

**Intergenerational Trade of Bequest**  
**in exchange of**  
**Contact and Care**

by

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**Abstract**

The life cycle hypothesis predicts that households save during their working ages in order to use accumulated wealth for consumption after retirement. Data for European countries indicate that non-housing wealth is in fact run down after retirement, but also that old age homeowners increase their housing equity by continued reduction of the outstanding mortgage. However, one way to use the housing equity for consumption may be to promise the housing equity as bequest to children in exchange for contact and care. The paper investigates this intergenerational trade.

**JEL Classification:** R21.

**Keywords:** Bequest, Inheritance, Life cycle, Savings, Homeownership, Old age.

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## 1 Introduction

According to the life cycle hypothesis, see e.g. Modigliani (1988), the typical person save while working and dissave all the accumulated wealth during retirement. Thus non-human capital must be transferred from one generation to the next by sale from the non working generations to the working and net saving generations. However, a big part of the transfer of non-human capital from one generation to the next goes through gifts and bequest. Statistical estimates are insecure, but Kotlikoff and Summers (1981)<sup>1</sup> estimates that at least 80 per cent of the household wealth in the US goes through intergenerational transfers with the rest being saved over the lifecycle. Gale and Scholz (1994) have lower figures, but it seems fait to say that more than half of the household wealth goes through intergenerational transfers.

Household savings can take a number of different forms depending on the development of financial markets in the country. It may be through the acquisition of financial papers of various kinds, including pension schemes, or it may be through the acquisition of physical assets, e.g. in the form of homeownership. If this is the case, households should release their housing equity for consumption in their older ages. One way to do this can be to sell the house and become tenant. Another is to take up new mortgage and so reduce housing equity for consumption purposes. A third way is to neglect maintenance of the home, thus having net negative housing investments and instead using the proceeds for consumption. Empirics based on cross section SHARE data for ten European countries indicate, see Lauridsen and Skak (2009), that old age households tend to run down their financial wealth when they become pensioners, but are much more reluctant to do so with their housing equity. However, some use of the housing wealth is found via a gradual move into rental housing after retirement. But this move may be more caused by physical inabilities than a wish for higher consumption. Moreover, those who stay as homeowners tend to increase the housing equity by running down the outstanding mortgage. The SHARE data are not well suited to test for a possible lack of home maintenance, but it is not so that the housing wealth falls with the age of the head of the household in a cross section analyses. Another aspect is that homeowners may exchange their housing equity for consumption of contact and care from children by trading promised bequest with their children. The contact and care from children may range from monthly, weekly or daily visits to physical care; help with shopping and financial matters etc. The aim of the

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<sup>1</sup> See also Kotlikoff (1988).

present paper is to look further into this and see what the SHARE data can reveal about an intergenerational trade of this kind.

Households may leave bequest even without a bequest motive. The models presented in economic literature often posit a positive utility from leaving bequest, but e.g. Hurd (1987) observes from US panel data that old age households dissave, which does not support a bequest motive, and Hurd (1989) estimates that desired bequest is small and most bequests are accidental and should be explained by uncertainty about the date of death. Bernheim, Shleifer and Summers (1985) presents a model where parents have both the children's welfare (altruism) and the amount of child contact in their utility function. Parents use bequest as a strategic mean by which they can attract attention from children who compete for bequest. The empirics show a positive relation between bequeathable wealth per child and child attention for parents in families with more than one child, and a negative relation in families with only one child. Also Cox (1987) presents a model with altruism and exchange in the parents' utility function. Parents decide unilaterally on the optimal amount of child contact and care under restrictions. Regressions based on survey data indicate that the exchange motive plays a more important role than altruism for inter vivos transfers between parents and children. Kopczuk and Lupton (2007) using panel data for old age households who report their chance of leaving bequest, find that  $\frac{3}{4}$  of the households have a bequest motive (63 % for households without children), but find little evidence in support of either the altruistic or strategic bequest motive. Laitner and Ohlson (2001) use Swedish and US data to compare the four bequest motives: by accident (life cycle), altruistic (dynastic), egoistic (joy of giving) and exchange. They conclude that most support is found for the exchange model and some support for the altruistic model. Finally, Klevmarken (2004), using Swedish observations, finds that bequests do not increase wealth inequality and Horoika (2009) finds for Japanese households that rich households leave fewer bequests than poorer households, which leads reduced wealth inequality.

The SHARE dataset has observations based on interviews in ten EU countries and allows us to look on parents' wealth, gifts given, the expressed chance of leaving bequest, and contact and care from children. A logistic regression on gifts given and the chance of leaving inheritance reveals a positive relation with the size of housing wealth, whereas by the size of financial wealth has no significant influence. Homeowners have 30 per cent higher probability than tenants for giving gifts and nine times higher probability for expressing a positive chance of leaving inheritance. Moreover, earlier

reception of gifts and inheritance has a significantly positive effect on gifts given and the chance of leaving inheritance.

The paper is structured as follows: The next section proposes a model for intergenerational trade between parents and children, which leads to some presumptions about the signs of coefficients in later regressions. Section three describes the data used, and section four gives an overview of wealth among old age households in ten European countries. Section five presents two regressions relating gifts, bequest and homeownership, whereas section six treats intergenerational trade and bequest. Finally, section seven concludes.

## 2 A model for intergenerational exchange of bequest for contact and care

This section proposes a simple model for the demand, supply and equilibrium for the trade of bequest in exchange for contact and care between parents and children. Because the focus is on the trade, the altruistic bequest motive is left out of the model.

### *Parents demand for contact and care from children*

Old age parents are assumed to demand market goods and services  $c_p$  together with contact and care from children  $s$ . Goods and services  $c_p$  are assumed to carry the price 1 (numéraire),  $c_p$  includes ordinary consumption and care bought on the market. The parents' utility function without altruism is

$$U_p = U_p(c_p, s). \quad (1)$$

The function  $U_p$  carries the usual signs for derivatives. The budget constraint, which incorporates the intergenerational trade and dissaving out of wealth, is

$$c_p + \rho s = W - W_0 + y_p \Rightarrow c_p = W - W_0 + y_p - \rho s. \quad (2)$$

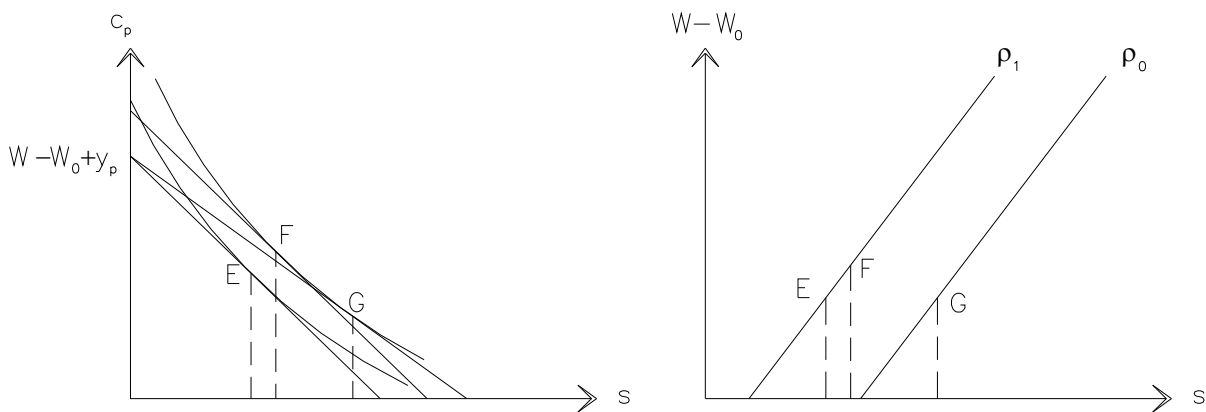
In (2), the left side is total consumption with  $\rho$  being the (implicit) price for contact and care from children. The consumption possibilities are restricted by  $W$ , the annualized income stream from

parents' wealth.  $W$  may be reduced if the parents plan to leave money for charity organizations etc.  $W-W_0$  is the annualized income stream reduced by legal<sup>2</sup> bequest for children  $W_0$ , which is independent of the traded amount of contact and service from children  $s$ . Discounting is left out. In the following, we make the assumption, that both  $W_0$  and the difference  $W-W_0$  grows with parents' wealth  $W$ . Expected remaining lifetime for the parents may (or may not) reduce  $W-W_0$ .  $y_p$  is the parents' annual income. Although there is no open payment for contact and care from children  $s$ , a "tacit" trade is assumed to take place whereby the parents' use of their wealth and income for ordinary consumption  $c_p$  is reduced by the amount  $\rho c$ . The annualized value of promised and for children expected<sup>3</sup> bequest  $B$  is

$$B = W_0 + \rho s. \quad (3)$$

Expected bequest  $B$  for children grows with parents' wealth  $W$  (which is assumed positively related to  $W_0$ ) and the value of supplied contact and care from children  $\rho c$ . Parents' current consumption possibilities  $c_p$  increases by higher  $W-W_0$  as illustrated in left panel of figure 1.

Figure 1: Parents demand for contact and care from children



Increasing  $W-W_0$  in the figure – keeping other variables constant – has an income effect on the demand for contact and care from children  $s$ . With  $s$  assumed to be a normal good, this increases the demand (in the figure shown as the move from E to F). The right panel depicts the amount of contact and care from children  $s$  demanded by parents as a function of  $W-W_0$ . A change of wealth, but also a change of parents' expected remaining years until death, cause (say proportional) changes

<sup>2</sup> Inheritance acts may entitle children to a fraction of the total inheritance, leaving the other fraction free to the will of the parents. Another reason behind  $W_0$  could be altruism.

<sup>3</sup> We omit the question of the parents' reliability.

of  $W$ ,  $W_0$  and  $W-W_0$ . A natural assumption may be that a reduction of parents remaining lifetime, e.g. because of higher age and/or deteriorating health, will increase  $W$ ,  $W_0$  and  $W-W_0$ .

The price  $\rho$  may change between families, e.g. because of differences in distance between parents and children. Larger distance makes it more costly to get contact and care from children. An increase of  $\rho$  gives both a (negative) income and substitution effect and a move from G to E in the left panel of the figure, which moves the curve in the right panel as shown for  $\rho_0 < \rho_1$ .

Consequently, the curve  $\rho_0$  depicts a case where the children live close to the parents and the curve  $\rho_1$  a case where the children live farther away.

### *Children's supply of contact and care for parents*

Where most of the literature sees bequest as the parents' sovereign decision, sometimes taking the utility of children into consideration, i.e. the altruistic bequest motive, we model children as suppliers of contact and care  $s$  in exchange of expected bequest. Children are assumed to work under contracts, which leave them a fixed amount  $H$  of non working time that can be used for either leisure  $L$  or parent contact and care  $s$ . Contact and care for parents is not assumed to give utility for the children and we also exclude altruism from children vis-à-vis parents. The utility function for children is then

$$U_k = U_k(c_k, L). \quad (4)$$

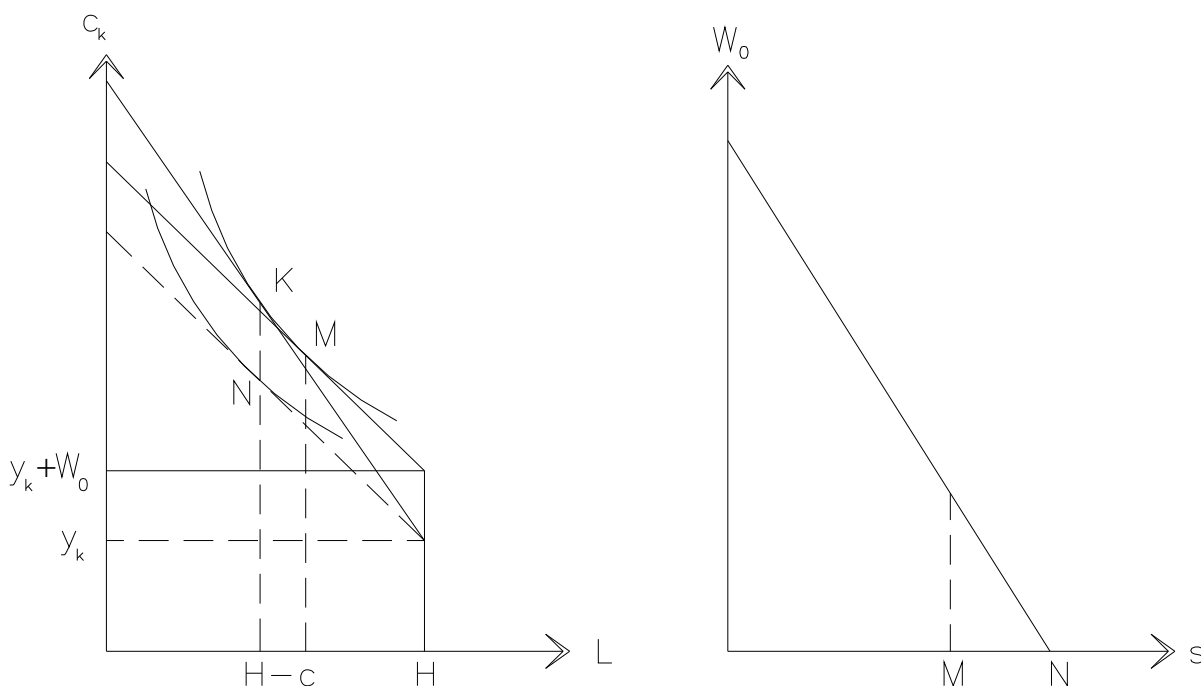
Goods and services  $c_k$  are assumed to carry the price 1, and the function  $U_k$  carries the usual signs for derivatives. Contact and care for parents takes time, so we impose the time restriction  $s = H - L$ , which leads to the annualized budget restriction

$$c_k = y_k + B \Rightarrow c_k = y_k + W_0 + \rho s \quad (5)$$

In equation (5),  $y_k$  is children annual income. The optimizing behavior of children is illustrated in figure 2. The point  $N$  is chosen as optimal when legal bequest  $W_0$  is expected. An increase of  $W_0$  to  $W_1$ , e.g. if the parents wealth  $W$  increases, has a positive income effect with  $c_k$  and  $L$  assumed to be normal goods, and this leads to a reduced supply of contact and care  $s$  corresponding to the point  $M$ . The positive income effect gives the negative relation between expected bequest  $W_0$  and  $s$  illustrated

in the right panel of figure 2. A change of the price  $\rho$  to a higher level, e.g. if the distance between parents and children increases and parents promise a higher bequest per unit of  $s$ , leads to the movement from N to K in the figure. The effect on contact and care  $s$  is unknown because the income and substitution effects work in opposite directions. Because of this, no change of the position of supply curve in the right panel of the figure is shown.

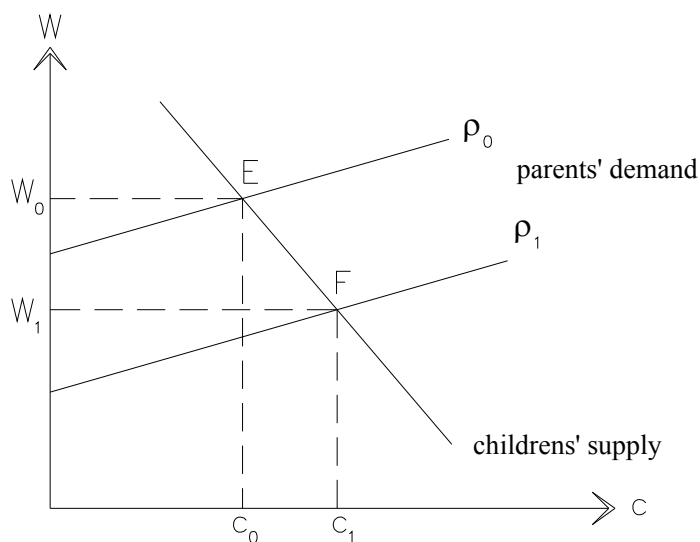
Figure 2: Children's supply of contact and care to parents



In order to show demand and supply in the same diagram, let  $W_0$  be a fixed legal fraction of  $W$ , which secures proportionality between  $W$ ,  $W_0$  and  $W - W_0$ . With this assumption, figure 3 depicts the demand and supply curves in the  $(s, W)$  space. The parents' demand curve reflects that more wealthy parents offer larger bequests to their children in exchange for more contact and care  $s$ . The children's supply curve however, shows that children with more wealthy parents, and so larger legal bequest, use this to reduce their contact and care with parents in order to get more leisure time. Let the initial equilibrium in the figure be E and let the implicit price  $\rho$ , which in the empirics may be proxied by the distance between parents and children, increase from  $\rho_0$  to  $\rho_1$ . Parents react to this increase by demanding less contact and care for a given wealth level, which pushes the demand curve upwards. The reaction of children is, as explained above, unknown. The higher price gives a positive substitution effect and a negative income effect, which may or may not neutralize each

other. At this stage we presume that figure 3 is representative for the effects of a price increase with the implication that parents have to be less wealthy in order to obtain the same amount of contact and care from the now more distant children. All in all, we expect the observed relation between the parents' wealth and the obtained contact and care with children to be dominated by the negative relation of the children's supply curve. This presumed negative relation between parents wealth and children's contact and care is not supported by the findings by Bernheim, Shleifer and Summers (1985) who finds a positive relation between bequeathable wealth and child contact in families with more than one child, but a negative relation in families with only one child and take this as support for the strategic bequest motive<sup>4</sup>.

Figure 3: Equilibrium for expected bequest and contact and care to parents



To test the predictions of the above model, we have constructed expression for the amount of contact and care between children and parents together with the size of parents' wealth and the expected bequest for old age families in ten European countries.

Before going to the empirics it may be worth noting that an increase of the children's income  $y_k$  will push the supply curve to the left because less contact and care will be offered for a given expected bequest. Cox (1987) looks at the income of the recipient and inter vivos transfers from parents and finds that higher income of the recipient reduces the probability of reception of an inter vivos

<sup>4</sup> If parents consider letting part of their wealth go to charity organizations, the strategic bequest motive should also be effective in one child families.



transfer, but finds a positive relation between the amount given and the recipient's income, which may be caused by a higher price for the (reduced) service supplied. Inter vivos transfers may be considered "early bequests". However, Cox (1987) lacks data on the amount of service supplied, but has data on the recipients' income. We have data on the amount of service supplied, but are only able to use education as an indicator for the recipients' income.

### 3 Data

The analysis draws on The Survey of Health, Ageing and Retirement in Europe (SHARE), which is a multidisciplinary, cross-national database with micro data on health, socio-economic status and social and family networks of more than 30,000 individuals aged 50 and over. Ten EU countries have contributed to the 2003-2004 SHARE baseline study, ranging from Scandinavia (Denmark and Sweden) through Central Europe (Austria, France, Germany, Belgium, and the Netherlands) to the Mediterranean (Spain, Italy and Greece). The second wave of SHARE 2005-2007 including the Czech Republic, Poland and Ireland was partly released the 28<sup>th</sup> of November 2008. However, the released data still lack cleaning and imputations needed for our statistical purpose. A third wave 2008-2009 is envisaged. More about the survey can be found on the SHARE website <http://www.share-project.org/>. The SHARE data have been used extensively for statistical analyses of socio-economic and health related aspects of elderly people and households with older people. A list of these studies can be found and some downloaded from the SHARE website. In the present analysis of old age households; the total number of observations is close to 19,000 with the number of observations in each country ranging between nearly 1200 observations for Denmark and nearly 2500 for Belgium.

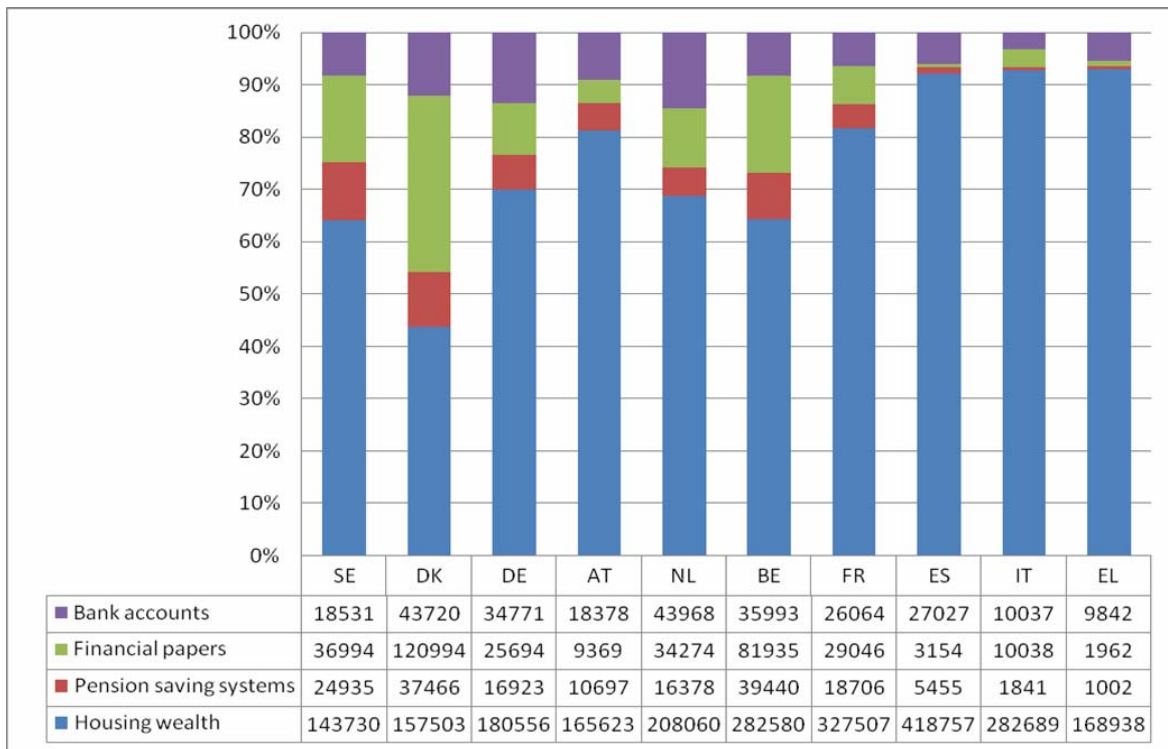
We have chosen the *breadwinner* in each household, i.e. the person with the highest gross income, to be *head of the household*. This implies that personal characteristics of this person will be used as household characterizing variables in various ways. We assume that this member of the household is the most important for the household behavior in many ways. This implies that a minor number of household heads are of age below 50. The reason for this is that persons who are married or firmly cohabitating with persons of age 50+ in the interviewed household are included in the SHARE database, and a number of these persons are both less than 50 years of age and breadwinners.

The Share questionnaire covers an impressive number of questions to be answered by persons of age 50+, but also has a number of physical and mental exercises to be performed by the interviewed persons. A fully description of the data is thus far beyond the needed for our purpose.

#### 4 Wealth among old age households

Cross section analyses of data from the SHARE 2003-2004 database reveal the picture of figure 4.

Figure 4: The wealth components among old age households. PPP corrected euro and per cent.



Note: Mean wealth per household in PPP corrected euro. Bank accounts include contractual housing savings. Car value and owner share of business is not included. Calculated mean values from the SHARE 2003-2004 database.

Source: Lauridsen and Skak (2009).

The composition of the household wealth partly reflects country differences in homeownership rates. Thus, high ownership rates in Southern Europe gives high shares for housing wealth out of

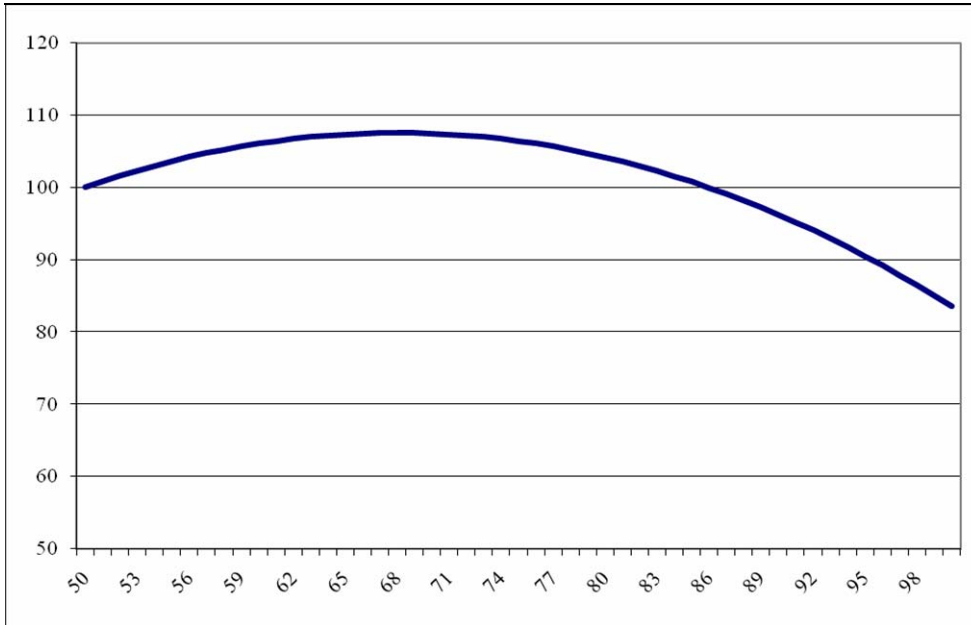
total wealth. This combined with comparatively high housing wealth<sup>5</sup> in Italy, Spain and France, where the financial wealth components are relatively small, indicates a degree of substitutability between homeownership and the provision of other financial means for pension. However, this macro or inter country substitutability is not confirmed by micro or intra country regressions in Lauridsen and Skak (2009), who found a significant positive coefficient between homeownership and both financial wealth and private pension plans. One explanation for the positive micro or intra country relation could be that homeowners save more than tenants, as indicated by the analysis by Di, Belsky and Liu (2007), and thus acquire more financial wealth through their lifetime. It could also be that homeowners use their housing equity as collateral for geared investments in various financial papers including private pension plans.

One way to dissave wealth accumulated over the working years in housing equity is simply to move out of the home and into tenancy after retirement. Lauridsen and Skak (2009) found gradual falling ownership probabilities among households with age above 68 as shown in figure 5 from cross section regressions. However, this move may be caused more by physical inabilities than a wish for higher consumption, especially in older ages.

*Figure 5: The homeownership probability and the age of the head of the household*

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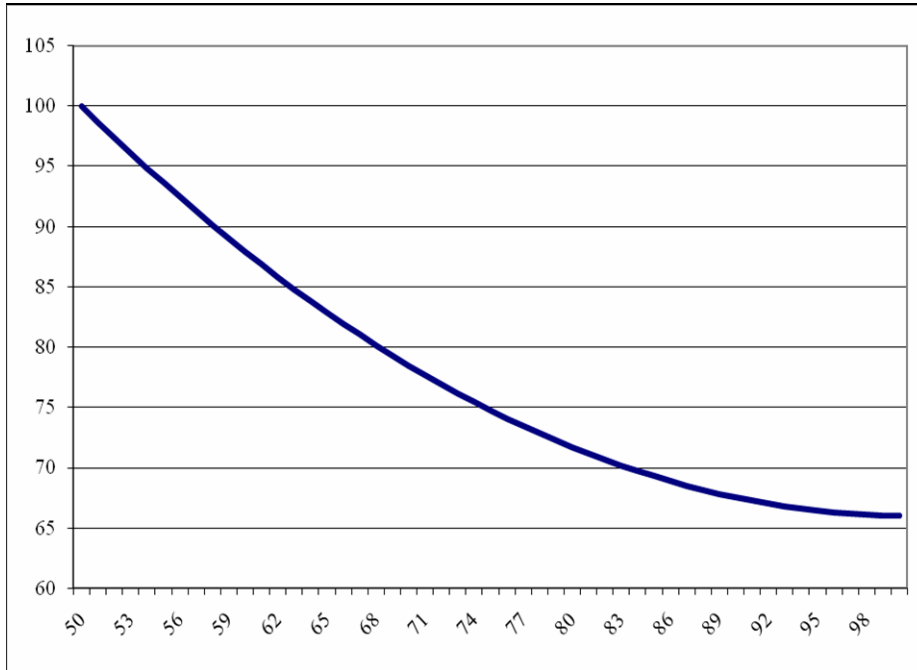
<sup>5</sup> Wealth is in PPP corrected euro. Car value and owner share of business is not included. Car value is probably hard to estimate and can hardly be considered a financial assets, which is intended to be used for non-transport consumption. The reported values of owner share of business are excluded because they seem highly unreliable for some countries when compared with data from national sources. Whereas income reporting by interviewed persons may be realistic, it is an open question how well old age respondents are able to give realistic estimates of housing market values. A recent study on US data by Benitez-Silva, Eren, Heiland, and Jimenez-Martin (2008) finds that self reported housing wealth on average overestimate values by five to ten per cent, but also that this varies with the business climate on the day of purchase. Households who bought in more depressed times tend to be more realistic in their estimation. The Share data does not have information that allows us to correct for misreporting.



Note: Based on a cross section regression on SHARE 2003-2004 data. The effect for 50 years of age is set equal to 100. Source: Lauridsen and Skak (2009).

Outstanding mortgage is very low among European old age households. Many households are outright owners of their home, and the average outstanding mortgage is less than five per cent of the housing value in most countries. Moreover, few old age households take up new mortgage to finance current consumption. A regression reveals the age effect on the outstanding mortgage shown in figure 6. The figure suggest a falling mortgage rate as the age of the head of the household increases and so shows no tendency for a “use” of housing equity for consumption through the pension ages. The curvature comes from the coefficient of the age squared. This coefficient is not significantly different from zero, but is included in the illustration because if not the straight line will eventually go into the negative.

*Figure 6: The age effect on the per cent outstanding mortgage*

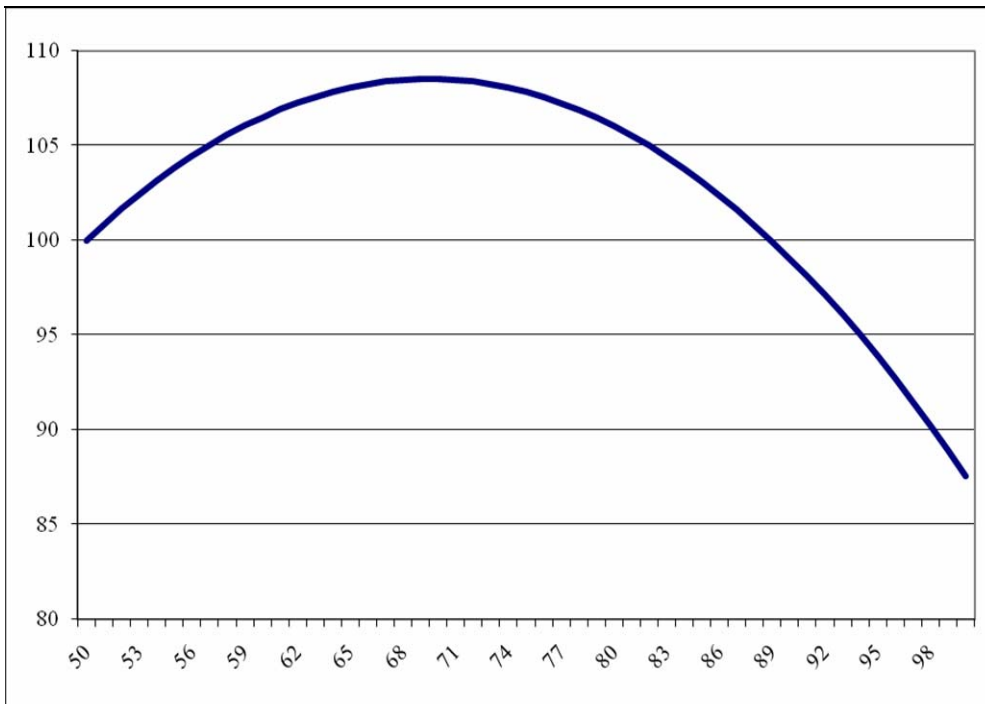


Note: The effect for 50 years of age is set equal to 100. The curve contains both cohort, age and year effects and so cannot be interpreted as a pure age trajectory or life cycle behavior through ages.

Source: Lauridsen and Skak (2009).

Contrary to housing wealth, pension plans are directly designed to be released for consumption through the pension ages and this is probably also the intention behind most of the other components of financial wealth. In fact, the financial wealth per equivalent person increases only up to the end of the 60's after which it falls according to the regression result depicted in figure 7. Thus in some contrast to the reluctance to release housing equity for consumption through new mortgage loans backed by housing collateral, European old age households have no problems with the release of financial wealth for consumption during the pension ages. Within Europe, the picture seem to be that old age households in Central European and Nordic countries, where comparatively low rates of homeownership are found, have a high level of liquid financial assets, which they use for consumption during their pension life. In contrast to this, the high rates of ownership and so housing equity in southern Europe is only to a very modest degree released for continued consumption after retirement.

*Figure 7: The age effect on financial wealth per equivalent person*



Note: The effect for 50 years of age is set equal to 100. The curve contains both cohort, age and year effects and so cannot be interpreted as a pure age trajectory or life cycle behavior through ages.

Source: Lauridsen and Skak (2009).

The analysis above indicated that the inclination to release the housing equity through new mortgage is limited whereas accumulated financial wealth fits better into the life cycle model. In the next section we report some results on the relation between gifts, bequest and homeownership.

## 5 Gifts, bequest and homeownership

An owned home may be part of life cycle savings with the intention to use the housing equity for non housing consumption after retirement. However, apart from a move out of ownership with higher age, there is little indication of a use of housing equity for non-housing consumption after retirement. This observation implies that homeowners leave more bequest than tenants. The SHARE surveys ask about gifts given and the chance of leaving inheritance<sup>6</sup>, which is used for two logistic regressions with the results reported table 1.

<sup>6</sup> The interviewed persons are first asked about gifts given over the last 12 month and then about gifts received over the last 12 month and ever received inheritance, with the answers on reception used as explanatory variable in the regressions shown in table 1 and table 8. Questions about the chances of leaving inheritance are placed late in the interview and far away from the aforementioned questions.

Table 1: Logistic regression on gifts given and the chance of leave inheritance

Variable	Gifts		Inheritance	
	Coefficient	Odds ratio	Coefficient	Odds ratio
Germany	reference country			
Sweden	0.0262		0.6557***	1.926
Denmark	-0.4919***	0.611	0.1150	
Austria	-0.1936**	0.824	-0.0173	
Netherlands	-0.3728***	0.689	-0.6552***	0.519
Belgium	-0.3911***	0.676	0.1439	
France	-0.3454***	0.708	-0.4326***	0.649
Spain	-0.9714***	0.379	-0.6728***	0.510
Italy	0.0508		-0.3827***	0.682
Greece	0.4956***	1.642	0.1955	
Log income	-0.1441***		0.0981***	
Housing wealth	0.0370***		0.3412***	
Financial wealth	0.0062		0.0206	
Debt	0.0160		-0.0557*	
Homeowner	0.2677***	1.307	2.2207***	9.214
Gifts/inheritance from parents	2.216E-7**		2.472E-6***	
Other gifts	9.67E-7***		5.07E-6***	
Number of adult persons	0.0400		-0.0425	
Number of children	-0.1166**		-0.1617**	
Big city	reference variable			
Suburb	0.1417**	1.152	0.0353	
Large town	0.1304**	1.139	-0.0035	
Small town	0.0252		0.0965	
Rural area	-0.0513		0.3078***	1.360
Male breadwinner	0.0463		0.0963	
Single	-0.1408**	0.869	-0.1293*	0.879
Foreign	-0.0490		-0.2597*	0.771
Age	0.0771***		0.0029	
Age squared	-0.0006***		0.0000	
Basic educational attainment	reference variable			
- secondary	0.4344***	1.544	0.3413***	1.407
- tertiary	0.7499***	2.117	0.6075***	1.836
Employed breadwinner	reference variable			
Self-employed	-0.0947		0.0023	
Unemployed	-0.5402***	0.583	-0.7594***	0.468
Doing housework	-0.4446***	0.641	-0.2438**	0.784

Retired	-0.2456***	0.782	-0.1334	
Disabled (to work)	-0.4493***	0.638	-0.4200***	0.657
Good health	0.4975**	1.645	2.0128***	7.484

Note: A positive significant coefficient indicates a higher stress level and a negative significant coefficient indicates a lower stress level. Significance is indicated by \*\*\* for 1%, \*\* for 5%, and \* for 10%. Only meaningful significant odds ratios are shown.  $R^2 = 0.11, 0.22$ .

Source: Logistic regression on the SHARE 2003-2004 database.

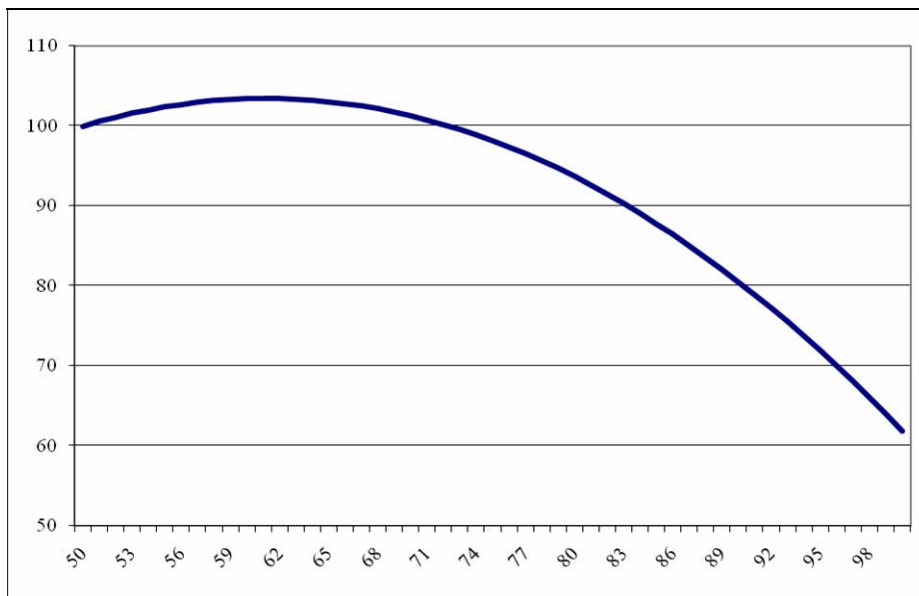
The table shows a number of countries with a significant deviation from Germany, mostly with a tendency for households in the other countries to give less and leave fewer bequests. We have no good explanation for this, but it should be remembered that these idiosyncratic country differences are the unexplained residual differences after correction is made for the influence of country differences among the other explanatory variables, e.g. wealth and homeownership. Higher income reduces the inclination to give gifts, but raises the chances of bequest. Also housing wealth has a significant positive influence on gifts given and the chances of leaving inheritance, whereas financial wealth has no influence. This confirms the earlier findings, see figure 6 and 7 that financial wealth fits nicely into the life cycle model, while this is not the case for housing wealth.

Whereas debt has a slightly negative influence on the probability of leaving inheritance, the inclination for leaving bequest is heavily influenced by homeownership, which increases the probability more than 8 times compared to renting. Also earlier reception of gifts and inheritance increases the probability of giving gifts and leaving inheritance, thus indicating that the habit of intergenerational financial transfers is carried over between generations. The observation lends some support to the model by Alonso-Carrera, Caballé and Raurich (2007) who presents a model where preference formation concerning bequest depends on both parents' and one's own behavior.

The number of adult persons in the household has no effect on gifts given and the chance of leaving inheritance, but an increasing number of children reduce the probability. The location of the household has modest influence, but living on the countryside increases the probability of leaving inheritance. Living single reduces the probability, whereas the age of the household head influences the probability for gifts with the curvature illustrated in figure 8. The top point around the age of 60 may be because high needs of the children are typically met in time before the retirement from the labor force of the household head.



Figure 8: The age effect on the probability of gifts given



Note: The effect for 50 years of age is set equal to 100. The curve contains both cohort, age and year effects and so cannot be interpreted as a pure age trajectory or life cycle behavior through ages.

Source: The figure is drawn by use of the estimated coefficients reported in table 1.

Higher education of the head of the household significantly increases the probability for both gifts given and the chance of leaving inheritance. It is however reduced for household heads being unemployed, going home doing housework, being retired or being disabled. Finally, good health seems to have a remarkably high positive influence especially on the probability of leaving bequest. The coefficient is probably lifted because of endogeneity. Corresponding to the findings by Horioka (2009), a high chance of leaving inheritance may be in exchange for the children's provision of assistance during old age, which tend to raise the health. But it may also be that good health is positively correlated with an optimistic attitude that promotes the transfer of bequest between generations. If both effects are working, the coefficient in table 12 overestimates the influence going from good health to the chance of leaving inheritance.

## 6 Intergenerational trade and bequest

Horioka (2009) finds for Japanese households that more than half of the Japanese parents either leave no bequest or require some kind of assistance during old age in exchange for the bequest. Where generations live under the same roof, this exchange seems apparent, but it may also be the case where children live in neighborhoods or far away from their parents.

More to come.....

## 7 Conclusions

The SHARE surveys ask respondents about gifts given and the chance of leaving inheritance. By use of this, we found that both gifts given and the chance of leaving inheritance is positively affected by the size of housing wealth, but not affected by the size of financial wealth. Moreover homeowners have 30 per cent higher probability than tenants for giving gifts and nine times higher probability for expressing a positive chance of leaving inheritance. To this can be added, that the reception of gifts and inheritance also have a significantly positive effect on gifts given and the chance of leaving inheritance. This indicates a strong intergenerational transmission of the inclination for ownership.

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## Appendix

*Table A1: Descriptive statistics (Max number of observations = 18836)*

Variable	Mean	Min	Max
Sweden	0.1136	0	1
Denmark	0.0624	0	1
Germany	0.1063	0	1
Austria	0.0748	0	1
Netherlands	0.1037	0	1
Belgium	0.1344	0	1
France	0.1120	0	1
Spain	0.0931	0	1
Italy	0.0944	0	1
Greece	0.1052	0	1
Homeowner	0.6971	0	1
Income	41,245	0	1,169,839
Housing wealth	237,431	0	17,644,983
Financial wealth	79,861	0	10,299,500
Having private pension plans	0.2695	0	1
Gifts/inheritance from parents	20,233	0	9,527,842
Other gifts	6,262	0	7,480,535
Debt	83,338	0	4,285,644
Mortgage per cent	0.0625	0	7,923
Gifts given	0.2739	0	1
Chance of leave inheritance	0.8501	0	1
Consumption outlays per equivalised person	953	0	799,960
Consumption incl. paid rent per equivalised person	1,060	0	799,960
Consumption incl. paid and imputed rent per equivalised person	1,426	0	800,351
Economic distress	0.3536	0	1
Number of adult persons	2.0011	1	9
Number of children	0.0734	0	4
Big city	0.1499	0	1
Suburb	0.1856	0	1
Large town	0.1951	0	1
Small town	0.2536	0	1
Rural area	0.2158	0	1
Male breadwinner	0.5368	0	1
Single	0.3583	0	1
Foreign	0.0265	0	1

Age	64.8785	28	104
Basic educational attainment	0.5090	0	1
- secondary	0.2895	0	1
- tertiary	0.2015	0	1
Employed breadwinner	0.2503	0	1
Self-employed	0.0646	0	1
Unemployed	0.0302	0	1
Doing housework	0.1026	0	1
Retired	0.5216	0	1
Disabled (to work)	0.0307	0	1
Retired among heads of age 50-70 <sup>1)</sup>	0.4516	0	1
Good health	0.8640	0.5570	0.9450

Note: Personal characteristics are those of the breadwinner of the household. Country means are the fractions of observations in the sample. 1) Among able heads not doing housework.

Source: the SHARE 2003-2004 database.