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Should there be a more active role of family care assistants in long-term care provision?
– survey evidence on the view of German citizens

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Abstract

This paper deals with the public acceptance of policies that pave the way for a more active role of family care assistants in long-term care provision. Family care assistants, i.e. non-relatives providing homecare services in the own private home of the care recipient, provide valuable help for adult children organizing long-term care for their parents. However, their support comes at the price of transferring more family-owned wealth to non-relatives. Based on a survey among German citizens, we provide empirical evidence on the factors that drive the support for a more active role of family care assistants. We find support to be higher among subjects who gave long-term care personally. Monetary self-interest is found to matter. In addition, we find evidence of a clear line of conflict: Citizens with alive parents are more likely to support a more active role of family care assistants than citizens whose parents are dead.

JEL-Codes: H27, D31, D72

Key words: long-term care, intergenerational transfers, citizens' preferences, inheritance taxation, filial responsibility

1. Introduction

Many industrialized countries witness a substantial increase in demand for long-term care (hereafter LTC) in the last decades. For Germany, the Federal Statistical Office counted 2.25 million citizens officially registered to require LTC in 2007 (e.g., Husmann, 2010). Organizing and funding LTC is a major challenge. The recent social science literature on filial responsibility in Europe shows that adults generally accept the responsibility of taking care of their parents when these are in need (e.g., Daatland et al., 2011). In a recent survey, almost 80 percent of the German participants agree that “Children should take responsibility for caring for their parents when parents are in need”. At the same time, only about 23 percent of German respondents agreed that “Children should adjust their working lives to the needs of their parents” (see Herlofson et al., 2011). This shows that the social norm assigns adult children a crucial role when it comes to organizing LTC services for their parents while they do not generally feel obliged to provide these services personally.

In Germany, a place in a professional nursing home is difficult to get and very expensive. More importantly, surveys report that the German population strongly prefers to receive LTC services in the privacy of their own home (Eurobarometer, 2007). As a result, only one third of LTC recipients in Germany resides in a nursing home while the vast majority receives LTC services in the privacy of their own home (hereafter home care) (Geyer and Schulz, 2014). Professional nursing services often provide valuable help in these cases but there are many things left to do that these services do not provide. This especially true for patients suffering from dementia or Parkinson disease – a substantial and growing share of LTC-recipients (e.g., Alzheimer's Association, 2016). Thus, adult children who respect their parents' preference and try to organize homecare for them essentially face two options: They can provide the home care services for their parents personally or they can find a so-called family care assistant, i.e. a non-relative who provides homecare to their parents and is paid for these services (see Kluzer et al., 2010).

Providing home care personally entails substantial (opportunity) costs, especially for adult children who have a job and have to reduce working hours to provide home care (e.g., Schmidt and Schneekloth, 2011). These costs do not emerge if family care assistants are employed. In this case, however, the care receivers have to pay for the home care services of others and can thus transfer less wealth to their offspring – either *inter vivos* or in the form of bequests. For the current decade alone, wealth transfers from the old generation to the younger generation in Germany are estimated to amount to € 4.6 billion (e.g., Sieweck, 2011). Thus, the impact of LTC-arrangements on expected wealth transfers may be a significant argument to provide home care personally. On the other hand, the sociological literature informs us that subjects who gave care to relatives often feel severely overburdened and find it difficult to organize external help or relief (e.g., McCarty et al., 2008, Schmidt and Schneekloth, 2011; Brenna and Di Novi 2016). Pedelabat (2012) estimates that approximately 100.000 female migrants work fulltime in providing LTC to German citizens in 2010. These add to an unknown number of legal residents working as family care assistants (e.g., Scheiwe and Krawietz, 2010).¹ Thus, the support of family care assistants is welcome in many cases.

Given that the demand for LTC is going to rise in the future, governments need to develop a political strategy to meet this demand and at the same time to limit the concomitant rise in taxes and social security contributions. Policies that pave the way for a more active role of family care assistants are likely to be one element in this strategy. So far, we have very little systematic knowledge about citizens' view regarding a more active role of family care assistants: Are people willing to support a more prominent role of non-relatives in providing home care if this comes at the price of transferring substantial amounts of family-owned wealth to non-relatives?

¹

Most of the contracts between care receivers and non-relative home care providers are informal contracts and transactions take place in the shadow economy (e.g., Scheiwe and Krawietz, 2010).

This is where our paper comes in: We analyze data from a representative survey among the German population. In this survey, participants are asked whether they support a reform of the German inheritance tax that allows tax-free wealth transfers to non-relatives in exchange for home care services (for details, see section 3). The reform proposed in the survey is not publicly debated in Germany and a number of important arguments stand against its implementation.² However, it is a highly suitable vehicle by which we can address the main question posed above because the survey question points subjects at the – as we believe – most sensitive consequence of a more active role of family care assistants. We will use this vehicle to identify important driving forces behind subjects' willingness to support a greater role of family care assistants at the price of re-directing wealth transfers to non-relatives.

Our main results can be summarized as follows: We hypothesize that monetary self-interest matters. In line with this hypothesis, we find subjects who expect an inheritance to be less likely to support a more active role of family care assistants while we find support to be higher among subjects who incur large costs of providing homecare personally because they have young children or live far away from their parents. Sociological studies lead us to hypothesize that subjects who gave LTC personally are more supportive of a more active role of family care assistants because they are aware of the severe burden LTC implies for care-giving family members and the difficulties to organize external support. Our results support this hypothesis. Finally, we find evidence for a clear line of conflict: On the one side, there are subjects with alive parents. They expect to be giving LTC before they – later in life – may receive. This group seems to appreciate family care assistants because they help them to fulfil their obligation to organize homecare for their parents without having to provide homecare personally. Thus, they are more likely to support a more active role of family care assistants. On the other side, there are subjects

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For instance, administrative costs are likely to be high and this rule may open a loophole for tax evasion. In addition, it violates the principles underlying existing tax systems.

who primarily take the position of care receivers because their parents are dead. They are more skeptical about the role of family care assistants.

The remainder of the paper is organized as follows: Section 2 provides a brief review of the relevant literature and section 3 introduces the reader to the German institutional background. In section 4, we present the data and essential hypotheses. Section 5 presents the empirical analysis. Section 6 discusses the results before section 7 concludes.

2. Review of literature

Since their very beginning, human societies witnessed transfers of resources between generations. Today large amounts of intergenerational transfers are administered by the state or public social security system. Nevertheless, substantial intergenerational transfers still take place within the family. Some of these transfers are wealth transfers, especially gifts and bequests (e.g., Schupp and Szydlík, 2004; Kopczuk and Lupton, 2007). The industrialized world will experience unprecedented wealth transfers in the next decades. Wiktor (2010) estimate the average wealth transfers to exceed 4 trillion US-Dollars per decade in the next 50 years. In Germany alone, 4.6 billion € are to be transferred in the next decade (see Sieweck, 2011). Bequests from parents to their children and transfers to surviving spouses account the biggest share of all wealth transfers (e.g., Szydlík, 2004; Rowlingson and McKay, 2005). In the opposite direction, time, attention and, in particular, LTC are the main transfers. Measured by the opportunity costs of foregone wages when giving LTC, these transfers are also significant in size. In Germany, caregivers usually reduce their working hours when they start to provide LTC to a close relative and about 15 percent of them stop working entirely (e.g., Schmidt and Schneekloth, 2011). The hours of work of caregivers are sensitive to the change in hours of care they provide. Using data from OECD countries, Colombo et al. (2011) shows that 1 percent increase in hours of home care by family members leads to more than 1 percent decrease of working hours.

One of the crucial question in the analysis of intergenerational transfers is the question regarding the motives behind them. A number of different motives are discussed in the literature. The exchange model of intergenerational transfers argues that monetary support from parents to children is given in exchange for transfers the parents themselves received from their children (e.g., Bernheim et al., 1985; Geurts et al., 2012, Lopez-Anuarbe, 2013). In this case, bequests are the “final payment” in a reciprocal relationship between generations. A number of studies show that this form of reciprocal exchange is empirically relevant (e.g., Angelini, 2007; Leopold et al., 2014). This supports the notion that children who give home care to their parents are often rewarded through higher wealth transfers.

Next to direct reciprocity, a number of other motives behind intergenerational transfers can be identified. First, altruistic motives are widely recognized to play an important role. In particular, transfers from the older to the younger generation are recognized to be driven by the parents’ wish to support their offspring (e.g., Barro, 1974; Coall and Hertwig, 2010). Second, more recent studies support the notion of a widespread social norm of filial responsibility according to which adult children should take care of their elderly parents when the latter are in need for help (e.g., Rossi del Corso and Lanz, 2013; Herlofson et al., 2011). Arrondel and Masson (2001) argue that the social norm may result from the “demonstration effect”. Accordingly, a certain generation of old people transfers wealth and time to the younger generation because they received the same support when they were young. Similarly, the young provide the old with attention and LTC because they observed their parents to do the same when the latter were young. Having observed intra-familial transfers among preceding generations establishes a social norm that is passed on together with the wealth etc. (see also Brandt et al., 2009). Third, some authors argue that relatives may feel morally obliged to support their parents (e.g., Norton and Van Houtven, 2006; Norton et al., 2013). In the presence of altruistic motives, social norms or moral obligations, wealth transfers and/or home care are given without demanding a direct

transfer in exchange. Nevertheless, children can expect some monetary benefit from providing home care personally compared to the situation where parents pay for LTC-service from others. The reason behind this nexus is that less funds are needed to pay for external LTC-services and thus parents are left with more wealth to transfer.

Summing up, the literature sketched above supports the existence of the trade-off sketched in the introduction: Adult children who provide homecare personally can expect higher wealth transfers – other things equal. Put differently, giving a more active role to family care assistants entails a loss in expected wealth transfers.

As the main survey question used in this paper asks for the respondents' policy preferences on taxation, we have to acknowledge the corresponding literature. There is a substantial body of literature on tax policy preferences but the number of studies that focus explicitly on wealth transfer taxation is limited.³ The existing studies support the notion that self-interest matters: Subjects who expect to be burdened heavily by a tax tend to oppose it (e.g., Hammar et al., 2008; Page et al., 2013). A recent paper by Bischoff and Kusa (2016) is of particular relevance for the current analysis. Based on German survey data, they analyze the factors driving subjects' position on the question whether or not inherited wealth should be taxed. They show that subjects' policy preferences are shaped by material self-interest: Acceptance for inheritance taxation is higher among subjects whose parents are dead while it decreases in household income. Women who are typically at the heart of intergenerational exchange relations are more likely to oppose inheritance taxation than men. On the other hand, neither subjects' personal experience in LTC provision nor their view on the role of families in society is found to matter. The

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Wrede (2013) provides a study on the role of tax planning on citizens' policy preferences on taxing the transfer of family-owned firms in Germany. Specifically, he asks for the acceptance of a tax exemption for the transfer of family-owned firms that leaves this type of transfer largely on time. If, however, a terminally ill person founds a family-owned firm with the aim to save taxes, the acceptance for the tax exemption is low.

existing studies also show that wealth transfer taxes are very unpopular (e.g., Birney et al., 2006; Hammar et al., 2008; Bischoff and Kusa, 2016). Thus, interfering with intra-familial wealth transfers is a politically sensitive issue.

3. Long-term care and wealth transfer taxation in Germany

Germany taxes wealth transfers using an inheritance tax. Here, the recipient of wealth transfers is the taxpayer and the tax is levied on the monetary value of transfers received. Tax exemptions and tax rates mainly depend on the degree of kinship between heir and bequeather. For the latter's spouses, the tax exemption amounts to € 500.000, for children € 400.000, grandchildren and great grandchildren € 200.000, and parents € 100.000. The exemption for other beneficiaries is only € 20.000. The tax rate on transfers exceeding these exempt amounts increases as the degree of kinship decreases – starting from an initial 7 percent for children and spouses and rising up to an initial rate of 50 percent for non-relatives. The inheritance tax is accompanied by a gift tax that applies essentially the same tax schedule to inter vivos transfers in order to prevent tax avoidance through near-death transfers. The gift tax allows for additional tax-free inter vivos transfers as long as the amount received per decade do not exceed a certain limit.

To assess the tax burden on wealth transfers given in exchange for home care, we need to look at the contractual arrangements between caregiver and care receiver. Let us look at home care provided by relatives first. We know little about the contractual arrangements. Formal contracts are likely to be rare but informal or implicit contracts are likely to exist. If a remuneration is stipulated, the caregiver may receive a regular pay for their services, much like a wage. In most cases, transfers are likely to take the form of wealth transfers that remunerate them for their services. This wealth transfer is often given postmortem. This form of arrangement is attractive in cases where the care recipient owns real estate but has only insufficient liquidity to pay an adequate wage on a regular basis. Under the existing tax schedule, the wealth transfers reaches the caregiving relative largely unshortened as long as the overall inheritance is moderate in size.

In other words, the arrangement does not entail a tax wedge. In addition, even if the wealth transfer to caregiving relatives exceeds the limit of this exemption, the tax rate is low. Thus, for the large majority of families, wealth transfers received by caregiving relatives are not subject to a notable tax wedge.

In the case of family care assistants, the adequate contractual relationship between provider and receiver of home care is a formal labor contract as soon as the home care services are provided on a regular basis. The German legislation requires that this labor contract has to be reported to the social security and tax authorities and entails tax payments and contributions to the social security system. This implies a substantial tax wedge: Family care assistants receive less money than the care provider pays for the latter's services. In many cases, however, formal wage contracts do not exist and the exchange of services and pay is part of the shadow economy (e.g., Scheiwe and Krawietz, 2010). The option to "pay" the services in form of a wealth transfer may be a possible way to avoid the tax wedge. This form of contract would also resolve possible liquidity constraint among care receivers who possess real estate but little liquidity otherwise. Apart from the fact that it implies an illegal sham contract, this arrangement requires a high level of trust between contractors – especially if the promised wealth-transfer is given post mortem. More importantly, the current tax schedule implies a substantial tax wedge for any larger wealth transfers. Thus, offering caregivers part of the estate as final payment for their services is an attractive solution when the caregiver is a close relative but it is not in the case of family care assistants – even if the bequeather can credibly commit to this form of payment. A general tax exemption that applies to all caregiving heirs regardless of kinship relations change this substantially: family care assistants can be remunerated for home care services without having to incur a tax wedge from the inheritance tax and at the same time, a possible liquidity

constraint among care receivers can be relaxed. This would increase the attractiveness employing family care assistants substantially. However, it would also imply that a larger share of family-owned wealth being transferred to non-relatives.

4. Data and hypotheses

We employ data taken from the GESIS Panel conducted by Leibniz Institute for social sciences in Mannheim, Germany (GESIS, 2016)⁴. It is a representative survey among German citizens containing numerous questions on intergenerational relations, LTC and inheritance taxation as well as a rich pool of additional variables. Full descriptive statistics are provided in Table 1.

[Table 1 about here]

4.1 Dependent variable

The crucial survey question asks citizens to evaluate a reform proposal for the German inheritance tax. It suggests introducing a tax exemption for caregiving heirs in the inheritance tax (see figure 1):

[Figure 1 about here]

The descriptive statistics in Figure 1 show that only 20 percent of the respondents oppose the tax exemption for caregiving heirs (ticked answer 1) while the remaining 80 percent support it. Among the latter, about half support the tax exemption for all caregiving persons (answer 2) while the half wants to see it restricted to caregiving relatives only (answer 3). In the analysis to follow, we focus on those who support the tax exemption. Our main aim is to identify factors that make some subjects support the unrestricted tax exemptions while others oppose it.

4 GESIS invited researchers from various fields to submit blocks of questions. The blocks of questions that successfully passed a review process were implemented in the survey. The questions on intergenerational transfers, LTC and inheritance taxation are based on a proposal submitted by the authors. Bischoff and Kusa (2016) use the same data base (see section 2).

4.2 Hypotheses

The choice between the restricted and the unrestricted tax exemption captures the essential trade-off resulting for which we want to analyze citizens' views: Are people willing to support a more active role of family care assistants in providing home care if this comes at the price of redirecting substantial amounts of wealth transfers to non-relatives? Subjects who support the unrestricted tax exemption also support a more active role for family care assistants while subjects opting for the restricted version do not. The upcoming analysis identifies factors that make respondents favor or oppose the general tax exemption and thus a more active role of family care assistants.

The literature reviewed in section 2 suggests that material self-interest drives subjects' policy preferences. Thus, the question whether or not subjects support the generalized tax exemption depends on whether or not they personally benefit from a more active role of family care assistants. When answering this question, people can take the perspectives of different agents in the process of home care-provision. To identify the different perspectives and agents, we create a very simple stylized case. Following the majority of cases in reality, all agents in the stylized case are female. Consider the relationship between an elderly lady (hereafter mother) and her sole daughter. The mother is wealthy enough to pay for a place in a nursing home but prefers to receive home care. Her daughter is working. If the daughter takes care of her mother, she has to reduce working hours and thus incur income losses. At the same time, she will receive larger wealth transfers than she would if her mother went to a nursing home or receive LTC from professional care workers at home. The lady next door (representing the family care assistants) offers to provide home care if she is paid adequately. Employing her is cheaper than choosing the nursing home and it respects the mother's preference for home care. In case of a general tax

exemption, the mother and the lady next door can agree on a bequest contract that largely eliminates the tax wedge. This tax-free exchange is not possible if the tax exemption is restricted to family members. How do the ladies evaluate the possibility to avoid the tax wedge?

Let us take a look at the mother first. The general tax exemption increases the chance to receive home care from the lady next door or reduces the price for the latter's services. In addition, it strengthens her bargaining position towards her daughter. On the other hand, the generalized tax exemption takes moral pressure from her daughter to take care of the mother personally. Thus, the view depends on the question whether the mother wants her daughter to provide home care. If the answer is affirmative, she is expected to support the restricted tax exemption. And she will support the generalized tax exemption in case she is indifferent or even prefers to see the lady next door as care provider. This preference does not necessarily imply that the relationship to the daughter is bad. Instead, it may result from the fact that she wants to prevent her daughter from taking the heavy burden of home care provision (e.g., McCarty et al., 2008, Schmidt and Schneekloth, 2011).

Next, let us focus on the crucial role of the daughter. In the absence of altruistic motives, social norms, and moral obligations, she prefers the restricted tax exemption because it strengthens her bargaining position towards her mother. Once we account for altruistic motives, social norms, and moral obligations, her preferences depend on whether she prefers to give home care personally or whether she prefers to see the lady next door take care of her mother. If she prefers to provide home care personally, she will continue to prefer the restricted tax exemption because this increases the expected wealth transfer she gets in exchange. If, however, the daughter prefers not to give home care personally, she will support the unrestricted tax exemption. This increases the chance of finding a family care assistant and reduces the price for the latter's services. Whether or not the daughter prefers to provide home care personally depends on the

relationship between the expected wealth transfers and the expected (opportunity) costs of home care provision. This leads to our first two hypotheses:

H1a (expected benefits from providing home care personally):

The higher the expected benefits from providing home care personally, for instance in the form of expected inheritances, the less likely adult children are to support the unrestricted tax exemption.

H1b (expected benefits from providing home care personally):

The higher the (opportunity) costs of providing home care personally, for instance in the form of foregone market income, the more likely adult children are to support the unrestricted tax exemption.

The stylized case created above used a number of simplifications.⁵ First, it assumed that the mother commands sufficient wealth to incentivize home care by her daughter. Without sufficient wealth, the incentive for the daughter to provide home care is low but the incentive to organize home care remains. This is partly because the German government makes children liable for the costs of providing LTC for their parents (e.g., Dienel, 2007). In addition, the norm of filial responsibility or a feeling of moral obligation may make her feel responsible for organizing home care. Thus, hypotheses H1a and H1b still hold even if the parents are not wealthy.

Second, the stylized case above assumes that there is exactly one daughter who can provide home care. If there are more siblings, it becomes less clear who feels responsible for organizing LTC and there may be more than one child willing to provide LTC to the mother. More importantly, the incentives to provide home care personally depend on the mother's willingness to deviate from the rule to split wealth transfer equally between siblings and remunerate the

⁵ For the lady next door, the generalized tax exemption opens new employment opportunities that do not emerge if under the restricted version.

caregiving child for his or her services. Empirical studies suggest that there is a strong tendency to split post-mortem transfers equally (e.g., Wilhelm, 1996; McGarry, 1999; Cox, 2003). However, unequal splits are frequently observed for inter vivos transfers (e.g., Light and McGarry, 2004; Leopold and Schneider, 2011; Norton et al., 2013). Thus, the existence of more than one child does not jeopardize the general logic leading to hypotheses H1a and H1b.

The sociological literature informs us that subjects who gave care to relatives often feel severely overburdened and find it difficult to organize external help or relief (e.g., McCarty et al., 2008, Schmidt and Schneekloth, 2011). This suggests that personal experience in LTC-provision increases subjects' support for the generalized tax exemption. Thus, hypothesis H2 reads as follows:

H2 (personal involvement in LTC):

Citizens who gave home care personally are more likely to support the unrestricted tax exemption.

This hypothesis applies to adult children as well as to potential care recipients who are empathetic with their children.

The relationship between caregiver and care receiver is a very intimate one. For this reason, the level of trust between them is a crucial factor determining the quality of this relationship (e.g., Rhodes and Shaw, 1999). Care receivers prefer to receive home care from a person they trust. In addition, adult children are more likely to accept family care assistants if their trust in other people in general is high. This leads to hypotheses H3a and H3b:

H3a (trust within the family):

The lower the level of trust within the family, the more likely subjects are to support the unrestricted tax exemption.

H3b (general trust):

The lower the level of generalized trust towards other people, the less likely subjects are to support the unrestricted tax exemption.

4.3 Main independent variables

In this section, we describe the main independent variable used in the upcoming regressions and describe how they relate to the hypotheses derived above.

a) differentiating caregivers from care receivers

In the stylized case developed in section 4.2, the mother and her daughter are likely to differ in their support for the unrestricted tax exemption. The essential fact that differentiates these two perspectives in the real world is the status of subjects' parents: Subjects whose parents are alive are likely to be in the situation of the daughter: They have to organize LTC before they are in the situation of the mother who needs LTC. Subjects whose parents are already dead are no longer in the situation of the daughter. Instead, their perspective is the one of care receivers only. The variable *parents_dead* takes on the value 1 for all subjects whose parents are dead (0 else).

Leaving the narrow scope of the stylized case from section 4.2, we have to account for the fact that LTC is often organized or provided LTC by spouses or life partners. They may feel the same responsibility or obligation as adult children and their monetary self-interest in providing LTC personally may also be similar to the latter's. Put differently, subjects without spouse or life partner may take a perspective on the role of family care assistants that is similar to the perspective of subjects whose parents are dead. To capture their specific perspective, we introduce the variable *not_married*. It takes on the value 1 for the subjects who are neither married nor in civil union (0 else).

b) the special role of women

The empirical literature shows that women provide or organize by far the largest share of home LTC (e.g., Haberkern and Szydlik 2008; European Union, 2012; Adam and Mühlhling, 2014). In addition, the probability of requiring LTC is substantially higher for women than for men (e.g., BPA, 2003; Larsen et al., 2009). Thus, women are more likely to find themselves in both roles – caregiver (daughter) and care receiver (mother) – than men are. These facts suggest that women may have a different view on the unrestricted tax exemption. A dummy variable *female* captures subjects' sex.

c) expected benefits from providing homecare personally (hypothesis H1a)

Hypothesis H1a states that the policy preferences of potential caregivers depend on the expected benefits from providing home care. The benefits are higher for subjects who may expect wealth transfers. We ask subjects whether they expect to receive an inheritance in the near future. The dummy variable *expect_inheritance* is 1 for all subjects who do (0 else). We expect the support for the unrestricted tax exemption to be lower if subjects expect an inheritance.

d) expected benefits from providing homecare personally (hypothesis H1b)

The opportunity costs of providing long-term care depend on subjects' level of education (e.g., Blinkert and Klie, 2000). We construct a dummy *high_education* that takes on the value 1 for subjects whose school education qualifies them to enter higher education (0 else). A higher educational attainment is expected to raise the support for the unrestricted tax exemption. In addition, we account for subjects' travelling distance to the home of their parents. The direct costs of providing home care to their parents increases in this travelling distance (e.g., Blinkert and Klie, 2000). Living far away from one's parents decreases the possibility of providing home care to them personally and therefore increases the probability that the parents have to depend

on external caregivers. Nevertheless, these subjects may feel obliged to see their parents receiving LTC services in their own private home (e.g., Norton and Van Houtven, 2006). To capture this effect, we ask subjects for the distance between their own home and their parents' home and construct the variable *distance_to_parents_30_driving_minutes_or_more*. It takes on the value 1 if the distance between subjects and their parents is 30 driving minutes or more (0 else). We expect a large travel distance to raise the support for the unrestricted tax exemption. Finally, we introduce the variable *children_under_16*. It is 1 if there are children aged under 16 years in the respondent's household (0 else). As these children require the attention of the respondent, the latter's capacity to provide home care is limited. Thus, we expect having young children to be associated with more support for the unrestricted tax exemption.

e) personal experience and involvement in long-term care (hypothesis H2)

To test hypothesis H2, we introduce two variables that capture subjects' personal experience and involvement in long-term care. *gave_care_personally* takes on the value 1 for all subjects who stated that they were involved in providing LTC to a relative for a period of three months or longer (0 else). Here, caregiving includes occasional assistance while the main caregiving was in the hands of others, including commercial providers. The variable *care_in_family* takes on the value 1 for subjects who stated that a member of their greater family received LTC in the last 5 years (0 else). We expect positive values for these variables to be associated with more support for the unrestricted tax exemption.

f) the role of trust (hypothesis H3a and H3b)

One important indicator for the quality of family relations in our context is the trust between generations (see hypothesis H3a). We introduce a dummy variable *family_ties_bad* that is 1 if the subject reports the relationship to his family to be bad (0 else). Next, we ask subjects whether

they believe that old people refrain from giving inter vivos transfers because they fear to become dependent on their offspring. The variable *old_fear_dependence* takes on the value 1 for subjects who believe this (0 else). Believing that the trust of the old generation in their descendants is low is expected to increase the support for the unrestricted tax exemption. The same holds for the case of bad family relations. Finally, we construct the variable *general_trust*. It is 1 for subjects who support the statement that people can generally be trusted (0 else). According to hypothesis H3b, a high level of general trust raises subjects' support for the unrestricted tax exemption.

g) control variables

We introduce a number of control variables. The perspective on LTC may depend on subjects' age (e.g., Szydlik and Schupp, 2004; Wolff and Gittleman, 2014). We introduce the natural log of subject's age (*log_age*). From a potential care receivers' perspective, it is straightforward to argue that subjects who do not have close relatives are more likely to support the unrestricted tax exemption. *no_children* takes on the value 1 for all subjects who do not have children (0 else) We also control for household income of subjects by calculating natural log of the equivalent household income *household_income* using the OECD-square-root-rule (OECD, 2008).⁶ Empirical studies show that high-income households more frequently hire external care providers (e.g., Lippi Bruni and Ugolini, 2016).

5. Empirical analysis

The way the main survey question is presented (see Figure 1) suggests that subjects' decision process can be modelled as a simultaneous choice between three alternatives. In this case, a

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This variable is calculated using classified income data. We assumed that household's income equals the median value of the range they reported the income to be in. The highest category [6.000 Euro or more] and [5000 Euro and more for single-person households] was excluded. Households with five members or more are excluded for the same reason. The results do not change if data from official statistical data is used to estimate the equivalent household income in the excluded households.

multinomial approach is the adequate empirical model. On the other hand, one might argue that subjects' decision process is better modelled as a two-stage process: Subjects first decide whether to support the tax exemption in general (question 1). In stage 2, those who support the tax exemption in general decide whether it should be restricted to family members (question 2). In this case, the possible interdependence between the two stages has to be tested using a Heckman-approach. We estimated a large number of specifications using this Heckman approach. Regardless of the specification, the regressions never indicated that the two steps are interdependent. Thus, we hereafter restrict our data to those who support the tax exemption and estimate the choice between restricted and unrestricted tax exemption using a probit approach. The results are presented below. Results of the multinomial regressions are reported in the supplementary material. They are qualitatively identical to the results reported here.

Our dependent variable *tax_exempt_general* is a binary variable. It is 1 for those subjects who ticked option (2), i.e. supported the tax exemption for all caregiving heirs, and 0 for those who ticked option (3), i.e. wanted to see it restricted to caregiving relatives only. The variables described in section 4.3 are used to explain why some subjects support the unrestricted tax exemption while others support the restricted one. Table 1 provides descriptive statistics. The degree of collinearity between our independent variables is generally low and even the correlation between *parents_dead* and *log_age* is not critical (see Appendix A).

[Table 1 about here]

The regression results are presented in table 2. The baseline model in column 1 employs all independent variables described above and contains data on all participants of the GESIS Panel who answered all relevant questions in the survey. This leaves us with 1711 observations. In line with hypothesis H1a, subjects who expect an inheritance in the near future are less likely to support the unrestricted tax exemption. We also find support for hypothesis H1b: subjects

who live far away from their parents' home are more likely to support it (see *distance_to_parents_30_driving_minutes_or_more*). At the same time, subjects' level of education – used to capture the opportunity costs of home care provision – is insignificant. We find support for hypothesis H2: Subjects who gave LTC personally in the past are more supportive of the unrestricted exemption. Our results also support hypothesis H3a: Believing that the old have little trust in the preceding generation increases the support for the unrestricted exemption. We find no support for the hypothesis H3b according to which general trust drives subjects' answers. Finally, we find subjects' support for the unrestricted tax exemption to depend on the life status of their parents. Subjects whose parents are dead are less likely to support the unrestricted tax exemption. At the same time, we do not find a difference between the answers of male and female respondents. Similarly, we find no difference between subjects who have a spouse or life partner and subjects who do not.

[Table 2 about here]

Due to data restrictions, we do not have estimates for equivalent household income for large households or households from the highest income categories. This reduces the sample by roughly 500 observations. In model 2, we drop *household_income*. Once income is dropped, we observe significant coefficients for both *female* and *children_under_16*. Female subjects and subjects from households with young children are more likely to support the unrestricted tax exemption. The latter result is in line with hypothesis H1b.

In model 3, we introduce a number of additional variables. First, we construct the variable *family_most_important*. It takes on the value 1 for those who stated their family to be important or very important to them, while at the same time stating that education and leisure are less important (0 else). Regarding the family to be very important may reduce support for the unrestricted tax exemption. Second, strengthening the role of family care assistants is likely to cause an increase in the number of migrants working in Germany. We include two variables to capture

subjects' possible view on this. The variable *born_outside_germany* is 1 for subjects born outside Germany (0 else) and the variable *rightwing* takes on the value 1 for subjects, who identifies themselves as right by ticking a value of 8 to 10 on a 10-point left-right scale (0 for all subjects ticking values between 0 and 7). Finally, we follow a recent trend among political scientists and analyze the impact of personality traits (e.g., Caprara et al., 2006; Gerber et al., 2010). The GESIS Panel uses the Big-Five-Inventory 10 proposed by Rammstedt et al. (2012) to characterize subjects' personality in the dimensions *neuroticism*, *openness to experience*, *agreeableness*, *conscientiousness*, *extraversion* on a 5-point Likert-like scale.⁷ None of the new variables is significant while the performance of all other variables remains unchanged. In model 4, we re-estimate model 3 but exclude *household_income*. Like in model 2, *female* and *children_under_16* yield negative and significant coefficient estimators. Apart from that, no changes occur.

Looking at the marginal effect reveals that a number of variables have a sizeable influence on the probability of supporting the unrestricted tax exemption. *Parents_dead* reveals the largest marginal effect of around -10 percentage points, followed by *gave_care_personally* and *distance_to_parents_30_driving_minutes_or_more* with almost 9 percentage points. *Expect_inheritance* reduces the probability of supporting the unrestricted tax exemption by 7 percentage points while *old_fear_dependence* increases it by almost 7 percentage points. As we already mentioned, dropping *household_income* in model 2 *female* and *children_under_16* significant. The probability that subjects support the unrestricted tax exemption is by 6 percentage points larger for those who have children aged under 16 years in their household and it is by 5

7

The GESIS Panel uses the Big-Five-Inventory 10 proposed by Rammstedt et al. (2012) to characterize subjects' personality in the dimensions neuroticism, openness to experience, agreeableness, conscientiousness, extraversion on a 5-point Likert-like scale. Two questions are devoted to each personality trait and subjects' score is combined to an ordinal measure capturing the degree to which a certain trait is present within the subject. Following the standard procedure in the political psychology literature, we use the ordinal measure as exogenous variable (e.g., Müller and Schwieren, 2012).

percentage points larger among women than among men. Apart from that, no sizeable changes occur. The same holds for model 3 and 4.

In section 4, we argue that adult children who are expected to organize LTC for their parents may have distinctly different views on the unrestricted tax exemption than subjects who see themselves in the role of care-recipients only. So far, we accommodated this in a very crude way: We introduced a dummy variable that informs us whether or not the respondents' parents are still alive. This solution does not account for the possibility that the other factors differ in their impact on subjects support for the restricted tax exemption depending on whether or not their parents are still alive. To account for this possibility, we rerun the first two models in table 1 and include the interactions between *parents_dead* and all other independent variables. The results are reported in appendix B.1. The performance of the non-interacted variables is largely in line with their performance in table 2 while the interaction terms are largely insignificant. The marginal plots show that none of the interaction terms is significant. Summing up: Our results indicate that subjects whose parents are dead are less likely to support the unrestricted tax exemption. However, we do not find any evidence that there is a differential impact of the other factors depending on whether one's parents are alive or dead.

Women are more likely to be need LTC when they are old and the empirical picture from Germany and many other countries show that they are much active in organizing LTC and giving home care personally than men. The *female*-dummy used above does not account for the possibility that other factors differ in their impact on the support for the restricted tax exemption between male and female respondents. To account for this possibility, we proceed like we did for *parents_dead* in table 2. The results are reported in appendix B.2. Again, we find no indication that the subjects' sex moderates the impact of the other independent variable.

We ran numerous additional regression models as sensitivity analyses. In some models, we include additional independent variables capturing – among other things – subjects' health and

employment status, their trust in government and their knowledge about the German inheritance tax schedule. None of these variables is significant, nor do they change the main results reported above. The sensitivity analyses also include the multinomial regressions mentioned in the beginning of this section. As reported above, the results support the main results reported here. Detailed information about the sensitivity analyses is provided in the supplementary material (available upon request).

6. Discussion

In the section above, we use data from the GESIS Panel to learn more about citizens' policy preferences for a tax exemption for caregiving heirs in the German inheritance tax. Some 80 percent of respondents support the exemption. We focus on those subjects who supported the tax exemption, and analyze their preferences regarding the second question: Should the tax exemption be restricted to relatives? This survey question serves as a vehicle to learn more about citizens' view on politics that promote a more active role of family care assistants in LTC-provision in Germany. Our main question reads: Which factors make subjects' support or oppose the unrestricted tax exemption and thus support or oppose a more active role of family care assistants?

In large parts of our analysis, we take the perspective of adult children who have to organize LTC for their parents in case they require it. We argue that they can choose between two options if they respect their parents' wish to receive LTC in their own private home: Either to provide homecare personally or they can find a family care assistant to provide homecare to their parents. A more active role for family care assistants implies that adult children find it easier to organize homecare for their parents without having to provide it personally. However, this relief comes at a price: The amount of wealth transfers flowing to non-relatives will increase. In line with our first hypothesis (H1a), we find support to be lower among subjects who expect an inheritance and are thus more likely to see family care assistants as potential competitors who

reduce their bargaining power vis-à-vis their parents. And we also find support for hypothesis H1b according to which subjects' support for a more active role of family care assistants is higher among subjects who face high costs of providing homecare personally: Support for a more active role of family care assistants is higher if subjects have young children who require their attention or if they live far away from their parents. On the other hand, their level of education does not matter even though it determines the opportunity costs of providing homecare personally. Based on sociological literature, we argue that personal experience makes subjects more aware of the heavy burden of homecare provision and the difficulty to organize external support. Thus, we hypothesize that subjects who have given LTC personally are supportive of an active role of family care assistants (hypothesis H2). Our results support this hypothesis. Third, we find that trust drives subjects' view. In line with hypothesis H3a, subjects who believe that parents' trust in their children is low are more likely to support an active role of family care assistants. At the same time, we do not find general trust to increase support for this. Thus, hypothesis H3b is not supported.

Going beyond the perspective of adult children, we differentiate between subjects whose parents are dead and subjects whose parents are still alive. Subjects with alive parents are likely to be in the situation to give or organize LTC before they themselves receive LTC. Contrary to that, subjects whose parents are dead are likely to take the perspective of care-receivers only. We find support for a more active role of family care assistants to be lower among subjects whose parents are dead. This result identifies a clear line of conflict: On the one side, there are people who expect to be organizing or giving LTC before they – later in life – may receive LTC. The other side is represented by people who primarily take the position of care receivers. The former appreciate family care assistants because they help them fulfil their obligation to organize homecare for their parents without having to provide homecare personally. Thus, they

support policies that pave a more active role of family care assistants. The latter are more skeptical about the role of family care assistants. This line of conflict provides a possible explanation why we do not find a stable and significant difference between women and men even though women are much more critical about inheritance taxation in general (see Bischoff and Kusa, 2016). Compared to men, women are more likely to give or organize but also to receive LTC. According to the above interpretation, the two competing perspectives neutralize.

The results presented above are based on a large number of observations from a representative survey in Germany. Adding variables or changing from separate binary regressions for each of the two questions to a unified regression using a multinomial approach does not change the result. Thus, they are robust. Nevertheless, some limitations remain. Regarding the pool of independent variables, we lack information on the number of respondents' siblings. This is important especially for the middle generation facing the possibility of having parents in need of LTC and at the same time expecting wealth transfers in the next decades. On the one hand, having siblings mean that subjects can share the burden of providing LTC. On the other hand, the division of parents' wealth is reported to be one of the primary reasons for severe disputes among siblings (Titus et al., 1979).

In a more general perspective, one can argue that the survey question we asked does not directly ask for the role of family care assistants. However, we are convinced that the link is sufficiently close. Furthermore, there is no simple way to ask the question of interest more directly because any other policy that helps pave the way for a more active role of family care assistants has numerous pitfalls. The strength of our question is that it points subject directly at the –we believe – politically most crucial price: A more active role of family care assistants comes at the price of allocating larger shares of family-owned wealth to non-relatives.

7. Conclusion

Many industrialized countries face a massive increase in the demand for LTC. This poses a major challenges for the governments: They have to make sure that the demand for LTC can be met and at the same time limit the concomitant rise in taxes and social security contributions. Family care assistants have the potential to play a vital role in this context. They can provide relief for the adult children who have to organize LTC for their parents. When family care assistants are employed, adult children do not have to provide LTC services personally but can still respect the preference of the elderly to receive LTC services in the privacy of their own home. However, the support of family care assistants comes at a price: Adult children who organize the support of family care assistants for their elderly parents receive less wealth transfers. From the perspective of society as a whole, a more active role of family care assistants brings substantial benefits but implies a systematic reallocation of family-owned wealth to non-relatives. This raises the question: Are people willing to support a more prominent role of non-relatives in providing home care if this comes at the price of redirecting substantial amounts of wealth transfers to non-relatives?

In this paper, we use survey data from Germany to learn more about the factors that drive citizens' view on this trade-off. We find the support for a more active role of family care assistants to be driven by subjects' material self-interest and by their personal experience in LTC-provision: Subjects who gave LTC personally are more supportive of an active role of family care assistants. Most importantly, we find evidence for a clear line of conflict: On the one side, there are citizens with alive parents. They expect to have to organize or provide LTC for their parents before being in the situation of needing LTC themselves. The other side is represented by citizens whose parents are dead and who thus mainly take the perspective of care receivers. Our study shows that the first group is much more supportive of an active role of family care assistants than the second group.

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APPENDIX A: Correlation matrix

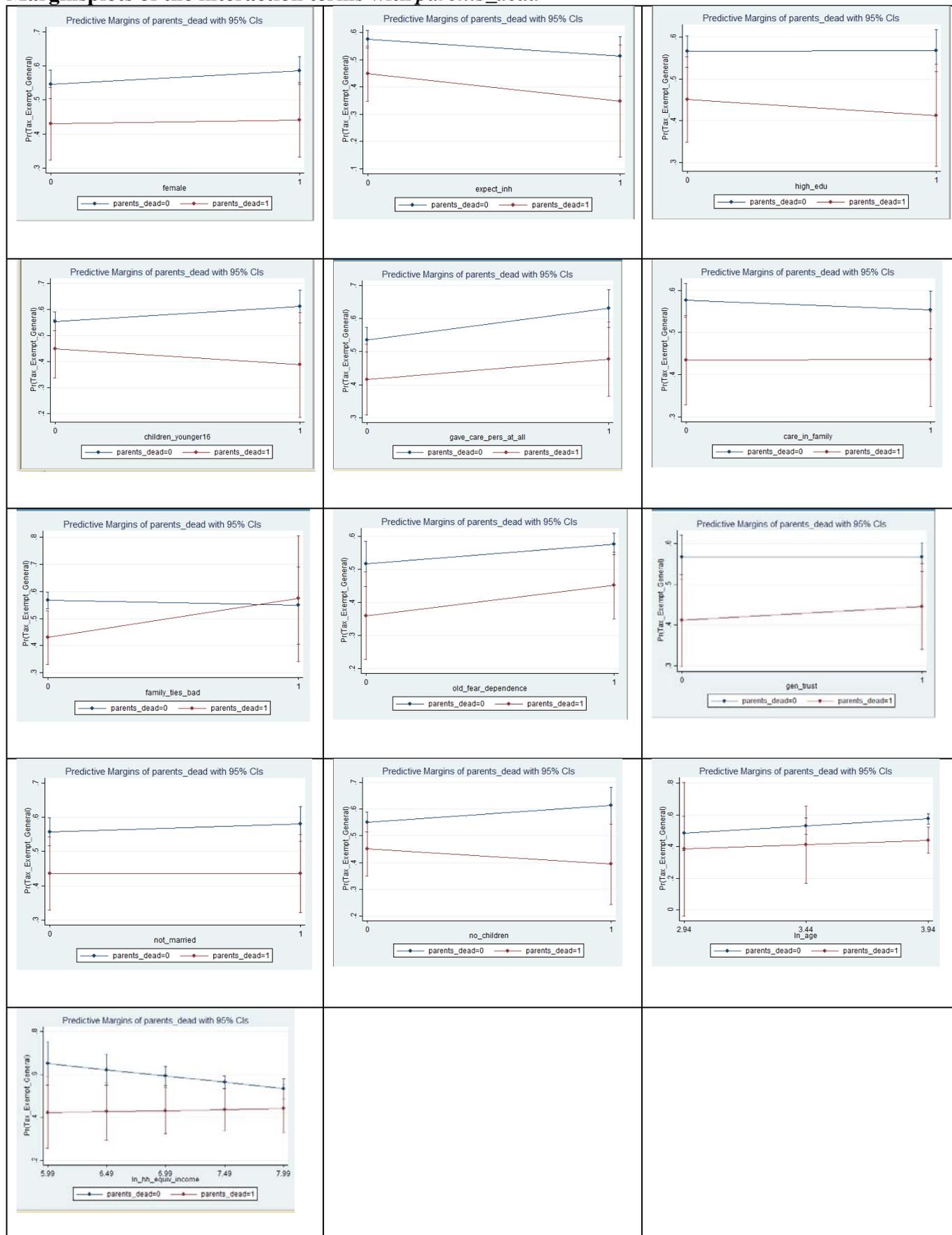
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|--|
| 1 parents_dead | | | | | | | | | | | | | | | | | | | | | | | |
| 2 female | -0.02 | | | | | | | | | | | | | | | | | | | | | | |
| 3 expect_inheritance | -0.16 | -0.01 | | | | | | | | | | | | | | | | | | | | | |
| 4 distance_to_parents_30_ driving minutes_or_more | -0.35 | 0.04 | 0.08 | | | | | | | | | | | | | | | | | | | | |
| 5 high_education | -0.14 | -0.04 | 0.09 | 0.18 | | | | | | | | | | | | | | | | | | | |
| 6 children_under_16 | -0.26 | 0.02 | 0.03 | 0.07 | 0.05 | | | | | | | | | | | | | | | | | | |
| 7 gave_care_personally | 0.23 | 0.10 | 0.02 | -0.17 | -0.12 | -0.14 | | | | | | | | | | | | | | | | | |
| 8 care_in_family | -0.05 | 0.01 | 0.11 | -0.03 | 0.02 | -0.02 | 0.28 | | | | | | | | | | | | | | | | |
| 9 family_ties_bad | 0.00 | 0.01 | 0.02 | 0.07 | 0.01 | 0.00 | -0.04 | 0.00 | | | | | | | | | | | | | | | |
| 10 old_fear_dependence | 0.02 | 0.06 | 0.01 | 0.01 | -0.04 | 0.01 | 0.06 | 0.00 | 0.06 | | | | | | | | | | | | | | |
| 11 general_trust | -0.03 | -0.01 | -0.05 | 0.02 | 0.15 | 0.06 | -0.09 | 0.00 | -0.05 | -0.01 | | | | | | | | | | | | | |
| 12 not_married | -0.10 | 0.03 | -0.02 | 0.07 | 0.11 | -0.21 | -0.05 | -0.01 | 0.03 | -0.06 | 0.00 | | | | | | | | | | | | |
| 13 no_children | -0.20 | -0.04 | 0.02 | 0.15 | 0.26 | -0.26 | -0.09 | 0.00 | 0.05 | -0.02 | 0.02 | 0.42 | | | | | | | | | | | |
| 14 log_age | 0.53 | -0.06 | -0.04 | -0.21 | -0.27 | -0.25 | 0.21 | -0.03 | 0.02 | 0.04 | -0.03 | -0.33 | -0.49 | | | | | | | | | | |
| 15 household_income | -0.09 | -0.05 | 0.08 | 0.06 | 0.23 | -0.03 | -0.06 | -0.01 | 0.00 | 0.00 | 0.14 | -0.21 | 0.01 | 0.03 | | | | | | | | | |
| 16 born_outside_germany | 0.02 | 0.04 | -0.02 | 0.05 | 0.04 | 0.05 | -0.01 | 0.02 | 0.03 | 0.03 | -0.01 | -0.05 | -0.04 | -0.04 | -0.06 | | | | | | | | |
| 17 rightwing | 0.05 | -0.02 | 0.00 | -0.01 | -0.05 | -0.06 | 0.01 | -0.02 | 0.01 | -0.02 | 0.00 | 0.00 | -0.03 | 0.07 | -0.06 | 0.03 | | | | | | | |
| 18 family_most_important | 0.02 | 0.06 | -0.03 | -0.03 | 0.03 | 0.04 | 0.03 | 0.02 | -0.02 | -0.01 | 0.04 | -0.10 | -0.04 | 0.06 | -0.03 | -0.03 | 0.02 | | | | | | |
| 19 neuroticism | -0.03 | 0.19 | -0.02 | 0.00 | -0.03 | 0.03 | 0.00 | -0.03 | 0.02 | 0.06 | -0.10 | 0.01 | 0.04 | -0.05 | -0.06 | 0.05 | 0.03 | 0.03 | | | | | |
| 20 extraversion | -0.04 | 0.09 | 0.02 | -0.04 | -0.01 | 0.05 | 0.01 | 0.02 | -0.04 | -0.07 | 0.06 | -0.03 | -0.05 | -0.05 | 0.04 | 0.00 | -0.02 | -0.04 | -0.19 | | | | |
| 21 openness to experience | 0.03 | 0.12 | 0.04 | 0.06 | 0.09 | -0.01 | 0.01 | -0.01 | 0.00 | -0.04 | 0.08 | 0.02 | 0.04 | 0.02 | -0.01 | -0.02 | -0.05 | -0.02 | -0.09 | 0.19 | | | |
| 22 agreeableness | -0.01 | 0.13 | 0.00 | -0.01 | 0.04 | 0.00 | 0.01 | 0.05 | -0.04 | -0.03 | 0.15 | 0.03 | -0.05 | 0.04 | -0.01 | 0.03 | -0.05 | 0.03 | -0.08 | 0.06 | 0.04 | | |
| 23 conscientiousness | 0.08 | 0.18 | 0.01 | -0.06 | -0.11 | 0.00 | 0.07 | -0.03 | 0.01 | 0.04 | -0.05 | -0.14 | -0.16 | 0.19 | 0.02 | -0.02 | 0.03 | -0.02 | -0.09 | 0.21 | 0.08 | 0.04 | |

Appendix B.1.: Regression with the interactions between *parents_dead* and all other independent variables

| VARIABLES | Coeff. | Std. Error | Coeff. | Std. Error |
|--|----------|------------|----------|------------|
| parents_dead | -1.196 | (2.520) | 0.844 | (1.910) |
| female | 0.104 | (0.0741) | 0.177*** | (0.0642) |
| expect_inheritance | -0.161 | (0.102) | -0.147* | (0.0879) |
| distance_to_parents_30_driving_minutes_or_more | 0.208** | (0.0807) | 0.194*** | (0.0703) |
| high_education | 0.00454 | (0.0837) | -0.0193 | (0.0693) |
| children_under_16 | 0.148 | (0.0991) | 0.195** | (0.0820) |
| gave_care_personally | 0.248*** | (0.0930) | 0.235*** | (0.0814) |
| care_in_family | -0.0592 | (0.0785) | -0.00564 | (0.0679) |
| family_ties_bad | -0.0494 | (0.192) | -0.0842 | (0.173) |
| old_fear_dependence | 0.154 | (0.0965) | 0.116 | (0.0852) |
| general_trust | 4.60e-05 | (0.0839) | 0.0647 | (0.0722) |
| not_married | 0.0610 | (0.0896) | 0.124 | (0.0789) |
| no_children | 0.162 | (0.112) | 0.168* | (0.100) |
| log_age | 0.234 | (0.159) | 0.200 | (0.137) |
| household_income | -0.153* | (0.0898) | | |
| parents_dead#female | -0.0750 | (0.137) | -0.144 | (0.122) |
| parents_dead#expect_inheritance | -0.103 | (0.299) | -0.174 | (0.248) |
| parents_dead#high_education | -0.103 | (0.156) | -0.0287 | (0.132) |
| parents_dead#children_under_16 | -0.310 | (0.321) | -0.183 | (0.247) |
| parents_dead#gave_care_personally | -0.0898 | (0.152) | -0.119 | (0.135) |
| parents_dead#care_in_family | 0.0636 | (0.144) | 0.0517 | (0.129) |
| parents_dead#family_ties_bad | 0.420 | (0.354) | 0.516* | (0.307) |
| parents_dead#old_fear_dependence | 0.0875 | (0.182) | 0.112 | (0.163) |
| parents_dead#general_trust | 0.0896 | (0.150) | 0.00828 | (0.130) |
| parents_dead#not_married | -0.0634 | (0.156) | -0.177 | (0.139) |
| parents_dead#no_children | -0.309 | (0.217) | -0.175 | (0.194) |
| parents_dead#log_age | -0.0871 | (0.527) | -0.225 | (0.459) |
| parents_dead#household_income | 0.176 | (0.154) | | |
| Constant | 0.0420 | (0.903) | -1.079* | (0.561) |
| pseudo-R ² | 0.0219 | | 0.0194 | |
| X ² -Stat | 51.73*** | | 59.72*** | |
| Observations | 1,711 | | 2,228 | |

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Marginsplots of the interaction terms with *parents_dead*

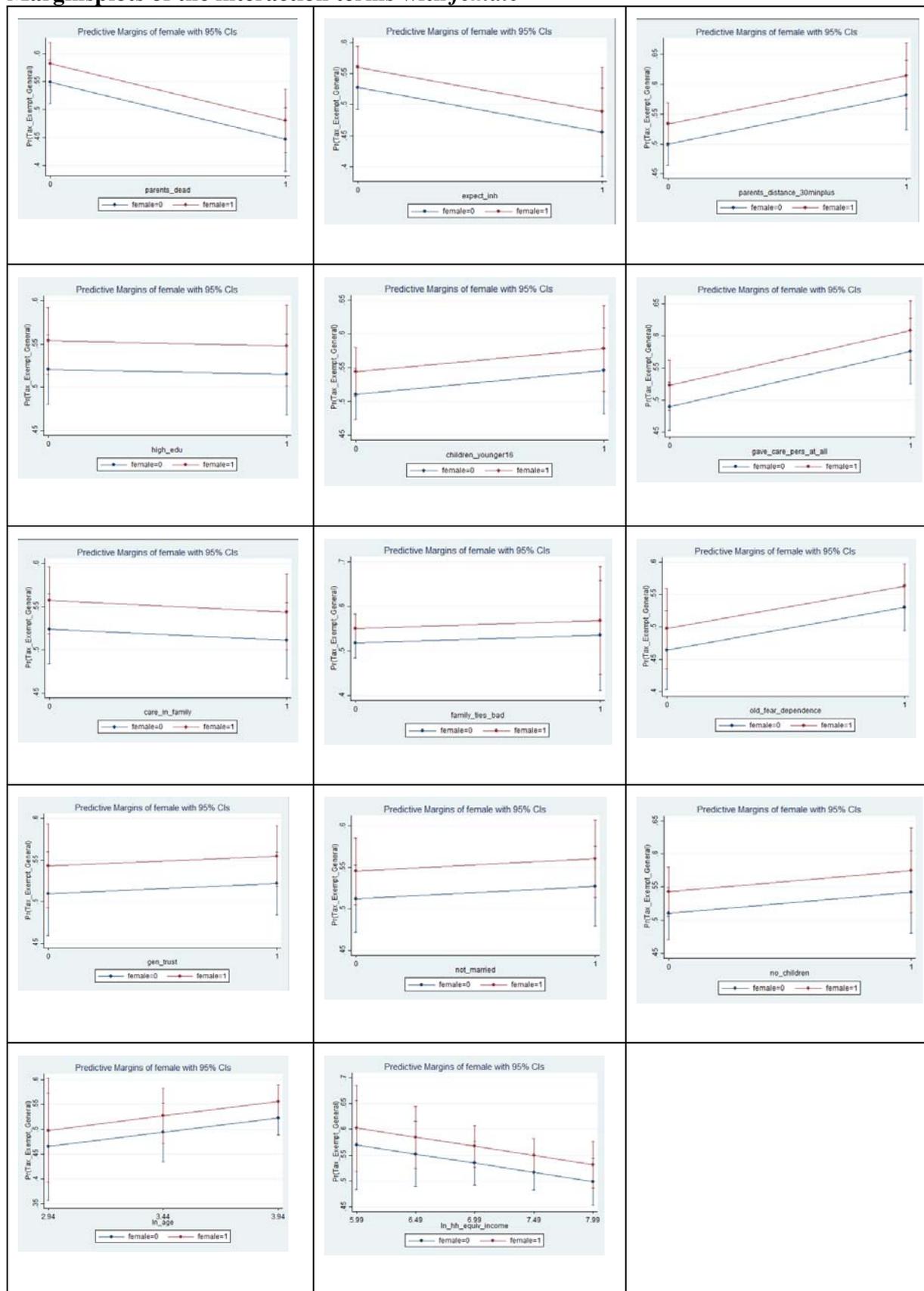


Appendix B.2: Regression with the interactions between *female* and all other independent variables

| VARIABLES | Coeff. | Std. Error | Coeff | Std. Error |
|---|----------|------------|----------|------------|
| parents_dead | -0.238** | (0.121) | -0.128 | (0.106) |
| female | 1.073 | (1.567) | 1.902* | (1.011) |
| expect_inheritance | -0.163 | (0.137) | -0.178 | (0.116) |
| distance_to_parents_30_driving_minutes_or_more | 0.417*** | (0.118) | 0.310*** | (0.102) |
| high_education | 0.0619 | (0.0979) | 0.0350 | (0.0820) |
| children_under_16 | -0.00101 | (0.133) | 0.124 | (0.108) |
| gave_care_personally | 0.241** | (0.106) | 0.218** | (0.0940) |
| care_in_family | 0.0260 | (0.0943) | 0.0272 | (0.0822) |
| family_ties_bad | 0.259 | (0.233) | 0.245 | (0.200) |
| old_fear_dependence | 0.177 | (0.112) | 0.114 | (0.0977) |
| general_trust | 0.195** | (0.0995) | 0.204** | (0.0865) |
| not_married | 0.0797 | (0.109) | 0.0831 | (0.0973) |
| no_children | 0.0322 | (0.131) | 0.0967 | (0.118) |
| log_age | 0.316 | (0.212) | 0.312* | (0.177) |
| household_income | -0.134 | (0.100) | | |
| female#parents_dead | -0.0240 | (0.173) | -0.0620 | (0.152) |
| female#expect_inheritance | -0.00312 | (0.191) | 0.0396 | (0.165) |
| female#distance_to_parents_30_driving_minutes_or_more | -0.358** | (0.162) | -0.206 | (0.141) |
| female#high_education | -0.167 | (0.140) | -0.132 | (0.117) |
| female#children_under_16 | 0.184 | (0.184) | 0.0517 | (0.150) |
| female#gave_care_personally | -0.0335 | (0.147) | -0.0337 | (0.130) |
| female#care_in_family | -0.117 | (0.132) | -0.0371 | (0.115) |
| female#family_ties_bad | -0.444 | (0.323) | -0.373 | (0.286) |
| female#old_fear_dependence | -0.0250 | (0.164) | 0.0778 | (0.145) |
| female#general_trust | -0.304** | (0.139) | -0.266** | (0.120) |
| female#not_married | -0.0646 | (0.148) | -0.0287 | (0.131) |
| female#no_children | 0.0883 | (0.190) | 0.0609 | (0.171) |
| female#log_age | -0.336 | (0.294) | -0.393 | (0.250) |
| female#household_income | 0.0995 | (0.146) | | |
| Constant | -0.623 | (1.119) | -1.609** | (0.715) |
| pseudo-R ² | 0.0266 | | 0.0221 | |
| X ² -Stat | 62.78*** | | 68.08*** | |
| Observations | 1,711 | | 2,228 | |

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Marginsplots of the interaction terms with *female*



Figures and Tables

Figure 1: Question generating the endogenous variable

At present, a reform of the inheritance tax is discussed frequently. Some people demand an appreciation of home care by a tax exemption. Others are against this proposition

What do you think? Should there be an inheritance tax exemption for heirs who provided long-term care to the deceased person?

- No (1)
- Yes, for all caregiving heirs (2)
- Yes, but only for caregiving relatives (3)
- Don't know

Table 1: Descriptive statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|-------|----------|-----------|----------|----------|
| 1 parents_dead | 2,791 | .267646 | .4428113 | 0 | 1 |
| 2 female | 2,803 | .5205137 | .4996681 | 0 | 1 |
| 3 expect_inheritance | 2,574 | .1200466 | .3250792 | 0 | 1 |
| 4 distance_to_parents_30_driving_min- utes_or_more | 2,791 | .2307417 | .4213829 | 0 | 1 |
| 5 high_education | 2,799 | .410861 | .492078 | 0 | 1 |
| 6 children_under_16 | 2,802 | .2687366 | .4433818 | 0 | 1 |
| 7 gave_care_personally | 2,586 | .2996906 | .458211 | 0 | 1 |
| 8 care_in_family | 2,598 | .4160893 | .4930036 | 0 | 1 |
| 9 family_ties_bad | 2,788 | .0390961 | .1938585 | 0 | 1 |
| 10 old_fear_dependence | 2,545 | .832613 | .3733944 | 0 | 1 |
| 11 general_trust | 2,797 | .6943153 | .4607792 | 0 | 1 |
| 12 not_married | 2,801 | .4148518 | .4927844 | 0 | 1 |
| 13 no_children | 2,556 | .2777778 | .4479909 | 0 | 1 |
| 14 log_age | 2,794 | 3.808105 | .3415319 | 2.944439 | 4.26268 |
| 15 household_income | 2,134 | 7.404769 | .4657853 | 5.991465 | 8.411833 |
| 16 born_outside_germany | 2,800 | .0871429 | .2820947 | 0 | 1 |
| 17 rightwing | 2,750 | .0730909 | .260333 | 0 | 1 |
| 18 family_most_important | 2,799 | .3783494 | .4850621 | 0 | 1 |
| 19 neuroticism | 2,643 | 5.728339 | 1.652533 | 2 | 10 |
| 20 extraversion | 2,645 | 6.485822 | 1.773771 | 2 | 10 |
| 21 openness_to_experience | 2,657 | 6.75574 | 1.729274 | 2 | 10 |
| 22 agreeableness | 2,645 | 6.200756 | 1.42837 | 2 | 10 |
| 23 conscientiousness | 2,635 | 7.857685 | 1.444708 | 2 | 10 |

Table 2: Basic regression models

| VARIABLES | Coeff | ME | Coeff | ME | Coeff | ME | Coeff | ME |
|--|-----------------------|------------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| parents_dead | -0.261*** (0.0856) | -0.1021*** (0.0334) | -0.165** (0.0755) | -0.0648** (0.0296) | -0.292*** (0.0903) | -0.114*** (0.035) | -0.211*** (0.0799) | -0.0822*** (0.0312) |
| female | 0.0844 (0.0620) | 0.0329 (0.0242) | 0.134** (0.0543) | 0.0525** (0.0212) | 0.0978 (0.0695) | 0.0381 (0.027) | 0.141** (0.0609) | 0.0547** (0.0237) |
| expect_inheritance | -0.184* (0.0947) | -0.0717* (0.0369) | -0.169** (0.0818) | -0.066** (0.032) | -0.217** (0.0976) | -0.0844** (0.0379) | -0.224*** (0.0855) | -0.0871*** (0.0332) |
| distance_to_parents_30_ driving_minutes_or_more | 0.211*** (0.0801) | 0.0818*** (0.0308) | 0.192*** (0.0697) | 0.0744*** (0.0268) | 0.195** (0.0843) | 0.0755** (0.0324) | 0.193*** (0.0736) | 0.0744*** (0.0282) |
| high_education | -0.0146 (0.0697) | -0.0057 (0.0271) | -0.0215 (0.0583) | -0.0084 (0.0227) | -0.00633 (0.0733) | -0.0025 (0.0285) | -0.00781 (0.0616) | -0.003 (0.0239) |
| children_under_16 | 0.0887 (0.0909) | 0.0344 (0.0352) | 0.152** (0.0747) | 0.0591** (0.0288) | 0.105 (0.0951) | 0.0407 (0.0367) | 0.156** (0.0786) | 0.0604** (0.0301) |
| gave_care_personally | 0.221*** (0.0727) | 0.0855*** (0.0278) | 0.193*** (0.0644) | 0.0748*** (0.0248) | 0.194** (0.0757) | 0.075** (0.029) | 0.190*** (0.0674) | 0.0734*** (0.0258) |
| care_in_family | -0.0334 (0.0655) | -0.013 (0.0255) | 0.0111 (0.0574) | 0.0043 (0.0224) | -0.0357 (0.0686) | -0.0139 (0.0266) | 0.0178 (0.0603) | 0.0069 (0.0234) |
| family_ties_bad | 0.0443 (0.160) | 0.0172 (0.062) | 0.0709 (0.142) | 0.0275 (0.055) | 0.0169 (0.170) | 0.0066 (0.0661) | 0.0249 (0.152) | 0.0097 (0.0588) |
| old_fear_dependence | 0.168** (0.0810) | 0.0656** (0.0317) | 0.148** (0.0720) | 0.0579** (0.0282) | 0.181** (0.0855) | 0.0708** (0.0334) | 0.187** (0.0762) | 0.073** (0.0297) |
| general_trust | 0.0304 (0.0690) | 0.0118 (0.0269) | 0.0627 (0.0598) | 0.0245 (0.0234) | 0.00921 (0.0740) | 0.0036 (0.0288) | 0.0566 (0.0639) | 0.022 (0.0248) |
| not_married | 0.0384 (0.0730) | 0.0149 (0.0284) | 0.0636 (0.0646) | 0.0248 (0.0252) | 0.0715 (0.0776) | 0.0278 (0.0301) | 0.0689 (0.0687) | 0.0267 (0.0266) |
| no_children | 0.0826 (0.0939) | 0.0321 (0.0364) | 0.128 (0.0846) | 0.0498 (0.0327) | 0.0851 (0.0991) | 0.033 (0.0383) | 0.159* (0.0901) | 0.0614* (0.0345) |
| log_age | 0.148 (0.144) | 0.0576 (0.0561) | 0.123 (0.124) | 0.0479 (0.0483) | 0.176 (0.153) | 0.0683 (0.0595) | 0.178 (0.133) | 0.069 (0.0513) |
| household_income | -0.0917 (0.0721) | -0.0357 (0.028) | | | -0.0845 (0.0759) | -0.0328 (0.0294) | | |
| born_outside_germany | | | | | 0.0766 (0.130) | 0.0296 (0.0499) | 0.0498 (0.112) | 0.0193 (0.0433) |
| rightwing | | | | | -0.0407 (0.130) | -0.0158 (0.0505) | -0.0217 (0.112) | -0.0084 (0.0436) |
| family_most_important | | | | | 0.0224 (0.0673) | 0.0087 (0.0261) | -0.0237 (0.0589) | -0.0092 (0.0229) |
| neuroticism | | | | | -0.0142 (0.0208) | -0.0055 (0.0081) | -0.0164 (0.0181) | -0.0064 (0.007) |
| extraversion | | | | | 0.00469 (0.0197) | 0.0018 (0.0076) | 0.0182 (0.0171) | 0.0071 (0.0066) |
| openness to experience | | | | | -0.00400 (0.0194) | -0.0016 (0.0075) | -0.0111 (0.0170) | -0.0043 (0.0066) |
| agreeableness | | | | | 0.00508 (0.0230) | 0.002 (0.0089) | 0.00838 (0.0204) | 0.0033 (0.0079) |
| conscientiousness | | | | | 0.00540 (0.0242) | 0.0021 (0.0094) | 0.0114 (0.0212) | 0.0044 (0.0082) |
| Constant | -0.0581 (0.779) | | -0.739 (0.502) | | -0.216 (0.860) | | -1.057* (0.579) | |
| pseudo-R ² | 0.0187 | | 0.0165 | | 0.0205 | | 0.0208 | |
| X ² -Stat | 44.24*** | | 50.80*** | | 44.20*** | | 58.06*** | |
| Observations | 1,711 | | 2,228 | | 1,560 | | 2,024 | |

Standard errors in parantheses *** p<0.01, ** ** p<0.05, * p<0.1

