Gender wealth gap: do fathers benefit from a wealth premium?

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Abstract

This paper studies the effect of raising children on parent's wealth over the life-cycle, by gender of the parent, using survey microdata from Europe. Comparing single households, I find women accrue less wealth than single male households with no significant difference at the mean of the distribution. The gap is substantial and significant between mothers and fathers. Mothers accumulate on average 27% less wealth than childless households and around 40% less wealth than fathers. The decomposition of the wealth gap shows 94% of the differences between single households are explained by labour market characteristics, whereas only 45% of the wealth gap between mothers and fathers can be explained by observed aspects. From the unexplained portion of the wealth gap, 10% account for components that constrain mothers' ability to grow their own wealth and 45% are attributed to components in favour of fathers. Overall, this study provides new evidence of wealth inequalities associated with parenthood.

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1 Introduction

Many studies address the gender pay gap and how it has narrowed over the years, with evidence indicating the differences come from labour choices and also from an unexplained portion. The gap is usually measured by difference in wage or earnings per working hour, in particular presented as earnings ratio between male and female labour. The unexplained part of the gender gap is widening over time and it is attributed to discrimination via lower wages within same career and job types, women's lower initiative to bargain better wages and promotions and also to a higher probability of women leaving the job. ¹

Differences in earnings are usually attributed to gender specific preferences (Croson and Gneezy, 2009). However, few studies explore the gender wealth gap (Schneebaum et al., 2018; Sierminska et al., 2010; Grabka et al., 2015). One of the reasons is the lack of detailed individual wealth data.

Wealth inequality has been increasing in developed countries (Piketty and Zucman, 2014; Saez and Zucman, 2016) with potential effects for the stability of the economy and rise of political crises. A striking characteristic of inequality is that it does not affect populations randomly and is stronger and persistent across specific socio-demographics groups. This study contributes to the literature by focusing on the wealth inequalities between women and men after they become parents.

Recent studies have shown that the gender pay gap can be attributed to motherhood, whereas men are not hurt by becoming a parent (Albrecht et al., 1999; Adda et al., 2017; Angelov et al., 2016; Bertrand et al., 2015). I extend the question of child penalty to wages into gender wealth gap attained through parenthood.

Understanding the drivers of gender inequalities over the life-cycle is relevant for a number of reasons. As in the case with wage gap, women accumulate less wealth than men. Even though women have higher life expectancy on average (Ostan et al., 2016; Zarulli et al., 2018),

¹For bargaining, see Leibbrandt and List (2015), for wage gap over time, see Barth et al. (2017), for promotions patterns see Pekkarinen and Vartiainen (2006); Blau and DeVaro (2006); Ginther and Hayes (1999), for career interruptions see Adda et al. (2017).

they reach retirement age in disadvantage and with higher propensity to fall into poverty. Inequality among parents, in particular, can determine fertility decisions and affect social mobility across generations (Arulampalam et al., 2007).

I use microdata from the Household Finance and Consumption Survey, run by the European Central Bank, to investigate wealth gap among four groups of households; male and female adults living alone and mothers and fathers who live with dependent children. The reason for the split of the sample in those groups is that the survey provides wealth data at the household level, not allowing for within-couples comparisons in terms of assets and liabilities. The cross-section used in this study contains data collected in 2016, the most recent reference year of the survey available.

I address the question using OLS with typical controls for demographics and labour characteristics, then by age brackets of individuals, and across wealth distributions. Finally, I use the Blinder-Oaxaca decomposition Blinder (1973); Oaxaca (1973) to account for observables and non-observables characteristics driving the wealth gap.

My results suggest fathers benefit from a wealth premium. Only 45% of the wealth gap between mothers and fathers can be explained by labour characteristics and consumption levels. From the unexplained portion of the wealth gap, 10% account for components against mothers and 45% are attributed to components in favour of fathers. Mothers also accumulate on average 27% less wealth than childless households.

In terms of additional wealth variables, women accrue less wealth than men over the lifecycle with a negative and economically significant effect on gross, net wealth and real assets. Mothers consume more, save significantly less and hold less financial assets than any other group. Net wealth inequalities are wider at the bottom and top percentiles of the wealth distribution. The gender gap between single households is smaller than for parents and can be explained mostly by labour market characteristics.

Overall, results indicate the existence of a penalty to mothers, but mainly through father's enhanced ability to accrue wealth. Selection bias is a source of concern regarding these results

and it could not be addressed due to data limitations. Therefore, a causal link cannot be determined.

2 Related literature

The literature on gender gap focuses on the gender wage gap and its determinants². Data availability on wage is more abundant than on wealth, which explains part of the dominance of those studies. Wage is also a well-established proxy for value in the society because it summarizes an individual's education and experience (Goldin, 2014). Evidence suggests labour preferences and choices drive the disparity in wages. Many characteristics are commonly attributed to women earning less than men on average: lower inclination to competition and personality traits (Reuben et al., 2017; Lesner, 2019), gender norms (Alesina et al., 2013), part time jobs (Gallen et al., 2019; Bardasi and Gornick, 2008), career interruption due to children responsibilities leading to women's accumulation of less human capital than men (Albrecht et al., 1999; Gayle and Miller, 1993; Adda et al., 2017).

The preference channel is challenged by Sorkin (2017), whose evidence claims women are sorted into lower paid jobs independent of labour preferences, as a result of different opportunities. Job promotion also happens earlier for men (Ginther and Hayes, 1999; Blau and DeVaro, 2006; Pekkarinen and Vartiainen, 2006).

Labour economics also explores the gender pay gap over the life-cycle. The gap increases with age ³. Goldin et al. (2017); Barth et al. (2017) show gender earnings gap becomes wider with age, in particular in the first years after finishing studies. The effect is stronger for college graduates as positions requiring higher education tend to greater penalize short hours of work, flexibility and career pauses. Albrecht et al. (2018) look into gender wage gap of high skilled workers in Sweden and find women and men have similar wages and earnings at the start of their careers, but as they age a significant gap emerges specially after becoming

²See (Goldin, 2014; Arulampalam et al., 2007)

³See Goldin (2014); Goldin et al. (2017); Albrecht et al. (2018); Barth et al. (2017); Angelov et al. (2016)

a parent. Angelov et al. (2016) analyse within-couples income and wage gap before and after they have children finding that 15 years after the birth of the first child, gaps in income and wages have increased.

Data on individual wealth has become more available in recent years. Naturally, attention to wealth inequalities measured at individual level grew substantially ⁴. Wealth inequality is greater than income inequality (Piketty and Zucman, 2014), with implications to gender disparities. Expanding the question from wage to total wealth add several possible reasons for why women reach retirement age in less favourable financial conditions than men (Gough, 2001).

Income gap hinders savings capacity and impacts consumption levels(Aguiar and Bils, 2015). Women and men have different risk profiles and hold non-similar portfolio of assets (Almenberg and Dreber, 2015). This is evidenced by more risk taking attitudes from men and by women's lower stock market participation, for example (Kaur and Vohra, 2012; Barber and Odean, 2001; Schubert et al., 1999; GUISO et al.). When holding risky portfolios, women tend to prefer SRI assets (Riedl and Smeets, 2017).

Social interactions influence financial decisions (Kaustia and Knüpfer, 2012; Hong et al.). Stereotypes and low self-confidence undermine women's attitude towards career goals and investments (Bertrand et al., 2015; Ke, 2018). Women also face more difficulties in climbing up the career ladder (Gayle and Miller, 1993; Albrecht et al., 1999). On the other hand, men tend receive more inheritance and earn more self-employment income (Edlund and Kopczuk, 2009).

In the context of Europe, wealth differences are investigated by Schneebaum et al. (2018) using the 2010 wave of the Household Finance and Consumption survey. They find that the gender wealth gap among poorest individuals is negligible while it is significant for higher percentiles across the wealth distribution, attributing most of the difference to labour characteristics. Sierminska et al. (2010) also find, for German individuals, that labour allocation

⁴See Guiso and Sodini (2013), FAGERENG et al. (2017), Fagereng et al. (2016), Grabka et al. (2015), Saez and Zucman (2016)

by gender is determinant for the observed wealth gap.

All those aspects lead to wealth levels in favour of men even when initial conditions of women are the same.

3 Data and descriptives

The analysis uses a cross-section from the Eurosystem Household Finance and Consumption Survey (HFCS).

The HFCS is administered and run by the European Central Bank, being conducted, so far, in three waves in which household members over 16 years old are interviewed. The survey gathers information about assets and liabilities, income and consumption as well as credit constraints of households from 20 countries. This work uses data from the third wave with reference year in 2016⁵. Table 1 shows households' composition for the whole sample. Appendix A contains more information about the survey contents, purpose and design. Table 2 provides demographic information on the sample.

These are the main hypotheses tested in this paper:

- Women accumulate less wealth over the life-cycle;
- The effect is stronger between parents;
- Fathers are not financially penalized by child rearing

3.1 Data description

Observations on wealth, savings, debt and consumption levels in the survey are collected and presented at the household level, posing a challenge to an analysis of gender gap. To address the issue, I use a sub sample of single adult households, from which I can observe individual wealth data. However, it is important to acknowledge some weaknesses from the sample.

⁵This is the third wave of the survey, released on March 2020.

Given I cannot look into information concerning the same individuals over time, I cannot observe if single adult households without dependent children have never had children. This is mitigated by the analysis at different age groups, with younger cohorts in higher probability of being childless.

Net Wealth is characterized by gross wealth minus total debt. Gross Wealth represents total real assets plus total financial assets. Real Assets are real estate property, including business wealth, vehicles and valuables. Financial Assets consist of deposits, saving accounts, mutual funds, stocks, bonds, value of non self-employed private business, managed accounts, money owed to household and voluntary pension/whole life insurance, excluding public and occupational pension plans.

Total debt consists of outstanding balance of household's liabilities decomposed in outstanding balance of mortgages and outstanding balance of remaining debt types. Savings include saving deposits and time deposits. Consumption covers amount spent on average by month on all consumer goods and services. This includes all typical expenses such as amount spent on food at home and outside home, utilities (electricity, water, gas, telephone, internet and television), rent, loan repayments, insurance policies, renovation, childcare and health care expenses. I cannot observe expenses split by each utility category.

Throughout the paper, all monetary values are reported in Euro(EUR).

3.2 Descriptive observations

Figure 1 plots household types for the whole survey divided by gender of the household head.

The only groups in which women are majority as household heads are single parents and single households over 65 years old. Young single households is the group closest to evenly distribution by gender. Men are prevalent as household heads in couples with or without children.

⁶Household head is the reference person on the survey. It cannot be interpreted as the one who earns more and the one in charge of all financial decisions. The classification is that the reference person is the one who answers the financial questions of the survey.

Now I focus on the groups of interest. Figure 2 plots marital status of a parent in a single household by gender. 50% of single male parents are divorced. This contrasts with figure 3, where over 65.5% of single male households have never married. Figure 2 also plots that, among mothers, 39% never married and 44% are divorced. Women living alone without dependent children are mostly single/never married (52%).

With the exception of single male parents, wealth monotonically increases with age for all other groups (single male and female households and single female parent) until retirement age. When it comes to financial wealth, single female parents are surpassed by single female household from mid-age. The difference in wealth over the life-cycle is negligible when households are young, from 16 to 34 years old, it grows over time, and reaches the largest disparity at retirement age. Figure 4 plots average net wealth, average gross wealth, average financial assets, average total debt and debt to asset ratio by age group for the four groups of households.

Net and gross wealth of mothers are below those of any other group until 44 years old, when they surpass women and men who live alone. Average financial wealth of mothers and fathers are practically the same until 34 years old. From that age on, the gap increases permanently with fathers accumulating on average around EUR 90,000 at retirement age while mothers own EUR 55,000 financial assets on average at the same age.

The gap between single male and single female households is persistent from 34 years old to retirement age. It is never as wide as the gap between mothers and fathers, indicating that the role of a parent inflicts severe wealth penalties to women. ⁸ The reason wealth of mothers have higher averages than the ones of single female households is the marital status. Young mothers who never married accumulate less wealth than young women living alone. Older mothers accumulate more wealth than older women living alone partly because they

⁷To tackle the presence of few outliers in the sample, all financial data is winsorized at 1% bottom and tops levels of the distribution.

⁸Information on households over 65 years old are not included in the analysis. There is almost no household above this age with dependent children. Keeping older households would, therefore, make groups not comparable.

are mostly divorced receiving endowments from fathers to cover children's expenses.

Life-cycle profiles of single male parents show they accumulate more wealth and acquire more debt than any other group. On average they hold EUR 250,000 in their forties and fifties, whereas single female parents hold on average EUR 160,000 at the same age. It raises the question if this a special group and that selection bias is present.

Life-cycle profiles of outstanding debt are hump-shaped, peaking in the mid-thirties (Male parents reaches maximum average debt at the mid-forties) and gradually decreasing thereafter. This is consistent with typical household debt; mortgage. Women with children hold more debt than women without dependent children.

Table 1 shows the frequency of each household type in the survey. Tables 2 and 3 present demographics from single parents and from single households.

Table 4 shows descriptive statistics for the entire survey and for single parents and single households. Unconditional mean net wealth is EUR 169,417, mean net wealth for single parents is EUR 106,202 and mean net wealth for single households is EUR 98,182.

Table 5 depicts gender specific descriptives in which men hold on average more wealth than women in all groups. Single male parents also have mean wage higher than any other group indicating that men who are the sole responsible for children have better financial means than the average man.

4 Empirical Tests

The empirical strategy involves Ordinary Least Squares (OLS). Then I proceed to the analysis by age group followed by wealth quantile regression. Finally, I decompose the gap into explained and unexplained portions using the Blinder-Oaxaca decomposition method.

4.1 The effect of child rearing on net wealth, gross wealth, debt, financial assets, savings and consumption

To study the effect of raising children on wealth debt and other financial characteristics over the life-cycle in Europe, I start by considering the following specification:

$$NW_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{1}$$

where NW_i is the value of net wealth for an individual i, SPF stands for $Single\ Parent$ $Female\$ and SPM refers to $Single\ Parent\ Male$. To compare wealth with, the main control group is single household, both male and female. All models include country fixed effects (γ_{ik}) for an individual i in country k. X_{ij} represents a vector of j control variables for individual i. To address if the gap is driven by unobserved characteristics, those controls are added gradually in the models. First, I add children related variables such as number of dependent children and if they are young (0-13). The reasoning is that younger children pose greater constraints to wealth accumulation of parents via less available time to work or invest. Then I include marital status variables because that indicates if wealth accumulation of current single parent was affected by prior income and wealth dynamics of cohabitation. Education is included by a dummy variable indicating if the individual holds a bachelor degree. Finally, I add labour characteristics: natural log of annual wage, a dummy indicating if the individual works part time only and natural log of consumption.

One special aspect to this specification is that $Net\ Wealth$ usually includes negative values for indebted households. The variable is highly skewed, but the usual natural log transformation to handle skewness is not applicable to negative and zero values. To avoid missing the important household information from indebted ones, I use the *inverse hyperbolic* sine transformation of the net wealth data as the dependent variable. I define NW_i in

equation 1 as follows:

$$arsinh(NetW_i) = ln(NetW_i + \sqrt{NetW_i^2 + 1})$$
(2)

I proceed with the analysis by examining other dependent variables. All explanatory variables remain the same as in equation 1.

$$GW_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{3}$$

$$FA_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{4}$$

$$S_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{5}$$

$$Debt_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{6}$$

$$C_i = \beta_0 + \beta_1 SPF_i + \beta_2 SPM_i + \zeta_{ij} X_{ij} + \gamma_{ik} + \epsilon_i, \tag{7}$$

where GW_i is natural log of Gross Wealth for individual i, FA_i is the natural log of total Financial Assets for individual i, S_i is natural log of Savings, $Debt_i$ is natural log of household's Total Debt and C_i is natural log of annual consumption of individual i.

4.2 The effect of child rearing on wealth variables by age group

Age is a relevant aspect to wealth accumulation. To investigate how wealth accumulation by gender differs with ageing, I construct age groups containing individuals with up to 10 years of age differences (16-24, 25-34,35-44,45-54, 55-64).

The model specification involves dependent variables previously defined with the addition

of *Real Assets* and new groups of explanatory variables.

$$NW_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ij,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a}, \quad (8)$$

where $NW_{i,a}$ is the inverse hyperbolic sine transformation of the net wealth data for individual i defined by age group a. SPF stands for Single Parent Female and SPM refers to Single Parent Male, SHHM is Single Household Male and SHHF is Single Household Female. All models include country fixed effects($\gamma_{ik,a}$) for an individual i in country k by age group a. $X_{ij,a}$ represents a vector of j control variables for individual i by age group a.

Control variables vary from labour characteristics (i.e natural log of wage, number of years in the same job, if the household has self-employment income, and how many hours per week are spent at work) to housing conditions, number of children, if the individual as received large inheritance in the past 3 years, education variables, job market positions and marital status.

The analysis proceeds to the other variables of interest keeping the same explanatory variables as in equation 8:

$$GW_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ij,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a}, \quad (9)$$

$$FA_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ij,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a}, \quad (10)$$

$$RA_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ij,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a}, \quad (11)$$

$$C_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ii,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a},$$
 (12)

$$S_{i,a} = \beta_a + \beta_a SPM_i + \beta_a SPF_i + \beta_a SHHM_i + \beta_a SHHF_i + \zeta_{ij,a} X_{ij} + \gamma_{ik,a} + \epsilon_{i,a},$$
 (13)
where GW_i , a is natural log of $Gross\ Wealth$ for individual i by age group a , FA_i , a is the

natural log of total Financial Assets for individual/age group $i, a, RA_{i,a}$ is total Real assets for individual/age group i, a, C_i, a is natural log of annual Consumption and S_i, a is natural log of Savings.

4.3 The effect of child rearing on net wealth by quantiles

The estimation at the mean provides a partial view of the gender wealth gap with the outcome variable based on the conditional mean function E(y|x). But, as with age, in which the wealth gap is small among young adults and large at retirement age, different points in the conditional distribution of wealth offer relevant information about the variation in wealth accumulation.

I consider the 10th, 25th, 50th, 75th and 95th quantiles for the estimation of child rearing on gender differences in wealth accumulation. The quantile regression model equation for the qth quantile is:

$$NW_{i} = \beta_{0}^{q} + \beta_{1}^{q}SPM_{i} + \beta_{2}^{q}SPF_{i} + \beta_{3}^{q}SHHM_{i} + \beta_{4}^{q}SHHF_{i} + \zeta_{ij}^{q}X_{ij} + \gamma_{ik}^{q} + \epsilon_{i}^{q},$$
 (14)

The model is semi-parametric, which gives the advantage of returning more robust results to non-normal errors and outliers.

4.4 The gender gap decomposition

I use the twofold Blinder-Oaxaca decomposition (Blinder, 1973; Oaxaca, 1973) to explain how much of the difference in mean wealth between parents and between single households is due to group differences attained to explanatory variables, and which portion is attributed to differences in the magnitude of regression coefficients (unexplained or discriminatory part).

The gap to be explained is the difference of the mean wealth $(\Delta \overline{NW})$ across the groups of interest:

$$\Delta \overline{NW} = \overline{NW_m} - \overline{NW_f},\tag{15}$$

where m stands for male and f for female.

The explained and unexplained portions of the gap are specified as follows:

$$\Delta \overline{NW} = \underbrace{(\overline{X}_m - \overline{X}_f)'\beta_r}_{explained} + \underbrace{\overline{X}'_m(\beta_m - \beta_r)}_{unexplained_m} + \underbrace{\overline{X}'_f(\beta_r - \beta_f)}_{unexplained_f}$$

5 Results

My findings suggest mothers save less, consume more and accrue less financial assets. Therefore, they accumulate less wealth over the life-cycle, in particular financial wealth. The effects are more pronounced for young mothers, between 35 and 44 years old, the age group by which their children are small. The difference between male parents and female parents is large and statistically significant. All models display results with country fixed effects.

Table 7 shows results for Net Wealth. Mothers accumulate on average 27% less wealth than childless households as in uncontrolled model 1. Result is still significant for models with children variables, marital status and education. Labour income controls in model 5 seem to explain wealth accumulation by mothers. Once labour characteristics and consumption are added, fathers have more net wealth than childless households, and mothers net wealth is no longer significantly less than childless households. The particular result suggests that child penalty to wealth is only observed for women. With Gross Wealth as dependent variable, mothers still accumulate less assets than childless households, but only the unconditional model displays significant result with women accumulating 12% less assets on average.

Fathers also seem to be a special group as they accumulate more wealth than childless households and mothers. Men raising children accumulate on average 31% more wealth than childless households with all controls included and statistical significance at 10% level. Tables 7 and 8 also show that number of dependent children do not impact wealth negatively, whereas the age of the children do. It is not clear how the child penalty is mitigated by the older the child gets, but some possibilities are that teenagers are more independent than

children freeing up time for mothers and dependent children at working age contribute to overall earnings.

Mothers hold on average 27% less financial assets than households without dependent children. The effect is still significant with all controls included, with mothers holding 13% less financial assets (table 9). Mothers ability to save is significantly reduced in comparison with childless individuals (table 10, models 1,2,3,4). Including controls for children, marital status and education, the difference is still significant indicating mothers save on average 23% less than non-parents. Fathers save no less than non-parents (table 10, models 1,2,3,4). The exception is when labour market characteristics and consumption are included. Then, fathers save 18% less than adults without dependent children in a weakly significant result. For both mothers and fathers, labour is determinant of savings capabilities.

Mothers hold no different level of debt than childless households (table 11). Number of children or age do not impact loan taking and loan levels, which eliminates the credit constraint and credit denial channels associated with child rearing. Fathers, on the other hand, hold significantly more debt than mothers and non-parents. When it comes to consumption, both mothers and fathers consume more than non-parents, with consumption level significantly higher for fathers (table 12, models 1, 2, 3, 4). When wages are included, the differences in consumption become negligible.

The next results refer to the regressions by age group of the household head. Tables include country fixed effects, labour market characteristics, mortgage information, children related variables, inheritance, education, job positions and marital status.

Table 13 displays results for *Gross Wealth*. In all age groups, being a single male parent does not impact gross wealth levels. In contrast, single female parents and women living alone hold significantly less wealth than men in almost all points of adult life. Mothers between 45 and 54 years old hold 14% less gross wealth given their household status. Table 14 reports results for *Financial Wealth*, where almost no significant result is found for any household type in particular. Young women living alone accumulate 24% less wealth. Signs

and magnitude for other households and age groups suggest mothers spend most adult life in disadvantage in terms of financial assets.

Net Wealth is significantly lower for single households, both men and women, when they are between 25 and 34 years old (table 15). From that age on, the gap increases with significant lower net wealth only for women. The effect for mothers is stronger, especially between 34 and 54 years old. In the age bracket 45 to 54 years old, mothers hold 32% less wealth. Young adults (25-34) from all household types in the analysis hold lower Real Assets. Fathers exhibit advantage and tend to hold more real assets than other individuals.

Table 17 reports consumption by age group and, even though all household types are negatively impacted, parents tend to spend more than the childless counterparts. As parents consume more, they also save less (table 18), in particular those above 45 years old.

Another concern in the study is if the results are biased due to the allocation of households' groups across the wealth distribution. To take this aspect into account, I present quantile regression outcomes. Women, mother or not, show significant less wealth from the bottom distribution of wealth (10th percentile) to the top (95th percentile). The gap is wider between mothers and fathers and is stronger among wealthier households; rich mothers hold around 26% less wealth than rich fathers. Among rich adults living alone, women accumulate 22% less wealth. Wage is only a determinant for wealth in the second and third quantiles with a contribution of around 2,2%. At the top of the wealth distribution, wage is negatively associated with wealth.

All those results still do not answer if the gender wealth gap for parents is driven by conditions in favour of fathers or higher constraints to mothers.

To address the issue, I show the results of the Blinder-Oaxaca twofold decomposition ⁹. The decomposition for single households show that the gender wealth gap is mostly explained by labour characteristics (94,8%), especially by the wage gap. The small unexplained fraction of the wealth gap is distributed evenly by unobserved characteristics in favour of men (2,5%)

⁹(Hlavac, 2018)

and unobservable characteristics against women (2,6%).

For parents, labour characteristics do not explain most of the wealth gap (45,13%). Unobservable characteristics in favour of fathers account for 44,97% of the total mean wealth gap. Unexplained part against mothers account for 10% of the total mean wealth gap. The results of the decomposition suggest women are hurt in terms of wealth accumulation by parenting responsibilities, whereas fathers exhibit a sort of wealth premium.

6 Conclusions

My empirical findings can be summarized as follows. First, women accrue less wealth than men over the life-cycle with a negative and economically significant effect on gross, net wealth and real assets, which can be attributed only partly to higher levels of debt to asset ratios of mothers. Mothers consume more, save significantly less and hold less financial assets than any other group (fathers and single households). Net wealth differences are wider at the bottom and top percentiles of the wealth distribution. Second, the gender gap between single households is smaller than for parents and can be explained mostly by labour market characteristics. Third, fathers' earnings are indicative that the wide gap between parents is associated with a premium to fathers rather than a penalty to mothers.

These results seem robust to alternative empirical tests including age brackets and quantile regressions. Overall, my results suggest that considering only wages and career paths understate the drivers of gender wealth inequalities. Ability to save, consumption levels and financial assets' allocations contribute a great deal to overall wealth state at retirement age.

Richest fathers are the source of the striking differences in wealth in comparison to mothers. This is due to differences in asset allocation by gender, with men more likely to receive greater income from entrepreneurship and invest heavily in risky assets, whose returns are better in the long-run than the real assets and deposits women hold more frequently. The difference in financial allocation cannot be explained by observable characteristics in the data.

Non-observable characteristics are determining why fathers are wealthier than men without children.

Due to data limitations to implement the study strategy, it is possible that I am capturing an angle of gender differences based in selection into single households, in particular when they become parents. It is quite possible that mothers living alone with their children are more frequently part of the lower income and wealth group of society, as well as fathers living only with dependent children represent a special group of men with financial means above average. If household type is non-random, hardship of wealth mobility creates a persistent discrepancy between men and women' wealth which is exacerbated by child raising responsibilities. The absence of data on within-couples dynamics potentially allows only a partial diagnosis of the effect of children rearing on wealth accumulation over the life-cycle. Another caveat is lack of data to observe pre-child investment and labour profiles that could indicate anticipation to parenting in financial and labour decisions.

Still, this paper is the first to address parenthood to individual wealth differences by gender in European countries.

Figures and Tables

Figure 1: Gender frequency in thousands by household type in the survey

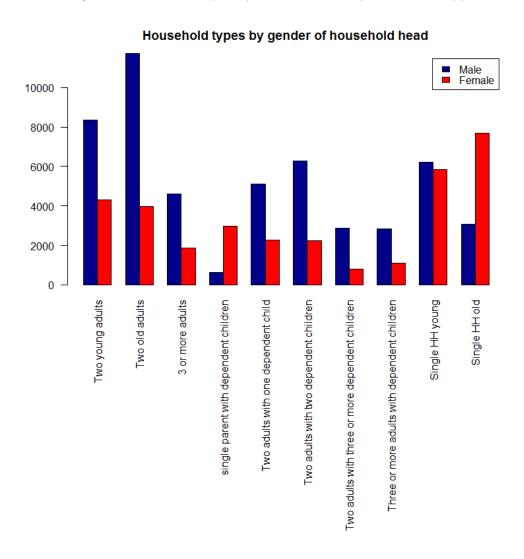


Figure 2: Marital status of parent in a single household with dependent children in percentage

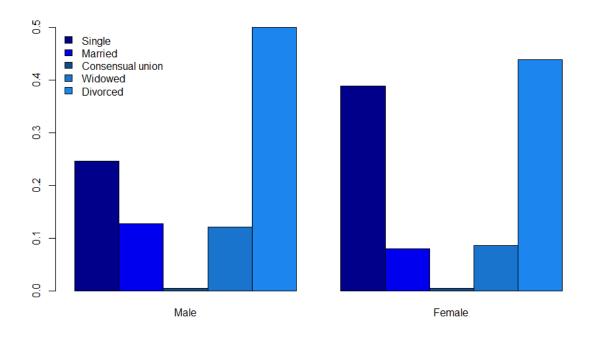


Figure 3: Marital status of single household in percentage

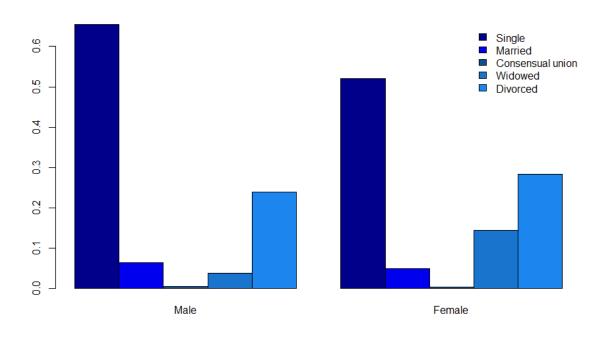


Figure 4: Profiles until retirement age of net wealth, gross wealth, financial assets and debt by household type

Note: The graphs depict the average net wealth (total wealth minus debt), gross wealth (total assets including financial and real state), financial assets, total debt in thousands EUR and debt to asset ratio by SPM - $Single\ Parent\ Male$, SPF - $Single\ Parent\ Female$, SHHM- $Single\ Household\ Male\ and\ SHHF$ - $Single\ Household\ Female$. Age groups are 1 - (16-24), 2-(25-34), 3-(35-44), 4-(45-54), 5-(55-64). Wealth and debt of the top and bottom 0.1 percent of the entire wealth distribution in the groups depicted are winsorized.

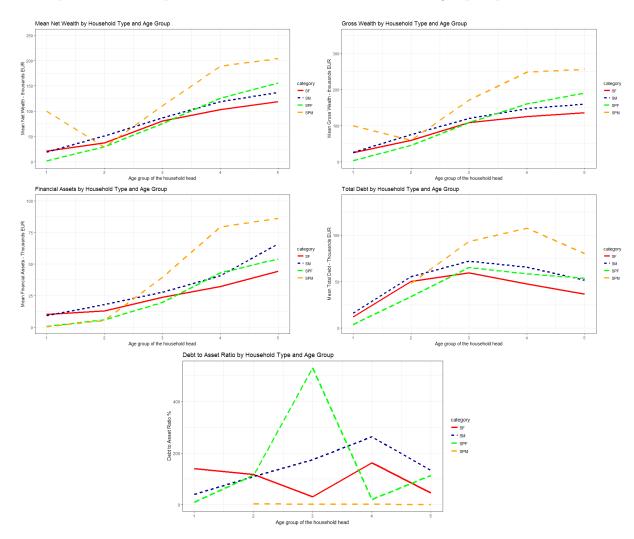


Table 1: Frequency of household composition in the third wave of the HFCS

Household types	\mathbf{n}	%	$\sum \%$
Two adults younger than 65 years	12688	15.0	15.0
Two adults, at least one aged 65 years +	15697	18.5	33.5
Three or more adults	6493	7.6	41.1
Single parent with dependent children	3607	4.2	45.4
Two adults with one dependent child	7363	8.7	54.1
Two adults with two dependent children	8532	10.1	64.1
Two adults with three or more dependent children	3685	4.3	68.5
Three or more adults with dependent children	3941	4.6	73.1
Single household, younger than 64 years	12064	14.2	87.3
Single household, older than 65 years	10754	12.7	100.0
Total	84824	100.0	

Table 2: Single parent with dependent child by parent's gender

Variable	Levels	Male	%1	$\sum \%_1$	Female	$\%_2$	$\sum \%_2$	$\mathbf{n}_{\mathrm{all}}$	$\%_{\mathrm{all}}$	\sum % _{all}
Age Group	15-24	1	0.2	0.2	39	1.4	1.4	40	1.2	1.2
	25-34	30	4.9	5.1	336	12.4	13.8	366	11.0	12.2
	35-44	167	27.5	32.6	1046	38.5	52.3	1213	36.5	48.7
	45-54	270	44.5	77.1	1000	36.8	89.0	1270	38.2	86.8
	55-64	108	17.8	94.9	253	9.3	98.3	361	10.8	97.7
	65-74	24	4.0	98.8	37	1.4	99.7	61	1.8	99.5
	75 +	7	1.1	100.0	8	0.3	100.0	15	0.4	100.0
	all	607	100.0		2719	100.0		3326	100.0	
Education	Primary	39	6.2	6.2	231	7.8	7.8	270	7.5	7.5
	Secondary	53	8.4	14.5	331	11.1	18.9	384	10.6	18.2
	Upper-Secondary	282	44.5	59.0	1263	42.5	61.4	1545	42.8	61.0
	Short Tertiary	158	24.9	83.9	648	21.8	83.2	806	22.4	83.3
	Master	86	13.6	97.5	457	15.4	98.6	543	15.1	98.4
	PhD	16	2.5	100.0	42	1.4	100.0	58	1.6	100.0
	all	634	100.0		2973	100.0		3607	100.0	
Labour Status	Employed	406	64.0	64.0	1948	65.5	65.5	2354	65.3	65.3
	Self-employed	101	15.9	80.0	285	9.6	75.1	386	10.7	76.0
	Unemployed	52	8.2	88.2	342	11.5	86.6	394	10.9	86.9
	Retired	39	6.2	94.3	73	2.5	89.1	112	3.1	90.0
	Other	36	5.7	100.0	325	10.9	100.0	361	10.0	100.0
	all	634	100.0	-	2973	100.0		3607	100.0	
Marital Status	Single/Never Married	156	24.6	24.6	1155	38.9	38.9	1311	36.4	36.4
	Married	81	12.8	37.4	238	8.0	46.9	319	8.8	45.2
	Cohabitant	3	0.5	37.9	16	0.5	47.4	19	0.5	45.7

Widowed	77	12.2	50.0	258	8.7	56.1	335	9.3	55.0
Divorced	317	50.0	100.0	1306	43.9	100.0	1623	45.0	100.0
all	634	100.0		2973	100.0		3607	100.0	

Table 3: Single household by gender

	Levels	Male	%1	$\sum \%_1$	Female	$\%_2$	$\sum \%_2$	$\mathbf{n}_{\mathrm{all}}$	$\%_{ m all}$	\sum % _{all}
Age Group	15-24	443	7.5	7.5	424	7.6	7.6	867	7.6	7.6
6	25-34	1118	19.0	26.6	807	14.5	22.1	1925	16.8	24.4
;	35-44	1094	18.6	45.2	698	12.6	34.7	1792	15.7	40.1
4	45-54	1471	25.0	70.2	1138	20.5	55.2	2609	22.8	62.9
	55-64	1751	29.8	100.0	2492	44.8	100.0	4243	37.1	100.0
	all	5877	100.0		5559	100.0		11436	100.0	
Education 1	Primary	466	7.5	7.5	369	6.3	6.4	835	6.9	7.0
Ç	Secondary	800	12.8	20.4	601	10.3	16.7	1401	11.6	18.6
1	Upper secondary	3003	48.2	68.6	2473	42.4	59.0	5476	45.4	64.0
Ç	Short Tertiary	1115	17.9	86.5	1318	22.6	81.6	2433	20.2	84.1
I	Master	762	12.2	98.8	977	16.7	98.3	1739	14.4	98.5
1	PhD	77	1.2	100.0	97	1.7	100.0	174	1.4	100.0
	all	6225	100.0		5839	100.0		12064	100.0	
Labour Status I	Employee	3596	57.8	57.8	3501	60.0	60.0	7097	58.8	58.8
S	Self-employed	702	11.3	69.0	427	7.3	67.3	1129	9.4	68.2
1	Unemployed	752	12.1	81.1	431	7.4	74.7	1183	9.8	78.0
]	Retired	432	6.9	88.1	720	12.3	87.0	1152	9.6	87.5
(Other	743	11.9	100.0	760	13.0	100.0	1503	12.5	100.0
ž.	all	6225	100.0		5839	100.0		12064	100.0	
Marital status	Single/Never Married	4075	65.5	65.5	3041	52.1	52.1	7116	59.0	59.0
I	Married	401	6.4	71.9	282	4.8	56.9	683	5.7	64.7
(Cohabitants	25	0.4	72.3	19	0.3	57.2	44	0.4	65.0
,	Widowed	236	3.8	76.1	845	14.5	71.7	1081	9.0	74.0
	Divorced	1488	23.9	100.0	1651	28.3	100.0	3139	26.0	100.0
	all	6225	100.0		5838	100.0		12063	100.0	

Table 4: Descriptive statistics

All financial data, in Euros, is winsorized at bottom and top 1%. Net wealth is total wealth minus debt, Total Assets include real and financial assets, Wage and Self-Employment Income represent a year of income, Net Housing Wealth is the value of the household main residence minus outstanding amount of mortgage.

(a) All Households

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	84,829	169,417.0	157,787.4	$-193,\!883.8$	29,300.0	312,959.5	422,883.8
Total Assets	84,829	347,725.6	645,294.0	0	37,000	361,230	4,418,485
Real Assets	79,666	289,263.9	473,419.9	344.7	40,000.0	319,566.2	3,116,950.0
Financial Assets	80,783	68,003.5	196,513.1	0.0	1,458.0	43,447.5	1,478,584.0
Voluntary pension/life insurance	22,514	$81,\!276.5$	238,295.0	50.0	2,859.8	46,760.2	1,700,000.0
Wage	52,476	40,395.3	39,688.8	500.0	13,107.0	$54,\!252.5$	214,000.0
Self-employment Income	14,343	25,038.3	36,954.9	-2,195.8	3,755.0	30,000.0	$226,\!580.0$
Total Debt	36,689	83,831.8	165,480.9	0.0	5,000.0	107,500.0	7,500,000.0
Net Housing Wealth	62,999	217,991.8	268,251.4	0.0	70,000.0	265,000.0	11,111,172.0
Deposits	80,301	23,711.8	47,707.6	0.0	1,000.0	22,750.0	304,000.0
Total Gross Income	84,829	45,719.2	49,398.1	65	14,179.2	59,000	291,873

(b) Single Parents

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	3,607	106,202.9	139,023.4	-193,883.8	3,714.5	157,570.8	422,883.8
Total Assets	3,607	208,700.9	473,685.9	0.0	6,480.0	221,940.5	4,418,485.0
Real Assets	3,224	190,216.5	364,299.3	344.7	7,000.0	220,416.0	3,116,950.0
Financial Assets	3,445	35,841.9	141,940.8	0.0	450.0	19,000.0	1,478,584.0
Voluntary pension/life insurance	926	46,673.8	178,888.8	50.0	1,500.0	25,195.2	1,700,000.0
Wage	2,678	26,147.1	26,248.2	500.0	8,920.2	34,800.0	214,000.0
Self-employment Income	436	21,812.4	31,753.7	-2,195.8	3,201.5	28,945.8	226,580.0
Total Debt	1,969	68,219.3	136,726.9	0.0	3,000.0	95,000.0	2,895,397.0
Net Housing Wealth	1,933	203,766.9	232,342.7	648.0	70,000.0	250,000.0	2,800,000.0
Deposits	3,433	12,890.1	33,233.3	0.0	300.0	10,000.0	304,000.0
Total Gross Income	3,607	31,500.8	32,412.0	65	12,400	39,445	291,873

(c) Single Household

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	12,064	98,182.1	131,620.5	-193,883.8	4,500.0	145,600.0	422,883.8
Total Assets	12,064	166,942.4	394,247.3	0.0	6,336.9	181,505.2	4,418,485.0
Real Assets	10,164	152,951.5	308,616.0	344.7	6,894.6	179,017.8	3,116,950.0
Financial Assets	11,420	35,844.4	121,414.7	0.0	646.8	22,784.0	1,478,584.0
Voluntary pension/life insurance	2,652	45,295.4	151,589.1	50.0	2,153.5	30,000.0	1,700,000.0
Wage	8,128	25,946.9	23,995.9	500.0	9,376.9	35,000.0	214,000.0
Self-employment Income	1,325	20,580.4	29,501.6	-2,195.8	3,212.0	25,640.0	226,580.0
Total Debt	4,801	53,577.4	91,276.6	0.0	2,500.0	71,553.0	1,042,099.0
Net Housing Wealth	6,135	154,034.7	174,479.9	0.0	50,000.0	200,000.0	3,500,000.0
Deposits	11,358	14,873.7	34,508.6	0.0	486.0	12,700.0	304,000.0
Total Gross Income	12,064	25,727.8	28,840.0	65.0	9,127.8	32,728.5	291,872.8

Table 5: Descriptive statistics by gender of household

All financial data, in Euros, is winsorized at bottom and top 1%. Net wealth is total wealth minus debt, Total Assets include real and financial assets, Wage and Self-Employment Income represent a year of income, Net Housing Wealth is the value of the household main residence minus outstanding amount of mortgage.

(a) Single Male Parent

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	634	164,832.0	158,308.0	-193,883.8	25,022.5	303,033.5	422,883.8
Total Assets	634	374,046.4	688,929.8	0.0	41,690.0	403,177.9	4,418,485.0
Real Assets	612	313,100.2	519,664.4	344.7	30,991.4	340,829.0	3,116,950.0
Financial Assets	608	69,198.6	216,318.3	0.0	1,189.8	40,043.8	1,478,584.0
Voluntary pension/life insurance	199	85,200.9	273,502.6	50.0	2,200.0	41,501.5	1,700,000.0
Wage	475	39,176.0	35,636.6	500.0	14,665.4	52,338.0	214,000.0
Self-employment Income	108	27,825.9	37,745.0	-2,195.8	4,978.2	35,325.0	$226,\!580.0$
Total Debt	383	100,037.6	140,562.7	0.0	12,993.5	140,000.0	1,512,027.0
Net Housing Wealth	429	254,902.8	273,096.6	938.0	95,680.0	300,000.0	2,500,000.0
Deposits	603	21,242.2	44,749.9	0.0	800.0	17,750.0	304,000.0
Total Gross Income	634	44,783.0	46,044.9	65.0	15,360.3	56,360.0	291,872.8

(b) Single Female Parent

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	2,973	93,700.1	131,236.8	-193,883.8	3,000.0	132,893.0	422,883.8
Total Assets	2,973	173,440.6	405,066.3	0.0	5,000.0	192,079.0	4,418,485.0
Real Assets	2,612	161,424.4	310,254.5	344.7	6,000.0	194,218.0	3,116,950.0
Financial Assets	2,837	28,693.2	119,001.6	0.0	360.0	15,440.0	1,478,584.0
Voluntary pension/life insurance	727	36,127.9	140,903.0	50.0	1,425.0	21,550.0	1,700,000.0
Wage	2,203	23,337.9	22,797.0	500.0	8,400.0	30,510.5	214,000.0
Self-employment Income	328	19,832.4	29,313.1	-2,195.8	2,480.0	25,050.0	226,580.0
Total Debt	1,586	60,535.5	134,707.0	0.0	2,201.0	80,550.2	2,895,397.0
Net Housing Wealth	1,504	189,181.0	217,242.0	648.0	60,120.0	237,728.5	2,800,000.0
Deposits	2,830	$11,\!110.5$	29,928.1	0.0	229.8	8,523.2	304,000.0
Total Gross Income	2,973	28,668.4	27,882.2	65	11,866	35,939	291,873

(c) Single Male household

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	6,225	100,266.7	135,413.6	-193,883.8	3,852.0	150,550.0	422,883.8
Total Assets	6,225	175,096.3	406,255.6	0.0	5,520.0	191,487.4	4,418,485.0
Real Assets	5,277	158,300.8	$318,\!573.5$	344.7	6,000.0	184,681.1	3,116,950.0
Financial Assets	5,841	38,950.9	126,292.4	0.0	656.0	25,442.0	1,478,584.0
Voluntary pension/life insurance	1,348	46,062.1	149,699.7	50.0	2,369.9	31,682.0	1,700,000.0
Wage	4,148	27,968.7	$25,\!516.4$	500.0	10,270.2	38,100.0	214,000.0
Self-employment Income	800	22,103.1	30,912.9	-2,195.8	3,993.7	27,028.4	226,580.0
Total Debt	2,548	59,706.8	95,531.2	0.0	3,027.8	81,000.0	1,010,000.0
Net Housing Wealth	2,990	160,290.4	187,216.8	350.0	50,470.2	200,000.0	3,500,000.0
Deposits	5,803	15,696.7	36,089.8	0.0	500.0	13,700.0	304,000.0
Total Gross Income	6,225	27,302.2	30,359.3	65.0	9,844.0	35,065.0	291,872.8

(d) Single Female household

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Net Wealth	5,839	95,959.7	127,426.5	-193,883.8	5,300.5	140,683.4	422,883.8
Total Assets	5,839	158,249.5	380,871.1	0.0	7,246.0	170,000.0	4,418,485.0
Real Assets	4,887	147,175.2	297,414.4	344.7	8,000.0	173,701.5	3,116,950.0
Financial Assets	5,579	32,592.1	116,010.8	0.0	600.0	20,139.5	1,478,584.0
Voluntary pension/life insurance	1,304	44,502.8	153,571.2	50.0	2,000.0	28,904.8	1,700,000.0
Wage	3,980	23,839.8	$22,\!108.5$	500.0	8,767.5	32,000.0	214,000.0
Self-employment Income	525	18,260.1	27,075.2	-2,195.8	2,300.0	22,543.0	226,580.0
Total Debt	2,253	46,645.5	85,706.7	0.0	2,000.0	61,362.4	1,042,099.0
Net Housing Wealth	3,145	148,087.4	161,246.9	0.0	48,600.3	193,882.0	1,800,629.0
Deposits	5,555	14,014.0	32,756.7	0.0	450.0	11,796.2	304,000.0
Total Gross Income	5,839	24,049.4	27,028.4	65.0	8,429.3	30,631.3	291,872.8

Table 6: Households' characteristics

(a) Single Male Parent

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Age	607	48.7	9.3	24.0	43.0	54.0	85.0
Possible to Save	547	0.3	0.5	0.0	0.0	1.0	1.0
Number of children in the household (0-13)	634	0.7	0.8	0	0	1	5
Total time in employment	537	26.8	9.6	-1.0	20.0	33.0	57.0
Financial assets as share of total gross assets	633	0.2	0.3	0.0	0.02	0.3	1.0
Household members aged 14+	634	1.8	0.7	1	1	2	4

(b) Single Female Parent

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Age	2,719	44.0	8.9	18.0	38.0	50.0	85.0
Possible to Save	2,678	0.3	0.4	0.0	0.0	1.0	1.0
Number of children in the household (0-13)	2,973	0.8	0.9	0	0	1	7
Total time in employment	2,548	20.3	9.4	-2.0	13.0	27.0	51.0
Financial assets as share of total gross assets	2,895	0.3	0.3	0.0	0.01	0.4	1.0
Household members aged 14+	2,973	1.8	0.8	1	1	2	8

(c) Single Male Household

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Age	5,877	44.8	12.9	16.0	34.0	56.0	64.0
Possible to Save	5,237	0.4	0.5	0.0	0.0	1.0	1.0
Total time in employment	5,063	22.9	12.5	-2.0	12.0	33.0	50.0
Financial assets as share of total gross assets	6,025	0.3	0.4	0.0	0.03	0.6	1.0

(d) Single Female Household

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Age	5,560	48.0	13.6	-2.0	37.0	59.0	64.0
Possible to Save	5,027	0.3	0.5	0.0	0.0	1.0	1.0
Total time in employment	4,768	24.8	12.9	-2.0	14.0	36.0	52.0
Financial assets as share of total gross assets	5,718	0.3	0.4	0.0	0.02	0.7	1.0

Table 7: The effect of children on net wealth with and without controls for household and labour characteristics

			Net Wealth		
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	-0.322*** (0.051)	-0.183^* (0.095)	-0.219** (0.095)	-0.232** (0.094)	-0.105 (0.112)
Single Parent Male	0.759*** (0.102)	0.820*** (0.128)	0.704*** (0.128)	0.683*** (0.127)	0.275^* (0.153)
Number of Dependent Children		0.224*** (0.063)	0.155** (0.063)	0.154** (0.062)	-0.017 (0.074)
Number of small children (0-13)		-0.596*** (0.058)	-0.515*** (0.058)	-0.504*** (0.057)	-0.274*** (0.067)
Single/Never Married			-0.403^{***} (0.083)	-0.401^{***} (0.083)	-0.117 (0.096)
Widowed			0.512*** (0.103)	0.557*** (0.102)	0.732*** (0.130)
Divorced			0.018 (0.086)	$0.040 \\ (0.085)$	0.071 (0.099)
Has Bachelor Degree				0.745*** (0.050)	0.214*** (0.058)
Log Wage					0.802*** (0.038)
Works part time					0.242*** (0.082)
Amount spent in goods and services					0.0001*** (0.00001)
Constant	3.059*** (0.088)	3.060*** (0.088)	3.259*** (0.118)	3.171*** (0.118)	0.219 (0.180)
COUNTRY FE Observations R ² Adjusted R ²	YES 15,671 0.049 0.047	YES 15,671 0.056 0.054	YES 15,670 0.068 0.066	YES 15,670 0.081 0.079	YES 8,445 0.182 0.179

Note: The table reports effects of child rearing for women and men on net wealth (measured in thousand EUR) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by consumption level over a year (5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 8: The effect of children on gross wealth with and without controls for household and labour characteristics

	_	I	og Gross Weal	th	
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	-0.119^{***} (0.039)	-0.022 (0.072)	-0.063 (0.072)	-0.077 (0.071)	0.008 (0.079)
Single Parent Male	0.813*** (0.077)	0.850*** (0.097)	0.737*** (0.097)	0.716*** (0.096)	0.265** (0.108)
Number of Dependent Children		0.179*** (0.048)	0.118** (0.048)	0.117** (0.047)	-0.012 (0.052)
Number of small children (0-13)		-0.459*** (0.044)	-0.390*** (0.044)	-0.379*** (0.043)	-0.134*** (0.047)
Single/Never Married			-0.442^{***} (0.063)	-0.441^{***} (0.062)	-0.270*** (0.067)
Widowed			0.243*** (0.078)	0.287*** (0.077)	0.359*** (0.092)
Divorced			-0.023 (0.065)	-0.001 (0.064)	-0.026 (0.070)
Has Bachelor Degree				0.734*** (0.038)	0.283*** (0.041)
Log Wage					0.789*** (0.026)
Works part time					0.111* (0.058)
Amount spent in goods and services					0.0001*** (0.00001)
Constant	2.886*** (0.067)	2.887*** (0.067)	3.136*** (0.089)	3.048*** (0.088)	0.245* (0.127)
COUNTRY FE Observations R^2 Adjusted R^2	YES 15,671 0.065 0.063	YES 15,671 0.072 0.071	YES 15,670 0.087 0.085	YES 15,670 0.108 0.107	YES 8,445 0.295 0.292

Note: The table reports effects of child rearing for women and men on gross wealth (measured in thousand EUR in logarithm scale) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by consumption level over a year (5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 9: The effect of children on financial assets with and without controls for household and labour characteristics

		Lo	g Financial Ass	sets	
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	-0.312^{***} (0.033)	-0.245^{***} (0.061)	-0.247^{***} (0.061)	-0.257^{***} (0.060)	-0.146** (0.069)
Single Parent Male	0.269*** (0.064)	0.295*** (0.082)	0.276*** (0.082)	0.260*** (0.081)	-0.085 (0.094)
Number of Dependent Children		0.124*** (0.040)	0.108*** (0.041)	0.108*** (0.040)	-0.037 (0.046)
Number of small children (0-13)		-0.320*** (0.037)	-0.301*** (0.037)	-0.295*** (0.037)	-0.085** (0.041)
Single/Never Married			-0.039 (0.054)	-0.036 (0.053)	0.117** (0.059)
Widowed			0.213*** (0.066)	0.246*** (0.066)	0.433*** (0.080)
Divorced			0.036 (0.055)	0.053 (0.055)	0.065 (0.061)
Has Bachelor Degree				0.520*** (0.032)	0.180*** (0.036)
Log Wage					0.612*** (0.023)
Works part time					0.154*** (0.051)
Amount spent in goods and services					0.0002*** (0.00001)
Constant	2.033*** (0.055)	2.034*** (0.055)	2.033*** (0.075)	1.969*** (0.074)	-0.357^{***} (0.111)
COUNTRY FE Observations R^2 Adjusted R^2	YES 14,865 0.135 0.133	YES 14,865 0.139 0.138	YES 14,864 0.141 0.140	YES 14,864 0.157 0.155	YES 8,173 0.363 0.360

Note: The table reports effects of child rearing for women and men on financial wealth (measured in thousand EUR and in logarithm scale) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by consumption level over a year (5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 10: The effect of children on savings with and without controls for household and labour characteristics

			Log Savings		
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	-0.321^{***} (0.039)	-0.268*** (0.071)	-0.279^{***} (0.071)	-0.277^{***} (0.071)	-0.101 (0.084)
Single Parent Male	0.079 (0.073)	0.092 (0.095)	$0.049 \\ (0.095)$	0.043 (0.095)	-0.205^* (0.113)
Number of Dependent Children		0.129*** (0.047)	0.104** (0.047)	0.101** (0.046)	0.019 (0.055)
Number of small children (0-13)		-0.314*** (0.042)	-0.289*** (0.042)	-0.283*** (0.042)	-0.137*** (0.050)
Single/Never Married			-0.182^{***} (0.069)	-0.189*** (0.069)	-0.012 (0.080)
Widowed			0.150* (0.085)	0.162^* (0.085)	0.216** (0.108)
Divorced			-0.064 (0.071)	-0.065 (0.071)	-0.065 (0.083)
Has Bachelor Degree				0.294*** (0.035)	0.101** (0.041)
Log Wage					0.450*** (0.028)
Works part time					0.135** (0.061)
Amount spent in goods and services					0.0001*** (0.00001)
Constant	2.081*** (0.054)	2.081*** (0.054)	2.204*** (0.086)	2.175*** (0.086)	0.394*** (0.136)
COUNTRY FE Observations R^2 Adjusted R^2	YES 8,024 0.096 0.094	YES 8,024 0.103 0.100	YES 8,023 0.107 0.104	YES 8,023 0.115 0.112	YES 4,870 0.213 0.208

Note: The table reports effects of child rearing for women and men on savings (measured in thousand EUR and in logarithm scale) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by consumption level over a year (5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 11: The effect of children on total debt with and without controls for household and labour characteristics

			Log Total De	ebt	
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	0.089* (0.046)	-0.042 (0.084)	-0.066 (0.084)	-0.089 (0.083)	-0.118 (0.100)
Single Parent Male	0.672*** (0.084)	0.541*** (0.109)	0.494*** (0.109)	0.478*** (0.108)	0.086 (0.130)
Number of Dependent Children		0.093* (0.053)	0.084 (0.053)	0.092* (0.053)	0.012 (0.063)
Number of small children (0-13)		-0.022 (0.048)	-0.021 (0.048)	-0.020 (0.048)	0.164*** (0.058)
Single/Never Married			-0.347*** (0.080)	-0.343*** (0.079)	-0.286^{***} (0.092)
Widowed			-0.537^{***} (0.105)	-0.508*** (0.104)	-0.457^{***} (0.131)
Divorced			-0.186^{**} (0.081)	-0.168** (0.080)	-0.209** (0.093)
Has Bachelor Degree				0.459*** (0.046)	0.241*** (0.054)
Log Wage					0.594*** (0.037)
Works part time					-0.125 (0.086)
Amount spent in goods and services					0.0001*** (0.00001)
Constant	1.873*** (0.096)	1.877*** (0.096)	2.171*** (0.122)	2.114*** (0.122)	0.022 (0.183)
COUNTRY FE Observations R^2 Adjusted R^2	YES 6,770 0.186 0.183	YES 6,770 0.186 0.183	YES 6,769 0.191 0.187	YES 6,769 0.203 0.199	YES 3,908 0.337 0.332

Note: The table reports effects of child rearing for women and men on total debt (measured in thousand EUR and in logarithm scale) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by consumption level over a year (5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 12: The effect of children on consumption with and without controls for household and labour characteristics

			Log Consumpti	on	
	(1)	(2)	(3)	(4)	(5)
Single Parent Female	0.230*** (0.016)	0.084^{***} (0.029)	0.081*** (0.029)	0.075^{***} (0.029)	0.003 (0.040)
Single Parent Male	0.424*** (0.032)	0.270*** (0.040)	0.265*** (0.040)	0.258*** (0.040)	-0.006 (0.052)
Number of Dependent Children		0.155*** (0.019)	0.156*** (0.020)	0.156*** (0.019)	0.169*** (0.025)
Number of small children (0-13)		-0.122^{***} (0.018)	-0.125*** (0.018)	-0.120*** (0.018)	-0.066^{***} (0.023)
Single/Never Married			-0.088^{***} (0.026)	-0.087^{***} (0.025)	-0.097^{***} (0.037)
Widowed			-0.147^{***} (0.031)	-0.125^{***} (0.031)	-0.056 (0.053)
Divorced			-0.071^{***} (0.026)	-0.059** (0.026)	-0.096** (0.038)
Has Bachelor Degree				0.315*** (0.016)	0.087*** (0.022)
Log Wage					0.424*** (0.014)
Works part time					$0.032 \\ (0.035)$
Debt to asset ratio					0.00000 (0.00001)
Constant	7.565*** (0.026)	7.569*** (0.026)	7.652*** (0.036)	7.613*** (0.035)	6.297*** (0.074)
COUNTRY FE Observations R ² Adjusted R ²	YES 13,673 0.257 0.256	YES 13,673 0.261 0.260	YES 13,672 0.263 0.261	YES 13,672 0.283 0.282	YES 3,908 0.457 0.452

Note: The table reports effects of child rearing for women and men on consumption over a year (measured in thousand EUR and in logarithm scale) estimated without controls (1), controlling for number of children and number of small children (2), controlling for children and marital status (3), controlling for children, marital status and if the adult has a bachelor degree (4), and controlling for household characteristics named above and log wage (annual employee income), if the household works part time and by debt to asset ratio(5). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 13: The effect of children on wealth accumulation until retirement age by gender

	25-34	Age C	4	
	25-34		roup	
		35-44	45-54	55-64
	(1)	(2)	(3)	(4)
Single Parent Male	0.112	-0.028	-0.056	0.045
	(0.142)	(0.051)	(0.046)	(0.098)
Single Parent Female	-0.145**	-0.122***	-0.157***	-0.131
C: L II L L LLIM L	(0.059)	(0.029)	(0.031)	(0.089)
Single Household Male	-0.087***	-0.062**	-0.063**	0.038
Single Household Female	(0.029) $-0.130***$	(0.027) $-0.127***$	(0.031) $-0.119***$	(0.047) $-0.141***$
Single Household Female	(0.035)	(0.033)	(0.033)	(0.041)
Log Debt	0.535***	0.419***	0.312***	0.248***
Log Debt	(0.029)	(0.015)	(0.014)	(0.023)
Log Wage	0.0004	-0.019**	0.015	-0.016
208 11480	(0.014)	(0.010)	(0.010)	(0.015)
Log Mortgage Main House	0.936***	0.927***	0.920***	0.898***
	(0.018)	(0.011)	(0.012)	(0.019)
Log Value Main House	-0.538****	-0.405****	-0.276****	-0.193****
Ŭ	(0.029)	(0.014)	(0.014)	(0.022)
Number of children	-0.004	0.003	-0.010	-0.009
	(0.008)	(0.006)	(0.006)	(0.015)
Received Large Inheritance (past 3 years)	0.094***	0.100***	0.133***	0.154***
	(0.017)	(0.012)	(0.013)	(0.023)
Has Bachelor Degree	0.052***	0.054***	0.071***	0.116***
	(0.019)	(0.014)	(0.016)	(0.027)
Has Master or PhD	0.074***	0.139***	0.097***	0.196***
	(0.021)	(0.015)	(0.018)	(0.029)
Is a Manager	0.115***	0.141***	0.164***	0.225***
W 1 · C · 1 · · ·	(0.029)	(0.017)	(0.019)	(0.034)
Works in Science and Engineering	0.042	0.011	0.068**	-0.019
Walasia Classian	(0.034)	(0.024)	(0.031)	(0.050)
Works in Cleaning	-0.028 (0.092)	-0.057 (0.061)	-0.172*** (0.050)	-0.122 (0.079)
Single/Never Married	-0.190^*	0.079	0.042	0.079
Single/Never Married	(0.114)	(0.079)	(0.054)	(0.066)
Widow	-0.033	-0.010	-0.004	-0.080**
11 Idon	(0.046)	(0.025)	(0.022)	(0.032)
Divorced	-0.025	-0.008	-0.028	0.035
	(0.063)	(0.046)	(0.048)	(0.103)
COUNTRY FE	YES	YES	YES	YES
Observations	1,771	4,541	4,461	2,038
R ²	0.869	0.848	0.824	0.792
Adjusted R ²	0.866	0.847	0.823	0.788

Note: The table reports effects of child rearing for women and men on gross wealth (measured in thousand EUR and in logarithm scale) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 14: The effect of children on financial wealth accumulation until retirement age by gender

		Financia	l Wealth	
		Age (•	
	25-34	35-44	45-54	55-64
	(1)	(2)	(3)	(4)
Single Parent Male	0.087	0.044	-0.080	-0.180
	(0.545)	(0.183)	(0.155)	(0.292)
Single Parent Female	-0.350	-0.019	-0.104	0.196
	(0.231)	(0.103)	(0.102)	(0.272)
Single Household Male	-0.211*	0.061	-0.096	0.144
	(0.117)	(0.100)	(0.105)	(0.148)
Single Household Female	-0.286**	0.015	0.083	0.238*
	(0.137)	(0.117)	(0.112)	(0.137)
Wage	0.268***	0.439***	0.437***	0.418***
	(0.059)	(0.040)	(0.038)	(0.054)
Total Time in Employment	0.019**	0.0003	-0.002	-0.002
	(0.009)	(0.005)	(0.004)	(0.006)
Has Self-employment income	0.282***	0.415***	0.436***	0.389***
	(0.094)	(0.059)	(0.060)	(0.099)
Hours Working a Week	0.007	0.004	0.002	-0.002
<u> </u>	(0.004)	(0.003)	(0.002)	(0.004)
Mortgage Main House	0.602***	0.534***	0.579***	0.486***
	(0.071)	(0.042)	(0.041)	(0.061)
Value Main House	-0.194***	-0.158***	-0.144***	-0.127***
	(0.050)	(0.026)	(0.022)	(0.033)
Number of children	-0.107***	-0.027	-0.036	-0.050
rumour or omitaren	(0.038)	(0.023)	(0.023)	(0.049)
Received Large Inheritance (past 3 years)	0.165**	0.210***	0.362***	0.445***
received harge innertuance (past 5 years)	(0.068)	(0.045)	(0.046)	(0.075)
Has Bachelor Degree	0.440***	0.350***	0.342***	0.230**
That Dachelor Degree	(0.078)	(0.055)	(0.058)	(0.092)
Has Master or PhD	0.693***	0.689***	0.418***	0.480***
Thas Master of This	(0.090)	(0.059)	(0.063)	(0.099)
Is a Manager	0.078	0.259***	0.343***	0.441***
is a Manager	(0.105)	(0.060)	(0.062)	(0.106)
Works in Science and Engineering	0.007	0.066	0.318***	0.092
Works in Science and Engineering				
Werlin in Cleaning	(0.144) -0.271	(0.093)	(0.107)	(0.168)
Works in Cleaning		-0.296	-0.343**	0.013
G: 1 /N M : 1	(0.385)	(0.220)	(0.170)	(0.276)
Single/Never Married	-0.667*	0.257	-0.003	0.187
XX7- 1	(0.392)	(0.247)	(0.170)	(0.201)
Widow	0.108	-0.158*	-0.213***	-0.342***
D: 1	(0.181)	(0.091)	(0.075)	(0.104)
Divorced	0.173	0.118	0.161	0.329
	(0.219)	(0.151)	(0.147)	(0.296)
COUNTRY FE	YES	YES	YES	YES
Observations	1,282	3,537	3,584	1,547
\mathbb{R}^2	0.431	0.474	0.466	0.441
Adjusted R^2	0.415	0.469	0.461	0.428

Note: The table reports effects of child rearing for women and men on financial wealth (measured in thousand EUR and in logarithm scale) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 15: The effect of children on net wealth until retirement age by gender

		Net V	Vealth	
		Age (Group	
	25-34	35-44	45-54	55-64
	(1)	(2)	(3)	(4)
Single Parent Male	1.063	-0.145	-0.003	0.400
	(0.941)	(0.235)	(0.179)	(0.320)
Single Parent Female	-0.600	-0.368***	-0.373***	-0.292
	(0.385)	(0.135)	(0.116)	(0.298)
Single Household Male	-0.405**	-0.038	0.119	0.269^*
	(0.199)	(0.132)	(0.119)	(0.160)
Single Household Female	-0.751***	-0.278*	-0.230^*	-0.120
	(0.233)	(0.154)	(0.128)	(0.148)
Log Wage	0.131	-0.083*	-0.011	0.035
	(0.097)	(0.050)	(0.041)	(0.056)
Total Time in Employment	0.007	0.008	-0.001	0.007
	(0.016)	(0.006)	(0.005)	(0.006)
Mortgage Main House	2.492***	1.930***	1.667***	1.514***
	(0.120)	(0.055)	(0.047)	(0.065)
Value Main House	-1.550***	-0.774***	-0.534***	-0.450***
	(0.085)	(0.034)	(0.025)	(0.036)
Number of children	-0.141**	-0.032	-0.013	-0.102*
	(0.066)	(0.030)	(0.026)	(0.053)
Received Large Inheritance (past 3 years)	0.277**	0.230***	0.174***	0.234***
,	(0.117)	(0.060)	(0.052)	(0.081)
Has Bachelor Degree	0.320**	0.150**	0.176***	0.159
	(0.133)	(0.072)	(0.066)	(0.100)
Has Master or PhD	0.362**	0.345***	0.148**	0.376***
	(0.154)	(0.078)	(0.071)	(0.106)
Is a Manager	-0.125	0.184**	0.164**	0.378***
-	(0.179)	(0.078)	(0.070)	(0.113)
Works in Science and Engineering	0.135	0.074	0.071	-0.063
0 0	(0.246)	(0.124)	(0.124)	(0.184)
Works in Cleaning	$0.541^{'}$	-0.306	-0.707***	-0.251
Ü	(0.666)	(0.293)	(0.194)	(0.291)
Single/Never Married	-0.682	0.263	0.261	0.010
3 47	(0.678)	(0.324)	(0.195)	(0.217)
Widow	-0.113	-0.160	-0.153*	-0.434***
	(0.306)	(0.120)	(0.086)	(0.113)
Divorced	0.197	0.158	0.220	0.053
-	(0.375)	(0.201)	(0.169)	(0.323)
COUNTRY FE	YES	YES	YES	YES
Observations	1,312	3,614	3,642	1,587
R ²	0.426	0.442	0.458	0.468
R- Adjusted R ²				
Aujusted n	0.411	0.437	0.453	0.457

Note: The table reports effects of child rearing for women and men on net wealth (measured in thousand EUR) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 16: The effect of children on real assets until retirement age by gender

	Real Assets			
		Age (Group	
	25-34	35-44	45-54	55-64
	(1)	(2)	(3)	(4)
Single Parent Male	-0.748**	-0.184	-0.279***	0.058
	(0.379)	(0.134)	(0.105)	(0.188)
Single Parent Female	-0.515***	-0.380***	-0.447***	-0.518***
	(0.136)	(0.069)	(0.064)	(0.123)
Single Household Male	-0.337***	-0.333***	-0.507***	-0.609***
	(0.080)	(0.067)	(0.058)	(0.064)
Single Household Female	-0.463^{***}	-0.291***	-0.483^{***}	-0.527^{***}
	(0.091)	(0.080)	(0.061)	(0.058)
Log Wage	0.566***	0.604***	0.476***	0.332***
	(0.040)	(0.026)	(0.021)	(0.023)
Total Time in Employment	0.069***	0.028***	0.018***	0.012***
	(0.007)	(0.003)	(0.002)	(0.002)
Has Self-Employment Wealth	0.876***	0.775***	0.783***	0.733***
	(0.076)	(0.045)	(0.037)	(0.043)
Possible to save	0.032	0.084***	0.096***	0.006
	(0.050)	(0.032)	(0.028)	(0.034)
Number of children	0.083***	0.142***	0.097***	0.064***
	(0.029)	(0.017)	(0.014)	(0.025)
Received Large Inheritance (past 3 years)	0.727***	0.506***	0.481***	0.510***
	(0.057)	(0.035)	(0.030)	(0.034)
Has Bachelor Degree	0.535***	0.389***	0.393***	0.301***
	(0.061)	(0.041)	(0.036)	(0.044)
Has Master or PhD	0.490***	0.469***	0.502***	0.614***
	(0.070)	(0.045)	(0.040)	(0.045)
Is a Manager	0.295***	0.348***	0.443***	0.526***
	(0.098)	(0.050)	(0.042)	(0.051)
Works in Science and Engineering	-0.086	0.016	0.292***	0.161*
	(0.111)	(0.077)	(0.074)	(0.087)
Works in Cleaning	-0.647***	-0.605***	-0.625***	-0.666***
	(0.206)	(0.119)	(0.082)	(0.088)
Single/Never Married	0.523**	-0.064	0.243***	0.207***
	(0.219)	(0.155)	(0.086)	(0.074)
Widow	0.008	-0.133**	-0.083*	-0.152***
	(0.129)	(0.061)	(0.045)	(0.051)
Divorced	0.876***	1.259***	0.795***	0.862***
	(0.170)	(0.108)	(0.095)	(0.117)
COUNTRY FE	YES	YES	YES	YES
Observations	3,969	7,588	9,413	6,737
R ²	0.291	0.365	0.384	0.379
Adjusted R^2	0.286	0.362	0.384 0.382	0.376

Note: The table reports effects of child rearing for women and men on real assets (measured in thousand EUR and in logarithm scale) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 17: The effect of children on consumption until retirement age by gender

	Consumption				
			Age Group		
	15-24	25-34	35-44	45-54	55-64
	(1)	(2)	(3)	(4)	(5)
Single Parent Male		-0.140	-0.179**	-0.126**	-0.107
		(0.263)	(0.074)	(0.062)	(0.110)
Single Parent Female	-0.200	-0.117	-0.090**	-0.125***	0.023
	(0.159)	(0.108)	(0.043)	(0.041)	(0.103)
Single Household Male	-0.205***	-0.189***	-0.205***	-0.182***	-0.253***
	(0.061)	(0.056)	(0.042)	(0.042)	(0.055)
Single Household Female	-0.267***	-0.208***	-0.110**	-0.258***	-0.224***
	(0.065)	(0.066)	(0.049)	(0.045)	(0.051)
Log Wage	0.220***	0.232***	0.353***	0.309***	0.302***
	(0.034)	(0.028)	(0.017)	(0.015)	(0.020)
Total Time in Employment	0.0005	0.009**	0.007***	-0.001	-0.001
1 0	(0.009)	(0.004)	(0.002)	(0.002)	(0.002)
Has Self-Employment Wealth	0.240***	$0.045^{'}$	0.253***	0.160***	0.182***
r vy	(0.088)	(0.045)	(0.024)	(0.024)	(0.036)
Mortgage Main House	(0.000)	0.196***	0.245***	0.236***	0.225***
mortgage main from		(0.034)	(0.017)	(0.016)	(0.022)
Value Main House		0.001	-0.042***	-0.022**	-0.003
varde Walli House		(0.024)	(0.011)	(0.009)	(0.012)
Number of children	-0.031	0.008	0.071***	0.071***	0.065***
Number of children	(0.049)	(0.018)	(0.010)	(0.009)	(0.018)
Received Large Inheritance (past 3 years)	0.016	0.085***	0.021	0.074***	0.066**
received Large Inheritance (past 3 years)	(0.061)	(0.033)	(0.019)	(0.018)	(0.028)
H Dll D	0.186***	(/	0.141***	0.127***	0.102***
Has Bachelor Degree		0.099***	-		
H. M. M. et en en Dl. D	(0.059)	(0.037)	(0.023)	(0.023)	(0.034)
Has Master or PhD	0.225**	0.232***	0.278***	0.227***	0.192***
T 16	(0.106)	(0.043)	(0.025)	(0.025)	(0.037)
Is a Manager	0.225	0.181***	0.139***	0.121***	0.147***
	(0.267)	(0.050)	(0.025)	(0.025)	(0.039)
Works in Science and Engineering	-0.106	0.119*	-0.024	0.051	0.084
	(0.159)	(0.069)	(0.039)	(0.043)	(0.063)
Works in Cleaning	-0.305**	-0.015	-0.108	-0.141**	-0.139
	(0.144)	(0.186)	(0.092)	(0.068)	(0.100)
Single/Never Married	0.043	-0.165	-0.041	-0.006	-0.086
	(0.161)	(0.190)	(0.102)	(0.068)	(0.074)
Widow	0.038	0.126	-0.013	-0.045	-0.059
	(0.112)	(0.085)	(0.038)	(0.030)	(0.039)
Divorced	0.066	0.084	0.251***	0.186***	0.059
	(0.249)	(0.105)	(0.063)	(0.059)	(0.111)
COUNTRY FE	YES	YES	YES	YES	YES
Observations	602	1,312	3,614	3,642	1,587
R^2	0.416	0.459	0.619	0.626	0.630
Adjusted R ²	0.385	0.445	0.616	0.622	0.621
rajasoca ri	0.000	0.440	0.010	0.044	0.021

Note: The table reports effects of child rearing for women and men on consumption (measured in thousand EUR and in logarithm scale) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 18: The effect of children on savings until retirement age by gender

	Savings			
		Age (Group	
	25-34	35-44	45-54	55-64
	(1)	(2)	(3)	(4)
Single Parent Male	-0.584	-0.250	-0.152	-0.568*
	(0.621)	(0.200)	(0.165)	(0.332)
Single Parent Female	0.214	0.008	-0.072	-0.242
	(0.341)	(0.126)	(0.114)	(0.271)
Single Household Male	-0.174	-0.192*	-0.246**	-0.170
G. 1 W. 1 11 P. 1	(0.134)	(0.113)	(0.115)	(0.163)
Single Household Female	-0.240	-0.146	0.096	-0.085
T 117	(0.156)	(0.130)	(0.121)	(0.142)
Log Wage	0.196***	0.309***	0.266***	0.318***
m + 1 m; ; p 1	(0.064)	(0.044)	(0.040)	(0.057)
Total Time in Employment	0.005	-0.011**	-0.005	-0.004
Mantana Main Hanna	(0.011) $0.635***$	(0.006)	(0.005)	(0.007)
Mortgage Main House		0.416***	0.365***	0.220***
Value Main House	(0.085) $-0.204***$	(0.051) $-0.218***$	(0.046) $-0.168***$	(0.069) $-0.146***$
value Main House				
Number of children	$(0.057) \\ -0.050$	(0.029) -0.004	(0.023) 0.010	(0.036) 0.001
Number of children	(0.043)	(0.026)	(0.025)	(0.049)
Received Large Inheritance (past 3 years)	0.204***	0.187***	0.246***	0.307***
received Large Inheritance (past 3 years)	(0.075)	(0.050)	(0.049)	(0.078)
Has Bachelor Degree	0.376***	0.219***	0.287***	0.188**
Tras Bachelor Degree	(0.087)	(0.062)	(0.061)	(0.096)
Has Master or PhD	0.607***	0.461***	0.318***	0.217**
Trais Masser of The	(0.102)	(0.068)	(0.068)	(0.104)
Is a Manager	-0.018	0.101	0.161**	0.299***
	(0.116)	(0.065)	(0.065)	(0.109)
Works in Science and Engineering	0.097	0.130	0.277**	-0.088
	(0.165)	(0.101)	(0.108)	(0.167)
Works in Cleaning	-0.040	-0.531^{*}	-0.359^{*}	-0.044
9	(0.413)	(0.291)	(0.195)	(0.325)
Single/Never Married	-0.938^{*}	-0.160	0.033	$0.085^{'}$
0 /	(0.514)	(0.413)	(0.206)	(0.232)
Widow	$0.332^{'}$	-0.124	-0.152^{*}	-0.194^{*}
	(0.251)	(0.110)	(0.086)	(0.110)
Divorced	-0.142	-0.091	-0.421***	-0.493*
	(0.226)	(0.153)	(0.143)	(0.280)
COUNTRY FE	YES	YES	YES	YES
Observations	995	2,600	2,654	1,106
R^2	0.329	0.305	0.270	0.260
Adjusted R ²	0.306	0.296	0.261	0.237

Note: The table reports effects of child rearing for women and men on savings (measured in thousand EUR and in logarithm scale) by age groups. All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

Table 19: Quantile: The effect of children on net wealth by gender

			Net Wealth		
			Quantiles		
	(1)	(2)	(3)	(4)	(5)
Single Parent Male	0.203	0.050	-0.043	-0.041	-0.146
	(0.127)	(0.063)	(0.043)	(0.061)	(0.187)
Single Parent Female	-0.212****	-0.171***	-0.089****	-0.184****	-0.406***
~	(0.077)	(0.038)	(0.026)	(0.037)	(0.113)
Single Household Male	0.101	0.009	-0.008	-0.057^{*}	-0.161^{*}
~	(0.066)	(0.033)	(0.022)	(0.032)	(0.097)
Single Household Female	-0.169**	-0.118****	-0.065***	-0.180****	-0.382***
C	(0.070)	(0.035)	(0.024)	(0.034)	(0.103)
Log Wage	$0.035^{'}$	0.024**	0.022***	$0.007^{'}$	-0.058^{*}
	(0.024)	(0.012)	(0.008)	(0.011)	(0.034)
Total Time in Employment	0.015***	0.010***	0.008***	0.012***	0.020***
1 0	(0.002)	(0.001)	(0.001)	(0.001)	(0.003)
Mortgage Main House	1.680***	1.490***	1.374***	1.254***	0.993***
	(0.028)	(0.014)	(0.009)	(0.014)	(0.041)
Value Main House	-0.431***	-0.393***	-0.361***	-0.279***	-0.145^{***}
	(0.016)	(0.008)	(0.005)	(0.008)	(0.024)
Number of children	0.020	0.019**	0.013***	$0.002^{'}$	0.020
	(0.015)	(0.007)	(0.005)	(0.007)	(0.022)
Received Large Inheritance (past 3 years)	0.118***	0.124***	0.156***	0.244***	0.387***
(1)	(0.032)	(0.016)	(0.011)	(0.015)	(0.047)
Has Bachelor Degree	0.130***	0.090***	0.087***	0.160***	0.266***
	(0.038)	(0.019)	(0.013)	(0.018)	(0.055)
Has Master or PhD	0.213***	0.153***	0.151***	0.266***	0.378***
	(0.041)	(0.020)	(0.014)	(0.020)	(0.060)
Is a Manager	0.082*	0.094***	0.144***	0.260***	0.582***
	(0.045)	(0.022)	(0.015)	(0.022)	(0.066)
Works in Science and Engineering	-0.029	$0.036^{'}$	0.040	0.110***	-0.035
3 3	(0.074)	(0.036)	(0.025)	(0.035)	(0.108)
Works in Cleaning	-0.253^*	-0.147**	-0.100**	-0.189***	-0.406**
3	(0.138)	(0.068)	(0.046)	(0.066)	(0.203)
Single/Never Married	0.161	0.130**	0.011	0.050	0.130
3 7	(0.123)	(0.060)	(0.041)	(0.059)	(0.180)
Widow	-0.184***	-0.027	-0.074***	-0.061**	-0.080
	(0.055)	(0.027)	(0.018)	(0.026)	(0.080)
Divorced	0.191*	-0.034	-0.012	-0.016	0.102
	(0.112)	(0.055)	(0.038)	(0.054)	(0.165)
COUNTRY FE	,	,	,		
Observations Observations	YES	YES	YES	YES	YES
Observations	11,390	11,390	11,390	11,390	11,390

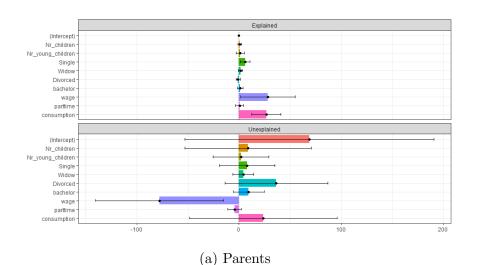
Note: The table reports effects of child rearing for women and men on net wealth (measured in thousand EUR) by quantiles (10%, 25%, 50%, 75%, 95%). All regressions include fixed effects for country. The sample consists of single adult households in four groups: Single Parent Female, Single Household Female, Single Parent Male, Single Household Male in all 20 European countries surveyed in 2016. Wealth observations are winsorized at top and bottom 1%. Significance levels are indicated as follows: *p<0.1; **p<0.05; ***p<0.01

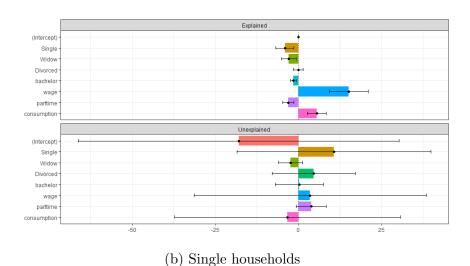
Table 20: Blinder-Oaxaca decomposition of net wealth gender gap

	Explained	Unexplained		
	Overall	Male	Female	
Parents	$45,\!13\%$	44,97%	10%	
Single Households	$94,\!8\%$	2,5%	$2,\!6\%$	

Note: The table reports the twofold Blinder-Oaxaca method results of the gender gap in net wealth by groups of households. Percentages indicate how much of the gap is explained by the model showed table 7 and how much is due to unexplained characteristics of men and women. Wealth observations are winsorized at top and bottom 1%.

Figure 5: The explained and unexplained components of a twofold Blinder-Oaxaca decomposition of men vs. women





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Appendix A

The Household Finance and Consumption Survey (HFCS)

The HFCS collects information on the assets, liabilities, income, credit constraints and consumption of households. The HFCS questionnaire consists of questions relating to the household as a whole, including real assets and their financing, other liabilities and credit constraints, private businesses, financial assets, intergenerational transfers and gifts, and consumption and saving. It also provides responses to questions relating to individual household members, covering demographics (for all household members), employment, future pension entitlements and income (for household members aged 16 and over).

The total sample size provided by the HFCS in three waves contains more than 360,000 individuals. In terms of households, more than 84,000 households in waves 2 and 3 and over 60,000 in wave 1. The reference period for the first wave is 2010 and, for the second, 2013 and 2014. The third wave's reference years are 2016 and 2017. HFCS is a collaboration of Eurosystem national central banks, central banks from Hungary and Poland, and many others national statistical institutes.

The HFCS is conducted in a decentralized fashion and the European Central Bank (ECB) in conjunction with the Household Finance and Consumption Network coordinates the whole project, determining a common methodology, pooling the country datasets as well as centralizing the dissemination of results. Survey information in the HFCS is mostly collected through Computer-Assisted Personal Interviews, meaning face-to-face interviews administered by an interviewer who records responses.

Household characteristics - HFCS wave 3

Table 21: Household descriptives in the whole survey (reference year 2016)

Country	n	%	\sum %
Austria	3072	3.6	3.6
Belgium	2329	2.8	6.4
Cyprus	1303	1.5	7.9
Germany	4942	5.8	13.7
Estonia	2679	3.2	16.9
Finland	10210	12.0	28.9
France	13685	16.1	45.1
Greece	3007	3.5	48.6
Croatia	1357	1.6	50.2
Hungary	5968	7.0	57.2
Ireland	4793	5.6	62.9
Italy	7420	8.8	71.7
Lithuania	1664	2.0	73.6
Luxembourg	1616	1.9	75.5
Latvia	1249	1.5	77.0
Malta	1004	1.2	78.2
Netherlands	2556	3.0	81.2
Poland	5858	6.9	88.1
Portugal	5924	7.0	95.1
Slovenia	2014	2.4	97.4
Slovakia	2179	2.6	100.0
Total	84829	100.0	
Household Head			
Male	51742	61.0	61.0
Female	33085	39.0	100.0
Age Group			
16-24	1597	2.0	2.0
25-34	7018	8.9	10.9
35-44	12363	15.6	26.5
45-54	15915	20.1	46.7
55-64	16952	21.4	68.1
65-74	13998	17.7	85.8
75+	11183	14.2	100.0
Education	·		
Primary	10653	12.6	12.6
Secondary	10700	12.6	25.2

Upper-Secondary	34246	40.4	65.6
Short Tertiary	15513	18.3	83.9
Master	11942	14.1	97.9
PhD	1748	2.1	100.0
Labour Status			
Employed	40929	48.2	48.2
Self-Employed	8470	10.0	58.2
Unemployed	3189	3.8	62.0
Retired	27681	32.6	94.6
Other	4560	5.4	100.0
Marital Status			
Single/Never Married	17008	20.1	20.1
Married	46229	54.5	74.5
Cohabitant	1669	2.0	76.5
Widowed	10280	12.1	88.6
Divorced	9639	11.4	100.0

Quantile regression raw effects

Figure 6: Quantile raw effects on net wealth: SPM - Single Parent Male, SPF - Single Parent Female, SHHM- Single Household Male, SHHF - Single Household Female

