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Exploring Differences in Household Debt Across the United States and Euro Area Countries

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Exploring Differences in Household Debt Across the United States and Euro Area Countries

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Abstract

Household debt has played a central role in the global financial crisis, yet our understanding of it remains limited. We put U.S. household leverage in an international perspective, using household-level data for the United States and ten euro area economies. U.S. households have the highest prevalence of collateralized and non-collateralized debt, hold comparatively large amounts, and face higher debt-service burdens despite having higher income. We find that the U.S. economic environment is more conducive to holding debt, primarily because a given level of collateral is associated with higher prevalence and larger amounts of collateralized debt in the United States.

Keywords: household debt, debt burden, household finance, counterfactual decompositions.

JEL Classification: D12, E21, G11

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Table of contents

1. Introduction

2. Data

2.1 Household debt

2.2 Household characteristics

3. Decomposition Methodology

4. Decomposing the Participation in Debt Markets

4.1 Collateralized debt

4.2 Non-collateralized debt

5. Decomposing Conditional Amounts of Debt

5.1 Collateralized debt

5.2 Non-collateralized debt

6. Decomposing Indicators of Debt Burden

7. Conclusions

References

Tables

1. Introduction

U.S. household debt has played a central role in the global financial crisis and its aftermath. The high levels of debt held by U.S. households seemed to be sustainable until share and house prices fell sharply and many households were faced with a drop in income or income prospects, making it harder for them to service their debt. The resulting deleveraging process has shaped the U.S. post-crisis macroeconomic performance. Mian and Sufi (2011) stress the negative feedback effect of foreclosures and forced house sales on U.S. house prices, which in turn lower collateral values and lead to negative wealth effects. But even in the absence of foreclosures, households with high debt burdens have cut down their consumption (Dynan, 2012). Taken together, these developments have had substantial macroeconomic repercussions. For instance, using regional variation across the United States, Mian and Sufi (2010) show that U.S. household leverage in 2006 predicts most of the fall in durable consumption in the subsequent recession.

While U.S. household debt clearly has been important in explaining the fate of the U.S. macroeconomy in recent years, we still know very little about factors that contributed to the high level of household debt. Zinman (2015) provides a thorough review, pointing to an array of possible factors that range from increased availability of credit, marketing of loan products, and housing price growth to changes in demographic composition. To shed more light on such factors we put U.S. household debt in an international perspective and examine cross-country differences in household debt holdings and the concomitant household exposure to a high debt-servicing burden. To that effect, we use household-level data from the 2010 U.S. Survey of Consumer Finances (SCF) combined with newly available comparable data from ten euro area countries from the Eurosystem Household Finance and Consumption Survey (HFCS).

Our approach has two main advantages. First, micro-level data help to shed light on household leverage issues that are typically hidden in National Accounts and regional aggregates. For instance, household-level information allows distinguishing between debt prevalence and amounts as well as assessing individual debt burden on the basis of payments that each household makes to service different types of debt. Second, putting U.S. household leverage into an international perspective allows gaining insights on factors that are associated with debt holdings and can be explicit to the United States or to the other developed countries under study. For example, such international comparisons help to assess the extent to which household leverage in the United States is associated with an economic environment that is conducive to providing more debt and allows for high debt burden in relation to the environment that counterpart households face in other advanced economies. Likewise, one could assess the extent to which the different patterns for U.S. household debt are associated with differences in the demographic composition in relation to countries under comparison.

Our starting premise is that cross-country differences in debt holdings and debt burden can be – on the one hand – associated with differences in the configuration of household characteristics and – on the other hand – with differences in the economic environment within which the households operate. Differences in economic environments usually comprise a broad set of factors that can originate from market characteristics (such as the availability and marketing of certain debt products), legal conditions (such as different taxation of debt), cultural factors (such as differences in the social acceptance of indebtedness), or policy (such as macro-prudential or monetary policies). As we discuss later, we use regression decomposition techniques in order to assess the association between household characteristics on the one hand and the economic

environment on the other hand on observed differences in prevalence and outstanding amounts of collateralized and non-collateralized debt and in the resulting debt burden.

Our key findings can be summarized as follows. First, we document that U.S. households show the highest prevalence of both collateralized and non-collateralized debt, and those who hold debt have comparatively large amounts of loans outstanding; conditional median amounts outstanding are higher only in the Netherlands (for both types of debt) and in Luxembourg (for collateralized debts).

Second, these differences are mainly related to the U.S. economic environment, which appears to be more conducive to debt holdings. For instance, differences in the economic environment between the United States and the median European country alone account for around 90% of the overall difference in the prevalence of collateralized and non-collateralized debt.

The first two key findings are in line with earlier evidence on the importance of economic environment in explaining cross-country differences in household assets and mortgages, most notably among older households (see Christelis et al., 2013). Our analysis here goes one step further, though, and identifies the main underlying factors that generate this result. Accordingly, our third key finding is that the same level of collateral is associated with higher holdings of collateralized debt in the U.S. environment, and that for a given level of education, households in the United States appear to hold more non-collateralized debt than their European counterparts.

Fourth, even though U.S. households have on average higher PPP-adjusted income than their European counterparts, they are found to have a substantially higher debt-service-to-income ratio. Also this result is linked to the economic environment in the United States, which appears more tolerant to high debt burdens for a given level of collateral.

Fifth, while differences in household characteristics show overall little association with the observed differences in debt holdings, they are related in a non-trivial way in many pairwise comparisons. In most of these cases, we find that U.S. households have characteristics that are associated with a higher likelihood to hold debt than their European counterparts.

The present paper relates to two strands of existing literature. The first deals with factors determining household debt. Several authors have stressed the importance of loan supply in determining debt levels: Mian and Sufi (2009) argue that more widespread securitization practices among U.S. banks shifted the supply of mortgages; Corbae and Quintin (2015) point to the large number of low-down-payment mortgage contracts in the United States prior to the crisis; in line with this, there has been an increased share of borrowers with relatively ‘poor’ characteristics: Demyanyk and Van Hemert (2012) document that the quality of mortgage loans deteriorated for six consecutive years prior to the crisis.

Other studies emphasize the role of loan demand in shaping debt levels. Georgarakos et al. (2014) show that those who consider themselves poorer than their peers tend to borrow more and assume a higher debt-service burden, particularly during periods of economic expansion. House prices have also been shown to be instrumental in explaining household debt: with rising house prices, debt levels tend to increase (see, e.g., Mian and Sufi, 2009). In addition, there is a possible role for legal and economic institutions. In their cross-European study, Bover et al. (2016) find the length of asset repossession periods in each country to correlate with differences in the prevalence and amounts of collateralized debt.

A second strand of the literature to which this paper relates uses decomposition techniques to study differences in household finances across countries. Bover (2010) estimates wealth distributions in a comparative analysis of the United States and Spain, and finds that differences

in household structure account for most of the differences in the lower part of the wealth distribution, whereas its upper part would be even more heterogeneous in the absence of differences in household structure. Christelis et al. (2013) use data on elderly households collected in 2004 in the United States and twelve European countries to study differences in assets accumulated over the life-cycle (such as stocks, houses and businesses) and in any remaining outstanding mortgages. They find that the economic environment is the main driver of differences in participation and values. Sierminska and Doorley (2012) use data from various surveys conducted in the United States, Germany, Italy, Luxembourg and Spain in 2007. They conclude that the importance of household characteristics in determining differences in several assets and debts varies by age. Finally, Mathä et al. (2014) use more recent cross-country survey data that are fully harmonized to examine the importance of intergenerational transfers, home ownership and house price dynamics for wealth differences in the euro area.

The present paper adds to this literature in a number of ways. First, it provides a more detailed analysis of household sector leverage than the previous papers by studying prevalence and amounts of collateralized and non-collateralized debts as well as debt burden indicators. Second, it generalizes the findings for mortgages of older households by Christelis et al. (2013) to the debt holdings of the entire population. This is important given that older households typically have a lower debt burden to service and exhibit quite different debt behaviour from their younger counterparts. Third, the paper applies recent decomposition techniques by Firpo et al. (2009) that provide more detailed decompositions than those derived in the earlier literature, allowing us to understand which factors are associated with the differences in debt holdings and debt burden.

The paper proceeds as follows: Section 2 presents the data, and Section 3 the decomposition method. Sections 4 and 5 discuss the findings with regard to the prevalence and amounts of debt holdings, respectively. Section 6 studies differences in debt burden, and Section 7 concludes.

2. Data

2.1 Household debt

We use internationally comparable household survey data from two sources. The first source is the 2010 wave of the U.S. SCF. We supplement this with comparable data from a second source, namely the Eurosystem HFCS. The latter represents a novel household wealth survey that provides ex ante comparable data for fifteen euro area countries.¹ For the purposes of our analysis, we use data for Austria, Belgium, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal and Spain, i.e., ten euro area countries which account for 95% of euro area GDP, and 94% of the euro area population.² The reference year for the first wave of this survey is end-2008 in Spain, 2009 in Greece and the Netherlands, and 2010 in all other countries.³ We match data from the two surveys based on a common set of information that regards household debt, assets and

¹ For more details on the survey, see http://www.ecb.europa.eu/home/html/researcher_hfcn.en.html as well as Household Finance and Consumption Network (2013a, b). An important feature of both surveys is that missing observations (i.e., questions that were not answered by the respondent households) are multiply imputed – as a matter of fact, five data sets are provided, an issue that we will take into account when assessing the statistical significance of our estimates.

² While we could have pooled the euro area data, we decided against doing so because this would have masked considerable cross-country differences and therefore made our comparisons less powerful. Data for Cyprus, Finland, Malta, Slovakia and Slovenia will not be used: these either do not cover some relevant information, or have only small samples.

³ The differences in the reference years do not seem to pose a major problem, since in all cases, no household deleveraging has occurred prior to the HFCS fieldwork. In contrast, in 2010 the U.S. deleveraging had already started. It is therefore important to keep in mind that our comparisons relate to a pre-deleveraging Europe and a post-deleveraging United States. Given that we find, in general, higher debt prevalence as well as larger outstanding volumes in the United States, these differences would likely be even starker if the SCF had recorded debt holdings in 2009 or 2008.

various demographic characteristics. In total, we compare nearly 6,500 households in the United States with more than 44,000 European households.

In the analysis, we consider two types of debt: collateralized debt (mortgages, home equity loans and debt for other real estate) and non-collateralized debt (credit card debt, instalment loans, overdrafts and other loans).

Table 1 here

Table 1 shows how prevalence and conditional amounts (which are transformed into 2005 U.S. dollars based on purchasing-power-parity [PPP] estimates) differ across countries. We sort countries by geographic latitude, to allow for an easier comparison of the northern and the southern euro area countries. The fraction of households having collateralized and non-collateralized debt varies considerably across countries. Prevalence in the United States is substantially larger than in all other countries, with a particularly large gap for the case of non-collateralized debt, where more than 60% of U.S. households participate, in contrast to around 20%-40% for European households. The transatlantic difference in holdings of collateralized debt is less stark, but it is apparent that there are enormous cross-country differences within Europe: whereas less than 20% of Austrian, Greek and Italian households report having collateralized debt, this number stands around 40% in the Netherlands and Luxembourg.

Table 1 also shows outstanding amounts at the 10th, 50th, and 90th percentile of the conditional distribution by country and type of debt. In particular, the median U.S. and German household with collateralized debt has an outstanding amount of around \$100,000 and \$90,000, respectively. In contrast, median collateralized debt holdings are higher in the Netherlands and Luxembourg, varying between \$130,000 and \$150,000. Looking at non-collateralized debt, the overall amounts are (as expected) much smaller than for collateralized debt. Median non-

collateralized debt in the United States is lower than in the Netherlands and in the same order of magnitude, namely around \$10,000, as in Luxembourg and Spain. Cross-country heterogeneity is also present if one looks at the tails of the conditional debt distributions.

Finally, Table 1 shows statistics on the debt-service-to-income ratio (DSIR) that is a commonly used debt burden indicator. DSIR is calculated as the fraction of monthly disposable income that every household has to pay in order to service any collateralized and non-collateralized debt. Reported statistics are calculated over the entire household population, i.e., also including those that do not hold any debt.⁴ Financial practitioners typically use a DSIR of 33% as a cut-off point, above which a household is classified as a “risky” borrower and considered as likely to face significant difficulties in servicing debt (see, e.g., DeVaney and Lytton, 1995). The fraction of households with a DSIR greater than 33% is 15% in the United States, followed by 13% in Spain and 8% in the Netherlands. On the other hand, less than 3% of households in Austria, Germany and Italy have such a high debt-service burden.

The 90th percentile distinguishes the top 10% of households with the highest DSIR in each country from the remaining 90% with a relatively lower debt burden. DSIRs at the 90th percentile vary quite a lot across countries, and notably suggest that in more than half of the countries the 10% households with the highest DSIR have to spend at least one-fourth of their income in servicing their collateralized and non-collateralized debt.

2.2 Household characteristics

In what follows, we discuss a basic set of household socio-economic characteristics that we control for in the decomposition analysis. In particular, we take into account characteristics

⁴ We have excluded few observations with a DSIR greater than 200%.

that are expected to associate with indebtedness, as suggested by both theory and established empirical practice. It is important to note that we have harmonized the definitions of all variables across the U.S. and European surveys to enhance the comparability of our results across all pairwise comparisons.

First, we take into account a number of demographics, including the age group of the household head (less than 39; 40-49; 50-59; while those aged 60 and above are our base category), household size, and marital status (married; never married; widowed; with the divorced forming the base category). Furthermore, we control for the level of education (finished high school; having at least some post-secondary education; with not having finished high school being the base category). These factors should influence the willingness to borrow and the ease of getting credit by signalling the household's earning capacities. In addition, we control for work status (being employed; retired; inactive; while being unemployed is the base category), since it also indicates the ability to repay debt.

Moreover, we include information on households' income, financial wealth and real wealth, because these represent resources with a varying degree of liquidity and indicate both the need for holding debt and the capacity to shoulder its burden. For instance, we would expect those who own an expensive house or other real estate to be more likely to finance it through a mortgage, and those with large financial assets to be less likely to have a large mortgage or consumer debt. To make income and wealth comparable across countries in absolute terms, we define dummy variables that sort households into the quartiles of the corresponding distribution in the United States. Hence, each euro area household is placed into a quartile depending on how its income or wealth compares to the U.S. quartile threshold values.⁵ We also control for whether a household

⁵ All income and wealth items are adjusted for differences in the purchasing power of money, and their values are all expressed in 2005 U.S. dollars.

has received a sizable inheritance or gift, which has been found to be important for explaining household wealth (see, e.g., Mathä et al., 2014).

In the case of non-collateralized debt we control for a number of additional characteristics that could influence demand for credit in the short run: having had an unexpectedly low income during the previous year (which could induce some short-term borrowing); expecting next year's income to be higher (which could make households more comfortable with borrowing now); being willing to undertake some financial risk (which could influence the propensity to get into debt).

The distribution of the various characteristics by country can be seen in Appendix Table A.1. With respect to education, U.S. households are on average more educated than their European counterparts. They are also the most likely to be working. Notably, U.S. households have in general higher relatively liquid economic resources. In particular, they have more households in the top income quartile than any other European country, except for Luxembourg. With respect to financial assets, they have the second-highest prevalence – after the Netherlands – in the top quartile, while Greece, Italy, Portugal and Spain have the lowest. In contrast, when it comes to real assets, many European countries have more households in the top category than the United States, mainly due to a higher prevalence of home ownership.

3. Decomposition Methodology

To investigate more thoroughly the observed differences in both the prevalence and outstanding amounts of the two types of debt across countries, we use decomposition methods that estimate counterfactual distributions. Decomposition techniques have been used extensively in labour economics to examine cross-sectional differences in incomes across demographic groups (e.g., men versus women; minorities versus the rest). Oaxaca (1973) and Blinder (1973) were the

first to implement these techniques in order to study the sources of gender gap in average wages.⁶ Since their seminal work, the development of new counterfactual techniques has allowed researchers to examine differences not only in means, but also in percentiles of distribution and measures of inequality.⁷

These newer techniques have been used to address distributional questions such as whether the gender pay gap increases at higher income percentiles (Albrecht et al., 2003). They have also been used to compare changes in U.S. income distribution across different points in time (e.g., Autor et al., 2008). Moreover, they have been used to compare differences in income distributions across regions (Nguyen et al., 2007) as well as across countries (e.g., Blau and Kahn, 1996). Following the recent availability of micro surveys with information on household balance sheets, decomposition methods have also been implemented to perform comparisons in household finances across time or countries (see, e.g., Gale and Pence, 2006; Christelis et al., 2013; Bover, 2010; Sierminska and Doorley, 2012; Mathä et al., 2014).

In this paper, we use decomposition methods to study differences in debt holdings across countries. When comparing outstanding amounts we employ new decomposition techniques that draw on recentered influence function (RIF) regressions (Firpo et al., 2009). The latter are implemented as linear regressions of the RIF of the quantile of interest on an array of covariates. RIF regressions allow evaluating the impact of explanatory variables on the quantiles of the unconditional (marginal) distribution of the dependent variable⁸ and can be used to extend the

⁶ They use ordinary least-squares estimates from a regression of (log) wages on various covariates to construct the counterfactual average wage that women would earn if they had the same characteristics as men. Using this, one can decompose the average wage gap into an ‘explained’ part that is due to gender differences in characteristics (e.g., education and experience) and an ‘unexplained’ part that is due to differences in wage schemes that men and women of similar characteristics face, often thought to reflect wage discrimination.

⁷ See, for example, Juhn et al. (1993); DiNardo et al. (1996); Machado and Mata (2005).

⁸ RIF regressions are also termed *unconditional* quantile regressions to highlight the contrast to the widely used quantile regressions that estimate changes in the quantiles of the conditional distribution of the dependent variable.

popular Oaxaca-Blinder decomposition method to any quantile (or to any other distributional measure of interest; see Firpo et al., 2007). We bootstrap (using 100 replications) the entire estimation procedure (including the derivation of the weights used in the decomposition and the components of the decomposition) in order to derive estimated standard errors. As we discuss below, we present results from both an aggregate and a detailed decomposition.

One advantage of using RIF regressions in aggregate decompositions is that identification rests on the ignorability assumption, which is relatively milder than the conditional independence assumption that a standard Oaxaca-Blinder framework requires. That is, the error term is allowed to correlate with covariates in the model as long as this correlation is similar in the two groups being compared. In any case, as is typical in empirical studies that apply decomposition methods, the regression estimates used as input to the decomposition should be viewed as capturing associations, rather than as identifying causal effects. Another advantage of RIF-based decompositions over other methods that allow quantile decompositions (e.g., the kernel reweighting approach of DiNardo et al., 1996, or the quantile regression-based method of Machado and Mata, 2005) is that it is resilient to the order that covariates enter in a detailed decomposition.

More specifically, we perform pairwise decompositions in debt holdings between the United States and the comparison euro area country of the following form:

$$Y^{US} - Y^{EA} = \{X^{US}\beta^{US} - X^{EA}\beta^{US}\} + \{X^{EA}\beta^{US} - X^{EA}\beta^{EA}\}, \quad (1)$$

where differences in the left-hand side denote either differences in prevalence of each of the two types of debt; differences in (log) outstanding amounts, evaluated at different percentiles of the respective distributions; or differences in DSIRs. X 's consist of the rich set of household-specific characteristics discussed in Section 2.2. Estimated coefficients derive either from a linear probability model in the case of participation in debt markets or the prevalence of high DSIRs, or

alternatively from RIF regressions evaluated at different percentiles of the outstanding debt amounts or DSIRs.

Equation (1) decomposes the observed differences in debt prevalence, debt amounts or DSIRs between the United States and each euro area country into: (i) a part that is associated with differences in the configuration of households' socio-economic characteristics ($X^{US}\beta^{US} - X^{EA}\beta^{US}$; often termed 'covariate' or 'composition' effects); and (ii) a part that is associated with differences in the way these characteristics translate into households' debt holdings in the respective countries ($X^{EA}\beta^{US} - X^{EA}\beta^{EA}$; often termed 'coefficient' or 'unexplained' effects). As previously discussed, in our context, this latter part can be thought of as reflecting (any) differences in economic, legal, cultural or market environments that households (of similar characteristics) in different countries face.

While decompositions into covariate and coefficient effects are interesting, they do not allow us to understand which characteristics drive the differences in debt holdings. We do therefore go further than the previous literature and also present results from a detailed decomposition that allows splitting the covariate and coefficient effects into components that can be attributed to a given group of covariates. This is likely to provide additional insights into the relative importance of certain household characteristics (e.g., education, income, real and financial wealth) for the differences in debt holdings across countries.

4. Decomposing the Participation in Debt Markets

The first step in the analysis is to discuss results from aggregate and detailed decompositions of the prevalence of collateralized and non-collateralized debt. As mentioned

previously, estimated coefficients used in the decomposition derive from linear probability models, where the dependent variable takes the value of one if a household has the relevant type of debt.⁹

Recall that we are modelling the difference in debt prevalence as $Y^{US} - Y^{EA}$, and thus a positive coefficient effect (which is given by $X^{EA}\beta^{US} - X^{EA}\beta^{EA}$) implies that the economic environment in the United States is more conducive to taking out debt than the environment in the respective European country. By contrast, a positive covariate effect (given by $X^{US}\beta^{US} - X^{EA}\beta^{US}$) implies that U.S. households as compared to European ones have a configuration of characteristics that is more conducive to holding debt.

4.1 Collateralized debt

Panel A of Table 2 contains the results of the Oaxaca-Blinder decompositions for collateralized debt. The numbers in bold provide the estimates for the overall difference (in the first row) and the total magnitude of the coefficient effects and of the covariate effects as derived from an aggregate decomposition. The first remarkable observation is that the coefficient effects typically dominate the covariate effects, and that they are all positive, statistically significant (with the exception of the comparison with the Netherlands) and also generally economically large. In other words, the environment in the United States seems much more conducive to having collateralized debt. To summarize, a comparison of the United States with the median European country suggests that coefficient effects alone account for around 90% of the total difference in debt holdings, leaving only 10% to be explained by covariate effects.

⁹ Estimation results of these linear probability models are shown in Appendix Tables A.2 and A.3. Most of the factors have similar qualitative effects across countries, but there are often sizable differences in the estimated magnitudes. Real wealth and income associate positively with the probability of holding collateralized debt, while financial wealth and inheritance received display a negative association. With regard to non-collateralized debt, income displays a positive association, and financial wealth a negative one.

Table 2 here

The table also contains results from a detailed decomposition, which allows us to probe further into the importance of certain variables (or groups thereof). This analysis reveals that real wealth plays a key role in generating the positive coefficient effects.¹⁰ This implies that, for any given level of household real assets, the probability of holding a collateralized loan is larger in the United States. The reason behind this finding could be that real assets are deemed to be safer collateral in the United States than in Europe, or to denote higher future ability to repay the debt.

Besides real wealth, income is also an important determinant of the coefficient effect – once more, for a given level of income, U.S. households are considerably more likely to hold collateralized debt than households in a number of euro area countries, most notably Austria, France, Luxembourg and Greece. On the other hand, we find a negative coefficient effect for financial wealth in France and the Netherlands. Finally, education does not play a significant role for the coefficient effects.

Looking at the covariate effects, there are a number of countries for which these are estimated to be negative, namely Greece, Italy, Luxembourg and Spain. This implies that if households in the United States had the characteristics of the households in these countries, they would be more likely to hold collateralized loans.

The detailed decomposition of the covariate effects shows that the negative overall effect for these countries largely stems from real wealth. The mechanism behind these results works as follows: in some countries, real wealth is higher than in the United States. Also, real wealth is positively associated with having collateralized debt. Accordingly, if U.S. households had the higher real wealth of their European counterparts, their prevalence of collateralized debt would be

¹⁰ Other characteristics that have been taken into account in the estimation, such as marital and occupational status, and inheritance received, play in general a small or statistically insignificant role and are not shown in the table.

higher. In a similar vein, countries with relatively more households in the upper half of the income distribution (Luxembourg and the Netherlands) show a negative covariate effect with regard to income, while the opposite is true for countries with relatively lower household incomes.

There are also negative covariate effects due to financial wealth, but in this case the underlying mechanism is different. Financial wealth is found to negatively associate with the likelihood of holding collateralized debt in the United States, probably because having large financial assets makes taking a mortgage less necessary. Given that households in the United States have higher financial wealth than those in a number of comparator countries, the probability of having collateralized debt in the United States would have been higher if households therein had the financial wealth of their European counterparts.

4.2 Non-collateralized debt

Results for non-collateralized debt are reported in Panel B of Table 2. We know from Table 1 that U.S. households are much more likely to have this kind of debt, and find in the first row of Panel B that these differences are also statistically significant. As was the case with collateralized debt, the decomposition analysis suggests that these differences are overwhelmingly driven by coefficient effects. Again, the results imply that the economic environment in the United States is considerably more conducive to taking out loans than in any euro area economy under study. In particular, the coefficient effects account for between 81% and 96% of the observed differences (88% for the median European country under comparison), while the remaining gap is explained by the covariate effects. The latter are uniformly positive, suggesting that household characteristics in the United States are more conducive to taking out non-collateralized debt.

Looking at the detailed decomposition of coefficient effects, we note that financial wealth in particular, but also real wealth, make an important contribution. This result implies that for any given level of financial and real wealth, the economic environment in the U.S. favours taking up non-collateralized loans more than in any European country.

Another notable finding relates to the estimated constant, which represents the propensity for the household in the base category to hold debt. We have chosen the base category such that it refers to households that are more likely to be at an economic disadvantage, namely the oldest, the divorced, the least educated, the unemployed, those who have not received an inheritance, and those in the lowest income and the real and financial wealth groups. Accordingly, the constant in our decompositions reflects to what extent the prevalence of debt among the most economically disadvantaged euro area households would differ if they were facing the environment prevailing in the United States. Our results imply that the most disadvantaged households in the United States are much more likely to have non-collateralized debt than their comparator group in Portugal, Italy, Spain, Greece and France. This finding is consistent with the notion that debt holdings are rather common among U.S. households with low resources – households that are more likely to face problems in servicing their debt, especially under adverse economic conditions.

As mentioned above, covariate effects play only a limited role in explaining the observed overall differences in debt prevalence. Yet, they are statistically significant in most comparisons and uniformly suggest that U.S. households have characteristics that make them more likely to hold non-collateralized debt. One such characteristic, according to the detailed decomposition, is education. This is to be expected, given that on average U.S. households are more educated and education is positively associated with having non-collateralized debt (possibly because it signals a higher ability to pay back the loan). As for collateralized loans, higher income associates with

non-collateralized debt prevalence, leading to positive covariate effects for countries where households have lower income than in the United States, and negative covariate effects in the high-income countries Luxembourg and the Netherlands.

As discussed in Section 2.2, when decomposing the prevalence of non-collateralized debt, we also take into account factors that are likely to be associated with the propensity to borrow in the short run, such as willingness to assume more risk, unexpectedly low income in the previous year and expectations of a higher future income. While these factors associate with debt prevalence of non-collateralized debt in many countries (according to the estimates shown in Table A.3), they are only weakly associated with the respective cross-country differences.

We have performed a number of robustness exercises to ensure the consistency of the above-mentioned findings. First, instead of using the quartile dummies for income, financial wealth and real wealth, we have included non-linear transformations (i.e., inverse hyperbolic sine) of these variables. Second, we have replaced the quartiles of gross financial and real wealth with their net measures. Third, we have reversed the order of the decomposition to examine its sensitivity to the choice of the base country. That is, we have repeated every pairwise decomposition by treating the respective euro area country as the base country and the United States as the comparison country (i.e., using $Y^{EA} - Y^{US} = \{X^{EA}\beta^{EA} - X^{US}\beta^{EA}\} + \{X^{US}\beta^{EA} - X^{US}\beta^{US}\}$). In all these cases, results are qualitatively similar to those we discussed.

5. Decomposing Conditional Amounts of Debt

The next step in the analysis is to conduct a related exercise for the (log) outstanding amounts of debt. Here, we will look at those households that actually report having debt on their balance sheet. We condition our specifications on the same sets of covariates used to model the prevalence of collateralized and non-collateralized debt (see Section 2.2). When looking into

differences in amounts, we can control for some additional factors that are likely to be associated with the accumulation of collateralized debt. In particular, we take into account information on the original duration of the mortgage. Moreover, we know the year in which the mortgage was taken out, which allows us to control for the time elapsed since that date, and for certain macroeconomic conditions that prevailed at the time the mortgage was taken out. As regards the latter, we assess the role of house price developments by matching our data with the cumulative growth of the national house price index (defined over the three years prior to the mortgage take-out).¹¹ In this section, we use RIF-regression-based decomposition methods, which allow us to study the importance of covariate and coefficient effects at different points of the distribution of debt holdings.¹²

5.1 Collateralized debt

We first decompose differences in outstanding amounts of collateralized debt. For brevity, we report decomposition results at the median of the conditional distribution in Table 3 and relegate results for the 10th and 90th percentiles to Appendix Tables A.5 and A.6, respectively. Once more, we find large coefficient effects which indicate that the U.S. economic environment is in general more conducive to higher amounts of collateralized debt than the environment in many euro area countries. These results appear rather robust across different percentiles of the collateralized-debt distribution.

¹¹ House price index data are taken from the AMECO database. Due to some missing information on the three additional factors taken into account, we lose roughly 10% of households with collateralized debt outstanding from the decomposition.

¹² RIF regression results at the median are shown in Tables A.4 and A.7 for collateralized and non-collateralized debt, respectively. With regard to collateralized debt, national house price growth in the years prior to mortgage take-up has a positive association with median outstanding amounts in France, Italy and Spain (and in the United States, Portugal and Greece at the 10th percentile of the conditional distribution). With regard to non-collateralized debt, education associates positively with outstanding amounts in the United States, but not in the European countries.

Tables 3 here

There are a few notable exceptions to the aforementioned pattern: coefficient effects are insignificant in Luxembourg, and negative in Germany and the Netherlands, especially at the median and the bottom of the distribution.

According to the detailed decompositions, real wealth makes an important contribution to coefficient effects mostly at the bottom of the distribution, suggesting that the environment in the United States is particularly more conducive to borrowing at low levels of real wealth. In other words, if European households with relatively small debt holdings were to borrow as much as their U.S. counterparts with comparable real wealth, they would hold larger amounts of collateralized debt.

In Germany, the estimated negative coefficient effect is mainly due to the years elapsed since the mortgage was taken. This implies that German households pay off a larger fraction of their mortgage than they would have paid off in the United States in a given time period. In contrast, the estimated negative coefficient effect for the Netherlands is mostly due to the contribution of the constant term, suggesting that the economic environment in the Netherlands is associated with larger collateralized loans to the more disadvantaged group of borrowers than in the United States.

Covariate effects play a statistically significant role in most comparisons (with the exception of the Netherlands, Austria and Spain). They are quantitatively important, especially at the bottom end of the distribution. Estimated covariate effects are in general positive, implying that there are certain covariates that make U.S. households more prone to assume larger amounts of collateralized debt than what is observed for their European counterparts. This is mostly the case for the years elapsed since the loan was taken (which is shorter for U.S. households given

more frequent remortgaging) and the original loan duration (which is longer for U.S. households).¹³ We derive negative covariate effects of house price developments prior to the mortgage take-out mainly in comparison with countries that experienced a strong housing price growth: had house price increases been as strong in the United States as in these European countries, U.S. households would have borrowed more, especially at the low end of the debt distribution.

Luxembourgish households have a configuration of characteristics that makes them more prone to larger collateralized borrowing. Recall that Luxembourg and the Netherlands are the two countries in which households have larger outstanding collateralized debt than their U.S. counterparts. In Luxembourg, household characteristics play a key role in explaining observed differences with the United States, while on the other hand, differences with the Netherlands are mainly associated with the economic environment.

5.2 Non-collateralized debt

Table 4 shows decomposition results at the median of non-collateralized debt (corresponding results for the 10th and 90th percentiles are shown in Appendix Tables A.8 and A.9, respectively). Coefficient effects are in general positive, suggesting, once more, a more conducive U.S. economic environment. One notable exception is the Netherlands, where we estimate sizable negative coefficient effects at the 50th and 90th percentiles.

Tables 4 here

Results from detailed decompositions suggest an important contribution of education to the coefficient effects, mainly at the lower end of the debt distribution. That is, European households

¹³ Recall that estimated coefficients from RIF regressions imply a negative (positive) association between years elapsed (original loan duration) and collateralized debt.

would have higher non-collateralized debt, if they had experienced the economic environment that U.S. households of comparable education face. This finding could, for instance, imply that in the United States, more so than in Europe, education is considered to imply a higher ability to repay debt in the future.

Covariate effects, with very few exceptions, are also positive. That is, household characteristics in the United States differ in a way that makes households more prone to hold larger amounts of non-collateralized debt. Education contributes significantly to such positive covariate effects, reflecting that on average U.S. households are more educated and education is positively associated with non-collateralized debt.

The results presented in this section are qualitatively robust to a similar set of checks as applied in the previous section. Moreover, given that the estimation of conditional debt amounts is based on relatively smaller samples, we check the reweighting error that corresponds to the difference between the total covariate effect under the standard Oaxaca-Blinder decomposition and under the reweighted regression decomposition, and find that reweighted errors are in general small and insignificant.

6. Decomposing Indicators of Debt Burden

The last step in the analysis is to examine differences across countries in indicators of debt burden. The results discussed so far suggest that U.S. households are more likely to hold debt and have higher amounts outstanding than European ones, mainly related to the more conducive U.S. economic environment to debt holdings. At the same time, U.S. households tend to have higher

income and financial wealth, all of which denote a higher ability to repay debt. Thus, the higher debt holdings in the United States do not necessarily translate into a larger debt burden.

We use a common indicator to measure household debt burden, namely the DSIR. The higher its DSIR, the more vulnerable is a household to idiosyncratic and aggregate economic shocks, and consequently the more exposed it could become to financial stress. We present results from decompositions over all households – i.e., also those without any debt holdings and therefore a zero debt service – in order to give a sense of the importance of highly indebted households for the general population.¹⁴

We use two measures to denote households with a high debt-service burden. The first identifies a household as vulnerable if it has a DSIR greater than 33%, and we will use linear probability models to perform the decomposition analysis. The second approach is to conduct a decomposition based on RIF regressions at the 90th percentiles of the DSIR distributions in each country.¹⁵

Table 5 here

In Table 5 we present decomposition results using the two aforementioned measures. Looking at the first rows of Panels A and B, it is apparent that, first, the fraction of U.S. households with a DSIR greater than 33% is larger than in any euro area country; second, in most cases, the DSIR at the 90th percentile is significantly higher in the United States than in the comparison countries.

¹⁴ For robustness, we have estimated the same models and performed the subsequent decompositions in a sample that excludes households without any debt to service. Results (available from the authors upon request) are highly comparable to those we present.

¹⁵ Tables A.10 and A.11 show the corresponding estimates. The results suggest that in the United States and a number of euro area countries higher liquid resources (income and financial wealth) associate negatively with the DSIR. On the other hand, higher real asset holdings associate positively with the DSIR, probably due to large instalments typically required to service large collateralized loans.

For both measures, the observed differences are mostly accounted for by positive and significant coefficient effects, thus implying that the U.S. economic environment is more lenient toward higher DSIRs. According to the detailed decompositions, real wealth is a key contributor to this result, suggesting that the U.S. economic environment tolerates a higher debt burden for households for a given level of collateral.

While coefficient effects drive the observed differences, covariate effects are significant, too, working in general in the opposite direction. This is mostly due to the negative covariate effects estimated for income and financial wealth. This suggests that if U.S. households had the lower relatively liquid resources of their European counterparts, they would have taken on an even larger debt burden.

All in all, our findings suggest that while U.S. households have a configuration of characteristics (mainly financial wealth and income) that is associated with a lower debt burden, they are considerably more likely to face very high levels of debt burden, thereby exposing them to possible financial stress in the case of negative shocks. This can be partly linked to the economic environment in the United States that appears more tolerant to high DSIRs for a given level of collateral. Moreover, this result is corroborated by our earlier findings that the U.S. economic environment generally is more conducive to holding debt, and large amounts of it.

7. Conclusions

Household debt has attracted a lot of attention in the academic as well as the policy debate since the onset of the recent financial crisis. The high level of household indebtedness has often been seen as one of the major imbalances that eventually triggered the crisis, while the follow-up deleveraging has shaped the economic performance of the United States and other advanced

economies. We have put U.S. household debt into an international perspective in order to gain insights on factors that have shaped household leverage and can be explicit to the United States or to the other advanced economies under comparison.

Using data from the U.S. SCF and supplementing them with comparable household-level data for Europe from the HFCS, we shed light on a number of issues that cannot be analysed with cross-country aggregate data or micro data from a single country. We show that U.S. households have a substantially higher prevalence of debt, and also hold relatively large amounts of it. This difference is largely associated with an economic environment in the United States that is more conducive to debt holdings – had European households encountered the U.S. economic environment, many more would be expected to hold debt, and considerably larger amounts of it. For instance, for the median European country under comparison, differences with the U.S. economic environment account for around 90% of the overall difference in the prevalence of collateralized and non-collateralized debt. A notable exception to this is the Netherlands, which is also characterized by an economic environment that is rather conducive to debt holdings.

These findings are in line and generalize the earlier results related to outstanding mortgages of older households in Christelis et al. (2013). Going beyond this aggregate analysis, we shed light on the drivers that make the U.S. environment so much more favourable to holding debt. Our detailed decompositions point to a substantial role for households' assets – if European households, given the value of their assets, were to face U.S. conditions, they would hold more debt. With regard to collateralized debt, the differences are particularly related to real assets, suggesting that U.S. households access mortgage debt at much lower levels of collateral.

U.S. households are also found to have a substantially higher debt-service-to-income ratio, despite the fact that they have on average higher income than their European counterparts. Also

this result is linked to the economic environment in the United States, which appears more tolerant to high debt burdens for a given level of collateral, making U.S. households more vulnerable to idiosyncratic and aggregate shocks.

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Table 1: Summary statistics for debt holdings (prevalence and conditional amounts) and the debt-service-to-income ratio

Country	Observations	Collateralized Debt				Non-Collateralized Debt				Debt Service to Income Ratio			
		Prevalence	<i>Percentiles among holders</i>			Prevalence	<i>Percentiles among holders</i>			Prevalence DSIR>33%	P10	P50	P90
US	6,482	0.48	22,211	100,487	304,864	0.63	854	11,059	48,811	0.15	0.00	0.12	0.40
DE	3,565	0.21	14,657	92,094	254,632	0.35	350	3,672	20,721	0.03	0.00	0.00	0.17
NL	1,301	0.44	40,822	149,213	317,766	0.37	499	15,545	113,204	0.08	0.00	0.04	0.29
BE	2,327	0.31	15,081	75,245	198,594	0.24	543	5,604	24,557	0.04	0.00	0.00	0.23
LU	950	0.39	25,463	130,943	402,658	0.37	1,037	10,394	41,144	0.07	0.00	0.05	0.28
FR	15,006	0.24	6,657	62,397	188,775	0.33	573	5,791	43,334	0.04	0.00	0.00	0.25
AT	2,380	0.18	5,009	42,981	213,533	0.21	351	3,460	35,200	0.02	0.00	0.00	0.09
IT	7,951	0.11	9,024	67,677	203,030	0.18	1,128	6,429	50,758	0.03	0.00	0.00	0.14
ES	6,197	0.33	16,812	81,298	237,471	0.31	936	9,866	44,037	0.12	0.00	0.00	0.37
PT	4,404	0.27	10,832	66,020	163,155	0.18	338	4,484	22,070	0.07	0.00	0.00	0.26
GR	2,971	0.18	9,901	57,929	175,414	0.26	864	6,117	28,910	0.04	0.00	0.00	0.20

Notes: The table reports summary statistics for the prevalence and conditional amounts of collateralized and non-collateralized debt holdings and the debt-service-to-income ratio in each country. P10/P50/P90 denote the 10th/50th/90th percentile. Country names are abbreviated as follows: US: USA; DE: Germany; NL: Netherlands; BE: Belgium; LU: Luxembourg; FR: France; AT: Austria; IT: Italy; ES: Spain; PT: Portugal; GR: Greece. Statistics use survey weights and are adjusted for multiple imputations. Nominal amounts are expressed in 2005 U.S. dollars.

Table 2: Decomposition results – differences in the prevalence of collateralized and non-collateralized debt relative to the United States

Panel A. collateralized Debt																					
	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR		
Total Difference	0.269 ***	0.012	0.042 **	0.020	0.176 ***	0.016	0.097 ***	0.019	0.240 ***	0.010	0.300 ***	0.011	0.376 ***	0.008	0.158 ***	0.012	0.217 ***	0.011	0.308 ***	0.010	
<i>Selected Covariate Effects</i>																					
Education	0.002 *	0.001	0.001	0.004	0.000	0.003	0.003	0.005	0.003	0.005	0.006 *	0.003	0.005	0.009	0.003	0.008	0.007	0.013	0.004	0.006	
Income	0.005 **	0.002	-0.011 ***	0.003	0.005 **	0.002	-0.029 ***	0.005	0.015 ***	0.003	0.005 *	0.002	0.018 ***	0.003	0.014 ***	0.003	0.040 ***	0.007	0.017 ***	0.003	
Financial Wealth	-0.005 *	0.003	0.013 ***	0.004	0.007 ***	0.003	0.006	0.004	-0.012 ***	0.003	-0.008 **	0.003	-0.023 ***	0.004	-0.017 ***	0.003	-0.026 ***	0.004	-0.036 ***	0.005	
Real Wealth	0.123 ***	0.010	0.012	0.015	-0.063 ***	0.012	-0.112 ***	0.014	0.030 ***	0.006	0.081 ***	0.008	-0.060 ***	0.007	-0.154 ***	0.008	0.001	0.008	-0.060 ***	0.007	
Total Covariate Effects	0.155 ***	0.011	0.021	0.019	-0.021	0.015	-0.126 ***	0.017	0.066 ***	0.010	0.120 ***	0.012	-0.022 *	0.012	-0.134 ***	0.013	0.055 ***	0.016	-0.040 ***	0.012	
<i>Selected Coefficient Effects</i>																					
Education	0.004	0.023	-0.007	0.024	0.015	0.021	0.020	0.026	-0.010	0.013	0.012	0.024	0.002	0.010	-0.018	0.013	0.000	0.007	-0.008	0.015	
Income	0.038 *	0.021	0.069 *	0.035	0.044 *	0.024	0.116 ***	0.043	0.034 **	0.015	0.073 ***	0.020	0.022	0.014	0.016	0.019	0.002	0.012	0.050 ***	0.017	
Financial Wealth	-0.018	0.023	-0.072 **	0.035	-0.036	0.035	-0.013	0.041	-0.040 **	0.016	-0.039	0.024	-0.030 *	0.016	0.014	0.020	-0.002	0.017	0.037 **	0.016	
Real Wealth	0.158 ***	0.015	0.043 **	0.018	0.206 ***	0.025	0.107 ***	0.033	0.201 ***	0.013	0.210 ***	0.014	0.437 ***	0.015	0.251 ***	0.021	0.198 ***	0.017	0.332 ***	0.018	
Constant	0.010	0.056	-0.031	0.078	0.099	0.070	0.142	0.106	-0.006	0.042	-0.006	0.058	0.028	0.047	0.125 *	0.067	-0.018	0.053	0.025	0.066	
Coefficient Effects	0.114 ***	0.012	0.021	0.015	0.196 ***	0.014	0.222 ***	0.018	0.174 ***	0.011	0.180 ***	0.012	0.398 ***	0.013	0.293 ***	0.016	0.161 ***	0.017	0.349 ***	0.013	
Panel B. Non-collateralized Debt																					
	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR		
Total Difference	0.281 ***	0.013	0.291 ***	0.021	0.382 ***	0.015	0.256 ***	0.021	0.298 ***	0.009	0.412 ***	0.012	0.439 ***	0.010	0.318 ***	0.012	0.439 ***	0.010	0.364 ***	0.013	
<i>Selected Covariate Effects</i>																					
Education	0.001	0.001	0.015 ***	0.004	0.012 ***	0.004	0.020 ***	0.006	0.024 ***	0.006	0.002	0.003	0.033 ***	0.011	0.037 ***	0.011	0.054 ***	0.015	0.027 ***	0.008	
Income	0.006 ***	0.002	-0.016 ***	0.005	0.003	0.002	-0.032 ***	0.006	0.014 ***	0.003	0.005 *	0.003	0.016 ***	0.003	0.015 ***	0.003	0.044 ***	0.008	0.019 ***	0.004	
Financial Wealth	-0.025 ***	0.004	0.002	0.006	-0.001	0.004	-0.009 *	0.005	-0.034 ***	0.004	-0.032 ***	0.004	-0.044 ***	0.004	-0.038 ***	0.004	-0.041 ***	0.005	-0.047 ***	0.006	
Real Wealth	0.019 ***	0.004	0.018 ***	0.004	0.012 ***	0.004	0.027 ***	0.008	0.014 ***	0.002	0.015 ***	0.003	0.002	0.003	0.002	0.006	-0.009 ***	0.002	-0.009 ***	0.002	
Total Covariate Effects	0.038 ***	0.009	0.052 ***	0.014	0.053 ***	0.010	0.022	0.015	0.055 ***	0.009	0.034 ***	0.009	0.050 ***	0.013	0.018	0.015	0.082 ***	0.016	0.015	0.011	
<i>Selected Coefficient Effects</i>																					
Education	0.046	0.039	0.030	0.033	0.038	0.026	0.071 **	0.031	0.034 **	0.015	0.054 *	0.029	0.032 **	0.014	0.031 *	0.016	0.006	0.007	0.010	0.018	
Income	0.024	0.029	0.081	0.074	0.051 *	0.029	-0.016	0.067	-0.027	0.020	0.026	0.027	0.023	0.020	-0.037	0.023	-0.002	0.012	-0.004	0.022	
Financial Wealth	0.112 **	0.043	0.164 **	0.081	0.116 ***	0.039	0.007	0.071	0.114 ***	0.022	0.107 ***	0.035	0.087 ***	0.022	0.112 ***	0.025	0.045 ***	0.017	0.087 ***	0.018	
Real Wealth	0.069 ***	0.017	0.095 **	0.038	0.066 **	0.032	0.057	0.056	0.034 **	0.015	0.111 ***	0.021	0.033	0.023	0.068 *	0.036	0.085 ***	0.022	0.031	0.028	
Constant	0.039	0.118	-0.022	0.211	0.205 *	0.118	0.236	0.201	0.177 ***	0.059	-0.035	0.092	0.357 ***	0.080	0.287 ***	0.093	0.367 ***	0.096	0.208 **	0.087	
Coefficient Effects	0.243 ***	0.014	0.240 ***	0.025	0.329 ***	0.018	0.235 ***	0.022	0.243 ***	0.012	0.378 ***	0.015	0.390 ***	0.017	0.299 ***	0.018	0.357 ***	0.019	0.349 ***	0.015	

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Results are based on decompositions using linear probability models. Panel A reports results for collateralized debt, Panel B for non-collateralized debt. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table 3: Decomposition results – differences in the conditional amounts of collateralized debt relative to the United States, at the 50th percentile

	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.102	0.066	-0.342 ***	0.043	0.319 ***	0.081	-0.190 **	0.089	0.541 ***	0.041	0.769 **	0.298	0.338 ***	0.081	0.267 ***	0.052	0.399 ***	0.057	0.379 ***	0.082
Selected Covariate Effects																				
Education	0.001	0.004	0.028 *	0.015	0.009	0.009	0.042 **	0.021	0.033 ***	0.013	0.040 ***	0.013	0.063 **	0.026	0.049	0.031	0.102 **	0.050	0.055 **	0.026
Income	-0.023 **	0.010	0.022 **	0.010	0.006	0.010	-0.074 ***	0.016	0.056 ***	0.013	0.012	0.013	0.045 ***	0.014	0.077 ***	0.017	0.134 ***	0.030	0.079 ***	0.018
Financial Wealth	0.004	0.010	0.010	0.008	0.004	0.008	0.001	0.010	-0.021 *	0.013	0.000	0.010	-0.030 **	0.014	-0.040 **	0.016	-0.047 ***	0.017	-0.080 **	0.032
Real Wealth	-0.100 ***	0.028	-0.256 ***	0.028	-0.226 ***	0.028	-0.420 ***	0.042	-0.176 ***	0.022	-0.188 ***	0.033	-0.231 ***	0.032	-0.259 ***	0.027	0.018	0.024	-0.091 ***	0.028
Years since take-out	0.191 ***	0.024	0.297 ***	0.037	0.134 ***	0.021	0.172 ***	0.028	0.065 ***	0.011	0.188 ***	0.037	0.114 ***	0.021	0.119 ***	0.015	0.214 ***	0.023	0.040 ***	0.015
Original loan duration	0.383 ***	0.038	-0.086 ***	0.016	0.216 ***	0.023	0.158 ***	0.021	0.379 ***	0.034	0.149	0.136	0.268 ***	0.029	0.103 ***	0.015	-0.044 **	0.018	0.230 ***	0.027
House price growth	0.034 **	0.014	-0.035 **	0.014	-0.047 **	0.019	-0.055 **	0.022	-0.073 **	0.030	0.007	0.006	-0.014 **	0.006	-0.075 **	0.031	0.009 **	0.004	-0.056 **	0.023
Total Covariate Effects	0.517 ***	0.062	0.022	0.056	0.077	0.051	-0.191 ***	0.067	0.246 ***	0.060	0.201	0.159	0.194 ***	0.061	-0.050	0.068	0.363 ***	0.071	0.159 **	0.062
Selected Coefficient Effects																				
Education	-0.031	0.312	0.077	0.107	0.206	0.147	0.025	0.159	0.028	0.088	-0.143	0.359	-0.001	0.116	0.044	0.071	0.073	0.049	0.166	0.134
Income	0.019	0.337	0.179	0.215	-0.149	0.256	-0.699	0.653	0.058	0.117	-0.136	0.574	0.220	0.234	0.040	0.116	0.004	0.092	0.150	0.205
Financial Wealth	-0.165	0.422	0.014	0.265	0.203	0.262	0.072	0.407	-0.094	0.122	-0.238	0.472	-0.148	0.139	-0.114	0.112	0.074	0.108	-0.003	0.089
Real Wealth	-1.168	0.843	0.419	0.880	-0.036	0.700	-0.176	1.157	0.733 **	0.348	0.111	1.062	0.280	0.499	0.088	0.520	0.291	0.864	2.189	2.082
Years since take-out	-0.315 ***	0.106	-0.247 ***	0.087	0.243	0.149	0.379 *	0.199	0.376 ***	0.070	0.014	0.331	0.217	0.146	0.431 ***	0.120	0.014	0.110	0.704 **	0.291
Original loan duration	0.288 **	0.131	0.825 ***	0.154	-0.665 *	0.359	-0.930 *	0.481	-1.318 ***	0.151	-0.203	0.605	-1.234 ***	0.300	-0.614 ***	0.212	-0.132	0.208	-0.488 *	0.285
House price growth	-0.089	0.074	0.080 **	0.039	-0.079	0.100	-0.035	0.099	-0.043	0.050	0.037	0.023	-0.132 **	0.052	0.005	0.057	-0.010	0.012	-0.170	0.174
Constant	0.846	1.053	-2.111 **	1.001	0.619	0.919	1.607	1.612	0.444	0.460	0.681	1.688	0.159	0.702	0.064	0.607	-0.579	0.901	-2.238	2.322
Coefficient Effects	-0.415 ***	0.078	-0.364 ***	0.056	0.241 ***	0.079	0.001	0.093	0.295 ***	0.060	0.568 **	0.215	0.144 *	0.082	0.317 ***	0.069	0.036	0.076	0.220 **	0.086

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table 4: Decomposition results – differences in the conditional amounts of collateralized debt relative to the United States, at the 50th percentile

	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	1.116 ***	0.077	-0.555 **	0.226	0.631 ***	0.116	0.047	0.101	0.646 ***	0.053	1.125 ***	0.130	0.540 ***	0.074	0.112	0.096	0.893 ***	0.140	0.586 ***	0.117
<i>Selected Covariate Effects</i>																				
Education	0.044 ***	0.013	0.058 **	0.026	0.052 **	0.023	0.134 ***	0.036	0.116 ***	0.024	0.105 ***	0.022	0.200 ***	0.045	0.169 ***	0.051	0.275 ***	0.074	0.101 ***	0.027
Income	0.068 ***	0.018	-0.029	0.031	0.012	0.022	-0.197 ***	0.043	0.094 ***	0.020	0.060 ***	0.022	0.065 ***	0.018	0.080 ***	0.021	0.221 ***	0.037	0.051 ***	0.020
Financial Wealth	-0.040 ***	0.013	0.002	0.018	-0.005	0.012	-0.014	0.015	-0.048 ***	0.017	-0.036 **	0.014	-0.048 ***	0.017	-0.042 **	0.018	-0.042	0.026	-0.038	0.030
Real Wealth	0.140 ***	0.031	0.040	0.030	-0.014	0.021	-0.111 **	0.046	0.028 **	0.014	0.139 ***	0.034	-0.072 ***	0.024	-0.104 ***	0.030	0.014	0.012	-0.058 ***	0.018
Total Covariate Effects	0.237 ***	0.049	0.140	0.085	0.080	0.052	-0.162 **	0.076	0.200 ***	0.043	0.340 ***	0.055	0.178 ***	0.065	0.047	0.071	0.471 ***	0.083	0.057	0.054
<i>Selected Coefficient Effects</i>																				
Education	0.580 **	0.267	0.262	0.417	0.320	0.235	0.207	0.172	0.289 ***	0.104	0.608 *	0.350	0.099	0.093	0.207 **	0.100	0.212 **	0.108	0.525 ***	0.184
Income	-0.176	0.215	-0.359	1.051	-0.132	0.369	0.677	0.600	-0.192	0.130	-0.296	0.374	0.275 *	0.161	0.058	0.211	-0.146	0.204	-0.105	0.269
Financial Wealth	-0.213	0.201	0.954	0.611	-0.197	0.319	-0.146	0.351	0.075	0.126	-0.600 *	0.309	0.246 *	0.131	0.519 ***	0.173	0.030	0.201	0.181	0.129
Real Wealth	0.143	0.123	0.046	0.326	-0.129	0.306	-0.325	0.330	-0.115	0.106	0.443 **	0.175	0.018	0.189	-0.177	0.240	-0.326	0.326	0.042	0.277
Constant	-0.201	0.614	-2.907	1.842	-0.224	0.889	-0.568	1.158	0.486	0.339	1.157	0.944	-0.663	0.474	-1.308 **	0.602	-0.589	1.284	-1.517 *	0.779
Coefficient Effects	0.879 ***	0.091	-0.694 ***	0.219	0.551 ***	0.122	0.209 *	0.115	0.445 ***	0.061	0.785 ***	0.135	0.362 ***	0.101	0.065	0.121	0.422 ***	0.158	0.529 ***	0.126

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table 5: Decomposition results – differences in debt-service-to-income ratios relative to the United States

Panel A. Prob(DSIR)>33%																				
	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.121 ***	0.006	0.080 ***	0.014	0.109 ***	0.010	0.088 ***	0.011	0.110 ***	0.006	0.137 ***	0.010	0.128 ***	0.006	0.035 ***	0.009	0.083 ***	0.008	0.110 ***	0.008
<i>Selected Covariate Effects</i>																				
Education	0.001	0.001	0.003	0.003	0.002	0.003	0.005	0.005	0.005	0.005	0.005 *	0.003	0.009	0.008	0.007	0.008	0.013	0.012	0.007	0.006
Income	-0.013 ***	0.003	0.003	0.005	-0.008 ***	0.003	0.050 ***	0.006	-0.033 ***	0.003	-0.014 ***	0.004	-0.035 ***	0.004	-0.028 ***	0.003	-0.059 ***	0.006	-0.032 ***	0.004
Financial Wealth	-0.008 ***	0.003	0.011 **	0.005	0.006 **	0.003	0.004	0.004	-0.017 ***	0.003	-0.012 ***	0.003	-0.026 ***	0.004	-0.021 ***	0.003	-0.029 ***	0.004	-0.038 ***	0.006
Real Wealth	0.061 ***	0.006	-0.003	0.009	-0.051 ***	0.008	-0.092 ***	0.010	0.009 **	0.004	0.038 ***	0.005	-0.040 ***	0.005	-0.098 ***	0.007	0.006	0.004	-0.033 ***	0.004
Total Covariate Effects	0.065 ***	0.007	0.010	0.013	-0.030 ***	0.009	-0.025 **	0.012	-0.020 ***	0.007	0.042 ***	0.008	-0.069 ***	0.010	-0.127 ***	0.011	-0.048 ***	0.012	-0.079 ***	0.009
<i>Selected Coefficient Effects</i>																				
Education	0.021	0.019	0.003	0.024	0.003	0.017	-0.017	0.017	0.006	0.012	0.011	0.017	0.008	0.009	0.003	0.011	0.007	0.005	0.007	0.012
Income	-0.063 ***	0.016	0.062	0.075	-0.007	0.025	0.002	0.048	-0.019	0.012	-0.055 ***	0.016	-0.032 **	0.013	0.006	0.018	0.018 *	0.010	-0.013	0.016
Financial Wealth	-0.056 ***	0.017	-0.065 *	0.038	-0.020	0.027	-0.041	0.035	-0.041 ***	0.015	-0.048 ***	0.015	-0.033 **	0.014	0.025	0.021	-0.003	0.015	0.004	0.011
Real Wealth	0.153 ***	0.013	0.190 ***	0.018	0.219 ***	0.023	0.205 ***	0.032	0.179 ***	0.012	0.201 ***	0.015	0.262 ***	0.014	0.174 ***	0.023	0.160 ***	0.016	0.228 ***	0.017
Constant	0.044	0.045	-0.067	0.086	-0.006	0.054	0.035	0.100	0.049	0.038	0.044	0.042	0.016	0.047	0.086	0.056	-0.010	0.047	0.030	0.058
Coefficient Effects	0.056 ***	0.008	0.070 ***	0.016	0.139 ***	0.012	0.113 ***	0.016	0.129 ***	0.009	0.095 ***	0.010	0.197 ***	0.012	0.162 ***	0.015	0.131 ***	0.014	0.189 ***	0.012

Panel B. Differences in DSIRs: P90																				
	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.133 ***	0.038	0.066	0.071	0.128 *	0.065	0.143 ***	0.039	0.135 ***	0.018	0.247 **	0.085	0.100 **	0.049	-0.066 *	0.037	0.007	0.034	0.061 *	0.033
<i>Selected Covariate Effects</i>																				
Education	0.000	0.001	0.003	0.009	0.000	0.004	0.004	0.012	0.004	0.008	0.008	0.006	0.008	0.016	0.003	0.017	0.010	0.030	0.006	0.015
Income	0.042 ***	0.012	-0.014	0.012	0.000	0.013	0.098 ***	0.018	-0.038 ***	0.008	0.002	0.014	-0.034 ***	0.012	-0.070 ***	0.013	-0.220 ***	0.030	-0.098 ***	0.019
Financial Wealth	0.001	0.005	0.004	0.004	0.001	0.004	0.000	0.005	-0.011 *	0.006	-0.002	0.005	-0.015 **	0.006	-0.019 **	0.007	-0.023 **	0.009	-0.035 **	0.016
Real Wealth	-0.025 ***	0.007	-0.066 ***	0.010	-0.058 ***	0.010	-0.117 ***	0.016	-0.044 ***	0.007	-0.041 ***	0.008	-0.059 ***	0.011	-0.070 ***	0.011	0.010 *	0.006	-0.020 ***	0.007
Total Covariate Effects	0.028 *	0.015	-0.094 ***	0.025	-0.075 ***	0.020	-0.020	0.023	-0.096 ***	0.016	-0.033 *	0.019	-0.103 ***	0.023	-0.177 ***	0.028	-0.234 ***	0.041	-0.148 ***	0.025
<i>Selected Coefficient Effects</i>																				
Education	0.066	0.116	-0.023	0.076	-0.039	0.095	-0.023	0.045	0.008	0.045	-0.156	0.176	0.017	0.057	0.003	0.043	-0.009	0.023	-0.009	0.051
Income	-0.180	0.210	0.351	0.471	0.065	0.513	-0.139	0.265	-0.270 ***	0.078	-0.243	0.261	-0.031	0.258	-0.030	0.144	0.001	0.100	-0.086	0.142
Financial Wealth	-0.224 **	0.092	-0.044	0.220	0.012	0.114	0.011	0.093	-0.029	0.044	-0.062	0.137	0.036	0.082	0.091	0.074	-0.001	0.069	0.009	0.042
Real Wealth	0.476 *	0.277	0.227	0.372	0.363	0.261	0.348	0.276	0.246	0.250	0.374 *	0.224	0.312	0.285	0.212	0.271	-0.116	0.451	0.385	0.806
Constant	0.175	0.367	-0.234	0.744	0.097	0.559	0.327	0.449	0.463 *	0.267	0.612	0.390	-0.137	0.509	-0.062	0.324	0.389	0.538	-0.043	0.907
Coefficient Effects	0.106 ***	0.036	0.159 **	0.074	0.203 ***	0.060	0.163 ***	0.041	0.230 ***	0.027	0.280 **	0.087	0.203 ***	0.050	0.111 **	0.050	0.242 ***	0.062	0.209 ***	0.038

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Panel A reports results from decompositions based on linear probability models explaining the prevalence of DSIRs larger than 33%, Panel B reports results from decompositions based on RIF regressions explaining the DSIR at the 90th percentile of the national distribution. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Supplementary Online Appendix (not for publication)

Table A.1 Summary statistics for household characteristics

	Age			Marital status			Education		Work status				Household size
	<40	40-49	50-59	Couple	Single	Widowed	High school	College	Employed	Self-employed	Retired	Oth. Inactive	
US	0.29	0.20	0.21	0.58	0.16	0.09	0.52	0.37	0.57	0.11	0.25	0.02	2.56
DE	0.26	0.20	0.17	0.50	0.25	0.13	0.57	0.31	0.49	0.07	0.31	0.08	2.04
NL	0.22	0.24	0.22	0.44	0.36	0.08	0.39	0.32	0.45	0.04	0.22	0.14	2.21
BE	0.27	0.20	0.19	0.55	0.20	0.13	0.38	0.36	0.44	0.05	0.33	0.07	2.29
LU	0.26	0.27	0.18	0.53	0.25	0.09	0.40	0.25	0.57	0.06	0.27	0.07	2.48
FR	0.28	0.18	0.17	0.46	0.29	0.14	0.40	0.21	0.45	0.08	0.35	0.06	2.23
AT	0.26	0.21	0.18	0.50	0.24	0.11	0.71	0.14	0.44	0.10	0.38	0.04	2.12
IT	0.15	0.23	0.18	0.62	0.14	0.16	0.34	0.11	0.41	0.12	0.41	0.02	2.53
ES	0.24	0.22	0.18	0.64	0.14	0.15	0.19	0.25	0.44	0.11	0.24	0.12	2.67
PT	0.19	0.21	0.20	0.66	0.11	0.15	0.13	0.09	0.42	0.11	0.37	0.04	2.69
GR	0.29	0.18	0.17	0.64	0.18	0.12	0.35	0.20	0.37	0.19	0.34	0.06	2.64
	Income			Financial wealth			Real wealth			Inheritance received	Last year income low	Willing take risks	Expect income up
	Q2	Q3	Q4	Q2	Q3	Q4	Q2	Q3	Q4				
US	0.24	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.20	0.25	0.17	0.17
DE	0.28	0.27	0.18	0.32	0.39	0.15	0.19	0.17	0.20	0.34	0.16	0.03	0.11
NL	0.29	0.39	0.20	0.27	0.39	0.26	0.08	0.24	0.34	0.07	0.07	0.02	0.14
BE	0.28	0.23	0.21	0.26	0.35	0.25	0.08	0.27	0.41	0.34	0.19	0.05	0.08
LU	0.18	0.29	0.44	0.24	0.43	0.22	0.09	0.06	0.67	0.29	0.19	0.02	0.11
FR	0.36	0.27	0.10	0.39	0.33	0.12	0.13	0.24	0.29	0.40	.	.	.
AT	0.31	0.26	0.17	0.38	0.36	0.13	0.20	0.19	0.23	0.35	0.11	0.08	0.09
IT	0.32	0.24	0.10	0.38	0.34	0.06	0.18	0.26	0.35	.	0.18	0.19	0.13
ES	0.33	0.25	0.12	0.39	0.29	0.10	0.12	0.28	0.49	0.30	0.40	0.02	0.22
PT	0.27	0.12	0.06	0.39	0.24	0.07	0.31	0.28	0.19	0.29	0.23	0.02	0.05
GR	0.31	0.24	0.11	0.39	0.17	0.04	0.25	0.31	0.27	0.30	0.32	0.06	0.05

Notes: The table reports summary statistics for household characteristics in each country. Country abbreviations are as explained in the notes to Table 1. Dummy variables denoting households' positions in the income and wealth distributions are based on the quartiles of the U.S. distribution after adjusting for differences in PPP (more details are provided in Section 2.2). "." denotes that the respective information is not available. Statistics use survey weights and are adjusted for multiple imputations.

Table A.2 Linear probability regressions for the prevalence of collateralized debt by country

	US	DE	NL	BE	LU	FR	AT	IT	ES	PT	GR
Age<40	0.082 *** <i>0.021</i>	0.044 <i>0.037</i>	0.011 <i>0.050</i>	0.329 *** <i>0.048</i>	0.351 *** <i>0.076</i>	0.134 *** <i>0.023</i>	0.110 *** <i>0.042</i>	0.152 *** <i>0.025</i>	0.386 *** <i>0.036</i>	0.280 *** <i>0.033</i>	0.120 *** <i>0.040</i>
Age: 40-49	0.120 *** <i>0.020</i>	0.101 *** <i>0.038</i>	-0.009 <i>0.044</i>	0.289 *** <i>0.050</i>	0.309 *** <i>0.073</i>	0.142 *** <i>0.023</i>	0.110 *** <i>0.040</i>	0.129 *** <i>0.020</i>	0.261 *** <i>0.034</i>	0.281 *** <i>0.031</i>	0.187 *** <i>0.041</i>
Age: 50-59	0.104 *** <i>0.019</i>	0.107 *** <i>0.037</i>	0.017 <i>0.042</i>	0.042 <i>0.046</i>	0.277 *** <i>0.068</i>	0.022 <i>0.022</i>	0.010 <i>0.034</i>	0.062 *** <i>0.018</i>	0.073 ** <i>0.030</i>	0.120 *** <i>0.024</i>	0.153 *** <i>0.036</i>
Couple	-0.044 ** <i>0.017</i>	0.021 <i>0.030</i>	-0.046 <i>0.032</i>	-0.090 ** <i>0.039</i>	0.002 <i>0.050</i>	-0.068 *** <i>0.015</i>	-0.018 <i>0.026</i>	-0.005 <i>0.018</i>	0.019 <i>0.034</i>	-0.024 <i>0.028</i>	0.071 *** <i>0.027</i>
Single	-0.063 *** <i>0.018</i>	-0.037 <i>0.028</i>	-0.035 <i>0.032</i>	-0.145 *** <i>0.042</i>	-0.050 <i>0.053</i>	-0.073 *** <i>0.015</i>	-0.043 * <i>0.024</i>	-0.035 * <i>0.020</i>	-0.140 *** <i>0.038</i>	-0.099 *** <i>0.032</i>	-0.025 <i>0.030</i>
Widowed	-0.066 ** <i>0.027</i>	0.030 <i>0.034</i>	-0.109 ** <i>0.053</i>	-0.107 ** <i>0.042</i>	-0.179 *** <i>0.059</i>	-0.065 *** <i>0.015</i>	0.021 <i>0.025</i>	0.013 <i>0.018</i>	-0.009 <i>0.036</i>	-0.037 <i>0.028</i>	0.041 <i>0.030</i>
High School grad	0.000 <i>0.019</i>	-0.007 <i>0.021</i>	0.007 <i>0.026</i>	-0.015 <i>0.024</i>	-0.052 <i>0.033</i>	0.017 * <i>0.010</i>	-0.017 <i>0.020</i>	-0.005 <i>0.012</i>	0.015 <i>0.025</i>	0.011 <i>0.026</i>	0.018 <i>0.022</i>
College grad	0.025 <i>0.022</i>	0.026 <i>0.026</i>	0.038 <i>0.031</i>	0.000 <i>0.034</i>	0.027 <i>0.040</i>	0.029 <i>0.102</i>	0.044 <i>0.046</i>	0.032 ** <i>0.080</i>	0.013 <i>0.038</i>	0.023 <i>0.063</i>	0.034 <i>0.017</i>
Employed	0.065 *** <i>0.023</i>	0.072 *** <i>0.023</i>	0.019 <i>0.034</i>	0.140 *** <i>0.040</i>	0.102 ** <i>0.046</i>	0.080 *** <i>0.014</i>	0.030 <i>0.038</i>	0.063 *** <i>0.017</i>	0.045 <i>0.045</i>	0.033 <i>0.033</i>	0.057 ** <i>0.028</i>
Self-employed	-0.002 <i>0.028</i>	0.090 ** <i>0.043</i>	-0.059 <i>0.098</i>	0.151 ** <i>0.065</i>	0.071 <i>0.067</i>	0.071 *** <i>0.021</i>	-0.006 <i>0.049</i>	0.041 * <i>0.025</i>	0.030 <i>0.044</i>	-0.035 <i>0.035</i>	-0.089 * <i>0.047</i>
Retired	-0.069 ** <i>0.027</i>	-0.029 <i>0.038</i>	-0.014 <i>0.048</i>	-0.057 <i>0.054</i>	-0.083 <i>0.072</i>	-0.072 *** <i>0.024</i>	-0.056 <i>0.045</i>	0.033 <i>0.023</i>	-0.061 <i>0.039</i>	-0.040 <i>0.030</i>	-0.023 <i>0.053</i>
Oth. Inactive	0.012 <i>0.040</i>	0.028 <i>0.027</i>	0.006 <i>0.043</i>	0.033 <i>0.033</i>	-0.074 <i>0.067</i>	-0.024 <i>0.015</i>	-0.034 <i>0.049</i>	0.014 <i>0.028</i>	-0.055 <i>0.040</i>	-0.105 *** <i>0.038</i>	-0.060 <i>0.047</i>
HH size	0.011 ** <i>0.005</i>	0.017 * <i>0.010</i>	0.032 *** <i>0.012</i>	0.021 * <i>0.021</i>	-0.001 <i>0.041</i>	0.014 <i>0.016</i>	0.016 *** <i>0.005</i>	0.036 *** <i>0.011</i>	0.001 <i>0.006</i>	0.004 <i>0.010</i>	-0.009 <i>0.007</i>
Income_Q2	0.038 ** <i>0.018</i>	-0.023 <i>0.021</i>	0.021 <i>0.041</i>	-0.016 <i>0.027</i>	-0.079 * <i>0.042</i>	-0.012 <i>0.010</i>	-0.011 <i>0.021</i>	0.010 <i>0.010</i>	0.042 * <i>0.011</i>	0.022 <i>0.022</i>	0.034 <i>0.021</i>
Income_Q3	0.115 *** <i>0.020</i>	0.046 * <i>0.027</i>	0.008 <i>0.037</i>	0.050 <i>0.034</i>	-0.021 <i>0.051</i>	0.074 *** <i>0.015</i>	-0.016 <i>0.026</i>	0.078 *** <i>0.018</i>	0.076 *** <i>0.027</i>	0.096 *** <i>0.032</i>	0.011 <i>0.026</i>
Income_Q4	0.137 *** <i>0.024</i>	0.127 *** <i>0.037</i>	0.021 <i>0.044</i>	0.072 * <i>0.041</i>	0.013 <i>0.055</i>	0.099 *** <i>0.022</i>	0.011 <i>0.041</i>	0.111 *** <i>0.029</i>	0.078 ** <i>0.039</i>	0.157 *** <i>0.045</i>	0.034 <i>0.042</i>
Fin. wealth_Q2	-0.037 ** <i>0.018</i>	0.011 <i>0.022</i>	0.013 <i>0.040</i>	-0.024 <i>0.035</i>	-0.011 <i>0.044</i>	0.022 ** <i>0.010</i>	-0.001 <i>0.022</i>	-0.017 <i>0.012</i>	-0.067 *** <i>0.021</i>	-0.031 * <i>0.018</i>	-0.096 *** <i>0.018</i>
Fin. wealth_Q3	-0.068 *** <i>0.019</i>	-0.062 ** <i>0.025</i>	0.011 <i>0.040</i>	-0.032 <i>0.039</i>	-0.049 <i>0.052</i>	-0.038 *** <i>0.012</i>	-0.034 <i>0.024</i>	-0.026 <i>0.016</i>	-0.087 *** <i>0.025</i>	-0.068 *** <i>0.023</i>	-0.138 *** <i>0.029</i>
Fin. wealth_Q4	-0.169 *** <i>0.022</i>	-0.161 *** <i>0.039</i>	-0.060 <i>0.042</i>	-0.091 ** <i>0.044</i>	-0.176 *** <i>0.061</i>	-0.135 *** <i>0.018</i>	-0.064 <i>0.041</i>	-0.085 *** <i>0.026</i>	-0.135 *** <i>0.036</i>	-0.176 *** <i>0.040</i>	-0.235 *** <i>0.053</i>
Real wealth_Q2	0.435 *** <i>0.017</i>	0.201 *** <i>0.025</i>	0.047 <i>0.031</i>	0.224 *** <i>0.051</i>	0.100 * <i>0.058</i>	0.185 *** <i>0.014</i>	0.138 *** <i>0.021</i>	0.055 *** <i>0.010</i>	0.243 *** <i>0.030</i>	0.247 *** <i>0.018</i>	0.176 *** <i>0.018</i>
Real wealth_Q3	0.754 <i>0.017</i>	0.402 *** <i>0.029</i>	0.779 *** <i>0.033</i>	0.512 *** <i>0.032</i>	0.541 *** <i>0.074</i>	0.412 *** <i>0.012</i>	0.385 *** <i>0.029</i>	0.137 *** <i>0.012</i>	0.440 *** <i>0.023</i>	0.439 *** <i>0.019</i>	0.267 *** <i>0.021</i>
Real wealth_Q4	0.770 *** <i>0.021</i>	0.502 *** <i>0.033</i>	0.717 *** <i>0.031</i>	0.467 *** <i>0.032</i>	0.672 *** <i>0.040</i>	0.458 *** <i>0.013</i>	0.417 *** <i>0.029</i>	0.177 *** <i>0.014</i>	0.486 *** <i>0.024</i>	0.492 *** <i>0.030</i>	0.339 *** <i>0.024</i>
Inherit. receiv.	-0.056 *** <i>0.016</i>	-0.049 ** <i>0.020</i>	0.016 <i>0.039</i>	-0.004 <i>0.023</i>	-0.082 ** <i>0.033</i>	-	-0.021 <i>0.020</i>	-	-0.105 *** <i>0.019</i>	-0.110 *** <i>0.017</i>	-0.113 *** <i>0.018</i>
Constant	-0.081 ** <i>0.033</i>	-0.091 ** <i>0.043</i>	-0.049 <i>0.066</i>	-0.180 *** <i>0.059</i>	-0.223 ** <i>0.093</i>	-0.086 *** <i>0.025</i>	-0.075 <i>0.051</i>	-0.119 *** <i>0.030</i>	-0.205 *** <i>0.051</i>	-0.063 <i>0.039</i>	-0.106 * <i>0.056</i>
R2	0.45	0.37	0.57	0.44	0.48	0.35	0.27	0.13	0.35	0.34	0.17
Observations	6,482	3,565	1,282	2,284	950	15,006	2,380	7,951	6,188	4,395	2,958

Notes: The table reports results from linear probability models. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.

Table A.3 Linear probability regressions for the prevalence of non-collateralized debt by country

	US		DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Age<40	0.115 ***	0.024	0.185 ***	0.051	0.272 ***	0.089	-0.033	0.057	0.095	0.091	0.131 ***	0.028	0.082 *	0.049	0.049	0.032	0.038	0.047	0.112 ***	0.035	0.080 *	0.045
Age: 40-49	0.099 ***	0.024	0.089 *	0.048	0.067	0.080	0.067	0.057	0.094	0.088	0.120 ***	0.027	0.116 **	0.049	0.071 **	0.030	0.041	0.044	0.079 **	0.031	0.088 *	0.046
Age: 50-59	0.075 ***	0.022	0.064	0.046	0.082	0.069	0.073	0.051	0.129 *	0.077	0.108 ***	0.024	0.044	0.040	0.004	0.025	0.055	0.039	0.029	0.025	0.077 **	0.039
Couple	0.026	0.021	-0.105 **	0.042	0.133	0.084	-0.032	0.043	-0.005	0.065	-0.018	0.019	-0.090 ***	0.034	-0.020	0.026	-0.023	0.039	-0.073 **	0.030	-0.103 **	0.040
Single	-0.043 *	0.023	-0.116 **	0.047	0.044	0.086	-0.016	0.047	0.015	0.070	-0.067 ***	0.021	-0.094 ***	0.035	-0.034	0.028	-0.034	0.042	-0.065 *	0.035	-0.116 ***	0.044
Widowed	-0.074 **	0.030	-0.170 ***	0.043	-0.050	0.085	-0.051	0.044	-0.191 ***	0.071	-0.062 ***	0.019	-0.050	0.038	-0.003	0.026	-0.028	0.044	-0.024	0.030	-0.068	0.042
High School grad	0.083 ***	0.023	0.051	0.035	0.055	0.050	0.033	0.031	-0.006	0.044	0.048 ***	0.013	0.032	0.027	0.021	0.016	0.024	0.031	0.056 **	0.028	0.068 ***	0.026
College grad	0.076 ***	0.026	-0.013	0.040	0.016	0.051	0.023	0.032	-0.068	0.055	0.000	0.017	-0.049	0.037	-0.009	0.024	-0.002	0.029	0.053	0.033	0.055 *	0.033
Employed	-0.025	0.029	-0.023	0.059	-0.099	0.076	0.040	0.052	0.049	0.119	0.027	0.027	-0.089	0.061	0.009	0.044	0.060	0.041	0.022	0.034	0.049	0.054
Self-employed	-0.064 *	0.033	0.058	0.070	0.163	0.128	0.090	0.079	0.062	0.134	-0.051	0.032	-0.069	0.068	0.096 **	0.048	0.043	0.050	-0.004	0.041	0.027	0.056
Retired	-0.176 ***	0.033	-0.142 **	0.066	-0.079	0.096	-0.012	0.064	-0.007	0.137	-0.070 **	0.033	-0.132 *	0.068	-0.056	0.047	-0.028	0.052	-0.018	0.036	-0.059	0.061
Oth. Inactive	-0.055	0.053	-0.088	0.070	0.054	0.102	-0.056	0.063	0.028	0.135	-0.145 ***	0.032	-0.105	0.080	-0.135 ***	0.048	-0.030	0.054	-0.052	0.042	-0.091	0.062
HH size	0.010 *	0.005	0.033 **	0.014	0.008	0.025	0.063 ***	0.014	0.031 *	0.018	0.026 ***	0.006	0.027 **	0.013	0.031 ***	0.008	0.054 ***	0.012	0.039 ***	0.009	0.019 *	0.011
Income_Q2	0.053 **	0.021	0.038	0.035	-0.012	0.082	0.006	0.031	0.103	0.076	0.088 ***	0.015	0.035	0.028	0.030 *	0.017	0.137 ***	0.027	0.080 ***	0.022	0.068 ***	0.023
Income_Q3	0.122 ***	0.024	0.098 **	0.042	0.040	0.079	0.074 *	0.040	0.103	0.076	0.155 ***	0.020	0.081 *	0.041	0.079 ***	0.022	0.164 ***	0.034	0.100 ***	0.035	0.104 ***	0.031
Income_Q4	0.157 ***	0.028	0.085 *	0.050	0.022	0.088	0.036	0.046	0.185 **	0.085	0.148 ***	0.028	0.104 **	0.047	0.121 ***	0.033	0.151 ***	0.047	0.117 ***	0.043	0.188 ***	0.044
Fin. wealth_Q2	0.068 ***	0.021	-0.049	0.044	-0.122	0.103	-0.148 ***	0.047	0.055	0.072	-0.046 **	0.018	-0.097 **	0.038	-0.041 **	0.020	-0.082 ***	0.027	-0.003	0.020	-0.091 ***	0.021
Fin. wealth_Q3	0.015	0.023	-0.157 ***	0.047	-0.237 **	0.095	-0.144 ***	0.049	-0.033	0.076	-0.171 ***	0.020	-0.127 ***	0.037	-0.115 ***	0.022	-0.160 ***	0.033	-0.088 ***	0.020	-0.123 ***	0.030
Fin. wealth_Q4	-0.182 ***	0.027	-0.229 ***	0.055	-0.240 ***	0.092	-0.195 ***	0.052	-0.106	0.082	-0.238 ***	0.024	-0.132 **	0.052	-0.156 ***	0.032	-0.214 ***	0.042	-0.094 ***	0.036	-0.222 ***	0.060
Real wealth_Q2	0.120 ***	0.019	0.017	0.035	-0.006	0.107	0.150 **	0.066	0.041	0.092	0.044 **	0.018	-0.024	0.031	0.046 **	0.021	0.028	0.044	-0.013	0.022	0.056 *	0.029
Real wealth_Q3	0.127 ***	0.022	-0.023	0.036	-0.047	0.060	0.044	0.042	-0.165 **	0.082	0.042 ***	0.015	-0.084 ***	0.032	0.027	0.020	0.004	0.036	0.024	0.023	0.037	0.029
Real wealth_Q4	0.040	0.026	-0.078 **	0.037	-0.083	0.054	-0.068	0.042	-0.009	0.066	0.039 **	0.016	-0.144 ***	0.031	0.060 ***	0.022	-0.006	0.037	-0.036	0.030	0.093 ***	0.035
Inherit. receiv.	0.013	0.016	0.027	0.025	0.067	0.059	-0.026	0.025	0.005	0.041	-	-	0.006	0.020	-	-	-0.023	0.021	0.008	0.017	0.003	0.020
Last yr inc low	0.037 **	0.015	0.054 *	0.031	0.014	0.091	0.116 ***	0.034	-0.017	0.050	-	-	0.107 ***	0.036	0.101 ***	0.019	0.029	0.021	0.083 ***	0.020	-0.010	0.020
Willing take risk	-0.026	0.017	0.034	0.073	-0.040	0.128	-0.026	0.057	-0.028	0.127	-	-	-0.085 **	0.039	0.038 **	0.016	-0.003	0.055	0.022	0.071	-0.020	0.039
Exp income up	0.033 **	0.016	0.028	0.041	0.146 *	0.078	0.059	0.046	-0.056	0.055	-	-	-0.060 *	0.035	-0.045 **	0.018	0.073 ***	0.027	0.071 *	0.042	0.000	0.046
Constant	0.398 ***	0.046	0.359 ***	0.103	0.420 **	0.198	0.193 **	0.092	0.161	0.200	0.222 ***	0.038	0.433 ***	0.083	0.043	0.056	0.110	0.087	0.030	0.085	0.190 **	0.085
R2	0.158	0.159	0.140	0.137	0.106	0.141	0.104	0.104	0.104	0.141	0.141	0.104	0.104	0.104	0.104	0.131	0.110	0.110	0.110	0.110	0.122	0.122
Observations	6,482	3,468	986	2,183	950	15,006	2,340	7,178	6,188	4,234	2,958											

Notes: The table reports results from linear probability models. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.

Table A.4 RIF regressions for the amount of holdings of collateralized debt at the 50th percentile of the distribution by country

	US		DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Age<40	0.085	0.069	1.073 ***	0.260	0.220	0.186	0.768 ***	0.264	0.534	0.353	0.080	0.141	0.191	0.631	0.014	0.232	-0.112	0.142	0.270	0.169	0.408 *	0.239
Age: 40-49	0.052	0.065	0.707 ***	0.242	-0.006	0.191	0.393	0.251	0.383	0.344	0.069	0.128	0.201	0.616	-0.293	0.212	0.085	0.139	0.095	0.165	0.131	0.246
Age: 50-59	0.026	0.059	0.535 **	0.233	0.013	0.184	0.220	0.256	0.053	0.297	-0.117	0.112	-0.146	0.651	-0.116	0.196	0.077	0.137	-0.113	0.145	-0.010	0.230
Couple	-0.087	0.060	-0.326	0.226	-0.290 *	0.170	-0.184	0.177	0.101	0.313	0.033	0.091	-0.052	0.380	-0.140	0.157	0.002	0.120	-0.092	0.123	-0.171	0.251
Single	-0.051	0.081	-0.544 *	0.305	-0.361 **	0.172	-0.431 **	0.200	-0.238	0.340	-0.065	0.105	-0.153	0.502	0.000	0.175	0.075	0.147	-0.079	0.151	-0.345	0.289
Widowed	-0.030	0.102	0.093	0.334	-0.293	0.242	0.263	0.328	-0.565	0.656	-0.148	0.190	-0.535	0.684	0.398	0.350	-0.111	0.199	0.113	0.204	-0.522 *	0.309
High School grad	0.073	0.077	0.271	0.294	-0.020	0.108	-0.200	0.148	0.072	0.204	0.026	0.074	0.120	0.382	0.199 *	0.108	0.149	0.095	-0.033	0.097	-0.169	0.156
College grad	0.206 **	0.084	0.348	0.308	0.178 *	0.106	0.042	0.146	0.178	0.220	0.258 ***	0.079	0.240	0.423	0.099	0.135	0.093	0.087	-0.062	0.114	-0.001	0.162
Employed	0.004	0.108	-0.310	0.395	-0.027	0.114	0.110	0.272	0.307	0.547	-0.016	0.173	0.166	0.805	-0.308	0.260	-0.194	0.119	-0.034	0.134	-0.037	0.293
Self-employed	0.083	0.114	-0.136	0.416	0.201	0.280	0.102	0.316	0.805	0.583	0.147	0.185	0.233	0.926	-0.117	0.283	-0.101	0.155	0.097	0.162	-0.032	0.302
Retired	-0.035	0.118	0.062	0.459	-0.378 **	0.181	0.554 *	0.334	0.376	0.592	-0.238	0.198	0.139	1.335	-0.578 **	0.281	-0.226	0.168	-0.141	0.191	-0.087	0.341
Oth. Inactive	-0.247	0.181	0.031	0.469	-0.331 *	0.190	-0.012	0.356	0.160	0.619	-0.306	0.224	-0.087	1.119	-0.991 ***	0.356	-0.185	0.242	-0.354	0.270	0.012	0.551
HH size	0.049 ***	0.017	-0.001	0.053	0.017	0.048	-0.066	0.052	-0.058	0.062	0.045	0.028	0.010	0.121	0.050	0.042	0.007	0.041	-0.055	0.039	0.027	0.058
Income_Q2	0.000	0.072	0.526	0.355	-0.037	0.223	0.250	0.261	0.688	0.777	0.019	0.099	0.356	0.736	-0.250	0.183	0.101	0.115	0.066	0.100	-0.079	0.180
Income_Q3	0.152 **	0.072	0.355	0.343	0.041	0.235	0.365	0.251	1.058 *	0.536	0.103	0.109	0.233	0.706	-0.003	0.193	0.120	0.124	0.217 *	0.122	0.263	0.190
Income_Q4	0.346 ***	0.081	0.529	0.370	0.116	0.242	0.502 **	0.243	1.138 **	0.535	0.451 ***	0.123	0.476	0.764	0.058	0.230	0.347 **	0.148	0.262	0.176	0.164	0.230
Fin. wealth_Q2	-0.080	0.067	0.113	0.375	-0.130	0.261	-0.278	0.260	-0.275	0.382	-0.004	0.112	-0.068	0.496	0.004	0.114	0.134	0.112	-0.088	0.099	-0.117	0.121
Fin. wealth_Q3	-0.122 *	0.068	0.178	0.386	-0.155	0.237	-0.356	0.275	-0.213	0.391	-0.019	0.117	0.045	0.486	0.010	0.121	-0.094	0.133	-0.195 *	0.113	0.065	0.169
Fin. wealth_Q4	-0.217 ***	0.077	0.184	0.401	-0.202	0.292	-0.402	0.244	-0.222	0.413	-0.112	0.138	0.233	0.647	0.046	0.171	-0.029	0.157	-0.212	0.167	0.611 *	0.343
Real wealth_Q2	-0.257 ***	0.098	0.766 *	0.464	-0.729	0.754	-0.088	0.244	-0.261	0.724	-0.533 **	0.252	-0.031	0.696	-0.134	0.334	-0.131	0.331	-0.273	0.638	-1.440	1.350
Real wealth_Q3	0.450 ***	0.105	1.392 ***	0.469	0.201	0.673	0.581	0.447	0.929	0.915	-0.112	0.229	0.404	0.900	0.543	0.362	0.545	0.374	0.080	0.649	-1.194	1.269
Real wealth_Q4	1.008 ***	0.114	1.995 ***	0.467	0.498	0.688	0.943 *	0.496	1.140	0.958	0.093	0.226	0.671	0.829	0.628	0.364	0.857 *	0.379	0.434	0.625	-1.038	1.288
Years since take-out	-0.062 ***	0.005	-0.027 **	0.011	-0.044 ***	0.005	-0.098 ***	0.011	-0.119 ***	0.013	-0.131 ***	0.006	-0.093 **	0.036	-0.085 ***	0.014	-0.136 ***	0.009	-0.069 ***	0.008	-0.145 ***	0.016
Origin loan duration	0.034 ***	0.003	0.019 ***	0.007	0.009 *	0.005	0.068 ***	0.010	0.081 ***	0.014	0.121 ***	0.005	0.057 *	0.029	0.087 ***	0.006	0.066 ***	0.006	0.038 ***	0.005	0.052 ***	0.007
House price growth	0.271 *	0.145	-1.364	1.537	-0.210	0.241	0.831	0.547	0.594	0.484	0.577 ***	0.160	-1.126	0.733	1.383 ***	0.480	0.390 **	0.186	0.549	0.493	0.956	0.626
Inherit. Received	-0.038	0.048	-0.421 ***	0.111	-0.019	0.119	-0.002	0.114	-0.096	0.165	-	-	-0.304	0.339	-	-	-0.046	0.087	-0.026	0.086	-0.258 *	0.139
Constant	10.188 ***	0.162	8.947 ***	0.695	12.085 ***	0.794	9.517 ***	0.570	8.314 ***	1.180	9.506 ***	0.337	9.232 ***	1.626	9.863 ***	0.515	9.841 ***	0.443	10.773 ***	0.700	11.960 ***	1.584
R2	0.44	0.25	0.34	0.47	0.49	0.52	0.19	0.51	0.50	0.38	0.49				0.51		0.50	0.38		0.49		
Observations	2,818	920	649	656	401	3,780	342	663	1,543	993	409				663		1,543	993		409		

Notes: The table reports results from RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.

Table A.5 Decomposition results – differences in the conditional amounts of collateralized debt relative to the United States, at the 10th percentile

	DE	NL	BE	LU	FR	AT	IT	ES	PT	GR	
Total Difference	0.517 ***	0.159 -0.414 ***	0.106 0.560 ***	0.140 0.108	0.199 1.445 ***	0.095 1.563 ***	0.337 0.714 ***	0.208 0.536 ***	0.122 0.346	0.237 0.627 ***	0.232
Selected Covariate Effects											
Education	0.001	0.007 -0.014	0.046 -0.008	0.028 -0.020	0.073 -0.011	0.041 -0.001	0.032 -0.022	0.081 -0.030	0.102 -0.051	0.171 -0.024	0.079
Income	-0.041 *	0.021 0.015	0.020 0.003	0.016 -0.090 **	0.037 0.040	0.030 0.002	0.021 0.033	0.027 0.073 *	0.042 0.231 **	0.092 0.106 **	0.046
Financial Wealth	0.007	0.023 0.012	0.020 0.009	0.019 0.007	0.025 -0.023	0.035 0.001	0.025 -0.020	0.034 -0.037	0.039 -0.042	0.047 -0.057	0.092
Real Wealth	-0.066 *	0.036 -0.240 ***	0.052 -0.209 ***	0.045 -0.311 ***	0.083 -0.093 **	0.040 -0.161 ***	0.044 -0.199 ***	0.046 -0.222 ***	0.054 -0.009	0.025 -0.080 **	0.036
Years since take-out	0.390 ***	0.088 0.608 ***	0.136 0.274 ***	0.070 0.351 ***	0.094 0.132 ***	0.031 0.385 ***	0.105 0.233 ***	0.065 0.244 ***	0.053 0.438 ***	0.098 0.083 **	0.034
Original loan duration	0.966 ***	0.152 -0.216 ***	0.049 0.544 ***	0.089 0.399 ***	0.072 0.955 ***	0.156 0.379	0.342 0.675 ***	0.112 0.260 ***	0.052 -0.112 **	0.046 0.580 ***	0.101
House price growth	0.121 ***	0.040 -0.124 ***	0.039 -0.166 ***	0.053 -0.196 ***	0.067 -0.256 ***	0.083 0.026	0.019 -0.049 **	0.019 -0.264 ***	0.084 0.032 ***	0.012 -0.198 ***	0.065
Total Covariate Effects	1.415 ***	0.220 0.023	0.149 0.432 ***	0.131 0.125	0.160 0.701 ***	0.173 0.604	0.362 0.663 ***	0.164 0.007	0.161 0.489 **	0.222 0.429 ***	0.160
Selected Coefficient Effects											
Education	-1.037	0.879 -0.077	0.268 -0.462	0.439 -0.358	0.588 -0.108	0.276 -0.127	1.152 -0.207	0.302 -0.011	0.235 0.065	0.152 -0.278	0.364
Income	0.034	1.182 0.749 **	0.359 -0.076	0.540 1.018	1.665 -0.013	0.408 1.036	0.989 0.504	0.592 0.705 *	0.412 0.332	0.301 0.726 *	0.396
Financial Wealth	-0.424	0.945 0.010	0.365 0.649	0.495 1.278	1.362 -0.009	0.309 0.776	1.289 0.086	0.342 0.297	0.273 -0.018	0.306 0.043	0.179
Real Wealth	4.077	3.979 7.594 ***	1.707 7.595 ***	1.225 7.903 ***	1.666 6.644 ***	1.679 5.941	4.364 7.018 ***	1.532 6.440 ***	1.833 4.843	8.829 7.739 ***	1.322
Years since take-out	-0.660 *	0.344 -0.814 **	0.326 0.052	0.384 0.086	0.929 -0.071	0.249 -0.874 **	0.421 -0.056	0.423 0.801 *	0.434 -0.828 **	0.360 -0.406	0.366
Original loan duration	0.716 *	0.410 2.311 ***	0.504 0.920	0.642 -1.368	2.678 -0.801 *	0.428 1.595	1.080 0.432	0.791 -0.034	0.633 -0.366	1.231 1.230 **	0.551
House price growth	-0.161	0.242 0.119	0.102 -0.035	0.188 0.730	0.451 0.310 **	0.146 0.109	0.068 -0.084	0.145 0.080	0.172 -0.004	0.044 -0.281	0.490
Constant	-2.706	4.552 -9.927 ***	1.883 -6.722 ***	1.920 -7.275	4.424 -5.406 ***	1.880 -6.021	5.286 -7.354 ***	1.938 -7.019 ***	2.161 -3.796	8.833 -8.086 ***	1.799
Coefficient Effects	-0.898 ***	0.247 -0.437 **	0.170 0.128	0.165 -0.016	0.228 0.744 ***	0.178 0.959 **	0.373 0.051	0.239 0.528 ***	0.197 -0.143	0.317 0.197	0.272

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table A.6 Decomposition results – differences in the conditional amounts of collateralized debt relative to the United States, at the 90th percentile

	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.177 **	0.072	0.011	0.057	0.456 ***	0.069	-0.256 ***	0.068	0.507 ***	0.039	0.306	0.308	0.378 ***	0.084	0.288 ***	0.063	0.594 ***	0.066	0.487 ***	0.087
Selected Covariate Effects																				
Education	0.005	0.006	0.000	0.015	-0.009	0.009	0.004	0.021	0.016	0.014	0.051 ***	0.019	0.026	0.027	-0.012	0.027	0.005	0.049	0.014	0.025
Income	-0.004	0.011	0.037 ***	0.013	0.013	0.010	-0.061 ***	0.023	0.069 ***	0.018	0.018	0.016	0.058 ***	0.018	0.064 ***	0.021	0.048	0.035	0.050 **	0.021
Financial Wealth	0.019	0.014	0.001	0.012	0.011	0.012	0.024	0.016	0.056 ***	0.020	0.026 *	0.015	0.066 ***	0.023	0.065 ***	0.023	0.068 ***	0.025	0.085 **	0.035
Real Wealth	-0.107 ***	0.030	-0.130 ***	0.038	-0.135 ***	0.036	-0.490 ***	0.057	-0.116 ***	0.025	-0.154 ***	0.040	-0.187 ***	0.042	-0.207 ***	0.035	0.064 ***	0.022	-0.047	0.032
Years since take-out	0.105 ***	0.019	0.164 ***	0.028	0.074 ***	0.015	0.095 ***	0.020	0.036 ***	0.008	0.104 ***	0.023	0.063 ***	0.015	0.066 ***	0.012	0.118 ***	0.020	0.022 ***	0.008
Original loan duration	0.187 ***	0.046	-0.042 ***	0.012	0.105 ***	0.026	0.077 ***	0.021	0.185 ***	0.046	0.070	0.068	0.131 ***	0.034	0.050 ***	0.013	-0.022 **	0.010	0.112 ***	0.029
House price growth	-0.018	0.021	0.018	0.021	0.024	0.026	0.029	0.034	0.038	0.042	-0.004	0.005	0.007	0.009	0.039	0.044	-0.005	0.005	0.029	0.033
Total Covariate Effects	0.181 ***	0.066	0.126 *	0.070	0.112	0.073	-0.280 ***	0.078	0.299 ***	0.084	0.101	0.096	0.125 *	0.075	0.066	0.081	0.262 ***	0.074	0.206 ***	0.069
Selected Coefficient Effects																				
Education	-0.285 *	0.169	-0.067	0.094	-0.215	0.135	-0.135	0.139	-0.014	0.079	-0.492	0.493	-0.005	0.111	0.115	0.077	-0.029	0.068	-0.103	0.143
Income	-0.228	0.316	0.026	0.251	-0.024	0.307	-0.071	0.268	-0.161	0.112	0.313	1.137	0.245	0.309	-0.264 **	0.121	-0.292 **	0.123	-0.088	0.241
Financial Wealth	0.114	0.191	-0.011	0.185	0.038	0.156	0.205	0.252	-0.025	0.098	0.586	0.757	0.231	0.220	0.056	0.102	-0.002	0.108	0.060	0.102
Real Wealth	0.130	0.754	0.308	0.517	0.253	0.327	0.291	0.553	-0.013	0.536	0.330	0.785	-0.006	0.360	0.037	0.426	0.384	0.659	-0.106	0.613
Years since take-out	-0.004	0.137	-0.195 **	0.096	0.174 *	0.104	0.063	0.119	0.096 *	0.052	0.287	0.513	0.029	0.116	0.204 *	0.119	0.163	0.114	0.450 **	0.189
Original loan duration	-0.021	0.182	0.506	0.295	-0.422 *	0.248	-0.633 *	0.335	-0.514 ***	0.103	-0.508	0.491	-0.529 *	0.274	-0.459 **	0.216	-0.049	0.322	-0.549 *	0.296
House price growth	0.143 *	0.076	0.026	0.048	0.133	0.119	0.079	0.113	0.022	0.064	-0.001	0.025	0.016	0.054	0.021	0.088	-0.004	0.011	0.210	0.192
Constant	-0.083	0.931	-1.222	0.835	0.227	0.545	0.433	0.968	0.475	0.605	-0.234	2.634	1.061 *	0.619	0.516	0.548	-0.162	0.820	-0.182	0.930
Coefficient Effects	-0.004	0.087	-0.115	0.074	0.344 ***	0.083	0.024	0.091	0.208 ***	0.079	0.205	0.273	0.253 ***	0.090	0.222 **	0.092	0.332 ***	0.089	0.281 ***	0.101

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table A.7 RIF regressions for the amount of holdings of non-collateralized debt at the 50th percentile of the distribution by country

	US	DE	NL	BE	LU	FR	AT	IT	ES	PT	GR											
Age<40	0.403 ***	0.116	0.452	0.381	0.779	0.682	0.215	0.607	0.867 *	0.449	0.549 ***	0.187	1.089 *	0.591	-0.113	0.259	0.000	0.279	-0.025	0.550	0.640 *	0.362
Age: 40-49	0.259 **	0.114	0.260	0.370	0.653	0.736	0.138	0.589	0.783 *	0.413	0.469 **	0.184	1.196 **	0.555	-0.223	0.236	0.065	0.254	0.256	0.539	0.417	0.359
Age: 50-59	0.247 **	0.107	0.652 *	0.365	1.183 **	0.554	0.038	0.579	0.486	0.398	0.347 **	0.176	0.698	0.489	-0.182	0.231	0.097	0.239	0.133	0.492	0.439	0.325
Couple	0.097	0.098	0.064	0.257	-1.753 *	0.926	0.082	0.334	0.377	0.298	0.000	0.119	0.012	0.368	-0.151	0.260	0.234	0.230	0.024	0.372	-0.118	0.285
Single	-0.025	0.107	-0.189	0.280	-0.720	0.842	0.140	0.404	-0.003	0.317	-0.157	0.126	-0.526	0.404	-0.248	0.285	0.251	0.279	-0.512	0.449	-0.242	0.321
Widowed	0.023	0.158	-0.097	0.468	-2.754 ***	0.889	-0.196	0.511	0.418	0.832	-0.044	0.177	-0.572	0.625	-0.114	0.363	0.399	0.379	-0.575	0.505	-0.854 *	0.469
High School grad	0.310 ***	0.115	-0.271	0.266	-0.149	0.444	0.074	0.310	0.172	0.220	-0.019	0.085	-0.356	0.370	0.228	0.141	-0.032	0.168	-0.334	0.313	-0.215	0.204
College grad	0.635 ***	0.125	-0.175	0.294	0.322	0.537	0.144	0.337	-0.159	0.275	0.143	0.109	-0.359	0.551	0.345	0.228	0.162	0.174	-0.043	0.384	-0.388	0.250
Employed	0.236 *	0.137	0.353	0.306	0.042	0.632	0.396	0.450	-0.136	0.565	0.306 **	0.136	-0.191	0.458	0.284	0.284	-0.023	0.240	-0.113	0.391	-0.570	0.447
Self-employed	0.165	0.157	0.426	0.394	-0.361	1.135	-0.775	0.646	-0.240	0.620	0.405 **	0.168	0.340	0.608	0.868 ***	0.311	0.805 ***	0.293	0.007	0.496	-0.296	0.459
Retired	-0.017	0.154	-0.004	0.455	0.949	0.812	0.372	0.694	-0.151	0.625	0.263	0.212	0.386	0.588	0.219	0.342	-0.145	0.336	-0.243	0.575	0.297	0.504
Oth. Inactive	0.313	0.239	0.913 **	0.383	0.817	0.761	0.237	0.563	-0.821	0.625	0.041	0.203	-1.266 *	0.643	0.095	0.712	0.247	0.370	-0.783	0.742	0.374	0.610
HH size	0.026	0.026	-0.176 **	0.085	0.418 **	0.203	0.030	0.109	0.032	0.077	0.002	0.033	-0.036	0.129	0.048	0.066	0.085	0.070	-0.046	0.115	-0.004	0.085
Income_Q2	0.100	0.109	0.581 *	0.305	0.456	0.950	0.236	0.452	0.100	0.521	0.378 ***	0.108	0.501	0.444	0.072	0.192	0.092	0.195	0.499 *	0.271	0.436 *	0.231
Income_Q3	0.510 ***	0.111	0.791 **	0.312	0.779	0.941	0.694	0.473	-0.126	0.520	0.658 ***	0.132	0.924 *	0.458	0.032	0.221	0.352	0.225	0.594	0.391	0.595 **	0.263
Income_Q4	0.872 ***	0.150	0.743 **	0.358	1.095	1.020	1.208 **	0.485	0.135	0.532	0.883 ***	0.183	1.405 ***	0.525	0.331	0.288	0.633 **	0.282	0.601	0.497	0.644 *	0.345
Fin. wealth_Q2	0.107	0.104	0.425 *	0.253	-1.082 *	0.637	0.293	0.426	0.097	0.334	-0.012	0.106	1.009 ***	0.349	-0.302 *	0.165	-0.435 **	0.171	-0.194	0.276	-0.133	0.187
Fin. wealth_Q3	0.078	0.107	0.254	0.295	-1.256	0.803	0.149	0.463	0.151	0.396	-0.033	0.126	0.655	0.406	-0.302	0.196	-0.696 ***	0.212	0.276	0.342	-0.589 **	0.271
Fin. wealth_Q4	-0.237 *	0.134	0.492	0.412	-1.135	0.703	0.368	0.439	0.275	0.451	-0.018	0.164	0.879	0.539	-0.289	0.314	-0.850 ***	0.295	0.886 *	0.482	0.461	0.521
Real wealth_Q2	0.407 ***	0.092	0.196	0.251	-0.490	0.792	1.225 ***	0.436	0.811 **	0.396	0.638 ***	0.140	-0.165	0.359	0.733 ***	0.217	0.649 **	0.277	1.274 ***	0.338	0.382	0.249
Real wealth_Q3	0.429 ***	0.111	-0.054	0.269	0.485	0.549	0.657	0.400	0.638	0.477	0.573 ***	0.107	-0.591	0.451	0.682 ***	0.220	0.487 **	0.214	0.737 **	0.313	0.652 **	0.260
Real wealth_Q4	0.639 ***	0.135	0.444	0.311	0.914	0.584	0.428	0.392	1.026 ***	0.298	0.810 ***	0.113	-0.570	0.474	0.548 **	0.214	0.759 ***	0.247	0.624	0.405	0.317	0.288
Inherit. received	0.015	0.082	-0.046	0.193	-0.355	0.585	-0.115	0.263	-0.218	0.210	-	-	0.200	0.314	-	-	0.241	0.157	0.223	0.275	0.116	0.190
Last yr inc low	0.116	0.072	-0.245	0.193	-0.541	0.657	0.246	0.258	0.261	0.249	-	-	0.361	0.373	-0.158	0.142	-0.227	0.144	0.304	0.241	0.344 *	0.188
Willing take risk	-0.048	0.081	-0.379	0.321	-1.636 *	0.897	-0.862 **	0.394	-0.643	0.581	-	-	0.495	0.366	0.052	0.157	-0.634 **	0.308	-0.562	0.811	-0.939 ***	0.256
Exp income up	0.190 **	0.074	-0.286	0.229	1.369 ***	0.500	0.013	0.421	0.320	0.288	-	-	-0.107	0.389	-0.124	0.189	-0.157	0.152	-0.135	0.416	0.032	0.375
Constant	7.528 ***	0.212	7.664 ***	0.590	10.423 ***	1.766	7.582 ***	0.856	8.069 ***	0.953	7.101 ***	0.233	6.242 ***	0.819	8.023 ***	0.434	8.846 ***	0.525	8.113 ***	1.089	9.000 ***	0.672
R2	0.141	0.092	0.276	0.176	0.171	0.118	0.142	0.083	0.115	0.091	0.092											
Observations	3,795	1,107	292	506	358	4,620	466	1,249	1,397	776	806											

Notes: The table reports results from RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level.

Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.

Table A.8 Decomposition results – differences in the conditional amounts of non-collateralized debt relative to the United States, at the 10th percentile

	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.829 ***	<i>0.172</i>	0.219	<i>0.525</i>	0.390 ***	<i>0.122</i>	-0.217	<i>0.243</i>	0.399 ***	<i>0.108</i>	0.880 ***	<i>0.203</i>	-0.356 ***	<i>0.110</i>	-0.116	<i>0.225</i>	0.869 ***	<i>0.150</i>	-0.018	<i>0.165</i>
<i>Selected Covariate Effects</i>																				
Education	0.047 **	<i>0.023</i>	0.139 **	<i>0.059</i>	0.139 **	<i>0.054</i>	0.295 ***	<i>0.100</i>	0.230 ***	<i>0.071</i>	0.110 **	<i>0.048</i>	0.412 ***	<i>0.127</i>	0.422 ***	<i>0.144</i>	0.636 ***	<i>0.199</i>	0.222 ***	<i>0.074</i>
Income	0.057 **	<i>0.028</i>	-0.074 *	<i>0.043</i>	0.010	<i>0.024</i>	-0.190 ***	<i>0.068</i>	0.027	<i>0.034</i>	0.047	<i>0.030</i>	0.034	<i>0.027</i>	0.008	<i>0.033</i>	0.211 **	<i>0.082</i>	0.007	<i>0.026</i>
Financial Wealth	-0.018	<i>0.025</i>	0.011	<i>0.026</i>	-0.006	<i>0.016</i>	-0.001	<i>0.028</i>	-0.012	<i>0.033</i>	-0.016	<i>0.026</i>	-0.021	<i>0.032</i>	-0.019	<i>0.034</i>	-0.021	<i>0.045</i>	-0.037	<i>0.054</i>
Real Wealth	0.176 **	<i>0.069</i>	0.100 **	<i>0.050</i>	0.024	<i>0.034</i>	-0.040	<i>0.079</i>	0.071 ***	<i>0.026</i>	0.175 **	<i>0.078</i>	-0.044	<i>0.040</i>	-0.063	<i>0.060</i>	0.013	<i>0.019</i>	-0.044	<i>0.033</i>
Total Covariate Effects	0.187 **	<i>0.088</i>	0.085	<i>0.141</i>	0.101	<i>0.086</i>	-0.034	<i>0.161</i>	0.264 ***	<i>0.096</i>	0.307 ***	<i>0.109</i>	0.407 ***	<i>0.143</i>	0.300 *	<i>0.161</i>	0.796 ***	<i>0.210</i>	0.065	<i>0.101</i>
<i>Selected Coefficient Effects</i>																				
Education	1.360 **	<i>0.664</i>	0.219	<i>1.341</i>	0.956 ***	<i>0.363</i>	1.095 **	<i>0.486</i>	0.712 **	<i>0.301</i>	1.172 *	<i>0.633</i>	0.540 **	<i>0.211</i>	0.713 **	<i>0.287</i>	0.262 *	<i>0.138</i>	0.953 **	<i>0.385</i>
Income	0.234	<i>0.474</i>	2.710	<i>2.532</i>	0.374	<i>0.516</i>	1.230	<i>1.933</i>	-0.424	<i>0.476</i>	-0.369	<i>0.804</i>	0.611 **	<i>0.257</i>	0.044	<i>0.532</i>	0.148	<i>0.232</i>	0.289	<i>0.445</i>
Financial Wealth	-0.848	<i>0.617</i>	1.317	<i>1.701</i>	-0.092	<i>0.322</i>	-0.428	<i>1.209</i>	-0.684 *	<i>0.373</i>	-0.029	<i>0.512</i>	-0.054	<i>0.206</i>	0.478	<i>0.355</i>	-0.212	<i>0.231</i>	0.079	<i>0.207</i>
Real Wealth	0.189	<i>0.236</i>	0.446	<i>0.706</i>	0.270	<i>0.348</i>	-0.647	<i>1.642</i>	-0.121	<i>0.231</i>	0.500 *	<i>0.288</i>	0.283	<i>0.323</i>	-1.131	<i>0.766</i>	0.345	<i>0.347</i>	0.350	<i>0.463</i>
Constant	-1.419	<i>1.479</i>	-4.114	<i>5.560</i>	-1.624	<i>1.328</i>	-0.488	<i>3.925</i>	1.350	<i>1.223</i>	-1.285	<i>1.578</i>	-3.391 ***	<i>0.826</i>	-2.483	<i>1.710</i>	-1.557	<i>1.081</i>	-3.137 **	<i>1.494</i>
Coefficient Effects	0.643 ***	<i>0.190</i>	0.134	<i>0.533</i>	0.290 *	<i>0.148</i>	-0.183	<i>0.279</i>	0.135	<i>0.155</i>	0.572 **	<i>0.231</i>	-0.763 ***	<i>0.184</i>	-0.416	<i>0.285</i>	0.073	<i>0.277</i>	-0.083	<i>0.187</i>

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table A.9 Decomposition results – differences in the conditional amounts of collateralized debt relative to the United States, at the 90th percentile

	DE		NL		BE		LU		FR		AT		IT		ES		PT		GR	
Total Difference	0.847 ***	0.095	-0.850 ***	0.174	0.675 ***	0.122	0.156	0.143	0.120	0.104	0.298 *	0.173	-0.073	0.133	0.090	0.113	0.797 ***	0.090	0.477 ***	0.091
Selected Covariate Effects																				
Education	0.080 ***	0.018	0.048	0.032	0.030	0.022	0.129 ***	0.029	0.126 ***	0.022	0.192 ***	0.031	0.212 ***	0.036	0.125 ***	0.036	0.242 ***	0.052	0.098 ***	0.025
Income	0.065 ***	0.017	0.020	0.027	0.018	0.019	-0.166 ***	0.040	0.113 ***	0.021	0.059 ***	0.021	0.075 ***	0.018	0.094 ***	0.020	0.160 ***	0.035	0.060 ***	0.018
Financial Wealth	-0.048 ***	0.015	0.015	0.022	0.001	0.014	-0.003	0.018	-0.062 ***	0.018	-0.047 ***	0.015	-0.066 ***	0.018	-0.064 ***	0.018	-0.073 ***	0.026	-0.077 ***	0.029
Real Wealth	0.009	0.024	-0.019	0.019	-0.018	0.017	-0.096 *	0.053	-0.016	0.013	0.008	0.026	-0.040	0.026	-0.051	0.035	0.012	0.009	-0.022	0.017
Total Covariate Effects	0.180 ***	0.050	0.136 *	0.080	0.077	0.048	-0.076	0.080	0.177 ***	0.038	0.278 ***	0.053	0.155 ***	0.049	0.074	0.062	0.355 ***	0.060	0.037	0.053
Selected Coefficient Effects																				
Education	0.112	0.256	0.495 *	0.252	0.142	0.234	0.166	0.260	-0.039	0.143	0.336	0.465	0.104	0.140	0.281 **	0.112	0.118 *	0.068	0.304 *	0.168
Income	0.176	0.307	0.052	0.618	-0.073	0.289	0.431	0.458	-0.173	0.208	-0.017	0.338	-0.174	0.343	-0.521 ***	0.200	-0.069	0.106	-0.047	0.181
Financial Wealth	0.014	0.208	-0.223	0.363	0.068	0.265	-0.130	0.468	-0.010	0.189	-0.280	0.282	0.544 *	0.286	0.218	0.201	0.039	0.122	0.208 *	0.107
Real Wealth	-0.193	0.156	-0.184	0.281	-0.141	0.258	-0.023	0.338	-1.144 ***	0.229	-0.021	0.188	-0.680 **	0.282	0.094	0.284	-0.078	0.147	-0.144	0.184
Constant	-1.044	0.867	-1.561	1.750	-0.199	0.821	0.377	1.227	1.959 ***	0.625	0.341	1.083	0.694	0.866	-0.915	1.165	-1.837 *	1.098	0.384	0.674
Coefficient Effects	0.667 ***	0.106	-0.987 ***	0.171	0.597 ***	0.128	0.232	0.156	-0.058	0.111	0.020	0.181	-0.228 *	0.136	0.016	0.133	0.443 ***	0.113	0.440 ***	0.100

Notes: The table reports results from decomposition analyses based on equation (1), comparing debt holdings in each euro area country to those in the United States. Amounts of debt outstanding are conditional on holding this type of debt. Results are based on decompositions using RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1.

Table A.10 Linear probability regressions for having a DSIR > 33% by country

	US	DE	NL	BE	LU	FR	AT	IT	ES	PT	GR											
Age<40	0.056 ***	0.019	0.046 **	0.020	0.107 **	0.044	0.032	0.043	0.100 **	0.042	0.036 ***	0.010	0.029	0.024	0.029 **	0.014	0.149 ***	0.031	0.109 ***	0.025	0.070 ***	0.022
Age: 40-49	0.073 ***	0.019	0.032 *	0.017	0.032	0.036	0.004	0.039	0.096 **	0.040	0.034 ***	0.010	0.017	0.016	0.038 ***	0.015	0.087 ***	0.027	0.083 ***	0.023	0.082 ***	0.023
Age: 50-59	0.054 ***	0.016	0.053 ***	0.020	0.051	0.037	0.012	0.038	0.053 *	0.028	0.014 *	0.007	0.006	0.013	0.019	0.013	0.017	0.023	0.045 ***	0.015	0.064 ***	0.022
Couple	-0.072 ***	0.018	0.000	0.021	-0.016	0.055	-0.027	0.023	-0.039	0.040	-0.004	0.007	0.001	0.011	-0.006	0.011	-0.025	0.027	-0.051 **	0.024	0.006	0.019
Single	-0.047 **	0.018	-0.039 *	0.023	-0.030	0.036	-0.041 *	0.024	-0.020	0.045	-0.008	0.008	-0.007	0.012	-0.003	0.012	-0.033	0.029	-0.075 ***	0.026	-0.030	0.021
Widowed	-0.053 **	0.024	-0.004	0.022	-0.052	0.041	-0.023	0.029	-0.070 *	0.038	-0.010	0.007	0.010	0.011	-0.006	0.011	-0.013	0.028	-0.068 ***	0.024	-0.014	0.020
High School grad	0.010	0.017	-0.008	0.011	-0.016	0.025	0.009	0.016	0.049 *	0.025	0.006	0.005	0.002	0.009	-0.005	0.008	0.029	0.022	-0.021	0.016	0.004	0.013
College grad	0.032	0.020	-0.004	0.016	0.054	0.034	0.025	0.017	0.038	0.027	0.006	0.007	-0.008	0.010	-0.004	0.009	0.005	0.021	-0.005	0.017	0.010	0.016
Employed	-0.035	0.026	-0.001	0.014	-0.024	0.040	-0.013	0.033	-0.030	0.067	0.007	0.010	-0.017	0.026	-0.041	0.032	-0.016	0.030	0.001	0.023	-0.058 *	0.033
Self-employed	-0.004	0.030	0.049 *	0.029	0.091	0.090	0.058	0.053	-0.005	0.072	0.059 ***	0.015	-0.003	0.034	0.009	0.035	0.036	0.038	0.062 **	0.029	-0.008	0.035
Retired	-0.093 ***	0.031	-0.014	0.017	-0.016	0.044	-0.040	0.043	-0.012	0.068	-0.023 **	0.011	-0.020	0.028	-0.043	0.033	-0.054	0.034	-0.009	0.023	-0.019	0.037
Oth. Inactive	-0.054	0.042	-0.004	0.018	-0.017	0.056	-0.012	0.038	-0.024	0.079	-0.009	0.013	-0.040	0.026	-0.040	0.034	-0.056	0.037	-0.032	0.037	-0.043	0.038
HH size	0.015 ***	0.005	-0.011 **	0.005	0.010	0.014	0.018 **	0.007	0.017 *	0.010	0.003	0.003	0.005	0.005	0.005	0.004	0.034 ***	0.010	0.001	0.005	0.005	0.005
Income_Q2	-0.029 *	0.016	-0.008	0.012	-0.122	0.086	-0.059 **	0.023	-0.066	0.049	-0.027 ***	0.006	-0.019	0.013	-0.021 **	0.009	-0.048 **	0.020	-0.085 ***	0.016	-0.043 **	0.017
Income_Q3	-0.093 ***	0.018	-0.020	0.017	-0.187 *	0.084	-0.118 ***	0.036	-0.145 ***	0.054	-0.070 ***	0.009	-0.036 **	0.017	-0.049 ***	0.013	-0.126 ***	0.026	-0.142 ***	0.017	-0.078 ***	0.019
Income_Q4	-0.247 ***	0.023	-0.046 *	0.025	-0.238 **	0.092	-0.148 ***	0.039	-0.202 ***	0.057	-0.108 ***	0.013	-0.048 ***	0.018	-0.053 ***	0.020	-0.178 ***	0.031	-0.180 ***	0.022	-0.124 ***	0.023
Fin. wealth_Q2	-0.010	0.017	0.023 **	0.011	0.019	0.039	-0.041	0.025	-0.004	0.036	0.003	0.007	-0.001	0.012	0.002	0.009	-0.059 **	0.023	-0.030 **	0.015	-0.039 ***	0.010
Fin. wealth_Q3	-0.053 **	0.020	0.004	0.011	-0.015	0.042	-0.057 **	0.025	-0.019	0.036	-0.010	0.008	0.006	0.013	-0.003	0.011	-0.102 ***	0.023	-0.045 **	0.017	-0.043 ***	0.014
Fin. wealth_Q4	-0.165 ***	0.024	-0.007	0.019	-0.005	0.037	-0.049 *	0.028	-0.050	0.044	-0.011	0.011	0.008	0.016	-0.017	0.013	-0.082 ***	0.029	-0.040 *	0.024	0.007	0.040
Real wealth_Q2	0.195 ***	0.015	0.015 **	0.007	-0.005	0.022	0.092 ***	0.032	0.048	0.030	0.039 ***	0.006	0.008	0.012	0.013	0.008	0.113 ***	0.025	0.058 ***	0.013	0.033 ***	0.010
Real wealth_Q3	0.362 ***	0.019	0.077 ***	0.019	0.089 **	0.034	0.102 ***	0.023	0.208 ***	0.071	0.072 ***	0.007	0.025	0.016	0.031 ***	0.009	0.155 ***	0.020	0.131 ***	0.016	0.067 ***	0.013
Real wealth_Q4	0.454 ***	0.022	0.108 ***	0.021	0.130 ***	0.034	0.117 ***	0.024	0.182 ***	0.037	0.132 ***	0.009	0.027	0.023	0.043 ***	0.009	0.239 ***	0.022	0.172 ***	0.022	0.105 ***	0.017
Inherit. received	-0.053 ***	0.013	-0.009	0.012	-0.028	0.034	-0.030 **	0.012	-0.056 ***	0.016	-	-	0.002	0.010	-	-	-0.042 ***	0.013	-0.033 ***	0.012	-0.019 *	0.011
Constant	0.062 *	0.035	0.019	0.026	0.129	0.082	0.068	0.046	0.027	0.089	0.003	0.013	0.018	0.034	0.037	0.033	-0.024	0.046	0.072 **	0.034	0.033	0.037
R2	0.16	0.08	0.18	0.11	0.13	0.07	0.02	0.04	0.14	0.11	0.07	0.02	0.04	0.14	0.11	0.07	0.02	0.14	0.11	0.07	0.02	0.04
Observations	6,378	3,539	1,257	2,235	943	14,964	2,374	7,898	6,127	4,329	2,896											

Notes: The table reports results from linear probability models. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.

Table A.11 RIF regressions for the DSIR at the 90th percentile of the distribution by country

	US	DE	NL	BE	LU	FR	AT	IT	ES	PT	GR											
Age<40	0.071 ***	0.026	0.140 ***	0.043	0.233 **	0.088	0.086 *	0.045	0.156 ***	0.054	0.119 ***	0.021	0.126 **	0.051	0.154 ***	0.036	0.219 ***	0.054	0.247 ***	0.050	0.288 ***	0.075
Age: 40-49	0.068 ***	0.024	0.093 **	0.041	0.056	0.055	0.026	0.043	0.120 ***	0.046	0.100 ***	0.020	0.142 ***	0.048	0.123 ***	0.030	0.121 **	0.047	0.187 ***	0.045	0.305 ***	0.077
Age: 50-59	0.049 **	0.022	0.124 ***	0.042	0.112 *	0.058	0.022	0.038	0.096 **	0.038	0.037 *	0.020	0.034	0.033	0.043 *	0.026	0.017	0.042	0.094 ***	0.033	0.205 ***	0.063
Couple	-0.103 ***	0.026	-0.037	0.041	-0.025	0.089	-0.046	0.030	-0.067	0.052	-0.032 **	0.014	-0.040	0.029	-0.012	0.025	-0.044	0.044	-0.149 ***	0.048	0.052	0.048
Single	-0.086 ***	0.027	-0.129 ***	0.046	-0.061	0.070	-0.039	0.034	-0.042	0.051	-0.048 ***	0.014	-0.048	0.029	-0.043	0.029	-0.030	0.049	-0.187 ***	0.053	-0.108 **	0.051
Widowed	-0.089 ***	0.031	0.009	0.047	-0.085	0.076	-0.074 **	0.033	-0.135 ***	0.051	-0.030 **	0.012	-0.032	0.031	-0.010	0.025	-0.013	0.048	-0.174 ***	0.050	0.006	0.050
High School grad	0.014	0.024	0.009	0.028	-0.017	0.044	-0.003	0.023	0.035	0.034	0.013	0.009	-0.009	0.026	0.011	0.017	0.059	0.038	-0.035	0.035	0.025	0.035
College grad	0.057 **	0.027	0.053	0.035	0.092 *	0.050	0.015	0.023	0.012	0.037	0.029 **	0.011	-0.018	0.040	0.001	0.025	0.018	0.036	-0.006	0.036	0.023	0.040
Employed	-0.041	0.037	0.040	0.032	-0.056	0.066	0.034	0.040	0.000	0.085	0.025 *	0.015	-0.037	0.058	0.043	0.047	-0.020	0.049	-0.016	0.045	-0.132 *	0.076
Self-employed	0.038	0.045	0.090 *	0.053	0.176	0.162	0.063	0.061	0.036	0.103	0.052 **	0.021	-0.030	0.064	0.070	0.052	0.061	0.061	0.081	0.055	-0.069	0.079
Retired	-0.109 ***	0.039	-0.011	0.042	-0.047	0.083	-0.031	0.050	-0.020	0.085	-0.029	0.023	-0.036	0.063	-0.010	0.050	-0.070	0.058	-0.044	0.047	-0.036	0.088
Oth. Inactive	-0.023	0.063	0.005	0.038	-0.064	0.098	-0.026	0.045	0.006	0.095	-0.015	0.017	-0.167 **	0.066	-0.020	0.054	-0.072	0.063	-0.090	0.070	-0.098	0.087
HH size	0.016 **	0.007	0.005	0.014	0.015	0.027	0.025 ***	0.010	0.011	0.014	0.003	0.004	0.019	0.013	0.011	0.008	0.065 ***	0.017	0.009	0.011	0.020	0.013
Income_Q2	-0.064 ***	0.023	-0.005	0.028	-0.194	0.163	-0.038	0.026	-0.083	0.055	-0.018 **	0.009	-0.019	0.026	0.009	0.017	-0.098 ***	0.034	-0.141 ***	0.031	-0.086 **	0.038
Income_Q3	-0.172 ***	0.030	-0.031	0.030	-0.321	0.173	-0.132 ***	0.032	-0.120 *	0.066	-0.048 ***	0.014	-0.036	0.042	0.014	0.025	-0.237 ***	0.041	-0.293 ***	0.034	-0.189 ***	0.048
Income_Q4	-0.367 ***	0.033	-0.089 **	0.042	-0.415 *	0.194	-0.210 ***	0.035	-0.240 ***	0.080	-0.116 ***	0.019	-0.093 *	0.046	-0.068 **	0.032	-0.307 ***	0.053	-0.380 ***	0.049	-0.345 ***	0.072
Fin. wealth_Q2	-0.014	0.024	-0.009	0.029	0.033	0.074	-0.070 *	0.037	-0.018	0.048	0.003	0.011	-0.001	0.028	-0.046 **	0.020	-0.101 **	0.039	-0.077 ***	0.028	-0.132 ***	0.032
Fin. wealth_Q3	-0.077 ***	0.027	-0.074 *	0.041	-0.021	0.068	-0.107 ***	0.039	-0.057	0.052	-0.059 ***	0.012	-0.010	0.032	-0.086 ***	0.024	-0.162 ***	0.038	-0.087 ***	0.032	-0.177 ***	0.037
Fin. wealth_Q4	-0.175 ***	0.030	-0.168 ***	0.050	-0.016	0.068	-0.117 ***	0.039	-0.088	0.056	-0.094 ***	0.015	-0.022	0.041	-0.147 ***	0.031	-0.132 ***	0.044	-0.080 *	0.046	-0.094	0.087
Real wealth_Q2	0.225 ***	0.025	0.118 ***	0.027	-0.013	0.047	0.173 ***	0.046	0.049	0.037	0.093 ***	0.012	0.063 **	0.026	0.078 ***	0.019	0.137 ***	0.037	0.152 ***	0.025	0.152 ***	0.035
Real wealth_Q3	0.414 ***	0.031	0.276 ***	0.040	0.189 ***	0.053	0.210 ***	0.033	0.302 ***	0.082	0.209 ***	0.012	0.132 **	0.046	0.161 ***	0.020	0.236 ***	0.034	0.286 ***	0.031	0.293 ***	0.050
Real wealth_Q4	0.550 ***	0.038	0.415 ***	0.046	0.252 ***	0.051	0.209 ***	0.033	0.299 ***	0.052	0.279 ***	0.012	0.145 **	0.056	0.186 ***	0.022	0.367 ***	0.038	0.378 ***	0.043	0.380 ***	0.064
Inherit. received	-0.062 ***	0.016	-0.035	0.025	-0.065	0.064	-0.035 *	0.018	-0.067 ***	0.024	-	-	-0.021	0.025	-	-	-0.062 ***	0.022	-0.088 ***	0.023	-0.087 ***	0.028
Constant	0.344 ***	0.049	0.034	0.060	0.363 **	0.148	0.202 ***	0.054	0.209 *	0.111	0.119 ***	0.022	0.044	0.077	-0.028	0.054	0.139 *	0.080	0.277 ***	0.068	0.014	0.097
R2	0.14	0.14	0.14	0.18	0.14	0.15	0.14	0.15	0.14	0.05	0.08	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.12	0.12
Observations	6,378	3,539	1,257	2,235	943	14,964	2,374	7,898	6,127	4,329	2,896											

Notes: The table reports results from RIF regressions. Numbers in italics denote standard errors. */**/** denote statistical significance at the 10%/5%/1% level. Country abbreviations are as explained in the notes to Table 1. Reported estimates are adjusted for multiple imputation.