

Household wealth in Portugal and the euro area

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Abstract

Portuguese households are represented across the entire wealth distribution of the euro area, although they are more frequent at intermediate levels. The mean or the median wealth of households in Portugal is almost 30% lower than in the euro area, but this differential exhibits a high variability across household groups. The wealth differential between Portugal and the euro area relates to differences in the composition of wealth and in the household characteristics. Wealth in Portugal compares more favourably with that of the euro area in groups where in Portugal there is a much higher homeownership rate and in those in which the Portuguese households have more individuals and/or older individuals than in the euro area. This occurs in the younger age groups, and in the lower wealth and income quintiles, where the wealth of households in Portugal is close to or even higher than that of euro area households.

(JEL: D10,D31,G30)

1. Introduction

Net wealth per household, i.e., the difference between the value of assets and debts, exhibits a high heterogeneity across countries. In most countries, net wealth per household also exhibits a high dispersion. In Portugal and in most economies, net wealth reaches maximum values in the age groups prior to retirement age and is positively related to income, having a more unequal distribution (Costa *et al.*, 2020). The high inequality in the distribution of wealth means that, in international comparisons, it is important to use information at the household level. This type of data enables to compare the wealth of different types of households, instead of limiting the analysis to mean values of the overall population, which are not representative for most households. This article compares the net wealth of households in Portugal and in the rest of the euro area countries as a whole, taking into account the heterogeneity of households' characteristics.¹

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1. For simplicity, this article uses the terms net wealth and wealth interchangeably.

The analysis of wealth distribution has been a topic of recent interest by economists, particularly in central banks, reflecting the perception that monetary policy and macroprudential policy cannot be dissociated from the topic of inequality (Banco de Portugal, 2017). The effect of monetary policy on inequality is ambiguous, as it depends on the composition of households' wealth and on the impact of monetary policy on the prices of different assets. This finding stresses the importance of increasing the knowledge on the distribution of wealth, benefiting from the availability of microeconomic data.

The analysis of this article uses data from the Household Finance and Consumption Survey (HFCS), which in Portugal corresponds to the *Inquérito à Situação Financeira das Famílias* (ISFF).² The data are from the third wave of the survey, which in most countries was collected in 2017. Given the structural nature of the analysis, the conclusions remain when using data from the two previous waves (collected in 2010 and in 2013/14 in most countries). The HFCS is the only statistical source at the household level with data for wealth and its components comparable across euro area countries. This survey includes detailed data on households' assets and debt. Assets include all valuable assets that the household owns (e.g., real estate properties, vehicles, works of art and jewellery), participation in businesses (e.g., the value of shares of non-publicly traded firms) and financial investments (e.g., deposits, investment fund units, quoted shares, bonds and voluntary pension plans). Debt includes mortgages on real estate properties, non-mortgage loans and all other types of debt (e.g., credit cards and bank overdrafts).

HFCS data show that the distribution of households' wealth differs substantially across euro area countries and that the ranking of countries in terms of wealth per household is different from the ranking in terms of income per household or per capita gross domestic product (HFCN, 2013). The fact that households' wealth depends not only on current macroeconomic conditions but also on past conditions and on several institutional and cultural aspects contributes to this situation. Since data from the first wave of the HFCS became available, several articles have sought to characterize and understand the differences in households' wealth across euro area countries.

This article is in line with the literature that relates differences in wealth levels with household characteristics and wealth composition (Fessler *et al.*, 2014; Lindner, 2015; Mathä *et al.*, 2017; Kaas *et al.*, 2019). The analysis is descriptive and does not take into account all the factors that might affect households' wealth accumulation (e.g., differences in public policies). By focusing on Portugal, this article identifies several aspects not previously documented in the literature regarding the comparison of the wealth of households residing in Portugal and in the rest of the euro area countries as a whole. The results show that differences between countries in the mean or the median wealth of households mask a high heterogeneity. Although the mean or the median wealth in Portugal is around 30% lower than in the euro area, Portuguese households are represented across the entire wealth distribution of the euro area. Additionally, households in some groups, namely the younger, and the lower wealth

2. More details on these surveys can be found on the [ISFF page on the Banco de Portugal website](#).

or income quintiles, have in Portugal levels of wealth close to or even higher than euro area households in the same groups. Second, differences in wealth between Portugal and the euro area are related to differences in the composition of wealth and in households' characteristics. In particular, household wealth in Portugal compares more favourably with that of the euro area in groups where there is a much higher percentage of homeowners in Portugal and in those in which the Portuguese households have more individuals and/or individuals that are older than those in the euro area. These characteristics are potentially responsible for less pronounced differences in wealth levels than those that would result from the lower levels of income and education in Portugal.

Section 2 compares the levels of wealth in Portugal and in the euro area. The first part of the section presents the median and the mean wealth levels for all euro area countries and provides a brief summary of the literature that has sought to interpret these data. In the second part, data for Portugal are compared in more detail with those for the euro area, with households being divided into quintiles of wealth, quintiles of income and age groups. For reasons of simplicity, this analysis, as well as the remainder of the article, focuses on comparing Portugal with the aggregate of the rest of the countries (which will be denominated the euro area). Section 3 characterizes the composition of wealth and analyses the contribution of the different types of assets and debts to the wealth differential between Portugal and the euro area. Section 4 compares households in Portugal and in the euro area in terms of income, composition and other sociodemographic aspects and assesses the relation between differences in these characteristics and differences in wealth levels based on a counterfactual exercise. The last section presents the conclusions.

2. How does household wealth in Portugal compare to that of the euro area?

2.1. Heterogeneity of household wealth across the euro area countries

Wealth per household differs considerably across euro area countries (Figure 1). In 2017, Latvia had the lowest median wealth, with a value of 20 thousand euros, and Luxembourg the highest, with a value of 498 thousand euros. In Portugal, the median wealth was 75 thousand euros, 26% below the median value of the euro area (100 thousand euros). Differences in the level of wealth across countries partially reflect disparities in costs of living. However, purchasing power parity correction is less common in wealth comparisons than in income or consumption comparisons. Therefore, the results presented in this article were obtained without this correction.³

In all countries, the mean wealth is significantly higher than the median, which illustrates the high degree of inequality that characterizes the distribution of wealth

3. Wealth correction using a purchasing power parity index generally mitigates the differences between countries, but does not change the article's conclusions.

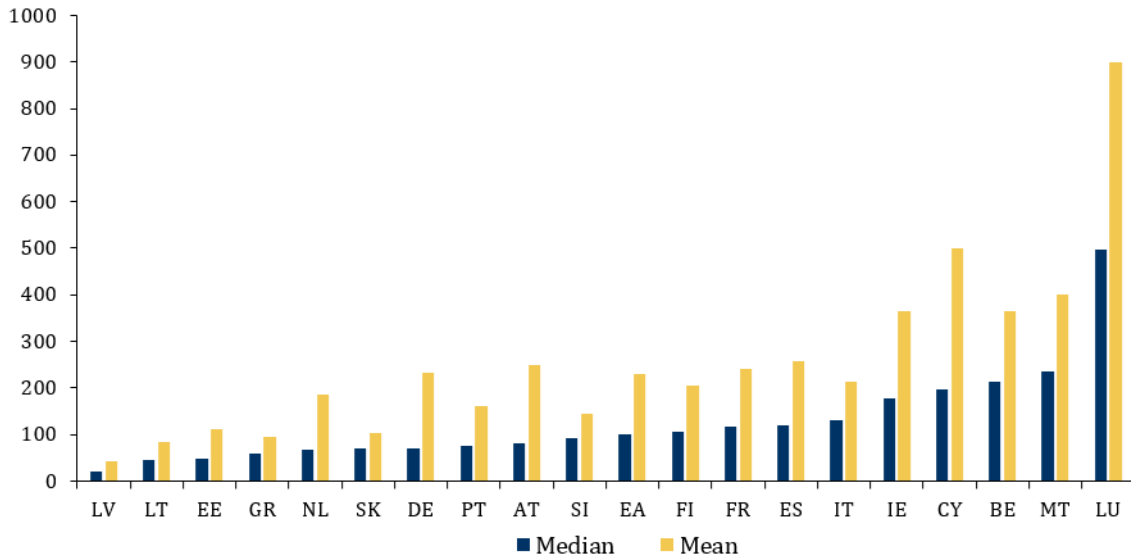


FIGURE 1: Households' net wealth in the euro area countries | Thousands of euros

Source: HFCS, 2017. Notes: The correspondence country-acronyms is as follows: Germany (DE), Austria (AT), Belgium (BE), Cyprus (CY), Slovakia (SK), Spain (ES), Estonia (EE), Slovenia (SI), Finland (FI), France (FR), Greece (GR), Netherlands (NL), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT) and Portugal (PT). The acronym EA represents the euro area. The euro area does not include Portugal. Countries are ranked by the median net wealth.

within each country. In Portugal, the mean wealth in 2017 was 162 thousand euros, 30% less than the value of the euro area. The ranking of countries based on the mean wealth is identical, but not exactly the same, as that obtained with the median. The fact that different rankings are obtained with the mean or the median means that countries also differ in terms of the degree of inequality. The ratio between the mean and the median wealth, which is one of many possible indicators of inequality, ranges from 1.5 in Slovakia to 3.3 in Germany. In Portugal it stands at 2.2, the sixth highest value among euro area countries and similar to that of the euro area.

Regardless of using the mean or the median, the HFCS data show a ranking of countries by household wealth levels that differs from that obtained with gross domestic product or with disposable income. An example is Germany (and, in the opposite way, Cyprus) which is one of the euro area countries with the highest values of product and income and has a median household wealth much lower than the euro area as a whole and a relatively close mean wealth. These results should be seen taking into consideration the literature that has sought to characterize and understand the differences in the wealth of households across euro area countries.

The conclusions of these articles show that in comparisons across countries it is important to bear in mind that HFCS assets do not include the value of the rights accumulated by individuals on future public pensions, nor of any type of social support. The degree of generosity of social protection schemes (e.g., retirement pensions) differs significantly across countries and this affects the households' decisions on saving and on wealth allocation. Fessler and Schürz (2015) and Roger *et al.* (2020) show that each euro

area country's expenditure on social protection is negatively correlated with household wealth measured by the HFCS and that this correlation changes according to household characteristics.

In this article, as in most of the literature, wealth is not adjusted by household composition, contrary to what is established in the analysis of income distribution. It is considered that this adjustment may not be appropriate given that wealth is largely the result of joint decisions by the various members of the household, which are in many cases relatively independent of the household size. Despite this, levels of wealth are influenced by the households' composition, so that the differences in wealth per household across countries also reflect the fact that there are significant differences in the structure of households, namely in terms of the number of individuals per household. Based on a counterfactual exercise, Fessler *et al.* (2014) show that imposing to all euro area countries a household structure (in terms of number of individuals, gender and age) equal to the euro area average would lead to a significant reordering of countries by household wealth levels, and that this effect changes along the wealth distribution.

From another perspective, several articles emphasize factors that contribute to the imperfect correlation between wealth and household income levels or even savings rates. For example, Moser *et al.* (2016) and Fessler and Schürz (2015) show that, even when controlling for the characteristics of households, wealth is closely related to inheritances and that this correlation varies across countries and along the distribution of wealth. On the other hand, it is important to bear in mind that similar changes in asset prices affect households' wealth differently in different countries (and in each country across different groups) if there are differences in the composition of wealth. In the euro area countries, the percentage of homeowners is very heterogeneous, which largely reflects institutional factors and different fiscal policies (Fatica and Prammer, 2017). Several articles show that homeownership is positively related to the levels of wealth and negatively related to wealth inequality (Lindner, 2015; Mathä *et al.*, 2017; Kaas *et al.*, 2019). The different evolution of real estate prices across euro area countries in the recent decades may have contributed to the fact that in economies with higher increases in these prices there were larger increases in the wealth of the households that own them (Mathä *et al.*, 2017). The positive relationship between the levels of wealth and homeownership may also reflect the fact that a large number of households buy a house by getting a loan and the commitments made to repay the debt are an incentive to saving.

A common conclusion in most studies is that the importance of different factors in explaining the differences in wealth across countries changes according to the type household and, in particular, along the distribution of wealth. In this context, it is interesting to compare wealth in Portugal and in the euro area for different types of households.

2.2. Comparison of wealth between Portugal and the euro area by household groups

In this section and in the remaining of the article, households are divided into groups that reflect their position in the respective distributions of wealth and income (in Portugal or in the rest of the euro area) and the age of the household's reference person. The wealth and income groups correspond to the quintiles of these variables.⁴ Income corresponds to gross income as net income is not available for all HFCS households. The reference person was selected among the household members according to the definition of Canberra (United Nations, 2011) and corresponds, in most cases, to the person with the highest income in the household.

In Portugal and in the euro area, the median and the mean wealth show the usual profiles (Table 1). First, the increase in wealth along the wealth quintiles is particularly marked in the top quintile, reflecting the high concentration of wealth in a reduced number of households. Second, across the income quintiles, wealth has also an increasing and very pronounced profile in the top quintile, which is in line with the positive correlation between the two variables. Finally, by age groups, the wealth profile reflects the typical life cycle pattern, increasing up to age groups close to retirement age, and decreasing in later ages.

The difference between the level of household wealth in Portugal and in the euro area varies across groups of households. In the two lowest wealth or income quintiles and in the youngest age group, the median wealth in Portugal is close to or even higher than in the euro area. In the remaining groups, as in the overall households, the median wealth in Portugal is close to or even higher than in the euro area. In groups aged 55 to 74 years old it is almost half the value of the euro area and in the two highest wealth or income quintiles it is just over 60% of the value of the euro area. The comparison in terms of means has an identical pattern. The main difference occurs by income quintiles. Contrary to the median, the mean is lower in Portugal than in the euro area in all income quintiles (although the difference has a smaller magnitude at the ends of the distribution than in the intermediate quintiles).

As mentioned, the mean and the median values of wealth are significantly lower in Portugal in most groups of households, with the exception of groups with lower wealth, lower income and younger age. This pattern mainly reflects the comparison with Germany. However, in the case of age, wealth in Portugal compares more favourably in the youngest age group than in the rest of the age groups, also with many of the remaining countries (e.g., with Spain, France and Italy).⁵

4. The quintiles of a variable consist of five groups each with 20% of the households sorted by the values of that variable. For example, the first quintile of net wealth in Portugal (in the euro area) includes the set of 20% of households with the lowest net wealth values in Portugal (in the euro area), i.e. households with a net wealth value below the 20th percentile.

5. The data referred to throughout the article for the euro area countries can be found in the statistical tables of the 2017 wave of the HFCS published on the [ECB's website](#).

	Median		Mean	
	Portugal	Euro area	Portugal	Euro area
Total	74.8	100.4	162.3	231.0
Net wealth percentile				
<=20	0.9	1.1	0.8	-4.6
20-40	33.0	23.8	33.0	26.6
40-60	74.8	99.8	75.6	101.5
60-80	136.6	219.3	139.2	225.0
>80	325.1	524.9	562.9	796.5
Income percentile				
<=20	33.0	18.1	63.6	75.7
20-40	51.2	46.6	79.2	113.4
40-60	64.8	101.6	103.8	178.6
60-80	91.2	148.1	151.6	238.3
>80	183.4	301.5	413.4	538.0
Age of the reference person				
<35	14.1	14.0	70.6	64.5
35-44	62.6	70.0	125.9	157.8
45-54	86.3	130.0	199.2	272.0
55-64	94.6	168.8	206.4	306.1
65-74	87.8	169.5	173.2	299.6
>=75	79.7	114.7	154.4	242.5

TABLE 1. Net wealth in Portugal and in the euro area by households' characteristics | Thousands of euros

Source: HFCS, 2017. Note: The euro area does not include Portugal.

The mean and the median values of wealth mask the high heterogeneity that also exists within each group of households. When Portuguese households are distributed over the euro area quintiles of net wealth, it can be seen that there is a significant number of Portuguese households across the entire distribution of the euro area (Table 2). The highest concentration of Portuguese households occurs in the intermediate quintile (between the 40th and 60th percentile), where almost a third of the households are located. In the two lowest quintiles of the euro area there is a higher concentration of Portuguese households than in the two highest quintiles (41.4% and 26.2%, respectively). It is also interesting to note that there are only values below the diagonal in the bottom quintile, which means that, with the exception of that quintile, Portuguese households belong to a euro area quintile that is equal to or less than the one they belong in Portugal. Finally, in the diagonal the value of the fourth quintile is lower than that of the top quintile (6.1%, compared to 10.4%).

In all income quintiles and all age groups, households in Portugal are also represented in the different levels of wealth of households in the same groups in the euro area (Figures 2 and 3). In most cases, Portuguese households are more frequent around the intermediate levels of wealth of each group, rather than at the ends. However, this

pattern is not observed in the youngest age group. In this group, in which the reference person is under 35 years old, not only the mean level of wealth is similar in Portugal and in the euro area, also the distribution of wealth among households is very similar.

Quintiles of net wealth in Portugal

Quintiles of net wealth in the euro area	Quintiles of net wealth in Portugal					Total
	<=20	20-40	40-60	60-80	>80	
<=20	17.5	0.0	0.0	0.0	0.0	17.5
20-40	2.6	20.0	1.3	0.0	0.0	23.9
40-60	0.0	0.0	18.7	13.8	0.0	32.5
60-80	0.0	0.0	0.0	6.1	9.6	15.8
>80	0.0	0.0	0.0	0.0	10.4	10.4
Total	20.0	20.0	20.0	20.0	20.0	100.0

TABLE 2. Distribution of the Portuguese households by net wealth quintiles in Portugal and in the euro area | Percentage

Source: HFCS, 2017.

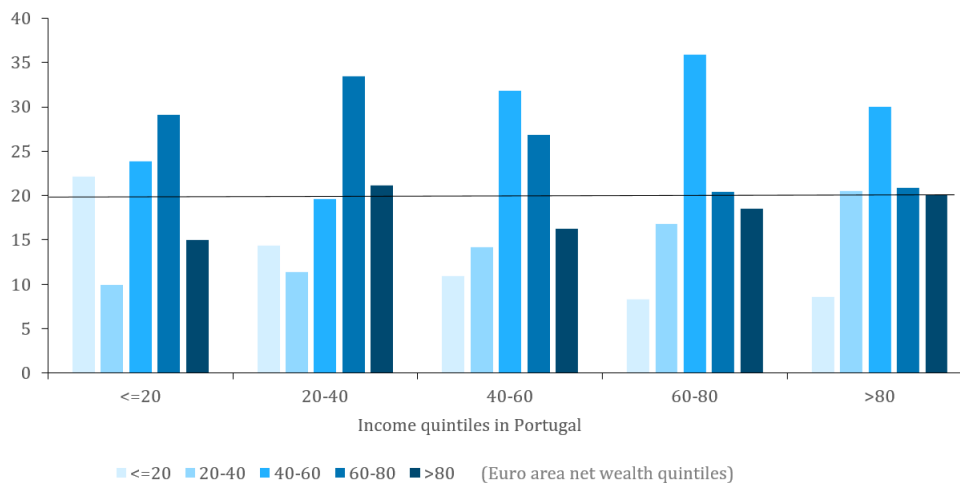


FIGURE 2: Distribution of households in each income quintile in Portugal by the euro area net wealth quintiles | Percentage of total households in each income quintile

Source: HFCS, 2017. Notes: The euro area net wealth quintiles were calculated within each income class, i.e. if the distribution of net wealth in each income group was equal in Portugal and in the euro area, all bars would be 20%. In each income quintile, the sum of the bars is 100%.

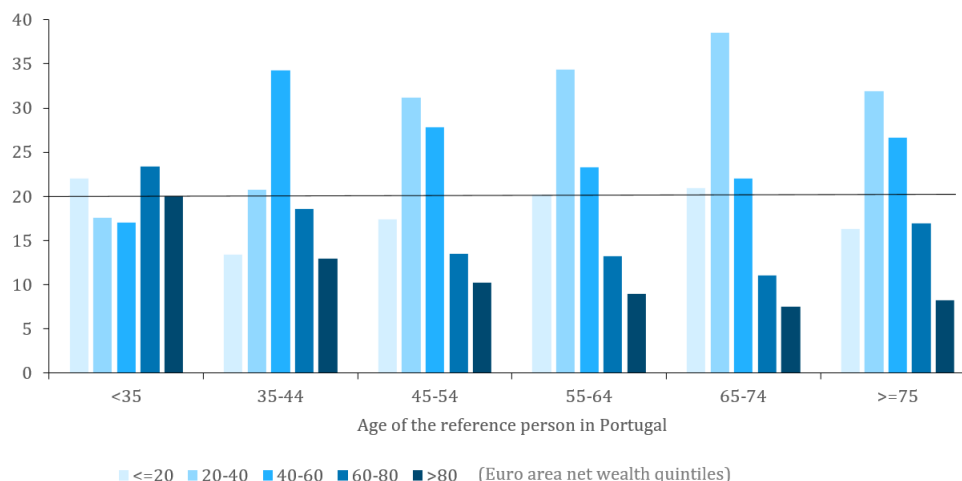


FIGURE 3: Distribution of households in each age group in Portugal by the euro area net wealth quintiles | Percentage of total households in each age group

Source: HFCS, 2017. Notes: The euro area net wealth quintiles were calculated within each age group, i.e. if the distribution of net wealth in each age group was equal in Portugal and in the euro area, all bars would be 20%. In each age group, the sum of the bars is 100%.

3. What is the role of wealth components in the comparison of wealth with the euro area?

The HFCS includes detailed information on the components of net wealth. These data have been used to illustrate differences in the composition of wealth across groups of households within a country and between countries (e.g., Costa *et al.* (2020), HFCN (2013) and HFCN (2020)). Additionally, several articles suggest that the composition of wealth, in particular homeownership, is related to wealth levels, even when controlling for several other households' characteristics (Lindner, 2015; Mathä *et al.*, 2017; Kaas *et al.*, 2019). This section analyses the role of the main types of assets and debts in the mean wealth differential between Portugal and the euro area and in the heterogeneity of this differential across groups of households. First, the composition of households' net wealth in Portugal and the euro area is compared. Second, the percentage difference in the mean wealth between Portugal and the euro area is decomposed into two components. This decomposition depends on the weight of each asset or debt in the total net wealth, as well as on the number of households that own them (participation) and on the respective mean value for the households that own them (mean value conditional on participation).

For the households as a whole, wealth composition is very similar in Portugal and in the euro area (Table 3). Both in Portugal and in the euro area, assets include mostly real estate properties and debt is around 12% the value of assets. The main residence weighs almost 50% of total assets and the other real estate properties almost 20%. The importance of real estate is also evident in the debt, since most of it are mortgages on real estate properties. The weight of deposits in total assets is also close in Portugal and in the euro area (respectively, 9% and 8%). On the assets side, one of the main

differences is the fact that, in Portugal, deposits are the majority of financial assets, which is not the case in the euro area. The remaining financial assets, which mainly include investment funds units, debt securities, quoted shares and voluntary pension plans, account for 3% of assets in Portugal and 11% in the euro area. The lesser importance of these assets in Portugal may reflect several factors, including the lower levels of education of the Portuguese population as well as the lesser importance of old age private protection schemes. The counterpart of the lower share of the financial assets in Portugal is the higher importance of businesses (17% and 8% of total assets, respectively, in Portugal and in the euro area). Note that the other financial assets include the shares held by the households in listed firms or in firms in which the households take part only as investors, while businesses include the remaining participation in firms or self-employed activities and are considered in the HFCS as real assets.⁶ These two types of assets thus have some common characteristics and their different weights in Portugal and in the euro area may partly reflect differences in classification between countries. On the debt side, the main difference is that mortgages have a slightly higher weight in assets in Portugal than in the euro area.

	Net wealth	Main residence	Other real estate properties	Businesses	Other real assets	Deposits	Other financial assets	Total debt	Mortgage debt	Non-mortgage debt
Weight in total assets (%)										
Portugal	87	48	19	17	4	9	3	13	12	1
Euro area	88	49	19	8	5	8	11	12	10	1
Difference (pp)	-1	-1	0	8	0	1	-8	1	2	-1
Mean value (thousand euros)										
Portugal	162	89	35	31	8	17	6	24	23	2
Euro area	231	127	49	22	12	22	29	30	27	4
Difference (%)	-30	-30	-28	42	-35	-20	-81	-21	-16	-58
Contribution of participation (pp)	-	13	11	36	-8	-1	-17	7	27	-9
Contribution of the conditional mean value (pp)	-	-44	-39	6	-27	-19	-63	-27	-43	-49
Contribution to the net wealth difference (pp)										
Total	-30	-17	-6	4	-2	-2	-10	3	2	1
Participation	8	7	2	3	0	0	-2	-1	-3	0
Conditional mean value	-37	-24	-8	1	-1	-2	-8	4	5	1
By memory:										
Participation (%)										
Portugal	-	74	29	14	76	97	23	46	34	23
Euro area	-	60	25	11	85	98	44	42	23	27
Difference (pp)	-	14	5	4	-9	-1	-21	4	11	-5
Mean value conditional to participation (thousand euros)										
Portugal	-	119	121	220	11	18	24	53	66	7
Euro area	-	213	200	207	15	22	65	73	116	13
Difference (%)	-	-44	-39	6	-27	-19	-63	-27	-43	-49

TABLE 3. Difference in the mean net wealth between Portugal and the euro area, contributions from assets and debt

Source: HFCS, 2017. Note: The euro area does not include Portugal.

The fact that the composition of net wealth is similar in Portugal and in the euro area means that the differences in the mean levels of the various assets and debts are identical. In fact, for all major assets, with the exception of businesses, and for both mortgage and non-mortgage debt, the difference in the mean value between Portugal and the euro area is negative and considerable (Table 3). When these differences are

6. For more details on households' businesses in Portugal and in the euro area, see Costa *et al.* (2020b).

decomposed into the contributions of participation and of the conditional mean value, the conclusion is that this is mainly explained by the conditional mean values. This means that net wealth is lower in Portugal than in the euro area because most of the assets have, for the households that own them, much lower values and not because there are fewer households with assets in Portugal or more households with debt. In the case of the real estate properties, which have a dominant weight in wealth, the contribution of participation is even positive since there is a higher percentage of households owning real estate properties in Portugal than in the euro area. In Portugal 74% of the households are homeowners and 29% own other real estate properties, while in the euro area these percentages are 60% and 25%, respectively. These differences favour the value of real estate wealth in Portugal, but not enough to offset the fact that the mean value of real estate owned by Portuguese households is much lower (in the case of the main residence, 119 thousand euros, compared to 213 thousand euros in the euro area). In the financial assets, the participation in deposits is identical in Portugal and in the euro area, but the participation in other assets is much smaller in Portugal. The differential vis-à-vis the euro area of the conditional mean values of any of these assets is negative, having a higher magnitude in the other financial assets than in deposits. In the case of businesses, the higher mean value and weight in wealth in Portugal mainly reflect the higher participation of Portuguese households. Although the conditional mean value of businesses is also higher in Portugal, the magnitude of the difference is small.

Table 3 also includes the contribution of each type of asset and debt to the percentage difference in net wealth between Portugal and the euro area. As expected, given its dominant weight in wealth, the main residence has the major contribution, justifying -17 percentage points (pp) of the -30% differential in the mean wealth of households as a whole. Other real estate properties have a smaller contribution (-6 pp), which mainly reflects their lower weight in wealth. The negative contribution from real estate properties is only slightly offset by the positive contribution from mortgages. This is due to the fact that less than half of the households owning real estate properties have debt, as well as the fact that the conditional mean values of debt are much lower than that of the real estate properties. Financial assets, excluding deposits, also have a very significant contribution (-10 pp) to the difference in wealth between Portugal and the euro area, due to having a much lower mean value in Portugal. This contribution is only partially offset by the positive contribution of businesses (4 pp). The contributions of the remaining components are much smaller.

When households are divided into wealth and income quintiles and age groups, it is also concluded that the composition of wealth has many similarities in Portugal and in the euro area (Table 4). First, the main residence is the main asset in all groups. The weight of the main residence is higher than 50% in all groups except for groups aged over 45 years old and for the top wealth or income quintiles. Second, households in the top wealth and income quintiles have a much more diversified asset structure than the rest. In the wealth of these households, businesses, other real estate properties and, in the euro area also the financial assets excluding deposits, have a much greater importance and weight as a whole more than the main residence in total assets. Finally, in the bottom net wealth quintile and, to a lesser extent, in the second wealth quintile and in the two

younger age groups, debt has a much higher weight in total assets than in the other classes.

	Main residence	Other real estate properties	Businesses	Other real assets	Deposits	Other financial assets	Total debt	Mortgage debt	Non-mortgage debt		
Total	48	19	17	4	Portugal 9		13	12	1		
Net wealth percentile											
<=20	67	6	1	15	9	2	0	94	79	15	
20-40	76	5	1	8	8	1	0	44	42	2	
40-60	76	7	2	6	8	1	0	24	22	2	
60-80	69	11	3	5	10	2	0	14	13	1	
>80	34	25	25	3	10	4	0	6	6	0	
Income percentile											
<=20	66	13	7	3	9	2	0	7	6	1	
20-40	67	14	4	4	9	1	0	11	10	1	
40-60	63	14	8	5	8	3	0	17	16	1	
60-80	55	16	12	5	10	3	0	17	16	1	
>80	34	24	25	4	10	4	0	11	11	1	
Age of the reference person											
<35	51	13	20	8	7	1	0	31	29	2	
35-44	57	12	14	6	8	3	0	29	28	1	
45-54	44	16	24	5	8	3	0	15	14	1	
55-64	44	23	17	4	9	4	0	8	7	1	
65-74	46	22	13	4	12	3	0	2	2	1	
>=75	48	27	9	2	13	2	0	0	0	0	
Total	49	19	8	5	Euro area 8		11	0	12	10	1
Net wealth percentile											
<=20	57	7	1	16	12	6	0	134	99	35	
20-40	49	5	2	16	19	8	0	39	34	6	
40-60	67	8	2	7	10	6	0	25	23	2	
60-80	67	11	2	5	9	6	0	13	11	1	
>80	40	24	12	3	7	13	0	6	5	1	
Income percentile											
<=20	62	15	5	4	9	6	0	8	6	2	
20-40	58	16	7	5	8	5	0	8	6	2	
40-60	55	15	8	5	9	7	0	10	8	2	
60-80	53	18	6	5	9	3	0	13	11	2	
>80	41	22	10	4	8	15	0	13	12	1	
Age of the reference person											
<35	49	13	9	8	12	9	0	34	29	5	
35-44	54	14	9	6	8	9	0	27	24	2	
45-54	46	18	14	4	7	10	0	14	12	2	
55-64	46	20	10	4	8	11	0	8	7	1	
65-74	48	22	5	4	10	12	0	4	3	1	
>=75	52	19	1	5	10	13	0	1	1	0	

TABLE 4. Assets and debts in Portugal and in the euro area, by household groups | Percentage of total assets

Source: HFCS, 2017. Note: The euro area does not include Portugal.

As regards participation rates and conditional mean values, some of the main conclusions mentioned for the households as a whole remain when the comparison with the euro area is done by groups of households (Tables A1 and A2 in the Appendix).⁷ In particular, in practically all cases, the assets and debts mean values conditional on the participation are lower in Portugal. Additionally, in almost all groups, in Portugal the percentage of households owning the main residence, other real estate properties, businesses or having mortgages is higher and the percentage of households owning other financial assets is lower. Despite this common pattern, the magnitude of the differences, especially in the participation rates, is highly variable, which contributes to the heterogeneity of wealth differentials between Portugal and the euro area by household groups.

7. The tables with the results by wealth and income quintiles and by age groups, which gives further details on the analysis carried out, can be found in the Appendix - Additional tables of the article "Household wealth in Portugal and the euro area".

By wealth quintiles, mean net wealth is lower in Portugal than in the euro area in the top three quintiles, but higher in the bottom two quintiles. This is mainly due to the contributions of the main residence and debt (Table 5). In the case of the main residence, although homeownership is higher in all quintiles in Portugal, the difference vis-à-vis the euro area is more noticeable in the two bottom wealth quintiles. In the bottom quintile, this favourable effect is amplified by the effect of debt. Although there are more households in this group with mortgage debt in Portugal, the outstanding amounts of debt for these households are much smaller than in the euro area, generating a much larger positive contribution from debt than in the rest of the quintiles. In fact, in the bottom quintile, contrary to what happens in the remaining, the debt-to-asset ratio is lower in Portugal than in the euro area.

	Difference in the mean net wealth (%)	Contributions (pp)							
		Main residence	Other real estate properties	Businesses	Other real assets	Deposits	Other financial assets	Mortgage debt	Non-mortgage debt
Total	-30	-17	-6	4	-2	-2	-10	2	1
Net wealth percentile									
<=20	116	23	-4	0	-5	-11	-14	67	61
20-40	24	90	2	0	-10	-13	-10	-38	4
40-60	-25	-15	-4	-1	-3	-6	-7	10	1
60-80	-38	-26	-5	0	-2	-3	-6	3	1
>80	-29	-18	-7	6	-1	0	-11	1	0
Income percentile									
<=20	-16	-8	-5	1	-2	-1	-4	1	1
20-40	-30	-11	-6	-4	-3	-2	-5	-2	1
40-60	-42	-17	-7	-3	-2	-4	-6	-2	1
60-80	-37	-20	-9	3	-2	-3	-8	1	1
>80	-23	-17	-4	9	-1	0	-14	4	1
Age of the reference person									
<35	9	6	1	18	0	-6	-12	-1	4
35-44	-20	-9	-7	4	-1	-1	-9	1	2
45-54	-27	-16	-8	5	-1	-1	-9	2	1
55-64	-33	-18	-5	2	-2	-2	-10	2	1
65-74	-42	-23	-9	3	-2	-3	-10	2	0
>=75	-37	-22	-3	4	-4	-2	-12	1	0

TABLE 5. Difference in the mean net wealth between Portugal and the euro area, contributions of assets and debt, by household groups | Percentage and percentage points

Source: HFCS, 2017. Note: The euro area does not include Portugal.

By income quintiles, the mean net wealth in Portugal is lower than in the euro area in the five groups. The magnitude of the difference is however not constant. Household wealth in Portugal is closer to the euro area in the bottom and top quintiles than in middle-income households. In the bottom quintile, the much higher percentage of homeowners in Portugal contributes to this evidence. Furthermore, the conditional mean values of the real estate properties and of the financial assets in this quintile are closer to those of the euro area than in the other quintiles, although still much lower. In turn, at the top of the income distribution, the negative net wealth differential is mostly mitigated by a positive contribution from businesses.

By age groups, the youngest Portuguese households have a higher mean wealth than the youngest households in the euro area. In the remaining age groups, wealth in Portugal is lower than in the euro area and the differential has the highest value in the 65 to 74 age group. This profile closely follows the profile of the contribution of differences

in the main residence, which is favourable to Portugal in the group under 35 years old and negative in the remaining classes. In the youngest Portuguese households, there is still a significant positive contribution of business wealth, which however is offset by the lower mean value of financial assets. In the remaining age groups, the lower levels of wealth are mainly due to the main residence and, to a lesser extent, to financial assets, other real estate properties and other real assets.

The profile of the main residence contribution by age groups follows the differences in participation between Portugal and the euro area. In Portugal, the positive impact on net wealth of a higher homeownership decreases with age, while at the same time the negative contribution of the mean value remains relatively stable. The profile of the contribution of participation reflects the fact that euro area households become homeowners later in life. Both in Portugal and in the euro area, most homeowners in the youngest age group have mortgages, which partially offsets the positive effect associated with the higher homeownership. However, this effect remains significant since among the younger households, in Portugal and in the euro area, about 30% do not have mortgages on their main residence and for those households that have them, on average the outstanding amount of debt only accounts for about 75% of the value of the residence.

From the analysis above, one concludes that, as expected, given its weight in wealth, the main residence is essential to explain the heterogeneity of the mean net wealth differential between Portugal and the euro area by household groups. The contribution of the main residence determines the sign and, in most cases, also the profile of the differences vis-à-vis the euro area. This profile is mainly determined by the difference in homeownership in Portugal and in the euro area. Although the participation in the main residence in all groups is higher in Portugal, the difference vis-à-vis the euro area is much higher in the bottom two wealth quintiles (in the bottom quintile is 14% in Portugal and 7% in the euro area and in the second quintile is 76% in Portugal and 29% in the euro area) and in the youngest age group (45% in Portugal and 27% in the euro area).

Participation in the main residence is higher in Portugal than in most of euro area countries. Among the four largest economies in the euro area, only Spain has a percentage of homeowners identical to Portugal (75.9% in 2017, compared to 74.5% in Portugal). In Germany, France and Italy homeownership is much lower (in 2017, 43.9%, 57.9% and 68.5%, respectively), which partly reflects historical and institutional factors (Eurosysteem, 2009). In Portugal, the percentage of homeowners is higher than in these three countries in all age groups and practically in all wealth and income quintiles. Additionally, as with the euro area as a whole, the differences are more marked in the younger age groups and in the lower levels of income and wealth. Homeownership in the two younger age groups is also higher in Portugal than in Spain where, however, there is a higher percentage of homeowners than in Portugal in the age groups from 55 years onwards.

4. What is the role of household characteristics in the comparison of wealth with the euro area?

In each country, there are households with very diverse characteristics, which contributes to the high heterogeneity of wealth within each country. Macroeconomic conditions and institutional or cultural factors contribute to some types of households being more frequent in some economies than in others. The first part of this section compares the characteristics of households in Portugal and in the euro area. In the second part, differences in the characteristics are related to differences in the levels of net wealth. For this purpose, a counterfactual exercise is carried out in which the euro area wealth is estimated by imposing the characteristics of households in Portugal. The analysis is performed for the median, as it is a more robust statistic than the mean, since it is less influenced by extreme values. As in the previous sections, the analysis for the overall households is complemented with an analysis by age groups, income and wealth quintiles.

The characteristics analysed include income, sociodemographic aspects of the reference person (age, gender, marital status and level of education) and the household composition. Other characteristics related to the composition of wealth, such as ownership of the main residence or business ownership (which in the HFCS, in most cases, is associated with the existence of self-employed workers) were not included in the analysis as they were already analysed in the previous section.

Receiving inheritances (or substantial gifts) is another very relevant aspect in determining the level of wealth. In Portugal, as in the remaining countries, the percentage of households that received an inheritance or a gift at some point in the past is positively correlated with wealth. In the bottom wealth quintile, 9% of Portuguese households received inheritances or gifts, which contrasts with 48% in the top quintile. The variable that identifies inheritances or gifts receipt was not, however, included in the results presented in this section because data are not available for Italy. In any case, when performing the counterfactual exercise for the remaining countries, the conclusion is that this variable does not help to explain the wealth differential between Portugal and the euro area, which reflects the identical percentage of households that received inheritances or gifts (29% in Portugal and 28% in the euro area excluding Italy).

In the analysis, income corresponds to the annual income per equivalent adult, which takes into account the composition of the household in terms of the number of adults and children and its effect on consumption.⁸ As with total income, this variable is related to the saving capacity of each household, i.e., the capacity to accumulate wealth. The inclusion of income per equivalent adult, instead of total income, makes it possible to isolate the effect of different income levels in the two economies, separating it from the effect arising from differences in the composition of the household. Household type is a categorical variable that divides households into the following groups: one adult;

8. Income per adult equivalent is obtained by dividing the total household income by the number of adult equivalents in each household, according to the modified OECD equivalence scale. This scale assigns a weight of 1 to the first adult in the household, 0.5 to the remaining adults and 0.3 to each child.

several adults; one adult and at least one child; and several adults and at least one child. In this variable, individuals under the age of 25 years, who are not working and who are neither the household representant nor an ascendant, the spouse or partner of the household representant, are considered children.⁹

4.1. Household characteristics in Portugal and in the euro area

In Portugal, the reference person is slightly older than in the euro area (Table 6). When households are divided by age groups, the largest difference in age structure occurs in the youngest class. In Portugal, not only the proportion of households in the group where the reference person is under 35 years old is smaller (9.8%, compared to 14.2% in the euro area) but also, within that group, most individuals are older (median age is 2 years higher) (Table A3 in Appendix). This is largely because young people in Portugal leave later their parents' house. Indeed, the percentage of the population aged between 16 and 34 is also lower in Portugal (according to the HFCS, 24.6%, compared to 25.3% in the euro area), but the difference is much smaller than that in the percentage of households in this age group (-0.7 pp, compared to -4.4 pp). In Portugal and in the euro area, the median and the mean age of the reference person in the various income and wealth quintiles are 50 or more years old and exhibit in global terms a downward trend by income quintiles and an increasing trend by wealth quintiles.¹⁰ In all quintiles of income, except in the third and fourth, and in all wealth quintiles, except in the top one, the age of the reference person is higher in Portugal than in the euro area (Tables A4 and A5 of the Appendix). The largest differences occur in the lowest quintiles of these variables, in particular in the bottom income quintile where the median age of the reference person is 67 in Portugal and 58 in the euro area.

The level of education is one of the aspects in which the Portuguese households differ most from those in the euro area. In Portugal, education levels are significantly lower. In 65% of the households, the level of education of the reference person is lower than the secondary level, which compares with around 30% in the euro area, where households in which the reference person has secondary education prevail. The percentage with tertiary education is around 20% in Portugal and around 30% in the euro area. In general, the level of education decreases with age and increases with net wealth and more sharply with income. The lower level of education of Portuguese households is common across all age groups, income and wealth quintiles. The difference between the percentage of households with less than secondary education in Portugal and the euro area is higher than 35 pp in all age groups from 45 years old onwards, in all income and wealth quintiles, except in the top ones. In the remaining groups, the difference

9. The household representant is a household member who is 16 years old or older whose name is associated to the dwelling selected from the census data.

10. The different profile of income and wealth by age illustrates that the two variables, although having a strong positive correlation, do not show a perfect correlation. One of the aspects that determines this is the fact that in older ages, income suffers a sharp reduction partly as a result of retirement, but wealth is only slightly reduced, always remaining above the levels of younger age groups.

	Overall households	
	Portugal	Euro area
Age (%)		
<35	9.8	14.2
35-44	19.3	16.9
45-54	20.3	20.3
55-64	18.4	18.3
65-74	16.0	14.8
>=75	16.2	15.6
Age (years)		
Median	55.0	54.0
Mean	55.8	54.5
Male (%)	58.2	62.3
Education (%)		
Less than secondary	64.9	29.5
Secondary	15.6	41.5
Tertiary	19.5	29.0
Married (%)	55.4	48.6
Household type (%)		
1 adult	22.4	35.0
Several adults	40.7	35.5
1 adult and child(ren)	5.1	4.7
Adults and child(ren)	31.8	24.8
Income per adult equivalent (thousand of euros)		
Median	10.4	21.5
Mean	14.4	27.4

TABLE 6. Characteristics of households in Portugal and the euro area

Source: HFCS, 2017. Note: The euro area does not include Portugal.

in education levels is lower, but still very high (higher than 10 pp in the case of the education level less than secondary).¹¹

In terms of composition, in Portugal there is a predominance of households with several adults (40.7% of the total number of households include several adults and no children and 31.8% include several adults and children). Households with only one adult represent 22.4% and lone parent households 5.1%. In the euro area, the proportion of lone parent households is similar to Portugal. Households with only one adult and no children are however much more common in the euro area (35%), where the two types of households with several adults are less frequent than in Portugal. The greater importance of households with only one adult and no children in the euro area is common to all age groups, income and wealth quintiles. The difference is larger in

11. The significantly lower level of education in the youngest age group in Portugal compared to the euro area may seem surprising given the significant increase in the level of education in Portugal in the recent decades. In fact, for individuals, instead of households, the difference vis-à-vis the euro area is much smaller. This mainly reflects the fact that, in the euro area, in the age group under 35 years old, the level of education is significantly higher in terms of households than in terms of individuals (e.g., in the euro area, the percentage with tertiary education is 37.1% in terms of households and 26.8% in terms of individuals, while in Portugal the two percentages are 26.7% and 21.3%, respectively).

the younger households, in the second and third income quintiles, and in the two lowest wealth quintiles. Both in Portugal and in the euro area, the composition of households across age groups reflects the typical life cycle. Households with children have a maximum weight in the 35-44 age group, households with only one adult in the lower age group and households with multiple adults and no children in the 65-74 age group. In overall terms, households with only one adult have higher weights in the bottom income and wealth quintiles and households with several adults in the top quintiles. This increase in wealth and income with the number of adults reflects a scale effect that is more marked in the case of income than in the case of wealth.

In Portugal, the reference person is married in more than half of the households (55.4%), while in the euro area this occurs in slightly less than half of the households (48.6%). This difference reflects the existence of a higher percentage of households with only one person in the euro area, but also other generational and cultural factors. Both in Portugal and in the euro area, the percentage of households with married people increases a lot from the first to the second age group and decreases in the households where the reference person is 75 years old or more, although to a higher value than that of the youngest. By income and wealth quintiles, the percentage of married people tends to increase. The positive difference vis-à-vis the euro area occurs in almost all age groups and all income and wealth quintiles. The exceptions are the top income quintile, where in Portugal there is a lower percentage than in the euro area, and the youngest age group and the top wealth quintile, where the percentages are similar.

With regard to gender, both in Portugal and in the euro area households in which the reference person is male predominate, with the percentage of these households being lower in Portugal (58.2%, compared to 62.3%).¹² This pattern applies to all household groups with the exception of the bottom income quintile. Both in Portugal and in the euro area, the percentage of males evolves similarly to the percentage of married people, across the age, income and wealth groups, although the differences between groups are much less marked. The smaller percentage in Portugal of households with male reference persons is more visible in households in the top income quintile, in the top two wealth quintiles and in the first two age groups.

Finally, income per equivalent adult is around 50% lower in Portugal than in the euro area, both in the mean and the median values.¹³ This applies to all groups of households, with the largest difference being in the intermediate income and wealth quintiles and in the two highest age groups. Income per equivalent adult increases with income and wealth quintiles. By age groups, it increases slightly up to the 54-65 age group and decreases in the next two older groups, reaching the lowest level in the last age group.

12. The fact that in Portugal there is a greater proximity between the participation of men and women in the labour market, as well as the fact that women have higher levels of education and that income increases with the level of education is more marked in Portugal, contribute to this difference.

13. This difference is more marked than in total income (the median and mean are around 43% lower), which reflects the larger size of households in Portugal.

The patterns identified in the comparison with the euro area average reflect not only the comparison with large countries, namely Germany, but are also in line with most the remaining countries.¹⁴

4.2. Results of the counterfactual exercise

The analysis in section 4.1 makes it clear that net wealth changes with households' characteristics similarly in Portugal and in the euro area. In overall terms, net wealth increases with age, level of education, income per adult equivalent, number of adults in the household and is positively related to whether the reference person is married or male. In Portugal, the levels of income and education are lower than in the euro area and the percentage of households in which the reference person is male is lower, which may contribute to lower wealth levels. The differences in the remaining variables, namely, the higher percentage of households with several adults, the older age of the reference person and the higher percentage of households with married people should have the opposite effect, that is, contribute to higher levels of wealth in Portugal.

In order to quantify these potential effects, a counterfactual exercise was carried out in which the value of the median wealth in the euro area is simulated as if households' characteristics were identical to those in Portugal. This exercise produces results that are very close to those obtained when, alternatively, the median wealth value in Portugal is simulated with the characteristics of the euro area, but it has the advantage of being based on regressions performed with a larger number of observations. In some cases, the conclusions obtained may however differ because the relationship between characteristics and wealth is not exactly the same in the two economies. This type of exercise has a mechanical and partial equilibrium nature, which does not take into account that the characteristics of households are influenced by the macroeconomic and institutional framework and that their relationship with wealth can change when its level changes. The results obtained are therefore merely indicative of possible explanations for the differences in wealth.

In this exercise was used the methodology developed by Firpo *et al.* (2009), which allows performing an Oaxaca-Blinder decomposition for other moments of the distribution other than the mean, using the Recentered Influence Function (RIF).¹⁵ In this method, equations of the RIF for the median wealth as a function of households' characteristics are estimated for Portugal and for the euro area. This estimation enables to decompose the difference in wealth between Portugal and the euro area in the part explained by the difference in the level of households' characteristics (first term on the right side of the equation below) and in the part not explained by this difference, which

14. Among the remaining 18 countries of the euro area: Portugal is the country where the percentage of households in which the reference person has a level of education lower than secondary is the highest; only in Latvia, Lithuania, Slovakia, Estonia and Slovenia the income per equivalent adult is lower than in Portugal; only in Cyprus and Slovakia the percentage of households with only one person is lower than in Portugal; and only in Italy, Slovenia and Greece the reference person is older than in Portugal.

15. The Recentered Influence Function is a transformation that allows to assess the impact at a point in the distribution (e.g., on the median) of a change in the mass of probability of a given observation.

includes the effect of the coefficients and an interaction term (respectively, second and third terms on the right side of the equation):

$$RIF_{PT}^{Median} - RIF_{EA}^{Median} = (\bar{X}_{PT} - \bar{X}_{EA})\beta_{EA} + \bar{X}_{EA}(\beta_{PT} - \beta_{EA}) + (\bar{X}_{PT} - \bar{X}_{EA})(\beta_{PT} - \beta_{EA})$$

where: RIF_i^{Median} is the estimated median for i , \bar{X}_i is the mean value of the households' characteristics of i , β_i are the estimated coefficients of the characteristics in the median wealth equation for i and $i=PT$ or EA , respectively, in the case of Portugal and the euro area.

Table 7 includes the breakdown between the explained and unexplained parts as well as the decomposition of the explained part by each of the households' characteristics. The median wealth is 25 thousand euros lower in Portugal than in the euro area. Differences in the household characteristics potentially explain 16 thousand euros of that amount. More specifically, if the characteristics of the euro area households were replaced by the characteristics of the Portuguese households, but the relationship between the characteristics and wealth remained unchanged, the difference in the median wealth between Portugal and the euro area would be only -9 thousand euros. Income and the level of education are the variables with the most significant contribution. Together, the lower levels of these variables in Portugal possibly justify a median wealth lower in 36 thousand euros. The gender of the reference person in Portugal (smaller percentage of males) has also a negative impact on wealth, but with a small magnitude. The remaining characteristics are, on the contrary, more favourable to wealth in Portugal, mitigating the impact of income and the level of education by 20 thousand euros (the composition of households, age and marital status of the reference person have positive impacts on wealth of 10 thousand euros, 7 thousand euros and 2 thousand euros, respectively).

As seen in section 2, the difference in the median net wealth between Portugal and the euro area is not the same across households' groups. In particular, in the younger age groups and in the lowest income and wealth quintiles, the median wealth in Portugal is close to or even higher than that of the euro area, while in remaining groups it is smaller. In order to analyse whether this heterogeneity could be related to the characteristics, the previous methodology was applied to each group of households.

In all age groups, income and level of education in Portugal have a negative effect on wealth when compared to their level in the same groups in the euro area (Table A6 in the Appendix). As in the case of households as a whole, these negative effects are mitigated by the remaining characteristics of households in Portugal – in groups up to 64 years old by the households' composition, in age groups between 45 and 74 years old by the higher percentage of married reference persons, and in the youngest age group by older reference persons. The combined effect of the Portuguese households' characteristics is however negative in all age groups. This means that if the euro area households had the characteristics of the Portuguese households, they would have a lower level of wealth. Therefore, differences in the characteristics do not seem to be sufficient to explain similar levels of wealth in the youngest age group. When the counterfactual exercise is performed taking Portugal as the reference, i.e., when wealth in Portugal is simulated with the characteristics of the euro area, the conclusion is however that differences in

	Coefficient	Standard deviation
Median net wealth (thousand of euros)		
Portugal	74.86***	2.36
Euro area	99.92***	1.93
Difference	-25.06***	3.07
Explained	-15.79***	3.13
Unexplained	-9.27**	3.79
Explained		
Age	18.44***	5.35
Age ²	-11.02***	3.95
Male	-0.71***	0.25
Educ level less than secondary	-15.01***	1.29
Educ level secondary	2.15***	0.63
Educ level tertiary	-4.78***	0.53
Married	2.38***	0.53
1 adult	5.23***	0.62
Several adults	1.42***	0.34
1 adult and child(ren)	-0.13	0.16
Adults and child(ren)	3.25***	0.54
Income per adult equivalent (thousand of euros)	-17.01***	2.87

TABLE 7. Contributions of households' characteristics to the difference in the median net wealth between Portugal and the euro area

Source: HFCS, 2017. Notes: The euro area does not include Portugal. The table presents the results of the decomposition between the part explained by households' characteristics and the unexplained part of the differences in the median wealth between Portugal and the euro area. The results were obtained with the methodology of Firpo *et al.* (2009) as described in section 4. The model includes age squared to capture the non-linear effects of age on wealth. ***, ** and * indicate that the coefficients are significant with a 99%, 95% and 90% level of confidence, respectively.

age and in the household composition outweigh for the youngest households the effects of income and the level of education, justifying the existence of similar levels of wealth in this group in both economies.

By income quintiles, the set of characteristics in Portugal has a positive impact on wealth in the bottom quintile, non-significant in the second and negative in the last three quintiles (Table A7 in the Appendix). The favourable impact on the bottom quintile mainly reflects the higher mean age of the reference person in Portugal, in a context where income and educational levels have little or no significant impacts. In the second quintile, in addition to age, the composition of households is also favourable in Portugal. However, these positive effects are offset by the negative impact of the lower level of income. In the top three quintiles, both the income and the level of education in Portugal have a negative effect, which is further amplified in the third and fourth quintiles because the reference person is younger in Portugal.

By wealth quintiles, the households' characteristics seem to be less related to differences in the wealth levels. The impact of the characteristics is non-significant in the bottom three quintiles. In the top two quintiles, the impact is negative due to the effect of income and education level (Table A8 in the Appendix).

5. Conclusion

This article compares the levels of households' wealth in Portugal and in the euro area, taking into account the heterogeneity of the wealth distribution and composition. From this analysis, the following main conclusions emerge:

The mean or the median wealth of households in Portugal is around 30% lower than in the euro area, but this differential shows a high variability across households' groups

Portuguese households are represented across the entire wealth distribution of the euro area, although they are more frequent in the lower quintiles, particularly in the intermediate wealth quintile. This situation leads to significantly lower mean and median wealth levels in Portugal. This is true both for households as a whole and for most wealth or income quintiles and age groups. However, some groups, namely the youngest and the bottom income or wealth quintiles, have levels of wealth close to or even higher than the same groups in the euro area.

The composition of wealth has many common features in Portugal and in the euro area

Real estate has a dominant weight in wealth. The main residence weighs almost 50% of total assets and the other real estate properties almost 20%. Additionally, debt, which is around 12% of the assets, are mostly mortgages. The weight of deposits in total assets is slightly below 10%. The composition of wealth by wealth and income quintiles and age groups also has many common features in Portugal and in the euro area. In all groups, the main residence is the main asset, but in the top wealth or income quintile its weight is lower, reflecting a more diversified asset structure. In the bottom net wealth quintile and, to a lesser extent, in the second net wealth quintile and in the two younger age groups, the debt to assets ratio is much higher than for the rest. The main difference in the wealth composition between Portugal and the euro area consists of a higher weight of the financial assets, excluding deposits, in the euro area and a higher weight of businesses in Portugal.

Most assets and debts have, for the households that own them, much lower values in Portugal than in the euro area

Mean wealth is lower in Portugal mainly because the mean values of most assets, for the households that own them, are much lower. This effect is partially offset by the also lower mean debt values and by the fact that in Portugal there is a higher percentage of households that own some of the main assets, namely the main residence

The higher homeownership favours wealth in Portugal compared to the euro area and the effect is greater in the youngest age group and in the households with lower levels of wealth or income

Given the dominant weight in total assets, differences in the main residence are fundamental to explain the wealth differential between Portugal and the euro area. In Portugal, in all wealth or income quintiles and in all age groups, homeownership is higher than in the euro area. Participation in the main residence determines the sign and, in most cases, also the profile of the differences in wealth vis-à-vis the euro area across households' groups. The positive contribution of household participation to the

wealth difference in Portugal vis-à-vis the euro area is higher in the bottom two wealth quintiles, in the youngest age group and, to a lesser extent, in the bottom two income quintiles. To a large extent, this justifies that these groups in Portugal have levels of wealth close to or even higher than euro area households in the same groups.

The highest percentage of young homeowners in Portugal is related to the fact that Portuguese young people leave their parents' house later

The highest difference in the main residence participation in the youngest age group, than in the remaining groups, is related to the fact that in Portugal, more often, young people leave their parents' house only when they "start a family" or when they already have a more stable family situation and have had more time to accumulate wealth, which promotes house purchasing. Differences in households' characteristics confirm this situation. In the euro area, in the youngest age group, the most frequent category is households with only one person, while in Portugal it is households with adults and children. Additionally, the reference person in this class is on average older in Portugal than in the euro area.

The households' composition and the age of the reference person favour the levels of wealth per household in Portugal, but the lower levels of education and income more than offset this effect in most households' groups

In Portugal, the reference person is slightly older than in the euro area and households typically include a larger number of adults. These characteristics are generally associated with higher levels of wealth per household. The mean and median wealth in Portugal is thus possibly higher than that which would exist if households were in these respects identical to those in the euro area. Lower income and lower educational level in Portugal have however the opposite effect and, in most cases, they dominate compared to the effect of the remaining characteristics.

Lower-income households have significantly older people in Portugal than in the euro area, which contributes to wealth levels closer to those in the euro area

In general, the groups in which the households' wealth in Portugal compares most favourably with the euro area are also those in which the Portuguese households differ most from the euro area in terms of the age of the reference person and the number of individuals. Age differences are particularly marked in the income quintiles. In the two bottom income quintiles, the higher level of the median wealth in Portugal than in the euro area reflects, in part, the fact that in Portugal households with lower income have older people and therefore had more time to accumulate wealth.

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Appendix

Additional tables from the article "Household wealth in Portugal and in the euro area"

	Main residence	Other real estate properties	Businesses	Other real assets	Deposits	Other financial assets	Mortgage debt	Non-mortgage debt
	Portugal							
Total	74	29	14	76	97	23	34	23
Net wealth percentile								
<=20	14	3	4	52	89	12	13	31
20-40	76	18	7	70	97	16	40	27
40-60	92	24	11	82	98	20	42	23
60-80	96	35	16	86	99	23	37	17
>80	96	66	33	92	100	45	40	15
Income percentile								
<=20	60	18	7	44	86	12	10	10
20-40	68	25	6	67	97	13	21	19
40-60	75	25	13	84	99	19	35	28
60-80	83	31	18	92	100	29	49	30
>80	86	46	27	94	100	43	55	26
Age of the reference person								
<35	45	13	14	75	98	26	33	32
35-44	77	24	21	89	99	30	64	34
45-54	77	29	20	86	97	27	52	29
55-64	80	34	16	81	96	29	32	22
65-74	78	36	7	73	95	16	11	15
>=75	76	33	4	48	93	9	1	4
	Euro area							
Total	60	25	11	85	98	44	23	27
Net wealth percentile								
>=20	7	2	2	64	94	19	7	38
20-40	29	8	5	84	99	38	14	26
40-60	78	22	8	89	98	40	32	26
60-80	91	31	12	93	99	49	31	24
>80	94	59	24	96	100	72	32	22
Income percentile								
>=20	45	14	5	64	92	20	7	19
20-40	50	19	7	83	98	28	12	22
40-60	59	23	10	90	99	41	19	29
60-80	68	27	11	93	100	56	31	34
>80	78	40	20	95	99	72	46	32
Age of the reference person								
<35	27	9	7	80	98	43	20	39
35-44	56	19	14	88	97	46	40	36
45-54	64	28	17	89	98	51	36	35
55-64	70	32	13	90	98	50	23	28
65-74	71	32	5	86	98	39	11	17
>=75	66	25	2	74	98	31	3	7

TABLE A1. Participation in assets and debt in Portugal and in the euro area | Percentage of total households in each group

Source: HFCS, 2017. Note: The euro area does not include Portugal.

	Main residence	Other real estate properties	Businesses	Other real assets	Deposits	Other financial assets	Mortgage debt	Non-mortgage debt
	Portugal							
Total	119	121	220	11	18	24	66	7
Net wealth percentile								
<=20	64	26	4	4	1	2	80	6
20-40	60	16	10	7	5	5	63	5
40-60	82	28	16	8	8	7	53	7
60-80	117	48	29	10	16	15	59	7
>80	211	227	445	21	57	48	86	10
Income percentile								
<=20	75	48	63	4	7	13	39	6
20-40	88	51	57	5	9	9	43	4
40-60	104	69	83	7	10	18	56	6
60-80	121	92	124	11	18	16	60	6
>80	187	237	422	21	45	39	92	11
Age of the reference person								
<35	115	98	141	11	8	4	87	7
35-44	131	87	120	12	15	17	79	5
45-54	136	129	278	13	18	26	62	7
55-64	122	149	237	11	21	30	47	9
65-74	104	111	329	9	21	38	31	6
>=75	97	127	390	5	21	30	42	7
	Euro area							
Total	213	200	207	15	22	65	116	13
Net wealth percentile								
>=20	110	42	6	3	2	5	196	13
20-40	75	29	14	8	9	10	108	9
40-60	116	50	29	10	14	22	99	11
60-80	188	88	45	15	24	33	94	13
>80	364	343	409	30	61	155	139	23
Income percentile								
>=20	114	88	73	6	8	24	69	8
20-40	145	103	115	8	11	23	61	10
40-60	183	134	168	12	17	36	87	11
60-80	217	182	139	16	25	42	100	13
>80	327	330	331	27	48	127	157	21
Age of the reference person								
<35	180	142	118	10	12	20	142	12
35-44	206	163	136	14	18	41	129	14
45-54	229	212	257	15	22	63	108	15
55-64	220	209	239	16	27	75	97	14
65-74	212	207	269	16	31	93	88	10
>=75	193	189	178	15	24	105	77	9

TABLE A2. Mean values of assets and debt in Portugal and in the euro area for the households that have them | Thousands of euros

Source: HFCS, 2017. Note: The euro area does not include Portugal.

	Age groups of the reference person											
	<35		35-44		45-54		55-64		65-74		>=75	
	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area
Age (years)												
Median	31.0	29.0	40.0	40.0	49.0	49.0	59.0	59.0	69.0	69.0	81.0	81.0
Mean	30.1	28.7	39.8	39.7	49.5	49.5	59.4	59.3	69.4	69.2	80.7	80.7
Male (%)	53.6	60.9	59.5	67.0	60.3	66.2	62.2	63.6	60.7	63.7	50.0	50.7
Education (%)												
Less than secondary	39.1	15.5	40.4	18.4	62.3	23.1	71.0	28.7	80.5	39.4	90.6	54.1
Secondary	34.3	47.4	25.6	42.4	16.7	46.6	13.3	43.7	5.3	37.5	3.7	29.8
Tertiary	26.7	37.1	34.0	39.1	21.0	30.2	15.7	27.6	14.2	23.0	5.8	16.1
Married (%)	25.4	24.7	55.8	51.2	64.9	56.1	63.8	58.4	63.8	55.7	43.2	39.8
Household type (%)												
1 adult	19.6	44.2	11.2	22.2	10.4	24.0	20.8	31.0	27.6	38.4	49.2	56.6
Several adults	25.0	25.3	14.0	13.8	28.4	23.8	59.1	51.7	67.6	58.6	49.9	42.3
1 adult and child(ren)	6.4	5.7	11.5	10.0	9.4	8.4	1.8	2.4	0.3	0.4	0.0	0.1
Adults and child(ren)	49.1	24.9	63.2	54.0	51.8	43.7	18.4	14.9	4.4	2.5	0.9	1.0
Income per adult equivalent (thousand of euros)												
Median	10.8	20.2	11.9	21.6	11.2	23.2	11.4	24.0	9.0	21.7	7.5	18.1
Mean	13.3	23.8	15.6	27.0	15.6	30.9	16.6	31.0	13.4	26.9	10.8	22.8

TABLE A3. Households' characteristics in Portugal and in the euro area, by age group

Source: HFCS, 2017. Note: The euro area does not include Portugal.

	Income percentiles									
	≤ 20		20 to 40		40 to 60		60 to 80		80 to 100	
	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area
Age (years)										
Median	67.0	58.0	61.0	57.0	50.0	55.0	49.0	52.0	52.0	51.0
Mean	63.9	55.9	59.0	56.9	52.5	55.1	50.9	52.6	52.4	51.8
Male (%)	42.6	45.6	55.4	55.4	62.4	63.1	68.0	71.2	62.8	75.7
Education (%)										
Less than secondary	86.2	50.2	81.5	42.6	69.7	28.6	58.4	18.5	28.6	8.4
Secondary	9.0	35.0	12.0	41.0	18.0	47.2	20.7	48.2	18.2	36.0
Tertiary	4.8	14.8	6.5	16.4	12.3	24.1	20.9	33.3	53.2	55.6
Married (%)	29.4	24.3	49.7	37.3	57.6	47.2	69.7	61.0	70.4	72.4
Household type (%)										
1 adult	57.4	64.2	26.3	48.6	11.2	34.6	8.7	19.5	8.4	9.5
Several adults	27.1	19.0	47.1	27.8	49.3	38.3	41.5	44.7	38.4	46.8
1 adult and child(ren)	4.3	6.1	9.9	7.2	5.1	5.7	3.3	3.0	3.1	1.8
Adults and child(ren)	11.2	10.7	16.6	16.4	34.4	21.4	46.5	32.8	50.1	42.0
Income per adult equivalent (thousand of euros)										
Median	4.5	7.8	7.5	15.6	10.2	21.5	14.5	28.8	27.4	47.9
Mean	4.3	7.7	8.0	15.6	10.8	22.5	15.2	30.9	33.9	59.6

TABLE A4. Households' characteristics in Portugal and in the euro area, by income quintiles

Source: HFCS, 2017. Note: The euro area does not include Portugal.

	Net wealth percentiles									
	≤ 20		20 to 40		40 to 60		60 to 80		80 to 100	
	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area	Portugal	Euro area
Age (years)										
Median	49.0	46.0	52.0	48.0	56.0	54.0	58.0	57.0	58.0	60.0
Mean	51.1	48.6	54.8	50.6	56.6	55.7	58.2	57.7	58.2	59.7
Male (%)	53.7	52.5	55.5	58.6	58.7	62.0	59.2	67.1	64.1	71.4
Education (%)										
Less than secondary	74.5	39.5	72.2	28.0	69.4	34.9	64.6	28.9	43.7	16.3
Secondary	17.5	45.7	15.8	46.3	16.3	37.5	12.6	41.2	15.8	36.9
Tertiary	8.0	14.9	12.0	25.8	14.4	27.5	22.8	29.8	40.5	46.8
Married (%)	35.0	30.1	49.1	35.9	59.7	50.0	62.8	58.8	70.3	68.4
Household type (%)										
1 adult	32.2	50.2	26.2	44.5	21.2	32.7	19.1	27.8	13.4	19.9
Several adults	30.3	19.7	35.8	28.9	44.2	37.2	46.1	42.3	47.0	49.4
1 adult and child(ren)	8.0	9.5	5.5	5.3	5.6	4.1	3.2	2.5	3.3	2.2
Adults and child(ren)	29.5	20.6	32.5	21.4	29.0	25.9	31.6	27.4	36.2	28.4
Income per adult equivalent (thousand of euros)										
Median	7.3	13.9	9.0	19.2	10.0	19.9	12.1	24.6	18.0	35.4
Mean	8.2	16.2	11.3	21.9	12.0	23.8	15.5	29.5	25.1	45.5

TABLE A5. Households' characteristics in Portugal and in the euro area, by net wealth quintiles

Source: HFCS, 2017. Note: The euro area does not include Portugal.

	Age groups of the reference person											
	<35		35-44		45-54		55-64		65-74		≥75	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Median net wealth (thousand of euros)												
Portugal	14.7***	3.70	62.85***	4.27	86.44***	6.06	95.07***	6.11	88.03***	5.72	80.04***	6.18
Euro area	14.04***	1.07	70.08***	3.52	130.01***	4.68	168.73***	5.38	169.65***	5.04	114.78***	4.43
Difference	0.66	3.87	-7.24	5.58	-43.57***	7.54	-73.66***	8.47	-81.62***	7.75	-34.74***	7.35
Explained	-3.67**	1.69	-17.82***	4.21	-44.79***	6.38	-50.43***	8.06	-49.98***	6.87	-16.9***	5.53
Unexplained	4.33	3.67	10.58*	5.90	1.22	7.86	-23.23**	9.89	-31.64***	8.62	-17.84**	8.18
Explained												
Age	1.98***	0.58	0.36	0.76	0.03	0.66	0.08	0.31	0.21	0.41	-0.01	0.13
Male	-0.13	0.17	-0.19	0.53	-0.92	0.66	-0.28	0.47	-0.10	0.37	-0.37	1.42
Educ level less than secondary	-2.66***	0.61	-9.16***	1.62	-29.27***	3.24	-33.5***	4.27	-22.33***	2.94	-9.19***	2.49
Educ level secondary	0.07	0.18	0.67	0.75	2.57	1.79	-2.14	2.06	0.99	2.17	3.10	1.91
Educ level tertiary	-1.23***	0.45	-2.36**	1.12	-7.71***	1.64	-8.59***	1.65	-5.08***	1.20	-3.83***	0.99
Married	0.00	0.03	0.30	0.41	2.41*	1.26	2.24*	1.24	8***	2.73	0.55	0.77
1 adult	1.48***	0.49	3.65***	0.91	6.52***	1.60	6.21***	1.74	1.26	2.33	1.02	1.86
Several adults	-0.03	0.35	0.04	0.30	0.91	0.59	3.39**	1.36	3.23	2.07	3.28	2.17
1 adult and child(ren)	-0.07	0.21	-0.47	0.54	-0.35	0.51	0.35	0.32	-0.01	0.06	-0.03	0.05
Adults and child(ren)	1.53***	0.54	4.47***	1.33	5.36***	1.71	2.39*	1.34	-0.80	0.66	0.08	0.25
Income per adult equivalent	-4.61***	1.07	-15.14***	2.84	-24.33***	4.03	-20.56**	8.60	-35.35***	4.51	-11.5***	4.24

TABLE A6. Contributions of households' characteristics to the difference in the median net wealth between Portugal and the euro area, by age groups

Source: HFCS, 2017. Notes: The euro area does not include Portugal. The table displays the results of the decomposition between the part explained by households' characteristics and the unexplained part of the differences in the median wealth between Portugal and the euro area. The results were obtained using the methodology of Firpo *et al.* (2009) as described in section 4. ***, ** and * indicate that the coefficients are significant with 99%, 95% and 90% level of confidence, respectively.

	Income percentiles									
	≤ 20		20 to 40		40 to 60		60 to 80		80 to 100	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Median net wealth (thousand of euros)										
Portugal	33.09***	3.61	51.6***	4.11	64.98***	4.63	91.37***	5.80	183.54***	9.51
Euro area	17.71***	1.05	46.37***	2.40	101.49***	4.47	148.19***	5.29	301.67***	7.52
Difference	15.38***	3.61	5.23	4.77	-36.51***	6.47	-56.83***	8.04	-118.13***	11.63
Explained	7.08***	1.12	-8.89	6.27	-33.85***	11.78	-53.55***	13.07	-24.82**	10.23
Unexplained	8.31**	3.51	14.12*	7.21	-2.66	11.99	-3.27	13.39	-93.31***	13.39
Explained										
Age	9.61***	2.48	13.18**	5.93	-43.79***	14.90	-39.46**	17.54	19.25	16.87
Age^2	-2.42	2.18	-8*	4.11	35.18***	11.35	34.55***	13.13	-10.49	10.31
Male	0.02	0.06	0.00	0.19	-0.18	0.68	0.25	0.44	-2.87	1.90
Educ level less than secondary	-2.2***	0.49	-2.79**	1.31	-6.08**	2.45	-9.64***	3.22	-16.54***	3.41
Educ level secondary	0.88**	0.36	2.6***	0.99	4.53***	1.64	1.31	1.72	2.71	2.23
Educ level tertiary	-0.94***	0.21	-1.6***	0.46	-3.59***	0.88	-3.6***	1.03	-2.31	2.10
Married	0.36	0.22	2.72**	1.19	3.33**	1.50	1.43	1.05	-0.04	0.33
1 adult	0.48**	0.21	7.35***	1.86	3.51	3.25	3.93**	1.95	0.70	0.93
Several adults	0.57***	0.22	3.92***	1.14	2.74**	1.07	-0.62	0.58	1.00	1.42
1 adult and child(ren)	0.08	0.07	-0.32	0.28	0.23	0.50	-0.13	0.36	0.22	0.49
Adults and child(ren)	0.03	0.08	0.05	0.47	4.33**	1.76	8.91***	2.44	5.1**	1.99
Income per adult equivalent	0.60	0.44	-25.98***	6.89	-34.06**	14.18	-50.49***	14.24	-21.54***	5.98

TABLE A7. Contributions of households' characteristics to the difference in the median net wealth between Portugal and the euro area, by income quintiles

Source: HFCS, 2017. Notes: The euro area does not include Portugal. The table displays the results of the decomposition between the part explained by households' characteristics and the unexplained part of the differences in the median wealth between Portugal and the euro area. The results were obtained using the methodology of Firpo *et al.* (2009) as described in section 4. ***, ** and * indicate that the coefficients are significant with 99%, 95% and 90% level of confidence, respectively.

	Net wealth percentiles									
	≤ 20		20 to 40		40 to 60		60 to 80		80 to 100	
	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation	Coefficient	Standard deviation
Median net wealth (thousand of euros)										
Portugal	0.92***	0.14	33.1***	1.64	74.87***	1.24	136.64***	2.34	325.33***	7.41
Euro area	1.1***	0.08	23.83***	0.50	99.75***	0.87	219.17***	1.52	523.96***	5.86
Difference	-0.18	0.16	9.28***	1.73	-24.88***	1.53	-82.53***	2.66	-198.62***	9.53
Explained	-0.02	0.08	0.37	0.60	0.86	0.99	-5.34***	1.59	-35.66***	6.14
Unexplained	-0.15	0.17	8.91***	1.76	-25.74***	1.57	-77.19***	3.01	-162.96***	10.32
Explained										
Age	-0.22**	0.11	2.8***	0.96	0.70	0.77	0.98	1.51	-14*	7.76
Age^2	0.21*	0.11	-1.89**	0.81	-0.33	0.56	-0.76	1.18	9.23	6.35
Male	0.00	0.00	-0.03	0.04	-0.08	0.09	-0.38	0.26	0.16	0.89
Educ level less than secondary	-0.06	0.04	-0.54	0.37	0.18	0.44	-1.61*	0.83	-11.2***	2.75
Educ level secondary	-0.04	0.03	0.00	0.21	0.03	0.26	-0.45	0.54	1.71	1.59
Educ level tertiary	0.00	0.01	-0.17	0.11	0.05	0.18	-0.21	0.17	-3.1***	1.11
Married	0.00	0.01	-0.05	0.19	0.47*	0.26	0.04	0.20	0.02	0.34
1 adult	0.02	0.02	0.42**	0.19	0.25	0.23	0.49	0.35	0.97	1.25
Several adults	0.01	0.02	0.17*	0.09	-0.07	0.13	0.08	0.15	-0.28	0.39
1 adult and child(ren)	0.00	0.00	0.00	0.03	0.01	0.05	-0.02	0.04	-0.27	0.35
Adults and child(ren)	0.01	0.02	0.22*	0.13	0.07	0.09	0.26	0.20	2.09*	1.26
Income per adult equivalent	0.04	0.04	-0.57	0.46	-0.43	0.72	-3.76***	1.46	-20.98***	5.31

TABLE A8. Contributions of households' characteristics to the difference in the median net wealth between Portugal and the euro area, by net wealth quintiles

Source: HFCS, 2017. Notes: The euro area does not include Portugal. The table displays the results of the decomposition between the part explained by households' characteristics and the unexplained part of the differences in the median wealth between Portugal and the euro area. The results were obtained using the methodology of Firpo *et al.* (2009) as described in section 4. ***, ** and * indicate that the coefficients are significant with 99%, 95% and 90% level of confidence, respectively.