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SOEP – The German Socio-Economic Panel Study at DIW Berlin

540-2013

# Wealth distribution within couples and financial decision making

Markus M. Grabka, Jan Marcus, Eva Sierminska

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ISSN: 1864-6689 (online)

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# Wealth distribution within couples and financial decision making

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January 2013

## Abstract

While most studies on wealth inequality focus on the inequality between households, this paper examines the distribution of wealth within couples. For this purpose, we make use of unique individual level micro data from the German Socio-Economic Panel (SOEP). In married and cohabiting couples, men have, on average, 33,000 Euro more net worth than women. We look at five different sets of factors (demographics, income, labor market, inheritances, financial decision making in the partnership) that might explain this wealth gap. We find that all factors contribute to the explanation of the wealth gap within partnerships, with inheritances and income being particularly relevant. Furthermore, we find that specific characteristics (e.g. self-employment, no migration background, inheritances, high income) that decrease the wealth gap for women increase it for men. For men the respective coefficients are even stronger in absolute terms. When examining intra-partnership financial decision making, we find the gap to be significantly smaller when the female manages the money and larger if the male partner has the last word in financial decisions.

*Keywords:* Wealth gap, Wealth inequality, Intra-household allocation, Gender, Financial decision making, SOEP

*JEL-code:* J2, D13, D31, D69, I31

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## 1. Introduction

Welfare-oriented analyses of economic outcome measures, such as income and wealth, are typically carried out at the household level. These analyses assume that all members in a household equally pool and share funds; i.e. all individuals exert similar control over “household resources.” Meanwhile, it is well known that household and individual welfare are not the same (e.g. Phipps & Burton 1995), although examining the distribution of the ownership of income and wealth in the household context is almost always hampered by the lack of individual level data.

Thus, the inability to distinguish between asset ownership within the household constrains many studies to focus on differences among family structures (e.g. Zagorsky 1999, Schmidt and Sevak 2006) and to rely on the implicit assumption of internal redistribution of wealth across members within a household. However, as shown by Frick et al. (2007) this assumption masks the “true” degree of inequality within households: Using households as the aggregation unit and applying per-capita household wealth to all household members yields a Gini coefficient for net worth of about .70, which is about 8% less than the one obtained from individual wealth information instead (.76). For a more top-sensitive inequality measure, like the half squared coefficient of variation, this reduction is even stronger, about 25%.

Most studies of intra-household resource allocation focus on consumption and income, finding that it does matter whether the woman or the man has access and/or control of resources. The more equal the access and control, the more balanced is the use of income and household financial decisions. As most asset information is recorded at the household level, there are few studies examining intra-household allocation in wealth (Lundberg and Ward-Batts 2000, Sunden and Surette 1998, for example) and whether there exists a wealth gap within the household (Sierminska et al. 2010). Meanwhile, wealth affects the possibility of current and future consumption and is therefore central to measuring the well-being of households and their members.

Determining who controls assets within a household could be meaningful for several reasons. First, holding wealth within the household provides individuals with a greater share of household resources and gives them a better negotiating position within the household. Second, unlike consumption decisions that are typically life-style choices, decisions regarding savings and assets are crucial in protecting women and men against future unexpected events. Finally, it seems that control over assets could potentially be more important than control over income. Income matters when it is received for everyday spending. Accumulated wealth, on the other hand, potentially influences people’s well-being for the entire period it is held, which could be a much longer period than for income. In addition, the way people manage and accumulate wealth will also determine their financial security during their senior years. Given that women live longer and spend more of their years in retirement it could be reassuring from a policy point of view to see more savings and as a result more assets in the hands of women.

We make several contributions to the literature. First, we examine the distribution of wealth within couples (married and cohabiting), something that is rarely possible. To this end we make use of unique individual level micro data that records individual level wealth as well as ownership of assets and liabilities. Further, we identify some of the explanatory factors of the gap and examine the role of the intra-partnership financial decision

making in explaining the within household wealth gap. Finally, we investigate whether the intra-partnership gap declines with the level of bargaining power within the household.

The paper has the following structure: The next section contains an overview of the literature. This is followed by section 3, which reviews the data and the empirical strategy. Section 4 shows the empirical results and section 5 provides conclusions.

## 2. Related Literature

Population surveys typically collect wealth information at the household level as reported by the reference person (typically defined as the household head, although not always). This is the case in surveys, such as the Survey of Consumer Finances (SCF), the Spanish Survey of Household Finances (EFF), the Bank of Italy's Survey on Household Income and Wealth (SHIW) to name a few. However, this type of recording of wealth information allows neither for examining wealth distribution within households nor by gender. Thus, when trying to identify wealth differences by gender, for example, studies typically focus on comparing one-person-households only (e.g. Schmidt and Sevak 2006, Yamokoski and Keister 2006, Chang 2010). Alternatively, studies focus on single wealth components where data is available at the individual level such as pension wealth (see Warren 2006). The common problem faced by studies using household level wealth data is that it is not possible to assign asset ownership to particular individuals within married couples. Consequently, there is little effort at decomposing wealth differentials by gender and there is not much that can be said about the financial well-being of married women (with respect to wealth holdings) even though a growing number of economic studies emphasizes the importance of looking at intra-household inequality (e.g. Haddad and Kanbur 1990; Woolley 1993, Allmendinger et al. 2006, Deere and Doss 2006).

Only a few studies examine the distribution of wealth within households. Frick et al. (2007), for example, show that inequality is higher when individual level data are used instead of household level data. Given that household level data implicitly assumes an equal distribution of resources within the household, this creates a downward bias on inequality measures. The same authors also find that an increase in inequality based on standard inequality measures is higher for wealth than for income. This indicates that by using household level data for wealth one assumes an even greater redistribution within the household than when using income measures. Considering that many countries have an equal split of assets in case of divorce, perhaps the issue of within household inequality is not seen as a crucial topic for some. However, the question of whether the threat point of individual economic well-being within a marriage is divorce or perhaps non-cooperation is an outstanding one. For the latter case, higher relative ownership of assets and thus a lower wealth gap within the household would increase the bargaining situation within the household.

In order to explain the size of the gap within households we review the income literature. The literature on within household *income* variation (e.g. Pahl 2000) puts forward several factors for variation in couples' relative earnings. In the US, race is a good predictor of higher wives' contribution to family income as black women have higher labor force attachment compared to white women; and black men are seen as the most disadvantaged group in the labor force. Winslow-Bowe (2006) finds that women with a college education are more likely to have a temporary or persistent earnings advantage over their male partners (regardless of his education) than less

educated women. On the other hand, more women than men work in part-time jobs, where the pay per hour is less than for full-time work.

In terms of the gender wealth gap, Sierminska et al. (2010) show—for *all* men and women—that a wealth gap between women and men preexists marriage. Partners enter marriage with different levels of wealth because of age (typically men are 3 years older), men have higher earnings and their labor market participation is stronger (Blau and Kahn 2000). This gives rise to higher wealth accumulation for men than for women. The wealth gap can be attenuated if women and men invest differently (Bajtelsmit and Bernasek 1996); they have different levels of risk tolerance (Jianakopulos and Bernasek 1998), different consumption and saving patterns (Fisher 2010), unequal credit conditions (Alesina et al. 2013), and also inheritances (Edlund and Kopczuk 2009).

We extend the findings by Sierminska et al. (2010) by focusing on wealth differences within partnerships in order to identify the true degree of inequality within households. Moreover, we examine the role of intra-partnership financial decision making in the size of the gap. This is important as the financial decision making process can reduce the wealth gap that may have existed before the marriage or before becoming partnered. Therefore, we hypothesize that, *ceteris paribus*, joint financial decision making by couples will lead to a smaller intra-partnership wealth gap, compared to couples where only one person has the responsibility—the man in particular. These hypotheses follow previous findings in the literature. For instance, Deere and Twyman (2012) show that women’s share of couples’ wealth is positively and significantly associated with the likelihood of symmetry and agreement in joint decision making among couples. However, findings from Bernasek and Bajtelsmit (2002) imply that women are more likely to influence financial decisions when they contribute a larger share to household income. Given that women’s earnings are on average lower than men’s, wealthier households show significantly less female involvement in financial decision-making.

### **3. Data and estimation strategy**

#### **3.1. Data**

We draw on data from the Socio-Economic Panel (SOEP), a representative longitudinal survey of individuals living in private households across Germany (Wagner et al. 2007). The survey started in 1984 in West Germany and extended to include East Germany in 1990. At present, the survey consists of nine different subsamples with an oversampling of migrants and, in particular, high income households, which is crucial for this paper. Each household has to fill in a household questionnaire, while each individual household member over 17 years of age is required to answer an individual questionnaire. We use data from 2007, when more than 20,000 individuals in over 10,000 households participated. We restrict the sample to cohabiting couples (independent of their marital status, hereafter couples) and are left with around 7,200 couples.<sup>1</sup>

#### **3.2 Outcome variable**

In 2007, the SOEP questionnaire included a special module focusing on *individual* wealth data. Individual level wealth data is a rare feature that is crucial for our analyses. Information is elicited for eight different asset and

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<sup>1</sup> Given our main research interest to analyze the gender wealth gap within couples we refrain from considering homosexual partnerships.

debt components: owner-occupied property (and associated debt), other property (and associated debt), building savings contracts, financial assets, life insurance policy (including private retirement insurance), business assets, valuable assets (including jewelry, gold, arts, etc.) and consumer loans. The data misses such asset components as durables, vehicles and pension entitlements from public pension schemes.<sup>2</sup> The SOEP wealth questionnaire did not survey children below 18, which should not distort our results since we focus on cohabitating couples (and because wealth holdings by children are presumably rather small). A more serious problem in collecting wealth data at the micro-level is measurement error from various sources such as rounding, misreporting and non-response (see, e.g., Riphahn and Serfling 2005). On the one hand, separately asking all adult household members instead of a single household representative may increase the accuracy of the true wealth holdings of each individual. On the other hand, this increases the probability of item-non response on at least one single wealth component within the household and the risk for inconsistent information (e.g., two partners providing non-matching information on the very same issue, such as a commonly owned home). Coping with all these measurement problems is a major task. In the case of the SOEP wealth data, inconsistencies have been addressed by means of editing on a case-wise basis, while missing data is corrected for by multiple imputation techniques, explicitly considering the potential selectivity of the underlying missing mechanisms (for a description of these procedures see Frick et al. 2010b). A comparison with corresponding information from national balance sheets, however, indicates that the SOEP wealth data performs rather well (Frick et al. 2010a).

Our main dependent variable is the intra-partnership wealth gap<sup>3</sup> defined as the difference between the male partner's wealth and the female partner's wealth. Hence, a positive intra-partnership wealth gap indicates that the male possess higher wealth than the female. In order to mitigate the effect of outliers we apply a 0.1% top and bottom coding for individual net worth. As is the case for wealth (level) data, the distribution of the intra-partnership wealth gap is also highly skewed. To further mitigate the influence of outliers, we apply the inverse hyperbolic sine transformation (Pence 2006) of the intra-partnership wealth gap for the multivariate regression analysis.<sup>4</sup>

### 3.3 Explanatory variables

We use five different sets of explanatory variables to explain the intra-partnership wealth gap. These sets include demographics, income, labor market information, inheritances and variables related to power in the partnership. The *demographic* variables include age and the difference in age (i.e. the male's age minus the female's age). These variables are in line with the life-cycle hypothesis (Modigliani 1966), which states that wealth increases over the lifetime up to retirement in order to smooth consumption. The larger the age difference between the two partners, the bigger the intra-partnership wealth gap as the male partner has had more time to accumulate wealth. We control for whether the couple has children. Given that a woman's propensity to spend income on family provisioning and children's nutrition is greater than a man's (Blumberg 1988), this reduces her ability to accu-

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<sup>2</sup> Most survey data does not capture public pension entitlements as these are, for the most part, not known to the respondent. For the relevance of public pension entitlements in wealth inequality research, see Frick and Grabka (2013).

<sup>3</sup> We use wealth and net worth interchangeably in the paper. Net worth is defined as the differences between total assets and liabilities.

<sup>4</sup> As a robustness check, we use an alternative transformation of the wealth gap, we take the (natural) logarithm of the absolute value of the gap and for negative wealth gaps multiply this logarithm by “-1”; we do not perform any transformation for the zero-difference. The general findings are confirmed.

mulate wealth and should increase the wealth gap. Further demographic covariates encompass marital status as well as the length of marriage. We also include the immigrant status given that a migrant typically has below average wealth (Bauer et al. 2011), and the geographic region for East and West Germany, because the wealth accumulation process in the two regions has been dramatically different. We control for life events such divorces or widowhoods by including appropriate dummy variables. These events most likely have substantial effects on individual wealth levels. Finally, by considering the (inverse hyperbolic sine) couple's total net worth, we control for an overall level effect, assuming that the gap increases with total household wealth.

To proxy for permanent income we use 5-year-averages of individual total income. We include the income of the female as well as the difference between the male's and the female's income.<sup>5</sup> The total income measure consists of individual earnings, self-employment income, unemployment benefits, pensions and private transfers received.

Variables related to the labor market comprise of information for both spouses on the number of years in full time/part time or unemployed, as well as on self-employment status (yes/no) and civil servant status (yes/no). The latter indicator variable is of particular relevance in Germany as all wealth surveys show a pronounced wealth advantage for civil servants compared to other dependent employees (e.g. Frick et al. 2010a). We also include the years of education for the female partner and the difference between the spouses' years of education. The difference in education is to control for bargaining power within the household.

The fourth set of explanatory variables covers inheritances and gifts. These are the main elements of great fortune. Gale and Scholz (1994) find that inheritances account for at least 50 percent of the net worth of American families. Thus, we assume that inheritances play an important role in explaining the intra-partnership wealth gap. The SOEP collects annual inheritance data, but only at the household level. However, in 2001 the respondents were also asked to provide inheritance information at the individual level. We include two binary variables for each spouse to differentiate past and more recent inheritances (one for inheritances before 1992, the other for those between 1992 and 2001).<sup>6</sup> Furthermore, we include dichotomous variables for missing inheritance information as some individuals joined the survey after 2001 and, hence, did not provide this information. The shortcoming of the inheritance variables is that they do not consider more recent events.

The fifth set of explanatory variables includes proxy information on the distribution of power and control within a partnership. The distribution of these aspects within the household may have a significant impact on the intra-partnership wealth gap: Gender differences that are prevalent outside the household could be leveled out or even reinforced within the household. Differences in the labor market, for example, (in particular the gender earnings gap) can directly impact the overall gender wealth gap, but women's and men's access to financial resources in couples also depends on what happens to the money after it enters the household (Kenney 2006). Thus we make

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<sup>5</sup> In the case that the income information is missing for some years, we only use the available years for the computation of the mean. All income information is transformed to 2005 Euros.

<sup>6</sup> We refrain from considering the amount of an inheritance/bestowal in order to avoid any assumptions about appreciation (e.g. appreciation differs for property and financial assets) and investment patterns given the timing of inheritances and correction of item-non response. We do perform robustness checks with uncorrected amount variables (see Section 4.2.1 FN 15).



use of two variables that describe the financial decision making process. These are the “last word in financial decisions” and “money management within the couple” variables. These serve as proxies for implementing power and orchestration power as described by Safilios-Rothschild (1976). Individuals that have implementation and orchestration power within a partnership also have more control over financial resources and thus a higher probability of having more wealth than the other. If a joint decision process is arranged, one would assume a rather small intra-partnership wealth gap, which might be the result of wealth differences that exist before the individuals became a couple.<sup>7</sup>

For the financial decision making variables we take advantage of two questions contained in the survey. For the first variable the respondents answer the question “Who has the last word in your relationship when making important financial decisions?” Answers include “Me”, “my partner” or “both of us equally”. The money management variables are based on the question “How do you and your partner decide what to do with the income that one of you or both receive?” There are five categories: Separate money management, pooled money management, partly pooled and partly separate, I manage and partner manages.<sup>8</sup> We only use the information of the female partner on power variables. If the woman does not provide information on the power variables, we utilize the man’s answer.<sup>9</sup>

### 3.4 Estimation strategy

Our empirical section consists of three parts. In the first part, we provide descriptive statistics for the size of the intra-partnership wealth gap as well as bivariate associations with some key explanatory variables. Here, we also look at the couples’ total wealth holdings. All descriptive findings are analyzed from the perspective of the female and weighted with the survey weight of the female. The second part of the empirical section comprises multivariate analyses of the wealth gap. Here, we look whether the bivariate associations remain when controlling for further variables. We estimate the following equation:

$$IPG_i^{asinh} = \alpha + \beta X_i + \varepsilon_i,$$

where  $IPG_i^{asinh}$  denotes the (inverse hyperbolic sine transformed) difference between the wealth holding of the male and the female partner in couple  $i$ .  $\alpha$  is an intercept,  $\varepsilon_i$  a random error term.  $X_i$  include the explanatory variables, which we include stepwisely in the regression, as described in section 3.3. We estimate these equations by

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<sup>7</sup> It should be noted that managing the money in a couple does not necessarily imply controlling the financial resources (Pahl 1995). We also find this to be the case in our data based on the two variables (“last word in financial decisions” and “money management”).

<sup>8</sup> The original wording of the five answer categories is a) Everyone looks after their own money, b) We put the money together and both of us take what we need, c) We put a share of the money together, and both of us keep a share of it for ourselves, d) I look after the money and provide my partner with a share of it, e) My partner looks after the money and provides me with a share of it.

<sup>9</sup> One cannot assume a perfect match of the answers by both partners. However, there is a large overlap. For robustness purposes we considered different codings of the power variables. We used a) only the male partner’s information, b) the woman’s answer and an additional dummy variable indicating a deviating answer of the man, and c) only the information of couples without contradictions and an indicator variable for whether the partners disagreed. For all these codings the results did not change meaningfully. In terms of financial decision making, the highest overlap of about 95% can be found for those stating that both have the last word. If the female answer that the partner has the last word, there is an overlap of at least 70%. While if she declares to have the last word the accordance is about 67%. For the latter two groups about 27% of the male partners have the opinion that a joint decision making process is taking place. There is also no full overlap between the answers of both partners with respect to money management. The share of overlaps varies from 76% for part of money is shared to 95% for all money is shared.

Ordinary Least Squares (OLS) and compute robust Huber-White standard errors. As there might be omitted variables, i.e. variables that are correlated with both  $X_i$  and  $\varepsilon_i$ , we do not want to give our estimates a causal interpretation. Given that little research is available despite its importance (see also section 2), identifying the determinants of the wealth gap is seen as a first step in this field. Identifying the causes of the wealth gap is an area for future research.

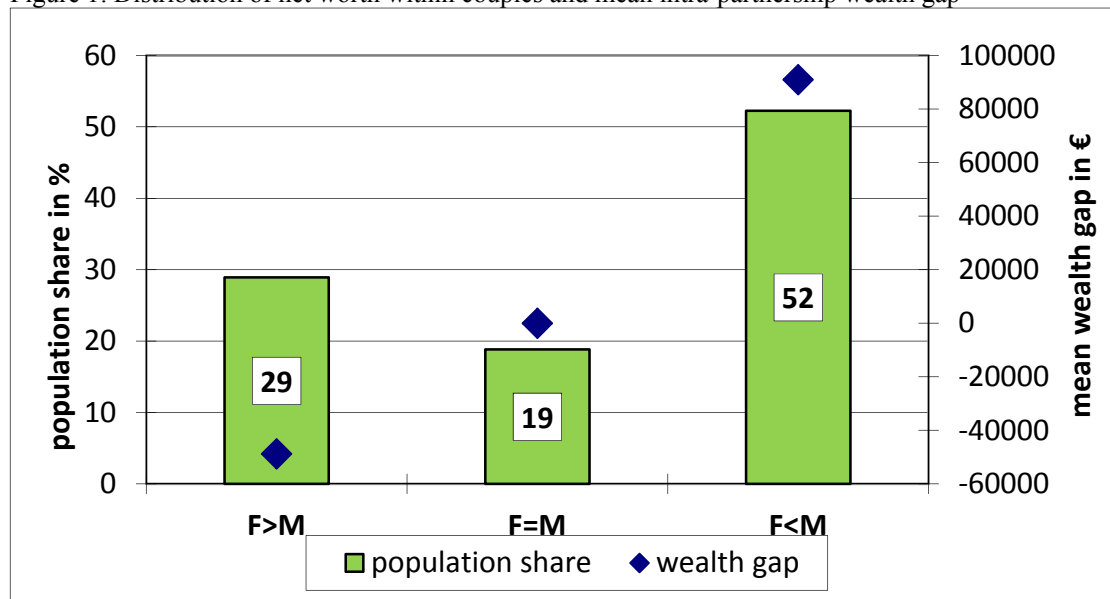
#### 4. Empirical analysis

This section provides both descriptive (section 4.1) and multivariate analyses on the wealth gap within couples (section 4.2). Section 4.2 is subdivided in three parts. First, a multivariate analysis of the wealth gap within couples is performed, where the explanatory variables are considered stepwise. Secondly, robustness checks of the preferred OLS model are performed and thirdly an alternative examination of the intra-partnership wealth gap will be presented.

##### 4.1A description of the wealth gap within couples

The mean difference in net worth between men and women within a partnership is about 33,000 Euro. However, as seen in Figure 1, men do not always possess more wealth than women within these partnerships. While 19% of all couples have equal net worth –often no net worth at all– in at least 29% of the couples the female has greater net worth than her partner. Here, the mean intra-partnership wealth gap amounts to more than -48,000 Euro (-14,000 at the median) with women having about 104,000 Euro net worth—more than twice as much as their male partner. The remaining share of couples (52%) consists of males having more wealth than their female partner with a mean wealth gap of nearly 91,000 Euro (25,000 Euro at the median). The mean net worth of male partners, in this case, sums up to 183,000 Euro, which is also twice as much as the mean net worth of their female counterparts.

Figure 1: Distribution of net worth within couples and mean intra-partnership wealth gap

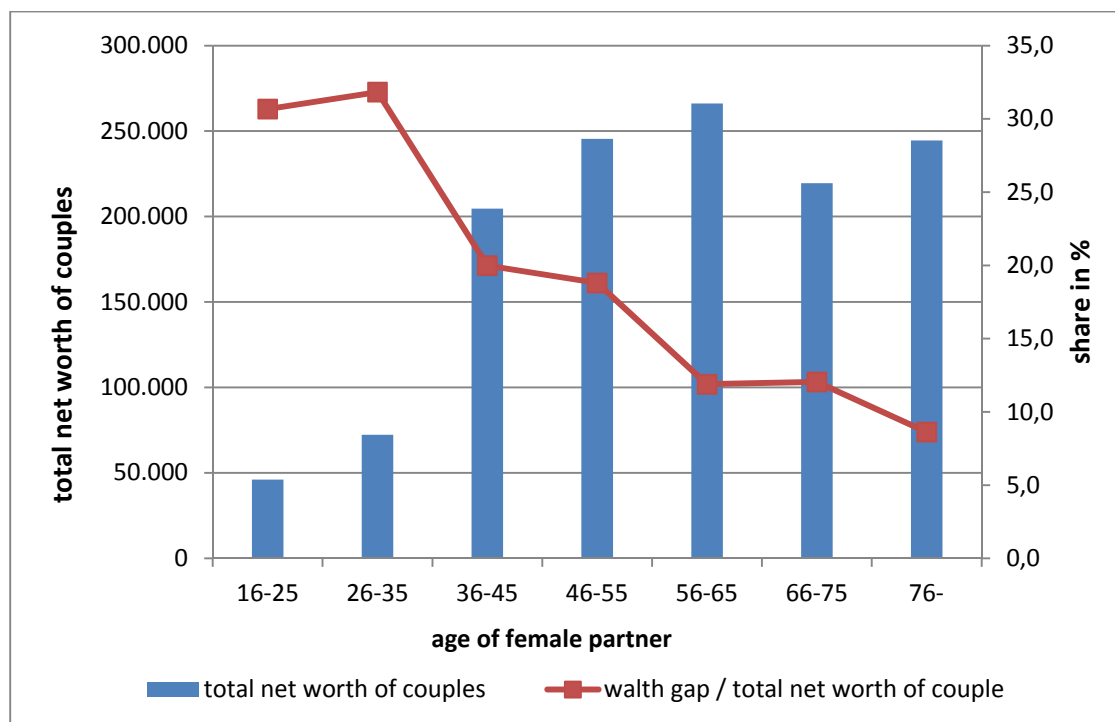


Source: SOEPv27, only couples and cohabiting partners.

In couples with equal mean net worth, the mean value of total net worth is about 156,000 Euro. It is the same in couples, where the female partner has more wealth than her partner. In couples where the male partner has more wealth than his partner, total net worth is about 245,000 Euro. If he dies, his partner could profit from the bequested net worth of her partner. However, during marriage this wealth gap might affect intra-household bargaining.

Following the life-cycle hypothesis (Modigliani 1966), wealth increases over the lifetime up to retirement and then decreases as individuals decumulate in order to smooth consumption. Putting aside cohort effects for a moment, in figure 2 we display the couple's net worth for female age groups. We find that up to the 56-65 age group total wealth within a couple continuously rises to more than 250,000 Euro on average. After the official retirement age of 65, decumulation most likely occurs. For the oldest group of females, total net worth is higher, which might be the result of inheritances—most likely from a previous partner or parents—or the social gradient in mortality.<sup>10</sup>

**Figure 2: Total net worth of couples and ratio between the wealth gap and total net worth of couple**



Source: SOEPv27, only couples and cohabiting partners.

Next, we control for the size of total net worth and look at the *relative* wealth gap (mean intra-partnership wealth gap as a percent of total net worth of couples). Here, there is a clear indication that the *relative* gap between men and women in a partnership is lower for older individuals.<sup>11</sup> This finding might be the result of different financial decision making across age groups. While men and women at the beginning of a partnership still manage their

<sup>10</sup> Breyer and Marcus (2011) find that also for women life expectancy increases with income.

<sup>11</sup> However, the absolute value of the intra-partnership wealth gap follows an inverse U-shaped pattern with the highest absolute value of about 46,000 Euro for females in the age group of 46-55 years. This peak might be the result of different labor market attachment and a persistent gender pay gap, amongst others.

financial affairs on their own, in a long-term relationship joint financial decision making becomes more important, with females typically gaining more. Hence, the relative wealth gap declines.

Another relevant demographic variable, which might be related to the intra-partnership wealth gap, is the information about whether or not a household has children. Having children typically negatively influences the labor market participation of women in Germany, thus reducing the chances to accumulate wealth on their own. As expected, couples without children under the age of 16 years have a higher total net worth of about 207,000 Euro; more than couples with children, who have a total net worth of roughly 175,000 Euro. This outcome is in line with the literature (see e.g. Yamokoski und Keister 2006). However, the findings for the intra-partnership wealth gap do not confirm the hypothesis of mothers having a higher wealth gap. While this gap is about 36,000 Euro for couples without children, the respective figure for households having children is only about 21,000 Euro. This could again point to a different financial decision making behavior, i.e. having children tend to increase the probability for a joint decision making process or one that reduces the gap within the household.

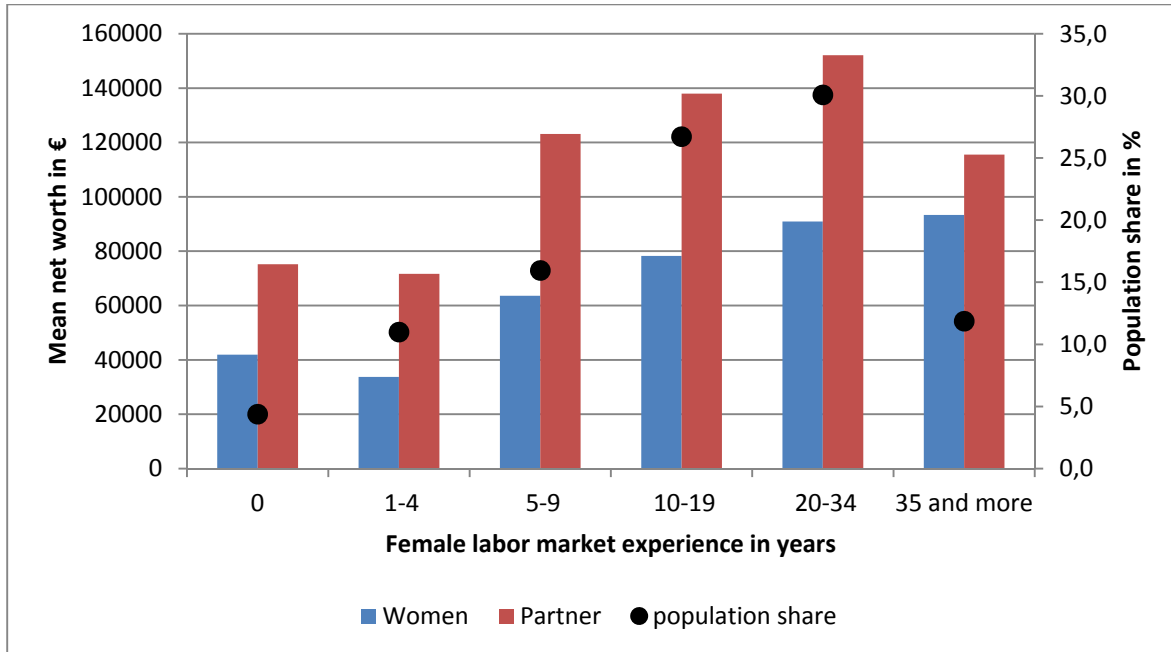
The gender wealth gap might differ when considering cultural differences. Individuals who lived in East Germany before the wall came down might have a smaller intra-partnership wealth gap than those living in the western part of Germany. The socialistic German Democratic Republic had a policy of gender equality. Therefore, women had equal rights and equal obligations, i.e. the share of fulltime employed women was and still is higher in the eastern part of Germany. These cultural differences could also translate into the gender wealth gap and, in fact, our findings confirm this. For those living in East Germany at the time of 1989 (the year the wall came down) the mean intra-partnership wealth gap is less than 15,000 Euro, while the respective figure for West Germans is about 40,000 Euro, where a traditional male-breadwinner model was prevalent thus reducing the chances for the wealth accumulation of women (results available from authors upon request).

A further relevant demographic characteristic is family status. Singles show a significant smaller absolute gender wealth gap than married couples; however, this is the result of an age bias, given that mean wealth is rather small for young adults. A more interesting finding is that widowhood seems to be significantly related to the intra-partnership wealth gap. While for female widows with a new partner this gap is only about 10,000 Euro, the gap becomes even bigger when looking at male widowers—with a new partner—with nearly 96,000 Euro. It can be assumed that an inheritance could either lower the wealth gap for women or enlarge in case a man gets an inheritance (results available from authors upon request).

Gender differences in the labor force are well investigated showing that there is a significant difference in labor market participation between women and men as well as a pronounced gender wage gap (e.g. Blau and Kahn 2000). Both affect wealth accumulation of women. Thus, one could assume that even with increased labor market participation of women, an intra-partnership wealth gap still remains. This is true for all groups displayed in figure 3. Women with more labor market experience accrue more wealth. However women with at least 35 years work experience have a smaller wealth gap. Here, the differences between the two sexes amount to only 13,000 Euro. For females with 10 to 19 years of labor force participation this gap is more than 40,000 Euro. For these women, the relative large wealth gap might be explained by the widespread male breadwinner model in Germany in which women suspend their labor market career while the male partners continue working. The gap for

women without any labor force participation is remarkable. These women have below average wealth but the intra-partnership wealth gap amounts to only 25,000 Euro. This finding might be the result of either an age bias towards young females or a bias in terms of a low paid male partner.

**Figure3: Female labor market experience in years and mean net worth by partner**



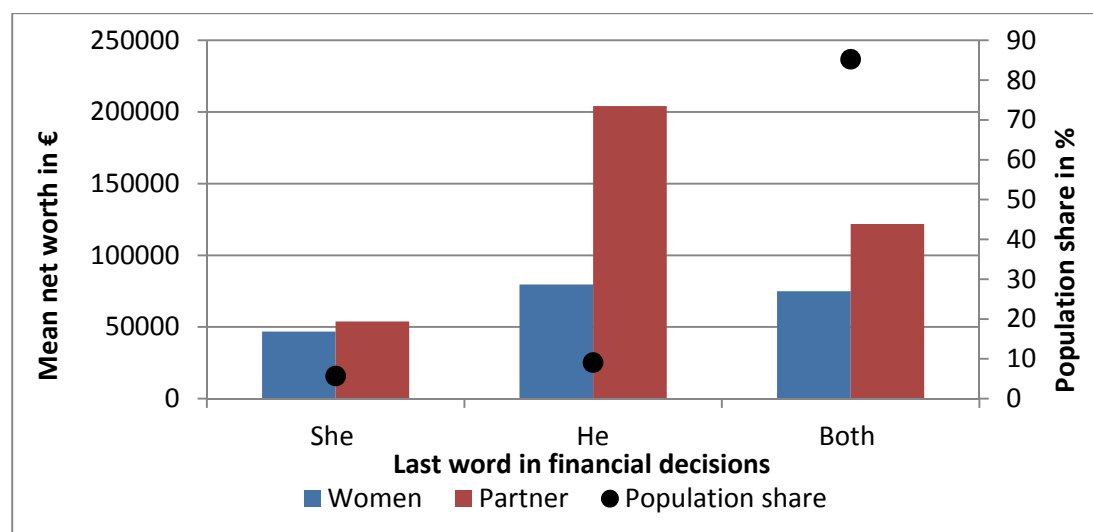
Source: SOEPv27, only couples and cohabiting partners.

Beside labor force characteristics, inheritances play a very important role for wealth accumulation (Gale and Scholz 1994, Wolff 2002, Edlund and Kopczuk 2009). Receiving a significant inheritance can lower/enlarge the intra-partnership wealth gap. This is confirmed by considering recent inheritances, i.e. inheritances since 1992. If a female received an inheritance, the intra-partnership wealth gap is less than 10,000 Euro. Conversely, if an inheritance has been devolved to a male partner, the mean intra-partnership wealth gap becomes much greater, reaching 62,000 Euro.

Next, we consider differences in outcomes with respect to financial decision making and money management. As seen in Figure 4, the intra-partnership wealth gap is the highest when the man has the last word in financial decisions (6% of the population). Coincidentally, these are the richest households. Here, mean net worth of the man is about 204,000 Euro, while the woman partner has only 80,000 Euro. If the woman declares that both partners decide on financial issues, female partners show only a slightly lower net worth of 75,000 Euro (85% of all couples). However, the mean net worth of the respective male partner is much smaller, at only 122,000 Euro. Interestingly, the intra-partnership wealth gap is not the smallest for the group that declares that both decide, but in the group where she has the last word in financial issues (9% of the couples). Here the mean gap amounts to

only 6,500 Euro. However, this is the group with the lowest mean net worth of about 47,000 Euro for females and 54,000 Euro for males.<sup>12</sup>

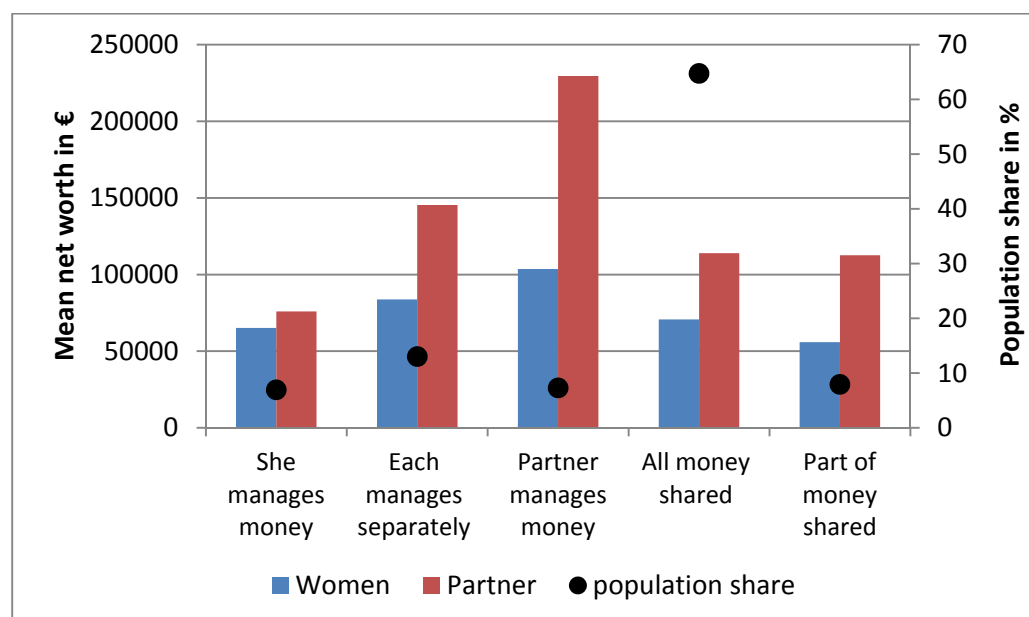
**Figure 4: Last word in financial decisions and mean net worth by partner**



Source: SOEPv27, only couples and cohabiting partners.

The second question about financial decision making within a couple is “money management” (figure 5). Again about two-thirds of all females state that money is equally shared, but this does not directly translate into equal wealth holdings. Here the mean intra-partnership wealth gap is about 33,000 Euro and does not differ from the population mean. A comparable wealth gap is observed for couples that share part of the money and for couples where both manage money individually.

**Figure 5: Money management within couples and mean net worth by partner**



<sup>12</sup> Shek-waiHui et al. (2011) confirm this finding for Canada. They show that households where the woman has the control over money have a significantly lower level of net worth compared to equal sharing and households where the man is in charge.

Source: SOEPv27, only couples and cohabiting partners.

Similarly, to the previously discussed findings for the last word in financial decisions, the intra-partnership wealth gap is again the highest (55,000 Euro) if only the male partner manages the money. Once again, the smallest intra-partnership wealth gap of about 10,000 Euro exists when the female manages the money alone. Total net worth of these couples is, yet again, the smallest for all groups. Based on these results it seems that only if there is little or no wealth (or income), which needs to be managed, females tend to be the ones in charge of looking for economic resources. Another potential explanation might be, that females need to take responsibility for economic resources because there is only small financial scope (see also Pahl 2000).

#### **4.2A multivariate examination of the wealth gap within couples**

Next, we want to identify some of the explanatory factors of the within couple wealth gap. We, first, regress the wealth gap within partnerships on different sets of regressors (4.2.1) and perform several robustness checks (4.2.2.). Next, we present an alternative specification of the outcome variable that only takes into account the direction of the difference between the male's and the female's wealth holding in the partnership, but not the size of the difference (4.2.3).

##### **4.2.1 Determinants of the within couple wealth gap**

Table 1 shows the results of the multivariate analyses of the wealth gap within a partnership, defined as the inverse hyperbolic sine of the difference between the man's and the woman's wealth. The columns display the coefficients of the five sets of explanatory variables (demographics, income, labor market, inheritances, financial decision making), which we include gradually.

The set of demographic variables we include in specification (1) explains around 5 % of the wealth difference. When including further explanatory variables in the other specification, the coefficients for the demographic variables change only marginally and, apart from the number of kids, do not lose significance. In line with our descriptive findings, we find that the wealth gap diminishes with age for females. Having a migration background deepens the intra-partnership wealth gap for women, which are most likely married to men who are better off. For men, the gap is smaller if they come from abroad. Migration is associated with costs and those who migrate to Germany are typically less well educated, have higher unemployment rates and below average earnings, which directly translate to lower levels of wealth (Bauer et al. 2011). If the male partner was a citizen of the German Democratic Republic this significantly lowers the wealth gap. This can be explained by overall lower wealth levels in East Germany due to the socialist economic system that existed before reunification and poor labor market conditions that have prevailed since then, which perpetuates lower wealth levels.

If the female is a widow, there is a chance that she has received an inheritance from her former spouse. The coefficient has the expected negative effect on the wealth gap, but this result is not significant. If the male partner is a widower, there is a strong positive effect that deepens the intra-partnership wealth gap although the size of the inheritance should be lower for males than for females.

Having children is usually associated with lower levels of wealth for women compared to childless adults. Thus we observe a negative and significant effect on the gap for females without children. This finding, though, is only significant in our first specification and disappears once income is controlled for.

Our basic regression model also considers the total net worth of both partners. As expected the intra-partnership wealth gap significantly increases with higher wealth levels. This could result from e.g. different risk attitudes and investment decisions, which are found to exist in the literature. Getting divorced, the length of marriage, and the age difference between the partners do not have any significant effect on the wealth gap within partnerships.

Our second factor in explaining the intra-partnership wealth gap is a proxy for permanent individual income (mean over five years). Here, we observe the expected effect: The higher the woman's income, the smaller the intra-partnership wealth gap. Regarding income differences between the two partners, there is a clear result that indicates that the wealth gap is reduced if the female makes more money than her partner. These two findings are robust for all stepwise regressions.

The third factor comprises labor market characteristics. Rather strong effects can be found if at least one of the partners is currently self-employed. For women this implies a reduction of the wealth gap, while if the male is self-employed the gap widens. The self-employed are not covered by the statutory pension system in Germany, thus they are responsible for their own old-age provision.<sup>13</sup> This is typically done by investing in private pensions or property and of course by business assets. This investment behavior enforces the gap between partners because our measure of wealth does not include any public pension entitlements. If the male partner experienced longer phases of unemployment or part time employment this reduces the chances to save, thus the gender wealth gap also becomes smaller. Examining the educational level of women—as measured by years of education—there is a small but significant effect on the wealth gap, i.e. the more educated is the woman the smaller is the gap.

In the fourth stepwise regression we control for inheritances received. Given that this information is surveyed in 2001 in the SOEP, we include a dummy variable (equal to 1) for those individuals who entered the survey in more recent waves. This dummy variable does not show any significant effect, but we obtain the expected signs. For women, receiving an inheritance clearly reduces the intra-partnership wealth gap. If the man profits from an inheritance, the gap becomes larger. Both findings are robust across all specifications. The effect for more recent inheritances (after 1992) is stronger for women, which could indicate more successful handling of the heritage, thus reducing the wealth gap.<sup>14</sup>

Our last explanatory factor of the intra-partnership wealth gap is the decision making process within a couple. We make use of three different approaches. First, we consider only the information about who has the last word

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<sup>13</sup> When we exclude the population of self-employed for a robustness check, the general results are confirmed.

<sup>14</sup> For a robustness check, we include the uncorrected logarithm of the amount of inheritances (see FN 7) together with the year of the inheritance. The results indicate that, *ceteris paribus*, a 10 % increase in inheritances of females decreases the wealth gap by more than 9 %. Conversely, the gap increases by about 8 % for a 10 % increase in the males inheritances. The coefficients of the other variables do not change meaningfully and the model fit improves slightly ( $R^2$  increases by 0.003). These results are available from the authors upon request.



in financial decisions (reference category is “both decide”, column 5). When the female states that she has the last word, then there is a negative effect (as already indicated by the descriptive analysis), however, it is not significant. If the male partner makes the decisions in financial affairs, we observe a strong positive effect, i.e. the wealth gap becomes bigger relative to those couples with joint decisions. This finding supports our hypothesis that larger wealth gaps exist when the male partner has the responsibility for financial affairs.

In the second approach, (column 6) we make use of information regarding money management within couples. The wealth gap is significantly reduced if the female decides alone compared to the reference category (all money shared). All other combinations show no significant results, but with expected signs. If separate money management is declared, there is a tendency for a reduced wealth gap. This also holds for couples where at least part of the money is combined. If only the male manages the money, the respective covariate gets a positive sign, i.e. the man further expands his net worth. The third approach (column 7) controls both for financial decision making and money management. The significant results remain, also reconfirming the fact that the two variables are measuring different aspects of money control.

#### **4.2.2 Robustness checks**

To check the sensitivity of our results we perform several robustness tests. First, we restrict the population of interest to couples below the age of 65 years, which is the official retirement age in Germany. We do this in order to concentrate on the phase of life when wealth is typically accumulated. All in all, the results change only marginally (specification 8) compared to the previous specification. Given the age cutoff, the woman's age is no longer significant. Neither is the time that the man spent in part time employment. The latter may be a result of reduced efficiency that leads to an insignificant coefficient.

In a further robustness check, we follow the literature on the existence of marriages of equally dependent spouses (Nock 2001) and apply this to the wealth context. Given that individual income is one of the most important factors for regular saving, we restrict the sample to equally dependent couples in terms of individual income. This will allow us to isolate to a greater extent the factors that contribute to the gap. We define equally dependent spouses as couples in which both partners contribute between 40% and 60% of total household income. In specification 9, the above presented significant findings for demographic characteristics nearly all become insignificant. Only the overall level of total wealth of the couple and the age of the female remain significant, which can point to wealth differences that preexist marriage or the importance of cohort effects. Differences in the labor force experience no longer provide a pronounced contribution in explaining the wealth gap. However, being self-employed is still relevant and becomes even more important. With respect to inheritances, one can still observe the same patterns as for the last stepwise regression for the total population. Inheritances are an important factor of the wealth gap. Lastly, the significant coefficients of the variables capturing financial decision making within couples have a similar magnitude as before, although the coefficient on the male's last word in financial decision making loses its significance. The coefficient on female's money management increases in absolute size and remains negative--suggesting women and men have different opinions in terms of money management. As previously shown in the literature, women may spend more on their children or invest differently, while men may be more inclined to save for their own needs.

#### 4.2.3 An alternative multivariate examination of the wealth gap within couples

In the above presented multivariate examination of the wealth gap within couples, we assume a linear relationship between the covariates and the wealth gap. However, one could also assume that there are opposing effects if either the female or the male has more wealth than his/her partner, i.e. some covariates might increase the chance that the female has more wealth than the male and at the same time increase the chance that the male holds larger wealth than the female. Thus, we apply a multinomial logit with three groups, where the reference group is couples with equal net worth (19% of the cases). The second group consists of couples where the female has more wealth (29 %); the third and largest group (52%) comprises couples where the male partner has more wealth.<sup>15</sup>

Table 2 compares average marginal effects of the multinomial logit model with the OLS coefficients of our preferred specification, specification (7). A first result is that the explained variance increases to 12.5% compared to less than 10% in the OLS model, which may point to existing nonlinearities in the relationship between the covariates and the intra-partnership wealth gap.

In the following, we focus on the results from the multinomial logit that are significantly different from each other, given the presented chi-2 test (last column of table 2). If the covariate in the OLS model shows a positive effect (an increase of the wealth gap), this corresponds to a negative effect for the probability that the female holds more wealth than her partner. Conversely, if a negative effect is given by the OLS model, the respective outcome in the multinomial model is also a negative probability that the male partner has more wealth than the female partner. A first difference noted between the OLS regression results and the multinomial logit can be found for the age difference. Although, this information had no significant effect in the OLS regression, we observe a small significant increase in the probability that the man has more wealth if the female is older than her male partner. This finding is somewhat surprising, given that this age difference would allow the female to accumulate more wealth prior to marriage. However, one should also consider the age of the female which points to a lower probability that the man has more wealth in comparison to the reference group with equal wealth holdings, i.e. the older the female the more likely equal sharing occurs.

The OLS regression results are confirmed by the multinomial logit regression for migration status, widowhood, the overall wealth level, individual income, the educational level, whether one of the partner is self-employed, for the last word in financial decisions and money management.

In the OLS regression the female's experiences in full-time and part-time employment had no significant effect on reducing the intra-partnership wealth gap. In contrast, the multinomial logit model suggests that these variables make it somewhat more likely that the female has more wealth than her partner. If the man suffers from phases of unemployment, the intra-partnership wealth gap is reduced following the OLS model. The multinomial model indicates that unemployment spells of the male partner make it less likely that the male partner possesses

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<sup>15</sup> We explicitly want to consider these three different groups that differ in qualitative terms. A quantile regression technique would subdivide the total population by percentiles only. We also run a multinomial logit where the reference group consists of couples where the individual wealth share varies between 40% and 60% of total couple's wealth in order to relax the strict assumption of having identical net worth. The main findings are confirmed.

more wealth than their partners. However, it does not significantly change the probability that the female holds more wealth than the male. Finally, the coefficients for the inheritance variables again indicate that inheritances play a pronounced role in explaining wealth differences within couples.

In a second step we also discuss variables for which the Chi-2-test does not indicate significant differences between the coefficients of the multinomial logit model. Firstly, we point to variables referring to the marital status of the couples. For example, in the OLS model, we do not obtain a significant coefficient for being not married. In the multinomial logit, however, we find a higher probability that the male holds more wealth than the female, if the couple is not married. This may point to the finding that partners already enter marriage/partnership with different wealth levels (Sierminska et al. 2010). Another interesting finding is that the length of a marriage, *ceteris paribus*, does not exhibit a significant effect neither in the OLS, nor in the multinomial logit model. Thus, one cannot speculate whether the gap is reduced with the length of marriage. Results indicate that separate money management has no effect in the OLS model. Though, the multinomial logit model suggests that in this case it is significantly more likely that the female will hold more wealth. One could therefore argue that females can profit from a separate money management and this might be in particular true if the female tends to have a higher bargaining power (Lee and Pocock 2007).

Summing up, the alternative specification of the intra-partnership wealth gap by applying a multinomial logit model complements the findings of the OLS regression, with some particular variations and additional insights.

## 5. Conclusions

In this paper we examine the wealth gap within partnerships exploiting unique individual wealth data of the German Socio-Economic Panel collected in 2007. We find that in 29% of all couples the female owns more net worth than her partner, for 19% of all partnerships there is parity between the wealth levels of the partners and finally in 52% of all couples the male partner has more wealth. Overall, the intra-partnership wealth gap (defined as the difference between the male's and the female's wealth) for German couples amounts to about 33,000 Euro in 2007.

We analyze several groups of variables that might explain the intra-partnership wealth gap (demographic, income, labor market information, inheritances and variables related to the control over money in the partnership). We find that all five groups contribute to the explanation of the wealth gap within partnerships. The wealth gap is the smallest in low wealth households where the woman has control over money management. The man makes most of the financial decisions in the richest households. Being self-employed and having recently received an inheritance also has strong effects. If a woman [man] is self-employed or has recently received an inheritance, the male-female wealth gap within the household is reduced [increased]. Thus, our results indicate that in a couple where the female has strong bargaining power in terms of higher income, has received inheritances or has a higher educational level, the probability to hold more wealth than her partner is higher. This follows the finding by Lee and Pocock (2007) who find in those situations the female saves more in total but also saves relatively more in her own account. If the female manages the money within a couple the intra-partnership wealth is smaller, while if he has the last word in financial issues the gap increases.

One relevant aspect that we do not consider in our empirical analyses is financial literacy and risk behavior (Lusardi and Mitchell 2008, Fonseca et al. 2010). It is shown that men and women differ in their financial knowledge and that females tend to invest more conservatively. These differences translate into different wealth levels. We are also not able to control for saving motives, which also differ between sexes. Women might be predicted to save more than men because of their higher life expectancy and a higher probability to become in need of care without having a partner. Additionally, the presence of children within the household can have an effect on the saving behavior (Shek-waiHui et al. 2011).

In this paper we focus on net worth from real and financial assets only. If one considers pension entitlements from public pension schemes, the observed intra-partnership wealth gap would further increase, given that the labor force participation and earnings are higher for males than for females. Further research may also examine in more detail the investment patterns between women and men in relation to their financial decision making, which may also explain the gaps.

We also cannot account for the phenomenon of hiding part of the money from the other partner (Malapit 2012). Ashraf (2009) allude that some partners may conceal part of the money, even while reporting joint control over financial resources. Finally, in this study we do not control for differences prior to the partnership given that we currently had only wealth information available for only 2002 and 2007, with an insufficient number of observations of new partnerships. More longitudinal information would also facilitate the analysis of causality which might be particularly relevant for the financial control variables.<sup>16</sup>

Are our findings a reason to be concerned? One may argue that even if there exist an intra-partnership wealth gap during marriage, both partners can profit from the usage of real assets, and in case of death the whole net worth devolve to the surviving partner. However, given that divorce rates are increasing in a majority of OECD countries, one can no longer rely on a long-lasting institution like marriage for economic security. Women's financial dependency also makes it more difficult for them to leave abusive relationships. In many countries, a divorce leads to an equal split of assets, i.e. everything that was acquired during marriage is subject to division.<sup>17</sup> However, as shown by Sierminska et al. (2010), men and women already enter marriage with pronounced different levels of wealth and, in most cases; females tend to have significant lower levels of net worth. A divorce is typically associated with costs, which may further reduce wealth levels. In addition, the final act of divorce is often preceded by a period of non-cooperation within the marriage, which provides the opportunity for partners to dissolve or transfer assets out of the marriage suggesting that direct control over assets and a negligible wealth gap is the preferred option for both partners.

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<sup>16</sup> For example, separate money management might lead a woman to return to full-time employment sooner after giving birth than she would if the couple practices joint decision making and thus impacting the individual wealth level (see also Kenney 2006). To analyze the causal relationship one could think about instrumental variables but finding an adequate (strong) instrument is a challenge. An alternative could be using randomized experiments, however our research setting does not allow for this possibility. Having longitudinal data at hand would of course enable us to analyze the change of individual and household wealth for new couples between 2002 and 2007 as a function of financial decision making. However, we only have 59 cases where information for both new partners is available.

<sup>17</sup> A special case could be debts. Even if only one partner raise a mortgage (which would be assigned in the questionnaire to that person only) in case of a divorce, banks usually force the other partner to amortize the outstanding debt.

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Table 1: Determinants of the wealth gap within the household (men-women)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Age <sup>f</sup>	-0.075*** (0.022)	-0.059*** (0.022)	-0.056** (0.027)	-0.057** (0.027)	-0.058** (0.027)	-0.057** (0.027)	-0.058** (0.027)	-0.023 (0.051)	-0.127** (0.054)
Δ Age	-0.043 (0.030)	-0.041 (0.029)	-0.048 (0.033)	-0.050 (0.033)	-0.052 (0.033)	-0.050 (0.033)	-0.051 (0.033)	-0.000 (0.051)	-0.099 (0.068)
Migranr <sup>f</sup>	1.599*** (0.515)	1.512*** (0.505)	1.594*** (0.503)	1.388*** (0.497)	1.278** (0.499)	1.283*** (0.497)	1.206** (0.499)	1.035* (0.555)	-0.246 (1.129)
Migranr <sup>m</sup>	-1.946*** (0.526)	-1.640*** (0.519)	-1.715*** (0.517)	-1.529*** (0.512)	-1.532*** (0.513)	-1.549*** (0.510)	-1.550*** (0.511)	-1.422** (0.574)	-1.084 (1.171)
East German <sup>f</sup>	-0.232 (0.749)	0.158 (0.737)	0.209 (0.740)	0.092 (0.746)	0.080 (0.742)	0.046 (0.744)	0.051 (0.741)	0.016 (0.789)	-0.488 (1.497)
East German <sup>m</sup>	-1.753** (0.755)	-1.337* (0.741)	-1.258* (0.743)	-1.130 (0.749)	-1.118 (0.745)	-1.109 (0.746)	-1.111 (0.744)	-1.111 (0.792)	0.165 (1.514)
No kids	-1.516*** (0.392)	-0.633 (0.395)	-0.629 (0.397)	-0.603 (0.395)	-0.618 (0.393)	-0.629 (0.397)	-0.635 (0.395)	-0.495 (0.466)	-0.395 (0.754)
Divorced <sup>f</sup>	0.087 (0.481)	0.227 (0.478)	0.191 (0.475)	0.225 (0.473)	0.243 (0.474)	0.225 (0.472)	0.242 (0.473)	0.158 (0.527)	-0.041 (0.942)
Divorced <sup>m</sup>	-0.603 (0.471)	-0.549 (0.466)	-0.620 (0.466)	-0.735 (0.465)	-0.741 (0.465)	-0.698 (0.464)	-0.707 (0.464)	-0.679 (0.532)	-0.780 (0.929)
Widowed <sup>f</sup>	-1.025 (1.068)	-1.095 (1.055)	-1.347 (1.058)	-1.376 (1.047)	-1.336 (1.048)	-1.308 (1.046)	-1.291 (1.046)	-0.790 (1.432)	-0.057 (1.930)
Widowed <sup>m</sup>	3.406*** (0.937)	3.171*** (0.913)	3.046*** (0.910)	2.914*** (0.891)	2.900*** (0.894)	2.847*** (0.893)	2.845*** (0.896)	2.881** (1.323)	2.213 (1.740)
Notmarried	0.287 (0.486)	0.365 (0.483)	0.290 (0.487)	0.412 (0.496)	0.396 (0.495)	0.468 (0.511)	0.455 (0.510)	0.285 (0.544)	1.340 (0.960)
Marriage (length)	0.026 (0.021)	0.012 (0.021)	0.006 (0.021)	0.006 (0.021)	0.005 (0.021)	0.005 (0.021)	0.004 (0.021)	-0.028 (0.028)	0.028 (0.040)
Wealth (asinh)	0.275*** (0.019)	0.262*** (0.020)	0.253*** (0.020)	0.250*** (0.021)	0.249*** (0.021)	0.248*** (0.021)	0.248*** (0.021)	0.263*** (0.023)	0.174*** (0.043)
Income <sup>f</sup>		-0.046*** (0.010)	-0.039*** (0.011)	-0.035*** (0.011)	-0.035*** (0.011)	-0.034*** (0.011)	-0.034*** (0.011)	-0.031** (0.012)	-0.011 (0.026)
Δ Income		0.034*** (0.005)	0.029*** (0.005)	0.032*** (0.005)	0.030*** (0.005)	0.031*** (0.005)	0.030*** (0.005)	0.030*** (0.006)	0.077* (0.044)
Education <sup>f</sup> (years)			-0.142** (0.068)	-0.120* (0.069)	-0.115* (0.069)	-0.126* (0.069)	-0.121* (0.069)	-0.099 (0.087)	-0.162 (0.145)
Δ Education			-0.027 (0.062)	-0.040 (0.062)	-0.048 (0.062)	-0.052 (0.062)	-0.056 (0.062)	0.004 (0.079)	-0.042 (0.141)
Exp. full-time <sup>f</sup>			-0.014 (0.015)	-0.016 (0.015)	-0.012 (0.015)	-0.013 (0.015)	-0.011 (0.015)	-0.016 (0.024)	-0.018 (0.039)
Exp. full-time <sup>m</sup>			0.017 (0.023)	0.016 (0.023)	0.015 (0.023)	0.013 (0.023)	0.012 (0.023)	0.026 (0.041)	0.069 (0.048)
Exp. part-time <sup>f</sup>			-0.025 (0.019)	-0.021 (0.019)	-0.017 (0.019)	-0.018 (0.019)	-0.016 (0.019)	-0.013 (0.029)	-0.019 (0.053)
Exp. part-time <sup>m</sup>			-0.124** (0.063)	-0.125** (0.063)	-0.125** (0.063)	-0.128** (0.063)	-0.127** (0.063)	-0.158 (0.101)	0.050 (0.109)
Exp. unempl. <sup>f</sup>			0.011 (0.058)	0.020 (0.057)	0.019 (0.057)	0.023 (0.057)	0.021 (0.057)	0.103 (0.071)	0.053 (0.121)
Exp. unempl. <sup>m</sup>			-0.130** (0.058)	-0.131** (0.058)	-0.129** (0.057)	-0.123** (0.057)	-0.123** (0.057)	-0.154** (0.075)	0.065 (0.116)
Self employed <sup>f</sup>			-1.679*** (0.633)	-1.693*** (0.632)	-1.670*** (0.630)	-1.701*** (0.632)	-1.685*** (0.630)	-2.015*** (0.661)	-4.022*** (1.371)
Self employed <sup>m</sup>			3.123*** (0.459)	3.084*** (0.456)	3.033*** (0.456)	3.058*** (0.455)	3.024*** (0.455)	2.856*** (0.479)	4.926*** (1.006)
Civil servant <sup>f</sup>			-0.066 (0.750)	-0.098 (0.749)	-0.148 (0.749)	-0.151 (0.750)	-0.183 (0.749)	-0.485 (0.776)	-0.817 (1.247)
Civil servant <sup>m</sup>			0.455 (0.575)	0.461 (0.574)	0.449 (0.575)	0.455 (0.575)	0.440 (0.575)	0.315 (0.592)	2.036* (1.204)
Inherit. > 1992 <sup>f</sup>				-2.900*** (0.508)	-2.890*** (0.507)	-2.908*** (0.508)	-2.901*** (0.508)	-3.086*** (0.589)	-4.558*** (1.068)
Inherit. > 1992 <sup>m</sup>				1.103** (0.508)	1.102** (0.507)	1.083** (0.508)	1.082** (0.508)	0.747 (0.589)	1.201 (1.068)



Table 1 continued ...

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Inherit. < 1992 <sup>f</sup>				(0.489) -2.064***	(0.488) -2.044***	(0.490) -2.108***	(0.489) -2.087***	(0.574) -1.938**	(1.053) -2.963**
Inherit. < 1992 <sup>m</sup>				(0.604) 2.735***	(0.603) 2.719***	(0.604) 2.758***	(0.603) 2.741***	(0.878) 2.405***	(1.238) 3.664***
Inherit. n.a. <sup>f</sup>				(0.481) 0.151	(0.480) 0.097	(0.482) 0.125	(0.481) 0.084	(0.662) 0.139	(1.025) -0.391
Inherit. n.a. <sup>m</sup>				(0.393) -0.627	(0.394) -0.604	(0.394) -0.592	(0.394) -0.581	(0.419) -0.560	(0.829) -1.111
Last word in financial decisions				(0.402)	(0.403)	(0.403)	(0.404)	(0.428)	(0.809)
- female					-0.635 (0.513)		-0.413 (0.522)	-0.303 (0.626)	0.064 (0.997)
- male					1.393*** (0.407)		1.305*** (0.424)	1.367*** (0.508)	1.284 (1.156)
Money management									
- separate						-0.242 (0.415)	-0.266 (0.415)	-0.337 (0.462)	-0.313 (0.787)
- female						-1.472*** (0.482)	-1.380*** (0.490)	-1.266** (0.594)	-1.975* (1.110)
- male						0.615 (0.475)	0.251 (0.495)	0.055 (0.656)	0.848 (1.462)
- partly						-0.449 (0.477)	-0.447 (0.476)	-0.204 (0.541)	-0.868 (0.892)
Constant	3.813*** (0.718)	3.001*** (0.733)	4.604*** (0.995)	4.509*** (0.990)	4.498*** (0.994)	4.810*** (0.996)	4.758*** (0.998)	3.112** (1.315)	6.240*** (2.156)
N	5846	5846	5846	5846	5846	5846	5846	4367	1405
R2	0.053	0.075	0.087	0.099	0.101	0.101	0.102	0.107	0.083
R2 a	0.050	0.072	0.082	0.094	0.095	0.095	0.096	0.099	0.056

Source: SOEPv27, only couples and cohabiting partners.

Note: The table presents the coefficients of OLS regressions and their robust standard errors, where the outcome is the (inverse hyperbolic sine of the) difference between the wealth of the male and the wealth of the female. Specifications (1)-(7) stepwisely include control variables, specification (8) considers only couples where both are 65 or below, and specification (9) only considers equally dependent spouses (in terms of income, 40-60 %). “<sup>f</sup>” [“<sup>m</sup>”] means that the variable applies to the female [male],  $\Delta$  denotes the difference between his and her value of the specific variable. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 2: Determinants of the wealth gap within the household (men-women OLS-regression) and marginal effects of a multinomial regression analysis

	(1)	(2)		
	(OLS)	(MLOGIT)		
		F>M	M>F	Chi2
Age <sup>f</sup>	-0.058**	0.001	-0.005***	1.99
Δ Age	-0.051	0.002	-0.004**	3.17*
Migrant <sup>f</sup>	1.206**	-0.068***	0.055*	5.38**
Migrant <sup>m</sup>	-1.550***	0.031	-0.102***	4.42**
East German <sup>f</sup>	0.051	-0.001	0.002	0.00
East German <sup>m</sup>	-1.111	0.030	-0.070	1.58
No kids	-0.635	0.013	-0.043*	1.52
Divorced <sup>f</sup>	0.242	-0.016	0.012	0.37
Divorced <sup>m</sup>	-0.707	0.029	-0.028	1.44
Widowed <sup>f</sup>	-1.291	0.057	-0.064	1.20
Widowed <sup>m</sup>	2.845***	-0.123***	0.143***	7.54***
Not married	0.455	-0.014	0.060**	1.48
Marriage (length)	0.004	-0.001	-0.001	0.19
Wealth (asinh)	0.248***	-0.010***	0.020***	112.08***
Income <sup>f</sup>	-0.034***	0.002***	-0.001*	7.75***
Δ Income	0.030***	-0.001***	0.001***	19.21***
Education <sup>f</sup>	-0.121*	0.008**	-0.006	3.85**
Δ Education	-0.056	0.004	-0.004	1.49
Exp. full-time <sup>f</sup>	-0.011	0.002*	-0.001	2.25
Exp. full-time <sup>m</sup>	0.012	0.000	0.001	0.05
Exp. part-time <sup>f</sup>	-0.016	0.003**	-0.001	3.05*
Exp. part-time <sup>m</sup>	-0.127**	0.007**	-0.005	3.46*
Exp. unempl. <sup>f</sup>	0.021	-0.002	-0.001	0.04
Exp. unempl. <sup>m</sup>	-0.123**	0.004	-0.019***	4.72**
Self employed <sup>f</sup>	-1.685***	0.111***	-0.069**	9.67***
Self employed <sup>m</sup>	3.024***	-0.086***	0.169***	25.66***
Civil servant <sup>f</sup>	-0.183	0.017	0.007	0.05
Civil servant <sup>m</sup>	0.440	-0.017	0.016	0.40
Inherit. > 1992 <sup>f</sup>	-2.901***	0.145***	-0.122***	30.81***
Inherit. > 1992 <sup>m</sup>	1.082**	-0.022	0.051*	1.76
Inherit. < 1992 <sup>f</sup>	-2.087***	0.112***	-0.100***	13.41***
Inherit. < 1992 <sup>m</sup>	2.741***	-0.094***	0.139***	19.03***
Inherit. n.a. <sup>f</sup>	0.084	-0.011	-0.009	0.03
Inherit. n.a. <sup>m</sup>	-0.581	0.024	-0.043*	2.44
Last word in financial decisions				
- female	-0.413	0.021	-0.012	0.42
- male	1.305***	-0.062***	0.066**	6.69***
Money management				
- separate	-0.266	0.043**	0.017	0.95
- female	-1.380***	0.086***	-0.067**	8.12***
- male	0.251	-0.011	0.014	0.16
- partly	-0.447	0.041	-0.004	1.20
Constant	4.758***			
N	5846		5846	
R2_adj / Pseudo R2	0.096		0.1252	

Source: SOEPv27, only couples and cohabiting partners.

Note: The table presents for specification (1) the coefficients of OLS regressions, where the outcome is the (inverse hyperbolic sine of the) difference between the wealth of the male and the wealth of the female. This specification resembles specification (7) of the previous table. Specification (2) are average marginal effects of a multinomial regression with the reference group of equally dependent spouses (in terms of net worth of female=male). “*f*” [“*m*”] means that the variable applies to the female [male], Δ denotes the difference between his and her value of the specific variable. \**p*< 0.1, \*\**p*< 0.05, \*\*\**p*< 0.01

Appendix: Table 3: Descriptive statistics of covariates used in the OLS regression of the wealth gap within the household

Variable	Obs	Mean	Std. Dev.	Min	Max
Wealth gap (asinh)	5846	2.485	9.543	-14	14
Age <sup>f</sup>	5846	50.332	14.436	18	91
Δ Age	5846	2.722	4.578	-22	37
Migrant <sup>f</sup>	5846	0.133	0.340	0	1
Migrant <sup>m</sup>	5846	0.130	0.337	0	1
East German <sup>f</sup>	5846	0.269	0.443	0	1
East German <sup>m</sup>	5846	0.259	0.438	0	1
No kids	5846	0.141	0.349	0	1
Divorced <sup>f</sup>	5846	0.132	0.338	0	1
Divorced <sup>m</sup>	5846	0.133	0.340	0	1
Widowed <sup>f</sup>	5846	0.019	0.136	0	1
Widowed <sup>m</sup>	5846	0.023	0.149	0	1
Notmarried	5846	0.108	0.311	0	1
Marriage (length)	5846	22.621	16.717	0	67
Wealth (asinh)	5846	9.976	6.327	-13	15
Income <sup>f</sup>	5846	14.919	15.81	0	380
Δ Income	5846	21.37	32.314	-309	484
Education <sup>f</sup> (years)	5846	12.084	2.616	7	18
Δ Education	5846	-0.436	2.505	-11	11
Exp. full-time <sup>f</sup>	5846	13.188	11.514	0	50
Exp. full-time <sup>m</sup>	5846	26.507	12.109	0	58
Exp. part-time <sup>f</sup>	5846	5.587	7.553	0	43
Exp. part-time <sup>m</sup>	5846	0.643	2.010	0	41
Exp. unempl. <sup>f</sup>	5846	0.888	2.051	0	26
Exp. unempl. <sup>m</sup>	5846	0.827	1.959	0	24
Self employed <sup>f</sup>	5846	0.050	0.219	0	1
Self employed <sup>m</sup>	5846	0.097	0.296	0	1
Civil servant <sup>f</sup>	5846	0.040	0.196	0	1
Civil servant <sup>m</sup>	5846	0.062	0.240	0	1
Inherit. > 1992 <sup>f</sup>	5846	0.081	0.273	0	1
Inherit. > 1992 <sup>m</sup>	5846	0.075	0.264	0	1
Inherit. < 1992 <sup>f</sup>	5846	0.056	0.230	0	1
Inherit. < 1992 <sup>m</sup>	5846	0.076	0.265	0	1
Inherit. n.a. <sup>f</sup>	5846	0.194	0.396	0	1
Inherit. n.a. <sup>m</sup>	5846	0.193	0.395	0	1
Last word in financial decisions					
- female	5846	0.061	0.239	0	1
- male	5846	0.088	0.283	0	1
Money management					
- separate	5846	0.148	0.355	0	1
- female	5846	0.067	0.249	0	1
- male	5846	0.063	0.244	0	1
- partly	5846	0.084	0.277	0	1

Source: SOEPv27, only couples and cohabiting partners.

**Acknowledgment**

The authors would like to thank Francesco Figari, Adam Lederer and the participants of the 2012 IARIW conference for helpful suggestions and comments.

**Funding**

Hans-Boeckler-Foundation for the project on ‘Vermögen in Deutschland. Status quo-Analysen und Perspektiven’ (HBS-Project-Nr. 2012–610–4) to Markus M. Grabka.

**Conflict of interest**

The authors declare that they have no conflict of interest.