 'love for risk' is

not as important in European societies as in the US case. In the United States, the 'taste for risk' and financial practices are intertwined at the closest. Accordingly, a US 'culture of finance' seems to be characterized by a 'risk-reward frame' so that we can speak of a 'real' culture of financial risk. Contrary, a European 'culture of finance' seems to be rather marked by the influence of social status and economic affluence. The United States and Continental Europe represent two distinct 'worlds of financialization'. This manifests not so much in quantitative terms of levels of private wealth held in form of risky assets or levels of financial market participation. In both cases, Dutch or Finish households are partly as financialized as their US counterparts – partly even more. The difference between these 'worlds' seems to manifest in qualitative terms. The perception of financial risk and its meaning for investment decisions are substantially different.

In the course of the rise of finance, financial market volatility has increased, making financial investment by ordinary investors riskier, just when the demise of traditional pension schemes makes them more dependent on financial assets to fund old age retirement. The growing role of pension funds and life insurance reserves throughout the last decades is not solely to be explained by the (expected) erosion of public old age provision that has made households to seek supplementary pension income in financial markets. Processes of financial liberalization and deregulation resulted in an expansion of innovative financial products offered by financial firms and targeted to households. The liberalization of capital accounts, the standardization of financial practices and the gradual retreat by the national state from the financial sector might account for the synchronous growth of these 'new' actors and products across the Anglo-Saxon and Western European world, making pension funds available for the wealthier strata of society, both in countries with more mature and emerging financial markets. The popularity of private pension insurance not only depends on institutional arrangements, as shown by the time-series analyses, but is also closely related to the social stratification of society. The decision to invest in pension

funds is strongly influenced by a household's position in the wealth distribution.

Thus, whereas household income and individual earnings relate to the current standard of living, household wealth reflects (1) past financial well-being (to the extent that savings represents the excess of income over expenditure) and (2) future financial well-being. Wealth represents the cumulative effect of historical inequalities (in earnings, income, bequests). This means that wealth-ownership plays a major role in driving future inequalities, through its transformable potential and the ability to invest not only in housing and business enterprise, but also in education and bequests or retirement – features pointed out prominently by Piketty and Bourdieu – and already by Simmel.

Global Economic Events – Crises and Crazes

Globality, unevenness and ambivalence of private wealth dynamics in a financialized world are at the closest interrelated with the destinies of global financial market forces. Investment practices and the ups and downs of global financial markets go hand in hand. The evolution of private wealth and its composition moves in synchrony with financial crises and booms.

This hints at the inextricable linkage of everyday life and the consequences of financialization. One the one hand, difference is marginalized because financial crises, market dynamics and increasing financial risk concern everybody – albeit to different degrees. We might speak of a "socializing of risk" (Dodd 2011) in financialized society. One the other hand, however, financialization contributes to the polarization of society, in an era characterized by precariousness and vulnerability. We can find contours of a "world risk society" (Beck 1999) as well as a "winner-take-all society" (Frank and Cook 1995; Hacker and Pierson 2010).

In such a way, financial market dynamics lead to an intensification of potentials of uncertainty and inequality. When looking at the social groups primarily involved within practices of 'high household finance', we can witness ambivalent and reciprocal relationships. Virulent 'cultures of fi-

nance' practiced within risk-loving, educated and well off fractions of society reflect general processes of uncertainty, precarity and upward aspirations. This 'culture of finance' asks not only for the willingness to take on greater risks. Certain financial products are even regarded as supposedly risk-free and safe – totally misleading against the background of a 'world risk society'. The permanent search for security in an uncertain world brings about speculative practices of organized financial actors (institutional investors) on a global scale. People shift responsibility towards the hands of collectives in times when demand for their individual autonomy and responsibility increases. Financialization reflects the ambivalences of individualization. We can witness a 'risk-shift' form state towards citizens and then a further 'responsibility-shift' from citizens towards organized investors. This shift, however, is only a supposed shift. In the end, ordinary people lose their money and have to pay the price – or receive their dividends and make a quick buck.

Within this social transformation of private wealth and responsibility, orientations and beliefs underlying 'cultures of finance' contribute to the delegation of private household wealth to organized speculation by institutional investors. Thus, in a non-directional way, people reinforce social trends of uncertainty and inequality – just "unanticipated consequences of purposive social action" (Merton 1936).

Implications for Future Research

The present study implies that future research has to dig deeper when it comes to dynamics of private wealth and 'cultures of finance'. First, throughout our study the unevenness and ambivalence of capitalistic development is explored in its distinct national context. But although the national society is (still) relevant from an institutionalist perspective and represents a distinct social reality, future research will have to move beyond national 'cultures of finance'. This kind of 'methodological nationalism' could be overcome in terms of supra and subnational levels (regions etc.) or in terms of a "world society" (Meyer 2009) perspective.

Second, this study chose a quantitative approached to study household financialization. Future studies, however, will have to provide additional qualitative inquiries of financial actors. So far, only little research has made inquiries into household financialization making use of qualitative methods (see Schimank and Stopper 2012; Legnaro et al. 2005; Chan 2013; Harrington 2008 for exceptions). Quantitative methods by itself are not enough for the task of exploring 'cultures of finance' because underlying realities can be veiled by solo-use of quantitative datasets. From such a perspective, analysis of qualitative data promises to elucidate both (evolving) situations and (evolving) subjectivities by exploring locally-historically situated subjectivities. Narrative accounts, for instance, would allow understanding how peoples' practices and perceptions have emerged over a longer period of time, how attitudes towards financial risk are constructed and emerge in everyday life, as well as how evolving situations are internalized and how coping mechanisms are developed.

Third, we chiefly concentrated on financial wealth and only touched issues of housing wealth. Thus in the future, research will have to take a closer look at the interrelationship of dynamics of financialization and housing wealth. The existing sociological studies on housing offer a perfect starting point. How do financial movements affect house prices? Do financial dynamics and events drive households to invest in financial assets more likely than in housing assets – or *vice versa*? Are financial assets and housing assets complementary or substitutive?

Fourth, our study has also mainly focused on wealth and assets and has insofar only partly referred to debt. However, an important facet of financialization in general and household financialization in particular is the increasing significance of credit and debt (Fligstein and Goldstein 2015; Kus 2013; Langley 2008; Crouch 2009). Issues of debt are inseparable related to the study of wealth. In order to adequately interpret findings deriving from the investigation of wealth, an examination of private debt is absolutely necessary. Future research will have to concentrate on the 'asset-debt-nexus'.

Fifth, we would also like to encourage research on the financially 'excluded' and 'finance negators'. Although financial exclusion has proved to be a popular topic of sociological research, little research has engaged in taking a look at households or communities who try to refuse to take part in the dynamics of global finance. By analyzing the 'outsiders' of global finance, research will also be able to investigate into the 'universals' of global finance.

Sixth, typically, financialization is viewed as a phenomenon diffusing from the US context into other contexts (Dore 2002; Salento 2014; Dixon and Sorsa 2009; Fiss and Zajac 2004; Vitols 2004). By undertaking careful case studies, the household-level diffusion of US-style finance in Continental and Southern Europe, Far Eastern societies and Russia should by explored and understood. How diffusion happens locally? Which social forces are of major significance? Is diffusion a top-down process, a bottom-up process or a mix of both?

Seventh, analyzing financial culture contact, for instance by exploring practices and mentalities of immigrants, could provide further insights into the dynamics, boundaries and workings of 'cultures of finance'. This task would reach further sophistication by comparing immigrants with the global financial players which in some kind represent also 'migrants' in a 'world finance society'.

An eighth point is dedicated to data issues. Our findings demonstrate the 'social life' of private wealth portfolios. Analysis of longitudinal micro-level data – preferably panel data – may shed additional light on the dynamic character of the social structure of private wealth and the development of 'cultures of finance'. In order to take on a panoramic view and to back up financialization research by a historical perspective, we need more historical data reaching further back than 1970. Economic historians have engaged in collecting historical aggregate data on private finances to find out if we can really speak of a 'this time different phenomenon' with regard to contemporary phenomena of financialization (see Jordá et al. 2013, 2014; Waldenström 2016) or inequality (see Saez and Zucman 2016; Roine and

Waldenström 2015). Data issues, however, do not touch the temporal dimension alone. There is need for adequate homogenized datasets which cover both various components of household wealth and financial attitudes as well. Ideally, attitudes towards financial activities would be surveyed on a cross-national scale, more subtle as so far and on a regular basis to be able to construct time series.

Ninth, up to now, the increasing role of finance in society has resulted in massive socio-economic changes. Currently, an abrupt end of present forms of financialization is hard to believe. Nevertheless: 'time will tell…'. So, the study of financialization will not only have to deal with historical accounts and present-day social diagnosis, but as well with future perspectives. By structuring current decisions towards investment and saving, structures and outcomes of financialization have great impact on private future wealth. This gains additional significance due to the powerful social institution of inheritance.

Last but not least, we should mention that the data analysis was conducted with data from official sources – aggregate macro-data and household-level survey data. Consequently, 'informal' investments within family-networks, informal networks, peer-groups or criminal and illegal enterprises are definitively excluded from analysis. Here, future research on issues of financialization will find a methodologically challenging but interesting field of investigation.

Conclusion

The study demonstrates that the 'rise of finance' and processes of financialization have profound consequences for dynamics of private wealth – for its accumulation and meaning, for its composition and distribution. Financialization can be described as a multi-dimensional phenomenon whose different levels are inextricably interrelated. The findings confirm that financialization involves the penetration of finance into ever more areas of social life.

However, the study also points at the limits of financialization – at least for the household level. These limits of financialization partly originate from local and social translation, editing and hybridization that mitigate the process. Processes of diffusion imply reception and reception calls for local appropriation, contextual decoding and "indigenization" (Scott 2003). As they flow, ideas and normative categories are edited, translated and hybridized or even rejected (Campbell 2004; Westney 1987; Djelic 2006). Whereas financial logics have advanced in the Western World, in several places national welfare schemes have not experienced fundamental dismantlement (Deacon 2005). US-style financial practices and ideas are often not well-suited for traditional environments, for instance the religion based financial environments of the Islamic world. Limits of financialization are also evident in forms of "decoupling" (Meyer and Rowan 1977; Meyer and Scott 1983). Sometimes financial discourses and ideologies differ from their implementation and practicing in reality. Another limit can be located within the phenomena produced by the 'rise of finance' itself. Crisis, vulnerability and dissatisfaction can give reason for the rise of 'new' frames how to organize economic life. As we have seen, financial crisis are destructive for wealth on a global level and produce a number of 'losers'. After crisis events, people tend to withdraw from risky investment in financial markets and search for safety within 'old', 'traditional' forms of saving or turn to collective funds to minimize risk. Furthermore, individuals (citizens) and collectives (states, funds) are only willing and able to absorb global financial crises to certain limits – especially in times of increasing frequency of crises. As Bordo et al. (2001) show, the era from 1973 to 2000 was marked by a frequency of financial crises that was double that of the *Bretton Woods* and gold standard eras and close to that of the 1920s and 1930s. As they put it, "[h]istory confirms that there is something different and disturbing about our age" (Bordo et al. 2001: 72).

In analyzing trajectories and patterns of private wealth in an era of financialization, this study contributes to a comprehensive uncovering of socio-economic processes and structures which are essential for understand-

ing contemporary financialized capitalism. The investigation into social dynamics of private wealth supports the general understanding of economic practices, social actors and institutions in our society. Sociologists just started to comprehend the nature of change and the 'power of inertia', so that a lot of work remains to be done.

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Appendix

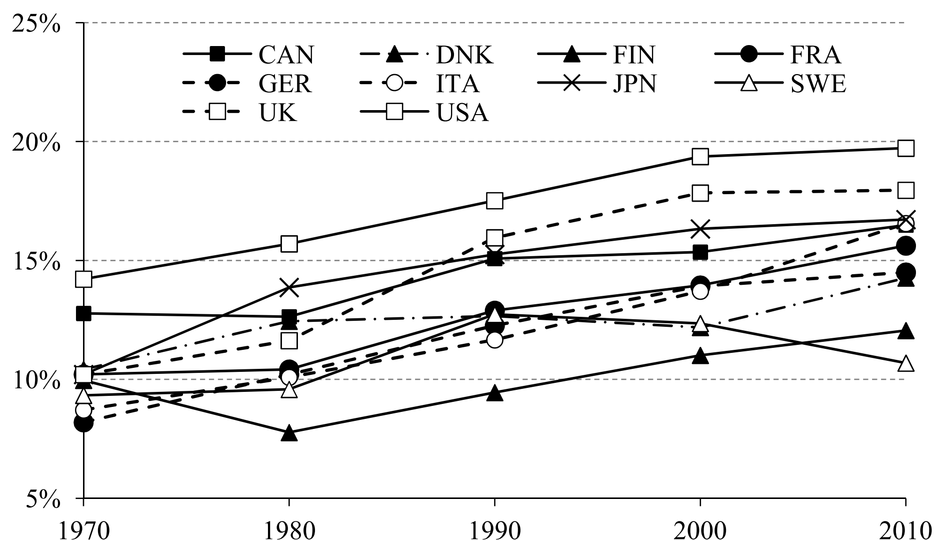

Figure 26: Share of the FIRE sector (Finance, Insurance and Real Estate) as a percentage of GDP, 1970–2010

	Country	Abv.	Time span	Source
1	Australia	AUS	1976–2012	Australian Bureau of Statistics
2	Canada	CAN	1970–2012	Statistics Canada
3	Denmark	DNK	1973–2012	Danish National Bank; World Wealth and Income Database (WID)
4	Finland	FIN	1975–2012	Bank of Finland
5	France	FRA	1970–2012	INSEE; Banque de France
6	Germany	GER	1970–2012	Deutsche Bundesbank; Deutsche Bundesbank 1994
7	Italy	ITA	1970–2012	Banca d'Italia; Bonci and Coletta 2008; Istat; Pagliano and Rossi 1992
8	Japan	JPN	1970–2012	Economic and Social Research Institute of Japan's Cabinet Office; Bank of Japan
9	Netherlands	NLD	1980–2012	Statistics Netherlands; De Nederlandsche Bank (DNB)
10	Portugal	PRT	1980–2012	Banco de Portugal; Cardoso et al. 2008
11	Spain	ESP	1980–2012	Banca de España
12	Sweden	SWE	1970–2012	Sveriges Riksbank; Statistics Sweden; Swedish National Wealth Database (SNWD) (Waldenström 2015, 2016)
13	United Kingdom	UK	1970–2012	Office for National Statistics (ONS); Sbano 2008
14	United States	USA	1970–2012	Federal Reserve Board (FRB); Bureau of Economic Analysis (BEA)

Table 16: Sources for aggregate data on private wealth, its components and private debt

Figure 27: The share of financial wealth and housing wealth in private gross wealth (Data for 2010)

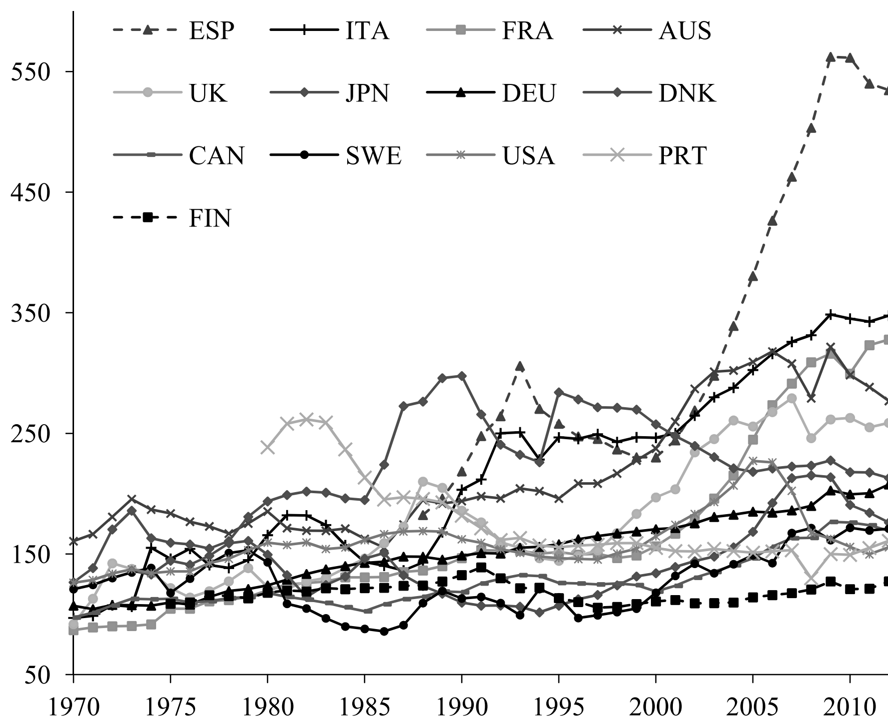

Figure 28: Development of private housing wealth in thirteen countries, 1970–2012

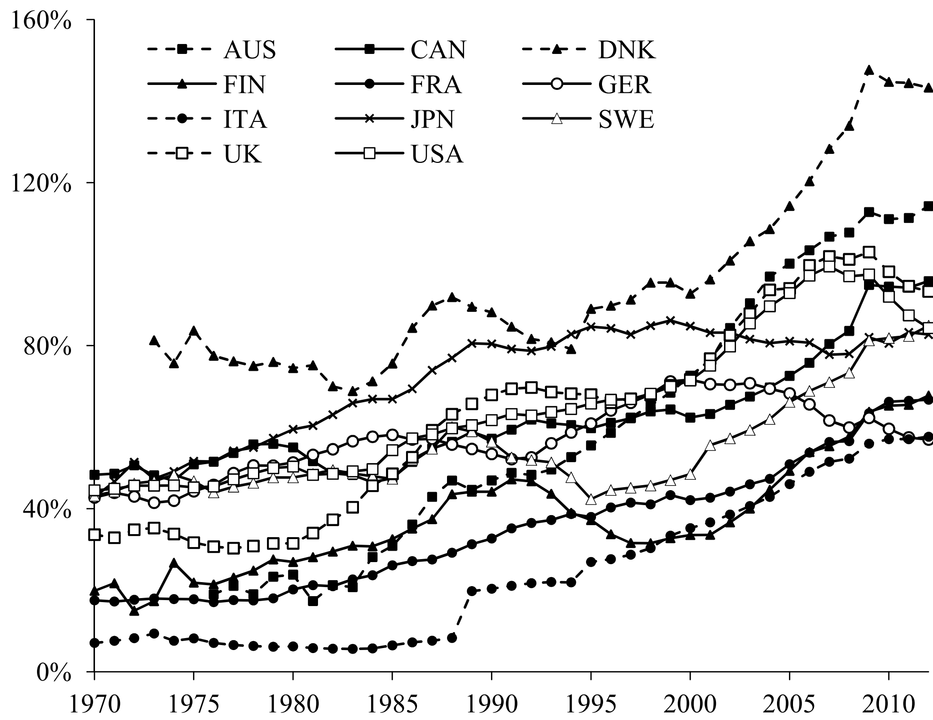

Figure 29: Development of private debt in eleven countries, 1970–2012

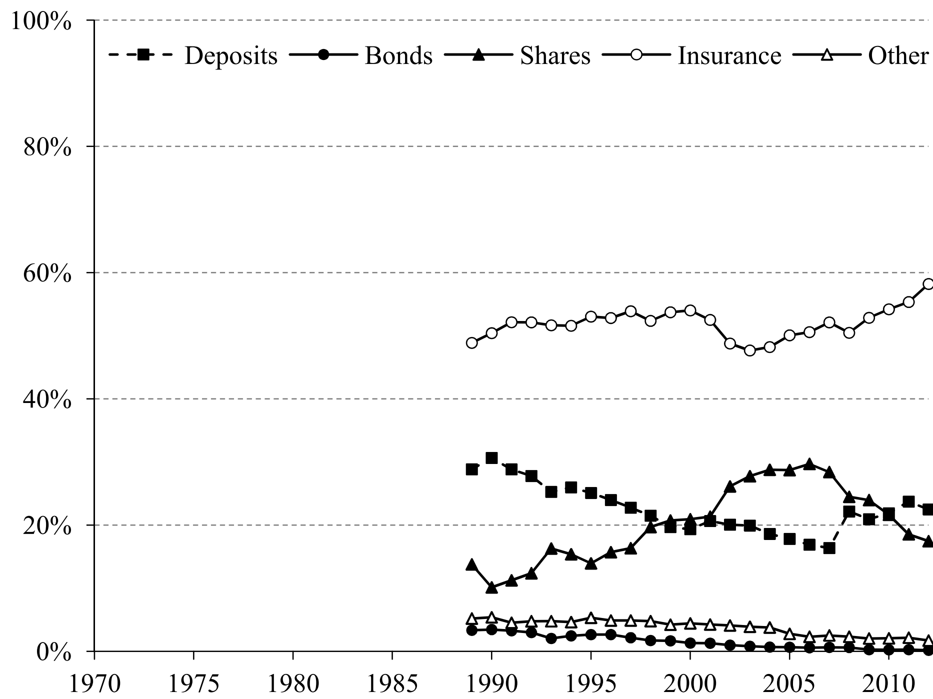

Figure 30: The composition of private financial wealth (Australia), 1989–2012

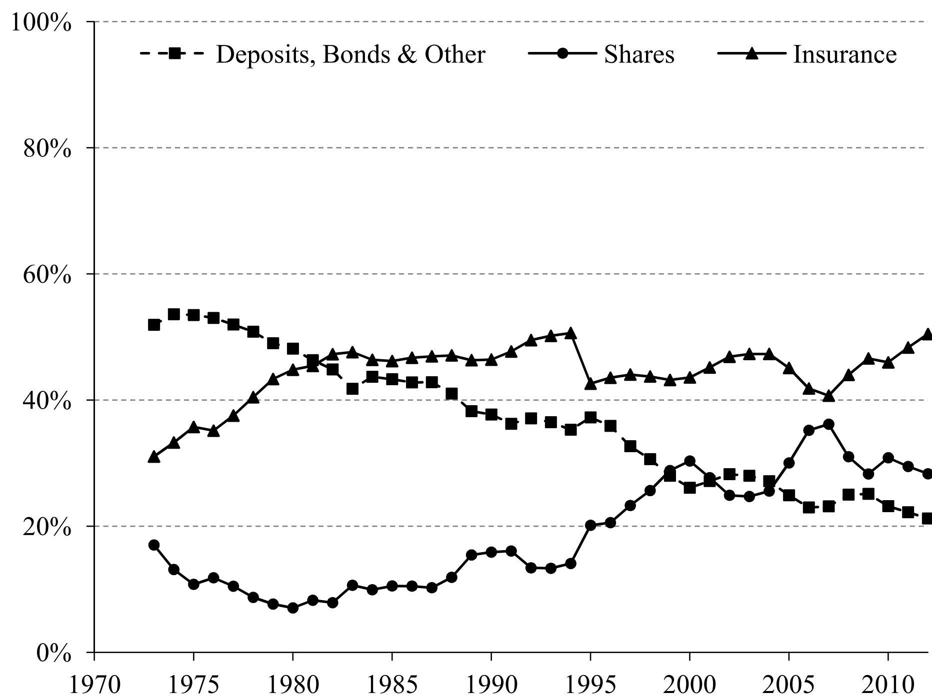

Figure 31: The composition of private financial wealth (Denmark), 1973–2012

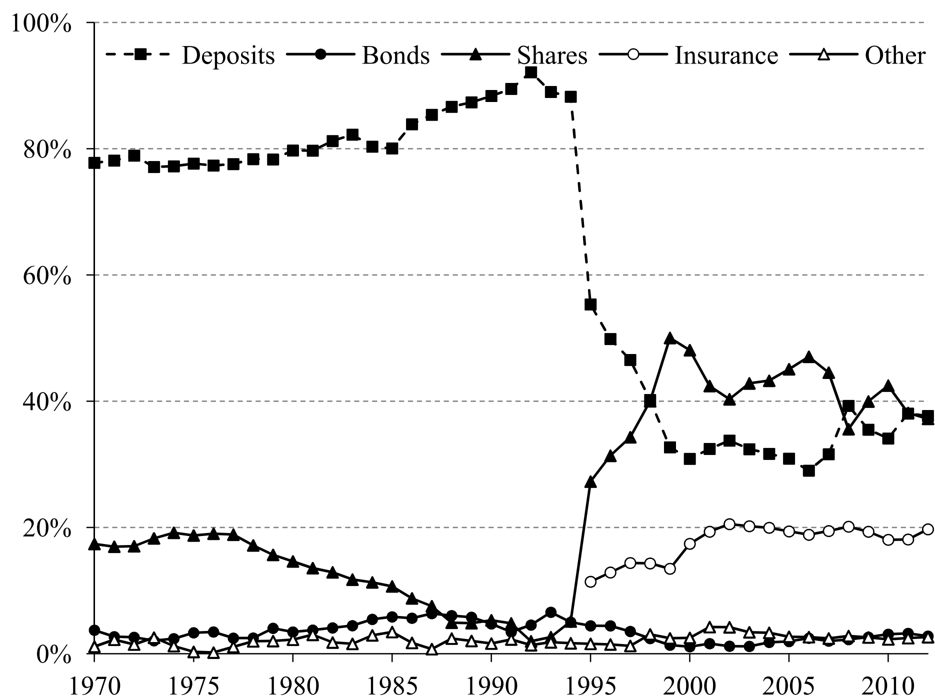

Figure 32: The composition of private financial wealth (Finland), 1970–2012

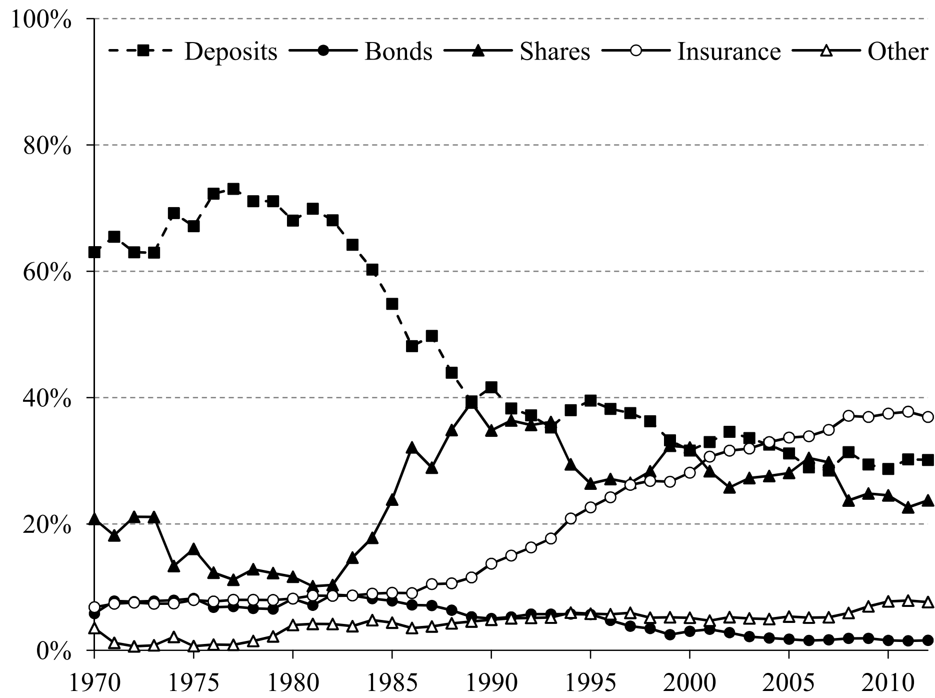

Figure 33: The composition of private financial wealth (France), 1970–2012

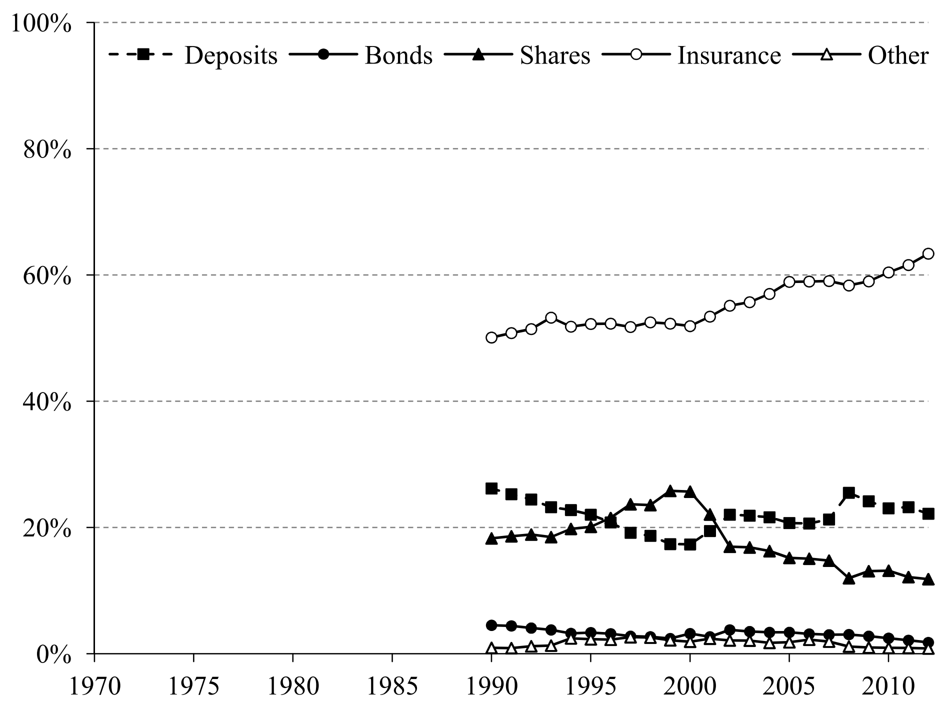

Figure 34: The composition of private financial wealth (Netherlands), 1990–2012

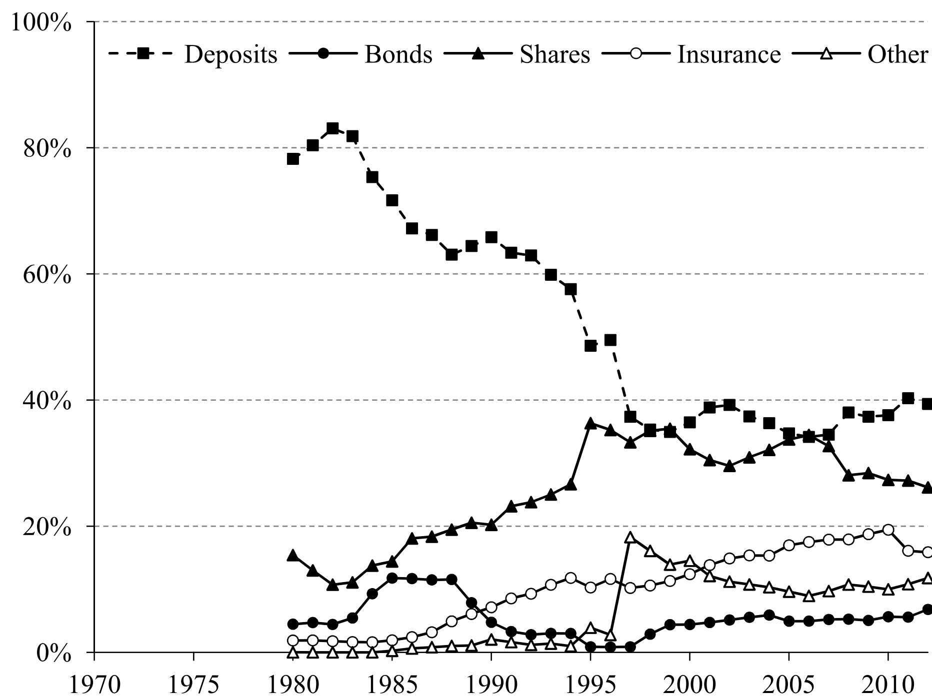

Figure 35: The composition of private financial wealth (Portugal), 1980–2012

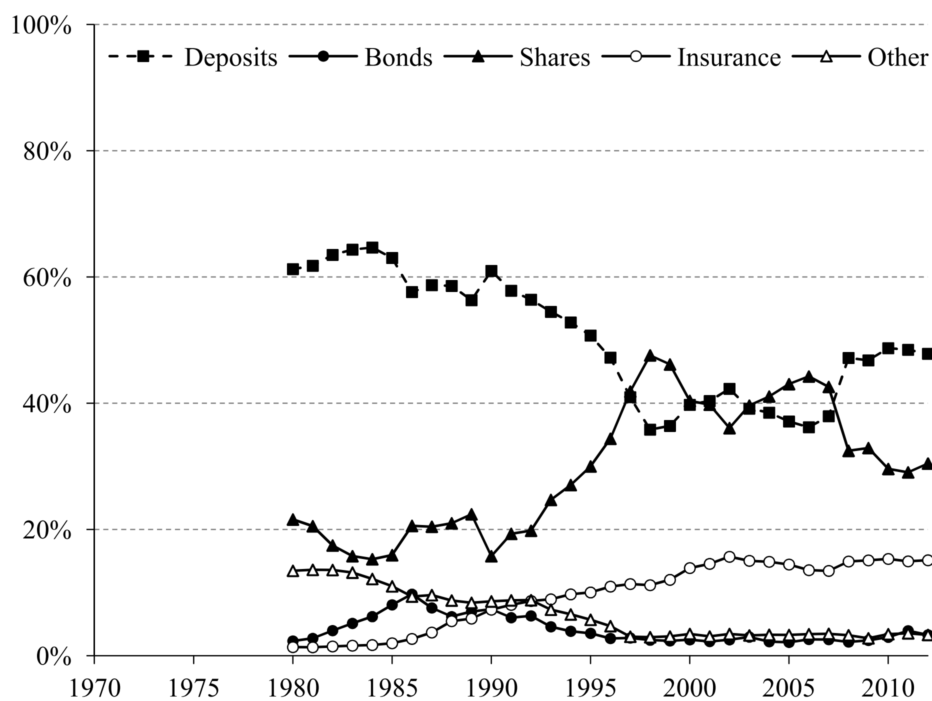

Figure 36: The composition of private financial wealth (Spain), 1980–2012

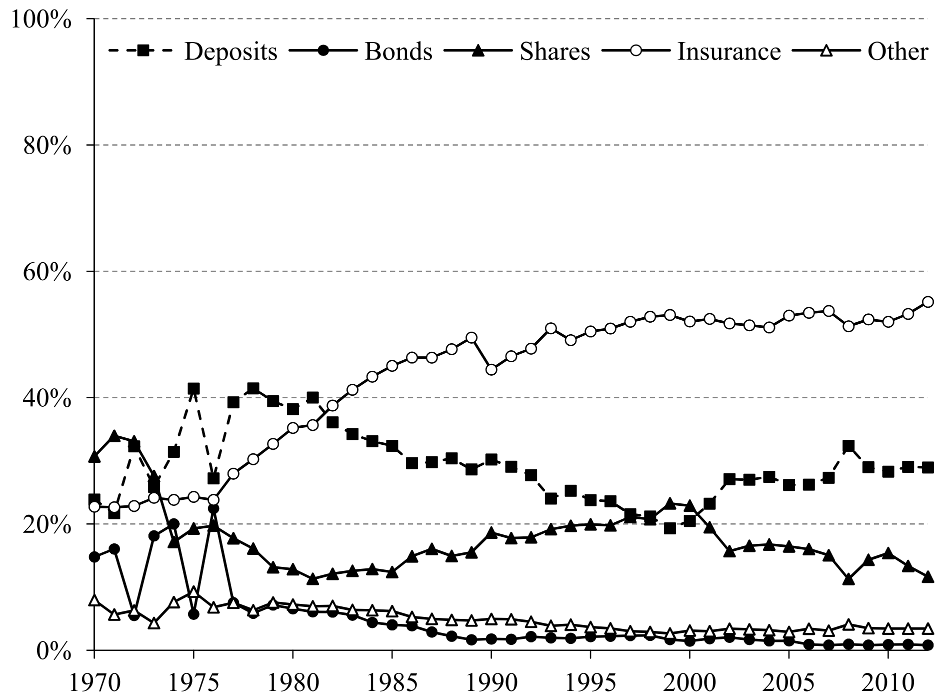

Figure 37: The composition of private financial wealth (United Kingdom), 1970–2012

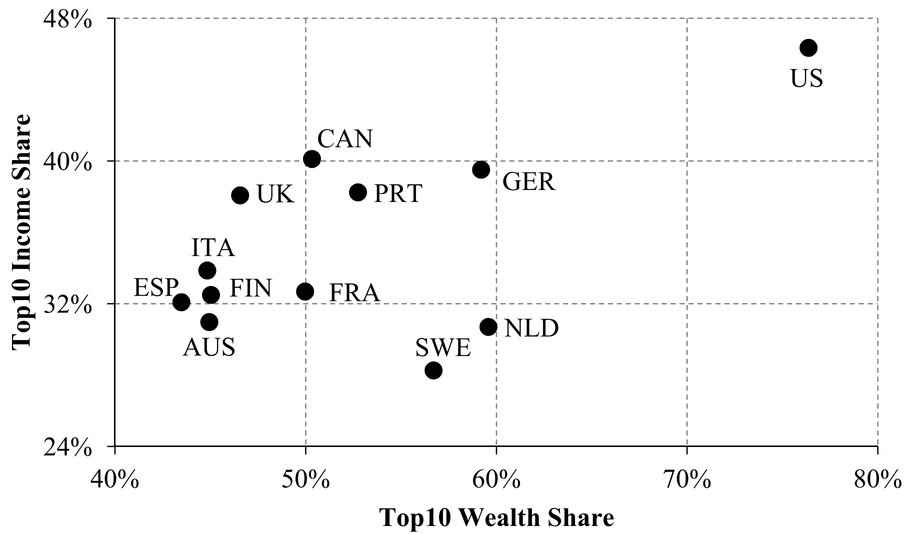

Figure 38: Top 10 shares in wealth and income (Data for 2010)

Variable	Obs.	Mean	Std. Dev	Min.	Max.
Private Net Wealth/GDP (%)	507	291.084	107.009	106.173	638.520
Private Debt/GDP (%)	530	56.298	25.790	5.596	147.654
Private Housing Wealth/GDP (%)	513	177.848	70.964	85.865	562.210
Private Insurance Wealth/GDP (%)	517	46.558	36.372	0.000	171.426
Social Transfers/GDP (%)	559	13.114	4.048	3.110	23.660
Pension Generosity (Pension Replacement Rate)	484	0.583	0.186	0.143	1.119
Unemployment Generosity (Unemployment Replacement Rate)	530	0.569	0.215	0.000	0.973
Sick Pay Generosity (Sick Pay Replacement Rate)	524	0.578	0.271	0.000	0.969
Stock Market Capitalization/GDP (%)	533	54.800	42.952	0.195	268.110
Dependency Ratio (Proportion of population older than 65 of total)	559	21.351	4.587	10.244	38.407
Life Expectancy	559	76.602	3.166	66.400	83.200
Saving Rate	523	9.810	6.272	-6.000	25.400
Income Inequality (Top 1)	510	8.258	2.749	3.490	19.340
Equity Prices	559	459.310	1093.987	1.200	8010.890
Property Prices	540	107.918	78.089	4.991	388.612
Inflation (CPI)	559	5.483	5.112	-1.350	31.020
GDP Growth	559	2.531	2.433	-8.540	11.200
GDP per capita	559	4.197	0.312	3.297	4.711
Financial Crisis	559	0.038	0.190	0.000	1.000

Table 17: Summary statistics

Variable	Description	Source
Private Net Wealth	Household financial assets plus household housing assets minus household liabilities to GDP	See Table 16
Private Debt	Household liabilities to GDP	See Table 16
Private Housing Wealth	Household housing assets to GDP	See Table 16
Private Insurance Wealth	Household insurance assets to GDP	See Table 16
Welfare State Size	Social Transfers as a percentage of GDP	OECD Historical Statistics; Comparative Political Dataset I 1960–2012 (Armingeon et al. 2014)
Pension Generosity	Pension Replacement Rate	Comparative Welfare Entitlements Data Set (Scruggs et al. 2014)
Unemployment Generosity	Unemployment Replacement Rate	Comparative Welfare Entitlements Data Set (Scruggs et al. 2014)
Sick Pay Generosity	Sick Pay Replacement Rate	Comparative Welfare Entitlements Data Set (Scruggs et al. 2014)
Stock Market Size	Stock Market Capitalization as a percentage of GDP	World Bank (Financial Development and Structure Dataset (Beck et al. 2000; Čihák et al. 2012); Rajan and Zingales 2003; Bozio 2002
Dependency Ratio	Proportion of population older than 65 years (the elderly) as a percentage of the total population	OECD
Life Expectancy	Life expectancy at birth	OECD
Saving Rate	Household gross saving to GDP	OECD; National Statistical Offices
Income Inequality	Income share of the highest one percent in the income distribution	Wealth and Income Database (WID)
Equity Prices	Stock prices (nominal index 1990=100)	OECD; Jordà-Schularick-Taylor (JST) Dataset
Property Prices	House prices (nominal index 1990=100)	Knoll et al. 2014; OECD; BIS
Inflation	Consumer price index (CPI)	OECD
GDP Growth	Real economic growth	OECD
GDP per capita	gross domestic product divided by midyear population	OECD; Penn World Tables
Financial Crisis	Systemic financial crisis (0-1-dummy)	Jordà-Schularick-Taylor (JST) Dataset; Laeven and Valencia 2012

Table 18: Data sources and description of the variables