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## How do households allocate their assets? – Stylized facts from the Eurosystem Household Finance and Consumption Survey

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## **Non technical summary**

### **Research Question**

This paper uncovers a set of stylised facts on the asset composition of households in the euro area. It uses the results from the first wave of the Household Finance and Consumption Survey (HFCS), carried out between 2008 and 2011, and covering household level information on wealth, debt, income and consumption, from around 62000 households, in fifteen euro area countries.

### **Contribution**

The main contribution of this paper is to provide comparable information on the asset portfolios of households in fifteen euro area countries. We also investigate the institutional sources that are behind the differences in the estimated effects of the demographic variables on asset holdings. The structures we uncover might allow policy makers to better understand the transmission of monetary policy. Asset ownership is the main vehicle for households to transform current income into future consumption. Interest rate changes caused by monetary policy affect both the value of assets and this transformation process.

### **Results**

The heterogeneity in wealth levels of typical households across euro area countries is sizeable. Also the heterogeneity within countries across households is very large. We nonetheless find among other things that the following stylized facts form a good description of household financial positions across countries:

- Wealthier households are more likely to own real estate, risky assets (e.g. stocks and bonds) and private business.
- Single households are more likely to hold and have higher values of risky assets.
- Educational attainment of the head of the household is positive related to the probability of owning risky assets.
- There is little systematic difference between the employed and the unemployed in the asset portfolio.

One of the main striking differences across euro area countries is the large heterogeneity in the share of households that owns the main residence. We find with respect to the role of institutions that the cross country heterogeneity in the correlations between ownership and demographic variables (e.g. age and income) could be linked to the cross-country differences in terms of price-to-rent ratio and of mortgages markets.

# **Nicht-technische Zusammenfassung**

## **Fragestellung**

Dieses Papier legt eine Reihe stilisierter Fakten zur Zusammensetzung des Vermögens privater Haushalte im Euro-Währungsgebiet dar. Es stützt sich auf die Ergebnisse der ersten Haushaltsbefragung zu Finanzen und Konsum (Household Finance and Consumption Survey – HFCS), bei der zwischen 2008 und 2011 rund 62 000 private Haushalte in 15 Euro-Ländern Auskunft über ihr Vermögen, ihre Schulden und ihr Einkommen gaben.

## **Beitrag**

Wir analysieren die Zusammensetzung des Vermögens für 15 Euro-Länder mit Hilfe vergleichbarer Zahlen. Zudem versuchen wir, die institutionellen Ursachen zu identifizieren, die für die gefunden Strukturen verantwortlich sein könnten. Die Strukturen, die wir aufzeigen, können dazu beitragen, die Wirkungsweise der Geldpolitik besser zu verstehen. Eigentum an Vermögenswerten ist für private Haushalte das wichtigste Instrument, um das aktuelle Einkommen in künftigen Konsum umzuwandeln. Zinsänderungen wirken sich sowohl auf den Wert dieser Vermögenswerte als auch auf diesen Umwandlungsprozess aus.

## **Ergebnisse**

Es bestehen beträchtliche Unterschiede zwischen den Euro-Ländern hinsichtlich der Höhe des Vermögens eines typischen privaten Haushalts. Auch innerhalb der einzelnen Länder herrscht eine sehr große Spanne zwischen verschiedenen Typen von Haushalten. Es lassen sich aber auch einige Gemeinsamkeiten über die Länder hinweg aufzeigen:

- Vermögendere Haushalte besitzen mit größerer Wahrscheinlichkeit Immobilien, risikoreiche Anlagen (z.B. Aktien) oder besitzen eine eigene Firma.
- Alleinstehende halten mehr und höherwertige risikobehaftete Anlageformen.
- Das Bildungsniveau des Haushaltsvorstands erhöht die Wahrscheinlichkeit risikoreiche Anlagen zu besitzen.
- Die Vermögensportfolios weisen kaum einen systematischen Unterschied zwischen Erwerbstätigen und Erwerbslosen.

Einer der markantesten Unterschiede zwischen den Euro-Ländern ist der Anteil der Haushalte mit Wohneigentum. Unserer Ansicht nach könnte die von Land zu Land unterschiedlichen Korrelationen zwischen Eigentum und demografischen Variablen (z.B. Alter und Einkommen) auf länderspezifische Differenzen hinsichtlich des Preis-Miet-Verhältnisses und der Hypothekenmärkte zurückzuführen sein.

# How do households allocate their assets? - Stylized facts from the Eurosystem Household Finance and Consumption Survey <sup>1</sup>

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## Abstract

Using the Household Finance and Consumption Survey (HFCS), a large micro-level dataset on households' wealth in fifteen euro area countries, this paper explores how households allocate their assets. We derive stylized facts on asset participation as well as levels of asset holdings and investigate the systematic relationships between household characteristics and asset holding patterns. Real assets make up the bulk of total assets. Whereas ownership of the main residence varies strongly between countries, the value of the main residence tends to be the major asset for home-owners and is a significant part of total assets in all countries. While almost all households hold safe financial assets, a low share of households holds risky assets. The ownership rates of all asset categories generally increase with wealth (and income). The significance of inheritances for wealth accumulation is remarkable and underlines its key role in the process of persistent wealth inequality. We tentatively link differences in asset holding patterns across countries to differences in institutions, such as mortgage market institutions and house price-to-rent ratios.

**Keywords:** household financial decisions, individual portfolio choice, real and financial assets, cross-country comparisons

**JEL-Classification:** D1, D3

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# 1 Introduction

How do households choose to allocate their wealth across available assets? Is there a systematic relationship between underlying household characteristics and asset holding patterns across countries? This paper uses a large dataset containing comparable household microdata from fifteen euro area countries to shed light on these research- and policy-relevant questions.

Recent findings in the household finance literature have emphasised that asset holdings are heterogeneous across households and across countries (See Guiso et al., 2002, 2003 and Christelis et al., 2013 and Sierminska and Doorley, 2012). Unlike the existing literature, this paper documents differences in asset participation and holdings across a broad range of assets for fifteen euro area countries in a dataset consisting of ex ante comparable country surveys, representative of the total population.

Our analysis is based on the Eurosystem Household Finance and Consumption Survey (HFCN, 2013a), which provides detailed household-level information on wealth, assets and debt holding, income, as well as on household composition for fifteen euro area countries. We study determinants both of asset holdings (extensive margin) and of the amount invested in each asset by households across countries (intensive margin). The main components of household wealth considered are: housing assets (decomposed into household main residence and other real estate), risky financial assets (mutual funds, bonds and shares), and safe financial assets (defined as deposits, life insurance contracts, and voluntary private pension plans) and business wealth (defined as self-employment participation).

We first document participation rates and conditional holdings in these asset classes across wealth quintiles and across euro area countries. We confirm the standard finding that wealthier households tend to participate in a wider range of asset classes and to hold larger amounts conditional on participation. However, we uncover substantial differences across countries, in particular for housing wealth.

In a second step, we analyse the household level determinants of asset participation and of the amount invested by estimating, respectively, probit and tobit models. We find considerable overlap in the factors that determine asset participation choices and amounts invested. We find that a number of household characteristics are robust predictors of household portfolio choices in the sense that, in a majority of countries, their estimated marginal effects are statistically significant and have the same sign, even though their estimated sizes may differ. This not only points to the importance of such factors but also to the conclusion that the variation in institutional, policy, and other environmental factors within the euro area does not seem to reverse or render insignificant the importance of such underlying household characteristics.

Nevertheless there remain differences across countries in the measured effects of demographic variables. Identifying the potential sources explaining those differences is not an easy task. Many factors, including culture, history, welfare state, housing and credit markets, financial institutions, are likely to affect the wealth accumulation process and portfolio choices of households. To this end, we examine the correlations between the estimated marginal effects from the estimations on the key socio-demographic explanatory variables and selected institutional factors. We find some evidence that suggests the strength of the influence of the socio-demographic factors on the choice of holding real and risky financial assets to be correlated with the institutional framework in a given country.

A brief literature review (section II) introduces the topic of household portfolio choices and the issues that have evolved in this field. After presenting the data and the first descriptive analysis of assets composition in section III, we analyse extensive margins by probit regressions for different asset classes and countries. Furthermore, we present results on the intensive margins using tobit regressions (both in section IV). Section V investigates the role of institutions as factors altering the impact of certain household characteristics on portfolio choice. Section VI concludes the paper.

## **2 Documenting International Differences in Asset Behaviour**

### **2.1 Existing Research**

The first cross-country comparisons of wealth and investment behaviour at the household level on a relatively large scale were provided by Guiso et al. (2002, 2003). They find substantial differences in stock market participation between major European countries (France, Germany, Italy, the Netherlands, Sweden, and the UK), and the US. They also emphasise some regular empirical facts, such as the positive correlation of stockholding with financial wealth and with education. More recently, Christelis et al. (2013) use SHARE, ELSA and HRS microdata<sup>2</sup> to document international differences in ownership and holdings of stocks, private businesses, homes, and mortgages among households aged 50+ in thirteen countries (the US, the UK and eleven continental European countries). They find that households with given characteristics have different probabilities of participating in a given asset class both across the Atlantic and within Europe. US households tend to invest more in stocks and less in homes, and tend to have larger mortgages than European households with similar characteristics. Based on counterfactual analysis, they show that these differences in ownership and amounts are primarily linked to differences in economic environments (i.e. institutional factors) rather than related to population characteristics. Furthermore, reported differences seem

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<sup>2</sup> SHARE is one major survey with standardised information on household behaviour, including wealth and portfolio composition. It also includes the ELSA survey for England and HRS data for the US. As it focuses on retirement and ageing issues, it includes only individuals over 50 years and does not provide any information for the rest of the population.

to be even more pronounced among European countries than among US regions, suggesting the potential for greater harmonization. From our point of view in this paper, their finding suggests greater potential for testing the relevance of each household characteristic across euro area countries than across US regions and greater importance of robust effects of any given factor across euro area countries.

Sierminska and Doorley (2012) extend the Christelis et al. (2013) approach in the direction of studying survey data that is representative of the entire population. They use the ex post harmonised dataset from the Luxembourg Wealth Study (LWS) to analyse household portfolios for the whole population in 5 countries (US, Germany, Italy, Luxembourg and Spain). Concerning cross-country differences in asset participation, their results confirm the limited role of demographic characteristics for the households of age 50 or older; and they also reveal a stronger role of observable demographic characteristics for younger households. They find that the household characteristics helping to explain the amount of assets held change along the wealth distribution. It seems that they do better in explaining the existing cross-country differences in the middle than in the tails of the wealth distribution. All in all, they conclude that institutional and non-observed characteristics are more likely to influence cross-country differences for old and wealthy households.

## **2.2 Asset holdings in the euro area**

Our data is taken from the Eurosystem HFCS.<sup>3</sup> The net sample of the survey includes 62,521 households from Belgium (BE), Germany (DE), Greece (GR), Spain (ES), France (FR), Italy (IT), Cyprus (CY), Luxembourg (LU), Malta (MT), Netherlands (NL), Austria (AT), Portugal (PT), Slovenia (SI), Slovakia (SK), and Finland (FI).<sup>4</sup> The survey was conducted in each country separately under common guidelines. Households were interviewed in 2010/2011 with the exception of France (2009/2010), Spain (2008/2009) and Greece (2009).<sup>5</sup> The reference period for most of the information on wealth is the time of the interview. The HFCS contains detailed information on asset holdings. We distinguish the following asset categories:

- Household main residence (HMR): owner occupied housing
- Other real estate (ORE): real estate other than the main residence (including holiday homes/apartments, commercially used real estates, and land)
- Self-employed businesses (BUS): market value of all business assets including property and intangibles minus value of liabilities (net value concept)
- Safe financial assets (SAFE): comprising deposits (sight and savings accounts), life insurance contracts, and voluntary private pension plans

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<sup>3</sup> Here we only briefly summarise the most basic information on the survey. For more detail see HFCN (2013a,b).

<sup>4</sup> The two remaining euro area countries Estonia and Ireland did not take part in the first wave of the HFCS.

<sup>5</sup> Although differences in the valuation of real estate are acknowledged, internal calculations by the ECB adjusting for price variations show only small variation in the results. Hence in this analysis we refrain from any adjustment of the collected data.

- Risky financial assets<sup>6</sup> (RISKY): comprising mutual funds, bonds (including public bonds for which the degree of risk is lower), and shares

In the next sections we document households' wealth composition for each of the 15 euro area countries. More specifically, for each of the outlined asset categories, we provide the participation rates (extensive margin) and the conditional median values (intensive margin) and explore their variations along the wealth distribution.<sup>7</sup>

### 3 Descriptive Results

#### 3.1 Net wealth distribution

Before looking at the household wealth composition, Table 1 provides an overview of the distribution of household net wealth within and across countries. Net wealth values differ substantially within and across euro area countries. This fact holds for all parts of the wealth distribution. For example, the households' median net wealth is around €109,000 for the euro area as a whole and it ranges from roughly €51,000 in Germany to €398,000 in Luxembourg.

Table 1: Descriptive statistics of net wealth (*EUR thousands*)

	Observations	Median	Mean	P5	P95
<b>Euro area</b>	62,521	109.2	230.8	0.0	762.1
<b>Austria</b>	2,380	76.4	265.0	-0.2	934.6
<b>Belgium</b>	2,327	206.2	338.6	0.3	1,073.4
<b>Cyprus</b>	1,237	266.9	670.9	0.0	2,411.9
<b>Germany</b>	3,565	51.4	195.2	-1.6	661.2
<b>Spain</b>	6,197	182.7	291.4	0.2	878.5
<b>Finland</b>	10,989	85.8	161.5	-8.4	553.6
<b>France</b>	15,006	115.8	233.4	0.4	775.4
<b>Greece</b>	2,971	101.9	147.8	0.0	469.3
<b>Italy</b>	7,951	173.5	275.2	1.0	855.0
<b>Luxembourg</b>	950	397.8	710.1	0.1	2,023.9
<b>Malta</b>	843	215.9	366.0	4.0	1,049.4
<b>Netherlands</b>	1,301	103.6	170.2	-34.6	581.2
<b>Portugal</b>	4,404	75.2	152.9	0.1	482.4
<b>Slovenia</b>	343	100.7	148.7	0.3	434.5
<b>Slovakia</b>	2,057	61.2	79.7	1.5	207.4

Source: HFCS 2013. Estimates – apart from the number of observations – are given in thousands of Euros.

<sup>6</sup> The separation of safe and risky financial assets is along the lines laid out in Guiso et al. (1996) who also include long term government bonds as well as corporate bonds in the category of risky financial assets.

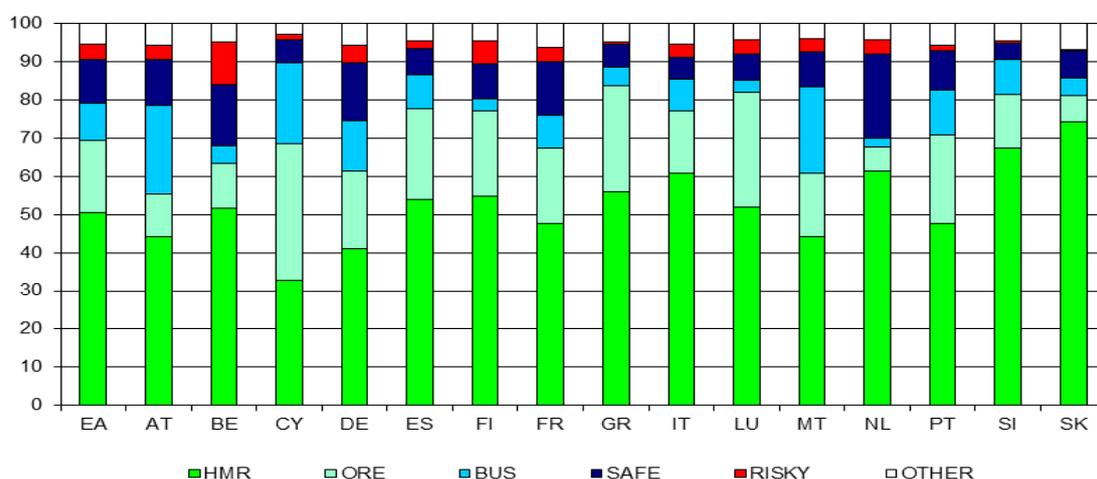
<sup>7</sup> The estimations of the results below are based on all 5 implicates of the multiple imputed data provided in the Eurosystem HFCS. That means that the estimations are done on each implicate separately and then combined using Rubin's rule. All the estimations -including probit and tobit models- are done using the final household weights in order to take the survey design of the underlying data into account. For the calculation of the standard errors in the multivariate analysis a bootstrap procedure using replicate weights, which are also provided in the HFCS, is applied. Standard errors presented below are based on the first one hundred replicate weights in the dataset.

Common across countries, the distribution of net wealth is very unequal and highly skewed to the right, as illustrated by the difference between the median and the mean values. This concentration of wealth at the top end of the wealth distribution is a well-documented fact (see for instance Davies and Shorrocks (1999) and Campbell, 2006) and also confirmed by our data across 15 euro area countries. In the euro area, 50% of households below or just at the median level hold only 12% of the net wealth, while the top decile holds 50% of net wealth.

### 3.2 The composition of total assets

Households' portfolio consists of real assets and financial assets. Taken all 15 countries together, the share of households' main residence in total gross assets is about 51%. This means that households in the euro area hold the majority of their wealth in the form of their primary residence (see Figure 1).<sup>8</sup> Country figures range from 41% in Germany to 61% in Italy and the Netherlands. All other asset categories account for a substantially smaller share of gross wealth. The share of risky financial assets (4%), i.e. the least important category in average terms, ranges from about 1% for Cyprus and Slovenia to 11% for Belgium. There is also considerable cross-country variation, e.g. while, in the Netherlands, 22% of gross wealth is held in safe financial assets this asset category only represents 6% and 4% of gross wealth in Italy and Slovenia.<sup>9</sup>

Figure 1: Share of asset categories relative to gross wealth



Source: HFCS 2013.

Notes: HMR: Household main residence, ORE: other real estate, BUS: Self-employment business, SAFE: Safe financial assets, RISKY: Risky financial assets, OTHER: other real assets (e.g. vehicles) and other financial assets (e.g. money owed to the households, money held in managed accounts).

<sup>1</sup> Finland collects information on BUS only in a summarizing way, estimates are not comparable.

<sup>8</sup> The figures reported here are calculated by dividing the total value of all assets of a specific type by the total gross assets. This is a different approach compared to calculating the share of an asset type in the portfolio of each household and then averaging across the shares.

<sup>9</sup> For safe assets a large part of the heterogeneity may be due to the different role of public pension schemes: where the latter are predominant, voluntary private pension plans are less relevant.

These differences in the aggregate wealth composition reflect differences both in the extensive margin (percentage of households owning a particular asset) and in the intensive margin (the value of this particular asset held by the household).<sup>10</sup> Overall, positive participation rates are observed for each of the asset classes for the 15 countries. The majority of households own their household main residence (notable exceptions are Austria and Germany) whereas other real estate, business and risky assets are held only by a comparatively small share of the population. The highest conditional median values are generally found in real assets especially in the form of real estate (household main residence as well as other real estate) whilst the median value of financial assets is comparatively small. In terms of cross-country variation, the participation rate of HMR ranges from 44% in Germany to 83% in Spain, and the median value ranges from €90,000 in Portugal to €500,000 in Luxembourg. Despite being substantially less prevalent and of lower value than HMR, both participation and the level of risky assets display a huge level of variation across countries as well. A more homogenous picture between countries is obtained for the other real estate assets. Other real estate assets seem to be somewhat more important in terms of participation in southern countries and Luxembourg, than for other northern countries. It should be stressed that “other” real estate in the South does not necessarily mean real estate purchased for investment or recreational purposes after the HMR is secured. In many cases, it is inherited real estate, such as the deceased parents’ home in the village and is kept not so much because of its asset properties but more so in order to keep in touch with the circle of relatives.

In addition to these variations in the composition of households’ wealth across countries, differences in the composition are also observed along the wealth distribution. In particular, the existing empirical literature shows that the portfolio breadth increases with wealth. We contribute to this literature by comparing the participation rates and median values of asset categories along the net wealth distribution for the 15 euro area countries. This confirms the greater variety of assets held as wealth increases and reveals moreover some interesting cross-country differences.

### **3.2.1 Real assets over the wealth distribution**

Real assets represent the predominant asset category, accounting for 84% of total wealth on average. And among real assets, the HMR is the most important asset class. Table 2 shows the share of households owning their main residence broken down by quintiles of the net wealth distribution. As expected the percentage of households owning either their household main residence (Table 2) or other real estate (Table 3) increases with net wealth. For the HMR, the participation rate reaches more than 90% in the fifth net

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<sup>10</sup> The figures for the extensive (participation rate) and intensive margin (conditional median) are given in the appendix (see Table A1.1a and A1.1b).

wealth quintile for every country. However, there are pronounced differences between countries at the lower half of the wealth distribution. Participation is already above 90% in the second quintile in Spain; it stays below 10% in Austria and Germany and below 15% in France.

With regard to the HMR, the conditional medians shown in Table 2 reveal interesting patterns at the lower end of the net wealth distribution. Median values for main residences are higher in the first than in the second net wealth quintile in Austria, Belgium, Germany, Finland, France, the Netherlands and Portugal, while they are rising for all the other countries as well as the rest of the distribution. This could reflect the indebtedness of households which could afford to buy larger main residences by taking up larger mortgages in the first quintile and might point to some credit constrained households in the second net wealth quintile.

Table 2: Share of households owning their main residence and conditional median value

	Participation rates over net wealth distribution (percentages)							Conditional median over net wealth distribution (EUR thousands)						
	<i>Quintiles</i>							<i>Quintiles</i>						
	<i>Overall</i>	<i>1st</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>5th</i>	<i>Top 5%</i>	<i>Overall</i>	<i>1st</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>5th</i>	<i>Top 5%</i>
<b>Euro area</b>	60.1	4.8	28.7	78.9	93.4	94.8	94.1	180.3	130.2	50.0	112.5	200.0	300.3	438.6
<b>Austria</b>	47.7	3.1	3.9	52.0	87.9	91.7	90.1	200.0	145.3	42.2	90.2	180.7	323.4	514.2
<b>Belgium</b>	69.6	2.7	60.0	94.8	96.1	95.0	92.8	250.0	146.0	129.8	200.0	278.8	350.0	423.6
<b>Cyprus</b>	76.7	19.3	81.4	94.7	92.7	96.0	98.6	240.3	103.0	139.9	208.0	312.1	414.0	500.0
<b>Germany</b>	44.2	3.8	6.7	39.4	79.0	92.3	91.8	168.0	90.0	20.0	77.8	150.0	252.0	400.0
<b>Spain</b>	82.7	30.6	92.6	96.6	96.9	96.9	96.9	180.3	67.3	114.3	180.3	240.2	332.4	420.7
<b>Finland</b>	69.2	22.5	36.7	91.5	96.8	98.3	98.7	127.8	90.5	77.7	92.2	139.0	218.1	306.8
<b>France</b>	55.3	1.2	13.4	77.5	91.1	93.2	93.7	193.8	126.1	102.4	128.0	200.1	301.0	368.5
<b>Greece</b>	72.4	6.5	73.9	92.8	95.0	94.4	93.8	100.0	48.0	50.0	91.5	134.1	180.0	200.0
<b>Italy</b>	68.7	2.3	54.1	93.2	97.2	97.0	97.3	200.0	16.3	80.0	150.0	240.0	400.0	700.0
<b>Luxembourg</b>	67.1	3.8	48.2	93.9	95.7	94.4	94.5	500.0	215.6	299.6	400.0	549.6	800.0	1,000.0
<b>Malta</b>	77.7	12.8	85.2	97.0	98.5	95.5	94.5	186.6	41.5	96.2	176.7	232.9	286.0	293.6
<b>Netherlands</b>	57.1	25.0	22.8	55.1	87.3	95.5	96.9	240.0	203.0	194.8	201.0	226.0	323.5	450.0
<b>Portugal</b>	71.5	12.4	66.6	89.2	94.5	94.9	92.5	90.0	61.4	37.5	70.5	109.5	175.0	200.0
<b>Slovenia</b>	81.8	23.7	92.6	97.9	98.8	98.2	95.9	110.9	23.5	51.4	92.5	156.0	196.0	222.9
<b>Slovakia</b>	89.9	52.7	98.7	99.6	99.0	99.5	98.5	55.9	22.2	38.5	52.2	75.0	114.5	200.5

Source: HFCS 2013.

A more homogenous picture between countries is obtained for the other real estate. The conditional medians in Table 3 reveal that for most countries the values invested in other real estate are relatively low compared with the HMR in the bottom of the net wealth distribution<sup>11</sup> and rise with net wealth. Low net wealth either signals limited gross asset values, in which case owning other real estate is unlikely to be a priority or high indebtedness (usually in the form of mortgages), in which case the household would be more likely to have a mortgage for an HMR rather than for other real estate.

<sup>11</sup> Note that for some countries we find a similar decreasing pattern from the first to the second net wealth quintile as described for the HMR.

Table 3: Share of households owning other real estate and conditional median value

	Participation rates over net wealth distribution (percentages)							Conditional median over net wealth distribution (EUR thousands)						
	Overall	Quintiles						Overall	Quintiles					
		1st	2nd	3rd	4th	5th	Top 5%		1st	2nd	3rd	4th	5th	Top 5%
<b>Euro area</b>	23.8	2.3	8.7	20.2	28.2	59.8	78.3	100.0	42.2	15.5	39.9	70.3	200.0	422.6
<b>Austria</b>	13.4	1.4	1.9	9.2	18.2	36.6	50.5	94.0	68.4	11.7	35.0	64.9	178.8	321.8
<b>Belgium</b>	16.4	2.0	8.8	6.8	18.0	46.3	61.0	174.0	46.0	51.0	66.4	105.4	256.2	566.0
<b>Cyprus</b>	51.6	13.1	28.8	52.6	71.4	92.5	93.9	202.2	48.5	62.1	100.0	212.1	758.0	1,766.4
<b>Germany</b>	17.8	3.1	2.2	9.9	21.5	52.4	79.4	115.0	91.0	7.2	44.6	79.0	199.6	385.1
<b>Spain</b>	36.2	8.6	19.6	29.6	47.9	75.4	89.9	120.2	21.8	41.0	49.3	101.0	258.7	510.4
<b>Finland</b>	29.8	2.8	6.3	20.5	45.3	74.2	87.9	107.6	42.8	26.6	50.3	76.6	176.3	322.6
<b>France<sup>1</sup></b>	28.5	2.4	8.6	25.8	36.6	69.0	86.2	96.1	-	11.8	27.3	60.6	187.0	396.6
<b>Greece</b>	37.9	5.1	26.2	31.6	48.3	78.4	92.0	61.9	10.0	20.0	30.0	60.0	150.0	360.0
<b>Italy</b>	24.9	1.8	16.6	17.3	27.8	61.2	76.6	100.0	5.0	20.0	45.0	60.0	200.0	430.0
<b>Luxembourg</b>	28.2	5.1	23.8	17.2	24.7	70.4	86.6	300.0	205.2	141.8	170.8	238.2	742.0	1,641.8
<b>Malta</b>	31.4	4.5	14.5	23.7	44.8	69.5	65.2	120.1	15.8	27.2	55.2	95.2	236.1	531.0
<b>Netherlands<sup>2</sup></b>	6.1	-	0.8	2.3	4.7	22.0	41.7	165.5	-	184.1	80.5	134.5	197.4	235.7
<b>Portugal</b>	27.1	3.5	15.1	21.9	31.2	64.1	91.6	53.5	4.1	8.8	16.9	41.9	137.8	405.4
<b>Slovenia<sup>3</sup></b>	23.2	-	17.9	17.9	26.5	54.8	69.5	52.4	-	16.0	31.1	30.9	105.6	204.2
<b>Slovakia</b>	15.3	2.1	8.6	16.1	14.0	35.9	45.2	16.4	14.6	5.5	9.4	25.3	39.0	62.6

Source: HFCS 2013.

Notes: <sup>1</sup> Missing values in France for owners of other real estate. <sup>2</sup> No observation in the Netherlands in the first quintile for some implicates. <sup>3</sup> No observation in Slovenia in the first quintile for some implicates. Other real estate is defined as real estate other than the main residence. It includes holiday homes/apartments, commercially used real estates, and land.

Turning to business wealth, the participation rate also clearly increases with net wealth.<sup>12</sup> In particular in the top 5% of the net wealth distribution almost 50% of the households in the euro area hold business wealth, whereas in the first four wealth quintiles ownership is restricted to a maximum of 10% of the households (only 2% of the households in the first quintile own a business). The pattern of ownership is relatively similar across countries with the exception of Cyprus, Finland,<sup>13</sup> Italy, and, to some degree, Spain, where ownership rates start to increase at a lower net wealth quintile than in other countries. The median values (see Table 4) generally increase with net wealth but display a very high degree of cross-country heterogeneity.<sup>14</sup>

<sup>12</sup> These non-reported results are available from the authors upon request.

<sup>13</sup> Finland collects the information on business wealth only in an aggregate way and hence the estimates are not completely comparable.

<sup>14</sup> For example, in the top 5% of the net wealth distribution, median values of business wealth range from about €16,000 in Finland, €93,000 in the Netherlands to €924,000 in Austria and over €2 million in Cyprus.

Table 4: Share of households owning business assets and conditional median value

	Participation rates over net wealth distribution (percentages)							Conditional median over net wealth distribution (EUR thousands)						
	Overall	Quintiles						Overall	Quintiles					
		1st	2nd	3rd	4th	5th	Top 5%		1st	2nd	3rd	4th	5th	Top 5%
<b>Euro area</b>	11.1	2.3	7.3	8.5	10.3	26.9	46.9	30.0	1.7	2.9	13.4	30.0	100.0	298.6
<b>Austria</b>	9.4	1.0	1.8	3.4	5.9	34.7	67.5	180.6	0.0	7.1	8.7	26.3	356.1	924.3
<b>Belgium</b>	6.6	0.4	3.2	4.7	7.5	17.1	27.8	50.0	6.9	13.5	15.4	50.0	123.4	475.6
<b>Cyprus</b>	19.5	4.1	6.3	17.4	20.5	49.5	77.7	98.8	2.8	23.0	33.2	97.0	475.9	2,036.6
<b>Germany</b>	9.1	1.4	4.9	8.8	7.8	22.7	50.7	19.4	4.8	1.6	4.8	20.0	100.0	294.0
<b>Spain</b>	14.2	5.7	5.9	9.3	16.7	33.7	50.9	50.8	5.1	17.2	29.0	30.8	140.0	355.8
<b>Finland<sup>1</sup></b>	13.8	3.8	6.3	13.9	18.6	26.6	37.2	0.9	0.7	0.8	0.9	0.8	1.1	15.8
<b>France</b>	8.9	1.0	4.7	6.4	7.2	25.3	42.5	53.1	2.4	5.1	24.5	40.7	130.3	302.0
<b>Greece</b>	9.8	2.5	7.4	7.8	11.0	20.4	22.3	36.2	8.6	15.8	16.6	33.5	100.0	200.0
<b>Italy</b>	18.0	6.7	16.8	12.5	18.1	36.1	52.9	15.0	0.0	2.5	20.0	15.0	80.0	160.0
<b>Luxembourg</b>	5.2	1.0	3.3	1.5	4.7	15.6	32.5	97.6	29.9	53.5	123.0	33.3	200.0	468.6
<b>Malta<sup>2</sup></b>	11.5	-	2.2	4.5	9.3	41.2	73.5	136.5	-	13.0	28.4	26.5	300.6	928.7
<b>Netherlands<sup>3</sup></b>	4.8	3.5	-	4.8	6.0	8.5	17.0	51.7	17.5	-	44.7	198.8	123.8	92.8
<b>Portugal</b>	7.7	0.2	2.5	4.7	6.6	24.2	35.4	47.1	4.4	5.5	27.5	18.7	92.5	250.0
<b>Slovenia</b>	11.6	1.7	7.0	7.1	9.6	33.5	79.2	25.5	5.0	3.9	16.3	6.8	140.1	103.6
<b>Slovakia</b>	10.7	5.7	5.9	7.9	9.0	25.2	39.8	4.6	0.2	0.9	1.4	1.0	30.7	89.6

Source: HFCS 2013.

Notes: <sup>1</sup> Finland collects information on Business Assets only in a summarizing way, estimates are not comparable. <sup>2</sup> No observation in Malta in the 1<sup>st</sup> quintile for some implicates. <sup>3</sup> No observation in the Netherlands in the 2<sup>nd</sup> quintile for some implicates.

### 3.2.2 Financial assets over the wealth distribution

By far the most commonly held assets are safe financial assets. These are held by almost every household, whether rich or poor (see Table 5): 93% of the households in the euro area in the lowest wealth quintile hold safe financial assets and this share increases to 99% in the highest wealth quintile.<sup>15</sup> The financial instrument for which participation is the highest is represented by deposits. The amounts held in deposits are nevertheless rather limited, even in the top of the wealth distribution.<sup>16</sup>

<sup>15</sup> Detailed information on participation rates and median values over the wealth distribution is available from the authors upon request.

<sup>16</sup> The top 5% show values ranging from €9,000 in Slovakia to €137,000 in the Netherlands; in the lowest wealth quintile for some countries (Austria, Germany, Finland, France, Portugal, Slovenia and Slovakia) the conditional median is even below €1.000.

Table 5: Share of households owning safe financial asset and conditional median value

	Participation rates over net wealth distribution (percentages)							Conditional median over net wealth distribution (EUR thousands)						
	Overall	Quintiles						Overall	Quintiles					
		1st	2nd	3rd	4th	5th	Top 5%		1st	2nd	3rd	4th	5th	Top 5%
<b>Euro area</b>	96.7	92.8	96.5	96.3	98.4	99.4	99.7	9.2	1.1	8.7	9.5	15.0	37.9	61.1
<b>Austria</b>	99.4	98.6	99.8	99.5	99.9	98.9	99.4	11.9	1.0	8.2	18.7	20.7	50.6	59.8
<b>Belgium</b>	97.9	92.8	99.5	99.0	98.5	99.5	99.3	20.7	1.8	15.5	18.5	52.2	92.9	102.1
<b>Cyprus</b>	85.9	70.1	85.5	87.2	90.9	96.0	97.9	18.3	4.3	13.9	15.3	27.2	61.4	120.8
<b>Germany</b>	99.1	96.8	98.9	99.8	100.0	100.0	100.0	13.2	0.6	6.6	22.5	29.8	62.9	100.9
<b>Spain</b>	98.2	96.7	98.0	97.1	99.5	99.7	99.9	5.1	1.0	2.2	5.0	10.0	26.3	60.4
<b>Finland</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	5.7	0.7	4.3	5.7	11.3	23.0	39.6
<b>France</b>	99.6	98.4	99.8	99.8	100.0	100.0	100.0	8.9	1.0	7.5	9.5	16.7	47.1	106.6
<b>Greece</b>	73.9	61.5	64.4	74.9	82.2	86.4	92.6	3.9	1.0	2.3	3.6	5.2	14.1	23.1
<b>Italy</b>	91.9	77.8	90.2	94.7	97.7	99.2	99.5	7.4	2.0	6.5	7.3	10.0	20.0	27.0
<b>Luxembourg</b>	98.4	94.8	98.6	99.9	100.0	98.5	98.7	23.1	2.9	22.4	22.2	40.4	79.4	99.2
<b>Malta</b>	96.9	90.6	96.9	97.2	100.0	99.6	100.0	17.7	7.9	10.2	16.8	30.4	39.5	61.6
<b>Netherlands</b>	97.3	92.9	98.8	97.7	97.9	99.1	99.5	30.4	2.7	18.7	55.9	50.1	97.3	137.4
<b>Portugal</b>	94.3	86.1	94.2	95.0	97.4	98.8	100.0	3.8	0.7	2.4	3.9	6.1	24.6	59.2
<b>Slovenia</b>	93.6	85.4	91.2	95.5	98.5	97.7	97.0	1.1	0.3	0.5	1.1	1.3	8.7	14.2
<b>Slovakia</b>	91.5	83.8	88.8	95.4	91.8	97.5	97.4	2.3	0.8	1.6	2.3	2.8	7.3	9.3

Source: HFCS 2013.

As expected, the picture for risky financial assets is very different (Table 6). Overall, only a few households hold such assets, which is an illustration of the “stock-market participation puzzle” commonly mentioned in the literature. For every country, this percentage increases with wealth. It ranges between 8% (Slovakia) and 67% (Finland) in the fifth net wealth quintile.

Table 6: Share of households owning risky financial assets and conditional median value

	Participation rates over net wealth distribution (percentages)							Conditional median over net wealth distribution (EUR thousands)						
	Overall	Quintiles						Overall	Quintiles					
		1st	2nd	3rd	4th	5th	Top 5%		1st	2nd	3rd	4th	5th	Top 5%
<b>Euro area</b>	20.2	3.1	13.0	17.0	23.7	44.2	55.0	12.1	1.7	5.0	8.2	11.2	28.2	50.4
<b>Austria</b>	14.6	2.4	4.4	13.8	18.5	33.8	38.9	12.3	3.0	4.5	10.3	11.5	22.0	107.3
<b>Belgium</b>	30.7	4.8	18.6	25.7	38.8	65.7	72.8	20.1	4.0	5.0	6.8	19.8	75.0	363.2
<b>Cyprus</b>	36.3	18.1	24.3	35.3	41.7	62.4	77.6	2.0	0.2	1.5	0.9	2.2	6.6	13.9
<b>Germany</b>	23.0	3.5	9.0	27.1	28.0	47.5	55.7	12.1	1.7	3.0	7.8	12.5	30.0	49.7
<b>Spain</b>	14.0	1.8	5.1	9.3	17.8	36.2	48.6	12.0	5.8	8.5	7.6	7.6	19.1	56.0
<b>Finland</b>	38.7	14.6	29.7	36.1	45.7	67.4	81.7	3.7	0.5	2.2	2.2	3.8	12.8	33.6
<b>France</b>	21.7	3.0	10.9	19.1	27.9	47.5	63.8	8.1	1.0	2.3	4.1	7.3	20.5	47.3
<b>Greece</b>	4.0	0.4	1.1	1.6	3.9	12.8	22.8	7.3	1.9	0.7	4.9	4.9	10.0	30.8
<b>Italy</b>	19.8	1.0	11.1	14.4	28.6	44.0	53.6	22.4	4.0	13.0	15.0	20.0	35.0	60.0
<b>Luxembourg</b>	25.8	4.6	17.4	21.3	31.8	54.4	65.6	28.5	10.2	9.6	15.3	26.9	87.8	282.6
<b>Malta</b>	33.7	10.8	17.9	30.4	48.6	60.7	61.8	21.6	8.9	10.0	16.5	24.1	45.6	57.0
<b>Netherlands</b>	23.9	7.8	12.4	23.9	29.7	45.8	60.3	8.2	4.2	2.9	5.3	10.8	21.7	105.9
<b>Portugal</b>	6.5	0.9	1.4	4.0	6.5	19.9	37.6	8.9	0.8	3.0	8.0	5.0	15.7	28.2
<b>Slovenia</b>	20.3	9.8	11.6	15.3	27.4	37.9	55.0	3.4	2.2	1.4	2.4	3.3	4.8	5.3
<b>Slovakia</b>	4.1	1.6	2.2	3.9	5.2	7.6	11.8	1.1	0.7	0.4	0.7	1.2	4.1	9.3

Source: HFCS 2013.

Note: Risky financial assets are defined as mutual funds, bonds and shares.

## 4 Determinants of asset ownership rates

### 4.1 Model specification

We focus on household main residence, other real assets and risky financial assets and estimate the ownership and conditional holdings of these assets with a multivariate model. For each of these assets categories the asset ownership (dummy that equals 1 if the household holds a certain asset category) and the asset level is analysed for the euro area as a whole and each country separately by applying a probit and tobit model respectively.<sup>17</sup> All estimations take appropriate household weights as well as the imputation structure into account. In particular, both the probit and the tobit models make use of the final household weights and the resulting average marginal effects are population estimates. The standard errors are based on one hundred replicate weights. As the tobit model depends on the normality assumption that hardly can be justified with wealth data, we apply the inverse hyperbolic sine transformation (IHS) (see e.g. Burbidge et al., 1988) with the scaling parameter of  $\theta = 1$  to the level of each asset for a given household. Hence, the coefficients can be interpreted as conditional percentage changes for the part of the distribution where the IHS is close to the logarithmic transformation (see e.g. Pence, 2006).

Trying to find systematic relationships between socio-economic characteristics and house-holds' asset composition or investment behaviour, there are plenty of traits that could be potentially relevant. In line with the literature, the following determinants are considered<sup>18</sup>: household composition (household type, gender and marital status of the reference person), age, education, inheritance received, labour market situation (employment status), and resources (net wealth and income distribution quintiles).

Net wealth is an endogenous explanatory variable by construction since each asset component is part of the net wealth definition. However, as demonstrated in the univariate analysis above, the position in the net wealth distribution is a (very) important factor that explains the portfolio composition, and hence we need to control for the position in the distribution of net wealth when investigating the conditional correlations. Tackling this endogeneity, either the indicator for the position of a household in the net wealth distribution can be dropped or, as it is sometimes done in the literature, the specific type of asset that is modelled can be excluded and the remaining "aggregate wealth" distribution can be used. The latter approach has the weakness that the households' position in the distribution of remaining wealth ceases to be a good indicator for the position of a household in the overall net wealth distribution. This problem is particularly pronounced if major wealth components are excluded. Furthermore, one does not condition on the same indicator of the wealth distribution in

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<sup>17</sup> While the former estimator is standard in the participation literature, the latter is used when the data do not include variables that could plausibly influence the participation decision but not the amount conditional on participation.

<sup>18</sup> See detailed definitions in the appendix.

the different models (i.e. each model for the separated asset types) that are estimated below. Thus we take the model including the net wealth quintiles and examine systematic correlations between wealth and asset behaviour of households, without attributing a causal role to wealth. Additionally, however, we include in the appendix a version of the model where the indicator for the position in the net wealth distribution (and the indicator for the marital status of the household reference person) is excluded from the explanatory variables. The fundamental results are unchanged, but this exclusion has an impact on the some variables. Especially variables other than the wealth quintiles gain significance, typically because they act as proxies for the excluded wealth component.

In what follows, we report stylised facts, i.e. results for variables that exhibit a fairly systematic pattern of significant relationship to behaviour with respect to the particular asset. Our rule for classifying an observed relationship as a stylized fact is that the empirical result should be econometrically significant in the estimation for the euro area as a whole. To make sure that the “stylised fact” is not driven by only very few (large) countries, we require additionally that i) an analogous (and statistically significant) coefficient estimate is observed in at least 8 euro area countries under consideration (the so called 50 percent rule), and ii) there is maximal one country with a opposite significant coefficient estimate (the so called “exception to the rule”). Although, we comment primarily those results, we also report some interesting anomalies.

## 4.2 Stylized Facts

**Fact 1:** *The probabilities of owning and the value of the household main residence, other real estate, risky asset assets and business ownership are positively related with net wealth, even controlling for other observable characteristics.*

The difference between the likelihood of owning an asset between the first and the fifth quintile of wealth (the wealthiest versus the poorest) is substantial for every country and every type of asset. This implies that the wealthier households have greater portfolio breadth in all euro area countries, consistent with what Carroll (2002) reports for the US.

**Fact 2:** *The likelihood of owning and the value of both the main residence and other real estate is positively linked with having received inheritances*

In the euro area as a whole and in eight countries individually, the inheritance dummy is a positively significant factor for explaining the main residence ownership.<sup>19</sup> This effect is much expected, as, clearly, some households have inherited their household main residence or have used the proceeds of any bequests and gifts to acquire a dwelling for use as their household main residence. In some countries, the effect can be quite

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<sup>19</sup> France has a small negative coefficient, which is puzzling as it is the only country with such a negative sign.

sizeable. In Germany for instance, a country with a low HMR ownership rate (44.2%), overall, having received an inheritance increases the likelihood to own the household main residence by 8 percentage points. In Greece, the average marginal effect is very large with 20 percentage points. Also in nine countries and the euro area as a whole, the inheritance dummy is significant for the other real estate ownership (which includes holiday homes). In Spain, a country with a high other real estate ownership (36.2%), probably related to holiday-homes, the average marginal effect is the largest with 22 percentage points. As family tradition is known to influence bequest behaviours (Cox and Stark, 2005), these cross-country differences are likely to be reflecting some strong cultural tradition of passing houses down generations.

**Fact 3: *Couples with dependent children are more likely to own and hold a higher value in the household main residence (relative to singles).***

In eight countries, we find that couples with children are significantly more likely to own their household main residence relative to singles. One possible rationale for this fact is that house ownership has large reversibility costs so that it is economically meaningful to wait until family size is more certain before deciding on home ownership. Singles, especially young ones, are likely to be more uncertain about future family size.

**Fact 4: *The probability of owning risky assets and the value thereof is positively correlated with the educational attainment of the household (head).***

Having a higher education increases the likelihood of owning risky assets. This effect could reflect various underlying factors. It could be linked to a permanent income effect, if education is positively associated with future income profiles and higher expected wage earnings. It could also be linked to a background risk effect (especially unemployment risk): educated people may face lower unemployment risk, and thus could be more incited to invest in risky financial assets (Guiso et al., 1996, Heaton and Lucas, 2000). Finally, there is a wide literature on financial literacy which shows that less educated people are less likely to hold stocks (see for instance van Rooij et al., 2011)..

**Fact 5: *The probability of owning and the value of risky assets are higher for single households.***

Relative to two or more person households, single households are much more likely to own risky assets. One likely factor is that having responsibilities for children and/or a partner increases the risk aversion. It could also simply reflect that having children implies certain committed expenditures that household may have to meet, so that they are less prone to take additional financial risks when they have children.

**Fact 6: *The labour market status has remarkably little correlation with ownership and values of assets with the obvious exception that the self-employed are much more likely to own businesses (and to some extent other real estate).***

There is little systematic difference between being employed or unemployed and being employed and retired in the ownership of assets. This implies that unemployment (when already accounting for income, education and wealth has little explanatory power for the household ownership decision. This can likely be explained by unemployment being considered a transitory and unexpected period in life. Given quasi-universal unemployment insurance in the European Union, the lack of any link may be due to greater ability of the unemployed to survive the unemployment spell without having to liquidate (at least partially) the assets in question. On a less positive note, however, it may also imply that the households most likely to suffer unemployment and pressure to liquidate assets are those who find it most difficult to liquidate their assets in order to preserve the consumption levels to which they are accustomed.

#### **4.2.1 Determinants of asset ownership**

The results presented in the tables refer to average marginal effects (ame) derived from the probit models introduced above. Thus, the estimates can be interpreted in terms of a conditional increase in the likelihood of holding a certain asset type in a given country relative to the baseline. For example, we investigate whether conditional on all other factors there are relatively more single parents that own the household main residence compared to the baseline which is in this case for a household with a single occupant. Due to space constraints we report in the text only the results of the models<sup>20</sup> for the extensive margin in household's main residence and in risky financial assets. All the other models can be investigated in the tables in the appendix and are discussed only briefly in the text. All tables contain the estimation results for each individual country as well as the euro area as a whole. The euro area results are provided as a point of reference. The discussion below mainly focuses on cross country differences and similarities.

The results for the ownership rate of HMR (see Table 7) suggest, beyond the significance of the position in the wealth distribution and conditional on all other factors, that the likelihood of owning the households primary residence is higher in all countries (except Cyprus and Malta) for a couple with dependent children compared to a single household, although it is statistically significant in only 8 out of 15 countries. Somewhat surprisingly, conditional on all other factors, higher education seems to indicate a reduction in the likelihood of owning the primary residence (statistically significant in only some countries, e.g. Austria, Spain, Greece, and Portugal, but also in the euro area as a whole). This is probably linked to greater needs for mobility of more educated people and postponement of the decision to settle down and buy a HMR in a

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<sup>20</sup> The models including the indicator for the position of the household in the net wealth distribution are displayed. The smaller version of the model excluding net wealth and marital status is included in the appendix.

particular area. The dummy for inheritance has almost always the expected positive sign.<sup>21</sup>

Table 7: Average marginal effects from a probit model of participation in the HMR

	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple	0.042***	0.036	0.016	-0.124*	0.024	0.035*	-0.020	0.021	0.097***	0.005	0.007	-0.042	-0.003	0.037	0.202***	0.048**
w/o children	(0.013)	(0.027)	(0.031)	(0.069)	(0.034)	(0.021)	(0.013)	(0.016)	(0.032)	(0.016)	(0.042)	(0.040)	(0.053)	(0.031)	(0.077)	(0.023)
>=3 adults	0.049***	0.050	-0.019	-0.086	0.085**	-0.011	-0.007	0.055**	0.115***	0.010	-0.095	-0.076	-0.041	0.061	0.186*	0.055*
w/o children	(0.018)	(0.044)	(0.046)	(0.086)	(0.043)	(0.027)	(0.036)	(0.025)	(0.040)	(0.024)	(0.061)	(0.059)	(0.116)	(0.040)	(0.096)	(0.032)
Single Parent	0.024	-0.014	0.025	0.016	0.011	0.008	-0.007	-0.005	0.054	0.026	-0.078	-0.027	0.030	0.065**	0.112	0.014
with children	(0.022)	(0.046)	(0.039)	(0.078)	(0.068)	(0.033)	(0.021)	(0.023)	(0.043)	(0.025)	(0.063)	(0.063)	(0.077)	(0.031)	(0.078)	(0.026)
Couple	0.065***	0.076**	0.048	-0.022	0.044	0.045*	0.012	0.066***	0.101***	0.002	0.003	-0.029	0.172**	0.076**	0.194**	0.065**
with children	(0.013)	(0.037)	(0.034)	(0.072)	(0.037)	(0.023)	(0.016)	(0.018)	(0.033)	(0.018)	(0.045)	(0.052)	(0.070)	(0.033)	(0.094)	(0.026)
>=3 adults	0.060***	0.111*	0.046	-0.113	0.088	0.013	-0.022	0.038	0.124***	0.022	0.042	-0.007	0.135	0.058	0.164*	0.057*
with children	(0.020)	(0.057)	(0.071)	(0.099)	(0.068)	(0.031)	(0.048)	(0.028)	(0.045)	(0.027)	(0.069)	(0.060)	(0.185)	(0.045)	(0.087)	(0.034)
<b>Gender (Reference Person)</b>																
Male	-0.000	-0.016	-0.011	-0.102**	0.002	0.003	0.001	0.007	0.001	-0.004	-0.075**	-0.000	-0.012	-0.007	0.022	-0.000
(0.008)	(0.027)	(0.019)	(0.042)	(0.023)	(0.014)	(0.009)	(0.011)	(0.017)	(0.013)	(0.034)	(0.033)	(0.035)	(0.015)	(0.019)	(0.011)	
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	0.027***	-0.007	0.007	0.012	0.070***	0.004	0.025**	0.033**	0.073***	-0.017	-0.027	-0.051*	-0.112***	0.060**	-0.026	0.035**
(0.008)	(0.021)	(0.024)	(0.054)	(0.024)	(0.017)	(0.012)	(0.013)	(0.023)	(0.013)	(0.026)	(0.030)	(0.041)	(0.028)	(0.024)	(0.014)	
65 years and over	0.024	0.009	-0.066	0.106	0.054	0.009	-0.014	0.020	0.085**	-0.005	0.011	-0.075	-0.091	0.079**	-0.075	0.031
(0.015)	(0.034)	(0.050)	(0.094)	(0.050)	(0.026)	(0.022)	(0.028)	(0.028)	(0.042)	(0.020)	(0.052)	(0.047)	(0.063)	(0.035)	(0.052)	(0.033)
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	0.039***	0.030	0.053*	0.041	0.108***	0.005	0.035***	0.021	-0.011	0.007	0.007	0.085*	0.104*	0.020	-0.023	0.001
(0.011)	(0.032)	(0.030)	(0.092)	(0.038)	(0.021)	(0.013)	(0.013)	(0.029)	(0.017)	(0.040)	(0.052)	(0.058)	(0.027)	(0.040)	(0.016)	
Divorced	0.003	-0.013	-0.054	-0.105	0.064	-0.023	0.007	-0.006	-0.012	-0.019	-0.054	0.046	0.021	0.002	0.044	-0.008
(0.013)	(0.033)	(0.036)	(0.110)	(0.039)	(0.025)	(0.014)	(0.015)	(0.033)	(0.022)	(0.046)	(0.052)	(0.060)	(0.026)	(0.030)	(0.019)	
Widowed	0.067***	-0.018	0.058*	-0.148	0.139***	0.012	0.025	0.004	0.045	0.030	-0.019	-0.044	0.059	0.037	0.107***	0.022
(0.013)	(0.043)	(0.032)	(0.094)	(0.039)	(0.026)	(0.017)	(0.019)	(0.031)	(0.019)	(0.067)	(0.066)	(0.062)	(0.025)	(0.034)	(0.023)	
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	-0.072***	-0.015	-0.064	-0.066	-0.017	-0.115***	0.088***	-0.071***	-0.055**	-0.097***	-0.116**	-0.079	-0.117	-0.069***	-0.071	-0.005
(0.014)	(0.035)	(0.049)	(0.058)	(0.035)	(0.029)	(0.021)	(0.021)	(0.023)	(0.015)	(0.056)	(0.052)	(0.099)	(0.025)	(0.067)	(0.023)	
Unemployed	-0.015	-0.109	-0.008	-0.044	-0.005	-0.013	-0.034**	-0.053**	0.027	0.029	-0.009	-0.024	-0.148	-0.053	0.032	-0.109**
(0.013)	(0.067)	(0.038)	(0.076)	(0.047)	(0.019)	(0.017)	(0.023)	(0.045)	(0.028)	(0.078)	(0.053)	(0.120)	(0.033)	(0.042)	(0.054)	
Retired	0.014	0.012	0.062	-0.030	0.006	0.023	0.057**	0.017	0.033	0.010	-0.035	-0.051	-0.105*	-0.046**	0.126***	0.043*
(0.012)	(0.032)	(0.041)	(0.072)	(0.043)	(0.022)	(0.023)	(0.021)	(0.027)	(0.014)	(0.044)	(0.041)	(0.057)	(0.022)	(0.040)	(0.025)	
Other	-0.050***	-0.026	0.006	-0.066	-0.056	-0.008	-0.075***	-0.029	-0.029	-0.011	0.094**	0.045	-0.127**	-0.054	0.044	0.032
(0.016)	(0.060)	(0.045)	(0.093)	(0.057)	(0.023)	(0.017)	(0.022)	(0.037)	(0.037)	(0.038)	(0.044)	(0.044)	(0.058)	(0.039)	(0.034)	(0.022)
Missing	0.015		-0.039	-0.133									-0.089	-0.059		x4
(0.042)		(0.119)	(0.153)										(0.055)	(0.106)		
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	-0.006	-0.025	-0.016	-0.021	0.019	-0.039***	0.018*	0.009	-0.028	-0.017	0.011	0.014	0.001	-0.045**	-0.025	-0.024
(0.008)	(0.024)	(0.023)	(0.041)	(0.029)	(0.014)	(0.011)	(0.011)	(0.011)	(0.020)	(0.012)	(0.027)	(0.030)	(0.032)	(0.022)	(0.064)	(0.024)
High (ISCED 4-6)	-0.023**	-0.108***	-0.009	-0.030	-0.030	-0.058***	0.024*	0.006	-0.089***	-0.016	-0.074*	-0.033	0.053	-0.068***	-0.067	-0.031
(0.010)	(0.034)	(0.024)	(0.047)	(0.031)	(0.017)	(0.014)	(0.013)	(0.026)	(0.018)	(0.038)	(0.041)	(0.037)	(0.025)	(0.055)	(0.029)	
<b>Inheritance</b>																
Dummy	0.048***	0.033	0.000	0.064*	0.080***	0.024	x2	-0.019*	0.198***	x3	0.044*	0.055*	0.075	0.075***	0.098***	0.076***
(0.009)	(0.023)	(0.017)	(0.034)	(0.024)	(0.016)			(0.010)	(0.027)		(0.026)	(0.028)	(0.063)	(0.016)	(0.025)	(0.014)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	0.256***	0.011	0.573***	0.589***	0.010	0.614***	0.129***	0.134***	0.526***	0.492***	0.435***	0.688***	-0.001	0.482**	0.620***	0.392***
(0.010)	(0.036)	(0.036)	(0.070)	(0.024)	(0.032)	(0.020)	(0.015)	(0.040)	(0.022)	(0.058)	(0.055)	(0.060)	(0.030)	(0.039)	(0.038)	
Third Quintile	0.609***	0.466***	0.910***	0.693***	0.345***	0.670***	0.581***	0.755***	0.733***	0.906***	0.870***	0.823***	0.259***	0.746***	0.732***	0.409***
(0.012)	(0.065)	(0.021)	(0.064)	(0.038)	(0.032)	(0.017)	(0.016)	(0.041)	(0.011)	(0.047)	(0.043)	(0.068)	(0.027)	(0.040)	(0.039)	
Fourth Quintile	0.772***	0.828***	0.913***	0.658***	0.667***	0.678***	0.618***	0.890***	0.768***	0.963***	0.896***	0.848***	0.562***	0.815***	0.747***	0.396***
(0.010)	(0.055)	(0.028)	(0.075)	(0.036)	(0.032)	(0.016)	(0.012)	(0.041)	(0.007)	(0.039)	(0.055)	(0.058)	(0.021)	(0.033)	(0.039)	
Fifth Quintile	0.823***	0.879***	0.901***	0.697***	0.809***	0.691***	0.626***	0.926***	0.772***	0.974***	0.899***	0.823***	0.627***	0.835***	0.743***	0.408***
(0.010)	(0.046)	(0.030)	(0.077)	(0.042)	(0.033)	(0.017)	(0.012)	(0.043)	(0.006)	(0.036)	(0.055)	(0.052)	(0.022)	(0.033)	(0.038)	
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	-0.012	-0.024	-0.020	0.062	0.056	-0.021	0.051***	-0.023*	-0.028	-0.037**	0.059	-0.009	-0.001	-0.044**	-0.090***	-0.023
(0.012)	(0.032)	(0.032)	(0.061)	(0.043)	(0.021)	(0.015)	(0.012)	(0.019)	(0.014)	(0.054)	(0.036)	(0.061)	(0.019)	(0.032)	(0.015)	
Third Quintile	-0.020	-0.048	-0.009	0.025	0.015	-0.010	0.088***	-0.029	-0.046**	-0.068***	0.087*	-0.023	0.026	-0.047**	-0.090***	-0.022
(0.014)	(0.035)	(0.027)	(0.066)	(0.045)	(0.020)	(0.018)	(0.018)	(0.022)	(0.013)	(0.048)	(0.041)	(0.068)	(0.022)	(0.033)	(0.019)	
Fourth Quintile	-0.013	-0.100***	-0.001	0.080	0.014	-0.005	0.143***	-0.009	-0.053	-0.077***	0.126**	-0.031	0.068	-0.067**	-0.012	-0.024
(0.014)	(0.037)	(0.029)	(0.065)	(0.042)	(0.020)	(0.024)	(0.017)	(0.035)	(0.016)	(0.055)	(0.048)	(0.068)	(0.031)	(0.036)	(0.022)	
Fifth Quintile	-0.041***	-0.110***	-0.001	0.107	-0.001	-0.032	0.166***	-0.068**	-0.062*	-0.132***	0.060	-0.059	0.065	-0.086***	-0.041	-0.047
(0.016)	(0.035)	(0.032)	(0.077)	(0.048)	(0.025)	(0.028)	(0.019)	(0.033)	(0.020)	(0.060)	(0.059)	(0.062)	(0.031)	(0.038)	(0.029)	

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCs 2013

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

4) Slovakia has missing observations, but dummy is dropped due to perfect prediction.

<sup>21</sup> The one exception to this finding is France which has a negative coefficient (statistically significant at 10%-level) for the inheritance dummy.

There are also some interesting anomalies in which countries deviate in the observed relationships. For example, whereas the likelihood of owning the HMR for households with a self-employed reference person is significantly lower than for an employee in the euro area as a whole and in several individual countries, the estimate for Finland has the opposite sign (and is statistically significant).

Considering the model without making allowance for the wealth distribution (see appendix Table A3.1) we find that in particular the age and inheritance indicator are affected. So without controlling for net wealth values households with an older reference person and/or households that have inherited are much more likely to own the primary residence. These changes, however, are likely to be due to the fact that households with an older reference person and those having inherited are higher up in the wealth distribution. Additionally, in the model without the indicator for the wealth position the coefficients on the position of the income distribution display the expected positive sign. This is likely to be due to the positive correlation between income and wealth.

The estimates of the ownership of risky financial assets are reported in Table 8. Conditional on the other indicators households with dependent children are in general less likely to hold risky financial assets compared to single households in the euro area (not statistically significant in some countries). These estimates seem to suggest that single households display a different risk attitude than households with dependent children. Apart from the indicator of the wealth distribution, the likelihood of ownership of risky financial assets is very much correlated with education. As said above, the higher the level of education of the reference person of a household the more likely it is to hold these assets. The estimates are statistically significant (at least at the 10%-significance level) for the euro area as a whole and all countries except Cyprus, Malta and Slovakia in both education categories, Greece as well as the Netherlands in the middle education category, and Italy in the higher education category. Even conditioning on the wealth distribution, households are more likely to hold risky financial assets as income increases. This is consistent with intertemporal portfolio models with fixed costs; higher income and higher wealth are associated with greater demand for risky assets and, for given entry or participation costs, greater probability to overcome the threshold and decide that it is worthwhile to enter the asset market or remain in it. Especially for the highest income quintile the estimated average marginal effects are positive (exceptions are Slovenia and Slovakia with an insignificant negative estimate) and statistically significant. Inspecting the model without net wealth (Table A3.2 in the appendix) qualitatively similar results can be seen. Only the indicator for inheritances gains significance.

Table 8: Average marginal effects from a probit model of participation in risky financial assets

	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple	-0.065***	-0.045*	-0.064*	-0.127	-0.071**	-0.029	0.005	-0.084***	-0.002	-0.080***	-0.096	-0.009	-0.068	-0.088**	0.054	-0.000
w/o children	(0.013)	(0.027)	(0.035)	(0.131)	(0.034)	(0.032)	(0.017)	(0.016)	(0.022)	(0.027)	(0.064)	(0.073)	(0.063)	(0.035)	(0.068)	(0.020)
>=3 adults	-0.109***	-0.080**	-0.068	-0.080	-0.107***	-0.069**	-0.034	-0.144***	-0.002	-0.150***	-0.115*	0.024	-0.218***	-0.121***	0.010	0.009
w/o children	(0.015)	(0.032)	(0.052)	(0.158)	(0.040)	(0.034)	(0.029)	(0.024)	(0.024)	(0.030)	(0.069)	(0.092)	(0.075)	(0.041)	(0.072)	(0.028)
Single Parent	-0.014	-0.018	-0.109*	0.126	0.083	0.034	-0.011	-0.071***	-0.040**	-0.065	-0.206**	-0.035	-0.172	-0.041	-0.086	0.007
	(0.028)	(0.058)	(0.062)	(0.121)	(0.077)	(0.056)	(0.030)	(0.027)	(0.016)	(0.058)	(0.081)	(0.172)	(0.139)	(0.045)	(0.068)	(0.032)
Couple	-0.086***	-0.039	-0.064	-0.096	-0.077**	-0.042	-0.023	-0.094***	-0.012	-0.132***	-0.112*	0.040	-0.148**	-0.101**	0.076	0.005
with children	(0.015)	(0.034)	(0.040)	(0.132)	(0.039)	(0.040)	(0.020)	(0.020)	(0.028)	(0.031)	(0.066)	(0.086)	(0.065)	(0.041)	(0.077)	(0.022)
>=3 adults	-0.106***	-0.101***	-0.104*	-0.070	-0.150***	0.004	-0.067**	-0.133***	-0.002	-0.158***	-0.196**	0.025	-0.092	-0.122***	0.114	-0.001
with children	(0.019)	(0.037)	(0.062)	(0.173)	(0.045)	(0.054)	(0.032)	(0.024)	(0.033)	(0.031)	(0.080)	(0.105)	(0.103)	(0.041)	(0.088)	(0.032)
<b>Gender (Reference Person)</b>																
Male	0.015*	0.029*	0.007	0.065	-0.006	0.016	0.002	0.029**	-0.002	0.022	0.022	-0.099*	-0.003	0.023	0.036	0.008
	(0.008)	(0.016)	(0.024)	(0.051)	(0.024)	(0.019)	(0.012)	(0.012)	(0.016)	(0.014)	(0.038)	(0.051)	(0.033)	(0.015)	(0.036)	(0.013)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	-0.016	-0.019	-0.017	0.230***	-0.059**	0.036	-0.041***	-0.014	0.010	0.084***	0.004	-0.002	-0.000	-0.014	0.123**	0.002
	(0.012)	(0.023)	(0.037)	(0.047)	(0.030)	(0.022)	(0.015)	(0.014)	(0.013)	(0.015)	(0.039)	(0.056)	(0.046)	(0.023)	(0.035)	(0.013)
65 years and over	-0.009	-0.049	0.057	0.155	-0.029	0.099**	0.002	-0.026	0.043	0.047*	0.066	0.022	0.103	-0.016	0.149***	0.007
	(0.016)	(0.035)	(0.060)	(0.160)	(0.050)	(0.044)	(0.029)	(0.023)	(0.032)	(0.026)	(0.085)	(0.082)	(0.065)	(0.025)	(0.054)	(0.030)
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	-0.024**	-0.038	0.024	-0.019	-0.041	-0.048	-0.079***	-0.006	-0.000	-0.023	0.056	0.108	0.021	0.071***	-0.241***	-0.011
	(0.012)	(0.026)	(0.036)	(0.143)	(0.038)	(0.032)	(0.015)	(0.017)	(0.023)	(0.024)	(0.058)	(0.075)	(0.059)	(0.020)	(0.072)	(0.021)
Divorced	-0.040**	-0.037	0.033	-0.107	-0.070*	-0.084**	-0.048**	-0.007	0.043	-0.044*	0.070	0.034	0.071	0.022	-0.297**	0.004
	(0.015)	(0.027)	(0.050)	(0.105)	(0.039)	(0.036)	(0.020)	(0.021)	(0.045)	(0.026)	(0.056)	(0.077)	(0.067)	(0.024)	(0.081)	(0.026)
Widowed	-0.042***	-0.065*	-0.046	-0.140	-0.039	-0.061*	-0.063**	-0.005	-0.022	-0.002	0.018	0.170**	-0.039	-0.005	-0.284***	0.037
	(0.016)	(0.035)	(0.047)	(0.100)	(0.046)	(0.037)	(0.025)	(0.025)	(0.025)	(0.027)	(0.081)	(0.084)	(0.063)	(0.018)	(0.082)	(0.037)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	-0.036***	0.009	-0.069	-0.070	-0.067***	-0.032	0.039**	-0.043***	-0.016	-0.001	0.026	-0.057	0.004	-0.008	-0.038	0.007
	(0.009)	(0.027)	(0.049)	(0.062)	(0.026)	(0.026)	(0.017)	(0.016)	(0.018)	(0.016)	(0.051)	(0.056)	(0.044)	(0.019)	(0.080)	(0.021)
Unemployed	-0.029	0.040	0.001	-0.026	0.004	-0.032	-0.078***	-0.077**	x3	0.032	0.099	0.068	-0.111	0.002	-0.043	-0.028
	(0.020)	(0.062)	(0.068)	(0.102)	(0.066)	(0.027)	(0.025)	(0.026)		(0.050)	(0.084)	(0.127)	(0.111)	(0.032)	(0.068)	(0.045)
Retired	0.006	0.038	0.017	0.072	-0.030	-0.007	0.023	-0.041**	-0.028	0.083***	-0.033	0.014	-0.104**	0.008	-0.026	-0.030
	(0.010)	(0.029)	(0.047)	(0.153)	(0.035)	(0.033)	(0.025)	(0.019)	(0.021)	(0.017)	(0.063)	(0.070)	(0.051)	(0.020)	(0.050)	(0.023)
Other	0.036	0.044	-0.040	-0.141	0.061	-0.036	0.008	-0.055	x3	0.077	0.055	-0.081	0.039	-0.037	-0.188***	0.001
	(0.023)	(0.065)	(0.085)	(0.165)	(0.052)	(0.042)	(0.024)	(0.035)		(0.079)	(0.125)	(0.088)	(0.066)	(0.030)	(0.045)	(0.061)
Missing	-0.009		-0.087	0.302									0.019	x5		x5
	(0.041)		(0.150)	(0.296)									(0.059)			
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	0.037***	0.081***	0.093***	0.007	0.069*	0.075***	0.050***	0.025**	0.021	0.024**	0.111***	-0.007	0.059	0.052***	0.110**	-0.006
	(0.007)	(0.023)	(0.029)	(0.058)	(0.036)	(0.019)	(0.014)	(0.012)	(0.013)	(0.012)	(0.029)	(0.045)	(0.044)	(0.016)	(0.044)	(0.056)
High (ISCED 4-6)	0.095***	0.138***	0.139***	0.043	0.169***	0.133***	0.127***	0.060***	0.033**	0.013	0.242***	0.028	0.077*	0.104***	0.305***	0.038
	(0.011)	(0.036)	(0.034)	(0.065)	(0.043)	(0.019)	(0.016)	(0.015)	(0.013)	(0.018)	(0.045)	(0.053)	(0.043)	(0.019)	(0.061)	(0.058)
<b>Inheritance</b>																
Dummy	0.029***	0.023	0.054**	0.069	0.002	0.031*	x2	0.059***	-0.019	x4	0.037	0.142***	0.118***	0.037***	0.008	-0.006
	(0.009)	(0.017)	(0.022)	(0.042)	(0.019)	(0.016)		(0.009)	(0.011)		(0.032)	(0.039)	(0.046)	(0.012)	(0.034)	(0.013)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	0.063***	0.016	0.103***	0.022	0.051**	0.054***	0.138***	0.063***	0.012	0.113***	0.067	0.046	0.050	0.004	0.030	0.007
	(0.008)	(0.019)	(0.039)	(0.065)	(0.020)	(0.018)	(0.019)	(0.015)	(0.008)	(0.016)	(0.058)	(0.052)	(0.054)	(0.022)	(0.049)	(0.014)
Third Quintile	0.145***	0.108***	0.167***	0.046	0.185***	0.102***	0.202***	0.123***	0.020	0.132***	0.124**	0.146**	0.174***	0.041*	0.020	0.029
	(0.012)	(0.028)	(0.035)	(0.070)	(0.038)	(0.022)	(0.018)	(0.015)	(0.012)	(0.015)	(0.059)	(0.060)	(0.049)	(0.024)	(0.056)	(0.026)
Fourth Quintile	0.193***	0.135***	0.265***	0.071	0.203***	0.168***	0.269***	0.179***	0.043***	0.218***	0.145**	0.291***	0.231***	0.069***	0.135**	0.045
	(0.011)	(0.027)	(0.039)	(0.077)	(0.032)	(0.024)	(0.016)	(0.017)	(0.015)	(0.018)	(0.060)	(0.066)	(0.053)	(0.023)	(0.065)	(0.028)
Fifth Quintile	0.311***	0.243***	0.489***	0.199**	0.343***	0.293***	0.426***	0.282***	0.118***	0.283***	0.240***	0.395***	0.358***	0.144***	0.187***	0.070**
	(0.013)	(0.034)	(0.045)	(0.087)	(0.041)	(0.032)	(0.020)	(0.021)	(0.028)	(0.019)	(0.075)	(0.077)	(0.051)	(0.025)	(0.057)	(0.033)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	0.037***	0.019	0.106***	0.101	0.011	0.035	0.060***	0.058***	-0.015	0.073***	0.069	0.073	0.031	-0.006	0.024	-0.002
	(0.010)	(0.028)	(0.036)	(0.071)	(0.033)	(0.025)	(0.022)	(0.014)	(0.024)	(0.010)	(0.050)	(0.058)	(0.057)	(0.021)	(0.057)	(0.029)
Third Quintile	0.089***	0.055*	0.167***	0.123	0.098**	-0.005	0.117***	0.117***	-0.014	0.149***	0.159***	0.086	0.039	0.018	0.089	-0.000
	(0.014)	(0.030)	(0.042)	(0.081)	(0.043)	(0.028)	(0.023)	(0.015)	(0.027)	(0.015)	(0.054)	(0.061)	(0.050)	(0.024)	(0.058)	(0.025)
Fourth Quintile	0.126***	0.111***	0.156***	0.178**	0.107**	0.021	0.166***	0.178***	0.006	0.236***	0.231***	0.129*	0.092	0.036	-0.015	-0.033
	(0.013)	(0.036)	(0.035)	(0.073)	(0.039)	(0.029)	(0.026)	(0.017)	(0.025)	(0.021)	(0.056)	(0.071)	(0.057)	(0.023)	(0.061)	(0.025)
Fifth Quintile	0.211***	0.125***	0.155***	0.313***	0.202***	0.101***	0.290***	0.296***	0.018	0.345***	0.392***	0.132	0.123**	0.122**	-0.033	-0.026
	(0.016)	(0.035)	(0.039)	(0.087)	(0.052)	(0.032)	(0.030)	(0.023)	(0.028)	(0.026)	(0.068)	(0.082)	(0.057)	(0.027)	(0.056)	(0.027)

Standard errors in parentheses:

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) In Greece coefficients on the labor market status for "unemployed" and "other" cannot be estimated due to perfect prediction.

4) Italy does not collect information on inheritance.

The conditional participation in other real estate apart from the main residence shows two homogeneous patterns. As above in the model including the indicator for the position of a household in the wealth distribution (see Table A2.1 in the appendix) this

variable is taking up most of the variation in the data. In particular the top two quintiles are significant everywhere and have the expected positive sign. On top of that the dummy of inheritance shows a positive significant estimate in nine countries. Leaving out the wealth distribution, age and being self-employed is correlated positively (in the majority countries in a statistically significant way) with holding other real estate (see Table A3.3 in the appendix). For the case of owning a business obviously being self-employed (on top of the distribution of net wealth) plays the expected important role (see Table A2.2 for the model including and A3.4 excluding the net wealth distribution respectively).

#### **4.2.2 Determinants of asset values**

As in the section above, we present here the results from the tobit models for the level<sup>22</sup> of asset holdings in form of the primary residence and in form of risky financial assets. All remaining results can be inspected in the appendix.

Controlling for the wealth distribution, couples with dependent children (and three or more adults with dependent children) tend to have a higher value of the main residence compared to single households (some countries show a statistically insignificant effect and Cyprus, Finland and Malta seem to be exceptions with negative but statistically insignificant estimates; Table 9). This reflects the obvious need for more space of households with more household members. Furthermore, the inheritance dummy is as expected positive in the euro area as a whole and all countries but France. It is significant in most of the countries once the level of wealth is controlled for.

Quite interestingly, while we find some significant effects for other household characteristics for the euro area as a whole (e.g. age and marital status) there is no consistent pattern of significance for these covariates across countries, pointing towards diversity in the factors that influence the value of the primary residence in each country. Considering the model without the indicator for the wealth distribution (see Table A5.1 in the appendix) the significant correlations found here qualitatively remain and are supplemented with significant income and age correlations that now proxy for the missing level of wealth: households with an older reference person and higher income have a higher amount invested in the main residence.

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22 Using the inverse hyperbolic sine transformation, as was explained above.

Table 9: Tobit model for the value of the households' main residence

	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple	1.191***	0.757	0.479	-2.280	0.932	0.493	-0.229	0.530	1.631***	0.071	0.237	-0.749	0.249	0.415	2.230**	1.079***
w/o children	(0.280)	(0.639)	(0.606)	(1.612)	(0.973)	(0.313)	(0.272)	(0.405)	(0.483)	(0.316)	(0.889)	(0.773)	(1.290)	(0.556)	(0.893)	(0.325)
>=3 adults	0.931***	0.942	0.135	-1.781	1.840*	-0.115	-0.367	1.138**	1.793***	0.267	-1.222	-1.283	-0.664	0.699	2.460**	1.317***
w/o children	(0.325)	(0.918)	(0.734)	(1.702)	(1.083)	(0.382)	(0.370)	(0.501)	(0.587)	(0.441)	(1.117)	(1.023)	(2.312)	(0.673)	(0.970)	(0.418)
Single Parent	0.419	-0.154	0.927	0.983	0.188	0.225	-0.637	-0.187	0.805	0.669	-1.103	-0.421	0.313	1.044*	2.381**	0.407
(0.510)	(1.329)	(1.063)	(1.969)	(2.134)	(0.591)	(0.466)	(0.632)	(0.754)	(0.544)	(1.219)	(1.427)	(2.155)	(0.590)	(1.049)	(0.376)	
Couple	1.779***	1.952**	1.314*	-0.640	1.473	0.782**	0.533*	1.725***	1.716***	0.159	0.190	-0.652	2.874**	1.230**	2.786***	1.517***
with children	(0.283)	(0.868)	(0.698)	(1.801)	(1.037)	(0.373)	(0.302)	(0.447)	(0.520)	(0.360)	(1.018)	(0.888)	(1.397)	(0.622)	(0.850)	(0.396)
>=3 adults	1.425***	2.287**	1.101	-1.984	2.312	0.071	-0.341	0.929	1.867***	0.621	1.137	-0.368	3.397	0.858	2.419***	1.183***
with children	(0.376)	(1.003)	(0.980)	(1.963)	(1.483)	(0.491)	(0.439)	(0.668)	(0.660)	(0.516)	(1.428)	(0.938)	(2.073)	(0.768)	(0.757)	(0.443)
<b>Gender (Reference Person)</b>																
Male	0.048	-0.397	-0.242	-1.212**	0.025	0.108	-0.000	0.184	-0.049	-0.116	-1.585**	0.042	-0.175	-0.126	0.237	-0.018
(0.164)	(0.671)	(0.346)	(0.617)	(0.615)	(0.218)	(0.158)	(0.256)	(0.280)	(0.209)	(0.630)	(0.421)	(0.854)	(0.258)	(0.431)	(0.143)	
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	0.689***	-0.098	-0.068	-0.138	2.421***	0.071	0.087	0.685**	1.397***	-0.224	-0.816	-0.648	-3.526***	0.827*	0.009	0.802***
(0.181)	(0.590)	(0.538)	(0.731)	(0.735)	(0.301)	(0.269)	(0.326)	(0.383)	(0.336)	(0.634)	(0.430)	(0.643)	(1.040)	(0.430)	(0.529)	(0.201)
65 years and over	0.907***	0.327	-0.915	1.492	2.209*	0.218	-0.111	0.445	1.552***	0.178	-0.305	-1.093	-2.750*	1.100*	-0.014	0.693**
(0.281)	(0.804)	(0.681)	(1.730)	(1.184)	(0.394)	(0.317)	(0.584)	(0.520)	(0.384)	(0.872)	(0.727)	(1.501)	(0.578)	(0.682)	(0.353)	
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	1.114***	0.833	1.304**	0.896	3.536***	0.183	0.664***	0.532	-0.040	0.122	0.205	1.188	2.658**	0.648	0.194	0.214
(0.242)	(0.779)	(0.624)	(1.885)	(1.097)	(0.372)	(0.228)	(0.341)	(0.523)	(0.345)	(0.871)	(0.761)	(1.175)	(0.500)	(0.798)	(0.317)	
Divorced	0.543	-0.459	-0.575	-1.285	2.388*	-0.361	0.474*	0.107	-0.236	-0.315	-1.137	0.722	0.394	0.320	1.333	0.338
(0.337)	(0.971)	(0.705)	(1.733)	(1.244)	(0.418)	(0.277)	(0.387)	(0.647)	(0.436)	(0.993)	(0.976)	(1.542)	(0.476)	(1.002)	(0.367)	
Widowed	2.110***	-0.427	1.559**	-1.611	4.442***	0.483	0.931***	0.314	1.248**	0.544	-0.015	-1.118	1.660	0.851*	1.814**	1.027***
(0.340)	(1.060)	(0.687)	(1.409)	(1.153)	(0.393)	(0.253)	(0.440)	(0.542)	(0.333)	(1.075)	(0.900)	(1.480)	(0.443)	(0.825)	(0.374)	
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	-1.299***	-0.392	-0.825	-0.885	-0.320	-1.475***	1.232***	-1.470***	-0.717**	-1.862***	-2.866**	-1.177**	-2.689	-1.073***	-0.643	0.183
(0.262)	(0.752)	(0.638)	(0.890)	(0.845)	(0.343)	(0.283)	(0.433)	(0.336)	(0.279)	(1.271)	(1.271)	(0.513)	(1.925)	(0.345)	(0.818)	(0.238)
Unemployed	-0.108	-3.226	-0.184	-0.948	-0.304	-0.281	-0.991**	-1.405**	0.906	0.788	-0.436	-0.500	-2.794	-0.898	1.075	-2.487**
(0.298)	(2.044)	(0.896)	(1.267)	(1.517)	(0.405)	(0.390)	(0.592)	(0.974)	(0.665)	(6.833)	(0.726)	(2.382)	(0.576)	(0.958)	(1.134)	
Retired	-0.002	0.373	0.911*	-0.510	-0.263	0.012	0.571**	0.325	0.375	-0.053	-0.804	-0.797	-2.489**	-0.727**	1.859***	0.565**
(0.206)	(0.773)	(0.520)	(1.458)	(0.904)	(0.297)	(0.277)	(0.445)	(0.351)	(0.253)	(0.733)	(0.648)	(1.241)	(0.311)	(0.554)	(0.251)	
Other	-1.215**	-0.788	0.164	-1.740	-2.225	-0.126	-2.206***	-0.907	-0.706	-0.417	1.749	1.368	-2.894**	-1.000*	0.056	0.484
(0.340)	(1.696)	(0.923)	(1.774)	(1.775)	(0.354)	(0.336)	(0.565)	(0.476)	(0.618)	(1.066)	(1.011)	(1.435)	(0.594)	(1.187)	(0.330)	
Missing	0.535		-0.176	-2.499									-1.955*	-1.187		5.436***
(0.937)			(1.937)	(5.571)									(1.060)	(8.078)		(0.410)
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	-0.221	-0.677	-0.257	-0.288	0.428	-0.606**	0.157	0.184	-0.325	-0.323	0.226	0.109	0.037	-0.677*	-0.384	-0.558
(0.159)	(0.608)	(0.436)	(0.703)	(0.838)	(0.251)	(0.184)	(0.238)	(0.298)	(0.213)	(0.510)	(0.355)	(0.685)	(0.368)	(0.932)	(0.409)	
High (ISCED 4-6)	-0.433**	-2.788***	-0.146	-0.347	-0.774	-0.683***	0.191	0.227	-1.089***	-0.267	-1.256*	-0.396	1.644**	-0.803**	-0.782	-0.546
(0.191)	(0.861)	(0.437)	(0.768)	(0.872)	(0.251)	(0.211)	(0.300)	(0.415)	(0.306)	(0.732)	(0.489)	(0.737)	(0.375)	(0.790)	(0.426)	
<b>Inheritance</b>																
Dummy	1.256**	0.919*	0.010	0.943*	2.001***	0.212	x2	-0.419*	1.981***	x3	0.412	0.649*	0.899	0.790***	1.290***	0.887***
(0.166)	(0.518)	(0.291)	(0.501)	(0.600)	(0.191)			(0.230)	(0.240)		(0.372)	(0.358)	(1.080)	(0.199)	(0.293)	(0.118)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	7.469***	1.809	13.815***	11.048***	0.920	9.217***	2.935***	7.751***	11.211***	13.490***	12.342***	11.881***	-0.270	10.013***	9.193***	5.344***
(0.301)	(4.387)	(1.023)	(1.094)	(1.446)	(0.479)	(0.392)	(1.077)	(0.682)	(0.629)	(1.700)	(0.720)	(1.535)	(0.539)	(0.674)	(0.292)	
Third Quintile	14.127***	15.857***	19.094***	12.764***	11.612***	10.262***	11.416***	20.220***	14.234***	19.740***	19.823***	13.952***	6.534***	13.547***	10.636***	5.929***
(0.289)	(4.331)	(0.922)	(1.078)	(1.362)	(0.498)	(0.277)	(0.916)	(0.653)	(0.611)	(1.583)	(0.591)	(1.450)	(0.512)	(0.754)	(0.275)	
Fourth Quintile	17.029***	22.282***	19.419***	12.612***	18.056***	10.611***	11.907***	22.548***	15.099***	21.187***	20.628***	14.762***	12.680***	14.751***	11.092***	6.178***
(0.266)	(4.117)	(1.030)	(1.128)	(1.155)	(0.498)	(0.254)	(0.981)	(0.671)	(0.632)	(1.559)	(0.743)	(1.123)	(0.555)	(0.728)	(0.275)	
Fifth Quintile	18.184***	23.688***	19.531***	13.361***	20.517***	11.318***	12.030***	23.530***	15.568***	22.337***	21.310***	14.842***	13.857***	15.489***	11.555***	6.602***
(0.304)	(3.992)	(1.073)	(1.186)	(1.389)	(0.538)	(0.274)	(1.061)	(0.697)	(0.613)	(1.605)	(0.745)	(1.089)	(0.580)	(0.892)	(0.284)	
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	-0.286	-0.821	-0.360	1.128	1.702	-0.318	1.327**	-0.520	-0.519*	-1.169***	1.278	0.063	0.068	-0.705**	-0.881	-0.494*
(0.275)	(1.005)	(0.632)	(0.982)	(1.333)	(0.307)	(0.287)	(0.350)	(0.308)	(0.335)	(1.010)	(0.661)	(1.534)	(0.348)	(0.616)	(0.290)	
Third Quintile	-0.311	-1.474	-0.054	0.461	0.656	-0.066	2.193***	-0.552	-0.910**	-1.891**	1.622*	-0.190	1.235	-0.639*	-1.310**	-0.559*
(0.296)	(1.068)	(0.534)	(1.045)	(1.393)	(0.312)	(0.319)	(0.482)	(0.347)	(0.315)	(0.919)	(0.699)	(1.644)	(0.367)	(0.548)	(0.337)	
Fourth Quintile	-0.064	-2.690**	0.035	1.487	0.411	0.036	3.352***	-0.011	-1.050*	-1.955***	2.291**	-0.358	2.108	-0.925*	0.084	-0.632*
(0.298)	(1.101)	(0.521)	(1.006)	(1.316)	(0.331)	(0.369)	(0.447)	(0.551)	(0.353)	(1.019)	(0.693)	(1.468)	(0.518)	(0.869)	(0.347)	
Fifth Quintile	-0.365	-2.717***	-0.003	1.861*	0.336	-0.143	3.339***	-1.113**	-0.913*	-2.479***	1.495	-0.641	2.049	-1.079**	-0.159	-0.921**
(0.331)	(1.040)	(0.575)	(1.114)	(1.449)	(0.367)	(0.412)	(0.501)	(0.532)	(0.377)	(1.023)	(0.812)	(1.439)	(0.509)	(0.691)	(0.365)	
Constant	-10.823***	-10.234***	-8.024***	-0.465	-16.289***	1.697***	-3.108**	-12.177***	-5.684***	-6.530***	-6.873***	-1.145	-1.759	-4.174***	-1.793**	4.241***
(0.450)	(3.441)	(1.114)	(1.623)	(1.654)	(0.526)	(0.403)	(0.917)	(0.564)	(0.709)	(1.219)	(1.035)	(1.588)	(0.805)	(0.909)	(0.505)	
Sigma	5.985***	6.378***	4.559***	4.972***	7.123***	3.921***	5.116***	5.624***	4.115***	4.302***	5.195***	3.660***	7.248***	4.885***	2.987***	2.715***
(0.056)	(0.449)	(0.167)	(0.324)	(0.200)	(0.123)	(0.071)	(0.142)	(0.138)	(0.110)	(0.242)	(0.254)	(0.251)	(0.169)	(0.232)	(0.062)	

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.
- 3) Italy does not collect information on inheritance.

Turning to the tobit model for the value of risky financial assets (Table 10), the results suggest that the positions in the wealth and in the income distribution are both significantly correlated with the amount of exposure to risky financial assets, especially at the higher end. This holds for the euro area and most countries.

Furthermore, consistent with the nature of risky financial assets as information-intensive, there is a significant positive correlation between the level of education and the level of risky asset holdings. This positive correlation could also reflect a permanent income effect or differences in unemployment risk (background risk). The magnitudes involved are quite substantial. Households with the highest level of education have investments in this asset category more than four times as much as lower educated households in the euro area. In several countries the differences with respect to education levels are even more pronounced. In Austria, Germany, Spain, Greece, Luxembourg, Portugal, and Slovenia the holdings of highly educated households are about ten times higher relative to households where the reference person has a low level of education. We find that households with dependent children tend to hold a lower value of risky financial assets than do single households (this result is also in line with a lower extensive margin for these types of households, i.e. they do not only participate in this type of financial assets at a lower rate but also hold a lower level if they do in fact participate). Again these patterns are qualitatively not reversed in the model without the indicator for the net wealth distribution, although here also inheritance has a positive significant estimate in the euro area as well as in all countries but Greece, Slovenia and Slovakia (see Table A5.2 in the appendix). This arises, most likely, because having received inheritance acts as a proxy for the now missing level of wealth.

In the tobit model for the value of other real estate (see Table A4.1 in the appendix) the largest and in most countries significant coefficient (other than the indicator of the net wealth distribution) is the dummy on inheritance. The conditional mean value of other real estate in the euro area is five and a half times higher for households that have received an inheritance. This may be due to receipt of real estate assets other than the household main residence in the form of inheritance, or to a tendency to devote at least part of inheritances to acquiring other real estate. Self-employment of the reference person is another factor that has a positive and statistically significant impact on the mean value of other real estate held by euro area households. The same effect is also observed in 8 out of 15 countries (i.e. in Belgium, Cyprus, Finland, France, Italy, Luxembourg, Portugal, and Slovakia). This suggests that the tendency to take risks in one's own employment tends to correlate with the tendency to invest in real estate beyond the primary residence. Leaving out the wealth indicator in this model (Table A5.3 in the appendix) there is a substantial change in the estimates for age, the income distribution and to some extent the indicator for retirement, as these three variables now proxy for the missing wealth indicator.

Table 10: Tobit model for the value of risky financial assets

	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple	-3.253***	-3.261*	-2.075*	-4.757	-3.509**	-2.042	-0.094	-3.750***	2.134	-4.075***	-4.342*	-0.136	-2.392	-7.924***	3.514	0.159
w/o children	(0.585)	(1.690)	(1.179)	(3.430)	(1.483)	(1.710)	(0.417)	(0.650)	(4.464)	(1.350)	(2.401)	(2.355)	(2.337)	(2.581)	(2.801)	(3.515)
>=3 adults	-5.733***	-6.140**	-2.482	-4.940	-5.636***	-4.555**	-1.088	-6.964***	1.365	-8.171***	-5.108**	1.009	-10.428***	-12.082***	1.343	1.675
w/o children	(0.714)	(2.414)	(1.842)	(3.787)	(1.869)	(2.015)	(0.680)	(1.217)	(4.656)	(1.637)	(2.536)	(2.865)	(3.964)	(3.571)	(3.202)	(4.657)
Single Parent	-0.661	-1.189	-4.164*	2.142	3.519	1.516	-0.586	-3.128***	-11.199	-3.353	-9.863	-1.330	-7.663	-3.465	-4.423	1.147
(1.305)	(3.912)	(2.504)	(2.742)	(2.895)	(2.794)	(0.733)	(1.204)	(33.523)	(3.007)	(23.917)	(6.304)	(8.594)	(9.077)	(3.543)	(4.991)	
Couple	-4.516***	-2.859	-2.050	-4.413	-3.890**	-2.956	-0.996**	-4.436***	-0.122	-7.096***	-4.665*	1.225	-5.987**	-9.512***	4.309	0.986
with children	(0.690)	(2.166)	(1.406)	(3.287)	(1.803)	(2.251)	(0.465)	(0.812)	(6.132)	(1.663)	(2.414)	(2.725)	(2.591)	(3.424)	(3.185)	(3.864)
>=3 adults	-5.574***	-8.246**	-3.818*	-4.637	-8.279***	-0.542	-2.403***	-6.257**	2.171	-8.726***	-8.989**	0.561	-3.292	-12.365***	5.561*	-0.124
with children	(1.009)	(3.232)	(2.287)	(3.835)	(2.624)	(2.814)	(0.735)	(1.148)	(6.253)	(1.798)	(3.804)	(3.238)	(4.104)	(3.567)	(3.361)	(5.860)
<b>Gender (Reference Person)</b>																
Male	0.675	2.219**	0.226	1.725	-0.451	0.854	0.041	1.339***	0.255	1.141	0.877	-2.808*	-0.367	2.163	1.130	1.398
(0.413)	(1.114)	(0.866)	(1.243)	(1.078)	(1.124)	(0.274)	(0.503)	(3.290)	(0.760)	(1.522)	(1.530)	(1.312)	(1.397)	(1.350)	(2.181)	
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	-0.713	-1.255	-0.591	5.755***	-2.666**	2.497*	-0.950***	-0.506	3.578	4.870***	0.284	-0.098	0.197	-1.632	5.590***	0.388
(0.563)	(1.476)	(1.303)	(1.124)	(1.957)	(1.507)	(0.344)	(0.582)	(3.274)	(1.001)	(1.667)	(1.820)	(1.925)	(2.104)	(1.658)	(2.405)	
65 years and over	-0.350	-3.445	1.939	6.283**	-1.035	5.797**	0.057	-1.073	8.122	3.184**	3.317	0.686	4.225*	-1.624	6.418***	1.292
(0.769)	(2.524)	(1.908)	(3.179)	(2.202)	(2.424)	(0.659)	(1.012)	(5.010)	(1.524)	(3.182)	(2.578)	(2.557)	(2.372)	(2.220)	(4.991)	
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	-1.173**	-2.772*	0.468	1.137	-1.871	-2.645	-2.044***	-0.239	-2.927	-1.238	2.006	3.494	0.781	7.657***	-8.878***	-1.932
(0.556)	(1.663)	(1.274)	(3.427)	(1.664)	(1.753)	(0.344)	(0.719)	(5.214)	(1.240)	(2.121)	(2.507)	(2.342)	(2.115)	(2.383)	(3.658)	
Divorced	-2.019***	-2.632	1.219	-2.286	-3.511*	-5.128**	-1.323***	-0.405	4.514	-2.335	2.931	0.720	3.150	2.844	-11.450***	0.812
(0.739)	(1.812)	(1.713)	(2.422)	(1.835)	(2.321)	(0.489)	(0.931)	(5.252)	(1.431)	(2.494)	(2.743)	(2.409)	(2.822)	(3.015)	(3.956)	
Widowed	-2.262***	-4.979*	-2.333	-4.202*	-1.963	-3.650*	-1.691***	-0.269	-7.470	-0.116	0.354	5.632**	-1.722	-0.679	-11.363***	5.064
(0.799)	(2.801)	(1.735)	(2.455)	(2.095)	(2.097)	(0.614)	(0.166)	(21.958)	(1.395)	(3.664)	(2.616)	(2.689)	(2.639)	(2.911)	(4.283)	
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	-1.651***	0.664	-2.068	-1.642	-3.028**	-2.023	0.797**	-1.783***	-3.137	0.070	1.300	-1.691	0.103	-0.665	-1.663	1.084
(0.482)	(1.931)	(1.841)	(1.495)	(1.411)	(1.601)	(0.349)	(0.683)	(3.209)	(0.884)	(1.818)	(1.778)	(3.044)	(1.920)	(3.608)	(2.827)	
Unemployed	-1.445	3.160	0.323	-0.532	0.188	-1.894	-2.116***	-3.687***	-94.013***	1.510	3.948	2.761	-5.096	0.303	-1.766	-5.063
(1.115)	(4.070)	(2.446)	(2.355)	(3.200)	(1.787)	(0.682)	(1.384)	(6.176)	(2.760)	(34.771)	(3.987)	(5.552)	(3.347)	(2.804)	(10.386)	
Retired	0.464	2.915	0.401	-0.344	-1.228	-0.136	0.830	-1.556**	-4.957	4.318***	-0.860	0.573	-4.143*	0.710	-0.862	-5.907
(0.504)	(1.964)	(1.554)	(2.881)	(1.682)	(1.845)	(0.559)	(0.790)	(4.285)	(0.821)	(2.465)	(2.129)	(2.125)	(1.863)	(1.878)	(4.536)	
Other	1.874*	3.197	-1.524	-2.994	2.790	-2.375	0.182	-2.403	-1.857	4.268	2.113	-2.241	1.235	-4.413	-11.123***	0.064
(1.029)	(4.191)	(3.490)	(10.044)	(2.110)	(2.659)	(0.570)	(1.709)	(45.156)	(4.006)	(6.112)	(3.045)	(2.261)	(25.312)	(3.038)	(8.500)	
Missing	-0.373		-3.705	7.140								0.685	-56.248		-63.388***	
(2.109)		(12.451)	(12.833)									(2.101)	(39.272)		(5.128)	
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	2.032***	7.566***	3.109***	0.844	4.015*	5.265***	1.193***	1.180**	5.837*	1.328**	5.452***	-0.080	2.206	6.679***	6.242**	-0.791
(0.363)	(2.590)	(1.106)	(1.296)	(2.416)	(1.204)	(0.348)	(0.556)	(3.086)	(0.620)	(1.612)	(1.423)	(1.799)	(1.703)	(2.697)	(11.057)	
High (ISCED 4-6)	4.692***	10.915***	4.535***	1.729	8.123***	8.318***	2.967***	2.798***	7.760***	0.954	9.373***	0.751	3.227*	10.913***	12.423***	6.140
(0.484)	(2.956)	(1.156)	(1.394)	(2.567)	(1.098)	(0.351)	(0.645)	(3.001)	(0.909)	(1.757)	(1.465)	(1.760)	(1.667)	(2.751)	(11.223)	
<b>Inheritance</b>																
Dummy	1.440***	1.654	1.924**	1.143	0.127	1.956**	x2	2.685***	-3.566	x3	1.360	4.465***	4.686***	3.648***	0.310	-1.349
(0.402)	(1.202)	(0.801)	(0.928)	(0.846)	(0.926)		(0.407)	(2.289)			(1.246)	(1.201)	(1.570)	(1.161)	(1.332)	(2.153)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	6.074***	2.856	6.542***	1.702	5.346**	6.619***	4.463***	4.821***	8.330	11.603***	3.845	2.366	3.220	0.845	1.392	2.040
(0.830)	(3.271)	(2.355)	(1.505)	(2.197)	(2.007)	(0.569)	(1.161)	(18.482)	(1.738)	(3.227)	(2.257)	(3.554)	(4.005)	(2.428)	(4.259)	
Third Quintile	10.789***	11.751***	8.619***	2.378	12.832***	10.305***	5.991***	7.873***	10.977	12.720***	5.989*	6.109***	8.910***	6.473*	0.796	7.165*
(0.929)	(3.160)	(2.073)	(1.613)	(2.562)	(2.151)	(0.496)	(1.095)	(13.129)	(1.617)	(3.356)	(2.283)	(2.806)	(3.762)	(2.884)	(4.115)	
Fourth Quintile	12.997***	13.510***	12.734***	2.814*	13.568***	13.927***	7.721***	10.365***	16.491	16.996***	7.257**	10.296***	11.158***	9.332**	5.583**	9.686***
(0.827)	(3.004)	(2.121)	(1.708)	(2.345)	(1.931)	(0.442)	(1.147)	(13.371)	(1.585)	(3.285)	(2.195)	(2.846)	(3.538)	(2.513)	(3.341)	
Fifth Quintile	17.284***	18.939***	18.710***	6.211***	18.546***	19.118***	11.085***	13.913***	25.844*	19.447***	10.525***	12.745***	15.137***	14.943***	7.721***	12.848***
(0.841)	(3.123)	(2.058)	(1.709)	(2.357)	(2.004)	(0.509)	(1.161)	(13.254)	(1.618)	(3.232)	(2.356)	(2.700)	(3.444)	(2.025)	(3.238)	
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	2.490***	2.194	4.035**	2.645	0.411	2.231	1.811***	4.256***	-1.826	8.141***	4.530	2.682	1.151	-0.799	0.449	-0.061
(0.748)	(3.109)	(1.582)	(1.815)	(2.257)	(1.569)	(0.619)	(1.124)	(10.642)	(1.342)	(3.486)	(2.010)	(2.643)	(3.051)	(2.365)	(4.018)	
Third Quintile	5.375***	5.307*	6.196***	2.827	5.175**	-0.311	3.317***	7.283***	-2.634	12.838***	8.781***	3.229	1.315	2.473	2.810	-0.136
(0.934)	(2.934)	(1.654)	(2.065)	(2.503)	(1.949)	(0.618)	(1.110)	(11.008)	(1.606)	(2.994)	(2.074)	(2.271)	(3.244)	(2.245)	(3.469)	
Fourth Quintile	7.116***	9.069***	5.903***	4.530**	5.693**	1.304	4.514***	9.869***	1.869	16.749***	11.585***	4.469**	3.579	4.622	-1.240	-6.121
(0.797)	(3.002)	(1.433)	(1.760)	(2.248)	(1.827)	(0.662)	(1.092)	(10.466)	(1.863)	(2.873)	(2.264)	(2.391)	(2.958)	(2.623)	(3.744)	
Fifth Quintile	10.471***	9.937***	5.832***	6.973***	9.353***	5.674***	7.103***	13.624***	4.010	21.035***	16.171***	4.688*	4.868**	11.387***	-1.709	-4.600
(0.891)	(2.921)	(1.579)	(1.860)	(2.524)	(1.836)	(0.718)	(1.209)	(10.567)	(1.916)	(3.083)	(2.556)	(2.342)	(3.061)	(2.521)	(4.271)	
Constant	-27.734***	-36.202***	-22.236***	-11.665***	-23.114***	-30.681***	-10.571***	-23.202***	-51.305***	-38.920***	-26.720***	-16.351***	-18.629***	-38.666***	-17.850***	-34.026***
(1.139)	(3.565)	(2.230)	(2.529)	(3.382)	(2.839)	(0.639)	(1.311)	(16.386)	(2.260)	(3.741)	(2.458)	(4.637)	(4.684)	(4.899)	(12.268)	
Sigma	11.878***	13.654***	10.450***	8.062***	11.305***	13.100***	8.294***	10.822***	17.458***	12.567***	10.736***	10.543***	11.529***	14.460***	10.343***	16.301***
(0.124)	(0.431)	(0.279)	(0.374)	(0.347)	(0.333)	(0.078)	(0.140)	(0.892)	(0.196)	(0.402)	(0.407)	(0.363)	(0.500)	(0.594)	(0.633)	

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due no recorded inheritances.

3) Italy does not collect information on inheritance.

Confirming the finding from the probit model above, the labour market status, especially being self-employed, exhibits generally the highest marginal effect in the

model for business assets (see Table A4.2 in the appendix). This may be arising from a close relationship between ownership of businesses and employment in those businesses, or from a tendency to own a private business only if you are still working and able to monitor it. The significantly higher probability to own a private business if one belongs to the highest part of the wealth distribution is a finding that is consistent across all countries except for Portugal. For the euro area as a whole the four top quintiles are positive and significant. This is not reflected in the finding that for almost all countries only being at the highest (or second to highest) wealth quintile has a significantly positive coefficient. However, most large countries show a pattern similar to the euro area totals.

Finally, one can also look at the level of safe financial assets (recall that there is no probit model since almost all households hold this type of assets). Table A4.3 in the appendix reveals that the two indicators that are significant with a qualitatively similar pattern over (almost) all countries are the position in the wealth and income distribution. So households with a higher position in the income and the net wealth distribution in general also have substantially larger amounts in safe assets, along with higher amounts in all other types of assets, as we saw above. Somewhat surprisingly for low-risk, widely held assets, we find that the level of education is significant with a positive sign. This may be partly linked to a diminished tendency of the more educated to be unbanked, and from a greater tendency to save for retirement or to keep liquid assets in order to meet committed expenditures (such as children's education, mortgage payments, and the like). Having an unemployed reference person has the expected significantly negative coefficient in the euro area and most individual countries, reflecting the run-down of liquid assets induced by the effort to maintain expenditure commitments in a period with lower (or no) income inflows. For the euro area as a whole we obtain a few more statistically significant effects, e.g. for marital status and household structure. However, looking at results for individual countries, the other estimators are often statistically insignificant and their pattern is not consistent across countries.<sup>23</sup>

## **5 Cross country differences in estimated coefficients and institutional factors**

Identifying the sources of the differences in the estimated effects of the demographic variables on the conditional mean for certain assets across countries is not an easy task. Many environmental and institutional factors (culture, history, welfare state, housing and credit markets, financial institutions, etc.) are likely to affect wealth accumulation and portfolio choices of households. This section aims to shed some light on these potential sources of cross-country heterogeneity. To this end we focus on real estate and

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<sup>23</sup> For completeness the models for BUS and SAFE categories excluding the indicator for net wealth are reported in the appendix in Tables A5.4 and A5.5 respectively.

risky financial assets and examine the correlations<sup>24</sup> between the estimated marginal effects of the key socio demographic explanatory variables on the propensity to hold these assets (see above) and some institutional factors.<sup>25</sup> We adopt a pragmatic approach and choose to investigate the correlations between selected institutional factors and the estimated marginal effects of the following variables:<sup>26</sup> education and income on risky assets holding, age, net wealth, income and inheritances on housing decisions.

## 5.1 Cross country differences in real estate holdings

The decision to hold real estate in general and household main residence in particular, results from a dual role of this asset for households: as a generator of housing services, housing satisfies consumption needs, and being an asset, it is also driven by investment decisions. In addition, housing wealth plays also the role of household debt collateral as loans contracted for buying housing assets or for financing other needs (such as acquiring other assets or financing consumption spending) could be guaranteed by the value of the housing asset. This is why, when turning to cross-country comparisons, national specificities about the functioning of mortgage markets, the housing market conditions, the wealth taxation or the long term financing needs are likely to affect household decisions on real estate through their impact on the consumption or on the investment motives and through the collateral effect. These institutional factors may indeed induce the cross-country heterogeneity in the impact of the socio-demographic determinants of real estate assets discussed in the previous section. We investigate this link between the institutional context and the cross country heterogeneity in the estimated marginal effects by studying the correlations between institutional indicators (related to the buy/rent trade-off, the mortgage market and the wealth taxation) and the country specific marginal effects of net wealth, income, age and inheritance, both on the value of the household main residence and on the value of other real estate.

### 5.1.1 Mortgage markets

Household credit conditions vary across euro area (Bover et al., 2013) and mortgage markets exhibit differences in many aspects (European Commission, 2011). In particular, in some countries the use of mortgages to finance purposes other than buying the collateralised housing asset is widespread, while in other countries it is very rare. According to ECB (2009), the share of debt secured on housing assets which is used for other purposes than financing a new home varies from less than 1% in Luxembourg to 30% in Greece. We use this information as an indicator for the prevalence of the role of housing wealth as debt collateral (Table 11 and Table 12).

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24 Our approach is similar to Christelis et al. (2013), Bover et al. (2013) and Teppa et al. (2013). Given the limited number of countries for this analysis, one should interpret these with great caution.

25 See Appendix 6 for the definitions of the institutional indicators

26 These variables have been selected according to their significant estimated impacts obtained in the regressions, their links with the theoretical backgrounds of wealth accumulation and portfolio choices as well as according to their potential interactions with institutional factors.

A negative correlation is then obtained between this mortgage market indicator and the marginal effects of net wealth (4<sup>th</sup> and 5<sup>th</sup> quintiles) on the value of the household's main residence. This result is consistent with the idea that the impact of net wealth (excluding HMR) on investment in HMR is less important in countries where households use contracted mortgages to finance other purposes. It could reflect differences in credit constraints faced by households with respect to home acquisitions (and potentially through differences in down payment requirement, Chiuri and Jappelli, 2003) and the financing of other spending (consumption, repayment of unsecured debt).

Table 11: HMR - Correlations between estimated marginal effects and institutional indicators

	Net wealth				Income				Age		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	40-64	65 and over	
Mortgage market	0.174 <i>0.571</i>	-0.274 <i>0.365</i>	-0.474 <i>0.101</i>	-0.499 <i>0.082</i>	-0.184 <i>0.547</i>	-0.149 <i>0.626</i>	-0.116 <i>0.706</i>	-0.020 <i>0.949</i>	0.312 <i>0.299</i>	0.354 <i>0.236</i>	0.513 <i>0.107</i>
Housing price-to-rent ratio	0.140 <i>0.648</i>	-0.003 <i>0.991</i>	-0.124 <i>0.687</i>	-0.174 <i>0.571</i>	-0.181 <i>0.553</i>	0.209 <i>0.494</i>	0.274 <i>0.365</i>	0.275 <i>0.364</i>	-0.504 <i>0.079</i>	-0.657 <i>0.015</i>	-0.627 <i>0.039</i>
Inheritance tax on HMR	-0.378 <i>0.182</i>	0.100 <i>0.734</i>	0.297 <i>0.302</i>	0.323 <i>0.260</i>	0.019 <i>0.948</i>	0.139 <i>0.635</i>	0.163 <i>0.578</i>	0.069 <i>0.814</i>	-0.180 <i>0.539</i>	-0.312 <i>0.277</i>	-0.290 <i>0.361</i>
Pension -replacement rate	0.254 <i>0.403</i>	-0.225 <i>0.461</i>	-0.343 <i>0.251</i>	-0.344 <i>0.250</i>	-0.164 <i>0.592</i>	-0.149 <i>0.628</i>	-0.103 <i>0.738</i>	-0.069 <i>0.823</i>	0.077 <i>0.803</i>	0.206 <i>0.499</i>	0.335 <i>0.313</i>

*P* value in italics, cells with significant estimates are shaded.

Estimated marginal effects are taken from the tobit regression (Table 7) - see the definition of the institutional indicators in the appendix.

Table 12: Other real estate - Correlations between estimated marginal effects and institutional indicators

	Net wealth				Income				Age		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	40-64	65 and over	
Mortgage market	0.120 <i>0.696</i>	0.103 <i>0.739</i>	0.079 <i>0.798</i>	-0.008 <i>0.980</i>	0.024 <i>0.939</i>	0.147 <i>0.632</i>	-0.053 <i>0.863</i>	-0.123 <i>0.690</i>	-0.075 <i>0.808</i>	0.061 <i>0.844</i>	-0.338 <i>0.310</i>
Housing price-to-rent ratio	-0.007 <i>0.983</i>	-0.010 <i>0.974</i>	0.064 <i>0.835</i>	0.107 <i>0.727</i>	-0.115 <i>0.709</i>	-0.544 <i>0.054</i>	-0.500 <i>0.082</i>	-0.470 <i>0.105</i>	-0.016 <i>0.959</i>	-0.298 <i>0.323</i>	-0.046 <i>0.892</i>
Inheritance tax on HMR	0.156 <i>0.594</i>	0.181 <i>0.537</i>	0.229 <i>0.430</i>	0.311 <i>0.279</i>	0.225 <i>0.438</i>	0.072 <i>0.806</i>	0.251 <i>0.386</i>	0.211 <i>0.469</i>	0.312 <i>0.277</i>	0.195 <i>0.503</i>	0.237 <i>0.458</i>
Pension -replacement rate	0.142 <i>0.645</i>	0.080 <i>0.796</i>	0.028 <i>0.927</i>	-0.019 <i>0.952</i>	0.221 <i>0.468</i>	0.234 <i>0.442</i>	0.079 <i>0.798</i>	0.016 <i>0.958</i>	0.020 <i>0.948</i>	0.042 <i>0.892</i>	-0.326 <i>0.327</i>

*P* value in italics, cells with significant estimates are shaded.

Estimated marginal effects are taken from the tobit regression (Table A4.1) see the definition of the institutional indicators in the appendix.

The positive correlation between the marginal effects of inheritance and the mortgage market indicator is also likely to reflect a collateral effect. Having received inheritances increases the holding of the household main residence and this effect tends to be higher in countries where mortgage markets are largely developed, probably because assets received as inheritances can be used to finance home acquisition or other spending.

### 5.1.2 Buy-Rent trade-off and long term financing needs

Obviously, the housing markets and the relative prices for buying versus renting could lead to cross-country heterogeneity in the participation and in the values of the household main residence and of other housing assets. In particular, one suspects that

these market conditions may induce cross country heterogeneity in the impacts of households' resources (income and wealth) on the decision to hold housing assets.

Another source for cross country heterogeneity in the trade-off between renting versus buying could be the need to finance the household consumption in old age. In that respect, one could expect that holding assets in the form of real estate is linked to the expectations about the housing price evolution and the features of the pension systems.<sup>27</sup> The diversity in national contexts could lead to the very heterogeneous impacts of age on the value of the households' main residence: a positive increasing effect, a hump shaped profile or a decreasing effect depending on the country (Table 9). We investigate these possible underlying factors leading to cross-country heterogeneity in the tenancy choice trade off by considering two indicators, the price-to-rent ratio and the average pension replacement rate, and their links with the determinants of household main residence and other real estate (see Tables 11 and 12).

Concerning the determinants of household main residence, we obtain negative correlations between the price-to-rent ratio and age (40-64 and 65+). This correlation with the age variable indicates that the life-cycle profile of housing wealth (main residence) in a country is related to the housing market conditions, and in particular with the housing prices. We do not obtain such a significant correlation for the age profile of other real estate.

For other real estate, we find a negative correlation between the buy-to-rent ratio and the income marginal effects (which are estimated to be positive with large cross-country heterogeneity in the magnitude of the effects, excepted in Italy where the income levels are negatively related with the value of other real estate, see Table A4.1). This negative correlation between the buy-to-rent ratio and the income marginal effects could reflect that relative housing prices are likely to influence the households' investment in housing assets: an increase in the relative price to rent ratio decreases the rent yield and may reduce the incentive to invest savings in real estate.

The differences in correlations between the buy-to-rent ratio on the one hand and the age and income effects on the other hand, depending on the type of housing assets (household main residence and other real assets) is probably explained by the dual nature of housing assets, the household main residence being more related to housing consumption and other real estate being more driven by investment decisions.

Finally, one can conclude that we draw some hints on the links between the holding of real estate assets in the euro area and the mortgage and housing market conditions. These correlations tend to hold when considering simultaneously both indicators (see regression results in the appendix). We do not find evidence for the role of taxes,<sup>28</sup> and the negative correlation between the estimated marginal effects of inheritances and the price-to-rent ratio is unexpected, because in case of an increase in the price to rent ratio,

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27 One also could think about other institutional factors such as intergenerational cohabitation or housing equity withdrawal.

28 Various indicators for taxes have been tested: an indicator for inheritance tax wealth on HMR, the existence of the wealth tax in the country or the property tax

one would have expect a larger positive impact of having received intergenerational transfers in the past on the holding of HMR.

## 5.2 Cross country differences in risky financial assets holding

Institutional factors are also likely to affect households' decisions to invest in risky financial assets. In particular, one could suspect that cross-country heterogeneity in the households' capacities to gather and process financial information, local firms' demand for long-term financing or the existence of country-specific factors affecting risk perceptions and expectations at the household level could induce heterogeneity in the estimated marginal effects of the socio-demographic variables (Table 10). The correlation between various institutional factors and the estimated marginal effect of net wealth, income, education and inheritances are computed in Table 13.

Table 13: Risky financial assets - Correlations between estimated marginal effects and institutional indicators

	Net wealth				Income				Education		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	Middle	High	
Stock market capitalization	0.019	0.009	-0.126	-0.108	0.206	0.238	0.285	0.353	0.259	0.210	0.190
	<i>0.946</i>	<i>0.973</i>	<i>0.655</i>	<i>0.702</i>	<i>0.462</i>	<i>0.393</i>	<i>0.303</i>	<i>0.197</i>	<i>0.351</i>	<i>0.452</i>	<i>0.535</i>
Literacy	-0.129	-0.032	-0.178	-0.168	0.231	0.149	0.199	0.058	-0.243	-0.350	0.355
	<i>0.674</i>	<i>0.918</i>	<i>0.562</i>	<i>0.584</i>	<i>0.448</i>	<i>0.627</i>	<i>0.514</i>	<i>0.852</i>	<i>0.423</i>	<i>0.241</i>	<i>0.284</i>
Trust	0.291	0.364	0.257	0.214	0.076	0.130	0.207	0.115	-0.045	-0.176	0.083
	<i>0.293</i>	<i>0.183</i>	<i>0.355</i>	<i>0.443</i>	<i>0.788</i>	<i>0.644</i>	<i>0.458</i>	<i>0.682</i>	<i>0.875</i>	<i>0.530</i>	<i>0.787</i>
Confidence	0.186	0.303	0.290	0.257	0.042	-0.003	0.074	-0.083	-0.192	-0.311	0.313
	<i>0.524</i>	<i>0.293</i>	<i>0.315</i>	<i>0.374</i>	<i>0.887</i>	<i>0.992</i>	<i>0.802</i>	<i>0.777</i>	<i>0.511</i>	<i>0.280</i>	<i>0.322</i>
Internet access	-0.338	-0.236	-0.489	-0.488	0.138	0.193	0.143	0.066	-0.068	-0.113	0.652
	<i>0.259</i>	<i>0.439</i>	<i>0.090</i>	<i>0.091</i>	<i>0.653</i>	<i>0.529</i>	<i>0.640</i>	<i>0.830</i>	<i>0.826</i>	<i>0.712</i>	<i>0.030</i>
wealth tax	0.183	0.134	0.143	0.115	0.183	-0.043	0.037	0.127	-0.017	-0.052	0.166
	<i>0.515</i>	<i>0.633</i>	<i>0.611</i>	<i>0.682</i>	<i>0.514</i>	<i>0.879</i>	<i>0.896</i>	<i>0.651</i>	<i>0.952</i>	<i>0.853</i>	<i>0.587</i>
Pension -replacement rate	0.240	0.074	0.280	0.388	-0.373	-0.579	-0.323	-0.235	0.334	0.283	-0.503

*P values are in italics. Cells with significant estimates are shaded.*

*Estimated marginal effects are taken from the tobit regression (Table A4.1)- see the definition of the institutional indicators in the appendix.*

We find some evidence of a negative correlation between the share of households with an internet access in the country and the effect of net wealth. Such an effect is consistent with the idea that a better access to information lowers the entry and transaction costs so that households' resources play a less important role for the holding of risky financial assets.

There are also some hints with regard to the existence of a negative correlation between the income effects and the average pension replacement rate in the country, which could reflect that in countries with high replacement rate, households are less incited to invest in long term assets.

These correlations tend to be confirmed when running multivariate regressions (see the results in appendix 7). In addition, there is some weak evidence of a positive correlation between the level of trust in the country and the positive income effect on risky assets, consistent with results reported by Guiso et al. (2008).

## 6 Conclusions

This paper provides stylised facts on the asset composition of households in the euro area. The heterogeneity across euro area countries is sizeable, across a number of dimensions, such as income and wealth. Still, some facts of general validity can be uncovered.

Whereas ownership of the main residence varies strongly between countries, the value of the main residence is the major asset for those who own it and is a significant part of total assets in all countries including those with relatively low ownership rates. The vast majority of total assets consist of real assets. With regard to financial assets close to all households hold safe assets such as deposit or savings accounts while a rather low share of households holds risky assets such as stocks, bonds and mutual funds.

The ownership rates of all asset categories generally increase with wealth (and income). Ownership rates are uniformly high across all euro area countries in safe financial assets but diverge substantially on household main residence. Especially the share of risky financial asset holders rises sharply with net wealth but stays surprisingly low even for the highest net wealth deciles.

The significance of inheritances for wealth accumulation is remarkable and underlines its key role in the process of persistent wealth inequality.

Our analysis of the relationship between institutions and the impact of socio-demographics on asset holdings indicates that institutional factors can moderate the impact of some household characteristics on households' portfolio choices in different countries. Investigating institutional factors in more detail, in particular uncovering the mechanisms how they affect portfolio choice is a promising avenue for future research. The particularly large heterogeneity in home-ownership across the euro area seems an area worth further research. House price developments and mortgage indebtedness were key factors in the financial crisis so that home ownership has important macro-economic implications. Public policies such as mortgage interest tax deductability, subsidized housing, rent policies, taxation on house buying transactions and inheritance tax on homes are not only substantially different across countries they are also likely all playing a significant role in shaping the decisions of households. Disentangling the effects of a multitude of policies on household asset holding choices in a number of ways is certainly not easy. As more household wealth survey data becomes available, not only across countries but also across time one can hope that the role of public policies can be more robustly investigated.

## References

Bilias, Y., D. Georgarakos D. W. and Haliassos 2010. Portfolio Inertia and Stock Market Fluctuations. *Journal of Money, Credit, and Banking* 42(4), 715-42.

Burbidge, B.J., L. Magee and A.L. Robb 1988. Alternative transformations to handle Extreme Values of the Dependent Variable. *Journal of the American Statistical Association* 83(401), 123-127.

Campbell, J. 2006. Household Finance. *Journal of Finance* 61(4), 1553-1604.

Cox C. and O. Stark 2005. *Bequests, Inheritances and Family Traditions*. CRR Working Paper No. 2005-09, Boston, Mass.

Christelis, D., D. Georgarakos and M. Haliassos 2013. Differences in portfolios across countries: Economic environment or household characteristics? *The Review of Economics and Statistics* 95(1), 220-236.

Chiuri M.C. and T. Jappelli 2003. Financial market imperfections and home ownership: A comparative study. *European Economic Review* 47(5), 857-875.

Davies J.B. and A.F. Shorrocks 1999. The distribution of wealth. in: A.B. Atkinson and F. Bourguignon (edt.) *Handbook of Income Distribution: Volume 1*, 605-675

European Central Bank 2009. *Housing Finance in the Euro Area*. ECB Occasional Paper Series No.101, Frankfurt am Main.

European Commission 2011. *Study on the costs and benefits of different policy options for mortgage credit*. European Commission, Brussels.

Guiso, L., M. Haliassos and T. Jappelli 2002. *Household Portfolios*, MIT Press, Cambridge, Mass.

Guiso L., M. Haliassos and T. Jappelli 2003. Stockholding in Europe: Where Do We Stand and Where Do We Go? *Economic Policy* 18(36), 123-170.

Guiso, L., T. Jappelli and D. Terlizzese 1996. Income Risk, Borrowing Constraints, and Portfolio Choice. *American Economic Review* 86(1), 158-172.

Guiso L., P. Sapienza and L. Zingales 2008. Trusting the Stock Market, *Journal of Finance* 63(6), 2557-2600.

Haliassos M., 2003. Stockholding: Recent lessons from theory and computations. In: Guiso, L., M. Haliassos and T. Jappelli (eds.) *Stockholding in Europe*, Palgrave Macmillan Publishers.

Haliassos, M. and C. Bertaut 1995. Why Do So Few Hold Stocks? *The Economic Journal* 105, 1110-1129.

Heaton, J. and D. Lucas 2000. Portfolio Choice in the Presence of Background Risk. *The Economic Journal* 110, 1-26.

HFCN 2013a. *The Eurosystem Household Finance and Consumption Survey: Methodological report for the first wave*, ECB Statistical Paper Series No. 1, Frankfurt am Main.

HFCN 2013b. *The Eurosystem Household Finance and Consumption Survey: Results from the first wave*. ECB Statistical Paper Series No. 2, Frankfurt am Main.

Jappelli, T. 2010. Financial Literacy: an international comparison. *The Economic Journal* 120, 429-451.

OECD 2011. *Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries*. OECD Press, Paris.

Pence, K.M. 2006. The role of wealth transformations: An Application to estimating the effect of tax incentives on saving. *Contributions to Economic Analysis & Policy* 5(1), 20.

van Rooij, M., A. Lusardi and R. Alessie 2011. Financial literacy and stock market participation. *Journal of Financial Economics* 101(2), 449-472.

Sierminska E., Doorley K. 2012. Decomposing wealth portfolios across countries: An age-old question? *CEPS/INSTEAD WP No. 2012-32*, Luxemburg.

## Appendix 1: Results on the extensive and intensive margin

Table A1.1a: Participation rates for asset categories, in %

	HMR	ORE	BUS	SAFE	RISKY
<b>Euro area</b>	60.1	23.8	11.1	96.7	20.2
<b>Austria</b>	47.7	13.4	9.4	99.4	14.6
<b>Belgium</b>	69.6	16.4	6.6	97.9	30.7
<b>Cyprus</b>	76.7	51.6	19.5	85.9	36.3
<b>Germany</b>	44.2	17.8	9.1	99.1	23.0
<b>Spain</b>	82.7	36.2	14.2	98.2	14.0
<b>Finland<sup>1</sup></b>	69.2	29.8	13.8	100.0	38.7
<b>France</b>	55.3	28.5	8.9	99.6	21.7
<b>Greece</b>	72.4	37.9	9.8	73.9	4.0
<b>Italy</b>	68.7	24.9	18.0	91.9	19.8
<b>Luxembourg</b>	67.1	28.2	5.2	98.4	25.8
<b>Malta</b>	77.7	31.4	11.5	96.9	33.7
<b>Netherlands</b>	57.1	6.1	4.8	97.3	23.9
<b>Portugal</b>	71.5	27.1	7.7	94.3	6.5
<b>Slovenia</b>	81.8	23.2	11.6	93.6	20.3
<b>Slovakia</b>	89.9	15.3	10.7	91.5	4.1

Source: HFCS 2013.

Notes: HMR: Households main residence, ORE: Other real estates, BUS: Self-employment business, SAFE: Safe financial assets, RISKY: Risky financial assets.

<sup>1</sup> Finland collects information on BUS only in a summarizing way, estimates are not comparable.

Table A1.1b: Conditional median of asset categories, in EUR thousands

	HMR	ORE	BUS	SAFE	RISKY	TOTAL
<b>Euro area</b>	180.3	100.0	30.0	9.2	12.1	142.0
<b>Austria</b>	200.0	94.0	180.6	11.9	12.3	92.8
<b>Belgium</b>	250.0	174.0	50.0	20.7	20.1	249.9
<b>Cyprus</b>	240.3	202.2	98.8	18.3	2.0	331.9
<b>Germany</b>	168.0	115.0	19.4	13.2	12.1	67.9
<b>Spain</b>	180.3	120.2	50.8	5.1	12.0	210.2
<b>Finland<sup>1</sup></b>	127.8	107.6	0.9	5.7	3.7	132.7
<b>France</b>	193.8	96.1	53.1	8.9	8.1	150.4
<b>Greece</b>	100.0	61.9	36.2	3.9	7.3	110.2
<b>Italy</b>	200.0	100.0	15.0	7.4	22.4	188.0
<b>Luxembourg</b>	500.0	300.0	97.6	23.1	28.5	494.4
<b>Malta</b>	186.6	120.1	136.5	17.7	21.6	227.4
<b>Netherlands</b>	240.0	165.5	51.7	30.4	8.2	217.3
<b>Portugal</b>	90.0	53.5	47.1	3.8	8.9	93.2
<b>Slovenia</b>	110.9	52.4	25.5	1.1	3.4	105.2
<b>Slovakia</b>	55.9	16.4	4.6	2.3	1.1	64.4

Source: HFCS 2013.

Notes: HMR: Households main residence, ORE: Other real estates, BUS: Self-employment business, SAFE: Safe financial assets, RISKY: Risky financial assets.

<sup>1</sup> Finland collects information on BUS only in a summarizing way, estimates are not comparable.

## Appendix 2: Probit Models (including net wealth indicator)

**Table A2.1: Average marginal effects from a probit model of participation in other real estate**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	0.001 (0.012)	-0.008 (0.032)	0.023 (0.035)	0.141 (0.107)	-0.036 (0.033)	0.027 (0.029)	0.085*** (0.018)	-0.001 (0.020)	0.006 (0.041)	0.035 (0.024)	-0.063 (0.067)	-0.042 (0.072)	-0.017 (0.049)	0.017 (0.033)	0.031 (0.053)	-0.024 (0.043)
Three or more adults without children	0.008 (0.017)	-0.001 (0.049)	0.008 (0.047)	0.236* (0.135)	-0.047 (0.037)	-0.016 (0.035)	0.208*** (0.036)	0.010 (0.030)	0.060 (0.051)	0.092*** (0.030)	-0.030 (0.081)	0.011 (0.091)	-0.021 (0.062)	0.027 (0.038)	0.057 (0.069)	0.052 (0.051)
Single Parent	0.002 (0.020)	0.000 (0.065)	0.032 (0.051)	-0.065 (0.106)	0.031 (0.066)	0.030 (0.055)	0.001 (0.026)	-0.004 (0.027)	0.043 (0.074)	-0.055 (0.042)	-0.000 (0.094)	0.059 (0.178)	-0.018 (0.136)	-0.049 (0.043)	-0.173*** (0.047)	-0.007 (0.064)
Couple with dependent children	-0.002 (0.015)	-0.021 (0.036)	0.029 (0.042)	0.158 (0.117)	-0.034 (0.037)	0.028 (0.038)	0.051*** (0.017)	0.000 (0.020)	-0.005 (0.048)	0.038 (0.028)	-0.103 (0.066)	0.055 (0.092)	-0.015 (0.061)	-0.001 (0.039)	-0.004 (0.063)	0.011 (0.047)
Three or more adults with children	0.011 (0.019)	-0.008 (0.044)	0.038 (0.080)	0.106 (0.133)	-0.061 (0.045)	0.072 (0.045)	0.103*** (0.037)	0.019 (0.037)	0.048 (0.067)	0.077** (0.037)	-0.074 (0.084)	0.048 (0.088)	-0.086 (0.080)	0.010 (0.047)	0.098 (0.083)	-0.004 (0.056)
Gender (Reference Person)																
Male	-0.001 (0.009)	-0.003 (0.018)	0.033* (0.020)	0.028 (0.047)	-0.017 (0.020)	-0.037 (0.023)	0.025*** (0.008)	0.000 (0.012)	0.005 (0.026)	0.004 (0.015)	0.023 (0.041)	-0.033 (0.050)	-0.002 (0.022)	0.010 (0.014)	-0.079** (0.031)	-0.000 (0.024)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.039*** (0.009)	0.020 (0.033)	0.028 (0.049)	0.084* (0.025)	0.005 (0.026)	0.055** (0.012)	0.047*** (0.026)	0.027 (0.018)	0.007 (0.026)	0.083*** (0.021)	0.044 (0.045)	0.040 (0.052)	0.068*** (0.024)	0.017 (0.023)	0.192*** (0.028)	-0.012 (0.030)
65 years and over	0.030** (0.014)	0.026 (0.033)	0.021 (0.043)	-0.075 (0.122)	0.010 (0.044)	0.021 (0.039)	0.054** (0.022)	-0.009 (0.030)	0.016 (0.045)	0.093*** (0.029)	0.126 (0.083)	0.107 (0.084)	0.037 (0.035)	0.048 (0.030)	0.312*** (0.059)	-0.071 (0.048)
Marital Status (Reference Person) [Base: Unmarried]																
Married	0.013 (0.013)	-0.000 (0.027)	-0.054 (0.034)	-0.113 (0.095)	0.038 (0.033)	-0.003 (0.032)	-0.033** (0.015)	0.027 (0.020)	-0.012 (0.036)	-0.004 (0.027)	0.117** (0.055)	0.016 (0.059)	0.073* (0.041)	0.003 (0.023)	-0.068 (0.062)	0.001 (0.052)
Divorced	0.003 (0.015)	0.011 (0.035)	0.013 (0.047)	-0.024 (0.089)	0.036 (0.032)	-0.047 (0.038)	-0.011 (0.016)	0.002 (0.023)	-0.003 (0.056)	-0.046 (0.032)	0.065 (0.055)	0.098 (0.103)	-0.001 (0.028)	-0.010 (0.033)	-0.201*** (0.066)	0.065 (0.051)
Widowed	-0.026** (0.013)	0.027 (0.041)	-0.021 (0.053)	-0.109 (0.085)	-0.014 (0.032)	-0.105*** (0.036)	-0.063*** (0.023)	0.011 (0.025)	-0.053 (0.049)	-0.039* (0.024)	0.033 (0.063)	-0.040 (0.084)	-0.016 (0.024)	0.019 (0.034)	-0.171** (0.067)	0.016 (0.055)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.055** (0.013)	0.037 (0.028)	0.104** (0.050)	0.101* (0.057)	0.028 (0.026)	0.032 (0.033)	0.085*** (0.015)	0.059*** (0.020)	0.028 (0.032)	0.093*** (0.021)	0.102* (0.058)	0.059 (0.057)	0.084 (0.089)	0.064*** (0.023)	0.105 (0.068)	0.057 (0.038)
Unemployed	-0.033** (0.016)	0.032 (0.068)	-0.050 (0.042)	0.038 (0.114)	-0.070 (0.059)	0.017 (0.036)	-0.046** (0.021)	-0.095*** (0.025)	-0.076 (0.090)	-0.059 (0.041)	x5 (0.193)	-0.073 (0.169)	0.130 (0.039)	-0.022 (0.053)	-0.074 (0.053)	0.012 (0.089)
Retired	0.015 (0.012)	-0.006 (0.023)	0.048 (0.031)	0.048 (0.108)	0.019 (0.032)	0.077** (0.030)	0.018 (0.018)	-0.002 (0.023)	0.002 (0.035)	-0.016 (0.016)	-0.043 (0.053)	0.047 (0.060)	0.016 (0.028)	0.021 (0.028)	-0.056 (0.044)	0.131*** (0.041)
Other	-0.023 (0.017)	x2 (0.063)	-0.034 (0.090)	-0.008 (0.047)	-0.012 (0.034)	0.056 (0.017)	-0.012 (0.028)	-0.075*** (0.028)	-0.096 (0.066)	-0.074* (0.045)	-0.199** (0.081)	-0.077 (0.083)	-0.024 (0.022)	0.056 (0.049)	-0.125** (0.064)	0.078 (0.089)
Missing	-0.005 (0.043)	-0.009 (0.076)	0.263 (0.189)										-0.007 (0.024)	0.085 (0.140)		x8
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	-0.015** (0.006)	-0.016 (0.025)	0.003 (0.029)	0.071 (0.049)	0.059** (0.028)	-0.014 (0.029)	0.007 (0.012)	0.000 (0.012)	-0.075** (0.030)	-0.010 (0.014)	-0.057 (0.039)	0.045 (0.038)	0.001 (0.022)	-0.035* (0.021)	0.000 (0.038)	-0.168** (0.082)
High (ISCED 4-6)	0.017* (0.010)	0.052 (0.034)	-0.009 (0.026)	-0.008 (0.054)	0.099*** (0.034)	-0.032 (0.023)	0.000 (0.012)	0.008 (0.015)	-0.060* (0.033)	0.044** (0.019)	0.025 (0.053)	0.048 (0.053)	0.063** (0.027)	0.033 (0.029)	0.041 (0.060)	-0.056 (0.090)
Inheritance																
Dummy	0.098*** (0.008)	0.104*** (0.015)	0.041** (0.018)	0.171*** (0.037)	0.046*** (0.013)	0.222*** (0.017)	x3 (0.011)	0.118*** (0.022)	-0.028 (0.022)	x4 (0.054)	0.054 (0.036)	0.072* (0.037)	0.042 (0.030)	0.164*** (0.017)	0.107*** (0.030)	0.030 (0.020)
Net Wealth Distribution [Base: First Quintile]																
Second Quintile	0.063*** (0.008)	0.001 (0.030)	0.073** (0.031)	0.174*** (0.061)	-0.022 (0.020)	0.099** (0.039)	0.042*** (0.009)	0.062*** (0.014)	0.184*** (0.024)	0.139*** (0.015)	0.171** (0.068)	0.101** (0.045)	x6 (0.058)	0.104*** (0.020)	x7 (0.031)	0.092*** (0.031)
Third Quintile	0.131*** (0.009)	0.067** (0.029)	0.040 (0.024)	0.344*** (0.082)	0.035 (0.027)	0.174*** (0.032)	0.186*** (0.014)	0.209*** (0.017)	0.232*** (0.029)	0.143*** (0.014)	0.083 (0.062)	0.195*** (0.058)		0.154*** (0.027)		0.179*** (0.041)
Fourth Quintile	0.216*** (0.013)	0.126*** (0.035)	0.133*** (0.030)	0.422*** (0.077)	0.110*** (0.032)	0.295*** (0.038)	0.402*** (0.015)	0.284*** (0.020)	0.392*** (0.040)	0.236*** (0.015)	0.138** (0.067)	0.370*** (0.057)		0.231*** (0.026)		0.147*** (0.036)
Fifth Quintile	0.453*** (0.015)	0.222*** (0.042)	0.371*** (0.039)	0.660*** (0.077)	0.312*** (0.044)	0.517*** (0.036)	0.667*** (0.015)	0.545*** (0.024)	0.700*** (0.030)	0.528*** (0.023)	0.488*** (0.074)	0.586*** (0.065)		0.497*** (0.033)		0.332*** (0.042)
Income Distribution [Base: First Quintile]																
Second Quintile	-0.002 (0.011)	0.042 (0.029)	-0.027 (0.035)	0.008 (0.064)	-0.029 (0.029)	0.071*** (0.024)	-0.014 (0.020)	0.008 (0.018)	-0.008 (0.033)	-0.035 (0.023)	0.030 (0.071)	-0.001 (0.056)	0.009 (0.046)	-0.011 (0.028)	0.178*** (0.047)	0.019 (0.035)
Third Quintile	0.011 (0.013)	0.043* (0.025)	-0.038 (0.038)	0.013 (0.071)	0.030 (0.034)	0.080*** (0.023)	0.000 (0.021)	-0.002 (0.024)	0.051 (0.038)	-0.050** (0.025)	0.051 (0.070)	0.040 (0.064)	-0.040 (0.045)	-0.009 (0.031)	0.199*** (0.051)	0.094** (0.045)
Fourth Quintile	0.033** (0.015)	0.066** (0.027)	0.018 (0.044)	-0.007 (0.074)	0.081** (0.039)	0.127*** (0.035)	-0.005 (0.021)	0.003 (0.022)	0.015 (0.042)	-0.073*** (0.024)	0.072 (0.070)	0.008 (0.059)	-0.011 (0.042)	0.018 (0.033)	0.123*** (0.045)	0.121** (0.050)
Fifth Quintile	0.051*** (0.016)	0.118*** (0.030)	0.046 (0.046)	0.129 (0.082)	0.087* (0.046)	0.161*** (0.040)	-0.022 (0.021)	0.028 (0.023)	0.025 (0.041)	-0.063** (0.026)	0.102 (0.077)	0.024 (0.069)	0.000 (0.042)	0.038 (0.031)	0.280*** (0.064)	0.142** (0.061)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) In Austria "other" labor status perfectly predicts failure and is dropped from the estimation.
- 3) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.
- 4) Italy does not collect information on inheritance.
- 5) In Luxembourg "unemployed" labor status perfectly predicts failure and is dropped from the estimation.
- 6) In the Netherlands there is no observation in the first wealth quintile holding other real estate, hence quintiles are dropped.
- 7) In Slovenia there is no observation in the first wealth quintile holding other real estate, hence quintiles are dropped.
- 8) In Slovakia there are missing observations in the labour market status, but due to perfect prediction the dummy is dropped.

Table A2.2: Average marginal effects from a probit model of participation in business ownership

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	0.024*** (0.007)	0.017 (0.020)	0.019 (0.018)	-0.035 (0.094)	0.034** (0.016)	0.013 (0.017)	0.028* (0.014)	0.030*** (0.009)	0.007 (0.010)	0.030*** (0.027)	0.026 (0.112)	-0.105 (0.112)	0.031 (0.030)	0.002 (0.021)	x12	-0.068** (0.032)
Three or more adults without children	0.055*** (0.009)	0.065** (0.029)	0.023 (0.035)	0.022 (0.106)	0.035* (0.019)	0.036 (0.023)	0.017 (0.025)	0.045*** (0.015)	0.036** (0.018)	0.118*** (0.021)	0.008 (0.026)	-0.113 (0.115)	x8	0.015 (0.024)		-0.030 (0.037)
Single Parent	0.002 (0.009)	0.003 (0.042)	0.021 (0.044)	-0.081 (0.093)	0.014 (0.030)	-0.042** (0.020)	0.018 (0.027)	-0.007 (0.010)	-0.025** (0.012)	0.008 (0.016)	-0.012 (0.023)	-0.089 (0.143)	-0.007 (0.060)	-0.041 (0.047)		-0.010 (0.034)
Couple with dependent children	0.029*** (0.007)	-0.002 (0.018)	0.012 (0.018)	-0.026 (0.093)	0.032* (0.018)	0.020 (0.020)	0.029* (0.017)	0.044*** (0.010)	0.025* (0.014)	0.053*** (0.015)	0.019 (0.025)	-0.135 (0.112)	-0.002 (0.026)	0.003 (0.022)		-0.065** (0.032)
Three or more adults with children	0.045*** (0.009)	0.046* (0.027)	-0.006 (0.029)	-0.017 (0.096)	0.055* (0.030)	0.023 (0.025)	-0.065*** (0.019)	0.070*** (0.016)	0.034* (0.020)	0.095*** (0.019)	0.060 (0.044)	-0.112 (0.123)	0.048 (0.078)	-0.009 (0.022)		-0.059 (0.038)
Gender (Reference Person)																
Male	-0.017*** (0.004)	-0.021 (0.013)	-0.013 (0.016)	0.052 (0.032)	-0.015 (0.012)	-0.023** (0.012)	-0.013* (0.008)	-0.024*** (0.006)	-0.029*** (0.010)	-0.011 (0.011)	-0.020 (0.019)	-0.045 (0.034)	0.009 (0.017)	-0.010 (0.012)	-0.054*** (0.019)	-0.018 (0.016)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	-0.010 (0.006)	0.002 (0.017)	-0.014 (0.019)	-0.057 (0.038)	0.020 (0.017)	-0.036** (0.018)	0.052*** (0.010)	-0.021** (0.008)	-0.023* (0.013)	-0.011 (0.014)	-0.020 (0.027)	-0.014 (0.036)	-0.009 (0.027)	-0.029*** (0.011)	-0.026 (0.022)	-0.017 (0.015)
65 years and over	-0.031*** (0.007)	-0.005 (0.025)	-0.034 (0.026)	-0.137 (0.137)	-0.023 (0.019)	-0.047 (0.029)	0.067*** (0.020)	-0.031** (0.012)	-0.029 (0.025)	-0.027 (0.017)	-0.045 (0.034)	-0.066 (0.054)	-0.040 (0.043)	-0.012 (0.024)	-0.053* (0.032)	-0.020 (0.039)
Marital Status (Reference Person) [Base: Unmarried]																
Married	0.008 (0.007)	-0.005 (0.018)	0.022 (0.019)	0.039 (0.067)	0.009 (0.017)	0.027* (0.015)	0.024* (0.014)	0.004 (0.008)	0.017 (0.014)	-0.004 (0.020)	0.006 (0.025)	0.107 (0.082)	-0.018 (0.026)	0.032** (0.015)	0.076*** (0.025)	0.021 (0.021)
Divorced	0.012 (0.008)	-0.019 (0.021)	0.038 (0.026)	0.170** (0.068)	0.021 (0.019)	-0.011 (0.019)	-0.006 (0.015)	0.005 (0.011)	0.010 (0.023)	0.045 (0.032)	0.009 (0.027)	0.058 (0.044)	-0.007 (0.049)	0.028 (0.022)	0.015 (0.018)	-0.016 (0.017)
Widowed	-0.016* (0.009)	-0.029 (0.038)	-0.024 (0.019)	0.125 (0.085)	-0.001 (0.035)	-0.004 (0.020)	0.021 (0.021)	-0.022** (0.010)	-0.024** (0.012)	-0.011 (0.026)	0.068 (0.064)	x12	-0.009 (0.104)	-0.004 (0.022)	x12	-0.046* (0.026)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.639*** (0.018)	0.349*** (0.057)	0.457*** (0.053)	0.404*** (0.061)	0.539*** (0.050)	0.765*** (0.031)	0.168*** (0.017)	0.629*** (0.030)	0.244*** (0.030)	x4	0.318*** (0.075)	0.538*** (0.086)	0.472*** (0.128)	0.272*** (0.031)	0.657*** (0.110)	0.675*** (0.065)
Unemployed	-0.020*** (0.006)	-0.005 (0.060)	-0.004 (0.026)	-0.067 (0.048)	x2	-0.032** (0.013)	-0.012 (0.022)	-0.016 (0.014)	0.016 (0.018)	0.034 (0.033)	x6	0.034 (0.138)	x9	-0.017 (0.016)	0.016 (0.031)	x12
Retired	-0.004 (0.006)	-0.028** (0.012)	-0.011 (0.014)	-0.057 (0.121)	0.004 (0.015)	0.003 (0.024)	0.020 (0.018)	-0.019** (0.008)	0.017 (0.017)	0.010 (0.013)	-0.001 (0.018)	0.039 (0.040)	-0.009 (0.025)	-0.025** (0.011)	0.004 (0.027)	0.033 (0.026)
Other	-0.002 (0.010)	-0.010 (0.057)	0.052 (0.055)	x12	-0.004 (0.023)	-0.020 (0.024)	-0.024* (0.014)	-0.023** (0.010)	0.042 (0.031)	0.002 (0.028)				0.036 (0.050)	x11	0.046 (0.058)
Missing	0.068* (0.039)		-0.029*** (0.008)	-0.115* (0.069)										0.068 (0.042)	0.280 (0.199)	x12
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.003 (0.004)	-0.013 (0.018)	0.017 (0.015)	0.003 (0.047)	0.013 (0.016)	0.018 (0.013)	-0.000 (0.011)	0.006 (0.007)	-0.014 (0.012)	-0.003 (0.009)	0.009 (0.017)	0.006 (0.027)	0.023 (0.019)	0.010 (0.013)	0.000 (0.045)	-0.015 (0.029)
High (ISCED 4-6)	0.008 (0.005)	-0.019 (0.024)	0.029* (0.015)	-0.051 (0.044)	0.024 (0.019)	0.002 (0.011)	-0.007 (0.012)	-0.002 (0.009)	-0.033*** (0.012)	0.015 (0.016)	0.006 (0.020)	0.007 (0.031)	0.064** (0.027)	-0.016 (0.011)	-0.027 (0.050)	0.025 (0.037)
Inheritance																
Dummy	0.015*** (0.005)	0.013 (0.010)	0.015 (0.009)	-0.051 (0.035)	0.025** (0.011)	0.016* (0.009)	x3	0.000 (0.005)	-0.009 (0.006)	x5	0.003 (0.013)	0.033 (0.027)	0.064** (0.028)	0.011 (0.010)	-0.022* (0.013)	-0.019 (0.013)
Net Wealth Distribution [Base: First Quintile]																
Second Quintile	0.030*** (0.006)	0.012 (0.019)	0.033 (0.022)	0.001 (0.042)	0.054*** (0.021)	-0.001 (0.012)	0.033*** (0.012)	0.034*** (0.011)	0.025*** (0.008)	0.033** (0.016)	0.008 (0.024)	x7	x10	0.031*** (0.011)	0.009 (0.019)	0.007 (0.016)
Third Quintile	0.034*** (0.005)	0.025 (0.018)	0.044* (0.024)	0.118** (0.052)	0.046*** (0.017)	0.014 (0.014)	0.090*** (0.012)	0.051*** (0.010)	0.023** (0.009)	0.022** (0.011)	0.002 (0.026)			0.043*** (0.011)	0.015 (0.029)	0.008 (0.016)
Fourth Quintile	0.035*** (0.006)	0.045** (0.019)	0.055*** (0.020)	0.130** (0.061)	0.020 (0.016)	0.040*** (0.013)	0.108*** (0.013)	0.061*** (0.011)	0.030*** (0.008)	0.012 (0.009)	0.044* (0.025)			0.056*** (0.010)	0.037 (0.027)	0.016 (0.022)
Fifth Quintile	0.087*** (0.008)	0.179*** (0.041)	0.114*** (0.031)	0.405*** (0.068)	0.064*** (0.018)	0.089*** (0.023)	0.144*** (0.014)	0.146*** (0.016)	0.050*** (0.013)	0.052*** (0.014)	0.109** (0.044)			0.172*** (0.025)	0.124* (0.072)	0.060** (0.027)
Income Distribution [Base: First Quintile]																
Second Quintile	0.002 (0.007)	-0.011 (0.024)	0.018 (0.019)	0.030 (0.053)	0.003 (0.025)	0.023 (0.015)	-0.002 (0.014)	-0.011 (0.014)	0.000 (0.006)	0.006 (0.010)	0.012 (0.028)	0.047 (0.041)	-0.021 (0.045)	0.015 (0.018)	-0.002 (0.023)	0.004 (0.019)
Third Quintile	0.013 (0.008)	0.011 (0.027)	0.062*** (0.024)	0.107* (0.056)	0.008 (0.022)	0.039*** (0.013)	-0.008 (0.015)	-0.029** (0.013)	0.011 (0.012)	0.028** (0.011)	0.020 (0.028)	0.036 (0.043)	0.020 (0.042)	0.013 (0.019)	0.015 (0.021)	0.034 (0.024)
Fourth Quintile	0.016** (0.007)	0.008 (0.024)	0.039** (0.019)	0.059 (0.058)	0.017 (0.022)	0.061*** (0.016)	0.007 (0.016)	-0.037*** (0.013)	0.023** (0.012)	0.038*** (0.011)	0.017 (0.023)	0.068 (0.048)	-0.010 (0.036)	0.003 (0.019)	0.026 (0.019)	0.048 (0.029)
Fifth Quintile	0.034*** (0.008)	0.008 (0.024)	0.042** (0.020)	0.083 (0.057)	0.054** (0.028)	0.047*** (0.017)	0.065*** (0.020)	-0.037*** (0.013)	0.041*** (0.014)	0.087*** (0.015)	0.027 (0.029)	0.127** (0.056)	0.004 (0.039)	0.009 (0.018)	0.029 (0.033)	0.076** (0.039)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) In Germany "unemployment" labor status perfectly predicts and is dropped from the estimation.
- 3) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.
- 4) In Italy "self-employment" labor status perfectly predicts success and is dropped from the estimation.
- 5) Italy does not collect information on inheritance.
- 6) In Luxembourg "unemployment" and "other" labor status perfectly predicts and is dropped from the estimation.
- 7) In Malta in the first wealth quintile there is no observation in some indicators, so it is removed from the model.
- 8) In the Netherlands "three or more adults without children" household type perfectly predicts and is dropped from the estimation.
- 9) In the Netherlands "unemployment" labor status perfectly predicts and is dropped from the estimation.
- 10) In the Netherlands there are wealth quintiles with no observations that participate, so it is removed from the model.
- 11) In Portugal "other" labor status perfectly predicts and is dropped from the estimation.
- 12) Various indicators in several countries are perfect predictors and hence dropped from the model.

## Appendix 3: Probit Models (excluding net wealth indicator)

Table A3.1: Average marginal effects from a probit model of participation in the households' main residence

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	0.096*** (0.014)	0.181*** (0.027)	0.135*** (0.037)	-0.015 (0.056)	0.098*** (0.031)	0.058** (0.025)	0.034** (0.014)	0.074*** (0.022)	0.126*** (0.024)	0.040** (0.020)	0.036 (0.047)	0.113** (0.055)	0.171*** (0.054)	0.104*** (0.027)	0.284*** (0.068)	0.104*** (0.029)
Three or more adults without children	0.097*** (0.020)	0.244*** (0.063)	0.127* (0.071)	0.070 (0.079)	0.164*** (0.048)	0.008 (0.039)	0.044 (0.037)	0.102*** (0.035)	0.150*** (0.044)	0.025 (0.032)	-0.107 (0.087)	0.063 (0.080)	0.160 (0.148)	0.120*** (0.035)	0.345*** (0.069)	0.155*** (0.038)
Single Parent	-0.008 (0.025)	0.037 (0.059)	0.006 (0.057)	0.026 (0.094)	-0.018 (0.072)	0.040 (0.044)	-0.023 (0.026)	-0.061** (0.031)	0.079 (0.067)	0.025 (0.043)	-0.002 (0.079)	-0.021 (0.117)	-0.026 (0.107)	-0.012 (0.043)	0.214** (0.096)	0.042 (0.034)
Couple with dependent children	0.147*** (0.014)	0.233*** (0.037)	0.164*** (0.038)	0.079 (0.057)	0.135*** (0.042)	0.110*** (0.025)	0.087*** (0.019)	0.145*** (0.023)	0.147*** (0.026)	0.070*** (0.022)	0.046 (0.048)	0.235*** (0.059)	0.382*** (0.058)	0.149*** (0.030)	0.353*** (0.070)	0.141*** (0.032)
Three or more adults with children	0.100*** (0.023)	0.229*** (0.070)	0.208** (0.084)	-0.038 (0.103)	0.249*** (0.067)	-0.011 (0.043)	0.058 (0.064)	0.016 (0.042)	0.145*** (0.041)	0.033 (0.037)	0.081 (0.074)	0.193** (0.078)	0.324* (0.196)	0.098** (0.044)	0.408*** (0.073)	0.146*** (0.042)
Gender (Reference Person)																
Male	-0.05 (0.010)	0.002 (0.034)	-0.043 (0.026)	-0.036 (0.046)	-0.004 (0.028)	-0.003 (0.020)	0.023** (0.011)	0.004 (0.013)	0.008 (0.018)	-0.014 (0.014)	-0.080** (0.038)	-0.026 (0.040)	0.042 (0.040)	0.014 (0.018)	-0.022 (0.037)	-0.015 (0.016)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.183*** (0.009)	0.143*** (0.023)	0.161*** (0.034)	0.065 (0.055)	0.191*** (0.025)	0.115*** (0.024)	0.232*** (0.013)	0.250*** (0.018)	0.188*** (0.019)	0.170*** (0.022)	0.083** (0.039)	0.036 (0.045)	0.030 (0.050)	0.208*** (0.030)	0.136*** (0.048)	0.196*** (0.028)
65 years and over	0.233*** (0.014)	0.181*** (0.040)	0.069 (0.075)	0.134 (0.123)	0.239*** (0.053)	0.134*** (0.037)	0.257*** (0.027)	0.266*** (0.028)	0.242*** (0.049)	0.237*** (0.032)	0.238*** (0.069)	0.024 (0.060)	0.145** (0.069)	0.251*** (0.039)	0.113 (0.089)	0.234*** (0.047)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.042** (0.016)	0.149*** (0.043)	0.050 (0.063)	-0.042 (0.078)	0.074 (0.047)	-0.041 (0.036)	0.155*** (0.023)	0.126*** (0.027)	0.040 (0.026)	0.006 (0.024)	-0.131* (0.067)	0.055 (0.053)	-0.069 (0.113)	0.031 (0.027)	0.101 (0.091)	0.035 (0.032)
Unemployed	-0.091*** (0.020)	-0.136** (0.068)	-0.095* (0.050)	-0.042 (0.084)	-0.113* (0.061)	-0.076** (0.034)	-0.073*** (0.027)	-0.126** (0.027)	0.042 (0.066)	0.055 (0.048)	-0.192 (0.183)	0.041 (0.099)	-0.074 (0.157)	-0.132*** (0.034)	-0.016 (0.060)	-0.208** (0.091)
Retired	0.103*** (0.013)	0.072* (0.038)	0.237*** (0.049)	-0.049 (0.112)	0.099* (0.052)	0.091*** (0.029)	0.133*** (0.024)	0.141*** (0.028)	0.147*** (0.038)	0.177*** (0.024)	0.088 (0.060)	-0.027 (0.059)	-0.112* (0.065)	-0.018 (0.031)	0.262*** (0.060)	0.056 (0.034)
Other	-0.014 (0.020)	-0.061 (0.092)	-0.096 (0.063)	-0.208 (0.133)	-0.051 (0.067)	0.048 (0.032)	-0.082*** (0.024)	-0.037 (0.031)	-0.026 (0.056)	0.222*** (0.041)	0.147** (0.060)	0.050 (0.071)	-0.131** (0.064)	-0.009 (0.051)	0.003 (0.081)	0.050* (0.028)
Missing	0.060 (0.042)	0.071 (0.116)	-0.217 (0.256)										-0.045 (0.055)	-0.051 (0.199)		x4
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.038*** (0.010)	-0.009 (0.028)	0.017 (0.033)	0.045 (0.054)	0.055 (0.036)	-0.048** (0.022)	0.036** (0.015)	0.062*** (0.014)	-0.004 (0.027)	0.086*** (0.018)	0.101** (0.042)	0.083** (0.038)	-0.006 (0.036)	0.020 (0.025)	0.093** (0.044)	0.021 (0.044)
High (ISCED 4-6)	0.054*** (0.012)	-0.090** (0.038)	0.086** (0.035)	0.077 (0.057)	0.055 (0.042)	-0.012 (0.023)	0.061*** (0.016)	0.094*** (0.019)	-0.049 (0.037)	0.100*** (0.033)	-0.006 (0.057)	0.111** (0.050)	0.086** (0.039)	0.033 (0.029)	0.051 (0.050)	0.057 (0.044)
Inheritance																
Dummy	0.200*** (0.010)	0.269*** (0.025)	0.104*** (0.025)	0.204*** (0.040)	0.249*** (0.021)	0.139*** (0.018)	x2	0.122*** (0.012)	0.439*** (0.028)	x3	0.180*** (0.036)	0.176*** (0.031)	0.162** (0.065)	0.226*** (0.020)	0.292*** (0.040)	0.150*** (0.018)
Income Distribution [Base: First Quintile]																
Second Quintile	0.068*** (0.016)	0.076 (0.046)	0.053 (0.044)	0.162** (0.078)	0.118** (0.052)	0.044 (0.034)	0.150*** (0.025)	0.077*** (0.021)	0.013 (0.034)	0.107*** (0.024)	0.174** (0.070)	0.034 (0.060)	-0.011 (0.064)	-0.051* (0.031)	0.031 (0.080)	-0.002 (0.025)
Third Quintile	0.132*** (0.017)	0.097** (0.048)	0.174*** (0.048)	0.131 (0.089)	0.161*** (0.050)	0.110*** (0.037)	0.250*** (0.024)	0.156*** (0.025)	0.051 (0.035)	0.189** (0.026)	0.331*** (0.067)	0.049 (0.065)	0.017 (0.067)	0.030 (0.029)	0.024 (0.073)	0.020 (0.029)
Fourth Quintile	0.220*** (0.017)	0.102** (0.050)	0.264*** (0.046)	0.276*** (0.085)	0.264** (0.048)	0.117*** (0.039)	0.349*** (0.030)	0.287*** (0.026)	0.070 (0.046)	0.297*** (0.026)	0.457*** (0.063)	0.081 (0.059)	0.131* (0.075)	0.050 (0.035)	0.090 (0.071)	0.032 (0.028)
Fifth Quintile	0.275*** (0.020)	0.194*** (0.056)	0.298*** (0.054)	0.305*** (0.083)	0.340*** (0.058)	0.158*** (0.035)	0.411*** (0.031)	0.328*** (0.028)	0.148*** (0.044)	0.332*** (0.028)	0.462*** (0.070)	0.105 (0.076)	0.138** (0.069)	0.102*** (0.032)	0.114 (0.074)	-0.004 (0.047)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

4) In Slovakia there are missing observations in the labour market status, but due to perfect prediction the dummy is dropped.

Table A3.2: Average marginal effects from a probit model of participation in risky financial assets

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	-0.050*** (0.010)	-0.029 (0.021)	-0.001 (0.032)	-0.070 (0.061)	-0.067*** (0.025)	-0.028 (0.021)	0.004 (0.017)	-0.080*** (0.013)	0.014 (0.017)	-0.085*** (0.021)	-0.069* (0.042)	0.029 (0.055)	0.002 (0.040)	-0.017 (0.023)	0.048 (0.059)	-0.011 (0.019)
Three or more adults without children	-0.099*** (0.012)	-0.062** (0.028)	-0.020 (0.051)	-0.011 (0.095)	-0.106*** (0.036)	-0.075*** (0.025)	-0.036 (0.030)	-0.147*** (0.022)	0.017 (0.021)	-0.165*** (0.023)	-0.087 (0.055)	0.055 (0.076)	-0.152** (0.076)	-0.051* (0.030)	0.014 (0.061)	-0.001 (0.023)
Single Parent	-0.039 (0.029)	-0.015 (0.053)	-0.094* (0.054)	0.085 (0.095)	0.028 (0.073)	-0.003 (0.051)	-0.033 (0.032)	-0.087*** (0.026)	-0.013 (0.015)	-0.083 (0.056)	-0.153 (0.102)	-0.093 (0.145)	-0.176 (0.145)	-0.029 (0.035)	-0.040 (0.070)	0.023 (0.044)
Couple with dependent children	-0.076*** (0.010)	-0.026 (0.026)	-0.015 (0.040)	-0.055 (0.060)	-0.084*** (0.026)	-0.052* (0.027)	-0.043** (0.019)	-0.089*** (0.016)	0.005 (0.016)	-0.134*** (0.024)	-0.079* (0.043)	0.141** (0.068)	-0.070 (0.044)	-0.022 (0.029)	0.058 (0.069)	-0.002 (0.016)
Three or more adults with children	-0.100*** (0.017)	-0.095*** (0.031)	-0.041 (0.066)	-0.040 (0.101)	-0.133*** (0.040)	-0.013 (0.043)	-0.067* (0.035)	-0.147*** (0.021)	0.012 (0.028)	-0.172*** (0.026)	-0.170*** (0.061)	0.080 (0.081)	-0.040 (0.089)	-0.048 (0.031)	0.109 (0.083)	-0.010 (0.029)
Gender (Reference Person)																
Male	0.018** (0.008)	0.036** (0.017)	0.019 (0.027)	0.090* (0.047)	-0.004 (0.021)	0.018 (0.019)	0.020 (0.013)	0.028** (0.012)	0.001 (0.014)	0.020 (0.015)	0.031 (0.036)	-0.104** (0.050)	0.015 (0.036)	0.037** (0.016)	0.036 (0.036)	0.005 (0.013)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.025** (0.011)	0.009 (0.022)	0.076** (0.032)	0.226*** (0.047)	-0.044* (0.027)	0.072*** (0.021)	0.028** (0.014)	0.037*** (0.012)	0.021** (0.010)	0.121*** (0.013)	0.049 (0.037)	0.069 (0.055)	0.083** (0.040)	0.023 (0.019)	0.082** (0.039)	0.015 (0.011)
65 years and over	0.040*** (0.015)	-0.025 (0.033)	0.136** (0.058)	-0.135 (0.143)	0.005 (0.050)	0.133*** (0.043)	0.090*** (0.027)	0.029 (0.024)	0.054* (0.032)	0.093*** (0.023)	0.124 (0.080)	0.109 (0.079)	0.241*** (0.066)	0.028 (0.023)	0.076 (0.059)	0.031 (0.035)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.004 (0.011)	0.052* (0.030)	0.006 (0.060)	-0.046 (0.064)	-0.035 (0.030)	0.017 (0.027)	0.093*** (0.017)	0.018 (0.019)	0.002 (0.018)	0.029* (0.016)	0.038 (0.052)	0.069 (0.059)	0.046 (0.091)	0.019 (0.023)	-0.014 (0.076)	0.013 (0.022)
Unemployed	-0.048** (0.019)	0.030 (0.057)	-0.022 (0.060)	-0.039 (0.097)	-0.044 (0.061)	-0.042* (0.024)	-0.079*** (0.028)	-0.084*** (0.023)	-0.016 (0.019)	0.043 (0.054)	0.042 (0.070)	0.086 (0.134)	-0.077 (0.135)	-0.002 (0.033)	0.000 (0.063)	-0.027 (0.041)
Retired	0.031*** (0.011)	0.047 (0.029)	0.089* (0.052)	0.063 (0.140)	-0.011 (0.036)	0.034 (0.036)	0.062** (0.026)	-0.008 (0.018)	x3	0.127*** (0.018)	0.006 (0.062)	0.070 (0.068)	-0.116** (0.056)	0.019 (0.023)	0.005 (0.053)	-0.024 (0.021)
Other	0.043* (0.025)	0.039 (0.064)	-0.064 (0.077)	-0.150 (0.163)	0.052 (0.057)	-0.016 (0.043)	0.017 (0.025)	-0.044 (0.035)		0.157* (0.089)	0.065 (0.120)	-0.034 (0.093)	0.032 (0.071)	-0.033 (0.031)	-0.135*** (0.045)	0.012 (0.070)
Missing	-0.005 (0.039)		-0.059 (0.153)	0.287 (0.304)									0.024 (0.060)	x5		x6
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.056*** (0.007)	0.085*** (0.021)	0.110*** (0.028)	0.028 (0.055)	0.085*** (0.033)	0.096*** (0.019)	0.066*** (0.015)	0.036*** (0.012)	0.027** (0.012)	0.050*** (0.012)	0.126*** (0.027)	0.030 (0.043)	0.071 (0.044)	0.065*** (0.017)	0.110*** (0.034)	-0.001 (0.049)
High (ISCED 4-6)	0.135*** (0.011)	0.146*** (0.033)	0.200*** (0.034)	0.076 (0.060)	0.217*** (0.040)	0.176*** (0.020)	0.163*** (0.016)	0.083*** (0.015)	0.041*** (0.014)	0.051*** (0.020)	0.256*** (0.043)	0.084 (0.054)	0.106** (0.044)	0.130*** (0.020)	0.332*** (0.061)	0.056 (0.054)
Inheritance																
Dummy	0.076*** (0.009)	0.077*** (0.017)	0.112*** (0.022)	0.102** (0.041)	0.058*** (0.019)	0.077*** (0.017)	x2	0.095*** (0.009)	-0.007 (0.010)	x4	0.075** (0.034)	0.207*** (0.038)	0.173*** (0.051)	0.062*** (0.014)	0.021 (0.034)	-0.001 (0.013)
Income Distribuion [Base: First Quintile]																
Second Quintile	0.048*** (0.009)	0.030 (0.021)	0.117*** (0.030)	0.109 (0.068)	0.025 (0.025)	0.058** (0.024)	0.091*** (0.022)	0.058*** (0.011)	-0.004 (0.017)	0.074*** (0.009)	0.064 (0.041)	0.100* (0.056)	0.044 (0.056)	0.001 (0.017)	0.010 (0.059)	-0.002 (0.028)
Third Quintile	0.119*** (0.012)	0.076*** (0.025)	0.208*** (0.038)	0.115 (0.079)	0.132*** (0.033)	0.040 (0.026)	0.181*** (0.023)	0.134*** (0.014)	0.005 (0.019)	0.173*** (0.014)	0.181*** (0.051)	0.110* (0.059)	0.055 (0.052)	0.032 (0.020)	0.106* (0.060)	0.006 (0.025)
Fourth Quintile	0.187*** (0.012)	0.150*** (0.034)	0.236*** (0.034)	0.207*** (0.079)	0.182*** (0.035)	0.084*** (0.029)	0.261*** (0.026)	0.229*** (0.017)	0.025 (0.022)	0.300*** (0.020)	0.281*** (0.052)	0.206*** (0.065)	0.134** (0.063)	0.059*** (0.020)	-0.014 (0.057)	-0.024 (0.023)
Fifth Quintile	0.327*** (0.013)	0.198*** (0.035)	0.279*** (0.038)	0.375*** (0.088)	0.335*** (0.042)	0.220*** (0.032)	0.427*** (0.030)	0.415*** (0.021)	0.062** (0.029)	0.472*** (0.022)	0.495*** (0.060)	0.249*** (0.081)	0.164*** (0.057)	0.201*** (0.029)	0.015 (0.068)	-0.014 (0.026)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) Dummy for inheritance for Finland is dropped from the model due no recorded inheritances.
- 3) In Greece some indicators for the labor market status are dropped due to perfect prediction.
- 4) Italy does not collect information on inheritance.
- 5) Portugal has missings in the labor market status, but a coefficient cannot be estimated due to perfect prediction.
- 6) In Slovakia there are missing observations in the labour market status, but due to perfect prediction the dummy is dropped.

**Table A3.3: Average marginal effects from a probit model of participation in other real estate**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple without children	0.040*** (0.010)	0.007 (0.021)	0.008 (0.024)	0.116** (0.058)	0.007 (0.023)	0.072*** (0.024)	0.149*** (0.015)	0.037** (0.016)	0.063** (0.028)	0.069*** (0.017)	0.007 (0.060)	-0.007 (0.056)	0.038 (0.024)	0.038 (0.032)	0.086 (0.053)	-0.022 (0.039)
Three or more adults without children	0.040*** (0.015)	0.024 (0.045)	-0.016 (0.039)	0.242** (0.102)	-0.004 (0.034)	0.028 (0.033)	0.278*** (0.037)	0.033 (0.029)	0.133*** (0.036)	0.103*** (0.024)	0.055 (0.078)	0.018 (0.071)	0.026 (0.047)	0.037 (0.035)	0.132** (0.064)	0.062 (0.052)
Single Parent	-0.004 (0.020)	-0.001 (0.059)	0.032 (0.054)	-0.064 (0.085)	0.046 (0.067)	0.025 (0.056)	0.005 (0.030)	-0.025 (0.026)	0.083 (0.062)	-0.061* (0.034)	0.127 (0.095)	0.012 (0.191)	0.012 (0.102)	-0.011 (0.044)	-0.079* (0.045)	-0.111** (0.062)
Couple with dependent children	0.035*** (0.013)	-0.001 (0.026)	0.006 (0.035)	0.111* (0.061)	0.001 (0.027)	0.063** (0.029)	0.095*** (0.017)	0.040** (0.017)	0.072** (0.036)	0.083*** (0.025)	-0.030 (0.059)	0.107 (0.069)	0.047 (0.039)	0.015 (0.033)	0.055 (0.062)	0.028 (0.039)
Three or more adults with children	0.036** (0.018)	0.003 (0.036)	0.023 (0.073)	0.026 (0.087)	-0.004 (0.042)	0.087** (0.043)	0.181*** (0.044)	0.022 (0.036)	0.098* (0.053)	0.087*** (0.031)	0.032 (0.085)	0.085 (0.083)	-0.041 (0.068)	0.017 (0.044)	0.160** (0.078)	0.002 (0.050)
<b>Gender (Reference Person)</b>																
Male	0.005 (0.009)	-0.003 (0.017)	0.043** (0.021)	0.049 (0.042)	-0.009 (0.021)	-0.017 (0.023)	0.049*** (0.010)	-0.001 (0.012)	0.037 (0.028)	0.007 (0.016)	0.069* (0.041)	-0.043 (0.049)	0.013 (0.020)	0.021 (0.016)	-0.060** (0.029)	-0.004 (0.025)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	0.103*** (0.008)	0.053*** (0.017)	0.086*** (0.025)	0.130** (0.056)	0.046** (0.021)	0.131*** (0.024)	0.206*** (0.012)	0.124*** (0.015)	0.089*** (0.026)	0.146*** (0.017)	0.094** (0.041)	0.112** (0.053)	0.076*** (0.022)	0.086*** (0.023)	0.169*** (0.026)	0.051* (0.026)
65 years and over	0.103*** (0.013)	0.057* (0.033)	0.070 (0.043)	-0.032 (0.116)	0.070 (0.044)	0.079** (0.036)	0.251*** (0.025)	0.107** (0.029)	0.178** (0.044)	0.184** (0.027)	0.138* (0.079)	0.039 (0.082)	0.039 (0.031)	0.135** (0.033)	0.275*** (0.056)	0.023 (0.045)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	0.136*** (0.014)	0.089*** (0.033)	0.173*** (0.057)	0.168*** (0.062)	0.072** (0.031)	0.135*** (0.034)	0.192*** (0.018)	0.208*** (0.024)	0.129*** (0.032)	0.172*** (0.027)	0.157*** (0.060)	0.260*** (0.055)	0.082 (0.089)	0.162*** (0.028)	0.093 (0.066)	0.082** (0.041)
Unemployed	-0.047*** (0.015)	0.030 (0.070)	-0.040 (0.034)	0.031 (0.108)	-0.090** (0.035)	-0.000 (0.037)	-0.051** (0.024)	-0.104*** (0.020)	-0.068 (0.095)	-0.038 (0.043)	x5 (0.224)	-0.054 (0.141)	0.109 (0.040)	-0.027 (0.056)	-0.059 (0.056)	0.030 (0.092)
Retired	0.061*** (0.013)	0.011 (0.024)	0.104*** (0.040)	0.017 (0.103)	0.038 (0.036)	0.151*** (0.031)	0.098*** (0.023)	0.064** (0.026)	0.091*** (0.032)	0.051*** (0.018)	0.047 (0.055)	0.112* (0.062)	0.025 (0.028)	0.046 (0.030)	-0.054 (0.045)	0.117*** (0.041)
Other	-0.002 (0.017)	x2 (0.046)	-0.040 (0.103)	-0.065 (0.103)	-0.003 (0.051)	0.094** (0.037)	0.011 (0.019)	-0.056** (0.027)	-0.020 (0.068)	0.031 (0.053)	-0.185** (0.075)	-0.072 (0.078)	-0.024 (0.021)	0.095 (0.060)	-0.092 (0.072)	0.092 (0.084)
Missing	0.015 (0.044)	0.017 (0.084)	0.193 (0.231)										0.002 (0.025)	0.194 (0.191)		x6
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	0.018*** (0.007)	-0.014 (0.024)	0.022 (0.029)	0.120** (0.047)	0.066*** (0.024)	0.022 (0.029)	0.025* (0.014)	0.026** (0.012)	-0.014 (0.029)	0.039*** (0.015)	-0.043 (0.042)	0.086*** (0.033)	-0.000 (0.022)	0.007 (0.022)	0.000 (0.039)	-0.130* (0.076)
High (ISCED 4-6)	0.075*** (0.012)	0.053 (0.033)	0.036 (0.025)	0.059 (0.053)	0.133*** (0.035)	0.041* (0.025)	0.050*** (0.015)	0.051*** (0.016)	0.026 (0.031)	0.130*** (0.025)	0.075 (0.055)	0.115** (0.058)	0.058** (0.026)	0.105*** (0.029)	0.048 (0.059)	0.023 (0.085)
<b>Inheritance</b>																
Dummy	0.165*** (0.008)	0.152*** (0.016)	0.082*** (0.017)	0.277*** (0.035)	0.105*** (0.015)	0.290*** (0.017)	x3 (0.011)	0.188*** (0.026)	0.066** (0.026)	x4 (0.036)	0.128*** (0.037)	0.163*** (0.031)	0.043 (0.031)	0.239*** (0.018)	0.099*** (0.030)	0.051** (0.020)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	0.027*** (0.010)	0.045* (0.026)	-0.003 (0.030)	0.049 (0.073)	-0.015 (0.022)	0.122*** (0.027)	0.053*** (0.020)	0.043*** (0.016)	0.029 (0.031)	0.022 (0.021)	0.027 (0.066)	0.047 (0.059)	0.009 (0.047)	0.010 (0.028)	0.157*** (0.050)	0.034 (0.031)
Third Quintile	0.070*** (0.013)	0.062*** (0.023)	0.006 (0.032)	0.048 (0.078)	0.054* (0.030)	0.162*** (0.024)	0.122*** (0.022)	0.072*** (0.023)	0.143*** (0.037)	0.052** (0.024)	0.097 (0.063)	0.087 (0.067)	-0.043 (0.046)	0.049 (0.034)	0.184*** (0.054)	0.121*** (0.046)
Fourth Quintile	0.130*** (0.014)	0.100*** (0.028)	0.083** (0.039)	0.116 (0.090)	0.144** (0.035)	0.240*** (0.031)	0.169*** (0.024)	0.126*** (0.021)	0.121*** (0.038)	0.074*** (0.023)	0.160** (0.066)	0.106* (0.058)	-0.010 (0.043)	0.098*** (0.034)	0.109** (0.046)	0.164*** (0.056)
Fifth Quintile	0.221*** (0.017)	0.189*** (0.030)	0.151*** (0.042)	0.322*** (0.097)	0.210** (0.049)	0.350*** (0.038)	0.229*** (0.025)	0.246*** (0.024)	0.246*** (0.040)	0.176** (0.028)	0.264*** (0.077)	0.174** (0.073)	0.000 (0.043)	0.208*** (0.032)	0.275*** (0.065)	0.215*** (0.064)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) In Austria "other" labor status perfectly predicts failure and is dropped from the estimation.
- 3) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.
- 4) Italy does not collect information on inheritance.
- 5) In Luxembourg "unemployed" labor status perfectly predicts failure and is dropped from the estimation.
- 6) In Slovakia there are missing observations in the labour market status, but due to perfect prediction the dummy is dropped.

**Table A3.4: Average marginal effects from a probit model of participation in business ownership**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	0.033*** (0.006)	0.036** (0.016)	0.031** (0.014)	0.004 (0.057)	0.039*** (0.015)	0.030** (0.015)	0.053*** (0.011)	0.042*** (0.008)	0.024*** (0.008)	0.029*** (0.008)	0.030 (0.021)	-0.015 (0.034)	0.023 (0.026)	0.027* (0.015)	x10	-0.033* (0.019)
Three or more adults without children	0.067*** (0.008)	0.106*** (0.028)	0.030 (0.029)	0.046 (0.083)	0.042** (0.018)	0.058*** (0.021)	0.043* (0.023)	0.056*** (0.014)	0.061*** (0.020)	0.109*** (0.019)	0.011 (0.029)	-0.015 (0.047)	x7 (0.020)	0.044** (0.020)		0.016 (0.030)
Single Parent	0.004 (0.008)	-0.002 (0.033)	0.021 (0.032)	0.002 (0.095)	0.015 (0.029)	-0.038** (0.018)	0.008 (0.024)	-0.008 (0.008)	-0.010 (0.007)	0.024 (0.023)	0.007 (0.026)	-0.030 (0.101)	-0.008 (0.067)	0.028 (0.040)		-0.014 (0.022)
Couple with dependent children	0.039*** (0.006)	0.027 (0.020)	0.025 (0.017)	-0.006 (0.052)	0.035** (0.017)	0.046*** (0.017)	0.057*** (0.014)	0.057*** (0.009)	0.051*** (0.012)	0.049*** (0.012)	0.015 (0.018)	-0.040 (0.039)	-0.013 (0.019)	0.032* (0.016)		-0.025 (0.019)
Three or more adults with children	0.054*** (0.009)	0.077** (0.031)	0.007 (0.032)	-0.021 (0.062)	0.062** (0.029)	0.044* (0.024)	-0.041** (0.018)	0.077*** (0.015)	0.058*** (0.022)	0.085*** (0.017)	0.061 (0.037)	-0.013 (0.051)	0.035 (0.068)	0.019 (0.020)		-0.021 (0.032)
Gender (Reference Person)																
Male	-0.016*** (0.004)	-0.019 (0.014)	-0.009 (0.016)	0.067** (0.030)	-0.016 (0.012)	-0.017 (0.012)	-0.009 (0.008)	-0.023*** (0.006)	-0.021** (0.009)	-0.012 (0.010)	-0.018 (0.021)	-0.032 (0.031)	0.008 (0.018)	-0.004 (0.013)	-0.051*** (0.019)	-0.016 (0.015)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.004 (0.005)	0.028* (0.015)	0.014 (0.013)	0.017 (0.039)	0.025* (0.015)	-0.018 (0.014)	0.085*** (0.008)	0.004 (0.007)	-0.016 (0.011)	-0.003 (0.012)	0.002 (0.021)	-0.014 (0.036)	-0.014 (0.026)	-0.004 (0.012)	-0.010 (0.018)	-0.009 (0.012)
65 years and over	-0.016** (0.006)	0.007 (0.023)	-0.015 (0.023)	-0.046 (0.145)	-0.015 (0.016)	-0.028 (0.025)	-0.010 (0.020)	-0.020 (0.011)	-0.020 (0.022)	-0.020 (0.015)	-0.017 (0.030)	-0.076 (0.052)	-0.047 (0.051)	0.017 (0.024)	-0.054* (0.029)	-0.001 (0.035)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.674*** (0.017)	0.452*** (0.046)	0.514*** (0.060)	0.481*** (0.070)	0.554*** (0.054)	0.791*** (0.030)	0.191*** (0.018)	0.735*** (0.021)	0.260*** (0.032)	x4	0.340*** (0.078)	0.564*** (0.080)	0.482*** (0.136)	0.377*** (0.037)	0.795*** (0.063)	0.703*** (0.065)
Unemployed	-0.022*** (0.005)	0.009 (0.068)	-0.006 (0.018)	-0.092** (0.039)	x2	-0.033*** (0.011)	-0.018 (0.020)	-0.018* (0.010)	0.011 (0.015)	0.030 (0.032)	x6	0.041 (0.147)	x8 (0.147)	-0.025** (0.013)	-0.003 (0.026)	x10
Retired	0.002 (0.006)	-0.016 (0.011)	0.000 (0.017)	-0.072 (0.124)	0.003 (0.015)	0.024 (0.027)	0.041** (0.019)	-0.009 (0.008)	0.020 (0.017)	0.012 (0.013)	0.018 (0.021)	0.048 (0.042)	-0.011 (0.027)	-0.021 (0.013)	0.026 (0.036)	0.024 (0.020)
Other	0.000 (0.010)	0.004 (0.071)	0.035 (0.042)	x10	-0.006 (0.022)	-0.010 (0.028)	-0.022 (0.014)	-0.022*** (0.008)	0.039 (0.031)	0.007 (0.029)		x10	0.039 (0.055)	x9 (0.225)	x10	0.051 (0.066)
Missing	0.074* (0.039)		-0.026*** (0.007)	-0.115* (0.065)									0.064* (0.039)	0.350 (0.225)		x10
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.010*** (0.004)	-0.011 (0.019)	0.022 (0.015)	0.032 (0.046)	0.016 (0.016)	0.024* (0.013)	0.001 (0.011)	0.013** (0.006)	-0.010 (0.011)	0.003 (0.008)	0.015 (0.017)	0.010 (0.027)	0.023 (0.019)	0.022 (0.016)	0.033 (0.027)	-0.003 (0.027)
High (ISCED 4-6)	0.019*** (0.006)	-0.017 (0.025)	0.042*** (0.015)	-0.025 (0.045)	0.031* (0.018)	0.015 (0.012)	0.001 (0.011)	0.009 (0.009)	-0.027*** (0.010)	0.025 (0.015)	0.011 (0.021)	0.012 (0.031)	0.066** (0.028)	0.004 (0.013)	0.033 (0.031)	0.048 (0.039)
Inheritance																
Dummy	0.027*** (0.005)	0.047*** (0.010)	0.027*** (0.010)	0.011 (0.033)	0.031*** (0.011)	0.029*** (0.009)	x3	0.018*** (0.005)	-0.001 (0.006)	x5	0.021 (0.013)	0.035 (0.027)	0.064** (0.028)	0.037*** (0.011)	-0.021 (0.016)	-0.015 (0.012)
Income Distribution [Base: First Quintile]																
Second Quintile	0.006 (0.007)	0.002 (0.019)	0.018 (0.017)	0.026 (0.037)	0.006 (0.023)	0.027** (0.013)	0.015 (0.013)	-0.003 (0.011)	0.003 (0.005)	0.006 (0.008)	0.007 (0.024)	0.046 (0.042)	-0.022 (0.048)	0.026* (0.014)	-0.011 (0.015)	0.012 (0.018)
Third Quintile	0.021*** (0.007)	0.033 (0.026)	0.069*** (0.022)	0.106** (0.049)	0.102** (0.019)	0.049*** (0.013)	0.019 (0.014)	-0.012 (0.012)	0.016 (0.010)	0.030*** (0.010)	0.022 (0.025)	0.033 (0.042)	0.021 (0.043)	0.037** (0.017)	0.036** (0.017)	0.041* (0.024)
Fourth Quintile	0.029*** (0.006)	0.037 (0.024)	0.052*** (0.018)	0.107** (0.054)	0.024 (0.019)	0.080*** (0.017)	0.046*** (0.015)	-0.013 (0.011)	0.028*** (0.011)	0.044*** (0.010)	0.032 (0.024)	0.066 (0.048)	-0.012 (0.036)	0.032* (0.018)	0.048* (0.028)	0.063* (0.032)
Fifth Quintile	0.062*** (0.008)	0.060*** (0.022)	0.061*** (0.022)	0.188*** (0.064)	0.069*** (0.026)	0.081*** (0.017)	0.126*** (0.019)	0.003 (0.011)	0.057*** (0.013)	0.105*** (0.017)	0.061* (0.032)	0.134** (0.055)	0.003 (0.040)	0.072*** (0.017)	0.118*** (0.034)	0.101** (0.043)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

- 1) The model for the euro area includes country fixed effects for which the estimates are not reported.
- 2) In Germany "unemployment" labor status perfectly predicts and is dropped from the estimation
- 3) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.
- 4) In Italy "self-employment" labor status perfectly predicts success and is dropped from the estimation.
- 5) Italy does not collect information on inheritance.
- 6) In Luxembourg "unemployment" and "other" labor status perfectly predicts and is dropped from the estimation.
- 7) In the Netherlands "three or more adults without children" household type perfectly predicts and is dropped from the estimation.
- 8) In the Netherlands "unemployment" labor status perfectly predicts and is dropped from the estimation.
- 9) In Portugal "other" labor status perfectly predicts and is dropped from the estimation.
- 10) Various indicators in several countries are perfect predictors and hence dropped from the model.

## Appendix 4: Tobit Models (including net wealth indicator)

**Table A4.1: Tobit model for the value of other real estate**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple without children	-0.025 (0.650)	-0.716 (2.625)	1.683 (2.614)	4.185* (2.400)	-2.541 (2.300)	0.990 (0.976)	3.265*** (0.712)	-0.189 (1.009)	0.140 (1.312)	1.743 (1.193)	-2.876 (2.955)	-1.788 (2.750)	-5.128 (6.870)	0.598 (1.358)	0.989 (2.451)	-1.610 (2.495)
Three or more adults without children	0.133 (0.845)	-0.256 (3.826)	0.818 (3.774)	6.078** (2.702)	-3.247 (2.657)	-0.266 (1.242)	6.390*** (0.999)	0.185 (1.502)	1.501 (1.533)	4.167*** (1.331)	-1.867 (3.249)	0.245 (3.281)	-6.244 (9.065)	1.044 (1.491)	0.843 (3.154)	2.531 (2.635)
Single Parent	0.257 (1.057)	0.250 (5.552)	2.600 (3.779)	-1.750 (3.088)	1.671 (4.028)	0.991 (2.006)	0.089 (1.140)	1.079 (1.444)	1.101 (2.333)	-3.689 (2.717)	-0.061 (4.061)	2.327 (7.341)	2.912 (20.285)	-2.682 (2.033)	-12.553*** (3.701)	-0.401 (3.634)
Couple with dependent children	-0.358 (0.788)	-1.614 (2.978)	2.157 (3.093)	4.480* (2.505)	-2.231 (2.608)	1.091 (1.261)	2.120*** (0.712)	-1.174 (0.972)	-0.180 (1.511)	1.939 (1.405)	-4.612 (3.001)	1.697 (3.292)	-4.799 (8.535)	-0.135 (1.628)	-2.105 (3.241)	0.442 (2.573)
Three or more adults with children	0.334 (0.959)	-0.880 (3.639)	2.766 (5.505)	3.872 (2.839)	-4.631 (3.389)	2.541* (1.417)	3.624*** (1.158)	-0.007 (1.769)	1.429 (1.927)	3.616** (1.686)	-3.698 (3.642)	1.656 (3.064)	-27.306 (27.445)	0.488 (1.858)	2.116 (3.322)	-0.446 (3.126)
<b>Gender (Reference Person)</b>																
Male	-0.101 (0.475)	-0.410 (1.518)	2.517* (1.391)	0.759 (1.113)	-1.288 (1.418)	-1.136 (0.814)	0.967*** (0.320)	-0.166 (0.513)	0.109 (0.791)	0.066 (0.714)	0.823 (1.859)	-1.223 (1.779)	-1.932 (2.944)	0.346 (0.658)	-4.105*** (1.386)	-0.068 (1.340)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	1.935*** (0.531)	1.729 (1.823)	2.119 (2.537)	1.882 (1.171)	0.298 (1.850)	1.941** (0.936)	1.805*** (0.523)	0.652 (0.928)	0.319 (0.821)	4.426*** (1.236)	2.131 (2.276)	1.638 (2.041)	5.063 (4.721)	0.752 (1.011)	12.868*** (2.046)	-0.620 (1.566)
65 years and over	1.688** (0.748)	2.138 (2.807)	1.771 (3.215)	-1.617 (2.506)	0.737 (2.999)	1.170 (1.265)	1.881** (0.776)	-0.127 (1.502)	0.547 (1.370)	4.886*** (1.560)	4.789 (3.397)	4.289 (3.066)	-2.261 (6.852)	1.819 (1.225)	19.314*** (2.888)	-3.912 (2.918)
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	0.716 (0.690)	-0.174 (2.335)	-4.123* (2.259)	-3.255 (2.439)	2.868 (2.528)	-0.257 (1.077)	-1.324** (0.581)	1.016 (0.890)	-0.249 (1.126)	-0.105 (1.277)	5.653** (2.640)	0.810 (2.225)	6.192 (6.699)	0.027 (1.225)	-8.776*** (2.604)	0.276 (3.012)
Divorced	0.204 (0.787)	0.951 (2.935)	0.849 (3.019)	-0.293 (2.299)	3.033 (2.373)	-1.438 (1.361)	-0.366 (0.652)	-0.572 (1.029)	0.050 (1.765)	-2.001 (1.668)	3.416 (2.610)	4.070 (3.838)	-0.806 (8.960)	-0.416 (1.407)	-14.452*** (3.564)	3.699 (2.791)
Widowed	-1.331* (0.741)	2.228 (3.295)	-1.454 (3.762)	-4.052* (2.323)	-0.767 (2.624)	-3.947*** (1.313)	-2.395** (0.967)	0.394 (1.156)	-1.619 (1.675)	-2.141* (1.228)	1.996 (2.972)	-1.584 (3.363)	-8.653 (6.553)	0.657 (1.525)	-13.857*** (3.213)	0.823 (3.102)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	2.651*** (0.546)	2.766 (1.938)	6.578*** (2.505)	1.896* (0.994)	1.921 (1.655)	1.308 (1.017)	2.850*** (0.431)	2.996*** (0.694)	0.811 (0.878)	3.886*** (0.829)	3.826* (2.014)	1.909 (1.683)	7.922 (7.897)	2.598*** (0.808)	1.176 (2.454)	3.315* (1.956)
Unemployed	-1.283 (0.932)	2.659 (5.321)	-4.695 (4.369)	1.249 (2.464)	-6.724 (6.899)	0.775 (1.361)	-2.047** (0.902)	-2.967* (1.599)	-2.549 (3.464)	-2.964 (2.483)	-55.002 (56.156)	-3.181 (9.243)	14.168 (14.405)	-1.168 (1.773)	-1.462 (3.119)	0.256 (5.624)
Retired	0.656 (0.603)	-0.433 (1.976)	3.298* (2.001)	0.895 (2.115)	0.998 (2.120)	2.357** (0.933)	0.680 (0.615)	-0.093 (1.028)	-0.043 (0.959)	-0.679 (0.764)	-1.426 (2.199)	1.613 (2.071)	2.995 (4.165)	1.046 (1.022)	-6.038** (2.423)	6.932*** (1.951)
Other	-0.945 (0.915)	-54.802 (51.455)	-3.342 (9.293)	0.448 (2.319)	-1.072 (3.630)	2.118* (1.175)	-0.547 (0.701)	-2.353 (1.488)	-3.127 (2.326)	-3.789 (2.715)	-11.969 (9.385)	-3.364 (3.550)	-4.887 (5.829)	2.353 (1.999)	-12.869*** (4.542)	4.675 (4.644)
Missing	0.005 (2.473)	-0.830 (17.763)	6.828 (7.841)										-0.581 (4.215)	3.552 (30.566)		-52.074*** (4.578)
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	-1.046*** (0.324)	-1.554 (2.230)	0.246 (2.129)	1.607 (1.066)	4.937* (2.538)	-0.418 (0.989)	0.248 (0.469)	-0.616 (0.555)	-2.116** (0.921)	-0.538 (0.649)	-2.815* (1.689)	1.739 (1.370)	0.837 (3.429)	-1.343 (1.012)	-3.407** (1.731)	-8.994** (3.574)
High (ISCED 4-6)	0.620 (0.466)	3.663 (2.595)	-0.603 (1.951)	0.002 (1.205)	7.702*** (2.828)	-0.998 (0.745)	0.030 (0.444)	-0.378 (0.629)	-1.662* (0.990)	2.140*** (0.822)	0.924 (2.036)	1.837 (1.887)	6.591* (3.397)	1.402 (1.018)	-4.462* (2.334)	-2.251 (3.984)
<b>Inheritance</b>																
Dummy	4.952*** (0.437)	9.092*** (1.316)	3.059** (1.298)	4.273*** (0.956)	3.351*** (0.982)	7.251*** (0.523)	x2	5.554*** (0.522)	-0.822 (0.659)	x3	2.166 (1.501)	2.689** (1.342)	1.764 (3.961)	6.672*** (0.677)	3.817*** (1.290)	1.810* (1.075)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	6.418*** (0.970)	0.186 (6.264)	10.018 (9.597)	5.604*** (1.831)	-3.954 (3.176)	4.952*** (1.769)	3.955*** (0.901)	9.495*** (1.854)	10.079*** (1.130)	14.847*** (1.582)	9.931* (5.913)	7.139** (2.892)	17.860 (54.543)	7.594*** (1.298)	54.068 (33.224)	8.597*** (2.588)
Third Quintile	10.412*** (0.939)	9.366* (5.198)	6.818 (9.484)	10.325*** (2.052)	4.136 (3.100)	7.858*** (1.461)	11.474*** (0.899)	16.540*** (1.723)	11.788*** (1.241)	15.204*** (1.610)	5.745 (5.980)	11.440*** (3.156)	27.334 (49.065)	10.156*** (1.584)	51.601 (33.491)	13.597*** (2.448)
Fourth Quintile	14.659*** (1.000)	14.209*** (5.310)	14.820 (9.417)	12.199*** (1.740)	9.960*** (2.902)	11.700*** (1.525)	18.348*** (0.873)	19.977*** (1.700)	16.278*** (1.458)	19.674*** (1.508)	8.834 (5.943)	17.254*** (2.709)	34.598 (49.906)	13.410*** (1.424)	54.992* (32.085)	12.199*** (2.496)
Fifth Quintile	22.884*** (0.964)	19.968*** (5.213)	26.095*** (9.151)	16.429*** (1.803)	18.956*** (2.858)	17.050*** (1.407)	24.786*** (0.825)	28.752*** (1.705)	23.181*** (1.316)	29.068*** (1.523)	20.653*** (5.839)	23.023*** (2.800)	52.467 (48.502)	21.245*** (1.381)	66.442*** (32.613)	20.233*** (2.243)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	0.045 (0.603)	4.659 (3.064)	-2.145 (2.610)	0.384 (1.634)	-2.845 (2.742)	2.846*** (0.882)	-0.570 (0.845)	0.811 (0.894)	-0.106 (1.075)	-1.737 (1.118)	1.802 (3.534)	0.030 (2.159)	3.061 (6.233)	-0.308 (1.184)	11.325*** (2.616)	1.274 (2.501)
Third Quintile	0.888 (0.716)	4.824* (2.723)	-3.153 (2.837)	0.205 (1.747)	2.559 (2.796)	3.160*** (0.821)	0.048 (0.881)	1.699 (1.173)	-2.300* (1.178)	2.967 (1.218)	1.730 (3.382)	-5.852 (2.347)	-0.293 (7.541)	12.088*** (1.289)	6.023** (3.413)	0.203** (2.759)
Fourth Quintile	1.829** (0.806)	6.957** (2.761)	1.292 (3.154)	-0.199 (1.754)	6.023** (2.876)	4.798*** (1.182)	-0.131 (0.889)	-0.577 (1.049)	0.566 (1.310)	-3.402*** (1.190)	3.578 (3.294)	0.439 (2.158)	-3.461 (5.255)	0.832 (1.261)	9.164** (3.568)	7.205*** (2.730)
Fifth Quintile	2.716*** (0.823)	10.828*** (2.703)	2.950 (3.118)	2.618 (1.628)	6.295** (3.163)	5.679*** (1.245)	-0.634 (0.887)	1.196 (1.250)	0.862 (1.232)	-2.949** (3.473)	4.847 (2.425)	1.262 (2.425)	-3.225 (5.669)	1.763 (1.188)	10.697** (3.700)	8.136** (3.237)
Constant	-31.643*** (1.005)	-39.571*** (5.816)	-33.140*** (10.422)	-11.294*** (2.140)	-30.616*** (2.915)	-18.067*** (1.789)	-20.989*** (0.861)	-27.961*** (1.910)	-14.480*** (1.558)	-28.979*** (1.932)	-22.737*** (5.543)	-22.312*** (4.000)	-69.492 (49.243)	-22.634*** (2.266)	-69.059*** (35.216)	-27.070*** (4.509)
Sigma	12.555*** (0.126)	15.380*** (0.564)	15.562*** (0.451)	7.781*** (0.311)	13.586*** (0.410)	10.390*** (0.229)	10.527*** (0.115)	11.867*** (0.183)	10.049*** (0.253)	12.710*** (0.172)	13.001*** (0.496)	11.476*** (0.393)	19.220*** (1.016)	11.306*** (0.308)	11.413*** (0.685)	13.983*** (0.483)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

**Table A4.2: Tobit model for the value of business assets**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple without children	2.901*** (0.861)	2.318 (2.679)	3.271 (2.520)	-1.596 (5.173)	3.918 (2.508)	1.507 (1.829)	1.580* (0.848)	4.184*** (1.192)	1.704 (2.743)	1.533 (1.214)	5.151 (5.118)	-4.563 (5.521)	0.748 (5.407)	0.720 (3.266)	37.059*** (5.307)	-2.955* (1.628)
Three or more adults without children	6.388*** (0.966)	7.429** (3.084)	3.732 (4.966)	2.822 (6.486)	5.652** (2.845)	3.585* (1.981)	0.751 (1.376)	5.824*** (1.598)	6.771* (3.466)	7.018** (1.605)	1.982 (5.151)	-3.920 (5.860)	-96.829*** (14.674)	2.614 (3.294)	44.115*** (6.973)	-0.613 (1.752)
Single Parent	0.989 (1.391)	-2.077 (10.944)	4.213 (11.942)	-6.541 (11.433)	2.862 (4.749)	-4.156 (3.380)	0.936 (1.582)	-0.795 (1.575)	-9.504 (16.716)	1.849 (2.636)	-2.967 (27.090)	4.627 (13.660)	1.364 (15.248)	5.177 (4.771)	0.993 (4.919)	0.470 (1.819)
Couple with dependent children	4.149*** (0.946)	-0.267 (2.624)	1.899 (2.751)	-1.395 (5.466)	4.715* (2.853)	2.186 (2.059)	1.629* (0.966)	5.689*** (1.210)	5.031* (3.011)	4.335*** (1.377)	3.844 (4.940)	-6.934 (6.126)	-2.734 (5.909)	0.750 (3.166)	45.897*** (7.210)	-2.711 (1.711)
Three or more adults with children	5.291*** (1.148)	4.432 (2.886)	-0.497 (5.002)	0.135 (5.918)	7.136* (3.820)	2.707 (2.393)	-5.122*** (1.626)	7.689*** (1.447)	5.962 (3.947)	5.157*** (1.526)	7.497 (5.687)	-5.523 (6.243)	4.290 (15.227)	-0.767 (3.459)	41.744*** (6.164)	-2.966 (2.384)
<b>Gender (Reference Person)</b>																
Male	-1.960*** (0.474)	-2.577 (1.766)	-2.754 (2.106)	3.721 (2.305)	-0.720 (1.615)	-2.216* (1.133)	-0.825* (0.437)	-3.234*** (0.681)	-5.185*** (1.631)	-1.872*** (0.693)	-3.398 (3.350)	-3.686 (2.983)	2.075 (3.382)	-1.371 (1.696)	-4.334** (1.853)	-0.273 (1.210)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	-0.968 (0.594)	0.931 (2.074)	-1.503 (2.359)	-2.805 (2.122)	3.956* (2.032)	-2.956** (1.356)	3.114*** (0.711)	-2.503*** (0.741)	-3.953** (1.802)	-1.054 (0.883)	-3.285 (3.686)	-3.870 (3.259)	-7.814 (5.579)	-4.082*** (1.492)	-2.030 (1.537)	-1.269 (0.941)
65 years and over	-4.033*** (0.815)	-0.487 (3.291)	-5.170 (4.277)	-8.684 (8.498)	-3.579 (2.841)	-4.888* (2.615)	3.870*** (1.178)	-4.219*** (1.498)	-5.210 (3.837)	-2.330* (1.398)	-9.185* (5.573)	-8.459 (5.677)	-17.619 (22.232)	-1.652 (3.017)	-7.433* (4.266)	-2.792 (3.262)
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	0.521 (0.858)	0.352 (2.211)	2.569 (3.281)	3.871 (5.206)	0.182 (2.488)	0.862 (1.723)	1.288 (0.826)	0.517 (0.855)	3.129 (2.870)	0.888 (1.460)	0.756 (4.915)	5.600 (7.872)	-7.731* (4.279)	4.975 (3.127)	7.857** (3.969)	1.071 (1.429)
Divorced	1.224 (0.921)	-2.799 (3.611)	4.351 (3.969)	12.356*** (3.861)	3.178 (2.508)	-1.993 (2.474)	-0.384 (0.928)	0.988 (1.124)	2.172 (4.128)	1.211 (2.040)	1.790 (5.635)	7.753 (7.021)	-0.772 (9.734)	4.504 (3.339)	6.023 (4.970)	-1.876 (1.516)
Widowed	-3.631*** (1.127)	-4.087 (7.032)	-7.449 (14.550)	-6.620 (8.659)	-1.784 (4.228)	-1.784 (2.456)	-3.544** (1.206)	-8.666 (1.577)	-2.238 (25.418)	-2.340 (2.108)	10.183 (7.613)	-61.670*** (9.451)	-4.945 (22.471)	-1.029 (4.508)	-36.245*** (6.154)	-4.435 (3.394)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	22.709*** (0.330)	18.225*** (1.593)	24.291*** (1.659)	13.760*** (2.168)	22.025*** (0.916)	22.052*** (0.856)	8.185*** (0.634)	22.884*** (0.563)	22.516*** (1.424)	21.634*** (0.641)	26.368*** (2.689)	18.026*** (2.190)	33.140*** (5.137)	18.617*** (1.259)	18.691*** (2.179)	18.515*** (0.900)
Unemployed	-4.569*** (1.316)	0.134 (9.552)	-2.046 (33.778)	-5.666 (36.449)	-53.487 (33.151)	-7.384 (6.253)	-0.633 (1.449)	-2.569 (2.567)	4.301 (34.360)	-3.717 (15.831)	-81.351*** (12.079)	5.286 (12.508)	-17.587 (45.669)	-3.478 (3.448)	-0.050 (4.505)	-31.254*** (4.251)
Retired	-0.695 (0.797)	-4.942** (2.006)	-2.158 (3.478)	-5.032 (8.816)	0.202 (2.237)	0.975 (2.269)	1.261 (0.970)	-2.873** (1.265)	4.308 (3.643)	-0.161 (1.388)	-0.633 (4.341)	1.898 (4.034)	-0.641 (13.444)	-5.435** (2.340)	2.324 (4.135)	2.364 (1.973)
Other	-1.056 (1.562)	0.179 (10.087)	4.731 (12.286)	-76.055*** (8.498)	-5.180 (18.229)	-2.380 (3.300)	-1.408 (0.995)	-3.846* (2.174)	8.618 (16.299)	-1.869 (16.359)	-81.259*** (10.939)	-58.139*** (9.638)	9.864 (9.864)	-75.482*** (4.825)	-40.699*** (6.075)	4.438 (3.833)
Missing	4.605* (2.775)	-10.576 (25.654)	-11.019 (29.534)										12.318** (4.849)	19.428 (39.877)		-23.289*** (3.708)
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	0.011 (0.487)	-2.323 (2.252)	3.696 (3.070)	0.983 (2.434)	1.956 (2.465)	1.638 (1.115)	-0.062 (0.606)	0.901 (0.804)	-2.272 (1.757)	-0.704 (0.656)	1.219 (3.406)	-0.578 (3.128)	3.096 (6.287)	1.708 (1.745)	-3.849 (3.088)	-3.417 (2.881)
High (ISCED 4-6)	-0.142 (0.601)	-2.812 (3.022)	4.666 (3.203)	-3.079 (2.533)	2.524 (2.518)	0.176 (1.095)	-0.424 (0.647)	0.287 (1.011)	-6.114*** (2.185)	-4.082*** (1.092)	1.262 (4.035)	-0.920 (2.697)	11.131* (6.399)	-1.993 (1.898)	-6.175* (3.726)	-0.348 (3.097)
<b>Inheritance</b>																
Dummy	1.465** (0.588)	0.949 (1.198)	1.583 (1.633)	-3.321* (1.978)	1.892 (1.441)	1.951** (0.868)	x2	0.131 (0.598)	-1.565 (1.146)	x3	0.236 (2.430)	-0.414 (2.405)	8.153 (5.151)	1.698 (1.445)	-1.104 (1.531)	-1.635* (0.866)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	4.796*** (1.158)	11.120 (9.379)	8.703 (12.581)	0.021 (5.685)	6.776* (3.621)	1.065 (2.146)	3.012*** (1.050)	7.119*** (2.254)	6.982** (2.989)	3.929*** (1.472)	4.136 (15.157)	51.003* (26.928)	-14.519 (39.831)	15.591 (19.857)	2.216 (2.908)	2.086 (1.563)
Third Quintile	6.253*** (1.036)	12.957 (9.083)	11.294 (11.867)	10.297** (4.967)	6.216* (3.279)	2.397 (2.051)	6.583*** (0.918)	9.878*** (2.077)	6.613** (2.712)	5.377*** (1.427)	2.514 (19.097)	57.571** (27.599)	8.640 (12.879)	18.169 (19.769)	2.514 (5.062)	2.572 (1.627)
Fourth Quintile	7.200*** (1.094)	17.044** (8.968)	12.998 (11.891)	11.032** (4.978)	5.821* (3.437)	5.280*** (1.923)	7.372*** (0.972)	11.039*** (2.145)	8.092*** (2.682)	4.603*** (1.429)	12.320 (14.909)	59.888** (27.432)	15.955 (13.948)	20.191 (19.732)	6.671* (3.431)	2.761 (1.720)
Fifth Quintile	12.772*** (1.164)	28.440*** (9.446)	19.611* (11.907)	22.434*** (4.430)	11.770*** (3.412)	10.375*** (2.297)	9.204*** (1.000)	17.630*** (2.215)	11.567*** (2.747)	8.829*** (1.476)	20.545 (15.696)	71.350** (28.264)	21.214* (12.879)	30.955 (19.623)	13.362*** (4.863)	7.555*** (1.441)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	0.499 (1.048)	-2.293 (3.633)	3.232 (13.551)	4.141 (4.751)	-1.706 (4.911)	3.466 (2.273)	-0.139 (0.860)	-1.006 (1.242)	0.294 (1.919)	3.242** (1.542)	3.049 (6.065)	5.116 (7.187)	-1.805 (10.789)	2.149 (2.720)	2.414 (3.981)	0.454 (3.117)
Third Quintile	1.553 (1.096)	-0.315 (3.837)	9.482 (13.134)	9.061** (4.307)	-0.186 (3.998)	4.660** (2.040)	-0.382 (0.909)	-2.826** (1.171)	2.934 (2.626)	4.107** (1.710)	4.196 (5.420)	2.544 (7.471)	6.526 (6.512)	2.043 (2.901)	5.211 (3.256)	3.369 (3.164)
Fourth Quintile	1.552* (0.936)	-0.010 (3.223)	6.982 (12.991)	6.974 (4.462)	0.161 (3.705)	5.374** (2.125)	0.653 (0.942)	-3.905*** (1.181)	5.126** (2.300)	5.223*** (1.562)	4.037 (4.707)	6.102 (7.033)	-1.606 (6.873)	0.643 (3.085)	3.223 (3.455)	3.679 (3.105)
Fifth Quintile	2.797*** (0.971)	0.046 (3.294)	7.337 (13.080)	8.227* (4.365)	4.485 (3.909)	4.444** (2.148)	3.862*** (1.061)	-3.988** (1.063)	7.355*** (2.328)	5.538*** (1.714)	5.712 (5.302)	8.232 (7.133)	3.565 (7.288)	1.608 (2.726)	4.652 (3.925)	5.711* (3.380)
Constant	-30.379*** (1.334)	-35.758*** (8.906)	-46.227*** (18.364)	-29.962*** (6.848)	-37.831*** (4.999)	-24.576*** (3.021)	-24.138*** (1.410)	-26.169*** (2.395)	-35.101*** (4.776)	-26.394*** (2.366)	-45.082*** (15.230)	-77.709*** (29.206)	-47.214*** (15.641)	-47.200*** (20.513)	-63.811*** (9.026)	-15.672*** (4.417)
Sigma	11.768*** (0.236)	12.176*** (0.825)	12.608*** (0.908)	12.504*** (0.831)	12.417*** (0.611)	10.302*** (0.547)	11.995*** (0.126)	10.708*** (0.304)	13.579*** (0.712)	9.714*** (0.299)	16.143*** (1.286)	11.265*** (0.927)	15.006*** (1.828)	14.068*** (0.609)	8.128*** (0.852)	6.758*** (0.481)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

**Table A4.3: Tobit model for the value of safe financial assets**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple without children	-0.267*** (0.096)	-0.006 (0.242)	-0.009 (0.203)	0.743 (1.037)	0.004 (0.247)	-0.769*** (0.220)	0.155** (0.072)	-0.037 (0.099)	-1.469*** (0.476)	-0.776*** (0.248)	-0.114 (0.323)	0.337 (0.435)	0.549 (0.495)	-0.386* (0.231)	0.445 (0.853)	-0.896** (0.368)
Three or more adults without children	-0.465*** (0.149)	0.070 (0.273)	0.012 (0.255)	-0.608 (1.248)	0.104 (0.382)	-1.099*** (0.343)	-0.085 (0.120)	-0.611*** (0.162)	-2.445*** (0.506)	-1.409*** (0.307)	-0.558 (0.422)	0.753 (0.509)	1.046* (0.578)	-0.782*** (0.300)	1.031 (1.055)	-0.809 (0.495)
Single Parent	-0.460*** (0.164)	0.183 (0.251)	-0.724** (0.350)	-0.426 (1.139)	-0.215 (0.403)	-0.401 (0.392)	-0.325*** (0.108)	-0.321*** (0.109)	0.246 (0.832)	-0.603 (0.469)	-0.480 (0.460)	-1.811* (1.009)	-0.703 (0.701)	-0.133 (0.302)	-2.582*** (1.037)	-0.755* (0.413)
Couple with dependent children	-0.516*** (0.111)	0.236 (0.270)	-0.784*** (0.246)	0.244 (1.004)	0.111 (0.292)	-1.460*** (0.280)	-0.080 (0.091)	-0.356*** (0.102)	-2.493*** (0.599)	-0.907*** (0.292)	-0.196 (0.360)	0.715 (0.548)	0.147 (0.533)	-0.610** (0.248)	0.144 (0.941)	-0.941** (0.369)
Three or more adults with children	-0.700*** (0.155)	-0.023 (0.375)	-0.620 (0.403)	1.311 (1.146)	-0.246 (0.496)	-1.420*** (0.371)	0.025 (0.161)	-0.615*** (0.146)	-3.085*** (0.821)	-1.607*** (0.385)	-0.817* (0.429)	0.559 (0.558)	0.245 (0.863)	-1.139*** (0.283)	1.890** (0.951)	-0.616 (0.468)
<b>Gender (Reference Person)</b>																
Male	-0.062 (0.064)	-0.335** (0.154)	-0.030 (0.129)	0.367 (0.478)	-0.061 (0.147)	0.082 (0.197)	-0.084* (0.046)	-0.046 (0.056)	0.075 (0.345)	0.055 (0.165)	-0.109 (0.205)	-0.374 (0.298)	-0.103 (0.298)	-0.035 (0.126)	-0.324 (0.444)	-0.366** (0.181)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	-0.105 (0.067)	0.023 (0.126)	-0.412** (0.200)	-0.572 (0.481)	-0.140 (0.182)	0.378* (0.206)	0.247*** (0.060)	-0.099 (0.078)	-0.248 (0.363)	-0.020 (0.196)	0.114 (0.257)	0.277 (0.255)	-0.410 (0.272)	-0.070 (0.137)	-0.821* (0.453)	-0.323* (0.189)
65 years and over	0.091 (0.112)	0.103 (0.199)	-0.966*** (0.280)	-0.156 (1.287)	-0.083 (0.371)	0.547* (0.316)	0.318*** (0.102)	0.187 (0.150)	-0.063 (0.439)	0.258 (0.247)	0.238 (0.427)	0.276 (0.367)	-0.136 (0.421)	0.025 (0.236)	-0.488 (0.795)	-1.682*** (0.571)
<b>Marital Status (Reference Person) [Base: Unmarried]</b>																
Married	-0.143 (0.097)	0.032 (0.182)	-0.097 (0.202)	-0.775 (0.964)	-0.508* (0.268)	0.458* (0.276)	-0.042 (0.064)	-0.248*** (0.067)	1.081** (0.485)	-0.101 (0.248)	-0.172 (0.300)	-0.331 (0.443)	-0.152 (0.412)	0.816*** (0.181)	-0.760 (0.689)	0.708** (0.334)
Divorced	-0.360*** (0.108)	-0.582*** (0.220)	0.195 (0.243)	0.096 (0.854)	-0.424 (0.259)	-0.566 (0.359)	-0.059 (0.064)	-0.406*** (0.112)	-0.914 (0.709)	-0.171 (0.292)	-0.793* (0.432)	-0.262 (0.656)	0.143 (0.427)	-0.444* (0.264)	-1.358 (0.927)	0.242 (0.305)
Widowed	-0.296*** (0.099)	0.140 (0.202)	-0.148 (0.338)	-0.989 (1.197)	-0.487* (0.271)	0.165 (0.259)	-0.090 (0.097)	0.039 (0.120)	0.510 (0.532)	-0.564** (0.255)	-0.299 (0.413)	1.220*** (0.424)	0.131 (0.451)	0.101 (0.279)	0.600 (0.953)	-0.510 (0.510)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	-0.099 (0.082)	-0.166 (0.204)	-0.079 (0.199)	0.725 (0.534)	-0.172 (0.243)	-0.139 (0.280)	0.311*** (0.072)	-0.202 (0.136)	0.497* (0.300)	-0.127 (0.204)	0.071 (0.276)	0.534** (0.225)	0.262 (0.745)	-0.038 (0.174)	-0.155 (0.757)	-0.010 (0.180)
Unemployed	-1.023*** (0.136)	-1.151*** (0.361)	-0.724** (0.309)	-1.201 (1.076)	-1.492*** (0.391)	-0.909*** (0.106)	-0.398*** (0.150)	-0.587*** (0.150)	-0.403 (0.596)	-2.050*** (0.828)	-1.107 (1.233)	-1.660 (0.556)	0.221 (0.175)	0.038 (0.175)	-1.649** (0.760)	-2.051*** (0.695)
Retired	0.043 (0.083)	0.035 (0.166)	0.305 (0.226)	0.167 (1.078)	0.090 (0.299)	-0.208 (0.256)	0.158* (0.093)	0.191* (0.115)	0.778* (0.421)	0.452** (0.200)	-0.038 (0.302)	0.381 (0.367)	-0.438 (0.362)	0.018 (0.193)	-2.073*** (0.627)	-0.262 (0.357)
Other	-0.220 (0.136)	-0.076 (0.389)	-0.959** (0.403)	-3.174* (1.785)	-0.423 (0.382)	-0.472* (0.254)	-0.076 (0.101)	-0.128 (0.136)	0.011 (0.707)	-0.849 (0.764)	-0.763 (0.518)	-1.280** (0.607)	-0.146 (0.529)	-0.826** (0.399)	-3.635*** (1.150)	-1.370** (0.570)
Missing	0.272 (0.357)	-0.017 (0.439)	-4.798 (6.588)										0.344 (0.377)	0.053 (1.232)	-3.442 (4.551)	
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	0.392*** (0.076)	0.715*** (0.184)	0.283* (0.157)	1.689*** (0.599)	0.208 (0.268)	0.423** (0.188)	-0.053 (0.058)	0.246*** (0.068)	1.351*** (0.299)	0.537*** (0.148)	0.650** (0.252)	0.214 (0.186)	0.372 (0.277)	0.706*** (0.123)	0.163 (0.528)	1.564*** (0.603)
High (ISCED 4-6)	0.625*** (0.082)	1.072*** (0.212)	0.322* (0.173)	1.952*** (0.647)	0.499* (0.278)	0.864*** (0.149)	0.140** (0.062)	0.449*** (0.103)	1.784*** (0.367)	0.552*** (0.162)	0.807*** (0.278)	0.348 (0.212)	0.764*** (0.279)	0.887*** (0.139)	2.477*** (0.607)	1.890*** (0.679)
<b>Inheritance</b>																
Dummy	0.193*** (0.042)	0.014 (0.102)	0.301** (0.133)	0.349 (0.452)	0.079 (0.110)	0.438*** (0.114)	x2	0.342*** (0.061)	-0.703*** (0.250)	x3	0.036 (0.192)	0.487*** (0.164)	0.342 (0.248)	0.078 (0.122)	0.101 (0.410)	0.121 (0.171)
<b>Net Wealth Distribution [Base: First Quintile]</b>																
Second Quintile	2.104*** (0.096)	2.409*** (0.174)	2.151*** (0.277)	2.369*** (0.814)	2.748*** (0.258)	1.130*** (0.259)	1.448*** (0.072)	1.894*** (0.086)	1.195*** (0.412)	2.236*** (0.242)	1.998*** (0.419)	0.907** (0.386)	2.810*** (0.455)	1.587*** (0.206)	0.673 (0.667)	0.957*** (0.332)
Third Quintile	2.629*** (0.105)	2.832*** (0.227)	2.553*** (0.217)	1.678** (0.775)	3.572*** (0.242)	1.606*** (0.259)	1.625*** (0.072)	1.986*** (0.096)	2.674*** (0.441)	2.789*** (0.283)	2.358*** (0.351)	1.140*** (0.331)	3.394*** (0.454)	1.873*** (0.196)	1.870** (0.872)	1.634*** (0.347)
Fourth Quintile	3.037*** (0.099)	3.074*** (0.207)	3.409*** (0.230)	3.191*** (0.801)	3.896*** (0.269)	2.364*** (0.240)	2.135*** (0.069)	2.416*** (0.091)	3.483*** (0.399)	2.908*** (0.277)	2.595*** (0.366)	1.771*** (0.326)	3.549*** (0.406)	2.473*** (0.192)	2.074** (0.726)	1.571*** (0.347)
Fifth Quintile	3.717*** (0.101)	3.691*** (0.280)	4.051*** (0.217)	3.656*** (0.898)	4.567** (0.263)	2.947*** (0.265)	2.640*** (0.077)	3.160*** (0.115)	4.245*** (0.425)	3.469*** (0.290)	2.623*** (0.401)	1.710*** (0.318)	4.198*** (0.364)	3.343*** (0.202)	2.491*** (0.905)	2.496*** (0.352)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	0.886*** (0.099)	0.381** (0.193)	0.486* (0.269)	1.222 (0.802)	0.397 (0.289)	1.095*** (0.222)	0.411*** (0.075)	0.538*** (0.095)	1.488*** (0.476)	2.194*** (0.289)	0.696** (0.341)	0.591 (0.388)	0.466 (0.401)	0.913*** (0.185)	2.998*** (0.784)	0.793** (0.368)
Third Quintile	1.323*** (0.099)	0.467** (0.215)	1.186*** (0.268)	1.722** (0.719)	0.771*** (0.280)	1.498*** (0.280)	0.730*** (0.090)	0.853*** (0.097)	2.548*** (0.473)	3.056*** (0.246)	0.903** (0.378)	1.219*** (0.439)	0.360 (0.438)	1.184*** (0.206)	3.155*** (0.747)	0.736** (0.371)
Fourth Quintile	1.568*** (0.110)	1.027*** (0.197)	1.386*** (0.265)	2.678*** (0.728)	0.824** (0.319)	1.605*** (0.254)	0.848*** (0.092)	1.176*** (0.114)	3.039*** (0.460)	3.650*** (0.293)	1.214*** (0.373)	1.397*** (0.392)	0.254 (0.474)	1.593*** (0.190)	2.214** (0.803)	1.485*** (0.367)
Fifth Quintile	2.085*** (0.108)	1.358*** (0.353)	1.447*** (0.285)	2.916*** (0.816)	1.411*** (0.301)	2.100*** (0.286)	1.187*** (0.101)	1.710*** (0.123)	3.158*** (0.513)	4.450*** (0.309)	1.724*** (0.398)	1.586*** (0.401)	0.370 (0.437)	1.969*** (0.210)	3.461*** (0.855)	1.793*** (0.395)
Constant	6.141*** (0.137)	6.073*** (0.280)	7.004*** (0.290)	3.351*** (1.055)	6.094*** (0.348)	5.694*** (0.304)	6.712*** (0.096)	6.740*** (0.141)	1.383** (0.651)	3.308*** (0.334)	7.322*** (0.378)	7.309*** (0.540)	6.935*** (0.738)	5.075*** (0.271)	3.435*** (1.045)	4.704*** (0.656)
Sigma	2.577*** (0.033)	2.004*** (0.071)	2.203*** (0.084)	4.266*** (0.234)	2.066*** (0.089)	2.648*** (0.085)	1.568*** (0.017)	1.660*** (0.033)	4.975*** (0.192)	3.798*** (0.075)	2.002*** (0.105)	2.194*** (0.113)	2.398*** (0.153)	2.513*** (0.065)	3.514*** (0.147)	2.745*** (0.072)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due no recorded inheritances.

3) Italy does not collect information on inheritance.

## Appendix 5: Tobit Models (excluding net wealth indicator)

**Table A5.1: Tobit model for the value of the households' main residence**

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
<b>Household Type [Base: Single]</b>																
Couple without children	2.283*** (0.298)	5.136*** (0.707)	2.667*** (0.652)	-0.046 (1.027)	3.000*** (0.846)	0.909** (0.385)	0.586** (0.290)	1.596*** (0.511)	2.351*** (0.415)	0.705* (0.371)	0.657 (0.949)	2.385** (0.952)	4.298*** (1.164)	1.880*** (0.481)	3.605*** (0.919)	1.358*** (0.293)
Three or more adults without children	1.870*** (0.366)	6.058*** (1.332)	2.464** (1.050)	1.130 (0.994)	4.119*** (1.099)	0.139 (0.521)	0.396 (0.440)	2.241*** (0.682)	2.556*** (0.632)	0.381 (0.556)	-1.286 (1.522)	1.463 (1.322)	4.345 (2.883)	1.915*** (0.604)	4.922*** (0.990)	1.989*** (0.402)
Single Parent	-0.462 (0.596)	1.245 (1.812)	-0.109 (1.225)	1.073 (1.630)	-1.026 (2.337)	0.526 (0.919)	-1.132* (0.637)	-1.931** (0.822)	1.216 (1.440)	0.462 (0.993)	-0.011 (1.950)	-0.813 (2.088)	-0.914 (2.652)	-0.544 (0.854)	3.277* (1.752)	0.867* (0.470)
Couple with dependent children	3.570*** (0.320)	6.786*** (0.952)	3.535*** (0.715)	1.464 (0.911)	4.063*** (1.083)	1.958*** (0.442)	2.085*** (0.349)	3.714*** (0.565)	3.129*** (0.524)	1.507*** (0.477)	1.313 (1.091)	4.455*** (1.072)	8.579*** (1.179)	2.760*** (0.575)	5.739*** (1.120)	2.269*** (0.404)
Three or more adults with children	2.342*** (0.445)	6.015*** (1.440)	4.012*** (1.167)	-0.182 (1.495)	6.533*** (1.384)	-0.257 (0.684)	1.148* (0.608)	0.726 (0.968)	2.546*** (0.645)	0.613 (0.741)	1.969 (1.572)	3.521*** (1.253)	7.536*** (2.034)	1.678** (0.739)	5.756*** (1.153)	1.867*** (0.501)
<b>Gender (Reference Person)</b>																
Male	-0.203 (0.216)	-0.015 (0.914)	-1.010** (0.507)	-0.426 (0.717)	-0.293 (0.782)	-0.033 (0.313)	0.307 (0.216)	0.007 (0.325)	-0.006 (0.302)	-0.396 (0.254)	-2.211*** (0.764)	-0.516 (0.643)	0.999 (1.021)	0.269 (0.332)	-0.826 (0.541)	-0.215 (0.197)
<b>Age (Reference Person) [Base: Below 40 years]</b>																
40-64 years	4.357*** (0.200)	4.331*** (0.697)	3.648*** (0.660)	0.714 (0.845)	6.287*** (0.783)	2.052*** (0.373)	4.592*** (0.250)	6.220*** (0.427)	4.032*** (0.361)	3.674*** (0.465)	2.190*** (0.827)	0.791 (0.617)	0.641 (1.124)	3.713*** (0.566)	2.227*** (0.832)	2.492*** (0.280)
65 years and over	5.738*** (0.300)	5.487*** (1.098)	3.003*** (0.948)	1.864 (2.173)	7.663*** (1.291)	2.584*** (0.531)	5.592*** (0.408)	6.841*** (0.703)	4.938*** (0.618)	5.102*** (0.618)	5.444*** (1.383)	0.615 (1.023)	3.965** (1.854)	4.405*** (0.710)	2.070* (1.101)	3.107*** (0.392)
<b>Labor market status (Reference Person) [Base: Employee]</b>																
Self-employed	0.958*** (0.307)	3.390*** (0.943)	1.104 (0.856)	-0.195 (1.100)	1.989* (1.063)	-0.368 (0.468)	2.526*** (0.331)	2.757*** (0.552)	1.048** (0.424)	0.386 (0.433)	-2.220 (1.388)	1.053 (0.652)	-1.638 (2.233)	0.607 (0.440)	0.910 (0.821)	0.458 (0.340)
Unemployed	-2.295*** (0.456)	-4.686*** (2.303)	-3.137*** (1.126)	-1.084 (1.543)	-4.306** (2.185)	-1.484** (0.616)	-1.984*** (0.574)	-3.909*** (0.773)	0.852 (1.359)	0.570 (1.162)	-6.710 (10.570)	0.605 (1.628)	-1.218 (3.517)	-2.580*** (0.679)	-0.416 (1.120)	-3.371** (1.716)
Retired	2.022*** (0.261)	1.960** (0.914)	3.576*** (0.676)	-0.316 (1.937)	2.573** (1.120)	1.176*** (0.406)	2.322*** (0.370)	3.009*** (0.597)	2.500*** (0.549)	3.382*** (0.442)	1.699* (1.032)	-0.568 (1.046)	-2.711* (1.647)	-0.211 (0.491)	4.234*** (0.843)	0.757*** (0.265)
Other	-0.610 (0.454)	-2.352 (3.104)	-2.958** (1.440)	-4.068 (2.561)	-2.302 (2.152)	0.817 (0.504)	-2.609*** (0.477)	-1.765** (0.857)	-0.879 (1.042)	5.179** (1.009)	3.892** (1.772)	1.209 (1.486)	-3.267* (1.680)	-0.002 (0.940)	-0.883 (1.601)	0.564 (0.366)
Missing	1.316 (0.976)	1.901 (2.306)	-3.989 (7.828)										-1.130 (1.182)	-0.552 (12.298)		2.536*** (0.806)
<b>Education (Reference Person) [Base: Low (ISCED 1 and 2)]</b>																
Middle (ISCED 3)	0.773*** (0.215)	-0.254 (0.764)	0.182 (0.648)	1.315 (0.898)	1.721 (1.102)	-0.665* (0.387)	0.295 (0.295)	1.230*** (0.327)	0.176 (0.450)	1.626*** (0.333)	1.950** (0.881)	1.446*** (0.533)	-0.067 (0.880)	0.599 (0.451)	1.478** (0.650)	0.367 (0.423)
High (ISCED 4-6)	1.259*** (0.264)	-2.056** (1.042)	1.272* (0.660)	1.679* (0.944)	1.854 (1.232)	0.059 (0.361)	0.676** (0.285)	2.070*** (0.441)	-0.447 (0.610)	1.876*** (0.560)	0.156 (1.093)	1.807*** (0.690)	2.155** (0.902)	0.942** (0.462)	0.990 (0.747)	0.992** (0.435)
<b>Inheritance</b>																
Dummy	4.180*** (0.214)	7.187*** (0.635)	1.882** (0.422)	3.447*** (0.599)	6.788*** (0.590)	1.665*** (0.230)	x2	2.791*** (0.287)	5.191*** (0.206)	x3	3.051*** (0.622)	2.760*** (0.452)	3.072*** (1.173)	3.286*** (0.321)	3.362*** (0.462)	1.424*** (0.132)
<b>Income Distribution [Base: First Quintile]</b>																
Second Quintile	1.722*** (0.364)	2.532* (1.393)	1.283 (0.868)	2.945** (1.287)	4.141** (1.757)	0.712 (0.469)	2.906*** (0.453)	2.169*** (0.547)	0.355 (0.569)	2.154*** (0.456)	4.025** (1.604)	0.917 (1.099)	-0.231 (1.746)	-0.626 (0.522)	1.217 (0.996)	-0.144 (0.344)
Third Quintile	3.304*** (0.367)	3.216** (1.392)	3.469*** (0.881)	2.609* (1.446)	5.577*** (1.642)	1.873*** (0.539)	4.830*** (0.421)	4.133*** (0.593)	1.101** (0.546)	3.820*** (0.461)	7.122*** (1.449)	1.227 (1.150)	0.803 (1.748)	0.941* (0.512)	0.687 (1.061)	0.242 (0.406)
Fourth Quintile	5.191*** (0.372)	3.398** (1.443)	5.054*** (0.827)	4.840*** (1.406)	8.269*** (1.537)	2.089*** (0.589)	7.110*** (0.486)	7.113*** (0.572)	1.547** (0.717)	6.016*** (0.477)	9.979*** (1.403)	1.712 (1.180)	3.377* (1.787)	1.353** (0.575)	1.580 (0.981)	0.407 (0.377)
Fifth Quintile	6.401*** (0.418)	5.577*** (1.486)	5.523*** (0.952)	5.333*** (1.390)	10.125*** (1.715)	2.944*** (0.529)	8.015*** (0.533)	7.748*** (0.638)	3.147*** (0.707)	6.944*** (0.544)	10.618*** (1.579)	1.880 (1.266)	3.194** (1.623)	2.333*** (0.548)	2.496** (1.022)	0.171 (0.483)
Constant	-8.483*** (0.506)	-11.348*** (1.311)	-1.159 (0.987)	2.509 (1.656)	-17.017*** (1.774)	5.552*** (0.586)	-2.545*** (0.545)	-9.388*** (0.554)	-1.375*** (0.478)	-2.613*** (0.698)	-2.246* (1.361)	3.928*** (1.377)	-1.677 (1.703)	0.699 (0.673)	-0.445 (1.369)	5.707*** (0.506)
Sigma	8.154*** (0.056)	10.143*** (0.224)	7.014*** (0.191)	6.637*** (0.316)	9.864*** (0.176)	5.467*** (0.175)	6.769*** (0.078)	8.909*** (0.101)	6.116*** (0.077)	7.684*** (0.116)	7.692*** (0.277)	6.170*** (0.227)	9.342*** (0.170)	6.895*** (0.185)	4.705*** (0.257)	3.532*** (0.067)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

Table A5.2: Tobit model for the value of risky financial assets

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	-2.511*** (0.447)	-2.299 (1.406)	0.139 (1.112)	-1.727 (1.596)	-3.345*** (1.075)	-1.845 (1.152)	-0.068 (0.405)	-3.543*** (0.527)	4.461 (4.018)	-4.385*** (1.041)	-3.196 (1.978)	1.087 (1.802)	0.184 (1.388)	-1.506 (1.896)	3.035 (2.567)	-1.696 (3.155)
Three or more adults without children	-5.180*** (0.600)	-4.980*** (2.244)	-0.736 (1.908)	-1.421 (2.131)	-5.597*** (1.802)	-4.776*** (1.564)	-1.068 (0.704)	-7.093*** (1.185)	4.096 (4.561)	-9.188*** (1.242)	-4.112* (2.263)	2.025 (2.369)	-7.074* (3.815)	-5.198* (3.033)	1.226 (2.832)	-0.021 (3.701)
Single Parent	-1.924 (1.449)	-1.214 (3.748)	-3.946* (2.305)	1.355 (2.188)	1.265 (3.044)	-0.667 (2.689)	-1.181 (0.781)	-3.970*** (1.227)	-3.887 (34.167)	-4.198 (2.964)	-7.270 (24.947)	-4.149 (6.290)	-8.455 (9.061)	-3.086 (9.235)	-2.188 (3.698)	3.541 (5.500)
Couple with dependent children	-3.951*** (0.490)	-2.009 (1.792)	-0.409 (1.442)	-1.863 (1.500)	-4.278*** (1.228)	-3.466** (1.594)	-1.455*** (0.443)	-4.121*** (0.666)	1.850 (4.443)	-7.187*** (1.249)	-3.495** (2.117)	4.437** (1.686)	-2.615 (2.586)	-2.021 (2.586)	3.364 (3.009)	-0.063 (2.658)
Three or more adults with children	-5.311*** (0.925)	-8.422*** (3.152)	-1.482 (2.407)	-2.456 (2.080)	-7.155*** (2.436)	-1.268 (2.322)	-2.328*** (0.784)	-7.080*** (1.111)	3.630 (6.295)	-9.722*** (1.536)	-8.018** (3.310)	2.375 (2.455)	-1.429 (3.337)	-5.025* (2.967)	5.035 (3.219)	-1.576 (5.327)
Gender (Reference Person)																
Male	0.849** (0.375)	2.736** (1.230)	0.733 (1.010)	2.617** (1.250)	-0.325 (0.976)	0.968 (1.115)	0.517* (0.301)	1.278** (0.501)	0.901 (3.057)	1.001 (0.786)	1.162 (1.467)	-3.173** (1.480)	0.338 (1.403)	3.330** (1.369)	1.389 (1.456)	1.034 (2.273)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	1.555*** (0.571)	0.741 (1.524)	3.334*** (1.264)	5.879*** (1.175)	-1.870 (1.225)	5.026*** (1.491)	0.990*** (0.324)	1.987*** (0.554)	6.740** (3.078)	7.297*** (0.954)	2.499 (1.566)	2.334 (1.813)	4.145** (1.922)	2.192 (1.911)	4.016** (1.932)	3.078 (2.287)
65 years and over	2.328*** (0.775)	-1.771 (2.540)	5.367*** (2.027)	5.738* (3.070)	0.657 (2.227)	7.949*** (2.345)	2.457*** (0.608)	1.613 (1.070)	11.333** (5.102)	6.177*** (1.424)	5.891** (2.922)	3.639 (2.463)	9.985*** (2.754)	2.833 (2.268)	3.503 (2.728)	5.542 (5.205)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.506 (0.524)	3.751** (1.903)	1.005 (2.134)	-0.930 (1.570)	-1.257 (1.587)	0.907 (1.489)	2.120*** (0.350)	0.997 (0.747)	0.361 (3.296)	1.855** (0.923)	1.908 (1.812)	2.315 (1.696)	1.913 (3.092)	1.997 (1.992)	-0.713 (3.683)	2.037 (2.832)
Unemployed	-2.719** (1.226)	2.627 (4.085)	-0.718 (2.437)	-0.957 (2.326)	-2.461 (3.638)	-2.787 (1.739)	-2.150*** (0.778)	-4.364*** (1.367)	-95.092*** (4.770)	2.300 (3.061)	1.569 (34.584)	3.289 (4.254)	-3.203 (6.046)	-0.130 (3.527)	-0.049 (2.670)	-5.179 (10.341)
Retired	1.790*** (0.525)	3.638* (1.933)	3.080* (1.803)	-0.273 (2.735)	-0.299 (1.755)	2.257 (1.877)	1.822*** (0.584)	-0.028 (0.764)	-3.010 (4.432)	6.701*** (0.839)	0.680 (2.358)	2.484 (2.108)	-4.525* (2.388)	1.748 (2.077)	0.224 (2.180)	-4.668 (4.238)
Other	2.287* (1.169)	2.834 (4.444)	-2.887 (3.577)	-3.572 (10.144)	2.567 (2.456)	-1.167 (2.720)	0.417 (0.615)	-1.902 (1.767)	8.190** (46.765)	2.464 (4.140)	-0.563 (5.998)	1.135 (3.212)	-3.875 (2.457)	-8.592*** (26.106)	1.728 (3.137)	1.949 (7.149)
Missing	-0.280 (2.032)		-2.774 (13.539)	6.662 (13.001)									0.780 (2.081)	-59.551 (41.165)		-70.652*** (3.718)
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	3.180*** (0.379)	8.235*** (2.536)	4.130*** (1.172)	1.540 (1.304)	5.318** (2.518)	6.813*** (1.195)	1.566*** (0.375)	1.762*** (0.563)	8.236*** (3.171)	2.775*** (0.644)	6.226*** (1.514)	1.269 (1.370)	2.689 (1.800)	8.340*** (1.738)	7.353*** (2.473)	0.226 (11.224)
High (ISCED 4-6)	6.681*** (0.500)	11.813*** (2.870)	7.080*** (1.209)	2.771** (1.341)	10.706*** (2.600)	10.804*** (1.095)	3.820*** (0.359)	3.863*** (0.646)	10.748*** (3.214)	2.989** (0.953)	10.092*** (1.695)	2.635* (1.522)	4.359** (1.783)	13.258*** (1.607)	14.786*** (2.532)	8.654 (11.410)
Inheritance																
Dummy	3.878*** (0.408)	5.790*** (1.245)	4.346*** (0.873)	2.261** (0.972)	2.941*** (0.818)	4.693*** (0.984)	x2 (0.410)	4.391*** (2.199)	-1.160 (1.313)	x3 (1.313)	2.950** (1.132)	6.533*** (1.658)	6.696*** (1.240)	5.912*** (1.446)	0.875 (1.446)	-0.372 (2.146)
Income Distribution [Base: First Quintile]																
Second Quintile	4.039*** (0.768)	4.369 (3.194)	5.636*** (1.563)	3.230* (1.927)	2.007 (2.290)	4.285** (1.759)	2.893*** (0.675)	5.432*** (1.121)	0.925 (11.013)	10.111*** (1.376)	4.858 (3.411)	3.765* (2.059)	1.956 (2.616)	0.196 (2.942)	-0.000 (2.783)	-0.005 (4.293)
Third Quintile	8.222*** (0.902)	8.673*** (3.023)	8.959*** (1.654)	3.067 (2.181)	8.448*** (2.321)	3.177 (2.056)	5.236*** (0.672)	9.628*** (1.145)	3.022 (11.144)	16.478*** (1.583)	10.512*** (2.940)	4.129* (2.140)	2.276 (2.367)	4.699 (3.083)	3.880 (2.510)	0.881 (3.707)
Fourth Quintile	11.349*** (0.790)	13.543*** (3.237)	10.047*** (1.525)	5.872*** (1.951)	10.729*** (2.136)	5.767*** (1.905)	7.138*** (0.731)	13.501*** (1.128)	7.756 (10.946)	22.015*** (1.862)	14.216*** (2.840)	7.062*** (2.110)	5.397** (2.642)	7.723*** (2.875)	-1.248 (2.821)	-4.499 (4.017)
Fifth Quintile	16.394*** (0.792)	16.111*** (3.274)	11.413*** (1.677)	9.127*** (1.958)	16.028*** (2.197)	12.236*** (1.879)	10.688*** (0.799)	19.026*** (1.215)	13.395 (10.875)	28.238*** (1.839)	20.150*** (2.981)	8.328*** (2.562)	6.596*** (2.345)	17.235*** (3.132)	0.603 (3.229)	-2.366 (4.331)
Constant	-27.027*** (0.998)	-36.920*** (3.600)	-23.164*** (1.950)	-13.619*** (2.173)	-21.364*** (3.139)	-30.694*** (2.256)	-10.257*** (0.670)	-22.090*** (1.074)	-54.706*** (10.623)	-34.435*** (1.806)	-25.493*** (2.824)	-14.430*** (2.464)	-17.655*** (3.577)	-40.546*** (3.092)	-24.024*** (4.384)	-32.368*** (12.770)
Sigma	12.657*** (0.122)	14.599*** (0.510)	11.649*** (0.279)	8.371*** (0.383)	12.224*** (0.342)	14.035*** (0.340)	8.850*** (0.082)	11.304*** (0.146)	19.112*** (0.839)	13.205*** (0.203)	11.043*** (0.434)	11.434*** (0.376)	12.554*** (0.387)	15.344*** (0.506)	11.024*** (0.573)	16.954*** (0.581)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

Table A5.3: Tobit model for the value of other real estate

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	2.034*** (0.561)	0.588 (1.845)	0.580 (1.895)	3.785** (1.534)	0.406 (1.674)	2.459*** (0.830)	5.783*** (0.595)	1.755** (0.844)	2.322** (0.977)	3.584*** (0.913)	0.352 (2.650)	-0.336 (2.234)	6.580 (4.340)	1.497 (1.216)	4.865* (2.915)	-1.392 (2.357)
Three or more adults without children	1.878** (0.749)	1.821 (3.414)	-1.196 (3.366)	6.401*** (2.014)	-0.249 (2.446)	1.009 (1.129)	8.962*** (0.932)	1.581 (1.527)	4.161*** (1.097)	5.021*** (1.070)	1.892 (3.143)	0.762 (2.744)	4.661 (7.572)	1.207 (1.310)	7.191** (3.224)	3.315 (2.728)
Single Parent	-0.209 (1.128)	0.200 (5.472)	2.458 (3.929)	-1.278 (2.759)	2.693 (4.226)	0.871 (2.067)	0.210 (1.401)	-0.649 (1.491)	2.643 (2.031)	-4.263* (2.550)	5.517 (4.149)	0.082 (8.107)	-2.431 (24.261)	-4.189* (2.216)	-10.062*** (3.749)	1.041 (3.461)
Couple with dependent children	1.583** (0.701)	0.125 (2.283)	0.589 (2.688)	3.365** (1.504)	0.019 (1.998)	2.068** (1.018)	4.070*** (0.680)	0.858 (0.855)	2.699** (1.207)	4.293*** (1.185)	-1.199 (2.795)	3.821 (2.521)	7.841 (5.669)	0.544 (1.362)	3.677 (3.480)	1.650 (2.172)
Three or more adults with children	1.619* (0.871)	0.049 (3.075)	1.606 (5.178)	1.886 (1.955)	-0.405 (3.062)	2.780** (1.417)	6.599*** (1.292)	0.393 (1.783)	3.303** (1.534)	4.338*** (1.392)	1.427 (3.603)	3.199 (2.958)	-16.848 (30.957)	0.639 (1.600)	8.690** (3.715)	0.041 (2.897)
Gender (Reference Person)																
Male	0.189 (0.483)	-0.407 (1.495)	3.267** (1.504)	1.574 (1.113)	-0.788 (1.540)	-0.496 (0.776)	1.892*** (0.379)	-0.267 (0.567)	1.188 (0.907)	0.238 (0.796)	2.847 (1.898)	-1.712 (1.774)	2.151 (3.244)	0.866 (0.664)	-3.192** (1.479)	-0.256 (1.421)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	5.820*** (0.528)	5.040*** (1.651)	7.493*** (2.404)	3.113** (1.390)	3.747** (1.774)	4.831*** (0.951)	9.196*** (0.549)	5.931*** (0.879)	3.303*** (1.228)	8.644*** (2.097)	4.886** (2.193)	4.746** (2.076)	14.827*** (1.523)	4.004*** (0.953)	12.010*** (2.023)	3.164** (1.543)
65 years and over	6.059*** (0.759)	5.229* (2.900)	6.326* (3.639)	-0.818 (2.855)	5.542* (3.135)	3.485*** (1.223)	10.689*** (0.926)	5.659*** (1.491)	3.899** (1.389)	10.022*** (1.577)	8.453** (3.423)	5.612* (3.281)	9.128 (7.037)	5.722*** (1.216)	16.270*** (2.887)	1.663 (2.710)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	6.566*** (0.553)	6.778*** (2.062)	11.308*** (2.639)	3.843*** (1.209)	4.949*** (1.854)	4.762*** (0.987)	6.671*** (0.564)	9.385*** (0.781)	3.946*** (0.915)	7.582*** (1.017)	6.491*** (2.076)	8.766*** (1.523)	11.930 (9.427)	6.394*** (0.953)	3.599 (2.637)	4.785** (2.029)
Unemployed	-2.551*** (0.947)	2.976 (5.824)	-4.496 (3.993)	0.629 (2.393)	-10.695* (5.778)	-0.085 (1.468)	-2.481** (1.104)	-4.612** (1.371)	-2.638 (4.057)	-2.043 (2.803)	-56.407 (57.349)	-2.416 (10.870)	13.432 (13.203)	-1.378 (1.949)	-3.311 (3.145)	1.639 (5.696)
Retired	3.138*** (0.631)	1.280 (2.098)	7.737** (2.648)	0.317 (2.423)	2.601 (2.342)	4.909*** (0.982)	3.745*** (0.767)	3.015*** (1.135)	2.926*** (0.955)	2.716*** (0.870)	2.491 (2.229)	4.289* (2.245)	4.480 (4.379)	2.168* (1.126)	-2.224 (2.361)	6.430*** (2.088)
Other	0.162 (0.988)	-55.457 (53.870)	-4.815 (8.763)	-1.337 (3.042)	-0.553 (4.124)	3.271*** (1.261)	0.194 (0.765)	-1.702 (1.489)	-0.813 (2.546)	1.933 (2.753)	-11.903 (10.240)	-3.480 (3.628)	-5.850 (5.490)	4.276* (2.462)	-4.956 (4.398)	5.408 (4.260)
Missing	1.063 (2.598)		1.640 (19.255)	5.203 (9.483)									0.510 (4.767)	8.394 (37.538)		-67.288*** (3.669)
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.821** (0.363)	-1.310 (2.186)	1.925 (2.254)	3.316*** (1.142)	5.997** (2.456)	0.896 (1.023)	0.855 (0.567)	0.778 (0.601)	-0.165 (0.935)	2.171*** (0.754)	-1.988 (1.889)	3.651*** (1.251)	-0.340 (4.097)	0.568 (1.125)	0.285 (2.014)	-7.513** (3.585)
High (ISCED 4-6)	3.715*** (0.559)	3.749 (2.525)	2.955 (1.971)	2.042 (1.288)	10.367*** (2.959)	1.652** (0.809)	1.837*** (0.580)	1.882** (0.767)	1.091 (0.929)	6.296*** (1.036)	3.318 (2.146)	4.768** (2.021)	8.697** (3.816)	4.239*** (1.063)	3.076 (2.809)	1.420 (3.938)
Inheritance																
Dummy	8.619*** (0.453)	13.575*** (1.278)	6.369*** (1.305)	7.484*** (1.011)	7.968*** (1.116)	9.706*** (0.554)	x2	9.329*** (0.590)	2.289*** (0.814)	x3	5.600*** (1.571)	6.388*** (1.381)	7.366** (4.455)	9.769*** (0.699)	5.473*** (1.447)	3.121*** (1.134)
Income Distribution [Base: First Quintile]																
Second Quintile	2.014*** (0.686)	6.144* (3.331)	-0.169 (2.763)	1.442 (1.980)	-2.121 (2.921)	5.227*** (1.039)	2.638*** (0.946)	3.036*** (0.945)	1.248 (1.213)	1.311 (1.260)	1.926 (3.773)	2.132 (2.458)	1.246 (6.799)	0.907 (1.279)	11.100*** (3.249)	2.893 (2.566)
Third Quintile	4.652*** (0.821)	8.028*** (2.930)	0.800 (3.008)	1.254 (1.998)	5.469* (3.082)	6.698*** (0.894)	5.429*** (0.976)	4.689*** (1.254)	5.148*** (1.344)	3.202** (1.365)	5.695 (3.521)	3.722 (2.726)	-8.608 (7.881)	2.668* (1.415)	12.594*** (3.450)	8.427*** (3.058)
Fourth Quintile	7.527*** (0.839)	11.257*** (3.049)	6.769** (3.199)	3.226 (2.163)	11.600*** (2.983)	9.344*** (1.121)	7.221*** (1.034)	6.077*** (1.182)	4.469*** (1.388)	4.440*** (1.318)	8.276** (3.415)	4.505* (2.324)	-1.503 (6.481)	4.635*** (1.310)	8.660** (3.596)	10.540*** (3.136)
Fifth Quintile	11.415*** (0.892)	17.139*** (2.810)	10.828*** (3.176)	7.528*** (2.115)	14.842*** (3.398)	12.415*** (1.254)	9.379*** (1.062)	11.427*** (1.161)	8.135*** (1.369)	8.758*** (1.393)	12.091*** (3.722)	6.809** (2.765)	0.137 (6.312)	8.978*** (1.222)	16.355*** (3.560)	12.800*** (3.471)
Constant	-33.627*** (1.071)	-39.163*** (3.546)	-36.551*** (3.892)	-10.735*** (2.162)	-35.540*** (3.478)	-20.163*** (1.472)	-24.964*** (0.888)	-25.793*** (1.286)	-14.766*** (1.703)	-27.708*** (1.466)	-22.726*** (3.428)	-19.061*** (3.359)	-55.844*** (7.552)	-21.083*** (1.693)	-35.040*** (3.715)	-23.783*** (3.903)
Sigma	14.165*** (0.112)	16.393*** (0.588)	17.477*** (0.471)	9.097*** (0.354)	15.283*** (0.416)	11.550*** (0.238)	12.882*** (0.114)	13.716*** (0.169)	11.946*** (0.289)	14.582*** (0.193)	14.530*** (0.514)	13.326*** (0.445)	23.250*** (0.872)	12.881*** (0.314)	13.482*** (0.698)	15.093*** (0.492)

Standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

Source: HFCS 2013

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

Table A5.4: Tobit model for the value of business assets

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	4.497*** (0.744)	6.886*** (2.447)	5.556** (2.286)	0.913 (4.006)	4.890** (2.247)	2.942 (1.827)	2.959*** (0.647)	6.348*** (1.054)	6.556** (2.671)	3.008** (1.175)	6.314 (4.274)	-1.226 (3.278)	0.847 (4.669)	4.506** (2.283)	42.266*** (5.635)	-1.281 (1.423)
Three or more adults without children	8.166*** (0.867)	13.769*** (3.014)	5.552 (4.743)	3.586 (4.981)	7.053*** (2.659)	5.402*** (1.879)	2.197* (1.227)	7.608*** (1.495)	12.180*** (3.263)	8.419*** (1.500)	3.309 (5.842)	-0.731 (4.504)	-107.382*** (14.978)	6.623** (2.699)	52.119*** (6.872)	1.651 (1.665)
Single Parent	1.264 (1.355)	-3.713 (11.606)	4.617 (12.452)	0.604 (11.546)	3.477 (4.807)	-4.761 (3.441)	0.371 (1.551)	-1.262 (1.410)	-5.105 (17.084)	2.596 (1.983)	2.066 (27.889)	-3.997 (11.955)	-2.386 (16.967)	4.368 (5.014)	-2.717 (2.202)	-0.554 (1.713)
Couple with dependent children	5.715*** (0.793)	5.954** (2.781)	4.429* (2.654)	-0.378 (3.601)	5.162* (2.640)	3.689** (1.740)	3.156*** (0.769)	7.854*** (1.061)	10.911*** (2.734)	6.124*** (1.100)	3.363 (3.991)	-4.064 (4.007)	-4.356 (4.866)	5.187** (2.371)	53.196*** (6.673)	-0.390 (1.281)
Three or more adults with children	6.788*** (1.048)	10.542*** (2.995)	1.858 (5.589)	-0.565 (4.922)	8.468** (3.554)	3.928* (2.254)	-3.405** (1.576)	9.386*** (1.374)	11.253*** (3.640)	6.654*** (1.534)	7.455 (4.800)	-1.320 (4.467)	3.183 (15.865)	3.833 (3.030)	50.911*** (6.963)	-1.316 (2.703)
Gender (Reference Person)																
Male	-1.701*** (0.453)	-2.599 (1.968)	-1.953 (2.099)	4.983** (2.379)	-0.834 (1.596)	-1.650 (1.136)	-0.592 (0.457)	-3.189*** (0.739)	-3.489** (1.652)	-1.931*** (0.716)	-3.036 (4.113)	-3.620 (3.270)	2.580 (3.204)	-0.406 (1.824)	-4.704** (2.066)	0.031 (1.187)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.973* (0.545)	4.936** (2.103)	2.089 (2.113)	1.728 (2.400)	5.220*** (1.863)	-1.177 (1.185)	5.650*** (0.661)	0.353 (0.729)	-2.787 (1.701)	0.228 (0.850)	0.485 (3.694)	-1.180 (2.945)	-4.353 (4.357)	-0.447 (1.639)	-0.370 (1.549)	-0.100 (0.971)
65 years and over	-1.935** (0.792)	1.629 (3.495)	-2.783 (4.360)	-2.294 (10.203)	-1.931 (2.618)	-2.997 (2.482)	7.181*** (1.173)	-1.944 (3.854)	-3.867 (1.319)	-0.520 (6.394)	-4.002 (9.028)	-9.228 (6.039)	-13.254 (22.852)	2.029 (3.128)	-4.792 (3.882)	-0.166 (3.034)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	25.014*** (0.299)	24.223*** (2.083)	27.512*** (1.705)	16.233*** (2.156)	23.240*** (0.926)	24.878*** (0.928)	9.195*** (0.632)	27.151*** (0.502)	23.872*** (1.433)	23.007*** (0.590)	29.216*** (2.695)	27.338*** (1.615)	35.986*** (4.113)	23.471*** (1.251)	22.291*** (2.279)	19.921*** (1.089)
Unemployed	-5.451*** (1.289)	1.769 (10.280)	-2.686 (33.157)	-8.410 (39.288)	-54.661* (33.009)	-8.315 (6.242)	-1.124 (1.437)	-3.678 (2.438)	3.212 (34.574)	-4.209 (15.539)	-82.438*** (9.157)	4.957 (13.986)	-14.483 (45.398)	-5.738* (3.237)	-3.547 (4.069)	-32.100*** (3.759)
Retired	0.112 (0.811)	-2.784 (2.137)	0.359 (3.606)	-6.837 (10.640)	-0.097 (2.241)	2.756 (2.405)	2.398** (1.001)	-1.440 (1.346)	5.184 (3.831)	0.354 (1.368)	3.849 (4.435)	5.484 (4.070)	-1.143 (10.014)	-4.180 (2.643)	2.456 (3.822)	1.613 (1.989)
Other	-8.808 (1.608)	1.224 (11.458)	3.571 (13.156)	-78.853*** (6.683)	-4.899 (18.577)	-1.205 (3.684)	-1.332 (1.014)	-4.672** (2.195)	8.837 (16.444)	-1.090 (16.186)	-78.274*** (8.339)	-69.932*** (6.500)	9.767 (10.821)	-75.687*** (4.015)	-51.394*** (6.422)	5.199 (4.493)
Missing	5.525* (2.881)	-10.836 (27.921)	-11.161 (36.905)										11.674** (4.618)	23.053 (46.524)		-25.202*** (3.300)
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.942* (0.512)	-2.043 (2.576)	4.774 (3.114)	2.559 (2.767)	2.902 (2.642)	2.441** (1.177)	-0.008 (0.620)	1.820** (0.775)	-1.602 (1.739)	-0.024 (0.643)	2.966 (3.684)	1.280 (2.757)	3.918 (6.361)	3.495* (2.110)	-0.449 (2.119)	-2.178 (3.376)
High (ISCED 4-6)	1.385** (0.616)	-2.826 (3.264)	7.179** (3.284)	-1.947 (2.933)	4.271 (2.656)	1.654 (1.243)	0.023 (0.621)	1.626 (1.076)	-5.152** (2.069)	-3.170*** (1.090)	2.688 (4.520)	1.978 (3.151)	12.072* (6.623)	1.259 (2.106)	-0.076 (2.498)	2.107 (3.652)
Inheritance																
Dummy	3.333*** (0.585)	6.081*** (1.165)	3.570** (1.743)	0.494 (2.199)	3.636*** (1.377)	3.512*** (0.904)	x2	2.506*** (0.584)	-0.145 (1.194)	x3	3.913 (2.511)	3.862 (2.508)	11.555** (4.681)	5.193*** (1.526)	-0.675 (1.646)	-1.068 (0.924)
Income Distribution [Base: First Quintile]																
Second Quintile	1.281 (1.060)	0.481 (3.710)	4.435 (14.723)	3.976 (4.558)	-1.001 (4.854)	5.262** (2.277)	1.009 (0.851)	-0.224 (1.373)	1.563 (1.988)	3.629** (1.483)	2.181 (6.927)	6.530 (7.244)	-1.822 (11.855)	4.961* (2.949)	4.093 (3.707)	1.322 (3.230)
Third Quintile	3.138*** (1.042)	4.584 (4.674)	12.109 (14.295)	10.203*** (4.184)	1.069 (3.919)	7.647*** (2.188)	1.445 (0.922)	-1.362 (1.361)	4.717* (2.594)	5.278*** (1.601)	5.379 (6.057)	5.029 (7.396)	6.572 (6.791)	6.708** (3.355)	7.525** (2.994)	4.456 (3.347)
Fourth Quintile	4.011*** (0.922)	6.085 (4.135)	10.558 (14.105)	10.905** (4.621)	2.128 (3.458)	9.269*** (2.281)	3.141*** (0.958)	-1.440 (1.434)	6.942*** (2.272)	7.268*** (1.488)	7.487 (5.694)	9.130 (7.348)	-0.992 (7.447)	6.172* (3.504)	5.173 (3.965)	5.444 (3.362)
Fifth Quintile	6.843*** (0.977)	8.698** (3.567)	11.796 (14.161)	15.316*** (4.382)	7.677** (3.745)	9.716*** (2.148)	7.175*** (1.030)	0.577 (1.266)	10.835*** (2.148)	8.702*** (1.665)	11.987** (6.075)	13.639* (7.023)	4.289 (7.177)	10.968*** (3.272)	9.664*** (3.364)	8.267** (3.562)
Constant	-30.298*** (1.175)	-36.305*** (4.924)	-43.730*** (15.400)	-27.406*** (6.188)	-36.482*** (4.701)	-28.597*** (2.797)	-23.409*** (1.227)	-24.627*** (1.504)	-36.321*** (3.971)	-26.070*** (2.136)	-45.721*** (7.087)	-27.246*** (7.868)	-45.224*** (8.693)	-39.959*** (3.413)	-66.278*** (7.495)	-18.890*** (5.229)
Sigma	12.379*** (0.246)	14.185*** (1.116)	13.655*** (0.976)	14.901*** (0.899)	12.902*** (0.619)	10.998*** (0.623)	12.265*** (0.139)	11.630*** (0.344)	13.993*** (0.732)	10.069*** (0.309)	17.855*** (1.357)	13.951*** (1.066)	16.852*** (2.184)	16.001*** (0.610)	9.578*** (1.129)	7.523*** (0.550)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due to no recorded inheritances.

3) Italy does not collect information on inheritance.

Table A5.5: Tobit model for the value of safe financial assets

VARIABLES	EA <sup>1</sup>	AT	BE	CY	DE	ES	FI	FR	GR	IT	LU	MT	NL	PT	SI	SK
Household Type [Base: Single]																
Couple without children	-0.065 (0.075)	0.461** (0.228)	0.235 (0.185)	0.539 (0.676)	0.002 (0.162)	-0.395** (0.187)	0.306*** (0.071)	-0.063 (0.100)	-0.554 (0.402)	-0.550*** (0.192)	-0.034 (0.268)	0.050 (0.343)	0.979*** (0.377)	0.385** (0.179)	0.318 (0.783)	-0.175 (0.335)
Three or more adults without children	-0.311** (0.132)	0.648** (0.302)	0.252 (0.261)	-0.549 (0.956)	-0.035 (0.354)	-0.714** (0.278)	0.068 (0.132)	-0.689*** (0.173)	-1.265*** (0.437)	-1.311*** (0.274)	-0.550 (0.396)	0.337 (0.398)	1.627*** (0.536)	0.050 (0.259)	1.073 (0.854)	0.143 (0.402)
Single Parent	-0.696*** (0.189)	0.037 (0.280)	-0.769** (0.364)	-0.217 (1.046)	-0.825 (0.519)	-0.505 (0.349)	-0.414*** (0.112)	-0.655*** (0.122)	-0.132 (0.740)	-0.598 (0.454)	-0.553 (0.508)	-2.403** (1.052)	-0.851 (0.977)	-0.438 (0.313)	-2.371** (1.061)	-0.478 (0.428)
Couple with dependent children	-0.318*** (0.096)	0.655** (0.262)	-0.648*** (0.244)	-0.093 (0.655)	-0.043 (0.218)	-0.856*** (0.228)	0.053 (0.082)	-0.423*** (0.105)	-1.017** (0.454)	-0.652*** (0.231)	-0.045 (0.282)	0.593 (0.400)	0.771** (0.371)	0.332 (0.230)	0.194 (0.755)	0.017 (0.259)
Three or more adults with children	-0.624*** (0.147)	0.313 (0.366)	-0.282 (0.414)	0.587 (0.725)	-0.085 (0.470)	-1.079*** (0.309)	0.285* (0.168)	-0.866*** (0.166)	-1.832** (0.781)	-1.564*** (0.332)	-0.636 (0.417)	0.296 (0.447)	0.553 (0.801)	-0.341 (0.278)	2.148*** (0.797)	0.324 (0.333)
Gender (Reference Person)																
Male	-0.044 (0.058)	-0.295* (0.161)	-0.067 (0.148)	0.543 (0.500)	-0.076 (0.133)	0.171 (0.200)	0.020 (0.048)	-0.099 (0.063)	0.380 (0.357)	0.099 (0.163)	-0.179 (0.201)	-0.655** (0.281)	-0.010 (0.266)	0.212* (0.127)	-0.836* (0.468)	-0.273 (0.183)
Age (Reference Person) [Base: Below 40 years]																
40-64 years	0.319*** (0.070)	0.346** (0.153)	0.355** (0.175)	-0.247 (0.498)	-0.084 (0.170)	0.915*** (0.204)	0.817*** (0.057)	0.228** (0.091)	0.408 (0.349)	0.492*** (0.184)	0.278 (0.272)	0.520** (0.230)	0.425 (0.371)	0.552*** (0.138)	-0.588 (0.485)	0.235 (0.153)
65 years and over	0.691*** (0.114)	0.750*** (0.234)	-0.317 (0.290)	-0.209 (1.283)	0.269 (0.410)	1.250*** (0.324)	1.038*** (0.114)	0.691*** (0.162)	0.838** (0.412)	0.849*** (0.239)	0.786* (0.427)	0.837** (0.375)	1.320*** (0.494)	0.785*** (0.237)	0.135 (0.913)	-1.002* (0.566)
Labor market status (Reference Person) [Base: Employee]																
Self-employed	0.366*** (0.085)	0.250 (0.213)	0.472** (0.219)	0.910* (0.522)	0.191 (0.239)	0.370 (0.285)	0.585*** (0.071)	0.422*** (0.142)	1.096*** (0.313)	0.305 (0.207)	0.291 (0.290)	0.927*** (0.199)	0.373 (0.844)	0.440** (0.173)	0.207 (0.725)	0.226 (0.174)
Unemployed	-1.457*** (0.154)	-1.593*** (0.412)	-1.100*** (0.319)	-1.378 (1.090)	-2.446*** (0.435)	-1.123*** (0.250)	-0.467*** (0.118)	-0.893*** (0.175)	-0.592 (1.497)	-2.034*** (0.606)	-1.725* (0.949)	-1.630 (1.277)	0.199 (0.737)	-0.258 (0.205)	-1.734** (0.830)	-2.099*** (0.610)
Retired	0.316*** (0.092)	0.076 (0.204)	0.900*** (0.246)	0.063 (1.083)	0.308 (0.355)	0.214 (0.277)	0.440*** (0.101)	0.427*** (0.124)	1.559*** (0.440)	0.904*** (0.212)	0.209 (0.349)	0.406 (0.378)	-0.765* (0.418)	0.190 (0.202)	-1.645** (0.655)	-0.310 (0.370)
Other	-0.208 (0.148)	-0.506 (0.446)	-1.416*** (0.447)	-3.587* (1.972)	-0.689* (0.393)	-0.118 (0.269)	-0.046 (0.106)	-0.165 (0.158)	0.330 (0.711)	-0.070 (0.795)	-0.548 (0.615)	-1.030 (0.679)	-0.516 (0.586)	-0.602 (0.450)	-3.593*** (1.229)	-1.335** (0.538)
Missing	0.418 (0.402)		0.286 (0.559)	-5.397 (6.501)									0.254 (0.400)	0.376 (1.583)		-3.474 (5.085)
Education (Reference Person) [Base: Low (ISCED 1 and 2)]																
Middle (ISCED 3)	0.615*** (0.080)	0.918*** (0.228)	0.484*** (0.165)	2.068*** (0.585)	0.622** (0.287)	0.527** (0.205)	0.024 (0.066)	0.379*** (0.076)	1.576*** (0.307)	0.874*** (0.152)	0.846*** (0.263)	0.342* (0.194)	0.361 (0.335)	1.004*** (0.142)	0.503 (0.552)	1.898*** (0.629)
High (ISCED 4-6)	1.016*** (0.086)	1.308*** (0.251)	0.804*** (0.170)	2.436*** (0.608)	1.159*** (0.302)	1.175*** (0.165)	0.325*** (0.069)	0.723*** (0.113)	2.197*** (0.370)	0.970*** (0.175)	1.113*** (0.299)	0.564*** (0.211)	0.834*** (0.323)	1.371*** (0.151)	2.950*** (0.616)	2.562*** (0.693)
Inheritance																
Dummy	0.768*** (0.049)	0.740*** (0.100)	0.768*** (0.137)	0.957** (0.414)	0.893*** (0.124)	0.845*** (0.116)	x2	0.741*** (0.060)	0.073 (0.246)	x3	0.329 (0.217)	0.703*** (0.172)	0.754*** (0.269)	0.654*** (0.120)	0.527 (0.411)	0.294* (0.168)
Income Distribution [Base: First Quintile]																
Second Quintile	1.267*** (0.114)	0.853*** (0.219)	0.783*** (0.280)	1.576* (0.837)	0.972*** (0.321)	1.390*** (0.236)	0.693*** (0.091)	0.882*** (0.102)	1.710*** (0.471)	2.697*** (0.296)	1.087*** (0.374)	0.791* (0.445)	0.571 (0.480)	0.990*** (0.190)	3.466*** (0.818)	1.071*** (0.392)
Third Quintile	2.001*** (0.110)	1.083*** (0.246)	1.913*** (0.280)	2.085*** (0.737)	1.743*** (0.298)	2.058*** (0.299)	1.207*** (0.099)	1.419*** (0.115)	3.127*** (0.489)	3.961*** (0.239)	1.683*** (0.374)	1.436*** (0.477)	0.512 (0.493)	1.545*** (0.213)	3.560*** (0.828)	1.106*** (0.404)
Fourth Quintile	2.533*** (0.123)	1.857*** (0.248)	2.405*** (0.269)	3.416*** (0.744)	2.234*** (0.365)	2.325*** (0.290)	1.499*** (0.103)	2.008*** (0.126)	3.779*** (0.510)	4.922*** (0.286)	2.261*** (0.378)	1.777*** (0.437)	0.476 (0.508)	2.103*** (0.212)	2.563*** (0.928)	1.986*** (0.394)
Fifth Quintile	3.350*** (0.121)	2.409*** (0.372)	2.662*** (0.294)	3.882*** (0.759)	3.073*** (0.339)	3.228*** (0.281)	2.040*** (0.113)	2.848*** (0.153)	4.617*** (0.536)	5.982*** (0.305)	2.869*** (0.418)	2.050*** (0.454)	0.622 (0.444)	2.913*** (0.211)	4.303*** (0.874)	2.380*** (0.395)
Constant	6.615*** (0.136)	6.763*** (0.282)	7.509*** (0.284)	3.784*** (0.938)	6.944*** (0.350)	5.778*** (0.308)	7.037*** (0.096)	7.322*** (0.136)	1.355** (0.645)	3.540*** (0.274)	7.791*** (0.377)	7.962*** (0.512)	8.510*** (0.721)	5.361*** (0.254)	3.289*** (0.907)	4.486*** (0.683)
Sigma	2.787*** (0.036)	2.274*** (0.071)	2.450*** (0.082)	4.409*** (0.236)	2.400** (0.098)	2.798*** (0.092)	1.729*** (0.017)	1.858*** (0.037)	5.177*** (0.187)	3.937** (0.081)	2.156*** (0.115)	2.285*** (0.121)	2.757*** (0.155)	2.720*** (0.068)	3.634*** (0.170)	2.866*** (0.078)

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: HFCS 2013

Notes:

1) The model for the euro area includes country fixed effects for which the estimates are not reported.

2) Dummy for inheritance for Finland is dropped from the model due no recorded inheritances.

3) Italy does not collect information on inheritance.

## **Appendix 6: Definitions**

### **A- Definition of explanatory variables**

- Household type: single [base], couples with children, three or more adults without children, single parent, couple with dependent children, three or more adults with dependent children
- Gender of the reference person: dummy equal to one for male reference person
- Age of reference person: below 40 years [base], 40-64 years, 65 years and older
- Marital status of the reference person: single [base], married (including consensual union on a legal bases), divorced, widowed
- Employment status of the reference person: employee [base], self-employed, unemployed, retired, other, missing
- Education of the reference person: low (ISCED 1 and 2) [base], middle (ISCED 3), high (ISCED 4-6)
- Inheritance: dummy equal to one if a household has inherited in the past
- Net wealth distribution: quintiles [base: first quintile]
- Income distribution: quintiles [base: first quintile]

### **Reference person:**

- The reference person is defined in accordance with the Canberra definition, i.e. applying the following rule in the order that is given until one person is found: “one of the partners in a registered or de facto marriage, with dependent children; one of the partners in a registered or de facto marriage, without dependent children; a lone parent with dependent children; the person with the highest income; the eldest person” [see also Canberra Handbook 2011 page 65-66].

### **B- Definitions of the institutional indicators**

#### **Institutional indicators- investigating differences in the effect of explanatory variables for housing assets**

<b>Indicators</b>	<b>Definition</b>	<b>Source</b>
Collateral	Share of mortgages used for purposes other than financing a new home	ECB (2009)
Housing price-to-rent ratio	Price of the house on annual rent; long-term average = 100; 2009	OECD Stat
Inheritance tax on HMR	yes/no - Inheritance tax on own principal home	ECB (2009)
Pension -replacement rate	Gross pension replacement rates: average earners	OECD (2011)

## Institutional indicators- investigating differences in the effect of explanatory variables for risky assets

Indicators	Definition	Source
Stock capitalization	Stock market total value traded to GDP (%)	Worldbank - Financial development and Structure Dataset
Literacy	Senior business leader's evaluation of the statement "Economic literacy among the population is generally high- scale from 0 to 10	"World Competitiveness Yearbook" as seen in Figure 1 (Jappelli, 2010)
Trust	Country index of interpersonal trust (last available data 1999 for AT, BE, GR, LUX, MT, PT, SK, 2005 for DE, FI, IT, SI, 2006 for CY, FR, NL, 2007 for ES)	Values Surveys EVS/WVS, ASEP/ JDS Databank
Confidence	Consumer confidence (average 2009-2010)	Business and Consumer
Internet access	Percentage of households with access to the internet (2009)	OECD - EU Community
wealth tax	yes/no- Wealth Tax	ECB (2009)
Pension -replacement rate	Gross pension replacement rates: average earners	OECD (2011)

## Appendix 7: Mutivariate specifications- MCO estimates

### Determinants of housing main residence and institutional factors

	Net wealth				Income				Age		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	40-64	65 and over	
Mortgage market	-0.288	-0.451	-0.608	-0.676	0.030	0.054	0.144	0.181	0.032	0.003	0.088
	<i>-0.680</i>	<i>-1.220</i>	<i>-2.100</i>	<i>-2.370</i>	<i>0.370</i>	<i>0.480</i>	<i>1.010</i>	<i>1.290</i>	<i>0.290</i>	<i>0.040</i>	<i>1.160</i>
Housing price-to-rent ratio	0.043	-0.003	-0.039	-0.055	-0.011	0.009	0.015	0.016	-0.027	-0.032	-0.018
	<i>0.550</i>	<i>-0.050</i>	<i>-0.740</i>	<i>-1.060</i>	<i>-0.750</i>	<i>0.420</i>	<i>0.570</i>	<i>0.630</i>	<i>-1.350</i>	<i>-2.190</i>	<i>-2.000</i>
Inheritance tax on HMR	-8.752	-9.460	-10.983	-11.722	1.353	1.597	3.881	4.278	-0.315	-0.740	1.444
	<i>-0.910</i>	<i>-1.140</i>	<i>-1.680</i>	<i>-1.820</i>	<i>0.720</i>	<i>0.630</i>	<i>1.210</i>	<i>1.350</i>	<i>-0.130</i>	<i>-0.410</i>	<i>0.950</i>
Pension -replacement rate	0.088	-0.036	-0.046	-0.037	-0.006	-0.014	-0.019	-0.024	-0.007	0.009	0.000
	<i>0.590</i>	<i>-0.270</i>	<i>-0.450</i>	<i>-0.370</i>	<i>-0.200</i>	<i>-0.360</i>	<i>-0.370</i>	<i>-0.480</i>	<i>-0.190</i>	<i>0.310</i>	<i>0.000</i>
R-squared	0.18	0.24	0.53	0.59	0.15	0.11	0.24	0.27	0.31	0.52	0.64

### Determinants of other real estate and institutional factors

	Net wealth				Income				Age		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	40-64	65 and over	
Mortgage market	1.384	1.490	1.592	1.452	0.306	0.399	0.167	0.088	0.341	0.565	-0.207
	<i>1.130</i>	<i>1.420</i>	<i>1.570</i>	<i>1.170</i>	<i>1.020</i>	<i>1.540</i>	<i>0.600</i>	<i>0.250</i>	<i>1.260</i>	<i>1.420</i>	<i>-0.490</i>
Housing price-to-rent ratio	-0.049	-0.049	-0.013	0.015	-0.039	-0.129	-0.107	-0.115	-0.024	-0.107	-0.013
	<i>-0.220</i>	<i>-0.260</i>	<i>-0.070</i>	<i>0.060</i>	<i>-0.720</i>	<i>-2.740</i>	<i>-2.100</i>	<i>-1.820</i>	<i>-0.490</i>	<i>-1.470</i>	<i>-0.260</i>
Inheritance tax on HMR	34.258	36.461	38.240	37.069	10.176	12.539	7.816	6.761	10.463	15.743	-3.036
	<i>1.240</i>	<i>1.540</i>	<i>1.670</i>	<i>1.320</i>	<i>1.510</i>	<i>2.140</i>	<i>1.240</i>	<i>0.860</i>	<i>1.710</i>	<i>1.750</i>	<i>-0.360</i>
Pension -replacement rate	0.057	-0.028	-0.095	-0.104	0.074	0.090	0.063	0.061	0.007	0.002	-0.018
	<i>0.130</i>	<i>-0.070</i>	<i>-0.260</i>	<i>-0.240</i>	<i>0.700</i>	<i>0.990</i>	<i>0.640</i>	<i>0.500</i>	<i>0.070</i>	<i>0.010</i>	<i>-0.150</i>
R-squared	0.20	0.26	0.29	0.21	0.31	0.62	0.44	0.36	0.30	0.39	0.18

### Determinants of risky asset holding and institutional factors

	Net wealth				Income				Education		Inheritance
	Q2	Q3	Q4	Q5	Q2	Q3	Q4	Q5	Middle	High	
Stock market capitalization	0.045	0.041	0.030	0.033	0.047	0.076	0.120	0.154	-0.004	-0.023	-0.017
	<i>1.980</i>	<i>1.360</i>	<i>1.040</i>	<i>0.800</i>	<i>1.950</i>	<i>2.520</i>	<i>2.470</i>	<i>2.650</i>	<i>-0.140</i>	<i>-0.700</i>	<i>-0.810</i>
Literacy	0.677	0.853	0.864	1.202	0.863	0.666	1.723	1.191	-0.779	-1.633	-0.013
	<i>0.850</i>	<i>0.800</i>	<i>0.870</i>	<i>0.840</i>	<i>1.030</i>	<i>0.630</i>	<i>1.020</i>	<i>0.590</i>	<i>-0.810</i>	<i>-1.430</i>	<i>-0.020</i>
Trust	0.114	0.113	0.106	0.129	0.044	0.057	0.143	0.149	-0.035	-0.104	-0.065
	<i>2.900</i>	<i>2.140</i>	<i>2.150</i>	<i>1.830</i>	<i>1.050</i>	<i>1.100</i>	<i>1.700</i>	<i>1.480</i>	<i>-0.740</i>	<i>-1.840</i>	<i>-1.360</i>
Internet access	-0.362	-0.361	-0.374	-0.447	-0.241	-0.354	-0.608	-0.710	0.116	0.282	0.235
	<i>-2.880</i>	<i>-2.130</i>	<i>-2.370</i>	<i>-1.980</i>	<i>-1.810</i>	<i>-2.120</i>	<i>-2.260</i>	<i>-2.200</i>	<i>0.760</i>	<i>1.560</i>	<i>1.770</i>
Pension -replacement rate	-0.055	-0.084	-0.035	0.016	-0.160	-0.328	-0.350	-0.403	0.081	0.118	0.015
	<i>-0.770</i>	<i>-0.880</i>	<i>-0.390</i>	<i>0.120</i>	<i>-2.130</i>	<i>-3.490</i>	<i>-2.310</i>	<i>-2.220</i>	<i>0.940</i>	<i>1.160</i>	<i>0.210</i>
R-squared	0.62	0.45	0.56	0.53	0.47	0.66	0.54	0.53	0.25	0.47	0.61