World Inequality Lab – Technical Note N° 2021/16

# Distributional Wealth Accounts in Europe: Methodology

Thomas Blanchet Clara Martínez-Toledano

*First version: December 7, 2021 This version: January 13, 2022* 





# Distributional Wealth Accounts in Europe: Methodology

Thomas Blanchet $^{\dagger}$  Clara Martínez-Toledano $^{\ddagger}$ 

This version: January 13, 2022

get latest version

 $<sup>^{\</sup>dagger}\mathrm{UC}$ Berkeley - World Inequality Lab.

<sup>&</sup>lt;sup>‡</sup>Imperial College London - World Inequality Lab

# Overview

This methodological note presents the concepts, data sources and methods used to to build Distributional Financial Accounts in Europe. In Section A, we explain the different data sources and methods we use to build the country-specific wealth distributions. In section B, we define the method used to calibrate the asset and liability decomposition.

# A Methods

# **B** Wealth Distribution Data

## B.1 Denmark

In Denmark, the main source to study the distribution of wealth comes from various kinds of wealth taxation. Roine and Waldenström (2015) have used wealth tax information to study the historical evolution of wealth concentration in the 18th, 19th and 20th century. The Danish authorities continued collecting individual wealth information even after the abolition of the wealth tax in 1997. Jakobsen et al. (2020) exploit the Danish wealth registry to build wealth distribution series over the 1980-2012 period.

We use the wealth distribution series of Jakobsen et al. (2020), as they follow the exact same methodology that we use for the rest of countries we analyze in this paper. In particular, their series are fully consistent with National Accounts, they are based on equal-split adults and since they rely on tax records, they have a very good coverage of the top. The register-based data source for wealth has two limitations. First, it only includes individual information on private pension wealth from 2012 onward. They allocate funded pension wealth of workers proportionally to their wage incomes (winsorized at the 99th percentile) and the pension wealth of retirees proportionally to their pension benefits paid out of pension funds. Since they observe that in 2012 about 40% of pension wealth belongs to wage earners while 60% belongs to retirees, they split pension wealth belonging to wage earners and to retirees using the proportions of 2012 for the rest of the period. Second, the registry does not include assets not reported by third parties, in particular it excludes non-corporate business assets and unlisted equities. They compute non-corporate business assets by capitalizing business income (the capitalization rate equals the aggregate stock of business assets from the national accounts divided by the aggregate flow of business income from individual income tax returns) and unlisted equities by capitalizing dividend income.

We extrapolate the wealth distribution series of Jakobsen et al. (2020) forward up to 2020 by fixing the asset composition by percentile to 2012, so that changes in portfolio

composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset composition from 1980 to 2020.<sup>1</sup>

#### B.2 Finland

In Finland, there are three different sources which have been used to measure the wealth distribution: wealth tax records, estate tax records and wealth surveys. Roine and Waldenström (2015) use wealth and estate tax records to estimate the wealth distribution in from 1800 up to 2005. Jäntti (2006) uses the wealth surveys from Statistics Finland to analyze the dynamics of wealth inequality in the 1980s and 1990s.

We rely on the same wealth surveys used by Jäntti (2006) to build our wealth distribution series. The surveys are available over the 1987-2016 period and since 2009 are also part of the HFCS. To ensure consistency with the rest of countries, we build the wealth distribution based on equal-split adults and rescale the survey wealth components so as to match national accounts. We finally extrapolate the wealth distribution series forward up to 2020 by fixing the asset composition by percentile to 2016, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 1987 to 2020.

#### B.3 France

In France, there are three different sources which have been used to measure the wealth distribution: estate tax records, wealth surveys and income tax records. Piketty, Postel-Vinay, and Rosenthal (2006) use large samples of estate tax returns and the mortality multiplier method to construct series on wealth concentration in Paris and France from 1807 to 1994. Kessler and Wolff (1991), Cordier and Girardot (2007) and Durier, Richet-Mastain, and Vanderschelden (2012) rely on the wealth surveys elaborated by *Banque de France (Enquêtes Patrimoine)*, which are part of the HFCS since 2010, to study how wealth is distributed across French households. Finally, Garbinti, Goupille-Lebret, and Piketty (2021) develop a new method combining income tax records with household surveys – hereinafter referred to as the Mixed Income Capitalization-Survey (MICS) method – to derive French wealth distribution series from 1970 up to 2014.

We use the wealth distribution series of Garbinti, Goupille-Lebret, and Piketty (2021), as they follow the exact same methodology that we use for the rest of countries we analyze in this paper. In particular, their series are fully consistent with National Accounts, they

 $<sup>^{1}</sup>$ Jakobsen et al. (2020) do not provide the wealth distribution by percentile, so that we use the Generalized Pareto interpolation method to obtain it.

are based on equal-split adults and since they rely on tax records, they have a very good coverage of the top. Garbinti, Goupille-Lebret, and Piketty (2021) run several robustness checks and sensitivity tests with the estate tax records and wealth surveys and show that their method is very robust to estimate the wealth distribution.

We extrapolate the wealth distribution series of Garbinti, Goupille-Lebret, and Piketty (2021) forward up to 2020 by fixing the asset composition by percentile to 2014, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We rely on the Generalized Pareto interpolation method to generate the wealth distribution by percentile.

We end up with fully homogeneous wealth distribution series by percentile and asset class from 1970 to 2020.

# B.4 Germany

In Germany, there are two different sources which have been used to measure the wealth distribution: wealth tax records and wealth surveys. Baron (1988) and Dell (2008) use wealth tax data to estimate the wealth distribution in West Germany since the end of the II World War up to 1980 and 1995, respectively. On top of the HFCS, Germany has two additional household surveys including information on wealth. The Income and Expenditure Survey (*Einkommens- und Verbrauchsstichprobe, EVS*) starts in 1978 and incorporates partial information on assets and liabilities and the Socio-Economic Panel (SOEP) starting in 1984 incorporates wealth since 2002. The EVS has been used by Frick, Grabka, and Hauser (2010) and Fuchs-Schündeln, Krueger, and Sommer (2010) and the SOEP by Grabka and Frick, 2007, Westermeier and Grabka, 2015 and Grabka and Halbmeier, 2019.

Albers, Bartels, and Schularick (2020) combine tax data, surveys, national accounts and rich lists to study the distribution of wealth in Germany from 1895 to 2018. We rely on these series in this paper, as they ensure consistency with National Accounts and cover better the top than the available wealth surveys. The series up to 1989 are based on tax units and since 1993 on household units. To ensure consistency with the rest of countries, we adjust them so that they are based instead on equal-split adults.

To do so, we estimate the share of single by percentile of the wealth distribution raked by households in the German part of the HFCS survey (see figure 1). Based on this estimate we split each g-percentile into singles and couples, a re-interpolate the resulting tabulations using generalized Pareto interpolation (Blanchet, Fournier, and Piketty, 2021).

We finally extrapolate the wealth distribution series of Albers, Bartels, and Schularick (2020) forward up to 2020 by fixing the asset composition by percentile to 2018, so that



Figure 1: Share of Singles by Household Wealth Percentile, Germany

changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 1895 to 2020.

#### B.5 Italy

In Italy, there are two different sources which have been used to measure the wealth distribution: wealth surveys and inheritance tax records. Brandolini et al. (2006) and Cannari and D'Alessio (2018) rely on wealth surveys elaborated by *Banca d'Italia (Indagine sui bilanci delle famiglie italiane)*—which are available from 1965-2016 and are also part of the HFCS since 2010—to estimate the wealth distribution. Acciari, Alvaredo, and Morelli (2020) rely on inheritance tax records and the mortality multiplier method to estimate the wealth distribution between 1995 and 2016.

We use the wealth distribution series of Acciari, Alvaredo, and Morelli (2020), since they provide the best coverage of the top as they rely on tax records. In particular, they find higher wealth concentration levels after 2000 than Cannari and D'Alessio (2018) using wealth surveys. The series of Acciari, Alvaredo, and Morelli (2020) are built using individuals as unit of observation. To ensure consistency with the rest of countries, we adjust the series so that they are based instead on equal-split adults.

To do so, we estimate an adjustment factor by percentile from survey data. We individualize wealth in the Italian wealth survey following the recommendations of D'Alessio (2018). We then estimate, by percentile of wealth, the following quantity:

$$k_p = \operatorname{ashin}\left(\frac{\text{wealth of percentile p, individuals}}{\operatorname{average wealth}}\right) - \operatorname{ashin}\left(\frac{\text{wealth of percentile p, equal-split}}{\operatorname{average wealth}}\right)$$



Figure 2: Equal-split/Individuals Adjustment Factor by Percentile, Italy

which gives the profile shown in figure 2. We then apply a adjustment factor to out wealth series as:

$$\frac{\text{wealth of percentile p, equal-split}}{\text{average wealth}} = \sinh\left[ \operatorname{ashin}\left(\frac{\text{wealth of percentile p, individuals}}{\text{average wealth}}\right) - k_p \right]$$

We arrive at the results show in figure 3.

We finally extrapolate the wealth distribution series of Acciari, Alvaredo, and Morelli (2020) forward up to 2020 by fixing the asset composition by percentile to 2016, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 1995 to 2020.

#### B.6 Netherlands

In the Netherlands, there are two different sources which have been used to measure the wealth distribution: wealth tax records and wealth surveys. Roine and Waldenström (2015) rely on wealth tax records—including the wealth-tax based registry published since 1993 by Statistics Netherlands (CBS)—to estimate wealth concentration at the top from 1894 up to 2011. Van Bavel and Frankema (2017) use both wealth tax records and the



Figure 3: Comparison of Statistical Units, Italy

Dutch Central Bank household surveys (DHS) which are available from 1993-2020 to study wealth inequality from 1950 to 2015. Toussaint (2021) also builds wealth distribution series using the wealth tax records from Statistics Netherlands for 1993-2019.

We use the wealth distribution series of Toussaint (2021), as they follow the exact same methodology that we use for the rest of countries we analyze in this paper. In particular, their series are fully consistent with National Accounts, they are based on equal-split adults and since they rely on tax records, they have a very good coverage of the top. One limitation of the register-based data source for wealth is that it does not include information on private pension wealth, so that funded pension wealth is imputed proportionally to wages and pension benefits.

We extrapolate the wealth distribution series of Toussaint (2021) forward up to 2020 by fixing the asset composition by percentile to 2019, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 1993 to 2020.

#### B.7 Norway

In Norway, the main source to study the distribution of wealth comes from various kinds of wealth taxation. Roine and Waldenström (2015) have used wealth tax information to study the historical evolution of wealth concentration in the 18th, 19th and mid 20th century.

Epland and Kirkeberg (2012) and Iacono and Palagi (2021) have used registered-based wealth information from wealth tax records to study the dynamics of wealth inequality since 2010.

We use the wealth distribution series of Iacono and Palagi (2021) covering the 2010-2019 period, as they follow the exact same methodology that we use for the rest of countries we analyze in this paper. In particular, their series are fully consistent with National Accounts, they are based on equal-split adults and since they rely on tax records, they have a very good coverage of the top. One limitation of the register-based data source for wealth is that it does not include information on private pension wealth. They impute funded pension wealth in Norway proportionally to wages and pension benefits.

We extrapolate the wealth distribution series of Iacono and Palagi (2021) forward up to 2020 by fixing the asset composition by percentile to 2019, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile from 2010 to 2020.

# B.8 Spain

In Spain, there are three different sources which have been used to measure the wealth distribution: wealth tax records, wealth surveys and income tax records. Alvaredo and Saez (2009) use wealth tax returns and the Pareto interpolation method to construct long run series of wealth concentration for the period 1982 to 2007. Anghel et al. (2018) rely on the wealth surveys elaborated by *Banco de España (Encuesta Financiera de las Familias)*, which are also part of the HFCS since 2010, to study how wealth is distributed across Spanish households between 2002 and 2014.<sup>2</sup> Finally, Martínez-Toledano (2020) combines income tax records with household surveys to build wealth distribution series for the 1984-2015 period using the Mixed Income Capitalization-Survey (MICS) method developed by Garbinti, Goupille-Lebret, and Piketty (2021).

We use the wealth distribution series of Martínez-Toledano (2020), as they follow the exact same methodology that we use for the rest of countries we analyze in this paper. In particular, their series are fully consistent with National Accounts, they are based on equal-split adults and since they rely on tax records, they have a very good coverage of the top. Martínez-Toledano (2020) runs several robustness checks and sensitivity tests with the wealth surveys and shows that their method is very robust to estimate the wealth distribution.

We extrapolate the wealth distribution series of Martínez-Toledano (2020) forward up to

<sup>&</sup>lt;sup>2</sup>There is a new wealth survey wave available for 2017.

2020 by fixing the asset composition by percentile to 2015, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 1984 to 2020.

## **B.9** Switzerland

Regarding the availability of wealth data in Switzerland, the situation is mixed. On the one hand, Switzerland is one of the rare country that levies a fairly comprehensive wealth tax, and has done so (albeit irregularly) over most of the 20th and 21st century (Dell, Piketty, and Saez, 2005). The tax authority publishes tabulations showing the number and wealth of taxpayers over about ten brackets, with the last bracket covering less than 0.5% of the population. This provides a solid basis on which to construct wealth inequality statistics, and which has been exploited before (Dell, Piketty, and Saez, 2005; Foellmi and Martínez, 2016).

On the other hand, Switzerland does not conduct any proper wealth survey. This creates problems because the wealth tax statistics exclude private pension wealth, bottom-code wealth at zero, and relate to tax units rather than individuals. Therefore, to create series that are comparable with other countries, we must perform corrections and adjustments that in principle require survey data. Furthermore the aggregate household balance sheets produced by Switzerland are incomplete, because they exclude business assets.

However, there are some surveys of Swiss residents that include information on wealth, even if these surveys are not wealth surveys in the sense that wealth measurement is their primary focus. Ravazzini et al. (2019) found three such surveys. They all have limitations that actual wealth surveys do not have, but they remain a useful piece of information. Two of these surveys measure wealth across the entire population, but include little or no evidence on how this wealth is decomposed between asset types: the Swiss Household Panel (SHP) and the Statistics on Income and Living Conditions (CH-SILC).<sup>3</sup> A third survey contains much more details on the decomposition of wealth, but only contains individuals aged 50 and older: the Survey of Health, Ageing and Retirement in Europe.

Our estimate of the wealth distribution in Switzerland are the result of a triangulation of the evidence included in the wealth tax statistics, the SHP and the SHARE data. This estimation is composed of four broad steps.

**Step 1** We interpolate wealth tax statistics using the generalized Pareto interpolation method, which gives us the full distribution of taxable wealth across all tax units.

Step 2 We use the SHP data to get the number of couples and singles for each wealth

<sup>&</sup>lt;sup>3</sup>Note that CH-SILC is distinct from the EU-SILC survey, although the survey objectives are similar.

percentile, and use it to transform the distribution of wealth across tax units into a distribution of wealth across equal-split individuals.

- **Step 3** We create a synthetic survey dataset of wealth and its decomposition between asset types. To create this dataset, we first isolate the 50 and older in the SHP sample. Then we match statistically this subsample to the SHARE data (which is already restricted to the 50 and older). We pool this data together with the SHP data of individuals below 50, and with survey data for the rest of Europe from the HFCS, and run regressions to impute the asset ownership patterns by asset type across the 50 and younger in Switzerland. This gives us a synthetic dataset that contains the decomposition of wealth for all individuals in Switzerland.
- **Step 4** We use this synthetic dataset to impute private pension wealth and negative wealth to individuals in the tax data, and to decompose their wealth.

We detail these four steps and their impact on the final estimates below.

#### B.9.1 Step 1: Wealth Tax Data Interpolation

The wealth tax statistics are publicly available online through the tax authorities' website, annually since 2003 and at a lower frequency before that. These statistics cover the entire population of taxpayers, but in the form of tax units: i.e., two people who file jointly count as only one person. These statistics exclude private pension wealth, which is untaxed. Wealth is also bottom coded at zero, even though liabilities are deduced from taxable wealth, so that in principle some people can have negative wealth.

The data is published in tabulated form: taxpayers are grouped into about ten brackets, with the last bracket corresponding to tax units with more than 10 000 000 CHF of taxable wealth, or about 0.3% of all tax units in 2017.

We interpolate these data into a complete, continuous distribution using the generalized Pareto interpolation method (**blanchet\_generalized\_2017**). This method is an improvement over the standard Pareto interpolation method (Piketty, 2003; Piketty and Saez, 2003) which yields better results and can be applied to the entire distribution, not only the top. Our results are extremely close to those of earlier work on this data (Dell, Piketty, and Saez, 2005; Foellmi and Martínez, 2016), but provide a view of the entire distribution.

#### B.9.2 Step 2: Adjusting the Statistical Unit

The Swiss wealth tax data relates to tax units (i.e., households). We transform that household distribution into an equal-split adults distribution using the two waves of the SHP that collected information on total wealth: 2012 and 2016.



*Source:* Author's calculations using the Swiss Household Panel (SHP) in 2012 and 2016. *Notes:* Data points are the shares by percentile obtained directly from the two survey waves. We estimate the moving average value by first averaging the raw over the two available years, and then performing a moving average with a window of nine percentiles.

Figure 4: Share of Singles by Percentile of Household Wealth, Switzerland, 2012 and 2016

First, we estimate a share of singles by percentile of household wealth, as shown in Figure 4. We first estimate, separately for 2012 and 2016, the share of singles in each percentile of household wealth. We average this information over the two years of data available, and further smooth the estimate using a moving average with a window of nine percentiles.

Based on this estimate, we split the estimate of the distribution of wealth from Step 1 into two distributions: one for singles, and one for couples. We leave the distribution of wealth among singles unchanged. For couples, we divide their wealth and multiply their bracket size by two. We aggregate these distribution again, which yields an estimate of the wealth distribution among equal-split adults.

#### B.9.3 Step 3: Creation of Synthetic Survey Datasets

The creation of a synthetic survey dataset in Switzerland, which we can use to infer certain missing pieces of information, is the main challenge. To that end, we mobilize three different surveys. Two of them provide partial information for Switzerland: the SHP covers the full population with no information on the decomposition by asset type, while the SHARE contains a detailed decomposition but only for people aged 50 and older. The third one if the HFCS survey, which provide complete information for many European countries but not Switzerland.

We combine these three data sources to create an imputation model that estimates asset

ownership patterns vary by country, marital status, education, income and total wealth. We then use that imputation model to distribute the different wealth components to individuals younger that 50 (assets for individuals 50 or older are directly observable in the SHARE survey).

**Statistical Matching of SHARE and SHP** We statistically match the SHP and the SHARE surveys to create a single sample out of both datasets. From each dataset, we select the following variables for every household: education of the reference person (ISCED classification), age of the reference person, gross household income, and total household wealth. We transform income and wealth using the inverse hyperbolic sine function (asinh), which is similar to the logarithm for high values, but also supports zero and negative values.

We center and standardize these variables in both datasets. For every household  $i \in \{1, \ldots, n\}$  in the SHP, let  $(z_{1i}^{\text{SHP}}, \ldots, z_{ki}^{\text{SHP}})$  be the set of these variables. Similarly, for every household  $j \in \{1, \ldots, m\}$  in SHARE, let  $(z_{1j}^{\text{SHARE}}, \ldots, z_{kj}^{\text{SHARE}})$  be the set of these variables. We define a simple squared Euclidean distance between household i (in SHP) and j (in SHARE) as:

$$d_{ij} = \sum_{\ell=1}^{k} \left( z_{\ell i}^{\text{SHP}} - z_{\ell j}^{\text{SHARE}} \right)^2$$

and then we seek to find a way to match observations between the two datasets so as to minimize the overall distance (Ridder and Moffitt, 2007). That is, we solve the following optimization problem:

$$\min_{f_{ij}} \sum_{i=1}^{n} \sum_{j=1}^{m} f_{ij} d_{ij} \quad \text{subject to} \quad \begin{cases} \forall i \in \{1, \dots, n\} \quad \sum_{j=1}^{m} f_{ij} = w_i^{\text{SHP}} \\ \forall j \in \{1, \dots, m\} \quad \sum_{i=1}^{n} f_{ij} = w_j^{\text{SHARE}} \\ \forall i \in \{1, \dots, n\} \quad \forall j \in \{1, \dots, m\} \quad f_{ij} \ge 0 \end{cases}$$

where  $w_i^{\text{SHP}}$  and  $w_j^{\text{SHARE}}$  are the weights of households *i* and *j* in SHP and SHARE, respectively (we consider that the sum of these weights is the same in both samples). The matrix  $(f_{ij})$  that solves the problem can be found using standard optimal transport algorithms (Schuhmacher et al., 2020). The resulting dataset is made of all nonzero entries of  $(f_{ij})$ , and the value  $f_{ij}$  is the weight of each corresponding observation. The solution is known to be sparse, so that the resulting matched dataset will have at most m + n - 1observations.

We perform this operation for the two waves (2012 and 2016) of the SHP that contain wealth information. Because the SHP and the SHARE waves do not coincide exactly, we match the 2012 SHP with the 2013 wave of SHARE, and the 2016 SHP with the 2015 wave of SHARE. We separately match households made up of singles and of couples, and restrict the SHP sample to people aged 50 and older before matching it to SHARE (which is already restricted to that population). After matching, we pool the matched dataset with the SHP sample of people below age 50.

Estimation of Asset Ownership Patterns We pool the matched dataset with the HFCS data that covers the rest of Europe. (We use the second wave of the HFCS for the SHP 2012/SHARE 2013 dataset, and the third wave of the HFCS for the SHP 2016/SHARE 2015 dataset.) Then, we estimate statistical models that decompose asset ownership patterns as a function of countries, age, education, marital status, income and wealth. The idea is to use everything we know about Switzerland (for people 50 and older) and the rest of Europe (for the whole adult population) to infer what happens for people aged 50 and younger in Switzerland.

There are two dimensions of asset ownership: the extensive margin (do you own the asset or not?) and the intensive margin (how much of the asset do you own?) For the extensive margin, we perform a logistic regression of whether an household holds the asset as function of the explanatory variables. For the intensive margin, we perform quantile regressions of the log-transformed value of the asset (for the subsample of people that own the asset). We perform the quantile regression for every ventile, from  $\tau = 5\%$  to  $\tau = 95\%$ . We fit the model separately for the two waves of survey data. We consider eight asset categories: main residence, other real estate, other non-financial assets, deposits, pensions and life insurance, other financial assets, debt and consumer durables. Tables 1 to 16 summarize the coefficients for every model.

To impute the assets, we first simulate the extensive margin by drawing at random from a binomial variable according the predicted probability of owning the asset for every household. Then, we deal with the intensive margin by selecting one of the predicted ventile from the quantile regressions at random, at choosing it at the the value of the asset for the household, assuming it owns the asset. Following the basic inverse transform principle (Robert and Casella, 2004), the simulated variable will (approximately) follow the desired distribution.

How well does the imputation procedure performs? Figures 5 to 12 address that question. Given that the information for Switzerland is missing for all people 50 and younger, the key question is whether results are consistent for the different age groups. We present, side-by-side, how well we reproduce the distributions of the extensive and the intensive margins with our imputations for the different age groups in Switzerland. For people younger than 50, we only present the imputation since there is no observed. We are able to reproduce observed patterns fairly well. The simulated probabilities of ownership are close to reality. The quantile regression model can reproduce the general dispersion of asset values too. But the imputation isn't perfect, in particular in the tails, so that the

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-5.69	5.99	6.69	7.60	8.38	9.02	9.70	10.26	10.67	11.04	11.42	11.80
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.93	0.40	0.26	0.14	0.10	0.03	0.00	-0.00	-0.06	-0.08	-0.17	-0.24
Switzerland	-0.28	0.34	0.42	0.52	0.62	0.65	0.72	0.76	0.82	0.91	1.06	1.20
Cyprus	1.37	-0.10	-0.09	-0.07	0.01	-0.04	-0.05	-0.03	-0.06	-0.00	-0.01	-0.03
Germany	0.04	-0.42	-0.33	-0.40	-0.37	-0.39	-0.34	-0.33	-0.30	-0.24	-0.19	-0.17
Estonia	2.13	-1.75	-1.58	-1.48	-1.42	-1 43	-1 43	-1.42	-1.39	-1.30	-1 14	-1.07
Spain	2.02	-0.22	-0.25	-0.29	-0.30	-0.35	-0.37	-0.40	-0.39	-0.39	-0.37	-0.42
Finland	1.51	-0.19	-0.21	-0.28	-0.30	-0.36	-0.37	-0.36	-0.37	-0.34	-0.34	-0.39
France	0.68	-0.02	-0.05	-0.10	-0.10	-0.16	-0.19	-0.21	-0.23	-0.21	-0.21	-0.25
Greece	1.62	-0.65	-0.74	-0.83	-0.87	-0.94	-0.99	-1.00	-1.01	-0.97	-0.93	-0.96
Hungary	2 74	-1.59	-1.59	-1.62	-1.67	-1 77	-1.80	-1.82	-1.81	-1.75	-1.75	-1.80
Ireland	2.11	-0.16	-0.16	-0.20	-0.20	-0.26	-0.25	-0.24	-0.22	-0.18	-0.14	-0.22
Italy	1.02	-0.10	-0.10	-0.20	-0.20	-0.20	-0.20	-0.24	-0.22	-0.10	-0.14	-0.22
Luvembourg	0.71	0.04	-0.02	-0.00	-0.05	0.10	0.11	-0.10	-0.17	-0.14	-0.11	0.10
Latvia	2.51	-2.55	-2.44	-2.33	_2 32	-2.32	_2.28	-2.31	-2.22	-2.04	-1.80	-1.57
Malta	1.49	-2.00	0.05	-2.00	0.01	0.00	0.11	0.14	0.16	-2.04	-1.00	0.91
Nothorlands	0.82	0.10	0.00	-0.01	-0.01	-0.03	-0.11	-0.14	-0.10	-0.10	0.14	0.21
Polond	1.80	0.50	0.04	0.10	1.01	1.05	-0.01	-0.04	-0.03	-0.03	-0.03	-0.25
Portugal	1.00	-0.75	-0.03	-0.95	-1.01	-1.05	-1.04	-1.05	-1.02	-0.97	-0.88	-0.92
Florenio	1.70	-0.07	-0.52	-0.52	-0.51	-0.38	-0.01	-0.05	-0.02	-0.00	-0.00	-0.08
Slovellia	1.04	-0.47	-0.05	-0.00	-0.09	-0.70	-0.78	-0.60	-0.65	-0.79	-0.77	-0.62
SIOVAKIA	2.42	-0.38	-0.30	-1.00	-1.11	-1.20	-1.20	-1.52	-1.55	-1.55	-1.23	-1.50
					mε	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.84	-0.20	-0.19	-0.15	-0.15	-0.14	-0.13	-0.13	-0.16	-0.19	-0.19	-0.18
					(	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.16	0.14	0.10	0.12	0.12	0.12	0.07	0.06	0.05	0.05	0.05	0.08
ISCED 3	0.19	0.10	0.11	0.09	0.12	0.15	0.09	0.11	0.11	0.13	0.16	0.21
ISCED 4	0.03	-0.02	0.00	0.04	0.09	0.13	0.08	0.10	0.13	0.14	0.19	0.23
ISCED 5	0.23	0.05	0.03	0.05	0.12	0.16	0.13	0.15	0.18	0.18	0.22	0.27
ISCED 6	-0.58	0.02	0.01	0.05	0.11	0.15	0.13	0.17	0.20	0.24	0.30	0.37
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	1.05	-0.06	-0.09	-0.03	0.02	0.11	0.08	0.09	0.13	0.15	0.23	0.28
40-49	1.60	0.19	0.14	0.14	0.14	0.14	0.13	0.10	0.11	0.11	0.14	0.14
50-59	1.77	0.30	0.24	0.25	0.25	0.25	0.24	0.23	0.25	0.24	0.26	0.26
60-69	1.87	-0.24	-0.00	0.38	0.43	0.28	0.39	0.35	0.49	0.42	0.38	0.57
70-79	1.98	0.41	0.38	0.40	0.41	0.42	0.43	0.42	0.46	0.47	0.55	0.59
>80	1.91	-0.08	-0.15	-0.10	-0.09	-0.09	-0.01	0.04	0.10	0.11	0.05	0.01
		-		-	incor	ne and wea	lth				-	
asinh(income)	0.13	0.13	0.14	0.15	0.17	0.17	0.14	0.19	0.10	0.08	0.06	0.05
asinh(wealth)	0.15	0.28	0.14	0.17	0.11	0.07	0.05	0.12	0.10	0.03	0.03	0.03
	0.20	0.20	0.21	0.11	0.11	0.01	0.00	0.01	0.01	0.00	0.00	0.00

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 1: Switzerland Imputation Model Coefficients, Main Residence, 2012

-												
	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-6.57	5.31	5.90	6.98	7.66	8.62	9.61	10.38	10.80	11.25	11.60	11.86
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	1.04	0.28	0.23	0.14	0.12	0.10	0.07	0.02	-0.00	-0.10	-0.18	-0.25
Switzerland	-0.13	0.17	0.33	0.56	0.72	0.87	0.98	1.03	1.11	1.16	1.26	1.34
Cyprus	1.19	-0.20	-0.04	-0.06	-0.06	-0.05	-0.06	-0.01	0.08	0.07	0.06	0.10
Germany	0.07	-0.32	-0.28	-0.24	-0.21	-0.16	-0.16	-0.16	-0.12	-0.15	-0.07	-0.09
Estonia	2.23	-1.55	-1.45	-1.30	-1.22	-1.19	-1.22	-1.28	-1.26	-1.23	-1.10	-1.10
France	0.78	-0.05	-0.04	-0.06	-0.06	-0.09	-0.14	-0.17	-0.17	-0.22	-0.21	-0.26
Greece	1.79	-0.86	-0.90	-0.95	-0.96	-1.03	-1.10	-1.14	-1.12	-1.19	-1.15	-1.15
Croatia	2.98	-0.93	-0.81	-0.81	-0.83	-0.91	-0.95	-0.98	-0.96	-0.96	-0.84	-0.82
Hungary	2.91	-1.26	-1.24	-1.31	-1.34	-1.41	-1.49	-1.54	-1.51	-1.56	-1.55	-1.59
Ireland	1.36	0.05	0.06	0.03	0.04	0.03	0.03	0.01	0.03	0.01	-0.00	-0.02
Italy	1.19	-0.04	-0.08	-0.17	-0.17	-0.20	-0.22	-0.24	-0.22	-0.28	-0.22	-0.23
Lithuania	3.96	-1.16	-1.05	-1.08	-1.09	-1.19	-1.24	-1.30	-1.28	-1.32	-1.24	-1.13
Luxembourg	0.76	0.84	0.81	0.78	0.78	0.83	0.88	0.87	0.91	0.83	0.82	0.76
Latvia	2.59	-1.88	-1.84	-1.79	-1.72	-1.76	-1.82	-1.91	-1.91	-1.95	-1.91	-1.77
Malta	1.49	-0.09	-0.02	-0.05	-0.07	-0.07	-0.07	-0.09	-0.05	-0.11	-0.08	-0.09
Netherlands	0.99	0.28	0.30	0.24	0.23	0.19	0.14	0.07	0.07	0.06	0.09	0.06
Poland	2.02	-0.75	-0.80	-0.92	-0.96	-1.05	-1.11	-1.15	-1.11	-1.12	-1.09	-1.11
Portugal	1.79	-0.38	-0.39	-0.41	-0.44	-0.50	-0.57	-0.62	-0.62	-0.67	-0.63	-0.66
Slovenia	1.98	-0.50	-0.46	-0.56	-0.60	-0.66	-0.71	-0.73	-0.72	-0.72	-0.68	-0.70
Slovakia	2.77	-0.75	-0.74	-0.81	-0.85	-0.93	-1.02	-1.10	-1.09	-1.13	-1.07	-1.10
					mε	rital status	8					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.82	-0.18	-0.16	-0.15	-0.13	-0.15	-0.19	-0.19	-0.19	-0.19	-0.19	-0.23
					(	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.01	0.13	0.10	0.12	0.12	0.13	0.12	0.14	0.16	0.13	0.14	0.14
ISCED 3	0.20	0.17	0.18	0.18	0.19	0.21	0.22	0.24	0.25	0.21	0.22	0.23
ISCED 4	0.94	0.13	0.40	0.38	0.48	0.39	0.29	0.37	0.42	0.43	0.49	0.56
ISCED 5	0.22	0.27	0.31	0.33	0.33	0.36	0.39	0.43	0.46	0.47	0.50	0.53
ISCED 6	-0.59	-0.15	-0.05	-0.08	-0.01	0.06	0.06	0.15	0.19	0.08	0.16	-0.02
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.92	0.43	0.22	0.12	0.11	0.06	0.05	0.05	0.04	0.03	0.08	0.07
40-49	1.35	0.39	0.17	0.07	0.05	0.04	0.06	0.11	0.11	0.09	0.11	0.12
50-59	1.53	0.29	0.09	0.01	-0.02	-0.01	0.04	0.10	0.11	0.13	0.18	0.19
60-69	1.68	0.26	0.08	-0.00	-0.04	-0.03	0.02	0.09	0.12	0.13	0.18	0.20
70-79	1.67	0.24	0.08	-0.01	-0.03	-0.02	0.05	0.13	0.16	0.15	0.19	0.25
>80	1.68	0.25	0.02	-0.10	-0.10	-0.07	0.00	0.10	0.15	0.17	0.21	0.22
			-	-	incor	ne and wea	lth	-				
asinh(income)	0.06	0.10	0.10	0.08	0.00	0.00	0.00	0.08	0.07	0.06	0.05	0.05
asinh(wealth)	0.40	0.35	0.34	0.29	0.25	0.19	0.12	0.07	0.05	0.05	0.04	0.04
(												

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 2: Switzerland Imputation Model Coefficients, Main Residence, 2016

-												
	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-8.99	-0.19	2.72	2.21	3.01	4.30	5.99	6.83	8.04	9.32	9.75	10.52
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.22	-0.13	0.01	0.15	0.22	0.25	0.25	0.33	0.18	0.14	0.19	0.24
Switzerland	-0.03	-0.71	-0.03	0.38	0.61	0.65	0.70	0.77	0.85	0.89	1.15	1.13
Cyprus	2.05	-0.16	-0.01	0.10	0.36	0.44	0.44	0.53	0.58	0.63	0.88	1.01
Germany	0.76	-0.95	-0.75	-0.56	-0.33	-0.27	-0.26	-0.21	-0.17	-0.17	0.00	0.03
Estonia	1.89	-1.10	-1.45	-0.99	-0.78	-0.84	-0.95	-0.94	-1.05	-1.09	-0.92	-1.02
Spain	1.78	-0.15	-0.44	-0.18	0.05	0.05	-0.01	-0.01	-0.11	-0.13	-0.10	-0.16
Finland	1.31	-0.80	-0.45	-0.02	0.06	-0.01	-0.09	-0.14	-0.24	-0.31	-0.24	-0.33
France	0.91	-0.89	-0.73	-0.29	-0.05	-0.02	-0.00	-0.00	-0.06	-0.09	0.04	-0.07
Greece	1.95	-0.48	-0.64	-0.41	-0.32	-0.40	-0.49	-0.48	-0.53	-0.56	-0.41	-0.38
Hungary	1.55	-0.92	-1.29	-1.04	-0.93	-1.04	-1.17	-1.26	-1.44	-1.63	-1.57	-1.74
Ireland	0.94	0.99	0.82	0.66	0.67	0.70	0.75	0.86	0.84	0.82	0.87	0.75
Italy	0.89	-0.52	-0.56	-0.40	-0.22	-0.24	-0.22	-0.17	-0.25	-0.28	-0.23	-0.23
Luxembourg	0.45	0.11	0.36	0.63	0.73	0.69	0.70	0.83	0.83	0.99	1.18	1.33
Latvia	2.69	-1.06	-1.37	-1.20	-1.17	-1.35	-1.61	-1.62	-1.64	-1.77	-1.71	-1.72
Malta	1.33	0.02	-0.20	-0.24	0.04	0.09	0.03	0.06	-0.07	-0.05	0.13	0.00
Netherlands	-0.42	-0.34	-0.32	-0.26	0.01	0.13	0.22	0.14	0.25	0.45	0.51	0.46
Poland	0.99	-0.96	-1.18	-1.08	-0.86	-0.84	-0.95	-0.95	-1.05	-1.15	-1.12	-1.23
Portugal	1.65	-1.13	-1.07	-0.62	-0.36	-0.29	-0.30	-0.27	-0.41	-0.43	-0.31	-0.29
Slovenia	1.62	-1.79	-1.56	-1.29	-0.99	-0.90	-0.92	-0.80	-0.82	-0.88	-0.72	-0.82
Slovakia	1.08	-1.55	-1.72	-1.73	-1.72	-1.70	-1.67	-1.65	-1.50	-1.50	-1.52	-1.63
					ma	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.17	-0.04	-0.16	-0.05	0.06	0.13	0.05	-0.01	-0.08	-0.09	-0.14	-0.16
					6	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.12	-0.61	-0.63	-0.40	-0.25	-0.25	-0.22	-0.22	-0.10	-0.08	0.09	0.13
ISCED 3	0.03	-0.40	-0.46	-0.24	-0.17	-0.18	-0.15	-0.16	-0.06	0.04	0.30	0.20
ISCED 4	0.18	-0.88	-0.54	-0.33	-0.23	-0.18	-0.15	-0.13	0.01	0.06	0.25	0.20
ISCED 5	0.33	-0.71	-0.64	-0.36	-0.22	-0.12	-0.08	-0.04	0.10	0.19	0.34	0.38
ISCED 6	-0.32	-0.55	-0.62	-0.39	-0.31	-0.20	-0.13	-0.07	0.09	0.16	0.43	0.49
						age						
20-29	(ref)	(ref)	(ref.)	(ref)	(ref)	(ref.)	(ref.)	(ref)	(ref)	(ref)	(ref)	(ref)
30-39	-0.00	-1.62	-1.22	-0.88	-0.54	-0.38	-0.13	-0.07	0.13	0.20	0.49	0.58
40-49	0.17	0.12	0.12	0.32	0.33	0.28	0.22	0.30	0.24	0.13	0.07	0.16
50-59	0.48	0.12	0.08	0.30	0.42	0.40	0.40	0.42	0.35	0.30	0.27	0.36
60-69	0.57	1.09	1.16	0.75	0.55	0.33	0.21	0.03	0.29	0.09	0.20	0.27
70-79	0.46	0.23	0.25	0.42	0.57	0.57	0.58	0.62	0.58	0.57	0.55	0.67
>80	0.11	0.03	-0.18	-0.09	-0.15	-0.13	0.01	0.15	0.23	0.26	0.04	0.04
					incon	ne and wea	lth					
asinh(incomo)	0.27	0.30	<u> </u>	0.30	0.30	0.33	0.31	0.50	0.93	0.17	0.15	0.13
asinh(wealth)	0.27	0.39	0.20	0.30	0.30	0.00	0.31	0.29	0.23	0.17	0.10	0.15
(weatin)	0.00	0.40	0.09	0.05	0.00	0.20	0.14	0.11	0.03	0.01	0.00	0.00

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 3: Switzerland Imputation Model Coefficients, Other Real Estate, 2012

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
Intercept	-10.39	0.82	0.49	0.86	1.92	3 26	4 73	5.80	6.54	7.81	9 77	10.77
	10100	0.02	0.10	0.00	1.02	country		0.00	0.01		0.11	10.11
Austria	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)	(rof)
Relgium	0.10	-0.28	0.14	0.21	0.25	0.23	0.26	0.20	0.10	0.06	-0.08	_0.28
Switzerland	-0.06	0.20	0.14	0.21	0.20	0.23	1 11	1.21	1.38	1 45	-0.00	1.28
Cyprus	1.92	0.01	0.00	0.00	0.10	0.33	0.34	0.46	0.51	0.63	0.68	0.58
Germany	0.78	-0.87	-0.34	-0.45	-0.30	-0.12	-0.10	-0.07	-0.10	-0.19	-0.15	-0.39
Estonia	1.85	-1.02	-0.86	-0.79	-0.77	-0.79	-0.86	-0.86	-0.88	-0.99	-1.20	-1.38
France	0.79	-1.03	-0.56	-0.25	-0.04	0.02	0.01	0.01	-0.07	-0.19	-0.25	-0.50
Greece	2.13	-0.29	-0.12	-0.16	-0.25	-0.34	-0.42	-0.49	-0.57	-0.72	-0.81	-1.15
Croatia	1.45	-2.87	-1.80	-1.51	-1.29	-1.07	-0.94	-0.86	-0.75	-0.89	-0.82	-1.15
Hungary	1.40	-0.55	-0.46	-0.60	-0.73	-0.80	-0.95	-1.01	-1.05	-1.25	-1.44	-1.68
Ireland	0.31	0.83	0.83	0.55	0.54	0.59	0.62	0.63	0.56	0.52	0.59	0.27
Italy	0.69	-0.39	-0.37	-0.44	-0.30	-0.22	-0.14	-0.19	-0.27	-0.40	-0.39	-0.65
Lithuania	1.44	-1.16	-0.94	-0.99	-0.91	-0.90	-0.92	-0.80	-0.80	-0.69	-0.28	-0.84
Luxembourg	0.19	-0.06	0.34	0.34	0.48	0.55	0.61	0.68	0.67	0.71	0.80	0.84
Latvia	2.58	-0.61	-0.68	-0.76	-0.98	-1.11	-1.20	-1.19	-1.22	-1.37	-1.61	-2.03
Malta	1.22	-0.08	-0.27	-0.41	-0.34	-0.13	-0.12	-0.00	-0.01	-0.05	-0.07	-0.12
Netherlands	-0.81	-1.28	-0.91	-1.03	-0.50	-0.36	-0.29	-0.19	-0.20	-0.18	-0.38	-0.53
Poland	1.29	-0.88	-0.78	-0.92	-0.99	-0.94	-0.96	-0.98	-1.10	-1.30	-1.42	-1.76
Portugal	1.52	-1.12	-0.83	-0.58	-0.44	-0.39	-0.33	-0.30	-0.37	-0.49	-0.55	-0.87
Slovenia	1.45	-1.06	-0.90	-0.95	-0.92	-0.79	-0.73	-0.68	-0.72	-0.86	-0.96	-1.16
Slovakia	1.38	-1.51	-1.35	-1.28	-1.33	-1.31	-1.35	-1.39	-1.41	-1.47	-1.62	-1.88
					ma	rital status	s					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.11	-0.11	-0.05	-0.01	-0.00	0.01	-0.00	-0.03	-0.06	-0.06	-0.07	-0.10
					(	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.03	0.25	0.32	0.30	0.28	0.10	0.17	0.30	0.25	0.28	0.20	0.22
ISCED 3	0.13	0.27	0.36	0.35	0.44	0.27	0.24	0.29	0.26	0.28	0.28	0.32
ISCED 4	0.27	0.63	-0.00	-0.29	0.26	0.12	0.09	0.37	0.76	0.59	0.47	-0.02
ISCED 5	0.41	0.72	0.58	0.60	0.65	0.54	0.51	0.53	0.54	0.56	0.62	0.63
ISCED 6	-0.34	-0.07	0.04	-0.30	-0.22	-0.48	-0.44	-0.26	-0.32	-0.39	-0.31	-0.40
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.15	-0.41	-0.26	-0.00	0.20	0.21	-0.04	-0.17	-0.01	-0.04	-0.21	0.05
40-49	0.48	-0.33	-0.26	-0.10	0.11	0.11	-0.10	-0.21	-0.05	-0.11	-0.17	0.07
50-59	0.62	-0.42	-0.27	-0.24	-0.05	0.07	-0.13	-0.23	-0.06	-0.06	-0.16	0.04
60-69	0.69	-0.47	-0.39	-0.27	-0.04	-0.01	-0.15	-0.20	0.02	0.09	0.04	0.17
70-79	0.66	-0.68	-0.45	-0.21	0.03	0.07	-0.09	-0.16	-0.03	-0.02	-0.09	0.13
$>\!80$	0.45	-1.80	-0.95	-0.48	-0.22	-0.20	-0.31	-0.25	0.02	0.06	-0.12	0.16
					incor	ne and wea	lth					
asinh(income)	0.26	0.20	0.28	0.28	0.27	0.25	0.24	0.25	0.21	0.21	0.18	0.14
asinh(wealth)	0.40	0.50	0.48	0.49	0.43	0.37	0.31	0.23	0.23	0.16	0.08	0.07
(								. = -				

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 4: Switzerland Imputation Model Coefficients, Other Real Estate, 2016

$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Slovakia 0.64 -6.75 -5.41 -3.95 -3.78 -3.72 -2.98 -2.82 -2.62 -2.65 -2.74 -2.62
marital status
married (ref)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
education
ISCED 0-1 (ref.)
ISCED 2 -0.22 0.48 0.85 1.02 0.13 0.40 0.23 0.24 0.11 0.16 0.01 0.14
ISCED 3 -0.09 0.24 0.55 0.89 0.05 0.44 0.30 0.24 0.08 0.24 0.23 0.39
ISCED 4 -0.45 0.03 0.55 0.70 0.05 0.45 0.52 0.54 0.10 0.50 0.27 0.49 ISCED 5 0.07 0.12 0.17 0.24 0.20 0.17 0.02 0.16 0.10 0.20 0.27 0.49
ISCED 5 -0.07 0.12 0.17 0.34 0.29 0.17 0.05 0.10 0.12 0.52 0.24 0.40
ISCED 0 -0.32 -2.11 -0.41 0.49 0.39 0.16 0.42 0.37 0.26 0.47 0.03 0.90
age
$20-29  (\mathrm{ref.})  (\mathrm{ref.}$
30-39  0.37  -0.22  -0.69  0.09  0.23  0.32  0.25  0.16  0.14  0.54  0.29  0.54
40-49  0.35  -0.11  -0.18  -0.18  0.14  0.16  0.19  0.15  0.15  0.16  0.03  0.16
50-59 0.30 -0.05 -0.05 -0.02 0.26 0.24 0.23 0.31 0.29 0.32 0.30 0.39
60-69  -0.43  7.20  5.68  3.69  2.87  1.77  0.94  0.34  0.86  0.60  -0.29  -0.67
70-79  -1.29  -0.41  -0.53  -0.43  -0.08  -0.18  -0.16  -0.08  -0.04  0.08  0.18  0.49
>80 -2.13 -0.88 -2.37 1.50 1.38 0.64 0.35 0.68 0.17 0.12 0.20 0.77
income and wealth
asinh(income) 0.19 0.12 0.26 0.15 0.15 0.16 0.17 0.18 0.18 0.15 0.10 0.04
asinh(wealth) 0.19 0.12 0.17 0.20 0.20 0.16 0.14 0.13 0.14 0.14 0.15 0.11

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 5: Switzerland Imputation Model Coefficients, Other Non-financial Assets, 2012

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
Intercept	-7.43	4.31	3.16	2.42	4.00	5.32	6.82	7.32	8.05	8.98	10.92	11.63
		-				country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.11	-5.60	-2.65	-2.01	-2.43	-2.61	-2.46	-2.39	-1.75	-1.49	-0.94	0.55
Switzerland	0.70	-8.26	-7.27	-3.70	-2.84	-1.84	-1.36	-0.97	-0.46	-0.05	0.10	0.61
Cyprus	0.18	-3.12	-1.74	0.10	-0.16	0.07	0.09	-0.16	-0.01	0.19	0.45	0.89
Germany	0.40	-1.69	-1.59	-1.02	-1.37	-1.32	-1.46	-1.37	-1.33	-0.93	-0.93	-0.48
Estonia	-0.44	-1.91	-2.02	-1.92	-2.65	-2.29	-2.28	-2.33	-2.16	-2.38	-2.20	-1.43
France	0.32	-2.24	-1.79	-1.36	-1.74	-1.55	-1.48	-1.40	-1.20	-1.24	-1.21	-1.13
Greece	1.56	-0.08	-0.13	-0.10	-0.64	-0.86	-1.19	-1.34	-1.38	-1.55	-1.79	-1.79
Croatia	-0.80	-2.58	-1.01	-0.84	-1.30	-1.75	-1.91	-1.96	-1.67	-2.04	-2.40	-2.87
Hungary	0.80	-1.37	-1.47	-1.42	-1.98	-2.27	-2.68	-2.70	-2.66	-2.76	-2.83	-2.41
Ireland	0.75	0.16	-0.08	-0.28	-0.93	-0.92	-1.06	-1.10	-1.12	-1.28	-1.44	-1.30
Italy	0.93	-0.51	-0.44	-0.20	-0.70	-0.70	-0.96	-1.07	-1.10	-1.34	-1.60	-1.56
Lithuania	-0.26	-0.44	-1.27	-1.75	-2.03	-2.67	-2.99	-3.24	-2.22	-1.42	-0.02	-0.50
Luxembourg	-1.82	-6.47	-7.97	-0.69	0.31	0.24	0.24	-0.00	-0.20	-0.05	-0.36	0.85
Latvia	0.20	-7.94	-7.95	-3.35	-3.74	-4.27	-4.09	-3.73	-3.62	-2.90	-2.46	-2.70
Malta	0.44	0.27	-0.50	-0.35	-0.26	-0.36	-0.52	-0.74	-0.58	-0.33	-0.52	0.00
Netherlands	-0.63	-0.96	-0.77	-0.13	-0.63	-0.64	-0.54	-0.23	-0.12	-0.21	-0.51	-0.79
Poland	1.70	-0.11	-0.15	-0.08	-0.55	-0.75	-1.08	-1.19	-1.32	-1.63	-2.15	-2.19
Portugal	0.51	-1.67	-1.67	-1.22	-1.63	-1.78	-1.79	-1.76	-1.67	-1.75	-2.15	-1.56
Slovenia	0.69	-4.54	-3.69	-2.07	-2.16	-1.75	-1.91	-1.83	-1.72	-1.20	-1.21	-1.13
Slovakia	0.86	-6.81	-4.45	-3.76	-3.38	-3.06	-3.16	-3.24	-2.63	-2.41	-2.13	-2.18
					ma	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.28	-0.07	0.01	0.27	0.09	0.17	0.05	-0.04	-0.03	-0.04	0.02	-0.03
					e	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.10	0.35	0.26	0.16	0.26	0.26	0.26	0.31	0.09	0.09	-0.21	-0.33
ISCED 3	0.00	0.15	-0.16	0.10	0.09	0.20	0.33	0.38	0.21	0.14	-0.05	-0.03
ISCED 4	0.28	1.61	1.51	2.17	2.14	1.32	0.68	0.37	0.85	1.61	0.40	0.92
ISCED 5	-0.07	-0.58	-0.62	-0.55	-0.38	-0.18	0.05	0.21	0.07	-0.01	-0.14	-0.10
ISCED 6	-0.59	0.13	0.14	-2.04	1.10	0.33	0.19	-0.31	-0.52	-0.43	-0.65	-1.24
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.41	-0.67	0.31	0.38	0.12	-0.11	0.13	0.32	0.25	0.21	0.18	0.24
40-49	0.37	-0.10	0.22	0.29	0.20	0.04	0.10	0.27	0.17	0.17	0.22	0.59
50-59	0.33	-0.28	0.17	0.17	-0.11	-0.16	0.02	0.33	0.26	0.27	0.37	0.54
60-69	-0.53	-0.63	-0.02	0.04	0.03	-0.07	0.08	0.30	0.24	0.22	0.37	0.62
70-79	-1.25	-1.81	-0.44	-0.28	-0.09	-0.36	-0.01	0.21	0.27	0.25	0.64	0.45
>80	-1.90	-2.25	-2.45	-3.74	-1.19	-0.98	-0.20	0.35	0.23	0.26	0.12	-0.15
					incon	ne and wea	lth					
asinh(income)	0.13	0.22	0.20	0.26	0.24	0.20	0.16	0.12	0.12	0.11	0.08	0.04
asinh(wealth)	0.27	0.13	0.27	0.32	0.30	0.27	0.21	0.22	0.21	0.19	0.14	0.13

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 6: Switzerland Imputation Model Coefficients, Other Non-financial Assets, 2016

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-0.44	-4.07	-2.48	-0.78	0.43	1.62	2.64	3.57	4.43	5.31	6.11	7.12
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.41	-1.16	-1.00	-0.74	-0.58	-0.42	-0.35	-0.24	-0.10	0.03	0.14	0.15
Switzerland	0.14	-1.25	-1.05	-0.76	-0.46	-0.23	0.04	0.26	0.43	0.67	0.90	1.02
Cyprus	-2.25	-1.52	-0.95	-0.28	0.06	0.04	0.15	0.22	0.24	0.34	0.44	0.51
Germany	-0.22	-0.79	-0.84	-0.82	-0.69	-0.60	-0.47	-0.40	-0.26	-0.15	-0.02	0.14
Estonia	0.40	-3.78	-3.29	-2.77	-2.30	-1.98	-1.72	-1.51	-1.28	-1 21	-0.96	-0.86
Spain	-0.02	-1.05	-1.23	-1.17	-1.02	-0.91	-0.78	-0.54	-0.43	-0.27	-0.13	-0.09
Finland	1.05	-1.16	-1.18	_1 11	_0.97	-0.87	-0.75	-0.60	-0.53	-0.36	-0.18	-0.13
Franco	2.00	-1.10	-1.10	-1.11	-0.97	-0.67	-0.75	-0.00	-0.00	-0.30	-0.10	-0.15
Crosse	1.02	2.14	-0.70	-0.13	-0.05	1.62	-0.45	-0.04	-0.51	-0.27	-0.20	-0.25
Hungary	-1.00	-3.14	-2.44	-2.03	-1.77	-1.05	-1.47	-1.04	-1.21	-1.11	-0.91	-0.85
Ingland	-1.50	-1.77	-1.00	-1.70	-1.40	-1.10	-1.05	-1.05	-1.15	-1.26	-1.52	-1.50
Iteland	-0.00	-1.59	-1.01	-1.59	-1.22	-0.98	-0.60	-0.01	-0.41	-0.23	-0.09	-0.01
Italy	-1.31	0.09	-0.22	-0.38	-0.44	-0.51	-0.55	-0.55	-0.59	-0.60	-0.55	-0.55
Luxembourg	-0.08	-0.86	-0.05	-0.57	-0.42	-0.22	-0.05	0.10	0.27	0.45	0.57	0.00
Latvia	-1.90	-3.02	-3.04	-2.93	-2.90	-2.93	-2.80	-2.80	-2.00	-2.32	-2.04	-1.82
Malta	-0.02	0.49	0.29	0.21	0.25	0.23	0.21	0.16	0.10	0.05	0.12	0.14
Netherlands	0.71	-0.53	-0.50	-0.44	-0.34	-0.26	-0.17	-0.08	-0.04	0.09	0.18	0.23
Poland	-1.54	-2.13	-2.02	-2.04	-2.08	-2.05	-1.99	-1.90	-1.80	-1.63	-1.47	-1.58
Portugal	0.62	-1.55	-1.30	-1.09	-0.98	-0.79	-0.60	-0.42	-0.27	-0.14	0.01	0.00
Slovenia	-0.77	-3.83	-3.62	-3.20	-2.84	-2.56	-2.25	-1.98	-1.73	-1.35	-0.97	-0.82
Slovakia	-1.32	-1.65	-1.59	-1.61	-1.57	-1.55	-1.39	-1.35	-1.39	-1.36	-1.37	-1.42
					ma	rital status	8					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.26	-0.01	-0.07	-0.15	-0.16	-0.15	-0.15	-0.18	-0.17	-0.15	-0.15	-0.16
					(	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.09	-0.04	-0.08	-0.16	-0.20	-0.19	-0.13	-0.08	-0.07	0.02	0.12	0.15
ISCED 3	0.73	-0.33	-0.24	-0.27	-0.21	-0.20	-0.16	-0.12	-0.04	0.04	0.11	0.27
ISCED 4	-0.04	-0.31	-0.25	-0.29	-0.17	-0.10	-0.07	-0.01	0.11	0.22	0.41	0.52
ISCED 5	1.22	-0.05	0.00	0.03	0.07	0.18	0.24	0.30	0.39	0.49	0.68	0.72
ISCED 6	0.56	0.31	0.38	0.37	0.39	0.50	0.46	0.48	0.53	0.61	0.74	0.76
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	-0.73	0.64	0.68	0.64	0.66	0.75	0.69	0.71	0.74	0.79	0.90	0.88
40-49	-0.81	0.04	0.13	0.07	0.11	0.12	0.09	0.10	0.14	0.13	0.10	0.06
50-59	-0.82	0.54	0.53	0.55	0.52	0.53	0.46	0.43	0.44	0.40	0.37	0.31
60-69	-0 74	0.19	0.15	0.64	0.90	0.89	0.78	0.55	0.35	0.23	0.28	0.06
70-79	-0.69	0.96	1.01	1.02	1.05	1.06	1.01	0.99	0.97	0.93	0.84	0.82
>80	-0.86	-0.13	-0.03	0.03	0.08	0.14	0.15	0.05	0.04	-0.07	-0.09	-0.13
200	0.00	0.10	0.00	0.00	incor	ne and woo	0.10	0.00	0.01	0.01	0.00	0.10
	0.05	0.79	0.67	0.00	0.50		0.49	0.90	0.99	0.00	0.05	0.00
asinn(income)	0.25	0.73	0.07	0.00	0.56	0.48	0.43	0.38	0.33	0.28	0.25	0.20
asınh(wealth)	0.12	0.21	0.19	0.18	0.15	0.15	0.13	0.12	0.12	0.11	0.10	0.09

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 7: Switzerland Imputation Model Coefficients, Deposits, 2012

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-0.10	-3.28	-1.89	-0.56	0.98	2.01	3.63	4.45	5.35	6.28	7.22	8.08
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	-0.05	-1.64	-1.21	-0.97	-0.70	-0.52	-0.39	-0.26	-0.09	0.05	0.15	0.15
Switzerland	1.16	-1.19	-0.91	-0.54	-0.17	0.13	0.39	0.65	0.88	1.12	1.36	1.50
Cyprus	-2.78	-2.26	-1.97	-1.74	-1.34	-0.81	-0.71	-0.64	-0.39	-0.23	-0.01	-0.13
Germany	-0.51	-0.93	-0.87	-0.67	-0.50	-0.43	-0.37	-0.22	-0.12	-0.06	-0.04	-0.10
Estonia	0.35	-3.47	-3.12	-2.39	-2.01	-1.64	-1.55	-1.27	-1.10	-0.95	-0.92	-0.95
France	1.05	-0.83	-0.92	-0.86	-0.75	-0.60	-0.48	-0.35	-0.23	-0.16	-0.20	-0.25
Greece	-0.63	-5.87	-5.08	-3.44	-2.78	-2.37	-2.22	-1.95	-1.69	-1.49	-1.40	-1.35
Croatia	-2.47	-3.83	-3.51	-2.93	-2.74	-2.47	-2.42	-2.25	-2.13	-1.93	-1.61	-1.37
Hungary	-2.12	-2.71	-2.59	-2.36	-2.32	-2.14	-2.06	-1.81	-1.43	-1.13	-0.89	-0.89
Ireland	-0.81	-2.33	-2.01	-1.68	-1.42	-1.22	-1.07	-0.92	-0.78	-0.58	-0.37	-0.25
Italv	-1.35	-0.23	-0.29	-0.40	-0.42	-0.46	-0.51	-0.49	-0.46	-0.44	-0.49	-0.51
Lithuania	-0.62	-2.71	-2.73	-2.39	-2.44	-2.27	-2.24	-2.00	-1.80	-1.69	-1.62	-1.67
Luxembourg	-0.38	-1.32	-1.01	-0.58	-0.39	-0.17	0.08	0.31	0.45	0.57	0.62	0.56
Latvia	-0.83	-5.90	-5.39	-3.96	-3.64	-3.47	-3.37	-3.20	-3.00	-2.77	-2.52	-2.50
Malta	0.09	-0.31	-0.18	-0.03	0.05	0.08	0.10	0.18	0.17	0.16	0.13	0.09
Netherlands	1.29	-0.27	-0.21	-0.08	0.03	0.10	0.13	0.19	0.31	0.35	0.41	0.42
Poland	-1.63	-1.45	-1.35	-1.28	-1.29	-1.22	-1.22	-1.11	-1.03	-1.01	-1.16	-1.31
Portugal	0.67	-1.48	-1.27	-1.14	-1.03	-0.87	-0.69	-0.51	-0.35	-0.22	-0.19	-0.17
Slovenia	-1.36	-3 20	-2.71	-2.39	-2.28	-2.08	-1.96	-1.67	-1 47	-1.28	-1.26	-1.16
Slovakia	-1.34	-2.23	-2.24	-1.90	-1.74	-1.59	-1.61	-1.54	-1.42	-1.35	-1.30	-1.29
					ma	rital status						
	( a)	( 0)	( 0)	(	( a)	(	( 2)	(	( a)	( 2)	( a)	( 2)
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.28	-0.00	-0.07	-0.16	-0.16	-0.21	-0.26	-0.26	-0.24	-0.23	-0.22	-0.21
					(	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.14	0.30	0.22	0.28	0.32	0.33	0.30	0.19	0.17	0.17	0.15	0.19
ISCED 3	0.79	0.53	0.55	0.54	0.63	0.62	0.59	0.50	0.49	0.53	0.49	0.51
ISCED 4	0.66	1.08	0.79	1.03	0.99	1.12	1.02	0.92	0.95	1.37	1.45	1.43
ISCED 5	1.41	1.09	1.08	1.02	1.11	1.13	1.16	1.05	1.03	0.99	0.94	1.03
ISCED 6	0.24	0.58	0.34	0.15	0.29	0.33	0.38	0.31	0.26	0.24	0.11	-0.01
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	-0.63	-0.64	-0.42	-0.28	-0.31	-0.20	-0.17	-0.02	-0.02	-0.01	0.14	0.20
40-49	-0.88	-0.66	-0.44	-0.31	-0.26	-0.21	-0.15	-0.02	0.04	0.10	0.28	0.32
50-59	-1.11	-0.70	-0.43	-0.31	-0.25	-0.19	-0.06	0.13	0.17	0.27	0.42	0.52
60-69	-0.98	-0.41	-0.13	0.03	0.10	0.19	0.27	0.43	0.44	0.53	0.70	0.75
70-79	-1.00	-0.11	0.06	0.18	0.23	0.30	0.39	0.49	0.49	0.53	0.67	0.76
>80	-0.96	-0.27	0.10	0.31	0.43	0.54	0.57	0.59	0.59	0.68	0.81	0.91
			•		incor	ne and wea	lth					
asinh(income)	0.92	0.69	0.62	0.57	0.49	0.42	0.20	0.26	0.92	0.17	0.14	0.11
asinh(monlth)	0.23	0.00	0.00	0.07	0.40	0.40	0.52	0.20	0.20	0.17	0.14	0.11
asini (wearin)	0.15	0.24	0.20	0.19	0.10	0.10	0.14	0.10	0.10	0.12	0.11	0.10

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 8: Switzerland Imputation Model Coefficients, Deposits, 2016

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-7.98	-1.48	-0.93	0.69	1.45	2.33	2.92	3.64	4.75	5.78	7.57	8.01
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	1.58	0.64	0.65	0.54	0.42	0.37	0.37	0.28	0.15	0.12	-0.25	-0.23
Switzerland	1.03	1.55	1.53	1.50	1.50	1.55	1.64	1.59	1.58	1.59	1.38	1.44
Cyprus	0.34	-0.91	-0.69	-0.45	-0.26	-0.01	0.20	0.36	0.49	0.94	0.49	0.59
Germany	1.93	0.24	0.24	0.36	0.40	0.40	0.51	0.40	0.38	0.30	-0.01	0.02
Estonia	0.87	-1.20	-0.76	-0.89	-0.99	-1.13	-1.08	-1.25	-1.40	-1.60	-2.08	-1.97
Spain	0.81	-0.38	-0.16	-0.11	-0.06	-0.02	0.10	0.00	-0.03	0.03	-0.03	0.28
Finland	0.65	-1.66	-1.22	-0.83	-0.67	-0.61	-0.50	-0.56	-0.59	-0.59	-0.86	-0.78
France	1.55	-0.81	-0.35	-0.06	0.07	0.13	0.31	0.31	0.37	0.45	0.32	0.56
Greece	-2.30	-1.12	-0.74	-1.44	-1.39	-0.64	-0.76	-0.55	-0.65	-0.86	-0.80	-0.84
Hungary	0.73	-0.04	-0.11	-0.04	-0.09	-0.09	-0.03	-0.24	-0.38	-0.57	-1.18	-1.19
Ireland	-0.47	1.57	1.31	1.25	1.36	1.38	1.43	1.31	1.28	1.35	1.03	0.92
Italv	-0.33	0.45	0.44	0.49	0.38	0.30	0.34	0.19	0.05	-0.06	-0.32	-0.35
Luxembourg	0.65	0.27	0.32	0.48	0.44	0.43	0.49	0.49	0.51	0.54	0.37	0.43
Latvia	0.07	-2.06	-2.25	-2.14	-2.46	-2.40	-1.96	-1.92	-1.92	-1.76	-2.01	-2.09
Malta	0.91	1.30	1.23	0.85	0.64	0.60	0.59	0.52	0.35	0.26	-0.05	-0.18
Netherlands	1.36	1.33	1.34	1.37	1.42	1.51	1.51	1.46	1.34	1.20	0.74	0.57
Poland	2.43	-0.68	-0.86	-1.25	-1.47	-1.64	-1.71	-1.97	-2.17	-2.37	-2.86	-2.98
Portugal	0.72	-0.78	-0.57	-0.63	-0.66	-0.64	-0.53	-0.60	-0.66	-0.62	-0.82	-0.63
Slovenia	0.34	-1.81	-0.90	-0.60	-0.58	-0.57	-0.59	-0.73	-0.85	-0.99	-1.34	-1 40
Slovakia	0.46	-0.75	-0.51	-0.51	-0.66	-0.72	-0.69	-0.77	-0.97	-0.91	-1.37	-1.36
					ma	rital status	3					
	( a)	( 0)	( 0)	(	( a)	(	, ( a)	(	( a)	( 2)	( a)	( 2)
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.17	0.39	0.21	0.05	0.03	0.00	0.05	0.01	0.01	0.01	-0.07	-0.10
					(	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	-0.01	0.21	0.25	0.41	0.33	0.34	0.31	0.42	0.36	0.22	0.30	0.25
ISCED 3	0.29	0.79	0.79	0.78	0.74	0.65	0.68	0.76	0.68	0.52	0.51	0.38
ISCED 4	0.13	1.04	1.03	1.05	0.97	0.95	0.94	1.04	0.94	0.78	0.78	0.52
ISCED 5	0.38	1.23	1.15	1.14	1.05	1.02	1.03	1.11	1.04	0.86	0.85	0.68
ISCED 6	0.08	1.02	0.98	1.02	0.90	0.92	0.91	1.11	1.07	0.89	1.01	0.74
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.30	0.97	1.00	1.18	1.11	1.01	1.03	1.18	1.13	1.21	1.19	0.90
40-49	0.42	-0.27	-0.18	-0.23	-0.18	-0.11	-0.17	-0.13	-0.04	0.05	0.11	0.09
50-59	0.45	0.03	0.08	0.15	0.14	0.13	0.07	0.15	0.17	0.22	0.27	0.26
60-69	-0.11	-0.09	0.32	0.38	0.42	0.48	0.24	0.42	0.53	0.65	1.09	0.90
70-79	-0.93	0.08	0.18	0.33	0.28	0.30	0.23	0.34	0.40	0.47	0.57	0.58
>80	-0.88	-0.54	-0.44	-0.35	-0.34	-0.26	-0.35	-0.28	-0.16	0.02	-0.01	0.10
					incor	ne and wea	lth					
	0.44	0 56	0.54	0.44	0.49	0.20	0.27	0.20	0.97	0.99	0.14	0.16
asimi(mcome)	0.44	0.00	0.04	0.44	0.42	0.39	0.37	0.32	0.27	0.23	0.14	0.10
asinn(wealtn)	0.08	0.09	0.11	0.11	0.12	0.10	0.10	0.10	0.09	0.08	0.07	0.07

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 9: Switzerland Imputation Model Coefficients, Pensions and Life Insurance, 2012

		-04	04	01		04		01	~~	01	04	01
	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
Intercept	-8.72	-2.62	-0.35	-0.53	0.78	0.79	1.77	2.86	3.74	5.44	6.42	7.34
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	1.73	1.19	0.72	0.61	0.55	0.49	0.34	0.18	0.15	0.02	-0.08	-0.26
Switzerland	1.46	2.39	2.16	1.82	1.94	1.89	1.90	1.87	1.98	2.04	2.09	1.99
Cyprus	1.03	2.16	1.39	1.23	1.06	1.12	1.02	0.87	0.91	0.94	0.64	0.24
Germany	1.94	1.35	1.07	0.84	0.86	0.83	0.78	0.65	0.60	0.52	0.39	0.20
Estonia	0.94	-0.79	-0.90	-0.70	-0.70	-0.70	-0.79	-1.00	-1.08	-1.33	-1.43	-1.50
France	1.83	-0.29	-0.14	-0.01	0.19	0.31	0.34	0.33	0.49	0.52	0.59	0.61
Greece	-3.36	3.73	2.87	2.12	1.82	1.38	1.08	0.68	0.62	-0.01	-0.15	-0.52
Croatia	0.05	1.63	0.83	0.35	0.32	0.28	-0.01	-0.06	-0.05	-0.25	-0.62	-0.86
Hungary	-0.19	-0.02	-0.39	-0.41	-0.45	-0.40	-0.59	-0.70	-0.65	-0.83	-0.95	-1.18
Ireland	0.10	1.49	1.48	1.50	1.48	1.47	1.41	1.40	1.60	1.60	1.69	1.76
Italy	-0.17	0.96	0.52	0.47	0.46	0.41	0.37	0.29	0.22	0.02	-0.06	-0.24
Lithuania	0.46	0.98	0.05	0.07	-0.30	0.22	0.31	0.39	0.21	-0.27	-0.37	-0.43
Luxembourg	0.01	1.32	0.93	0.74	0.64	0.53	0.53	0.42	0.60	0.55	0.42	0.38
Latvia	1.54	-1.57	-1.64	-1.68	-1.80	-1.77	-1.80	-1.94	-1.94	-2.20	-2.08	-2.08
Malta	0.76	2.42	2.10	1.83	1.64	1.50	1.25	1.06	0.88	0.61	0.63	0.55
Netherlands	1.09	1.70	1.47	1.41	1.46	1.55	1.59	1.53	1.61	1.57	1.55	1.43
Poland	2.15	-0.07	-0.70	-0.86	-1.01	-1.10	-1.33	-1.59	-1.73	-2.06	-2.26	-2.47
Portugal	0.62	-1.28	-1.04	-0.65	-0.46	-0.53	-0.52	-0.63	-0.62	-0.72	-0.61	-0.83
Slovenia	0.76	-1.63	-2.09	-1.26	-0.70	-0.38	-0.35	-0.46	-0.43	-0.59	-0.45	-0.29
Slovakia	0.66	0.71	-0.01	-0.11	-0.20	-0.22	-0.43	-0.59	-0.68	-0.76	-0.90	-1.21
					ma	rital status	8					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.07	0.40	0.18	0.22	0.07	0.10	-0.03	-0.07	-0.09	-0.11	-0.04	-0.15
0					(	education						
ISCED 0-1	(ref)	(ref)	(ref.)	(ref)	(ref)	(ref)	(ref.)	(ref)	(ref)	(ref)	(ref)	(ref)
ISCED 2	-0.05	-0.77	-0.67	-0.37	-0.31	-0.26	-0.07	-0.06	0.15	0.23	0.14	0.04
ISCED 2 ISCED 3	0.00	-0.22	-0.01	-0.04	-0.01	-0.20	0.01	-0.00	0.10	0.29	0.14	0.04
ISCED 4	0.22	0.15	-0.23	-0.04	-0.00	-0.00	0.00	0.17	1.01	0.25	0.96	0.04
ISCED 5	0.10	-0.08	-0.14	0.17	0.15	0.00	0.01	0.01	0.42	0.50	0.50	0.50
ISCED 6	-0.30	-0.37	-0.11	-0.45	-0.39	-0.44	-0.32	-0.12	-0.02	-0.05	-0.14	-0.05
IDOLLD 0	0.00	0.01	0.00	0.10	0.00	age	0.02	0.12	0.02	0.00	0.11	0.00
	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)
20-29	(rei.)	(rer.)	(rei.)									
30-39	0.19	0.34	0.05	0.44	0.44	0.48	0.52	0.52	0.58	0.38	0.24	0.39
40-49	0.31	1.00	0.80	0.79	0.90	0.84	1.05	1.90	0.97	0.81	0.70	0.88
00-09 60-60	0.30	1.08	1.29	1.15	1.18	1.12	1.25	1.29	1.33	1.18	1.09	1.21
00-09	-0.20	1.20	1.34	1.35	1.29	1.21	1.27	1.28	1.31	1.12	1.05	1.18
(0-79	-0.80	1.27	1.03	1.28	1.30	1.21	1.52	1.28	1.35	1.17	1.10	1.30
>80	-0.90	1.37	1.23	1.40	1.33	1.20	1.03	1.08	1.07	1.42	1.35	1.09
					incon	ne and wea	lth					
asinh(income)	0.50	0.60	0.46	0.52	0.46	0.49	0.43	0.38	0.32	0.22	0.18	0.16
asinh(wealth)	0.07	0.09	0.11	0.12	0.11	0.11	0.10	0.09	0.09	0.09	0.08	0.07

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 10: Switzerland Imputation Model Coefficients, Pensions and Life Insurance, 2016

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
Intercept	-7.02	-5.72	-3.79	-3.58	-3.78	-4.88	-2.63	-0.98	1.74	3.08	5.49	6.03
						country						
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.54	-0.29	0.63	0.40	0.36	0.33	0.54	0.61	0.77	0.91	0.86	0.60
Switzerland	0.13	0.63	0.89	0.80	0.72	0.69	0.88	1.04	1.37	1.56	1.66	1.71
Cyprus	0.66	-3.69	-3.43	-2.88	-2.34	-1.71	-0.55	0.04	0.29	0.67	1.34	1.84
Germany	0.73	-0.52	-0.57	-0.65	-0.61	-0.55	-0.48	-0.38	-0.11	-0.03	-0.03	-0.07
Estonia	0.50	-1.08	-1.11	-0.91	-0.79	-0.48	-0.42	-0.26	-0.04	0.40	0.50	0.46
Spain	0.42	0.48	0.57	0.46	0.48	0.64	0.61	0.72	0.78	0.91	0.89	0.68
Finland	1.11	-1.03	-0.82	-0.87	-0.90	-0.81	-0.77	-0.62	-0.42	-0.18	-0.17	-0.14
France	0.44	-1.43	-0.97	-0.67	-0.54	-0.35	-0.31	-0.24	-0.18	-0.06	-0.05	0.05
Greece	-1.33	-0.12	-0.35	-0.70	-0.68	-0.54	-0.46	-0.51	-0.62	-0.31	-0.68	-1.03
Hungary	1.83	-18.97	-18.92	-18.09	-17.33	-16.55	-16.27	-3.21	-1.85	-1.18	-1.03	-1.09
Ireland	0.04	-2.70	-1.76	-1.33	-0.85	-0.44	-0.27	-0.21	-0.09	0.02	0.06	0.03
Italy	0.84	-16.60	-16.33	-16.14	-15.80	-2.47	-0.48	-0.15	0.04	0.09	-0.18	-0.33
Luxembourg	0.01	-0.07	0.30	0.27	0.24	0.31	0.54	0.68	0.89	1.08	1.10	1.18
Latvia	-0.21	-1.14	-1.36	-1.63	-1.41	-0.88	-0.58	-0.47	-0.84	-0.60	0.25	0.09
Malta	1.00	1.27	1.37	1.15	1.01	1.05	0.87	0.75	0.70	0.78	0.49	0.33
Netherlands	0.85	-15.47	-14.93	-14.74	-14.09	-2.41	-1.33	-1.02	-0.69	-0.39	-0.01	-0.21
Poland	2.19	-18.16	-18.27	-18.45	-18.47	-18.19	-18.31	-18.28	-17.96	-4.37	-3.27	-3.11
Portugal	0.45	-1.74	-0.86	-0.36	0.26	0.63	0.52	0.57	0.60	0.90	0.87	0.87
Slovenia	0.23	-1.15	-0.92	-0.69	-0.60	-0.30	-0.42	-0.48	-0.53	-0.29	-0.36	-0.11
Slovakia	-0.21	-1.43	-2.07	-1.43	-1.04	-0.89	-0.91	-1.05	-1.08	-0.96	-0.85	-1.26
					ma	rital status	5					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	0.09	0.37	0.14	0.12	0.14	0.41	0.21	0.11	0.01	-0.04	-0.18	-0.22
					(	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.21	0.06	-0.07	0.18	0.31	0.23	0.32	0.43	0.48	0.59	0.56	0.79
ISCED 3	0.43	0.08	-0.01	0.30	0.40	0.37	0.48	0.69	0.70	0.77	0.70	0.96
ISCED 4	0.45	0.44	0.25	0.66	0.89	0.81	0.91	1.04	1.02	1.09	1.07	1.25
ISCED 5	0.95	0.67	0.67	1.02	1.27	1.20	1.28	1.45	1.28	1.34	1.27	1.26
ISCED 6	0.08	0.94	0.87	1.10	1.46	1.50	1.61	1.76	1.59	1.57	1.41	1.46
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	-0.20	1.37	1.00	1.10	1.43	1.33	1.46	1.59	1.42	1.48	1.55	1.63
40-49	-0.12	0.08	0.24	0.21	0.37	0.40	0.29	0.30	0.29	0.28	0.30	0.34
50-59	-0.10	0.41	0.58	0.56	0.75	0.81	0.72	0.73	0.77	0.75	0.68	0.64
60-69	-0.01	1.07	0.85	0.97	1.02	0.98	0.71	0.69	1.15	1.33	1.27	0.78
70-79	-0.06	0.68	1.00	1.09	1.24	1.28	1.15	1.21	1.26	1.17	1.18	1.19
>80	-0.34	-0.11	-0.06	-0.24	-0.07	-0.25	-0.40	-0.35	-0.19	0.04	-0.06	-0.23
					incor	ne and wea	lth					
asinh(income)	0.41	0.83	0.72	0.77	0.80	0.90	0.75	0.63	0.43	0.36	0.23	0.24
asinh(wealth)	0.07	0.14	0.13	0.12	0.12	0.15	0.14	0.14	0.14	0.13	0.13	0.13

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 11: Switzerland Imputation Model Coefficients, Other Financial Assets, 2012

	P(> 0)	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
Intercept	-5.65	-2.53	-1.59	-0.78	-0.46	-1.15	-3.38	-0.76	1.63	3.25	4.87	5.50
						country						
Austria	(ref)	(ref)	(ref.)	(ref.)	(ref)	(ref )	(ref.)	(ref.)	(ref.)	(ref)	(ref.)	(ref.)
Belgium	0.68	-0.87	-0.26	-0.00	0.11	0.39	0.51	0.67	0.82	0.88	0.83	0.63
Switzerland	0.68	2.01	1.84	1.55	1 64	1.67	1.57	1.90	2.15	2.42	2.82	3 39
Cyprus	0.58	-2.78	-2.54	-2.38	-1.56	-0.60	0.70	1.25	1.49	1.87	2.27	1.96
Germany	1.05	-0.37	-0.29	-0.63	-0.47	-0.30	-0.15	-0.02	0.08	0.17	0.21	0.10
Estonia	0.41	-1.70	-1.53	-1.39	-1.07	-0.86	-0.32	-0.13	-0.07	-0.06	0.58	0.90
France	0.54	-1.34	-0.89	-0.71	-0.44	-0.20	0.01	0.08	0.20	0.32	0.63	0.78
Greece	-1.27	0.29	-0.25	-1.12	-1.29	-0.87	-0.90	-1.02	-1.18	-0.74	-0.60	-0.65
Croatia	-0.12	-1.47	-0.66	-0.53	-0.24	0.04	0.10	0.23	-0.16	-0.10	0.49	0.55
Hungary	0.93	-15.75	-16.05	-16.44	-15.99	-14.86	-2.10	-1.40	-1.03	-0.79	-0.52	-0.51
Ireland	0.05	-2.60	-2.15	-1.47	-0.84	-0.51	-0.22	-0.05	0.21	0.32	0.45	0.51
Italy	1.04	-16.84	-16.66	-16.82	-16.43	-15.88	-2.49	-0.37	0.02	0.08	-0.11	-0.24
Lithuania	-0.39	-30.62	-1.59	-1.35	-0.98	-0.64	-0.12	-0.30	-0.51	-0.54	-0.15	0.16
Luxembourg	0.09	0.18	0.29	-0.01	0.36	0.65	0.61	0.82	0.98	1.20	1.23	1.63
Latvia	-0.63	-1.93	-2.12	-1.93	-1.67	-1.22	-0.50	-0.73	-1.24	-0.89	-0.40	-0.66
Malta	1.37	-13.87	-13.99	-3.56	0.29	0.75	1.12	1.17	1.00	0.82	0.70	0.87
Netherlands	1.13	-16.40	-16.14	-16.01	-15.39	-14.56	-2.62	-1.13	-0.49	-0.21	0.00	0.36
Poland	1.98	-17.95	-18.15	-18.52	-18.39	-18.09	-17.68	-17.70	-17.62	-16.74	-3.15	-2.79
Portugal	0.45	-14.92	-1.01	-0.27	0.08	0.63	1.18	1.05	1.14	1.17	1.22	1.54
Slovenia	0.25	-1.75	-0.96	-0.74	-0.44	-0.15	0.04	0.16	0.01	0.09	0.09	0.10
Slovakia	-0.17	-0.64	-0.31	-0.84	-0.34	-0.06	0.06	0.06	-0.03	0.09	0.45	0.43
					ma	rital status	8					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	0.14	0.48	0.27	0.12	0.07	0.07	0.20	0.06	-0.04	0.01	-0.03	-0.04
					e	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.11	0.61	0.49	0.16	0.12	0.53	0.58	0.41	0.41	0.56	0.32	0.27
ISCED 3	0.42	0.52	0.65	0.50	0.59	0.85	1.36	0.84	0.80	0.84	0.74	0.77
ISCED 4	0.79	0.38	0.46	0.58	0.47	0.80	1.19	0.63	0.93	1.29	1.52	1.54
ISCED 5	0.83	1.15	1.28	1.12	1.35	1.64	1.96	1.45	1.42	1.49	1.29	1.35
ISCED 6	0.21	0.51	0.63	0.47	0.51	0.64	0.80	0.27	0.25	0.26	0.07	-0.49
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	-0.15	0.05	0.12	0.17	0.20	0.13	0.04	0.12	0.38	0.48	0.29	0.34
40-49	-0.17	0.24	0.42	0.31	0.45	0.45	0.30	0.50	0.75	0.83	0.59	0.78
50-59	-0.10	0.11	0.40	0.49	0.68	0.72	0.74	0.83	1.08	1.21	0.96	0.94
60-69	-0.12	0.09	0.50	0.63	0.88	1.01	1.10	1.11	1.37	1.43	1.14	1.00
70-79	-0.24	0.35	0.82	0.77	0.97	1.05	1.13	1.22	1.46	1.50	1.08	0.98
$>\!80$	-0.40	0.65	0.90	0.66	1.08	1.27	1.34	1.40	1.65	1.69	1.39	1.33
					incon	ne and wea	lth					
asinh(income)	0.25	0.49	0.46	0.52	0.51	0.57	0.75	0.58	0.41	0.29	0.25	0.25
asinh(wealth)	0.09	0.17	0.15	0.14	0.13	0.14	0.15	0.16	0.14	0.15	0.15	0.15

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 12: Switzerland Imputation Model Coefficients, Other Financial Assets, 2016

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-3.49	-3.40	-1.19	0.14	1.32	2.99	4.18	5.60	6.52	8.08	9.01	10.36
country												
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.78	0.88	1.18	1.21	0.88	0.78	0.59	0.40	0.34	0.27	0.19	0.06
Switzerland	1.04	2.49	3.23	3.17	2.86	2.79	2.58	2.38	2.16	1.88	1.48	1.21
Cyprus	1.25	1.08	1.52	2.02	1.70	1.48	1.30	1.14	1.17	1.04	1.16	1.05
Germany	0.42	-0.51	-0.10	0.22	0.10	0.19	0.18	0.18	0.16	0.18	0.16	0.04
Estonia	0.39	-3.78	-1.15	-0.76	-0.75	-0.70	-0.67	-0.65	-0.56	-0.67	-0.63	-0.79
Spain	0.94	1.31	1.48	1.48	1.26	1.15	0.93	0.71	0.63	0.49	0.31	0.01
Finland	1.09	1.09	1.30	1.25	0.99	0.90	0.77	0.62	0.53	0.38	0.24	0.07
France	0.79	0.40	0.63	0.66	0.54	0.54	0.53	0.44	0.41	0.31	0.23	0.06
Greece	-0.25	0.48	0.41	0.27	0.04	-0.04	-0.05	-0.13	-0.10	-0.13	-0.23	-0.52
Hungary	0.44	0.35	0.16	0.08	-0.16	-0.39	-0.51	-0.75	-0.86	-1.05	-1.14	-1.37
Ireland	0.72	0.26	0.30	0.53	0.65	0.84	0.87	0.83	0.89	0.74	0.57	0.40
Italy	-0.37	0.63	0.67	0.54	0.35	0.31	0.25	0.17	0.17	0.03	-0.02	-0.28
Luxembourg	0.86	1.12	1.33	1.28	1.14	1.28	1.23	1.14	1.15	1.03	1.06	0.95
Latvia	0.09	-0.46	-0.46	-0.69	-0.77	-0.87	-0.77	-0.69	-0.55	-0.50	-0.70	-0.89
Malta	0.51	-0.22	-0.44	-0.40	-0.06	-0.04	0.04	0.05	0.08	-0.08	-0.18	-0.26
Netherlands	1.26	0.79	1.54	2.10	1.92	1.76	1.61	1.37	1.23	0.99	0.86	0.61
Poland	0.30	-0.25	-0.52	-0.78	-1.16	-1.37	-1.47	-1.54	-1.39	-1.24	-1.02	-1.21
Portugal	1.02	1.19	1.46	1.81	1.55	1.36	1.10	0.80	0.66	0.38	0.17	-0.07
Slovenia	0.46	-0.25	-0.17	-0.36	-0.62	-0.77	-0.91	-1.07	-1.04	-1.09	-0.87	-0.84
Slovakia	0.27	0.42	-0.03	-0.41	-0.47	-0.67	-0.71	-0.87	-0.84	-0.84	-0.91	-1.13
					ma	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.65	-0.60	-0.60	-0.59	-0.50	-0.49	-0.53	-0.48	-0.38	-0.34	-0.31	-0.32
					e	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.32	0.21	0.73	0.86	0.90	0.99	1.05	1 15	0.96	0.47	0.35	0.29
ISCED 3	0.65	0.32	0.68	0.87	0.78	0.76	0.78	0.89	0.73	0.32	0.24	0.28
ISCED 4	0.81	0.27	0.51	0.52	0.23	0.20	0.24	0.45	0.38	0.01	0.06	0.14
ISCED 5	0.80	0.11	0.39	0.26	-0.02	-0.17	-0.17	-0.01	-0.02	-0.32	-0.23	-0.08
ISCED 6	0.57	-0.67	-0.27	-0.18	-0.43	-0.49	-0.51	-0.32	-0.34	-0.70	-0.24	-0.23
						age						
20-29	(ref)	(ref)	(ref)	(ref)	(ref)	(ref.)	(ref)	(ref)	(ref.)	(ref)	(ref)	(ref.)
30-39	0.64	-0.99	-0.72	-0.72	-0.97	-0.95	-0.53	-0.68	-0.76	-0.98	-0.66	-0.40
40-49	0.75	-0.27	-0.09	0.12	0.14	0.24	0.24	0.22	0.23	0.17	-0.03	0.10
50-59	0.44	0.07	0.14	0.41	0.35	0.40	0.40	0.36	0.39	0.29	0.09	0.10
60-69	-0.14	0.73	0.14	0.63	0.64	0.59	0.44	0.41	0.38	0.33	-0.03	-0.12
70-79	-0.82	0.43	0.74	1.08	0.96	0.94	0.89	0.83	0.77	0.61	0.39	0.47
>80	-1.84	0.34	0.29	0.40	0.24	0.25	0.28	0.18	0.19	0.01	-0.05	-0.03
	1.01	0.01	0.20	0.10	incon	ne and wea	lth	0.10	0.10		0.00	0.00
	0.20	0.85	0.66	0 59	0.56	0.45	0.40	0.91	0.97	0.99	0.99	0.14
asimh(mcome)	0.50	0.00	0.00	0.08	0.00	0.40	0.40	0.02	0.27	0.23	0.22	0.14
asinn(wealth)	-0.10	-0.03	-0.02	0.01	0.02	0.03	0.03	0.03	0.02	0.01	0.00	-0.00

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 13: Switzerland Imputation Model Coefficients, Debt, 2012

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-3.07	-1.47	-1.07	0.11	0.78	2.36	3.84	5.51	6.77	7.84	9.55	10.65
country												
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	0.91	0.87	0.97	1.13	0.95	0.84	0.77	0.69	0.37	0.17	0.15	0.05
Switzerland	1.27	3.50	3.55	3.60	3.20	3.01	2.84	2.69	2.40	2.09	1.75	1.49
Cyprus	1.26	0.85	1.14	1.63	1.61	1.47	1.35	1.18	0.93	0.84	0.91	0.69
Germany	0.57	-0.07	0.11	0.52	0.46	0.44	0.40	0.36	0.19	0.04	0.08	0.06
Estonia	0.96	-1.43	-0.83	-0.73	-0.85	-0.93	-0.94	-0.86	-1.00	-0.96	-0.90	-0.97
France	0.83	0.80	0.86	0.98	0.81	0.68	0.65	0.58	0.36	0.21	0.15	0.03
Greece	-0.63	0.39	0.19	0.30	0.47	0.56	0.42	0.24	0.09	0.04	-0.05	-0.14
Croatia	0.87	-0.22	-0.39	-0.33	-0.59	-0.90	-1.06	-1.20	-1.37	-1.41	-1.30	-1.50
Hungary	0.18	-0.56	-0.46	-0.39	-0.42	-0.56	-0.71	-0.96	-1.19	-1.27	-1.35	-1.51
Ireland	0.79	0.15	0.24	0.43	0.46	0.45	0.58	0.60	0.43	0.35	0.37	0.28
Italy	-0.33	0.97	0.74	0.77	0.59	0.33	0.27	0.20	0.03	-0.13	-0.16	-0.23
Lithuania	0.26	-0.17	-0.21	-0.55	-0.62	-0.54	-0.67	-0.72	-0.95	-0.97	-0.82	-0.89
Luxembourg	0.91	1.28	1.19	1.30	1.03	1.12	1.20	1.30	1.11	1.01	1.01	0.90
Latvia	0.55	-0.82	-0.85	-0.84	-1.03	-1.13	-1.07	-1.26	-1.31	-1.29	-1.19	-1.26
Malta	0.41	0.38	0.69	0.98	0.68	0.63	0.62	0.42	0.17	0.07	-0.08	-0.07
Netherlands	1.19	1.89	2.30	2.68	2.40	2.09	1.89	1.72	1.45	1.23	1.01	0.81
Poland	0.58	-1.62	-1.41	-1.33	-1.33	-1.42	-1.38	-1.30	-1.31	-1.34	-1.28	-1.37
Portugal	1.13	1.37	1.50	1.70	1.52	1.23	0.99	0.75	0.39	0.18	-0.03	-0.22
Slovenia	0.27	-0.59	-0.37	-0.25	-0.45	-0.67	-0.64	-0.73	-0.82	-0.83	-0.98	-1.03
Slovakia	0.28	0.06	0.30	0.33	0.18	-0.06	-0.16	-0.35	-0.58	-0.66	-0.75	-0.95
					mε	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-0.72	-0.39	-0.46	-0.34	-0.21	-0.22	-0.22	-0.25	-0.29	-0.27	-0.29	-0.25
					(	education						
ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.32	0.58	0.33	-0.13	0.11	0.09	0.30	0.39	0.44	0.38	0.38	0.21
ISCED 3	0.57	0.75	0.62	0.34	0.38	0.43	0.52	0.58	0.60	0.53	0.48	0.40
ISCED 4	0.69	1.45	0.91	0.69	0.89	0.85	0.94	0.96	0.98	0.98	0.79	0.68
ISCED 5	0.77	1.40	1.47	1.11	1.06	0.99	1.01	1.01	1.01	0.90	0.86	0.82
ISCED 6	0.51	0.78	0.81	0.35	0.26	0.30	0.35	0.41	0.45	0.49	0.56	0.48
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.56	0.30	0.24	0.77	0.87	1.00	0.93	0.88	0.81	0.49	0.30	0.33
40-49	0.68	0.69	0.61	0.93	0.81	0.86	0.69	0.65	0.65	0.32	0.19	0.30
50-59	0.32	0.39	0.30	0.57	0.45	0.44	0.28	0.30	0.33	0.04	0.08	0.23
60-69	-0.29	0.16	0.12	0.24	0.12	0.13	-0.12	-0.22	-0.19	-0.40	-0.30	-0.12
70-79	-0.89	-0.05	-0.16	-0.05	-0.24	-0.32	-0.56	-0.64	-0.60	-0.78	-0.58	-0.33
>80	-2.08	-0.76	-1.03	-0.85	-1.10	-1.05	-1.11	-1.01	-0.82	-0.86	-0.58	-0.39
	income and wealth											
asinh(income)	0.26	0.57	0.61	0.57	0.57	0.48	0.40	0.20	0.23	0.22	0.13	0.08
asinh(wealth)	-0.09	-0.00	0.00	0.01	0.03	0.03	0.04	0.04	0.04	0.03	0.01	0.00
( · · · · · · · · · · · · · · · · · · ·												

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 14: Switzerland Imputation Model Coefficients, Debt, 2016

$\begin{array}{c c c c c c c c c c c c c c c c c c c $													
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau = 20\%$	$\tau = 30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau = 60\%$	$\tau = 70\%$	$\tau = 80\%$	$\tau = 90\%$	$\tau = 95\%$
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Intercept	-1.65	0.87	1.53	2.50	3.42	4.40	5.26	5.86	6.54	6.99	7.77	8.38
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	country												
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
	Belgium	-0.10	-0.20	-0.20	-0.22	-0.19	-0.18	-0.13	-0.11	-0.07	-0.05	-0.00	-0.09
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Switzerland	-0.62	-1.03	-0.99	-0.78	-0.67	-0.53	-0.40	-0.35	-0.29	-0.22	-0.21	-0.26
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Cyprus	0.66	0.47	0.44	0.15	0.09	0.07	0.09	0.08	0.06	0.06	0.09	-0.06
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Germany	-0.30	-0.45	-0.40	-0.35	-0.23	-0.13	-0.06	-0.05	-0.07	-0.01	0.03	0.04
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Estonia	-1.32	-0.32	-0.39	-0.38	-0.43	-0.45	-0.46	-0.45	-0.48	-0.38	-0.32	-0.35
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Spain	0.19	0.03	-0.09	-0.16	-0.17	-0.16	-0.15	-0.17	-0.18	-0.14	-0.11	-0.13
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Finland	-0.29	0.05	-0.06	-0.10	-0.07	-0.01	0.03	0.03	0.04	0.10	0.10	0.05
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	France	17.86	0.57	0.61	0.58	0.54	0.53	0.53	0.49	0.48	0.54	0.56	0.50
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Greece	-0.35	-0.22	-0.37	-0.42	-0.45	-0.43	-0.46	-0.48	-0.52	-0.47	-0.43	-0.43
$      Ireland 1.24 0.12 0.07 0.08 0.06 0.07 0.11 0.09 0.10 0.19 0.22 0.21 \\       Italy 2.16 0.31 0.26 0.25 0.21 0.15 0.10 0.04 -0.03 -0.04 -0.06 -0.15 \\       Luxembourg 0.72 0.78 0.75 0.68 0.76 0.78 0.75 0.75 0.83 0.84 0.74 \\       Latvia -1.73 -0.84 -1.01 -0.97 -1.05 -0.99 -1.02 -1.05 -1.00 -0.96 -0.94 -0.94 \\       Malta 0.50 0.11 -0.09 0.02 0.04 0.04 0.04 0.04 0.04 0.03 0.10 0.13 0.21 \\       Netherlands 0.79 -0.67 -0.41 -0.20 -0.17 -0.11 -0.05 -0.06 -0.07 -0.08 0.00 -0.01 \\       Poliand -0.80 -0.70 -0.79 -0.75 -0.79 -0.84 -0.89 -0.88 -0.89 -0.84 -0.82 -0.87 \\       Dertugal 0.07 -0.22 -0.31 -0.17 -0.10 -0.03 0.06 0.05 0.03 0.11 0.13 0.31 \\       Slovenia -0.08 -0.55 -0.60 -0.49 -0.39 -0.42 -0.39 -0.43 -0.45 -0.37 -0.40 -0.47 \\       Slovenia -0.08 -0.78 -0.84 -0.88 -0.75 -0.78 -0.81 -0.78 -0.75 -0.81 -0.71 -0.70 -0.69 \\                                   $	Hungary	-1.44	-0.49	-0.51	-0.73	-0.83	-0.92	-0.94	-0.99	-1.06	-1.01	-1.01	-1.07
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Ireland	1.24	0.12	0.07	0.08	0.06	0.07	0.11	0.09	0.10	0.19	0.22	0.21
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Italy	2.16	0.31	0.26	0.25	0.21	0.15	0.10	0.04	-0.03	-0.04	-0.06	-0.15
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Luxembourg	0.72	0.78	0.75	0.65	0.68	0.76	0.78	0.75	0.75	0.83	0.84	0.74
	Latvia	-1.73	-0.84	-1.01	-0.97	-1.05	-0.99	-1.02	-1.05	-1.00	-0.96	-0.94	-0.94
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Malta	0.50	0.11	-0.09	0.02	0.04	0.04	0.04	0.04	0.03	0.10	0.13	0.21
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Netherlands	0.79	-0.67	-0.41	-0.20	-0.17	-0.11	-0.05	-0.06	-0.07	-0.08	0.00	-0.01
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Poland	-0.80	-0.70	-0.79	-0.75	-0.79	-0.84	-0.89	-0.88	-0.89	-0.84	-0.82	-0.87
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Portugal	0.07	-0.22	-0.31	-0.17	-0.10	-0.03	0.06	0.05	0.03	0.11	0.13	0.15
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Slovenia	-0.08	-0.55	-0.60	-0.49	-0.39	-0.42	-0.39	-0.43	-0.45	-0.37	-0.40	-0.47
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Slovakia	-0.78	-0.84	-0.88	-0.75	-0.78	-0.81	-0.78	-0.75	-0.81	-0.71	-0.70	-0.69
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						ma	rital status	5					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	single	-1.45	-0.67	-0.62	-0.60	-0.54	-0.51	-0.48	-0.43	-0.41	-0.38	-0.34	-0.34
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$						(	education						
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ISCED 0-1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ISCED 2	0.28	0.02	-0.06	0.04	0.02	0.04	0.06	0.03	0.09	0.13	0.09	0.15
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ISCED 3	0.97	-0.03	-0.09	0.03	0.04	0.08	0.12	0.08	0.12	0.15	0.12	0.19
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ISCED 4	0.67	-0.10	-0.00	0.11	0.12	0.17	0.21	0.16	0.23	0.26	0.23	0.36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ISCED 5	1.21	-0.02	-0.05	0.06	0.11	0.16	0.20	0.17	0.21	0.28	0.29	0.37
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	ISCED 6	0.79	-0.16	-0.25	-0.17	-0.12	-0.06	-0.04	-0.04	0.05	0.17	0.20	0.39
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							age						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	30-39	0.42	-0.68	-0.69	-0.53	-0.53	-0.47	-0.32	-0.34	-0.28	-0.08	-0.05	0.06
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	40-49	0.45	0.42	0.32	0.38	0.35	0.37	0.37	0.33	0.28	0.32	0.30	0.24
	50-59	0.40	0.70	0.60	0.59	0.56	0.55	0.54	0.50	0.47	0.49	0.46	0.41
70-79         -0.04         0.84         0.72         0.77         0.74         0.73         0.72         0.69         0.65         0.68         0.66         0.65           >80         -0.82         0.37         0.31         0.25         0.19         0.29         0.32         0.29         0.22         0.34         0.34         0.21           income and wealth           asinh(income)         0.21         0.45         0.44         0.40         0.35         0.30         0.24         0.22         0.19         0.16         0.13         0.10           asinh(wealth)         0.07         0.05         0.06         0.05         0.05         0.04         0.04         0.03 <t< td=""><td>60-69</td><td>0.09</td><td>0.41</td><td>0.56</td><td>0.46</td><td>0.34</td><td>0.52</td><td>0.42</td><td>0.33</td><td>0.35</td><td>0.49</td><td>0.54</td><td>0.34</td></t<>	60-69	0.09	0.41	0.56	0.46	0.34	0.52	0.42	0.33	0.35	0.49	0.54	0.34
>80         -0.82         0.37         0.31         0.25         0.19         0.29         0.32         0.29         0.22         0.34         0.34         0.21           income and wealth           asinh(income)         0.21         0.45         0.44         0.40         0.35         0.30         0.24         0.22         0.19         0.16         0.13         0.10           asinh(wealth)         0.07         0.05         0.06         0.05         0.05         0.04         0.04         0.03         0.03         0.03         0.03         0.03	70-79	-0.04	0.84	0.72	0.77	0.74	0.73	0.72	0.69	0.65	0.68	0.66	0.65
income and wealth asinh(income) 0.21 0.45 0.44 0.40 0.35 0.30 0.24 0.22 0.19 0.16 0.13 0.10 asinh(wealth) 0.07 0.05 0.06 0.05 0.05 0.04 0.04 0.03 0.03 0.03 0.03 0.03	>80	-0.82	0.37	0.31	0.25	0.19	0.29	0.32	0.29	0.22	0.34	0.34	0.21
asinh(income)         0.21         0.45         0.44         0.40         0.35         0.30         0.24         0.22         0.19         0.16         0.13         0.10           asinh(wealth)         0.07         0.05         0.06         0.05         0.05         0.04         0.03 </td <td colspan="12">income and wealth</td>	income and wealth												
asinh(wealth) 0.07 0.05 0.06 0.05 0.05 0.04 0.04 0.03 0.03 0.03 0.03 0.03	asinh(income)	0.21	0.45	0.44	0.40	0.35	0.30	0.24	0.22	0.19	0.16	0.13	0.10
	asinh(wealth)	0.07	0.05	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03

Source: Author's calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 15: Switzerland Imputation Model Coefficients, Consumer Durables, 2012

	$\mathbb{P}(>0)$	$\tau = 5\%$	$\tau = 10\%$	$\tau=20\%$	$\tau=30\%$	$\tau = 40\%$	$\tau = 50\%$	$\tau=60\%$	$\tau=70\%$	$\tau=80\%$	$\tau=90\%$	$\tau=95\%$
Intercept	-1.27	0.47	1.51	2.44	3.77	4.49	5.04	5.70	6.50	7.13	8.05	8.56
country												
Austria	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Belgium	-0.20	-0.59	-0.61	-0.39	-0.26	-0.19	-0.20	-0.16	-0.10	-0.06	0.06	-0.13
Switzerland	-0.46	-1.20	-1.15	-0.95	-0.70	-0.54	-0.42	-0.30	-0.22	-0.13	-0.12	-0.25
Cyprus	0.93	0.39	0.31	0.21	0.13	0.16	0.10	0.07	0.03	0.02	-0.07	-0.20
Germany	-0.27	-0.43	-0.43	-0.38	-0.26	-0.18	-0.11	-0.03	0.00	0.07	0.08	0.01
Estonia	-1.40	-0.72	-0.98	-0.96	-0.93	-0.87	-0.85	-0.79	-0.79	-0.71	-0.65	-0.66
France	17.69	0.25	0.27	0.33	0.39	0.42	0.42	0.43	0.45	0.47	0.45	0.32
Greece	-0.36	-0.27	-0.41	-0.44	-0.50	-0.50	-0.54	-0.53	-0.52	-0.52	-0.53	-0.59
Croatia	-0.57	-0.35	-0.56	-0.41	-0.47	-0.45	-0.48	-0.49	-0.50	-0.46	-0.49	-0.56
Hungary	-1.42	-0.52	-0.72	-0.82	-0.88	-0.89	-0.90	-0.85	-0.87	-0.82	-0.74	-0.76
Ireland	1.14	0.08	0.07	0.07	0.20	0.30	0.36	0.43	0.46	0.54	0.53	0.42
Italy	1.72	0.01	-0.06	-0.02	0.01	0.06	0.05	0.06	0.03	-0.00	-0.10	-0.26
Lithuania	-0.60	-0.20	-0.43	-0.59	-0.76	-0.74	-0.72	-0.72	-0.70	-0.68	-0.69	-0.67
Luxembourg	0.55	0.70	0.61	0.61	0.64	0.65	0.66	0.71	0.78	0.81	0.83	0.78
Latvia	-1.52	-0.51	-0.77	-0.86	-0.92	-0.92	-0.87	-0.78	-0.77	-0.75	-0.80	-0.91
Malta	0.50	-0.19	-0.20	-0.09	-0.04	0.02	0.08	0.08	0.12	0.10	0.20	0.06
Netherlands	-0.13	-0.12	-0.22	-0.24	-0.16	-0.11	-0.11	-0.11	-0.06	-0.03	-0.01	-0.14
Poland	-0.71	-0.90	-0.96	-0.87	-0.91	-0.90	-0.89	-0.89	-0.89	-0.86	-0.89	-0.92
Portugal	0.06	-0.31	-0.32	-0.26	-0.18	-0.05	0.02	0.05	0.08	0.06	0.08	-0.06
Slovenia	0.02	-0.56	-0.62	-0.48	-0.40	-0.34	-0.32	-0.29	-0.29	-0.24	-0.28	-0.38
Slovakia	-0.92	-0.73	-0.85	-0.72	-0.71	-0.60	-0.54	-0.52	-0.48	-0.44	-0.34	-0.43
					mε	rital status	3					
married	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
single	-1.45	-0.72	-0.69	-0.58	-0.60	-0.53	-0.48	-0.45	-0.42	-0.40	-0.36	-0.31
					(	education						
ISCED 0–1	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
ISCED 2	0.42	0.39	0.52	0.41	0.38	0.39	0.38	0.40	0.34	0.30	0.22	0.21
ISCED 3	0.98	0.83	0.83	0.70	0.66	0.67	0.64	0.63	0.61	0.53	0.49	0.43
ISCED 4	0.99	0.54	0.76	0.78	0.70	0.51	0.58	0.69	0.85	0.82	0.77	0.60
ISCED 5	1.25	0.86	0.91	0.81	0.79	0.81	0.78	0.76	0.74	0.67	0.64	0.61
ISCED 6	0.64	0.67	0.58	0.44	0.51	0.51	0.44	0.42	0.42	0.44	0.39	0.31
						age						
20-29	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
30-39	0.37	0.10	0.12	0.15	0.12	0.07	0.10	0.08	0.09	0.09	0.09	0.03
40-49	0.38	0.15	0.16	0.19	0.16	0.10	0.19	0.15	0.13	0.13	0.11	0.16
50-59	0.34	0.09	0.17	0.15	0.16	0.15	0.19	0.19	0.23	0.21	0.23	0.25
60-69	0.32	0.27	0.28	0.27	0.24	0.21	0.25	0.23	0.25	0.24	0.26	0.26
70-79	-0.07	-0.04	0.06	0.09	0.05	0.03	0.11	0.11	0.14	0.15	0.20	0.22
$>\!80$	-0.58	-0.34	-0.32	-0.29	-0.30	-0.33	-0.29	-0.24	-0.18	-0.08	-0.01	0.08
					incor	ne and wea	lth					
asinh(income)	0.18	0.46	0.41	0.40	0.31	0.28	0.25	0.23	0.18	0.15	0.12	0.11
asinh(wealth)	0.05	0.07	0.07	0.05	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02

Source: Authors' calculations using SHARE, SHP and HFCS. Notes: The first column refers to the coefficients of the logistic regression that model the extensive margin (i.e., the probability of owning the asset or liability). The other columns refer to the coefficients of quantiles regressions for quantiles  $\tau$ . The dependent variable in that regression is the logarithm of the value of the asset (or liability), in EUR.

Table 16: Switzerland Imputation Model Coefficients, Consumer Durables, 2016



Figure 5: Ownership of Main Residence, Switzerland, 2012 and 2016



Figure 6: Ownership of Other Real Estate, Switzerland, 2012 and 2016



Figure 7: Ownership of Other Non-financial Assets, Switzerland, 2012 and 2016



Figure 8: Ownership of Deposits, Switzerland, 2012 and 2016



Figure 9: Ownership of Pensions and Life Insurance, Switzerland, 2012 and 2016



Figure 10: Ownership of Other Financial Assets, Switzerland, 2012 and 2016



Figure 11: Ownership of Debt, Switzerland, 2012 and 2016



Figure 12: Ownership of Consumer Durables, Switzerland, 2012 and 2016

synthetic survey dataset probably shouldn't be used to measure inequality directly. But we will use sparingly in our estimates, always making sure that results are meaningful, and to that end it constitutes a useful resource.

We then extend the survey dataset to the entire period covered by the national accounts. To that end, we make identical copies of the 2012 dataset for years before 2012, and identical copies of the 2016 dataset for the years after 2016. For the years between 2012 and 2016, we mix the two dataset in proportion of their proximity to each of the two years. We age those datasets by rescaling the different wealth variables to their macroeconomic totals in each year.

## B.9.4 Step 4: Distribution of Nontaxable Wealth

We distribute the aggregate amount of private pensions from the national accounts to individuals in the tax data using the distribution from the synthetic survey datasets.

We rank survey observation by their wealth (excluding pensions) and attribute to them the wealth of the corresponding rank in the survey data. We rescale pension wealth and wealth excluding pensions to their macroeconomic totals and sum them at the individual level. This gives us the new wealth distribution.

## B.9.5 Asset Decomposition

## B.9.6 Discussion and Comparison with Foellmi and Martínez (2016)

According to the tax data alone, the concentration of wealth in Switzerland seems extremely high, especially by European standards. But accounting for nontaxable assets makes a very sizable difference on the level of wealth inequality, even though the trends are not meaningfully affected. This conclusion is in line with the findings of Foellmi and Martínez (2016). Figure 13 describes these findings in more details.

Moving from tax units to equal-split individuals reduces the top 1% wealth share by about 2.5 pp in 2017. Adding private pension wealth has the largest effect and reduces it by 10 pp. Finally adding missing real estate wealth further reduces it by 3 pp. Overall, the top 1% wealth goes from 43.5% to 27.5%.

Our results are extremely close to Foellmi and Martínez (2016) (especially to their "average" variant), even though we use fairly different data. However, the reasons why we arrive at our result are slightly different.

There are three main sources of discrepancy between the tax data and national accounts. First, private pension wealth is not included in the tax data. Second, business wealth is included in the tax data, but not measured by the Swiss national accounts. Third, real



Figure 13: Top 1% Wealth Shares in Switzerland

estate wealth is undervalued in the tax data, because real estate is valued at between 70% and 100% of its market value (Foellmi and Martínez, 2016).

We tentatively value business assets at 5% of total wealth based on our synthetic survey dataset to complete the national accounts. Then, we get that the wealth tax only captures about 45–50% of total household wealth. Private pension wealth represents about 30% of household wealth. Assuming, following (Foellmi and Martínez, 2016), that real estate in the tax data is valued at 80% of its true value, the real estate wealth missing from the tax data represents 10% of total wealth. This leaves 10% to 15% of wealth unaccounted for, possibly due to tax evasion.

For their estimate, Foellmi and Martínez (2016) focus on pension wealth: they distribute the aggregate amount of pension wealth to the tax data. They do not explicitly account for types of missing wealth. As a result their estimate includes a higher proportion of pension wealth than the national accounts.

We, on the other hand, distribute both private pensions and missing real estate wealth. We also rescale observed taxable wealth to its corresponding amount in the national accounts. Assuming this gap is due to tax evasion, this probably lead us to understate inequality somewhat: see Alstadsæter, Johannesen, and Zucman (2019).

As a robustness check, we compare our benchmark result (based on our synthetic survey dataset) with a simpler method that distributes all pension wealth and missing real estate wealth lump-sum. This arguably constitutes a lower bound on wealth inequality. Figure 13 shows that this variant has the same trend as our benchmark, and is only a few percentages point lower.

## B.10 United Kingdom

In the UK, there are three different sources which have been used to measure the wealth distribution: estate tax records, income tax records and wealth surveys. Lindert (2000) use scattered samples of probate records and occasional tax assessments to estimate the wealth distribution in 1740, 1810 and 1875. A. J. Harrison, M. Atkinson, et al. (1978) rely on both estate tax records and the mortality multiplier method and on income tax records and the capitalization method to estimate the wealth distribution in 1911-1913. A. B. Atkinson, Gordon, and A. Harrison (1989) also use estate tax records to build wealth distribution series for the period 1923-1977. Alvaredo, A. B. Atkinson, and Morelli (2018) use the same historical estate tax records and the recent estate tax records published by Inland Revenue Statistics available since 1978 to study the dynamics of wealth inequality from 1895-2013.

There exist two surveys including information on wealth: the British Household Panel Survey (BHPS) and the Wealth and Assets Survey (WAS). The BHPS is a survey carried out at the Institute for Social and Economic Research of the University of Essex. It contains annual information on individual and household income and employment as well as a complete set of demographic variables between 1991 and 2008. In 1995, 2000 and 2005 the BHPS survey included an individual wealth module. Banks, Blundell, and Smith (2003) use the 1995 BHPS to estimate the wealth distribution. The WAS is a biennial longitudinal wealth survey which has been conducted between 2006-2018 by the Office for National Statistics (ONS). Advani, Bangham, and Leslie (2020) rely on all the WAS waves to study the evolution of wealth inequality in the UK between 2006-2018. We combine the series of Alvaredo, A. B. Atkinson, and Morelli (2018) and the WAS surveys to built harmonized full wealth distribution series for 1995-2020.

To that end, we apply the following steps:

- We use the WAS survey to estimate a ratio between equal-split and individual wealth for each percentile in the top 10%, and use that ratio to transform tax-based series and estimates from individual to equal-split.
- We rescale wealth components of the WAS to national accounts. Then we combine that rescaled survey (for the bottom 95%) and the tax data (for the top 5%) be stitching Lorenz curve together, following the "constrainting" procedure described in Blanchet, Chancel, et al. (section 7.2.3.2 2021)
- We distribute (funded) pension wealth (which is absent from the tax data) to each percentile assuming the share of pension wealth held by each percentile is the same as in the survey.
- We perform one last rescaling of each component to national accounts totals.

Figure 14 shows how our final series compare to that Alvaredo, A. B. Atkinson, and Morelli (2018).



Figure 14: Comparison of Pure Tax-based and DINA Series, United Kingdom

## B.11 Household Finance and Consumption Survey

We finally rely on the Household Finance and Consumption Survey (HFCS) to cover the rest of countries for which we do not have tax records or previous solid estimates consistent with our methodology. The HFCS is built and administered by the European Central Bank and it collects information on the assets, liabilities, income and consumption of households for a wide set of European countries. The fieldwork took place for most countries in 2010 and 2011 for the first (2010) wave, between 2013 and the first half of 2015 for the second (2014) wave and in 2017 for the third (2017) wave.

The countries for which we use the HFCS are the following: Austria (2010, 2014, 2017), Belgium (2010, 2014, 2017), Cyprus (2010, 2014, 2017), Croatia (2017), Estonia (2013, 2017), Greece (2009, 2014, 2018), Hungary (2014, 2017), Ireland (2013, 2018), Latvia (2014, 2017), Lithuania (2016), Luxembourg (2010, 2014, 2018), Malta (2010, 2013, 2016), Poland (2013, 2016), Portugal (2010, 2013, 2017), Slovakia (2010, 2014, 2017) and Slovenia (2010, 2014, 2017).

To ensure consistency with the methodology used for the rest of countries, we rescale the wealth components so as to match the macroeconomic aggregates from national accounts. The HFCS is based on household units. We individualize the survey and split the wealth equally across household members so that our results are based on equal-split units. We extrapolate the wealth distribution series forward up to 2020 by fixing the asset composition by percentile to the last available year of data, so that changes in portfolio composition over time only come from changes in the composition of aggregate wealth. We end up with fully homogeneous wealth distribution series by percentile and asset class from 2010 to 2020.

#### B.12 Calibration of Asset and Liability Decomposition

We often face the following issue: we have the distribution of overall net wealth from one source, the macroeconomic amount of each asset from a second source, and a decomposition of net wealth by wealth bracket and by asset type from a third source. For example, the distribution of net wealth may come from tax data that does not decompose wealth, the macroeconomic asset totals may come from the national accounts, and the decomposition by percentile and asset type may come from survey data.

In general, there will be discrepancies between these three sources. To ensure consistency and improve accuracy, we need to adjust them. The complexity of the problem comes from the two sets of related constraints. We can rescale the asset decomposition to the amount of net wealth in each percentile, but then the total amount of each asset will not match the macroeconomic aggregates. Or we can rescale the asset decomposition to the macroeconomic aggregates, but then the total amount of net wealth in each bracket will not match the tax data. To correctly solve the problem, we need to consider the two sets of constraints simultaneously.

Partition the wealth distribution into n brackets, and decompose net wealth into m assets (or liabilities). Let  $x_{ij}$  be the aggregate amount of asset j held by bracket i (liabilities can be coded as an asset with a negative value). Let  $y_i$  be the total wealth held by bracket i, and let  $z_j$  be the aggregate amount of asset j in the economy. In principle, we must have:

$$\forall i \in \{1, \dots, n\} \qquad \sum_{j=1}^{m} x_{ij} = y_i \tag{1}$$

$$\forall j \in \{1, \dots, m\} \qquad \sum_{i=1}^{n} x_{ij} = z_j \tag{2}$$

To perform the adjustment, we solve the following optimization problem:

$$\min_{x_{ij}^*} \sum_{i=1}^n \sum_{j=1}^m \frac{(x_{ij}^* - x_{ij})^2}{|x_{ij}|} \tag{3}$$

subject to the equality constraints (1) and (2), and to the inequality constraints that  $x_{ij} \ge 0$  if j is an asset, and  $x_{ij} \le 0$  if j is a liability. The values  $x_{ij}^*$  that are solution of

that problem for the new wealth decomposition by bracket and asset type. Note that we set up the distance in (3) so that deviations from the original values of  $x_{ij}$  are more heavily penalized for smaller  $x_{ij}$ , so that the method seeks adjustments that are somewhat uniform in relative terms.

The problem (3) is a sparse quadratic programming, which we solve using the algorithm of Stellato, Banjac, Goulart, Bemporad, et al. (2020), as implemented in R (R Core Team, 2020) by Stellato, Banjac, Goulart, and Boyd (2019).

# References

- Acciari, Paolo, Facundo Alvaredo, and Salvatore Morelli (2020). "The concentration of personal wealth in Italy 1995-2016". In: (cit. on pp. 4, 5).
- Advani, Arun, George Bangham, and Jack Leslie (2020). "The UK's wealth distribution and characteristics of high-wealth households". In: (cit. on p. 39).
- Albers, Thilo, Charlotte Bartels, and Moritz Schularick (2020). "The Distribution of Wealth in Germany, 1895-2018". In: *ECONtribute Discussion Papers* (cit. on p. 3).
- Alstadsæter, Annette, Niels Johannesen, and Gabriel Zucman (2019). "Tax Evasion and Inequality". In: American Economic Review 109.6, pp. 2073-2103. ISSN: 0002-8282. DOI: 10.1257/aer.20172043. URL: https://pubs.aeaweb.org/doi/10.1257/aer. 20172043 (cit. on p. 38).
- Alvaredo, Facundo, Anthony B Atkinson, and Salvatore Morelli (2018). "Top wealth shares in the UK over more than a century". In: *Journal of Public Economics* 162, pp. 26–47 (cit. on pp. 39, 40).
- Alvaredo, Facundo and Emmanuel Saez (2009). "Income and Wealth Concentration in Spain from a Historical and Fiscal Perspective." In: *Journal of the European Economic* Association 7.5, pp. 1140–1167 (cit. on p. 7).
- Anghel, Brindusa et al. (2018). "Income, consumption and wealth inequality in Spain". In: SERIEs: Journal of the Spanish Economic Association 9.4, pp. 351–387 (cit. on p. 7).
- Atkinson, Anthony B, James PF Gordon, and Alan Harrison (1989). "Trends in the shares of top wealth-holders in Britain, 1923–1981". In: Oxford Bulletin of Economics and Statistics 51.3, pp. 315–332 (cit. on p. 39).
- Banks, James, Richard Blundell, and James P Smith (2003). "Understanding differences in household financial wealth between the United States and Great Britain". In: *Journal* of Human Resources 38.2, pp. 241–279 (cit. on p. 39).
- Baron, Dietmar (1988). Die personelle Vermögensverteilung in der Bundesrepublik Deutschland und ihre Bestimmungsgründe. Lang (cit. on p. 3).
- Blanchet, Thomas, Lucas Chancel, et al. (2021). Distributional National Accounts Guidelines: Methods and Concepts Used in the World Inequality Database, p. 186 (cit. on p. 39).
- Blanchet, Thomas, Juliette Fournier, and Thomas Piketty (Apr. 16, 2021). "Generalized Pareto Curves: Theory and Applications". In: *Review of Income and Wealth*, roiw.12510. ISSN: 0034-6586, 1475-4991. DOI: 10.1111/roiw.12510. URL: https://onlinelibrary. wiley.com/doi/10.1111/roiw.12510 (visited on 06/07/2021) (cit. on p. 3).
- Brandolini, Andrea et al. (2006). "Household wealth distribution in Italy in the 1990s". In: International Perspectives on Household Wealth, pp. 225–245 (cit. on p. 4).

- Cannari, Luigi and Giovanni D'Alessio (2018). "Wealth Inequality in Italy: A Reconstruction of 1968-1975 Data and a Comparison with Recent Estimates". In: *Rivista di storia* economica 34.3, pp. 357–396 (cit. on p. 4).
- Cordier, Marie and Pauline Girardot (2007). "Comparaison et recalage des montants de l'enquête patrimoine sur la comptabilité nationale". In: (cit. on p. 2).
- D'Alessio, di Giovanni (Mar. 2018). La ricchezza degli italiani: differenze tra uomini e donne. Occasional Papers 433. Banca d'Italia (cit. on p. 4).
- Dell, Fabien (2008). "L'Allemagne inégale: inégalités de revenus et de patrimoine en Allemagne, dynamique d'accumulation du capital et taxation de Bismarck à Schröder 1870-2005". PhD thesis. Paris, EHESS (cit. on p. 3).
- Dell, Fabien, Thomas Piketty, and Emmanuel Saez (2005). Income and Wealth Concentration in Switzerland Over the 20th Century. CEPR Discussion Papers 5090. URL: https://cepr.org/active/publications/discussion\_papers/dp.php?dpno=5090 (cit. on pp. 8, 9).
- Durier, Sébastien, Lucile Richet-Mastain, and Mélanie Vanderschelden (2012). "Une décomposition du compte de patrimoine des ménages de la comptabilité nationale par catégorie de ménages en 2003". In: (cit. on p. 2).
- Epland, Jon and Mads Ivar Kirkeberg (2012). "Wealth distribution in Norway". In: *Evidence* from a new register-based data source. Oslo, Norway: Statistics Norway (cit. on p. 7).
- Foellmi, Reto and Isabel Z. Martínez (2016). "Volatile Top Income Shares in Switzerland? Reassessing the Evolution between 1981 and 2010". In: *The Review of Economics and Statistics* 99.5. Publisher: MIT Press, pp. 793-809. ISSN: 0034-6535. DOI: 10.1162/ REST\_a\_00644. URL: https://doi.org/10.1162/REST\_a\_00644 (cit. on pp. 8, 9, 37, 38).
- Frick, Joachim R, Markus M Grabka, and Richard Hauser (2010). Die Verteilung der Vermögen in Deutschland: Empirische Analysen für Personen und Haushalte. Vol. 118. edition sigma (cit. on p. 3).
- Fuchs-Schündeln, Nicola, Dirk Krueger, and Mathias Sommer (2010). "Inequality trends for Germany in the last two decades: A tale of two countries". In: *Review of Economic* Dynamics 13.1, pp. 103–132 (cit. on p. 3).
- Garbinti, Bertrand, Jonathan Goupille-Lebret, and Thomas Piketty (2021). "Accounting for wealth-inequality dynamics: Methods, estimates, and simulations for France". In: *Journal of the European Economic Association* 19.1, pp. 620–663 (cit. on pp. 2, 3, 7).
- Grabka, Markus M and Joachim R Frick (2007). "Vermögen in Deutschland wesentlich ungleicher verteilt als Einkommen". In: *DIW Wochenbericht* 74.45, pp. 665–672 (cit. on p. 3).
- Grabka, Markus M and Christoph Halbmeier (2019). "Vermögensungleichheit in Deutschland bleibt trotz deutlich steigender Nettovermögen anhaltend hoch". In: *DIW Wochenbericht* 86.40, pp. 735–745 (cit. on p. 3).

- Harrison, Allan James, Mrs Atkinson, et al. (1978). *Personal Wealth in Britan*. CUP Archive (cit. on p. 39).
- Iacono, Roberto and Elisa Palagi (2021). "A Micro Perspective on r > g". In: (cit. on p. 7).
- Jakobsen, Katrine et al. (2020). "Wealth taxation and wealth accumulation: Theory and evidence from Denmark". In: *The Quarterly Journal of Economics* 135.1, pp. 329–388 (cit. on pp. 1, 2).
- Jäntti, Markus (2006). "Trends in the distribution of income and wealth: Finland, 1987–98".In: Inter national Perspectives on Household Wealth, pp. 295–328 (cit. on p. 2).
- Kessler, Denis and Edward N Wolff (1991). "A comparative analysis of household wealth patterns in France and the United States". In: *Review of Income and Wealth* 37.3, pp. 249–266 (cit. on p. 2).
- Lindert, Peter H (2000). "Three centuries of inequality in Britain and America". In: Handbook of income distribution 1, pp. 167–216 (cit. on p. 39).
- Martínez-Toledano, Clara (2020). "House price cycles, wealth inequality and portfolio reshuffling". In: *WID. World Working Paper* 2020/02 (cit. on p. 7).
- Piketty, Thomas (2003). "Income Inequality in France, 1901–1998". In: Journal of Political Economy 111.5, pp. 1004–1042. ISSN: 0022-3808, 1537-534X. DOI: 10.1086/376955.
  URL: https://www.journals.uchicago.edu/doi/10.1086/376955 (cit. on p. 9).
- Piketty, Thomas, Gilles Postel-Vinay, and Jean-Laurent Rosenthal (2006). "Wealth concentration in a developing economy: Paris and France, 1807–1994". In: American Economic Review 96.1, pp. 236–256 (cit. on p. 2).
- Piketty, Thomas and Emmanuel Saez (2003). "Income Inequality in the United States, 1913-1998". In: *The Quarterly Journal of Economics* 118.1, pp. 1–41. ISSN: 0033-5533, 1531-4650. DOI: 10.1162/00335530360535135. URL: https://academic.oup.com/ qje/article-lookup/doi/10.1162/00335530360535135 (cit. on p. 9).
- R Core Team (2020). R: A Language and Environment for Statistical Computing. Vienna, Austria: R Foundation for Statistical Computing. URL: https://www.R-project.org/ (cit. on p. 42).
- Ravazzini, Laura et al. (2019). "Comparison of survey data on wealth in Switzerland". In: Journal of Economic and Social Measurement 44.1, pp. 25–55. ISSN: 1875-8932. DOI: 10.3233/JEM-190461 (cit. on p. 8).
- Ridder, Geert and Robert Moffitt (2007). "The Econometrics of Data Combination". In: *Handbook of Econometrics*. Vol. 6. Elsevier, pp. 5469-5547. ISBN: 978-0-444-53200-8. URL: https://linkinghub.elsevier.com/retrieve/pii/S1573441207060758 (cit. on p. 11).
- Robert, Christian and George Casella (2004). Monte Carlo Statistical Methods. Springer Texts in Statistics. New York: Springer-Verlag. 649 pp. ISBN: 978-0-387-21239-5 (cit. on p. 12).

- Roine, Jesper and Daniel Waldenström (2015). "Long-run trends in the distribution of income and wealth". In: *Handbook of income distribution* 2, pp. 469–592 (cit. on pp. 1, 2, 5, 6).
- Schuhmacher, Dominic et al. (2020). transport: Computation of Optimal Transport Plans and Wasserstein Distances. URL: https://cran.r-project.org/package=transport (cit. on p. 11).
- Stellato, Bartolomeo, Goran Banjac, Paul Goulart, A. Bemporad, et al. (2020). "OSQP: an operator splitting solver for quadratic programs". In: *Mathematical Programming Computation* 12.4, pp. 637–672. DOI: 10.1007/s12532-020-00179-2. URL: https: //doi.org/10.1007/s12532-020-00179-2 (cit. on p. 42).
- Stellato, Bartolomeo, Goran Banjac, Paul Goulart, and Stephen Boyd (2019). osqp: Quadratic Programming Solver using the 'OSQP' Library. URL: https://CRAN.Rproject.org/package=osqp (cit. on p. 42).
- Toussaint, Simon (2021). "Trends in Household Finance and Wealth Concentration in the Netherlands, 1993 – 2019: Evidence from Distributional Financial Accounts". In: (cit. on p. 6).
- Van Bavel, Bas JP and EHP Frankema (2017). "Wealth inequality in the Netherlands,
  c. 1950-2015.: The paradox of a northern European welfare state". In: *Tijdschrift voor Sociale en Economische Geschiedenis* 14.2, p. 29 (cit. on p. 5).
- Westermeier, Christian and Markus M Grabka (2015). "Significant statistical uncertainty over share of high net worth households". In: *DIW Economic Bulletin* 5.14/15, pp. 210– 219 (cit. on p. 3).