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Portfolio choice: Evidence from new-borns

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Abstract

This paper analyzes the role of newborn gender in households' investment decisions. The results indicate that newborn gender is a significant predictor of both the reallocation of financial wealth across different types of financial assets and households' investment diversification. Parenting a new baby boy is associated with a higher reallocation of wealth towards cash while the share of financial wealth allocated to risky assets decreases. A new baby boy also significantly reduces the magnitude of portfolio diversification. We find no evidence that the relationship between newborn gender and investment allocation is driven by third variables that simultaneously affect gender and financial decisions. The relationship between newborn gender and the financial decision is particularly relevant to disentangle unconscious gender bias in households' investment decisions.

JEL classification: G11, D14.

Keywords: Investment choice, Investment decision, Household savings, Gender, Newborns.

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1. Introduction

Gender bias affects several aspects of life. Gender-biased hiring has been alleged for many occupations. In symphony orchestras, the blind audition procedure fostered impartiality in hiring and increased the proportion of women in orchestras (Goldin and Rouse, 2000). Gender bias extend to compensation (Price, 2012). Although women participation in the top executive ranks recently increased, their relative compensation did not increase accordingly and female top managers still face a pay gap in listed companies (Bertrand and Hallock, 2001). In fact, the gender pay gap includes, but it is not limited to, lawyers, university faculty, engineers and physicians (Wood, Corcoran, and Courant, 1993; Baker, 1996; Morgan, 1998; Gander, 1997).

Financial industry is not an exception. The 2018 report for the 2020WOB shows that half of the companies in the Russell 3000 Index have one or no women on their boards.[1] Venture capital firms hire few female partners although greater gender diversity improves deal and fund performances (Gompers and Wang, 2017a,b). Similar evidence has been found in the mutual fund industry where female managers receive fewer fund and are less likely to be promoted than male fund managers (Barber, Scherbina, and Schlusche, 2017; Niessen-Ruenzi and Ruenzi, 2018).

Gender biases also influence household's behaviour. In disadvantaged families, fathers of sons support their families more than fathers of daughters (Garcia, Heckmanb, and Ziff, 2018). A first-born son is significantly more likely to be living with his father compared to a first-born daughter; the evidence supports the explanation that parents favour boys over girls (Dahl and Moretti, 2008). In addition, parents exhibit systematic biases when forced to choose between spending on sons and daughters. Mothers consistently favor daughters, whereas fathers, who are usually the higher income earners and responsible for families' investment decisions, consistently favor sons (Nikiforidis, Durante, Redden, and Griskevicius, 2018).

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[1]https://www.2020wob.com/sites/default/files/2020WOB_GDI_Report_2018_FINAL.pdf

In this paper we ask whether gender biases influence household's investment choices. In particular, we examine how newborn gender relates to the share of financial wealth held in several asset categories and to overall portfolio diversification. The answer has implications for understanding how household's beliefs influence the use of financial instruments to achieve household's objectives and for determining the optimal regulatory response, if any.

We use data from the Survey of Household Income and Wealth (SHIW), conducted by the Bank of Italy every two years, which is the main source of information on the financial behaviour of Italian households at the micro level (Iezzi, 2008), and take advantage of the birth of a child as a natural experiment to analyze the impact of gender bias on household's investment choices. One may claim that the decision to have a child is not entirely exogenous, thus there may be unobserved variables that affect both such decision and investment allocation. While this may be true for the *decision* to have a child, it does not necessarily hold for the *actual* parenthood. When we examine the average effect of a newborn, regardless of the gender, on investment allocation, consistently with standard asset allocation models we find that having a child reduces the share of financial wealth held in liquidity, such as cash, and increases the share allocated to longer term investments, like risky assets.

Since the gender of the newborn is undoubtedly exogenous, we are able to address possible endogeneity concerns and to offer causal evidence on the effect that having a baby boy rather than a baby girl in the household produces on investment choices. When considering financial decisions in terms of fraction of wealth held in each asset, we find that having baby girls significantly reduces the share of liquid assets represented by cash while this effect is halved when the new baby is a boy. The additional financial wealth moved away from cash when the newborn is a girl is used to increase the share of retirement benefits and risky assets. In particular, the share of financial wealth invested in risky assets significantly increases when the newborn is a girl but this effect is fully offset by a boy. When looking at portfolio choice in terms of overall diversification, we find that households having a baby boy diversify less their portfolio as compared to households having a baby girl. Finally, when considering the

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birth order effect, we find that the evidence of an effect of newborn gender on household's decision to allocate their wealth among the several asset categories is driven by firstborn children, while for overall portfolio diversification, despite the heterogeneity is bigger for firstborn children, there is also evidence of a gender effect for other children.

Our evidence points to the existence of a gender bias in household's investment decisions. To interpret our findings, we follow a framework based on Glynn and Sen (2015). Personal relationships (e.g., having daughters) could play a key role in affecting decision making. Protectionism theory suggests that people want to protect those with whom they have strong personal relationships. Under this theory, parenting a daughter results in protecting her from possible gender-based discrimination, predators, and reinforcing connections between the daughters and the family. In this respect, a long literature has documented parental differential treatment of daughters and sons (Sidorowicz and Sparks, 1980; Raley and Bianchi, 2006; Condry, McConnell, Jr., and Pogatshnik, 1983). In line with this literature, parents are more likely to actively manage their wealth if the newborn is a girl rather than a boy, having the final goal to protect daughters by providing them with larger financial assets in the future. As a consequence, having a daughter increases the probability that households invest in long term securities and increases portfolio diversification.

An alternative interpretation, which however leads to a similar conclusion, is related to gender discrimination in patriarchal societies (Kaul, 2018). In societies where the norm is to not expect future support from daughters, parents having baby girls may invest more in long term securities to support themselves when they grow old. Under such interpretation, the birth of a baby boy has a lower impact on household finance because parents promote boys' autonomy and financial independence so that sons can assume responsibility for parents' welfare in their old age. Households selectively allocate resources to children in response to variation in gender differences in their expected earnings opportunities as adults (Rosenzweig and Schultz, 1982).

Our results are robust when controlling for household composition, geographical prove-

nance, education and financial education, income and attitudes; when excluding singletons; when taking into account the sovereign debt crisis which affected Italy in 2011; when allowing the error terms of the different models to correlate, and when considering the decision to invest in each of the various asset classes as dependent variable.

This study sheds a light on the importance of policy interventions that aim to reach gender equality and to foster households' financial choices more consistent with standard allocation models. Our results suggest that the genuine removal of a bias or change in belief within households can help reaching this goal.

The rest of the paper is organized as follows. Section 2 briefly reviews the related literature. Section 3 describes the data and methodology. Sections 4 presents the main results and includes a range of robustness tests. Section 5 compares firstborn and other children. Finally, Section 6 concludes.

2. Related literature

Our paper is related to two strands of literature. First, in the economic literature that investigates households finance, a recurrent theme is the ability of households to follow the optimal behaviour predicted by normative models. In fact, empirical analyses of the investment behaviour of households indicate that observed choices are often inconsistent with standard asset allocation models. The greatest failure is perhaps the fact that the majority of individuals do not hold fully diversified portfolios (Haliassos and Hassapis, 2002). Many explanations have been proposed, relating investment choice to risk aversion and investment opportunities, to resources available to the household (total wealth and income) as well as to demographic characteristics (age, race, gender, marital status) of household's members (Gollier, 2002; Rosen and Wu, 2004; Carroll, 2002).

In a comprehensive review, Guiso and Sodini (2012) show the heterogeneity of households' behaviour, even when confronted with the same decision problem. This evidence opens

up the debate of whether household's sub optimal choices are the result of mistakes or systematic behavioural biases. Recent findings support the first view: more sophisticated (especially more educated and richer) households seem to behave closer to the prescriptions of normative models (Calvet, Campbell, and Sodini, 2007). We provide evidence in support of the behavioural biases view by documenting that households make financial decisions under the influence of gender bias. Furthermore, since gender bias works toward a lower allocation of wealth to risky assets, our findings may represent an additional explanation for households' low level of stock market participation.

Secondly, this paper is related to the recent literature which has demonstrated the importance of the family environment for an individual's behaviour. Some emerging work has shown that parents' decision making process can be influenced by the gender of their children in politics, business and in the legal courts. Congressperson's propensity to vote liberally, particularly on reproductive rights issues, increases when parenting daughters (Washington, 2008). In business, companies' investment policies change when the CEO has a daughter (Cronqvist and Yu, 2017; Gompers and Wang, 2017a). Judges with daughters consistently vote on gender issues supporting women's rights more than judges who have only sons (Glynn and Sen, 2015). In line with this literature, we investigate whether biases related to the gender of children affect households' investment choices, particularly those which are inconsistent with standard allocation models.

We focus on Italy for several motives. The size of the industry is relevant. At the end of 2016, according to the Bank of Italy's SHIW and to the Federal Reserve's Survey of Consumer Finances, the mean net worth of Italian families amounted to €125.8 thousand compared to $97.3 thousand of US families. The average income of Italian households is, however, €30.7 thousand, compared to $102.7 thousand of American households.

Italy and the US are also quite similar as for gender equality. In 2013, the IMF gender development index scored 0.97 in Italy, slightly below the value of 1 of the US, whereas the IMF gender inequality index was lower in Italy (0.06) than in the US (0.28), suggesting that

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Italian women face lower inequalities relative to US women.

Nevertheless, Italian households bear some specificities which derive from the cultural, economic and legal environment in which their investment decisions are taken (Guiso and Sodini, 2012). They invest a larger share of wealth in illiquid assets, typically real estate and durables. 69 per cent of Italian households own their primary residence as compared to 63.7 per cent of American households. Italian households also show a lower participation rate in financial markets. Only 3.5 per cent of Italian families invest in stocks, as compared to 13.9 per cent of US families. The lower participation rate in financial markets can be partially explained by Italian households' low financial sophistication. According to OECD (2017) Italian households assigning a budget for investment and actually making financial decisions amount to about 30 per cent compared to more than 50 per cent of American households; only 27 per cent of Italian households set long term financial goals and strive to achieve them (57 per cent in the US).

3.   Data and Methodology

In this section, we first describe the data set that we use in our analysis reporting summary statistics of our sample. Then, we detail the methodology used to empirically identify the effect of newborn gender on household's portfolio choice.

3.1.   Data

We use data from the Survey on Household Income and Wealth (SHIW)[2], a nationally representative survey that has been conducted by the Bank of Italy every 2 years since 1977. The SHIW provides detailed information on the personal and demographic characteristics of the individuals of each household (status in household, gender, age, nationality, educational

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[2]The detailed questionnaire, the data and further details regarding the Survey on Household Income and Wealth are available on the website of the Bank of Italy, http://www.bancaditalia.it/statistiche/indcamp/bilfait.

qualifications, marital status and region of residence), on their working activity (employment status, type of occupation, industry, number of work experiences, type of contract, average weekly hours of work, earnings and wealth) and, of particular interest for our analysis, on their total wealth and on the allocation of their wealth expressed as the ownership and the amount held in a quite comprehensive set of financial assets (e.g bank or postal deposits, certificates of deposit, T-bills and T-bonds, bonds issued by Italian and foreign firms, money market funds and ETF, shares in companies and so on). For these reasons, the SHIW satisfies the characteristics that a high-quality data set on investment strategies should have, as suggested by Calvet et al. (2007) and Guiso and Sodini (2012).

We consider the panel component of households for which we have observations in four waves of the SHIW: 2010, 2012, 2014 and 2016. We start from 2010 wave for two main reasons. First we wish to gather data on households' on comparable standards. For instance, before 2008, SHIW does not include data on the cash value of life insurance. Life insurance is one of the main variable of interest in our analysis, considering the important role of insurance in household investment and savings decisions, and the size of the Italian life insurance market (Gormley, Liu, and Zhou, 2010).[3] The second reason to start from 2010 is to exclude the global financial crisis as households' investment choices may be affected by financial markets losses and by negative personal experiences (Andersen and Nielsen, 2019; Malmendier and Nagel, 2011).[4] We then narrow our sample to households that have a new baby in the time span 2010-2016 and restrict our analysis to such households observed both in the wave in which they had the baby and in the previous wave. For example, if one household has a child with year of birth 2013 or 2014, it is classified as having a new baby in the wave 2014 and the observation of the household is included in the sample both in the wave 2014 and 2012.[5] We end up with a sample of 163 observations, 104 having a new baby and 59 corresponding to the same families in the wave before of that of the baby birth. Of

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[3]Gross premium amounted to 6.1 per cent of GDP at the end of 2016 as reported by IVASS (2018).

[4]In additional test we start from 2012 to eventually exclude the effects of the sovereign debt crisis of 2011.

[5]Five families had both a baby boy and a girl in the same wave. As this event prevents from disentangling the gender effect, we drop these observations.

these, 50 babies were boys and 54 girls.

Following Rosen and Wu (2004) we allocate tangible wealth among seven asset classes. Physical assets are real and represent 'vehicles' and 'real estate' wealth. Six asset classes are financial and correspond to cash, safe assets, bond, retirement benefits, life insurance and risky assets. Cash includes bank or postal deposits, such as current accounts, saving accounts or deposit books. Safe assets contain certificates of deposit, repos, postal savings certificates and Italian government bonds, such as T-bills, T-certificates and T-bonds. Bond has categories such as bonds issued by Italian firms and banks, money market funds and ETF, debt funds and foreign government securities. Retirement benefits include personal retirement plan or supplementary pension fund; state pension is excluded. Life insurance contains cash value life insurance but does not include insurance policies that provide a supplementary pension, such as individual pension plans, which go into retirement benefits. Risky assets have categories such as stocks, shares of unlisted companies, shares in companies limited by shares - srl, shares of partnerships, mutual funds or ETF in equities and in foreign currencies, foreign equities, other foreign securities and other financial assets such as derivative securities, royalties.

We look at financial decisions under two different points of view, that lead to two sets of dependent variables. The first looks at the share of total net worth held in each asset, that we denote as %. First we compute the value of financial assets as the sum of the wealth held in the above described six financial asset classes, the value of the wealth held in physical assets and the value of the total net worth as the sum of financial assets' value and physical assets' value. Then we compute the share of financial assets' value held as cash, safe assets, bonds, retirement benefits, life insurance, and risky assets on one hand, and the share of total net worth invested in physical rather than financial assets on the other.

The second view looks at portfolio choice in terms of overall diversification. With this aim we create two indexes. The first that we call *Div Index* is inspired by Arnaboldi, Casu, Kalotychou, and Sarkisyan (2018) and measures the overall degree of portfolio diversification

capturing the proportion of each asset class that the household holds in her portfolio. For each wave we have first converted the continuous variables for the value held in each asset category into discrete variables ranging from 1 to 4 based on the quartile (bottom to top) of the sample distribution they fall into ($quartile_{ac}$ where ac is the asset class). We have then computed the *Div Index* for each household as the sum of our seven $quartile_{ac}$ asset classes divided by 28. The second index, *Div2 Index*, is inspired by Li and Wahid (2018). In order to calculate it we have used our $quartile_{ac}$ variables to compute for each household the percentage of asset classes held in each quartile (that is the number of asset classes held in each quartile divided by 7, the total number of asset classes). We have then squared these figures and summed them up. Finally, we have subtracted the latter value from 1.[6]

For the sake of simplicity, we have divided our control variables into four main categories. We select our controls following Guiso and Paiella (2008), Iezzi (2008), and Rosen and Wu (2004). The first category, households composition, includes: whether the household in the year of the observation has a new baby and whether the new baby is a boy; the number of members of the family and the share of women in the household; the number of children; the age of the head of household, defined as the major income earner, and whether the head of the household is a woman. The second category includes the region of birth of the member of the household who answered to the survey and whether the couple is not Italian to check for geographical provenance. Third we control for education, by including the highest level of education of household's members, and their financial education, computed as the first component of a principal component analysis of three indicators of financial education, that is whether the household has a credit card, whether she uses the home banking service and whether she applied to more than one financial intermediary when asking for consumer credit. In the final category we have income and attitudes, that is the net income of the household, its squared value, the share of income earners in the household, whether the head of household is employed, the attitude towards financial risk, and whether the parents of the

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[6] $Div2Index = 1 - \sum_{x=1}^{4}(TotalAssetsInQuartile_x/TotalAssets)^2$

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head of household are alive.[7] Definitions of the variables are provided in Appendix 1, and correlations between the variables used in the analysis are reported in Appendix 2.

Table 1 presents the descriptive statistics of the selected dependent and independent variables over the sample period.

<Insert Table 1 about here>

Looking at the asset classes, on average 81.3 per cent of households' total net worth is invested in real estates and durables. Of the remaining 20 per cent, more than a half is invested in cash.[8] In terms of portfolio diversification, households do not hold greatly diversified portfolios (diversity indexes equal 38.7 and 32.1 per cent, respectively).

We compute indicators of the decision to invest in each asset class following Brunnermeier and Nagel (2008), that is we create dummies set to one for households that did not hold at t-2 and did hold at t wealth in the corresponding financial asset class, zero if the household does not hold wealth in that asset class in t-2 and t and missing to the observations of the household belonging to the years after it has invested into the asset class. On average, 73.7 per cent of households invest in cash over the sample period, 12.7 per cent in retirement benefits, and 11.6 per cent in life insurance.

As for household features, Italian families are on average formed by 3.6 members, almost evenly balanced by gender and have about 2 children. A new baby is present in almost 64 per cent of the households sample, and the newborn is a boy in the 48 per cent of cases. Heads of household, defined as the major income earners, are on average almost 39 years old and less than 14 per cent of them are women.

Thirty one per cent of the sample was born in Northern Italy and foreign couples are about one-fifth of the sample.

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[7]Section 4.1.3 provides a through discussion of controls.

[8]39 households state to have no financial wealth, some of these households state this for two or three of the waves that we consider. For this reason, the sum of the shares invested in the six financial asset classes does not add up to one. If we exclude the observations with zero total wealth invested in financial assets (58), we find that, on average, households with a positive value of financial assets invest 80.2%, 3.5%, 4.1%, 5.2%, 1.9% and 5.1% in cash, safe assets, bonds, retirement benefits, life insurance and risky assets, respectively. We take this aspect into account in our robustness tests when we look at the decision to invest in the six financial asset classes.

The high school diploma is on average the highest level of education attained by household members. Financial education, which is a principal component analysis of three indicators of financial education, that is whether the household has a credit card, whether she uses the home banking service and whether she applies to more than one financial intermediary when asking for consumer credit, reports low level on average.

Almost 50 per cent of household members earn an income, which consists, on average, of about €30,000 per year. The head of the household is usually employed (90 per cent of the sample) and 87 per cent has parents alive. The average propensity to financial risk is based on the answer to the question 'In managing your financial investments, would you say you have a preference for investments that offer:' and ranges from 0 (if the answer is: 'low returns, with no risk of losing the invested capital') to 4 (if the answer is: 'very high returns, but with a high risk of losing part of the capital'). On average it is close to zero (0.69) and it scores 3 as maximum value.

3.2. Methodology

We provide causal evidence on the role of having a newborn and his gender on household portfolio decisions by adopting the following difference-in-difference (DID) approach:

$$Y_{it} = \beta_0 + \beta_1 NEWBABYBORN_{it} + \beta_2 NEWBABYBORN*BOY_{it} + \beta_3 X_i + \beta_4 T_t + \beta_5 C_{it} + \epsilon_{it}$$

where Y_{it} is the value of the outcome variable for household i in year t; $NEWBABYBORN_{it}$ is a variable indicating whether the household i has a baby in year t; $NEWBABYBORN * BOY_{it}$ is the interaction variable between the birth of the baby and his gender to test a differentiated effect of boys and girls; X_i are household fixed effects; T_t are time fixed effects; C_{it} is the vector of our control variables; ϵ_{it} is an error term assumed to be independently distributed from our controls.

In all regressions, standard errors are clustered at the household level to allow for flexible

error correlation structure within households. Our DID approach compares changes in the outcome variable subsequent to the baby birth in case of a new baby boy or a new baby girl with changes experienced by households without a newborn during the corresponding years. With this identification strategy, we aim to separate the effect of newborns from other factors potentially affecting portfolio choice.

We include household and time fixed effects because our setting involves multiple treatment groups and time periods (Imbens and Wooldridge, 2009). Thus, household and time fixed effects control for fixed differences between treated and control households and for aggregate fluctuations. Treated households are those having a baby while control households are those without a new baby as of a particular time (Fauver, Hung, Li, and Taboada, 2017; Bertrand and Mullainathan, 2003). Within treated households, we then distinguish between those having a baby boy and those having a baby girl.

Our parameter of interest is β_2. An estimated coefficient significantly different from zero indicates that the gender of the newborn matters and portfolio choices are different when the new baby is a boy. β_1 represents the effect on our outcome variable of having a new baby girl while the (linear) combination of the two parameters represents the effect of a new baby boy on the household portfolio choice. C_{it}, the vector of our control variables allows us to mitigate the effect of correlated omitted variable bias.

4. Newborn gender and household's financial decision

4.1. Shares of assets

In this section we study investment choice by considering changes in the share of financial wealth invested in six different asset classes, that is cash, safe assets, bond, retirement benefits, life insurance and risky assets, and in the share of total wealth that the household decides to invest in physical rather than in financial assets. Before answering our main research question, that is the role of newborn gender on portfolio choice, we look at the

effect of having a newborn per se. Thus, we start by estimating a simplified version of our model and then add our main variable.

4.1.1. Newborn and household investment

In Table 2, we regress on the dummy variable *New Baby Born* the percentage of financial wealth held as cash or invested respectively in safe assets, bonds, retirement benefits, life insurance and risky assets and the percentage of total wealth invested in physical rather than financial assets. Having a new baby changes household's composition because it increases the number of family members. However, such increase may happen also for other reasons, such as a new partner or a parent/relative moving into the family. In order to separate the birth of a new baby from such confounding effect, in all the specifications we control for the number of family members (*No. FAMILY MEMBERS*) which may impact portfolio allocation because of different preferences within households (Browning, 2000).

<Insert Table 2 about here>

We find that having a new baby significantly reduces the percentage of financial wealth held as cash by 0.28 and instead increases the percentage invested in risky assets by 0.06. Results point also to an increase in the share invested in retirement benefits although the effect is not significant at conventional levels (p-value=0.125). An effect similar in magnitude to the latter but less precisely estimated emerges for the share invested in safe assets and in bonds while the coefficient of life insurance is close to zero. Having a baby usually changes parents' planning horizons. Our finding is consistent with the view that households with longer planning horizons tend to devote a smaller share of their portfolios to cash and a larger share in other types of assets with longer holding period (Rosen and Wu, 2004).

The number of family members has a significantly positive effect on the percentage of financial wealth held as cash: a new member in the family, like for instance a partner or a relative moving in, increases the wealth held as cash by 0.2.

4.1.2. Newborn gender and household investment

Investigating the role of having a new child per se on household's investment allocation, despite being relevant from a policy perspective, may have two limitations. First, one may claim that the decision to have a child is not entirely exogenous, thus there may be unobserved variables that affect both such decision and investment allocation. While this may be true for the *decision* to have a child, it does not necessarily hold for the *actual* parenthood. Second, household's decisions may vary depending on the newborn gender. Thus, looking at the average effect may mask important gender specific evidence. This is the reason why our main research interest lies on the role that newborn gender plays in shaping household investment choice. Gender is undoubtedly exogenous thus, thanks to this and to our differences-in-differences analysis, we are able to offer causal evidence on the effect that having a baby boy rather than a baby girl in the household produces on investment choices.

In Table 3 we investigate the role of newborn gender by adding to the previous specification the interaction variable between our dummy *NEW BABY BORN* and the dummy *BOY* that takes the value of 1 if the baby is a boy and 0 otherwise. Besides changing the number of components, the birth of a new baby also changes the gender composition of the household. This change as well may happen for different reasons thus to control for changes in the gender composition of the family not related to the gender of the newborn, we also include among controls the fraction of women in the household (*% FEMALES*).[9]

<Insert Table 3 about here>

We find that indeed households' decision on how to allocate their wealth among financial assets when a new baby enters in the family is influenced by the gender of the newborn. Baby girls significantly reduce the share of liquid assets represented by cash by 0.36 while this effect is halved when the new baby is a boy (the interaction has p-value=0.162 while the final effect for a boy is -0.188, p-value=0.082). The additional financial wealth moved away

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[9]According to ISTAT (2017), in Italy the life expectancy at birth is 84.9 years for women and 80.6 years for men. Women are more likely to live longer than their husband.

from cash when the newborn is a girl is used to increase the share of retirement benefits and of risky assets. The decision to move wealth away from cash in favour of longer term investments in case of a new baby girl is not taken when the new baby is a boy. In fact, the birth of a boy significantly offsets the effect for risky assets. The reallocation among the other assets does not carry statistical significance.

Our results also indicate that when women represent a larger share of the households' components, the share of wealth invested in safe assets increases (+0.56) as opposed to the share of wealth invested in risky assets, which decreases by 0.38. This finding is in line with recent literature: women are considered more risk-averse on average (Jianakoplos and Bernasek, 2007; Schubert, Brown, Gysler, and Brachinger, 1999), and less overconfident (Croson and Gneezy, 2009).

Taken together, these results seem to suggest that gender biases could play a role in affecting financial decision making in households. A long literature has documented parental differential treatment of daughters and sons (Sidorowicz and Sparks, 1980; Raley and Bianchi, 2006; Condry et al., 1983; Rosenzweig and Schultz, 1982). This differential treatment may also result from biases, like, for instance, the urgency of protecting daughters, gender discrimination, the adoption of gender roles, which define appropriate conduct for men and women (Glynn and Sen, 2015; Kaul, 2018; Eagly, 1995).[10] According to this literature, the birth of a baby boy may result in the promotion of boys' autonomy and financial independence, as they are expected to have larger earnings opportunities as adults, whereas a new baby girl should be provided with larger financial assets in the future, which can be considered as a sort of dowry.

When biases affect the capacity to process relevant information, household's portfolio choices may depart from the rational behaviour, as in the case of households with a new baby boy. Previous work has made significant progress in deciphering the underlying forces behind investors' behavioural biases (see, among others, (Cohen, 2009)). In addition, the literature

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[10]Gender roles are shared expectations of men's and women's attributes and social behavior and are internalized early in development (Bacha and Azouzi, 2019).

on organizational architecture suggests that the decision effectiveness has its explanation in the individual's behavior as well as his capacity to produce, process and exchange information and knowledge, necessary for efficient decision making to take place (Bacha and Azouzi, 2019; Brickley, Smith, Zimmerman, and Willett, 2009). By reducing the bias that the household has towards women, the birth of a baby girl leads to higher financial awareness and more efficient portfolio choices (Gompers and Wang, 2017a).

4.1.3. Newborn gender and household investment controlling for household's characteristics

The effect of the gender of a newborn on financial decisions in the basic specification in Table 3 may be capturing particular features of the household that are correlated with the gender of the newborn and affect also the outcome variable. To control for this in Table 4 we augment our basic model with several sets of control variables. We are aware that we cannot control for all potential confounding variables but we are confident to have a rich set of controls ranging from household's structure and members' predetermined characteristics to education, financial education, income and risk attitudes.

Household composition

The household composition is an important determinant of portfolio allocation (Browning, 2000; Bertaut and Starr-McCluer, 2002; Carroll, 2002; Guiso, Haliassos, and Jappelli, 2002). The number of children (*No. CHILDREN*) adds further information on family resources available for investments, on the planning horizon of investments, and on portfolio allocation because of different preferences within households (Browning, 2000). The portfolios of households with and without children may differ because the former expect to have to support their children until they are financially independent and/or to receive financial support from them on a later moment, whereas the latter have to support themselves if they live long. ISTAT (2017) reports that Italian families have kids in their 30s (the average age at which women and men have kids is 31.89 and 34.45 years old, respectively), and that 65

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per cent of kids aged 25-29 and 30 per cent of kids aged 30-34 live with their parents. Italian households financially support their kids longer than US families and this may impact on portfolio choices.

We also consider the age of the head of the household (*AGE HEAD OF HOUSEHOLD*), which has been extensively studied in the life-cycle portfolio investments literature (see among others Benzoni, Collin-Dufresne, and Goldstein (2007); Campbell (2001); Haliassos and Michaelides (2003); Gomes, Kotlikoff, and Viceira (2008); Viceira (2001)). The risky share of financial wealth tends to vary little with age, although the specific empirical pattern is subject to controversy (Fagereng, Gottlieb, and Guiso, 2017). Summarizing evidence from several countries, Guiso et al. (2002) argue that the age profile of the risky share is relatively flat. In a recent work, Fagereng et al. (2017) document a double adjustment as households age: a rebalancing of the portfolio composition away from stocks as they approach retirement and stock market exit after retirement. Portfolio choices may thus be influenced by the age of the head of the household.

The facts that women usually live longer than men and that Italian wives are typically younger than their husbands imply that wives may have more incentive to save for old age than do husbands (Browning, 2000). Furthermore, gender specific factors may influence portfolio choices (Croson and Gneezy, 2009; Jin, 2011). To account for possible differences in investment behaviour due to gender we control for the presence of a female major income earner (*FEMALE HEAD OF HOUSEHOLD*).

<Insert Table 4 about here>

Consistently with previous estimates, the results indicate that having a baby girl reduces the share of financial wealth held as cash and increases the share held as retirement benefits and risky assets, whereas having a boy reduces the share of wealth held as risky assets (Table 4 - Panel A). Older heads of household hold a higher share of their wealth in physical assets. The elderly tend to hold safer portfolios since the ability to compensate ex post for low returns decreases with age: in fact, real estate in Italy is usually considered by households

as the safest investment (Bodie, Merton, and Samuelson, 1992). While these findings are in line with the literature, including these variables in the model does not materially affect the newborn gender coefficients. Thus, there is little evidence that the results are driven by the household's composition and in particular by age.

Geographical provenance

Another possibility is that geographical provenance affects household's portfolio choices. Geographical provenance may be seen as a proxy of cultural background and ethnicity whose differences in wealth and asset ownership are well documented in the existing literature. Menchik and Jianakoplos (1997) note that white households are more likely to either have received or expect to receive some type of inheritance, which may increase their chances of owning any given asset type. Also, Caskey (1997) finds that some black and Hispanic households do not save because of social network pressure to share any such savings. Merry and Thomas (2014) find that households whose head is white non-Hispanic or one of the other minority groups have higher ownership rates of all asset types relative to black and Hispanic households.

To investigate this possibility, we augment our baseline model with a dummy variable *BORN IN NORTHERN ITALY* which takes the value of 1 if household was born in Northern Italy and 0 otherwise.[11] Cultural differences between Northern and Southern regions are still relevant in Italy.[12] In the same spirit, we create the dummy *FOREIGN COUPLE* which takes the value of one if the head of household and her/his relevant other do not hold Italian citizenship.

The results reported in Table 4 - Panel B confirm our main prediction on *NEW BABY*

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[11]Northern Italy includes the following Italian regions: Valle d'Aosta, Liguria, Piemonte, Lombardia, Veneto, Trentino Alto-Adige, Friuli Venezia Giulia and Emilia Romagna.

[12]According to a recent survey on daily activities, the percentage of hours per day in main activities carried out by the population aged 15 years and over significantly varies between North and South of Italy (ISTAT, 2013). For instance, leisure time is differently allocated: in the North, 5.9 per cent of the day is devoted to social life and entertainment versus 8 per cent in the South; 2.4 per cent of the day in the North is spent practising sports and outdoor activities compared to 2 per cent in the South; in the North 47.5 per cent of the day is dedicated to personal care compared to 48.7 per cent in the South.

*BORN * BOY*. Including these control measures does not affect the estimated newborn gender coefficients substantially. Hence, newborn gender does not appear to affect portfolio choices through geographical provenance.

Education

A large amount of literature has reported the important effect of education on household portfolio choice (Jin, 2011; Haliassos and Bertaut, 1995). Unsophisticated investors retrench from trading risky securities and shift their portfolios to safer assets (Kacperczyka, Nosal, and Stevens, 2018). Education should help to gain information and build confidence for investors. As a consequence we may argue that educated households are less risk averse. Particularly, financial education supports the growth in knowledge and information specifically related to financial decisions (IOSCO and OECD, 2018). Households with lower stock market competence are more ambiguity-averse, and hold under-diversified portfolios (Dimmock, Kouwenberg, Mitchell, and Peijnenburg (2016)). We create *HIGHEST EDUCATION*, which is a variable capturing the highest level of education in the family among the following: primary school certificate; lower secondary school certificate; vocational secondary school diploma (3 years of study); upper secondary school diploma; 3-year university degree/higher education diploma; 5-year university degree; postgraduate qualification. We also extend the model including *FINANCIAL EDUCATION*, a principal component analysis of three indicators of financial education, that is whether the household has a credit card, whether she uses the home banking service and whether she applies to more than one financial intermediary when asking for consumer credit. The results reported in Table 4 - Panel C support the main result on *NEW BABY BORN * BOY*. We find that education and financial education are not significantly related to the share of wealth held in financial and real assets, and they have no substantive impact on the coefficients on the newborn gender.

Income and attitudes

Income and wealth have been highlighted as important drivers for portfolio allocation.

Since Aiyagari (1994) and Krusell and Smith (1998), literature emphasized the fact that rich households are more likely to save and to hold risky assets. Households' socioeconomic background is related to the way they learn from new financial information and make investment decisions (Kuhnen and Miu (2017)). To investigate this possibility we include household's net income (*NET INCOME*), its squared value (*NET INCOME SQUARED*) and the fraction of income earners on the total number of family members (*% INCOME EARNERS*). In the same spirit, employment is related to the effect of background risk. Unemployed households are exposed to unemployment risk that increases their effective risk aversion (Jin, 2011). We create a dummy variable which takes the value of one if the head of household is employed and zero otherwise (*EMPLOYED HEAD OF HOUSEHOLD*).

Another possibility is that attitudes towards financial risk influence household's portfolio choices. Several empirical studies have included risk attitude as an explanatory variable in their models studying portfolio composition (King and Leape, 1987, 1998; Kelly, 1995). Recent literature discusses the effect risk attitude has on the probability of holding a particular combination of assets (Barasinska, Schaefer, and Stephan, 2012). We consider two proxies for financial risk attitude. *FINANCIAL RISK* measures household's propensity to financial risk. It is based on the answer to the question 'In managing your financial investments, would you say you have a preference for investments that offer:' and ranges from 0 (if the answer is: 'low returns, with no risk of losing the invested capital') to 4 (if the answer is: 'very high returns, but with a high risk of losing part of the capital'). Stock market participation and the propensity to acquire additional assets are highly dependent on whether liquidity and safety needs are met (Gormley et al., 2010; Barasinska et al., 2012). In particular, an investor is more likely to add some risky assets to his or her portfolio when safety needs have been met. To account for the important role precautionary motives play in the portfolio decisions of households, we include in our specification *PARENTS ALIVE*, a dummy variable which takes the value of one if household's parents are alive and zero otherwise. In Italian family structures, parents generally provide financial support and safety net long after their

children moved out.

As indicated in Table 4 - Panel D, net income and the presence of parents alive significantly and positively impact on the share of wealth held as physical assets. These results, however, provide little evidence that the relationship between newborn gender and portfolio choice depends on household's income and attitudes.

Full set

Table 5 reports the estimates of our model where we include the full set of controls. Consistently with our findings in the basic specification, even when we control for the full set of household's characteristics available in our data, we find that the gender of the newborn affects households' decision on how to allocate their wealth among financial assets after the birth of a new baby.

<Insert Table 5 about here>

While having a baby girl produces decisions consistent with what predicted by standard models, that is decreases the share of liquid asset and increases the share of longer term investments, having a boy makes the gender bias evident because the share of wealth moved away from cash is halved as compared with the birth of a girl and the increase in risky assets is more than offset.[13]

4.2. Portfolio diversification

After having investigated portfolio choice on a more detailed basis, in this section we look at the effect of the birth of a new baby and of newborn gender on portfolio diversification. In Table 6 we present our estimates considering as dependent variable both *Div Index* and *Div2 Index*. First, we investigate the average effect of having a new baby (columns 1 and 2), then the heterogeneous effect according to the gender of the newborn (columns 3 and 4),

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[13]Having the same absolute level of income leads of course to different decisions depending on the number of people that use such income. In our estimates we take this into account by controlling for the number of household's members. However, our results are also robust when we insert among our controls income per capita instead of the absolute level of income.

and finally we include the full set of controls (columns 5 and 6).

<Insert Table 6 about here>

We find that having a new baby on average does not affect the magnitude of portfolio diversification (Table 6 - columns 1 and 2). However, the effect is heterogeneous according to the newborn gender. When considering the *Div Index*, the index of diversification is positive (p-value=0.199) when the household has a new girl. Having a new boy, however, entails an amount of portfolio diversification significantly lower than a new baby girl with an overall negative effect (Table 6 - column 3). When considering the *Div2 Index*, again having a new baby boy reduces diversification compared with a female newborn (-0.076, p-value=0.106) but in this specification the final effect of a male newborn on portfolio diversification is negative and statistically significant (-0.0757, p-value=0.078, Table 6 - column 4). In the full specification, when households have a new baby girl, portfolio diversification measured by *Div Index* significantly increases, whereas when the new baby is a boy portfolio diversification significantly decreases (Table 6 - column 5). A similar result for the interaction term, stronger in magnitude, is found when diversification is measured by *Div2 Index* (Table 6 - column 6).

Households having a baby boy diversify less their portfolio as compared to households having a baby girl. The first group of households seems less influenced by a simple and basic principle of financial theory, that is to hold a diversified portfolio to avoid concentrating risk in one or few (possibly correlated) assets (Markowitz, 1952). Potential explanations for our result are that households' investment behaviour is shaped by whether or not the family has a boy, which is also in line with the recent literature supporting the view that children may shape their parents' behaviour (Cronqvist and Yu, 2017; Glynn and Sen, 2015; Washington, 2008). Also, following Gompers and Wang (2017a), having a baby girl reduces the bias that the household has towards women, and this leads to higher financial awareness. Gender bias affects financial decisions and their true removal leads to more financially rational decisions.

4.3. Robustness

We run the following additional tests.

4.3.1. Singletons

We run our full regressions excluding singletons, that is households for which we have a unique observation and not two observations, one before and one after the birth of the baby.[14] In this way we obtain a cleaner and smaller sample. We examine the impact of newborn gender on our two sets of dependent variables, that is on portfolio choice (Table 7) and on portfolio diversification (Table 8). In all models we include the full set of controls, household and time fixed effects and we cluster standard errors at the household level. The results hold and are unchanged.

<Insert Table 7 about here>

<Insert Table 8 about here>

4.3.2. Sovereign debt crisis

While the global financial crisis of 2007-2008 impacted Italian banks and, as a consequence, the real economy to a lesser extent than most other developed countries, such as the US, the shock following the sovereign crisis of 2011 was severe. In this robustness, we run our full specifications excluding the 2010 wave, as we want to check whether our results are affected by the 2011 sovereign debt crisis. In Table 9 we investigate the impact of newborn gender on portfolio choice when restricting our sample to the years 2012-2016.[15] In all specifications we include the full set of controls, household and time fixed effects.

<Insert Table 9 about here>

Table 10 reports our findings on our second set of dependent variables of interest, that is the impact of newborn gender on portfolio diversification over the 2012-2016 sample period.

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[14]15 households have more than two observations because they have a new baby in different waves.

[15]In this sample we have 67 households having a new baby and 32 new baby boys.

<Insert Table 10 about here>

The results are qualitatively unchanged for both portfolio measures and confirm that a new baby boy increases the fraction of wealth held as cash and reduces the fraction held as risky assets. Also, they confirm that, when households have a new baby boy, portfolio diversification decreases.

4.3.3. Investment in asset classes

So far we have investigated the fraction of wealth that households hold in various assets classes and the overall portfolio diversification. In this section, we want to strengthen the evidence of gender bias in household's portfolio choices by focusing on the impact of newborn gender on household's decision to invest in the various asset classes.

With this aim we follow Brunnermeier and Nagel (2008) and create our *entry* variables as dummies set to 1 for households that did not hold at *t-2* and did hold at *t* wealth in one of the six financial assets classes previously described (cash, safe assets, bond, retirement benefits, life insurance, and risky assets) and 0 if the household does not hold wealth in any of the six asset classes in *t-2* and *t*.[16]

Given the way in which such variables are constructed (i.e. assigning missing values to all observations of an household belonging to the years after it has invested into the asset class), the sample size is different for each asset class and lower than the full sample considered in the previous analysis. For this reason, while being able to estimate the complete specification for five asset classes, we had to use only a subset of controls when looking at *ENTRY CASH* that has only 76 observations. Such subset of controls include household composition, education, net income and attitudes, and household and time fixed effects (Table 11).

<Insert Table 11 about here>

Data show that when the baby is a boy the likelihood of investing long term significantly decreases. The reallocation is in favour of cash. In particular, the likelihood of investing

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[16]The SHIW data are collected every two years.

in retirement benefits and life insurance significantly reduces by more than 20 percentage points. As regards risky assets, while a baby girl significantly increases the likelihood of holding risky assets, a new baby boy in the family offsets such an effect leading to a final variation not significantly different from zero.

The portfolio of households with children and without children is likely to differ because a new birth affects the planning horizon of investments. According to financial theory, we would expect households having a baby to be more likely to invest in risky assets, life insurance and pension funds, regardless of the gender of the newborn, as these investments have a longer time horizon. Our results nevertheless show different portfolio choices of parents of boys and girls. Parenting a girl increases the probability to invest in risky assets. Parenting a boy reduces the probability of entering in long term investments, such as retirement benefits, life insurance and risky assets.

Our results on households' different portfolio choices when having a new baby girl as compared to a new baby boy are consistent across various specifications and confirm the possible explanation for deviations from rational financial behaviour that can be found in systematic behavioural biases (Keloharju, Knupfer, and Linnainmaa, 2012).

Despite studying the effect of the newborn gender on the decision to invest takes on great importance and allows us to offer a more complete picture of household's reallocation decisions after the birth of a baby, we must acknowledge that such analysis is less robust because of the smaller sample size and the shortage of control variables.

4.4. Seemingly unrelated regressions

When considering as dependent variables the shares of assets, we estimate a set of equations where the first six represent the share of financial wealth invested in six different asset classes. Thus, by construction, on average the dependent variables add up to one.[17] The seventh equation represents the share of total wealth invested in physical rather than in

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[17]As we have explained in the descriptive statistics' section, this happens when we consider only households with a positive level of financial wealth.

financial assets, thus all the seven equations represent total wealth allocation. While the equations seem unrelated, they may be related through the correlation in the errors.

In this robustness we check whether our results are robust when taking into account that our set of equations may have contemporaneous cross-equation error correlation (i.e. the error terms in the regression equations are correlated). With this aim we estimate first a seemingly unrelated regression (SUR) system for the first six equations (Table 12) and then we add also the seventh equation (Table 13). Estimates show that our results are robust also when we allow the error terms in the equations to correlate.

<Insert Table 12 about here>

<Insert Table 13 about here>

5. Firstborn *versus* other children

In this section we dig deeper into our research question by investigating if our findings of a shift towards longer term investments when the newborn is a girl rather than a boy, and of a lower overall portfolio diversification for households having a baby boy depend on the birth order.

Traditionally, literature investigates the drivers of intra-familial disparities in parental investment and, consequently, on economic success across siblings. The findings indicate that first borns have higher levels of schooling, earnings, IQ, cognitive ability, lower incidence of teenage pregnancy, and receive more parental supervision (Behrman and Taubman, 1986; Hanushek, 1992; Black, Devereux, and Salvanes, 2005; Conley and Glauber, 2006; Kantarevic and Mechoulan, 2006; Black, Devereux, and Salvanes, 2010; Monfardini and See, 2010; Booth and Kee, 2009; Price, 2008; De Haan, 2010; Hotz and Pantano, 2015).

A wide range of explanations has been put forward, like for instance differences in endowments, the nature of parental preferences or financial and parental time constraints which create unequal distribution of resources across birth order (Behrman, Pollak, and Taubman,

1982; Behrman and Taubman, 1986; Hotz and Pantano, 2015; Oliveira, 2019).

Following this strand of literature, we might expect that not only households' distribution of time or resources but also their financial decisions may differ depending on whether the change in the family composition is due to the firstborn child or to the birth of other children. We investigate this possibility by splitting our total sample into two subsamples: one including only firstborn children and the other including all other children who are not firstborn. Of course, given the smaller sample sizes, our coefficients are less precisely estimated, but even so suggestive of households' behaviour.

In Table 14 and Table 15 we report our estimates of the impact of newborn gender on household's investment and portfolio diversification, respectively, by considering only the subsample of firstborn children. We have 65 observations corresponding to 36 newborns, 16 boys and 20 girls.

<Insert Table 14 about here>

<Insert Table 15 about here>

We find that, despite the small sample size, a new baby born reduces the share of wealth held as cash and, when the baby is a boy, there is a reduction of the share held in longer term investments. When looking at portfolio diversification, we find that firstborn children induce households to reduce portfolio diversification with an effect significantly bigger in case of the birth of a baby boy.

In Table 16 and Table 17, instead, we report our estimates of the impact of newborn gender on household's investment and portfolio diversification, respectively, by considering only the subsample of children who are not firstborn. We have 102 observations corresponding to 64 newborns, 31 boys and 33 girls.[18]

<Insert Table 16 about here>

<Insert Table 17 about here>

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[18]When we have created the subsample of not firstborn children, in order to have a cleaner effect, we have dropped 4 households having the second child in the wave following the wave of the birth of the firstborn.

Data on household's decision to allocate wealth among the seven asset classes show that, following the birth of another child, there is still a reduction in the share held as cash, but there is no longer evidence of different decisions depending on the gender of the new child. The wealth moved away from cash is partially used to increase the share held as retirement benefits. One possible explanation lays in the tax-advantage of retirement benefits compared to other long-term investments, such as mutual funds or equity. Literature has widely proved that taxation impacts investment decisions and retirement savings (see, among others Brown, Cederburg, and O'Doherty (2017)). In Italy the favourable treatment is particularly relevant.[19] With increasing household size, as resources are finite, households seem more likely to invest in tax-advantaged retirement benefits rather than other longer term investments.

When looking at investment diversification, we find that households having a new baby boy that is not a first child reduce their portfolio diversification (the effect is statistically significant only when considering *DIV2 INDEX*). It is important to draw attention to the fact that all the coefficients in Table 16 and Table 17 are estimated controlling for the gender of the first child (which is in the household fixed effects).

Overall, we find that the evidence of an effect of newborn gender on the share of financial wealth held in several asset categories is driven by firstborn children, while for overall portfolio diversification, despite the heterogeneity is bigger for firstborn children, there is also evidence of a gender effect for other children. We would have liked to move our investigation even further, but more detailed analyses are unfeasible due to the small sample size.

6.   Conclusions

This paper shows the existence of a strong relationship between the gender of a new baby and household's investment choices. Even after controlling for household composition, and

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[19]Investment in retirement benefits is deductible up to €5,164.57. Capital gain are taxed at 20%, whereas other long term financial investments are usually taxed at 26% (COVIP (2019)).

a variety of socio-economic characteristics, households parenting a boy offset the choice of reducing the share of financial wealth held as cash and of increasing the share allocated to risky assets, compared to households that are parenting a girl. Further, having a new baby boy reduces portfolio diversification as compared to having a new baby girl. Finally, those parenting a boy tend not to enter in long term investments, such as retirement benefits, life insurance and risky assets. Households with a girl newborn seem to behave closer to the prescriptions of normative models: they invest on a longer time horizon, and diversify more their portfolio as opposed to households with a baby boy. Our results are robust to singletons, to the sovereign crisis effect, to allowing for correlation in the error terms and confirmed when the likelihood of investing in asset classes is investigated. Also, when digging deeper into the birth order effect, we find that the evidence of an effect of newborn gender on the share of financial wealth held in several asset categories is driven by firstborn children, while for overall portfolio diversification, despite the heterogeneity is bigger for firstborn children, there is also evidence of a gender effect for other children.

This evidence contributes to the debate of whether household sub optimal choices are the result of mistakes or systematic behavioural biases. We view the notion that gender bias reduces the households' ability to take optimal investment choices as particularly interesting in this context. The birth of a new baby girl increases parents' awareness of their gender bias. The genuine remove of a bias leads to financial decisions in line with standard allocation models.

This observation could be relevant in sustaining policy interventions that aim to reach gender equality in the family. Our results suggest that the genuine removal of a bias or change in belief can lead to better financial investment choices.

Table 1 Descriptive Statistics

	No. Of Obs.	Mean	Std. Dev.	Min	Max
Dependent Variables: Asset classes					
% CASH	163	.516	.473	0	1
% SAFE ASSETS	163	.023	.100	0	.699
% BOND	163	.026	.114	0	.667
% RETIREMENT BENEFITS	163	.034	.163	0	1
% LIFE INSURANCE	163	.012	.091	0	1
% RISKY ASSETS	163	.033	.148	0	.984
% PHYSICAL ASSETS	163	.813	.301	0	1
DIV INDEX	163	.387	.126	.25	.857
DIV2 INDEX	163	.321	.196	0	.612
ENTRY CASH	76	.737	.443	0	1
ENTRY SAFE ASSETS	151	.079	.271	0	1
ENTRY BOND	157	.045	.207	0	1
ENTRY RETIREMENT BENEFITS	142	.127	.334	0	1
ENTRY LIFE INSURANCE	147	.116	.321	0	1
ENTRY RISKY ASSET	157	.070	.256	0	1
Households composition variables					
NEW BABY BORN	163	.638	.482	0	1
BOY	104	0.481	0.502	0	1
No. FAMILY MEMBERS	163	3.613	1.178	1	8
% FEMALES	163	.527	.182	0	1
No. CHILDREN	163	1.583	1.116	0	6
AGE HEAD OF HOUSEHOLD	163	38.847	6.829	26	84
FEMALE HEAD OF HOUSEHOLD	163	.135	.343	0	1
Geographical provenance variables					
BORN IN NORTHERN ITALY	163	.307	.463	0	1
FOREIGN COUPLE	163	.215	.412	0	1
Education variables					
HIGHEST EDUCATION	163	13.233	3.402	8	18
FINANCIAL EDUCATION	163	.218	1.284	-.943	3.266
Financial and employment condition and attitudes variables					
NET INCOME	163	2.966	1.870	0	10.566
NET INCOME SQUARED	163	12.275	14.692	0	111.644
% INCOME EARNERS	163	.495	.245	.143	1
EMPLOYED HEAD OF HOUSEHOLD	163	.902	.298	0	1
FINANCIAL RISK	163	.693	.796	0	3
PARENTS ALIVE	163	.871	.336	0	1

The table reports the summary statistics for the seven asset classes (cash, safe assets, bond, retirement benefits, life insurance, risky assets and physical assets) used as dependent variables in terms of share, portfolio diversification and investment decision. It also reports our control variables divided into four main categories: households composition, geographical provenance, education and financial and employment condition and attitudes. Definitions of the variables are provided in Appendix 1.

Table 2 The impact of newborn on household investment - Basic specification

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.2786***	0.0264	0.0227	0.0282	-0.0004	0.0629*	-0.0522
	(0.0631)	(0.0221)	(0.0205)	(0.0182)	(0.0065)	(0.0366)	(0.0683)
No. FAMILY MEMBERS	0.2055**	0.0103	0.0331	0.0149	0.0024	-0.0376	0.0829
	(0.0998)	(0.0128)	(0.0342)	(0.0461)	(0.0107)	(0.0434)	(0.0906)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163	163
Adjusted R-squared	0.185	0.023	0.071	0.005	0.005	0.026	0.126

The table reports the effect of the birth of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). It includes as control variables only the size of the family and household and time fixed effects. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 3 The impact of newborn gender on household investment - Basic specification

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.3564***	0.0362	0.0377	0.0501**	-0.0090	0.1167**	-0.0804
	(0.0762)	(0.0326)	(0.0300)	(0.0233)	(0.0146)	(0.0483)	(0.0723)
*NEW BABY BORN * BOY*	0.1682	-0.0379	-0.0340	-0.0523	0.0338	-0.1171*	0.0982
	(0.1194)	(0.0378)	(0.0433)	(0.0487)	(0.0438)	(0.0697)	(0.1019)
No. FAMILY MEMBERS	0.2022**	0.0165	0.0343	0.0176	-0.0033	-0.0350	0.0687
	(0.0994)	(0.0149)	(0.0362)	(0.0475)	(0.0117)	(0.0354)	(0.0882)
% FEMALES	0.5556**	0.0408	-0.0954	-0.1237	-0.0402	-0.3782*	-0.0471
	(0.2622)	(0.0645)	(0.0797)	(0.1131)	(0.0517)	(0.1969)	(0.1526)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163	163
Adjusted R-squared	0.201	0.042	0.071	0.006	0.021	0.076	0.143

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). It includes as control variables the size of the family, the fraction of women and household and time fixed effects. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 4 The impact of newborn gender on household investment - Sets of controls

Panel A - Household composition

	% CASH	% SAFE ASSETS	% BOND	% RETIRE-MENT BENE-FITS	% LIFE IN-SURANCE	% RISKY ASSETS	% PHYS-ICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.3906***	0.0398	0.0229	0.0793*	-0.0041	0.1174**	-0.0287
	(0.0739)	(0.0340)	(0.0261)	(0.0459)	(0.0129)	(0.0465)	(0.0657)
*NEW BABY BORN * BOY*	0.1832	-0.0321	-0.0262	-0.0757	0.0298	-0.1261*	0.0994
	(0.1230)	(0.0388)	(0.0414)	(0.0696)	(0.0439)	(0.0669)	(0.1085)
No. FAMILY MEMBERS	0.2097	-0.0116	0.0107	0.1202	0.0132	-0.0093	-0.0138
	(0.1516)	(0.0336)	(0.0354)	(0.1467)	(0.0213)	(0.0683)	(0.0984)
% FEMALES	0.7239**	0.1337	-0.0803	-0.1739	-0.0523	-0.5356**	0.1223
	(0.3061)	(0.1008)	(0.0779)	(0.2373)	(0.0512)	(0.2207)	(0.2018)
No. CHILDREN	0.0494	0.0252	0.0485	-0.1549	-0.0253	-0.0306	0.0069
	(0.1413)	(0.0386)	(0.0400)	(0.1492)	(0.0202)	(0.0736)	(0.1019)
AGE HEAD OF HOUSEHOLD	-0.0062	0.0044	0.0002	-0.0069	-0.0011	-0.0036	0.0197***
	(0.0091)	(0.0032)	(0.0016)	(0.0087)	(0.0014)	(0.0055)	(0.0055)
FEMALE HEAD OF HOUSEHOLD	-0.2637	-0.0750	-0.0026	-0.0479	-0.0023	0.1656	-0.0428
	(0.1678)	(0.0479)	(0.0138)	(0.1299)	(0.0152)	(0.1001)	(0.1902)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	163	163	163	163	163
Adjusted R-squared	0.219	0.075	0.067	0.039	0.004	0.128	0.220

Panel B - Geographical provenance

	% CASH	% SAFE ASSETS	% BOND	% RETIRE-MENT BENE-FITS	% LIFE IN-SURANCE	% RISKY ASSETS	% PHYS-ICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.3612***	0.0363	0.0396	0.0508**	-0.0080	0.1191**	-0.0821
	(0.0776)	(0.0327)	(0.0313)	(0.0241)	(0.0146)	(0.0490)	(0.0739)
*NEW BABY BORN * BOY*	0.1820	-0.0373	-0.0389	-0.0540	0.0305	-0.1246*	0.1005
	(0.1247)	(0.0378)	(0.0456)	(0.0531)	(0.0430)	(0.0734)	(0.1064)
No. FAMILY MEMBERS	0.1987*	0.0170	0.0361	0.0181	-0.0029	-0.0337	0.0659
	(0.1023)	(0.0149)	(0.0368)	(0.0498)	(0.0118)	(0.0347)	(0.0888)
% FEMALES	0.6219*	0.0459	-0.1160	-0.1316	-0.0579	-0.4164*	-0.0453
	(0.3189)	(0.0802)	(0.0982)	(0.1382)	(0.0565)	(0.2397)	(0.1921)
BORN IN NORTHERN ITALY	0.0323	-0.0126	-0.0250	-0.0069	0.0019	-0.0065	0.0538
	(0.1099)	(0.0240)	(0.0204)	(0.0359)	(0.0071)	(0.0383)	(0.1595)
FOREIGN COUPLE	-0.1997	-0.0118	0.0659	0.0245	0.0509	0.1120	-0.0181
	(0.2210)	(0.0621)	(0.0555)	(0.0884)	(0.0360)	(0.1478)	(0.1295)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	163	163	163	163	163
Adjusted R-squared	0.192	0.030	0.065	-0.007	0.010	0.067	0.134

Table 4 The impact of newborn gender on household investment - Sets of controls - continued

Panel C - Education

	% CASH	% SAFE ASSETS	% BOND	% RETIRE-MENT BENE-FITS	% LIFE IN-SURANCE	% RISKY ASSETS	% PHYS-ICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.3554***	0.0361	0.0378	0.0504**	-0.0092	0.1164**	-0.0809
	(0.0766)	(0.0330)	(0.0292)	(0.0237)	(0.0151)	(0.0483)	(0.0718)
NEW BABY BORN * BOY	0.1629	-0.0370	-0.0321	-0.0499	0.0329	-0.1186*	0.0999
	(0.1216)	(0.0378)	(0.0381)	(0.0501)	(0.0434)	(0.0706)	(0.1027)
No. FAMILY MEMBERS	0.1871**	0.0165	0.0307	0.0101	0.0005	-0.0271	0.0777
	(0.0865)	(0.0197)	(0.0231)	(0.0532)	(0.0103)	(0.0362)	(0.0896)
% FEMALES	0.6053**	0.0406	-0.0839	-0.0996	-0.0526	-0.4041*	-0.0766
	(0.2937)	(0.0777)	(0.0706)	(0.1273)	(0.0525)	(0.2044)	(0.1504)
HIGHEST EDUCATION	-0.0870	0.0076	0.0069	-0.0010	0.0034	0.0098	0.0392
	(0.0577)	(0.0084)	(0.0099)	(0.0097)	(0.0057)	(0.0125)	(0.0275)
FINANCIAL EDUCATION	-0.0234	0.0058	0.0157	0.0209	-0.0085	-0.0157	0.0041
	(0.0517)	(0.0221)	(0.0403)	(0.0196)	(0.0102)	(0.0153)	(0.0380)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	163	163	163	163	163
Adjusted R-squared	0.219	0.033	0.075	0.004	0.012	0.069	0.143

Panel D - Income and attitude

	% CASH	% SAFE ASSETS	% BOND	% RETIRE-MENT BENE-FITS	% LIFE IN-SURANCE	% RISKY ASSETS	% PHYS-ICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.3707***	0.0263	0.0419	0.0495*	-0.0058	0.1271***	-0.0760
	(0.0805)	(0.0266)	(0.0318)	(0.0295)	(0.0113)	(0.0474)	(0.0678)
NEW BABY BORN * BOY	0.1999	-0.0458	-0.0312	-0.0346	0.0268	-0.1293*	0.0800
	(0.1369)	(0.0404)	(0.0540)	(0.0461)	(0.0343)	(0.0686)	(0.1100)
No. FAMILY MEMBERS	0.1740*	-0.0103	0.0393	0.0214	0.0076	-0.0316	0.0826
	(0.0998)	(0.0273)	(0.0395)	(0.0696)	(0.0121)	(0.0390)	(0.0964)
% FEMALES	0.7229**	0.0329	-0.0795	-0.0437	-0.0797	-0.4129*	0.0173
	(0.3240)	(0.0650)	(0.0890)	(0.1095)	(0.0756)	(0.2102)	(0.2009)
NET INCOME	0.1311	0.0270	0.0073	0.0422	-0.0096	-0.0142	0.1389*
	(0.1588)	(0.0234)	(0.0262)	(0.0590)	(0.0183)	(0.0405)	(0.0735)
NET INCOME SQUARED	-0.0051	0.0003	-0.0014	-0.0024	-0.0023	-0.0019	-0.0143*
	(0.0176)	(0.0040)	(0.0031)	(0.0076)	(0.0030)	(0.0059)	(0.0084)
% OF INCOME EARNERS	-0.1287	-0.2112	0.0479	0.0666	0.0391	0.0131	-0.0348
	(0.2945)	(0.1769)	(0.0671)	(0.1802)	(0.0411)	(0.1152)	(0.2693)
EMPLOYED HEAD OF HOUSEHOLD	-0.1216	0.0345	-0.0063	-0.0787	-0.0024	0.0408	0.0211
	(0.2714)	(0.0365)	(0.0274)	(0.0725)	(0.0158)	(0.0388)	(0.0837)
FINANCIAL RISK	0.0098	0.0006	-0.0142	0.0093	0.0091	-0.0427	0.0315
	(0.0505)	(0.0139)	(0.0259)	(0.0123)	(0.0113)	(0.0263)	(0.0503)
PARENTS ALIVE	0.1025	-0.0006	-0.0089	0.0387	0.0040	-0.0975	0.0772*
	(0.1474)	(0.0153)	(0.0141)	(0.0359)	(0.0109)	(0.0704)	(0.0462)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	163	163	163	163	163	163	163
Adjusted R-squared	0.223	0.091	0.045	0.018	0.044	0.118	0.165

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). Panel A includes a set of controls related to household composition; Panel B controls for geographical provenance; Panel C includes controls for education; and Panel D reports controls for income and attitudes. All estimates include household and time fixed effects and standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 5 The impact of newborn gender on household investment - full specification

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.4499***	0.0206	0.0352	0.0818	0.0093	0.1442***	-0.0424
	(0.0759)	(0.0281)	(0.0329)	(0.0587)	(0.0117)	(0.0512)	(0.0665)
NEW BABY BORN * BOY	0.2250*	-0.0151	-0.0206	-0.0730	0.0074	-0.1548**	0.1231
	(0.1368)	(0.0341)	(0.0445)	(0.0892)	(0.0261)	(0.0740)	(0.1154)
No. FAMILY MEMBERS	0.0447	-0.0594	0.0245	0.1090	0.0668	0.0649	-0.0560
	(0.1418)	(0.0495)	(0.0426)	(0.1876)	(0.0433)	(0.0812)	(0.1136)
% FEMALES	1.1728**	0.2605	-0.0613	-0.1466	-0.1958	-0.7348**	0.2981
	(0.4492)	(0.1571)	(0.1351)	(0.3791)	(0.1192)	(0.2905)	(0.3119)
No. CHILDREN	0.1686	0.0401	0.0488	-0.1495	-0.0704	-0.0907	0.0959
	(0.1610)	(0.0581)	(0.0521)	(0.1599)	(0.0453)	(0.0862)	(0.1330)
AGE HEAD OF HOUSEHOLD	0.0004	0.0052	-0.0003	-0.0067	-0.0042*	-0.0079	0.0228***
	(0.0096)	(0.0043)	(0.0025)	(0.0105)	(0.0024)	(0.0067)	(0.0070)
FEMALE HEAD OF HOUSEHOLD	-0.2484	-0.1002	-0.0057	-0.0344	-0.0184	0.1513	-0.0113
	(0.2401)	(0.0805)	(0.0312)	(0.1685)	(0.0147)	(0.1200)	(0.2139)
BORN IN NORTHERN ITALY	-0.0299	-0.0109	-0.0201	-0.0052	0.0048	0.0319	0.0414
	(0.0915)	(0.0194)	(0.0183)	(0.0314)	(0.0127)	(0.0397)	(0.1882)
FOREIGN COUPLE	-0.6635*	-0.2730	0.0785	0.0768	0.1483	0.3366*	-0.1615
	(0.3743)	(0.1809)	(0.1089)	(0.3310)	(0.1039)	(0.1713)	(0.2269)
HIGHEST EDUCATION	-0.1214**	-0.0014	0.0120	-0.0103	0.0105	0.0318*	0.0060
	(0.0549)	(0.0081)	(0.0123)	(0.0137)	(0.0090)	(0.0170)	(0.0241)
FINANCIAL EDUCATION	-0.0371	0.0074	0.0194	0.0224	-0.0099	-0.0152	0.0146
	(0.0599)	(0.0210)	(0.0409)	(0.0185)	(0.0123)	(0.0168)	(0.0401)
NET INCOME	0.1708	0.0297	0.0185	0.0236	-0.0076	-0.0075	0.1078
	(0.1833)	(0.0268)	(0.0252)	(0.0527)	(0.0208)	(0.0466)	(0.0679)
NET INCOME SQUARED	-0.0081	-0.0003	-0.0031	-0.0016	-0.0034	-0.0025	-0.0105
	(0.0201)	(0.0050)	(0.0031)	(0.0086)	(0.0036)	(0.0073)	(0.0078)
% INCOME EARNERS	-0.4512	-0.2297	0.1041	0.0124	0.0333	0.0944	0.0702
	(0.2897)	(0.1685)	(0.0689)	(0.1667)	(0.0413)	(0.1146)	(0.2435)
EMPLOYED HEAD OF HOUSEHOLD	0.1133	0.0253	-0.0657	-0.0265	-0.0410	-0.0689	-0.0438
	(0.2297)	(0.0280)	(0.0430)	(0.0787)	(0.0363)	(0.0627)	(0.1901)
FINANCIAL RISK	0.0219	-0.0109	-0.0214	-0.0009	0.0052	-0.0353	0.0217
	(0.0638)	(0.0202)	(0.0248)	(0.0261)	(0.0110)	(0.0296)	(0.0532)
PARENTS ALIVE	0.1166	-0.0154	-0.0111	0.0283	0.0060	-0.0808	0.0500
	(0.1203)	(0.0224)	(0.0203)	(0.0459)	(0.0134)	(0.0796)	(0.0607)
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163	163
Adjusted R-squared	0.278	0.118	0.061	-0.001	0.032	0.150	0.210

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). It includes as control variables household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 6 The impact of newborn and of newborn gender on investment diversification

	DIV INDEX (1)	DIV2 INDEX (2)	DIV INDEX (3)	DIV2 INDEX (4)	DIV INDEX (5)	DIV2 INDEX (6)
NEW BABY BORN	0.0099	-0.0339	0.0259	0.0006	0.0394**	0.0090
	(0.0156)	(0.0259)	(0.0200)	(0.0278)	(0.0195)	(0.0257)
NEW BABY BORN * BOY			-0.0415*	-0.0764	-0.0505**	-0.1404**
			(0.0230)	(0.0468)	(0.0240)	(0.0564)
Controls basic	Yes	Yes	Yes	Yes	No	No
Controls full	No	No	No	No	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163
Adjusted R-squared	0.122	0.135	0.138	0.173	0.210	0.308

The table reports the results of the effects of the birth of a new baby (Model 1 and Model 2) and of the newborn gender (Model 3 - Model 6) on two aggregate indexes of investment diversification (*DIV INDEX* and *DIV2 INDEX*). Model 3 - Model 6 include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl. Model 1 - Model 4 include only the control variables present in the basic specifications as in Table 2 and Table 3. Model 5 and Model 6 include the full set of controls as in Table 5. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 7 The impact of newborn gender on household investment - Without singletons

	% CASH (1)	% SAFE ASSETS (2)	% BOND (3)	% RETIREMENT BENEFITS (4)	% LIFE INSURANCE (5)	% RISKY ASSETS (6)	% PHYSICAL ASSETS (7)
NEW BABY BORN	-0.4499***	0.0206	0.0352	0.0818	0.0093	0.1442***	-0.0424
	(0.0770)	(0.0285)	(0.0334)	(0.0596)	(0.0119)	(0.0519)	(0.0675)
NEW BABY BORN * BOY	0.2250	-0.0151	-0.0206	-0.0730	0.0074	-0.1548**	0.1231
	(0.1388)	(0.0346)	(0.0452)	(0.0905)	(0.0265)	(0.0751)	(0.1171)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	139	139	139	139	139	139	139
Adjusted R-squared	0.520	0.109	0.224	-0.097	-0.036	0.044	0.486

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl and do not include singletons, that is households for which we have a unique observation. The table includes as control variables household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 8 The impact of newborn gender on investment diversification - Without singletons

	DIV INDEX	DIV2 INDEX
	(1)	(2)
NEW BABY BORN	0.0394*	0.0090
	(0.0198)	(0.0261)
NEW BABY BORN * BOY	-0.0505**	-0.1404**
	(0.0243)	(0.0572)
Controls	Yes	Yes
Household FE	Yes	Yes
Time FE	Yes	Yes
No. of Obs.	139	139
Adjusted R-squared	0.734	0.755

The table reports the results of the effects of the gender of a new baby on two aggregate indexes of investment diversification (*DIV INDEX* and *DIV2 INDEX*). Both models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of controls as in Table 5. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 9 The impact of newborn gender on household investment - Sovereign debt crisis

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.2206	0.0151	-0.0061	0.0625*	0.0395	0.1417	0.0528
	(0.1489)	(0.0815)	(0.0049)	(0.0374)	(0.0390)	(0.1107)	(0.1078)
NEW BABY BORN * BOY	0.3416***	-0.0471	-0.0070	-0.0053	0.0282	-0.1536**	0.1910
	(0.1193)	(0.0617)	(0.0070)	(0.0397)	(0.0736)	(0.0716)	(0.1683)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	102	102	102	102	102	102	102
Adjusted R-squared	0.528	0.131	0.463	0.562	-0.004	0.263	0.497

The table checks the robustness of the results shown in Table 3, Table 4 and Table 5 when restricting the sample to the years 2012-2016. It reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 10 The impact of newborn gender on investment diversification - Sovereign debt crisis

	DIV INDEX	DIV2 INDEX
	(1)	(2)
NEW BABY BORN	0.0379	0.0458
	(0.0246)	(0.0652)
NEW BABY BORN * BOY	-0.0896***	-0.1212*
	(0.0318)	(0.0630)
Controls full	Yes	Yes
Household FE	Yes	Yes
Time FE	Yes	Yes
No. of Obs.	102	102
Adjusted R-squared	0.299	0.254

The table checks the robustness of the results shown in Table 6 when restricting the sample to the years 2012-2016. It reports the results of the effects of the newborn gender on two aggregate indexes of investment diversification (*DIV INDEX* and *DIV2 INDEX*). Both models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 11 The impact of newborn gender on households' decision to invest

	ENTRY CASH	ENTRY SAFE ASSETS	ENTRY BOND	ENTRY RETIREMENT BENEFITS	ENTRY LIFE INSURANCE	ENTRY RISKY ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)
NEW BABY BORN	0.8910***	-0.1011	0.0358	0.0690	0.0539	0.2119***
	(0.1335)	(0.0909)	(0.0327)	(0.0548)	(0.0708)	(0.0761)
NEW BABY BORN * BOY	0.8048***	0.1848	0.0564	-0.2268*	-0.2196**	-0.1762*
	(0.1021)	(0.1267)	(0.0494)	(0.1160)	(0.0932)	(0.1058)
Controls	Yes[+]	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	76	151	157	142	147	157
Adjusted R-squared	0.988	0.186	0.154	0.223	0.204	0.179

The table reports the results of the effects of the newborn gender on the household's decision to invest in the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6). All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl. [+] Model 1 includes a partial set of control variables: it does not include controls related to geography and it does not include *Net Income Squared*, *% of Income Earners* and *Employed Head of Household*. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 12 The impact of newborn gender on household investment - SUR system without *% Physical Assets*

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)
NEW BABY BORN	-0.449***	0.0210	0.0356	0.0822**	0.00920	0.143***
	(-6.39)	(0.96)	(1.66)	(2.85)	(0.42)	(4.89)
NEW BABY BORN * BOY	0.216*	-0.00409	-0.0195	-0.0495	0.00813	-0.202***
	(2.31)	(-0.14)	(-0.68)	(-1.29)	(0.28)	(-5.23)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163
R-squared	0.835	0.647	0.735	0.767	0.573	0.710

The table checks the robustness of the results shown in Table 5 when the error terms in the equations are allowed to correlate. It reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6). All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of our control variables. The standard errors are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 13 The impact of newborn gender on household investment - SUR system with *% Physical Assets*

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.449***	0.0210	0.0356	0.0822**	0.00920	0.143***	-0.0434
	(-6.39)	(0.96)	(1.66)	(2.85)	(0.42)	(4.89)	(-0.88)
NEW BABY BORN * BOY	0.216*	-0.00409	-0.0195	-0.0495	0.00813	-0.202***	0.112
	(2.31)	(-0.14)	(-0.68)	(-1.29)	(0.28)	(-5.23)	(1.71)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	163	163	163	163	163	163	163
R-squared	0.835	0.647	0.735	0.767	0.573	0.710	0.801

The table checks the robustness of the results shown in Table 5 when the error terms in the equations are allowed to correlate. It reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of our control variables. The standard errors are reported in parentheses. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 14 The impact of newborn gender on household investment - First Child

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.5994*	0.0454	0.0102	0.0093	-0.0121	0.2676	-0.0218
	(0.3528)	(0.1760)	(0.0201)	(0.0926)	(0.0130)	(0.2472)	(0.2325)
NEW BABY BORN * BOY	0.1983	-0.1364	-0.0177	0.0677	-0.0190***	-0.4722***	0.0363
	(0.1680)	(0.1021)	(0.0156)	(0.0697)	(0.0066)	(0.1321)	(0.1194)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	65	65	65	65	65	65	65
Adjusted R-squared	0.745	0.430	0.188	0.555	0.811	0.715	0.545

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). The sample includes only firstborn children. All models include the interaction between the new baby born dummy and the baby gender dummy, NEW BABY BORN * BOY, which takes the value of 1 if the new baby is a boy rather than a girl and do not include singletons, that is households for which we have a unique observation. The table includes as control variables household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 15 The impact of newborn gender on investment diversification - First Child

	DIV INDEX	DIV2 INDEX
	(1)	(2)
NEW BABY BORN	-0.1592*	-0.4685***
	(0.0785)	(0.1095)
NEW BABY BORN * BOY	-0.1217**	-0.3311***
	(0.0481)	(0.0624)
Controls	Yes	Yes
Household FE	Yes	Yes
Time FE	Yes	Yes
No. of Obs.	65	65
Adjusted R-squared	0.633	0.736

The table reports the results of the effects of the gender of a new baby on two aggregate indexes of investment diversification (DIV INDEX and DIV2 INDEX). The sample includes only firstborn children. Both models include the interaction between the new baby born dummy and the baby gender dummy, NEW BABY BORN * BOY, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of controls as in Table 5. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 16 The impact of newborn gender on household investment - Other Children

	% CASH	% SAFE ASSETS	% BOND	% RETIREMENT BENEFITS	% LIFE INSURANCE	% RISKY ASSETS	% PHYSICAL ASSETS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NEW BABY BORN	-0.4316**	-0.0153	0.0158	0.2811**	0.0700	-0.1118	-0.2517
	(0.2149)	(0.0167)	(0.0793)	(0.1250)	(0.0712)	(0.0718)	(0.1507)
NEW BABY BORN * BOY	0.2076	-0.0102	-0.1337	0.0297	-0.0571	0.0084	0.4834
	(0.3319)	(0.0151)	(0.1014)	(0.1039)	(0.0610)	(0.0657)	(0.2997)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Obs.	102	102	102	102	102	102	102
Adjusted R-squared	0.396	0.205	0.390	0.678	-0.045	0.495	0.525

The table reports the effect of the gender of a new baby on the share of financial wealth allocated to the six asset classes (cash in Model 1, safe assets in Model 2, bond in Model 3, retirement benefits in Model 4, life insurance in Model 5, risky assets in Model 6) and on the share of total wealth allocated to physical rather than financial assets (Model 7). The sample includes only children who are not firstborn. All models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl and do not include singletons, that is households for which we have a unique observation. The table includes as control variables household and time fixed effects plus the full set of our control variables. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Table 17 The impact of newborn gender on investment diversification - Other Children

	DIV INDEX	DIV2 INDEX
	(1)	(2)
NEW BABY BORN	0.0209	0.0070
	(0.0322)	(0.0489)
NEW BABY BORN * BOY	-0.0073	-0.1406*
	(0.0416)	(0.0717)
Controls	Yes	Yes
Household FE	Yes	Yes
Time FE	Yes	Yes
No. of Obs.	102	102
Adjusted R-squared	0.323	0.524

The table reports the results of the effects of the gender of a new baby on two aggregate indexes of investment diversification (*DIV INDEX* and *DIV2 INDEX*). The sample includes only children who are not firstborn. Both models include the interaction between the new baby born dummy and the baby gender dummy, *NEW BABY BORN * BOY*, which takes the value of 1 if the new baby is a boy rather than a girl, household and time fixed effects plus the full set of controls as in Table 5. In all estimates standard errors (reported in parentheses) are clustered at the household level. *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively. Definitions of the variables are provided in Appendix 1.

Appendix 1 Variable definitions

Name	Definition
% CASH	Share of financial assets held in cash, defined as bank or postal deposits (current, saving accounts or deposit books)
% SAFE ASSETS	Share of financial assets held in safe assets, defined as certificates of deposit, repos, postal savings certificates, and Italian government bonds, such as T-bills, T-certificates and T-bonds
% BOND	Share of financial assets held in bond, defined as bonds issued by Italian firms and banks, money market funds and ETF, debt funds and foreign government securities
% RETIREMENT BENEFITS	Share of financial assets held in retirement benefits which include personal retirement plan or supplementary pension fund; state pension is excluded
% LIFE INSURANCE	Share of financial assets held in life insurance. It contains cash value life insurance but does not include insurance policies that provide a supplementary pension, such as individual pension plans
% RISKY ASSETS	Share of financial assets held in risky assets: stocks, shares of unlisted companies, shares in companies limited by shares - srl, shares of partnerships, mutual funds or ETF in equities and in foreign currencies, foreign equities, other foreign securities and other financial assets such as derivative securities, royalties
% PHYSICAL ASSETS	Share of total net worth held in real estate and in transport equipment (durables)
DIV INDEX	Sum of $quartile_{ac}$ where ac is the asset class, that is sum of seven discrete variables ranging from 1 to 4 based on the quartile (bottom to top) of the sample distribution computed by year they fall into, divided by 28
DIV2 INDEX	Squared value of the percentage of asset classes held in each quartile (that is the number of asset classes held in each quartile divided by 7, the total number of asset classes) summed up and this value subtracted from 1
ENTRY CASH	Dummy variable which takes the value of 1 for households that hold cash in t but not in t-2; 0 for households that do not hold cash both in t-2 and in t; missing otherwise
ENTRY SAFE ASSETS	Dummy variable which takes the value of 1 for households that hold safe assets in t but not in t-2; 0 for households that do not hold safe assets both in t-2 and in t; missing otherwise
ENTRY BOND	Dummy variable which takes the value of 1 for households that hold bond in t but not in t-2; 0 for households that do not hold bond both in t-2 and in t; missing otherwise
ENTRY RETIREMENT BENEFITS	Dummy variable which takes the value of 1 for households that hold retirement benefits in t but not in t-2; 0 for households that do not hold retirement benefits both in t-2 and in t; missing otherwise
ENTRY LIFE INSURANCE	Dummy variable which takes the value of 1 for households that hold life insurance in t but not in t-2; 0 for households that do not hold life insurance both in t-2 and in t; missing otherwise
ENTRY RISKY ASSETS	Dummy variable which takes the value of 1 for households that hold risky assets in t but not in t-2; 0 for households that do not hold risky assets both in t-2 and in t; missing otherwise

Continued on next page

Appendix 1 continued

Name	Definition
NEWBORN	Dummy variable which takes the value of 1 if household has a new baby; 0 otherwise
BOY	Dummy variable which takes the value of 1 if household has a new baby boy; 0 otherwise
No FAMILY MEMBERS	Number of components of the family
% FEMALES	Number of females/total number of family members
No CHILDREN	Number of children
AGE HEAD OF HOUSEHOLD	Age of the head of household, defined as the major income earner
FEMALE HEAD OF HOUSE-HOLD	Dummy variable which takes the value of 1 if the head of household, defined as the major income earner, is a woman
BORN IN NORTHERN ITALY	Dummy variable which takes the value of 1 if the principal respondent was born in norhern Italy, that is Valle d'Aosta, Piemonte, Liguria, Lombardia, Veneto, Trentino Alto Adige, Friuli Venezia Giulia and Emilia Romagna region; 0 otherwise
FOREIGN COUPLE	Dummy variable which takes the value of 1 if both the principal respondent and his wife/her husband do not hold Italian citizenship; 0 otherwise
HIGHEST EDUCATION	The highest level of education in the family among the following: primary school certificate; lower secondary school certificate; vocational secondary school diploma (3 years of study); upper secondary school diploma; 3-year university degree/higher education diploma; 5-year university degree; postgraduate qualification
FINANCIAL EDUCATION	Principal component analysis of three indicators of financial education, that is whether the household has a credit card, whether she uses the home banking service and whether she applies to more than one financial intermediary when asking for consumer credit
NET INCOME	Household net income
NET INCOME SQUARED	Square value of household net income
% INCOME EARNERS	Number of income earners/total number of family members
EMPLOYED HEAD OF HOUSEHOLD	Dummy variable which takes the value of 1 if the head of household, defined as the major income earner, is employed
FINANCIAL RISK	Household propensity to financial risk. It is based on the answer to the question 'In managing your financial investments, would you say you have a preference for investments that offer:' and ranges from 0 (if the answer is: low returns, with no risk of losing the invested capital) to 4 (if the answer is: very high returns, but with a high risk of losing part of the capital)
PARENTS ALIVE	Dummy variable which takes the value of 1 if parents of the principal respondent are alive; 0 otherwise

The table defines the variables used in the study. The source of the data is Bank of Italy (2018).

Appendix 2 Correlation matrix

	% CASH	% SAFE ASSETS	% BOND	% RETIRE-MENT BENE-FITS	% LIFE IN-SURANCE	% RISKY ASSETS	% PHYS-ICAL ASSETS	DIV IN-DEX	DIV2 INDEX	ENTRY CASH	ENTRY SAFE SETS	ENTRY AS-SETS BOND	ENTRY RE-TIREMENT BENEFITS	ENTRY LIFE IN-SURANCE	ENTRY RISKY SETS	No FAMILY MEMBERS AS-SETS	% FE-MALES	No CHIL-DREN	AGE HEAD OF HOUSE-HOLD	FEMALE HEAD OF HOUSE-HOLD	BORN IN NORTH-ERN ITALY	FOREIGN COUPLE	HIGHEST EDUCA-TION	FINANCIAL EDUCA-TION	NET IN-COME	% INCOME EARNERS	EMPLOYED HEAD OF HOUSE-HOLD	FINANCIAL HEAD OF RISK	PARENTS ALIVE
% CASH																													
% SAFE ASSETS	-.055 / .4856																												
% BOND	-.128 / .1044	.1402* / .0743																											
% RETIREMENT BENEFITS	-.1844* / .0085	-.0409 / .6043	.021 / .79																										
% LIFE INSURANCE	-.076 / .3353	-.0293 / .7103	-.032 / .686	.0061 / .9383																									
% RISKY ASSETS	-.1639* / .0866	-.0028 / .9718	.196 / .102	-.0105 / .8938	-.0058 / .9415																								
% PHYSICAL ASSETS	-.079 / .3191	.488 / .0964	-.004 / .964	.4375* / 0	.0219 / .7813	.0797 / .3121																							
DIV INDEX	.2223* / .0943	.3306* / 0	.2728* / 0	-.0226 / .1784*	.0159 / .171	-.0672 / .3843	.0135 / .844																						
DIV2 INDEX	.0443 / .478*	.0008 / .2601*	4E-04 / .0227	.1313 / .0001	.1365 / .098	.2284* / .0001	.1475* / .0603	.8127* / 0																					
ENTRY CASH	.4346* / .0001	.1057 / .3635	.121 / .299	.1413* / .1093	.0869 / .2582	.098 / .3895	.1508 / .1935	.5287* / .3691*	.6968* / 0																				
ENTRY SAFE ASSETS	-.1640* / .0442	.6498* / 0	.084 / .1815	.0206 / .731	-.0282 / .5536	.1892* / .1815	-.0075 / .927	.0067 / .3171*	.2198* / .0996	.1903* / 0																			
ENTRY BOND	-.121 / .1301	.1417* / .9766	.9010* / 0	-.0288 / .7205	-.0302 / .7071	.0482 / .5492	.0167 / .0601	.1409 / .105	.2038* / .0249	.1409 / .0896	.2833* / .0605																		
ENTRY RETIREMENT BENEFITS	-.135 / .1089	.0536 / .5261	.2380* / .004	.5184* / 0	-.0422 / .6176	.0733 / .386	.133 / .1147	.3478* / 0	.2493* / .0028	.2840* / .0029	.2011* / .0198	.2453* / .1400*	.1752* / .0429																
ENTRY LIFE INSURANCE	-.088 / .2875	.0043 / .6053	.053 / .528	-.0642 / .44	.3353* / 0	.1553* / .0604	.0465 / .5777	.2996* / .0108	.1932* / .019	.0029 / .3444	.0813 / .3447	.0635 / .0919	.0429 / .2249*	.1733* / .0364															
ENTRY RISKY ASSETS	-.1763* / .0072	.0367 / .6478	.2546* / 0	.131 / .102	.0072 / .9284	.0604 / .7975*	-.099 / .5267	.3507* / 0	.3307* / 0	.1107 / .3444	.1409 / .0008	.2114* / .0085	.6492 / .099	.0364 / .6402															
No FAMILY MEMBERS	-.079 / .3157	-.1261 / .1088	.079 / .314	.0723 / .3593	-.0889 / .0217	-.1125 / .1229	.1309* / .0937	-.1303* / -.1322*	-.1409 / -.2350*	-.2291* / .0316	.0757 / .3361	.0773 / .3302	-.0186 / .6402	.0162 / .6997	-.0315 / .0162														
% FEMALES	-.043 / .5834	.1188 / .1308	.044 / .579	-.0492 / .5328	-.0601 / .5255	-.0063 / .6457	-.1286 / .1019	-.0898 / .0957	-.1322* / .0924	-.2291* / .0465	.0104 / .0885	.897 / .1474	-.1222 / .0554	.3302 / -.0022	.0162 / .9525*	.0237 / .7108													
No CHILDREN	-.1 / -.1225	.09 / .252	.0545 / .6363	-.0373 / .5255	.371 / .0777	-.1395* / .0757	-.1510* / .0544	-.2442* / .0335	.0465 / .0885	.3447 / -.0554	-.0075 / .3329	.0329 / .5055	.1542 / .2704	-.0159 /	.9781 / -.0873	.9525* / -.1698*	.0412 / .6012												
AGE HEAD OF HOUSEHOLD	-.087 / .2896	-.0069 / .93	-.005 / .948	.0926 / .4897	-.033 / .6363	-.0698 / .2798	.1015 / .371	-.02 / -.099	-.074 / .0515	.0515 / .6589	-.062 / .1542	.0335 / .0385	.0329 / .6492	.0102 / .1684*	-.0873 / .277	-.1698* / .1316*	.6012 / .0317	.8496 / -.0778											
FEMALE HEAD OF HOUSEHOLD	-.1 / .1112	-.0819 / .0803	.013 / .039	.0461 / .0435	-.0542 / .1990*	.1866* / .0023	-.1825* / -.0684	.105 / .121	-.1845 / .1536	-.1845 / .6463	-.0376 / .0362	.897 / .2011	.2413 / .099	.102 / .9022	-.0841 / .286	.1316* / .0939	.0802 / .2554	.3233 / -.0256	-.0069 / .9301										
BORN IN NORTHERN ITALY	.2948 / .1112	.2986 / .0803	.013 / .039	.5588 / .0435	.4819 / .1990*	.0171 / .0023	.0197 / .1933*	.1822 / .121	.6283 / .1536	.1106 / .1536	.6463 / .0362	.6591 / .0543	.1018 / .1379	.9022 / .0204	.286 / -.0643	.0939 / -.0316	.3233 / -.0256	-.0069 / .9301	-.0026 / .487										
FOREIGN COUPLE	.1576 / -.073	.3884 / -.0835	.624 / -.122	.3811 / -.016	.0109 / -.0718	.0763 / -.1165	.3858 / -.0991	.0134 / -.3564*	.124 / -.3299*	.1853 / -.3070*	.4994 / -.0998	.6591 / -.1157	.1018 / -.1595*	.8896 / -.1322*	.7408 / -1470*	.6892 / .1359*	.7405 / .2634*	.5368 / -.1191	.9737 / .1083	-.0026 / .487									
HIGHEST EDUCATION	.3544 / .2319*	.2895 / .2331	.122 / .504	.839 / .1720*	.3626 / .0698	.1386 / .2483*	.208 / .0425	-.3564* / .5167*	.5628* / .4890*	.0728 / .149	.149 / .024	.2229 / .024	.0579 / .2520*	.0657 / .1647*	-1470* / .2476*	.1359* / .0836	.2634* / .0007	-.1191 / .1299	.1083 / .1686	-.0166 / .1031	.119 / .1302	-.3060* / -.4085*							
FINANCIAL EDUCATION	.0044 / .3238*	.2331 / .118	.504 / .2013*	.0282 / .0702	.3763 / .0836	.0014 / .1626*	.5897 / .0127	.0134 / .5400*	.4843* / .4890*	.8391* / .0004	.0158 / .085	.7658 / .1298	.0025 / .3600*	.0462 / .2455*	.0018 / .2244*	.1757 / -.0307	.0018 / -.0146	.1902 / .8259	.119 / .0174	-.1031 / .8339	.1302 / .2305*	-.4085* / .0001	.5544* / 0						
NET INCOME	.0618 / .2617*	.1336 / .1420*	.01 / 1.422*	.3735 / .1676*	.0345 / .6918	.0982 / .1936*	.5717 / .1839*	.6254* / .5976*	.5976* / .3296*	.0004 / .5833*	.2994 / .2294*	.2994 / .1268	.603 / .3716*	.603 / .2467*	.0047 / .2417*	.8259 / -.4210*	-.0146 / .0046	.8259 / -.1267	.0073 / .0947	.8533 / -.1167	.0674 / .0987	-.3610* / .2203	.6394* / .5098*	.5674* / .2948*					
% INCOME EARNERS	.0837 / .0851	.0707 / .1259	.07 / -.01	.026 / .7421	.1098 / .1873	.1830* / .0133	-.0689 / .131	.3443* / .3296*	.3296* / .4480*	.4566* / .3634*	.0046 / .2231*	.0046 / .001	.0026 / .1471*	.2467* / .1790*	.2417* / .1635*	-.4210* / .046	.0046 / .4664	-.1267 / .1249	.0947 / .0342	-.1167 / .2291	.0987 / .1094	.2203 / -.0786	.5098* / .0001	.2948* / .0001	.4431* / .3894*	.1724* /			
EMPLOYED HEAD OF HOUSEHOLD	.2798 / .2303*	.1259 / .744	.904 / .077	.7421 / .068	.1873 / .0453	.1830* / .0735	.3823 / .2381*	.3117* / .4480*	.4480* / .3634*	.4566* / .0939	.2231* / .0939	.001 / .9002	.1471* / .1358	.1790* / .0516	.1635* / .0925	-.7018* / -.1350*	.0021 / .0858	-.6905* / -.0311	.0342 / .5515	.2291 / .6643	.1094 / .1646	-.0786 / .0002	.5098* / .2796*	.2948* / .0001	.4431* / .3894*	.1724* /	1		
FINANCIAL RISK	.0031 / .0606	.3452 / .0033	.33 / .1332*	.3845 / -.0055	.566 / -.0834	.3511 / .018	.0022 / .1015	.0001 / .1702*	.1918* / .1855	.1855 / .1087	.0886 / .0735	.2697 / .149	.1576* / .0611	.0885 / .0125	.0828 / .3026	-.1564* / .0461	.0832 / .0276	.694 / .0428	.0023 / .7263	.0276 / .6643	.2789 / .3862	-.1367* / .0002	.1291 / .0598	.1477* / .0001	.1857* / .0176	.0705 / .3714	.0024 / .9758	1	
PARENTS ALIVE	.3213 / .0896	.9667 / .0867	.09 / -.031	.9447 / .018	.2897 / .0528	.8807 / -.0889	.1974 / -.0214	.0298 / .065	.0142 / .0663	.1087 / .1253	.3368 / .1181	.2697 / .0802	.0611 / .0815	.0125 / .8805	.3026 / -.0448	.0461 / .0918	.0461 / .0917	.0428 / .0863	.7263 / -.084	.3507 / .5515	.3862 / .1367*	-.1111 / -.0786	.0598 / .1150*	.0598 / .0001	.0176 / .0365	.3714 / .0066	.9758 / -.0038	.0024 / -.0948*	1

The table reports correlations for the regressors used the analysis. * indicates significant at 10 per cent level. Definitions of the variables are provided in Appendix 1.

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