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Title of Paper

How Inheritances Relate to Wealth Distribution?

Author(s)

Pirmin Fessler, Martin Schürz

For additional information please contact:

Name: Pirmin Fessler, Martin Schürz

Affiliation: OeNB

Full mailing address: POB 63, A-1011 Vienne

Email address [martin.schuerz@oenb.at](mailto:martin.schuerz@oenb.at) [pirmin.fessler@oenb.at](mailto:pirmin.fessler@oenb.at)

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# 1. Introduction

The aim of this paper is to review the analytical scope for cross-country comparisons of inheritances based on LWS data. Henry Ohlsson (2005) claimed that the most obvious use of the LWS data for studying intergenerational transfers is to estimate models that can be used to predict "end of life" wealth. We will argue differently, mainly on the basis of theoretical reasoning. The advantage of LWS data on inheritance remains in our judgement in the area of descriptive statistics on inheritances. It contributes in our view to illustrate different aspects of inheritances in a more sophisticated way.

Inheritance is an important research topic. Inheritances may account for a substantial part of total wealth. However, these kinds of accounting exercises do not give us economic answers. Considerable theoretical and empirical research during the last decades has been done on the motives underlying inheritance decisions. This strand of economic literature on inheritance is open for psychological and to a lesser extent for sociological interpretations. Such explanations of inheritance and bequests will emphasize the institutional aspects of family, the different welfare regimes or the cultural aspects of values and preferences.

The comparison of intergenerational wealth transfers in different countries produces revealing patterns. However, the inheritance literature has a long way to go to offer truly comparative results as analytical comparisons have to grapple with different definitions, samples and measurements.

The paper is organised as follows: In the first part of the paper, we review the existing literature on inheritances and bequests in a selective way. In the second part, we focus on cross country data issues and survey designs. In the third part, we show stylised results on inheritances in different countries, based on LWS data. These data reveal a rather similar picture: beneficiaries tend to have a better education, a higher income and own more wealth. And in the last part of the paper, conclusions for data improvements in the future will be drawn. In the Annex we add inheritance information from the Austrian micro data set on financial wealth (SHFW).

## 2. What Are Inheritances?

Parents make intentionally and unintentionally wealth transfers to their descendants. In particular wealthier parents support their children in numerous ways. They invest in education and abilities of their children, and through socialisation they influence their natural talents. Furthermore, they provide inter vivos transfers and post mortem bequests of different kinds of wealth (Bowles/Gintis 2002, Lettke 2003).

However, the term "inheritance" is seldom defined with adequate precision, thus some crucial ambiguities remain. In the economic literature the focus is on material inheritances. In modern societies bequests are given and inheritances are received by individuals (there is no entail any longer as in a traditional society). And most economic research focuses on the attributes of individuals. However, inheritances occur within a family context and this means that explanations cannot just be given in terms of individuals and their relations. But there is rarely a conceptualisation of a family culture or family environment. Only family characteristics such as size or composition are examined. Aspects of family culture may comprise specific norms. Explanations of bequests would have to take into account these family values as family culture may define specific obligations, expectations and responsibilities.

Arrondel/Masson (2002) argue that the main distinction between inheritances and gifts is observability (bequests are known to all siblings while gifts can be provided in a private way). However, in any case gifts and bequests will not fulfil the same tasks as the timing in the life cycle is different. Inter-vivos gifts are much smaller than bequests but still of significant importance (Pestieau 2003). But what is their role related to bequests, do they follow the same

pattern, are they compensatory or substitutes? In particular, the wealthy may choose among them as two options. Schervish/Havens (2003) study the wealth transfers of the rich and their allocation decision dividing their wealth between charitable institutions and their children. They argue that the rich may shift away gifts from children toward charities and from bequests to *inter vivos* gifts.

Gifts appear to be somewhat compensatory in the USA but not in France. Girls that are assumed to receive less education or will care more for their parents may be advantaged a little bit. However, even in the United States equal sharing among siblings is the most common practice. Equal sharing of estates may have different reasons, for example post mortem reputation and to preserve family links while avoiding conflicts between children. In France, less than 8% of estates are unequally divided and these cases concern mainly the rich and the self employed with several children (Arrondel and Laferère 1992).

The conceptual difference between bequests and gifts remains vague. Gifts at the end of life cannot be separated easily from inheritances. Thus, the decision which period of time before death shall be relevant for the distinction between bequests and gifts remains rather arbitrary.

### 3. Which Perspective on Inheritances?

There are mainly three economic research areas related to inheritance:

1. What is the share of inheritances on total wealth?
2. What are the motives of bequest?
3. What is the legitimacy of inheritances?

The topic of "legitimacy of inheritances" ranged very prominent in economic history (Mill, Locke, Smith, Friedman). In particular in the USA there is still an ongoing public debate on the legitimacy of inheritances. An important argument in this debate is that there is no individual effort in this increase of wealth. The self made millionaire Andrew Carnegie influenced with his article "Gospel of Wealth" a liberal perspective on this issue and is reference point for people arguing philanthropic gifts. However, this issue is dealt with separately from the two other strands of literature. And the gap between theoretical literature on the legitimacy of inheritances and models of motives bequests is not bridged in household surveys<sup>1</sup>.

Economic literature may start from different angles to study the two other research questions (share of inheritances on total wealth and motives of bequest):

- *Perspective of the recipient:* Wolffs finding (2003) that bequests have an equalising effect on wealth distribution are gained by concentrating on the perspective of the recipients. To study the received inheritances involves rather problematic recall bias (Wolff 2003).
- *Perspective of the donor:* This perspective can be studied on the basis of estate data (however this is not available in a number of countries) or by asking about motives of bequests. The latter perspective is about intentions and problematic as motivations may change over time. The composition of estates provides only limited information as to the motive of bequest, because we do not find estates consisting only of life annuities (accidental bequest model) or of life insurances (altruistic bequest model).
- *Perspective of the non-recipient/non-donor:* The perspective of non-heirs and non-donors on inheritance is almost never analysed in economic literature. As these people do not inherit anything, this may seem adequate. However, information from

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<sup>1</sup>One will not find questions in household surveys on wealth that refer to the legitimacy of inheritance (unearned wealth), the principle of equal opportunity or personal ideas concerning inheritances.

non recipients will allow examining whether the focus on motives for bequests is adequate. People with no intention to bequeath anything may not lack altruism or strategic exchange motives but just income or wealth resources. Thus, reasons for not giving bequests and receiving inheritances have to be studied. Such data would be helpful for consistency checks with the survey data on inheritances.

Thus, it may be useful to study the behaviour, motivation, attitudes and norms of the wealthy and the non-wealthy separately in order to get a more complete picture of social reality of inheritance.

## 4. Motives of Bequests

In the following part we will study the way economists traditionally conceptualize inheritances. *Bequest motives* this is to say a person gains utility from the knowledge that wealth will be left to someone (otherwise utility comes only from consumption).

Our focus in this chapter is not on the particular characteristics of the specific models as this has been done in several other surveys (for an overview see Masson/Pestieau 1997, Davies/Shorrocks 1999), but rather on the underlying implicit normative orientations of the models.

Models based on self-interested behaviour cannot explain planned bequests. Thus, the literature has identified numerous bequest motives. And motives of bequests are considered to matter by the economic community. If bequests are accidental a substantial increase of inheritance tax will have no impact on wealth accumulation. However, if bequests are planned an increase in estate tax might reduce wealth accumulation and wealth transfers. Intended bequests seem to involve some kind of altruistic motivation.

### 1. Unplanned bequest motive.

Motives in economics lie along an axis from self interest to altruism and the economic debate is mainly on altruism versus exchange motives. The accidental or *unplanned bequest motive* is by definition no motive as it does not imply a motivation to transmit wealth. Hurd (2003) tries to show that there is no bequest motive. He suggests that bequests arise accidentally. In the life cycle framework economists work with the prediction that elder persons will decumulate their wealth as mortality risk goes up. Older people without an altruistic motive should decumulate more rapid than others. However, elderly with children decumulate even more rapidly than those without children. Hurd (2003) considers that as evidence against a bequest motive<sup>2</sup>.

### 1. Planned Bequests

The planned bequests fall - according to economic literature - in different categories. Arrondel/Masson/Pestieau (1997) show that the prominence of these motives has changed over time from altruism to exchange motives<sup>3</sup>.

#### 1. Altruistic Bequests

The driving motive for wealth transfers in the *altruistic model* is that parents care for their heirs (children, grandchildren etc.). Bequests may take the form of both human capital investment and/or financial transfers (see Becker/Tomes 1979, 1986). With a declining rate of

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<sup>2</sup>To be more precise, it is rather no evidence of a bequest motive.

<sup>3</sup>In sociological literature these types of motives are complemented by various forms of reciprocity. Mauss (1990) analyzes how dyadic exchanges sustain small groups by building links of reciprocity.

return to human capital investments parents will initially specialise in these investments until their rates of return equals the interest rate. Only from this point on, parents will transfer financial resources either through inter-vivos transfers or bequests. As parents care about the lifetime utility of their children, wealthier people will make larger bequests. Holding parent's wealth constant children with higher labour income will receive smaller bequests.

*Paternalistic bequests* are a specific form of altruistic bequests. Parents receive their motivation directly from the act of giving. In these models bequests are a kind of last consumption expenditure in the utility function. *Retrospective bequests* are not specified very well as the bequest is motivated by some kind of ad hoc altruism. Parents leave their children a bequest commensurate to what they themselves have inherited. In *retrospective bequests* bequeathing patterns tend to be reproduced from one generation to the next.

The altruism hypothesis does not specify whether it assumes affection or moral duties of the donor. However, this may imply different behaviour. While the former may depend on behaviour of the potential beneficiary (reciprocity), the latter might rather induce rule oriented behaviour.

Assuming an altruistic motivation would imply that parents will transfer wealth predominantly to their more needy children. A common finding of many empirical analyses of bequests is that bequests are distributed relatively equally among children, even though bequests to children are voluntary in the USA and mandatory in France, Germany and other European countries. However, altruistic as well as strategic motives for bequest would predict unequal shares. Kohli and Kühnemund (2001) argue that the only explanation could be a "*Wertewandel*". The individualization of modern societies has made the principle of equality of every person one of overriding concerns.

## 2. Strategic Exchange

The crucial hypothesis is that testators use bequests to influence the behaviour of potential beneficiaries. A person plans to leave bequests to others because he/she expects them to give in return. Parents may either threaten to disinherit or more subtly ensure to reward more attentive children (Bernheim et al. 1985, Cox 1987). Children will then choose a certain level of attention towards their parents in exchange for a potential bequest. The exchange may involve all kinds of non monetary services (companionship, visits, co-residence in a home). Strategic bequests depend on the wealth and the needs of the donor.

The reference study on strategic bequests is the one of Bernheim et al. (1985) using LRHS (Longitudinal Retirement History Survey) panel-data. The authors compare the average amount of attention by children (telephone calls, visits) with parents' bequeathable and non bequeathable wealth. Control variables are age, state of health of parents and status of retirement. In families with two or more children bequeathable wealth has an influence on attention. It is far from obvious how to check the existence of strategic exchange motives. The intention to bequeath and the attention received by the child may not be interpreted as strategic exchange but rather as the expression of love. After death the inheritance is the only way to do so. Standard models of dual exchange have a number of deficiencies<sup>4</sup>. In particular grandparents that receive attention and help from their relatives have actually less bequeathable wealth. This implies that their children have lower expectations of inheritances.

We end up mainly with three stylised models:

1. The selfish life cycler leaves accidental bequests because of random life duration.
2. The benevolent patriarch provides bequest to his children in an altruistic way

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<sup>4</sup>compare e.g. Arrondell/Masson (2002).

3. In the model family of homines oeconomici exchanges are done on several levels (money is exchanged for care and estate for love).

Besides these three types of models numerous variants of mixed motivations can be found (Arrondel/Masson 2002). Variants of strategic altruism have been proposed. Models with several endogenous regimes (Cigno's constitution model, where extended exchange between three generations, is governed by self enforcing norms of cooperation) and indirect reciprocities (indirect reciprocity is a form of general reciprocity that involves more than two agents; replication of the same kind of transfers across generations) are further alternatives. An extension to a four-generation model would allow to study more aspects of reciprocity. Heterogeneity of motives and wealth transfers seems to be far reaching. By correcting specific shortcomings of standard models one would open new controversies. The heterogeneity of models reflects the fact that all these models are of a rather ad hoc character. Introducing ad hoc modifications allow investigating further aspects of inheritance, however, at the price to lose a clear cut orientation between altruism and self interest.

Reciprocity is a kind of touchstone of anthropology. Mauss in his famous *Essay on Gift* (1924) shows the inherent ambivalence of any gift that induces a double relation between donor and donee. On the one hand there is solidarity and on the other hand domination and coercion. Bourdieu discusses practical action as "*habitus*", a "*body of 'durable, transposable' dispositions*" that are embedded in individuals through socialisation. The habitus generates practices in accordance with values and ideas of the social system. Since that practice does not involve conscious purpose, practice is not easily defined as action (Bourdieu 1980). An analysis of the *habitus* of people would draw researchers' attention not only to income and wealth situations of people, but also to their life expectations, health, perceptions of reality, and social norms.

To concentrate on studying merely motives for bequests has at least the following analytical shortcomings:

The simplest way to learn about motives seems to be to ask people about their intentions to transfer wealth. However, values and shifting preferences can only be assessed partly by asking for transfer motives. Kohli/Künemund (2003) construct a broader motivational space and propose three dimensions in the German Aging Survey: unconditional giving (*if my family member need help I will always be there*) conditional giving (*if someone wants to inherit from me, he/she should do something for it*) and separation (*grown-up children should be able to stand on their own feet and not expect support from their parents*). What would be needed more are in-depth psychological interviews where intentions and opinions are linked to wealth and income resources.

Motives for bequests vary over time. Bequests were very important in pre-industrial societies<sup>5</sup>. Before the industrial revolution the institution of primogeniture was important for avoiding the diffusion of land property. Durkheim predicted - wrongly - that inheritance would lose its salience in modern societies. Implicitly economic models on motives for bequest are ahistoric as, they do not deal with historic ruptures and paradigm shifts.

Motives are influenced by behaviour of people itself. Motives are related to family values and social norms and influenced by the institutions in different countries. In practice bequest motivations are interwoven. Selfish manipulation and altruism may go hand in hand. People may care for their children and at the same time trying to manipulate for their purposes.

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<sup>5</sup>Bradford DeLong (2003) estimates that between 16 and 24% of annual output was turned over in bequest each year.

Ingratitude of children may lead to strategic behaviour of the parents. In other words, human motives are multifaceted. This leads to the conclusion, that we cannot test motives by looking at the data, because the motivations are neither revealed by observing behaviour nor by theorizing but rather by constructing in an ad hoc way notional categories.

The data mix between gifts and inheritance in the LWS does not allow checking motives. Analytically, it seems to be more promising to search for motives in the case of gifts than for bequests. In the act of gift giving, the time horizon between decision and action is shorter, thus, intentions will tell more about actual behaviour.

Societies play almost no role in conceptualization of models on motives. This makes cross country comparisons across different societies difficult. Horioka et al. (2001) find that altruistic motives in Japan are weak in comparison with the United States. Japanese bequests are explained on the basis of microdata by lifetime uncertainty and by exchange motives during old age. Pestieau (2003) finds little evidence for variations in motives across countries. However, Orszag (2003) discusses why accidental bequest might be lower in Europe than in the U.S. Different national health systems might induce different saving behaviour. People accumulate wealth for precautionary motives against substantial health expenses at the end of life. If this precautionary saving is lower in countries with national health insurance accidental bequests may be lower. If cross country comparisons show significant differences in motives, then we would have to question the conceptualization of motives. However, LWS data does not allow comparing motives (intents to bequest) across countries

Often the decision to leave a bequest is taken by a couple. Thus, there is no individual decision maker whose motives can be studied. Wife and husband will have different life expectancies and different preferences.

By extending the models one may introduce ad hoc diverse elements. However, then, the so called theoretical models are a-theoretical in a certain way.

In a way the concentration in economic research on motives follows the homo oeconomicus model with its focus on choices (to choose between bequests and not bequests). Thus, critical remarks against welfarism will also be of relevance for the literature on bequest motives.

The quest in economic history for legitimacy of inheritances has not found entry in empirical economic literature on inheritances. However, the motives for bequest may be affected by people's views on justice. A liberal approach focusing on equality of opportunity may lead to alternative wealth transfers instead of the family transfers.

## **5. Wealth Distribution and Inheritances**

The focus of research questions concerning inheritance and wealth distribution is not an obvious one. And not even the direction of research is clear. Wealth distribution may influence inheritances and inheritances will have an impact on wealth distribution.

Economic literature studies mainly whether inheritances are equalizing or disequalizing with respect to current wealth holding (see Wolff 2002, Klevmarken 2004, Kohli/Schupp 2005). Klevmarken (2004) underlines: "*Contrary to what many believe, bequests do not increase the inequality of wealth*" (Klevmarken 2004, p. 490). His estimates rather suggest that wealth inequality decreases because many estates are split over several heirs, assets are given from wealthy parents to not so wealthy children and small amounts inherited mean more for poor people. Wolff's (2002, 2003) far reaching conclusion is that if intergenerational wealth transfers were eliminated wealth inequality would increase. It remains unclear what elimination in fact means? Would the wealthy elderly instead consume their wealth then there should be an equalizing effect on wealth distribution. Wealth transfers are larger for poorer

households than for richer ones as a proportion of their current wealth holdings. But in our understanding this information only helps identify asset poor people.

Net Wealth at a certain point of time is not a very informative reference point. First, the definition of wealth remains mainly data driven. People study that kind of wealth for which data is available. Thus, the common practice in the literature to focus on net worth is not theory driven. For a broader and maybe more relevant wealth definition (including pension wealth) data is mostly not available. Any modification in the definition of wealth will change the results. Thus, the percentage share of inheritances in net wealth - often referred to in the literature - does not tell a lot as we are able to produce almost any result. The attention the "*Kotlikoff/Summers - Modigliani 80-20%*" controversy has received is in way surprising as a solution of this accounting exercise would not answer directly an economic question. Accounting exercises do not tell a lot about motives of bequest or likely impact of policies on wealth transfers. A share of 50% of inheritances of total wealth could refer to two different economic scenarios: the (age-adjusted) share may be 50% for everybody in the population or the top decile of the wealth owners may hold almost all of it<sup>6</sup>.

From a societal point of view there is an ambivalent character of intergenerational solidarity within family as it will perpetuate wealth inequality (thus, despite a likely motive of altruism in no case it is universal altruism).

Inheritances have to be seen in a context with other wealth transfers (investment in human capital, gifts, social capital, prestige, power). To isolate inheritance and study its impact on wealth distribution is analytically problematic as this statistical description misses the multidimensional character of social inequality.

The percentage of heirs<sup>7</sup> and the money value of inheritances rise with the net wealth quantile. The money value of inheritances as a share of net wealth declines in upper net wealth quantiles (see figure 1)<sup>8</sup>. So even if wealthier groups receive inheritances of higher money value, money values as a share of net wealth are remarkably higher for lower wealth deciles which lead, *ceteris paribus*, to an equalizing effect of inheritances in terms of the distribution of household wealth. However, these facts do not imply a permanent equalising effect of inheritances on the wealth distribution. There are arguments that poorer households tend to spend the small amounts of money they inherit (e.g. to amortize a mortgage), whereas richer households tend to invest.

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<sup>6</sup>Klevmarken (2004) concludes that bequests and inter vivo gifts do not contribute much to wealth mobility in Sweden. Most of these wealth transfers are too small and infrequent to have a significant impact on a general measure of wealth mobility.

<sup>7</sup>Henceforth, we will refer to heir households as heirs and to the non heir households as non-heirs.

<sup>8</sup>Even though the money values of inheritances are highly problematic this result persists also for truncated samples, where households which received their inheritance more than ten/five years ago were excluded. Therefore the bias caused by lack of present values should be minor.

### Money Value of Inheritances of Households ordered by Net Wealth Deciles

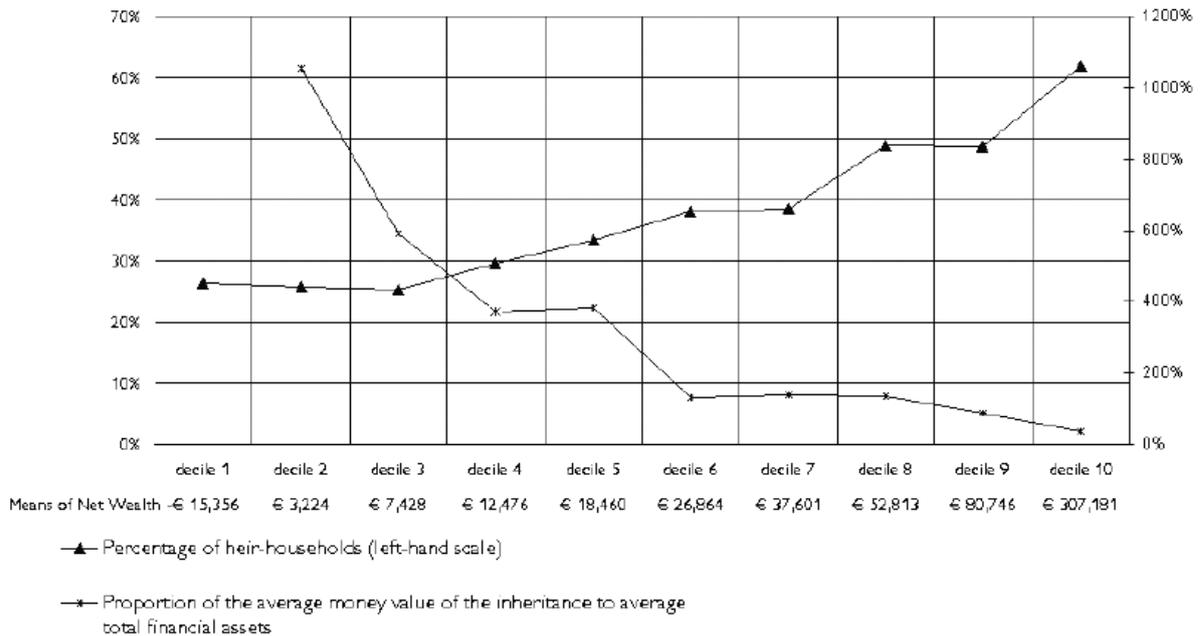


Figure 1. Inheritances and Wealth Distribution; Source: SHFW (AT04) data

## 6. Survey Design and Data Issues

A persistent and substantial worry will be on data quality. Most work on inheritance is based on private household surveys. As these data sources underrepresent the wealthy who bequeath most of the wealth, the survey data on inheritances are not reliable and the share of inheritance in total net worth unknown. Thus the results may describe behaviour of most households but not the motive for most of the bequests as the bulk of bequests is provided by the wealthy.

Further difficulties arise when trying to assess the current value of a transfer received in the past. It remains quite often unclear whether respondents have reported historic values or actual values.

Problems to extract comparable cross country variables on inheritances still abound. Questions on inheritances are asked in different ways, and the original data differ a lot. In the LWS data set on inheritances up to seven variables are available; six for money values and corresponding years of up to three possible inheritances/bequests received, and one for the sum of the money values of remaining inheritances/bequests (see figure 2).

LWS Variable	INHERITANCE/ BEQUEST RECEIVED (\$)	YEAR INHERITANCE/ BEQUEST RECEIVED	REMAINING INHERITANCE/ BEQUEST RECEIVED (\$)
Austria	X	X	-
Canada	-	-	-
Cyprus	X	X	X
Finland (98)	X	X	-
Finland (94)	X	X	-
Germany	X	X	-
Italy	-	-	-
Norway	X	X	-
Sweden	-	-	-
United Kingdom	X/F	X	-
USA (PSID)	X	X	-
USA (SCF)	X	X	X

X = variable available in data set, - = variable not available in data set, F = flag variable available in data set

**Figure 2. LWS Variables on Inheritances; Source: LWS data**

There are major differences across countries concerning the actual content of these variables (see figure 3). For some countries the data reflect questions with an open time-horizons (e.g. Austria, Cyprus, US-SCF), for others only the inheritances received in the last (e.g. Germany, United Kingdom) or the last three or five years (e.g. Finland, US-PSID) are included. For some countries the year in which the inheritance was received (e.g. Cyprus, USA) and for others a longer time period is reported (e.g. Finland, Austria). Furthermore, for some countries only inheritances with a money value larger than some lower bound are reported (e.g. Germany, Finland).

The distinction between gifts and inheritances is not clear cut. In the LWS data set different meanings of inheritance can be found and the definition of inheritances is not harmonized. In the German dataset (SOEP) even lottery gains are included under inheritances. Sometimes the household is the research unit and other times the individual. This complicates comparing data. In the SOEP there is even a certain threshold and inheritances below this threshold are not considered as inheritances (despite the fact that they may be of immaterial value for the recipients).

General Information	Item	Values	Reference Year	Unit of Collection
Austria	inheritance	value of all inh.	>10;>5;<5 years (refers to last inh. received)	household
Cyprus	inheritance	value of each inh.	year of each inh. received	primary economic unit
Finland	inheritance/inheritance in advance/gifts of cash	value of each inh. (over 15000 marks)	all inh. received between 1994-1998	household
Germany	inheritance/gift/lottery winning	value of each inh. (over 2500 Euro)	all inh. received 2002	household
Norway	inheritance/private gift	value of each inh.	all inh. received 2002	household (derived from person-level)
United Kingdom	inheritance/gift	value of each inh.	all inh. received 2000	household (derived from person-level)
USA (SCF)	inheritance/gift	value of each inh.	year of each inh. received	primary economic unit
USA (PSID)	inheritance/gift	value of each inh.	all inh. received in the "last 5 years" (in fact only dates from 1999-2001 and estates in progress)	family unit

Figure 3. Heterogeneity of the LWS Variables on Inheritances; Source: LWS Data

Ohlsson (2005) argues, "the most useful information for understanding transfers received is data on whether the individual's/the spouse's parents are deceased and, if so, when at what ages they died".

This information should be helpful to identify households for those parental wealth transfer (possibility) is already "over". However, on the basis of the current LWS data sets, this information is not helpful as figures 4 and 5 show.

donors and recipients		at least one person one generation ago not alive*
Cyprus	heirs	68.8%
	non-heirs	72.0%
Germany	heirs	57.6%
	non-heirs	61.5%
US-SCF	heirs	84.4%
	non-heirs	67.6%

\*father and/or mother of household head and/or spouse

**Figure 4. Individual's or the Spouse's Mother or Father Is/Are Deceased; Source: LWS data**

The data shows that the intergenerational transfer process is terminated only for very few households. For Cyprus and Germany for a higher share of non-heirs than for heirs the process is terminated. This may be due to the rising importance of inheritances. The data could be maybe helpful if one could distinguish exactly between post mortem transfers, inter vivos gifts and e.g. lottery winnings. Additional data on parental wealth and/or education would be helpful. With such data one could for example identify if there are groups who often substitute bequests with high inter vivos gifts and so on.

donors and recipients		all persons one generation ago not alive*
Cyprus	heirs	11.3%
	non-heirs	14.8%
Germany	heirs	5.5%
	non-heirs	9.4%
US-SCF	heirs	21.5%
	non-heirs	11.0%

\*father and/or mother of household head and/or spouse

**Figure 5. Individual's and the Spouse's Mother and Father Are Deceased; Source: LWS data**

In general, subjective information should be obtained in a context where people are in a position to inform about their actual behaviour concerning inheritances and bequests. Thus, elder people asked about their intentions how to dispose over their assets will provide more relevant information. The general opinion on wealth transfers will be rather insignificant.

## 7. Cross-Country Comparison between Heirs and Non-Heirs on the Basis of LWS Data

What can we analyse with the available LWS data on inheritances? In our judgment, the data shows the better social situation of heir-households.

In the following section, we compare the socioeconomic characteristics of heir- and non-heir households. Respectively, we relate means and medians of the following variables: total financial assets, total debt, wage, and age of the household head<sup>9</sup>.

It is problematic to compare money values because the data is quite heterogeneous. Different currencies, different times of surveys and different valuation difficulties point to numerous problems. Therefore, if one wants to compare different countries, the most reliable thing seems to be the comparison of country specific indicators. If one wants to compare socioeconomic characteristics of heirs and non-heirs it seems to be consequent to use the most comprehensive definition of heirs for every country specific dataset. It does not seem to be reasonable to use truncated definitions for some countries to get the same heirs definition for all countries which would be a definition which only includes "last year" inheritances.

Figure 6 reports the comparison of heir and non-heir households.

- Total financial assets: The ratio of the mean of heir-households divided by the mean of non-heir households varies from 1.62 (Norway) to 2.62 (USA-SCF). One must bear in mind the different time horizons regarding to reported inheritances. However, ratios are clearly  $>1$  for all countries. This supports the hypothesis that on average heirs hold considerably more financial wealth than non-heirs. For the available median ratios the support is even stronger in most cases. Clearly some endogeneity problems are evident.
- Total debt: Comparing debt we find that heirs also hold considerably more debt. Ratios range from 1.25 (Cyprus) to 2.90 (Germany).
- Wage: wages are mostly not influenced by some endogeneity problem (except of the link to age and the link between inheritance and the build up of an enterprise). Anyway also for wage, ratios are for all countries  $>1$  and ranging from 1.22 (USA-SCF) up to 1.67 (United Kingdom).

The average age of an heir-household should be higher in those country surveys which study inheritances with open time horizon, just because of the fact that older people did already have "more time to inherit something" and they have a higher probability that their parents and/or grandparents are already dead. For countries for which only "last year" or "last five year" inheritances are reported this effect should evidently diminish. For Austria and the USA-SCF ratios are  $>1$  which should be the case because of open time horizon questions. Ratios for all other countries are  $<1$  which means that the household head of a heir household is on average younger than the household head of an average non-heir household. This is especially surprising for Cyprus because of the open time horizon of the reported inheritances and maybe an indicator for a relatively new importance of inheritances in Cyprus. Generally it underpins that the differences in relation to wage, total financial assets and total debt are not due to age effects.

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<sup>9</sup>In most cases (except the USA) ratios on the number of persons within the household is  $>1$  which means that average heir households are larger than non-heir households. This is not surprising as inheritances are studied at the household level.

Country	Austria	Cyprus	Finland	Germany
definition heirs (heir household)	inherited some amount (no exact dates)	inherited some amount (dates from 1940 to 2003)	inherited (received large gift) some amount > 150000 marks* from 1994 to 1998	inherited (received large gift, lottery winnings) some amount >2500 Euros in 2001
percentage of heir h.	% of heir h.: 38%	% of heir h.: 41%	% of heir h.: 18%	% of heir h.: 2%
	mean heirs/mean non-heirs	mean heirs/mean non-heirs	mean heirs/mean non-heirs	mean heirs/mean non-heirs
total financial assets	2.01	2.15	2.16	2.15
total debt	1.37	1.25	1.39	2.90
wage	na	1.39	1.51	1.42
number of persons	1.01	1.14	1.21	1.10
age of household-head	1.09	0.91	0.92	0.94
*5,94573 mk = 1 €.				
Country	Norway	United Kingdom	USA (SCF)	USA (PSID)
definition heirs (heir household)	inherited some amount in 2002	inherited some amount in 2000	inherited some amount (dates from 1940 to 2000)	inherited (received gift) some amount (dates from 1999 to 2001; +estate in process)
percentage of heir h.	% of heir h.: 3%	% of heir h.: 4%	% of heir h.: 18%	% of heir h.: 5%
	mean heirs/mean non-heirs	mean heirs/mean non-heirs	mean heirs/mean non-heirs	mean heirs/mean non-heirs
total financial assets	1.62	2.00	2.62	1.64
total debt	1.35	1.56	1.56	1.77
wage	1.41	1.67	1.22	1.34
number of persons	1.21	1.10	0.95	0.99
age of household-head	0.98	0.93	1.12	0.96

Figure 6. Comparison of Heirs and Non Heirs; Source: LWS data

In reference to education LWS data is quite heterogeneous. We consider the level of education as the best indicator for parental wealth which is available in LWS data. Thus, we tried to classify the content of the different educational variables rudimentarily in order to compare education of heir and non-heir households in different countries. As a kind of

orientation we used ISCED (International Standard Classification of Education) 1997<sup>10</sup>. We roughly classify the LWS data on education of most countries into 3 groups (<ISCED 3; =ISCED 3; >ISCED 3). ISCED 3 denotes (upper) secondary education. Even if the data is not fully comparable between countries, we find that for all countries heads of heir households tend to be considerably more often higher educated than heads of non-heir households (see figure 7), which supports the hypothesis of education being an indicator for parental wealth. Alternative class concepts (wealth, profession) make it difficult to interpret whether class membership is due to the inheritance. Education is especially important as it indicates whether parents from higher classes supported their children in entering higher education.

HIGHEST EDUCATION LEVEL (ISCED 0-6)		<3	3 (Upper) Secondary Education	>3
Austria	non-heirs	15.00%	75.60%	9.40%
	heirs	11.20%	71.30%	17.50%
Finland	non-heirs	40.90%	35.70%	23.40%
	heirs	24.00%	38.20%	37.90%
Germany	non-heirs	17.50%	61.60%	21.00%
	heirs	12.50%	56.70%	30.60%
Norway (some unspecified)	non-heirs	19.10%	50.80%	27.90%
	heirs	11.10%	47.60%	41.10%
USA (SCF)	non-heirs	9.80%	39.20%	51.00%
	heirs	3.50%	27.20%	69.10%
USA (PSID) (some unspecified)	non-heirs	9.00%	38.70%	48.00%
	heirs	1.80%	22.20%	73.30%

Figure 7. Education Levels of Heirs and Non-Heirs; Source: LWS data

Overall, on average heir households hold more financial assets, receive higher wages and are better educated. Age effects can not entirely explain these differences (compare also Annex "Inheritance in Austria").

## 8. Further Cross Country Comparisons on Inheritances Based on LWS Data?

Economic research has rarely studied cross-national patterns and cross-national differences in households inheriting behaviour (Laitner/Ohlsson 1998).

There may be different reasons for cross country differences in inheritances:

- The US and European countries differ also in the freedom to select beneficiaries. Institutional regimes create different legal obligations (family centred pattern of Germany versus the individual-centred pattern of the USA).
- The difference in welfare regimes will create different needs for family transfers (e.g. the cost for higher education in the USA).
- The cross-national differences in gifts and inheritance taxes may affect actual behaviour and may also be a reason why respondents are unwilling to respond in survey interviews<sup>11</sup>.

<sup>10</sup>ISCED classifies the different education levels achieved in different educational systems in different countries into 7 groups ranging from 0, pre-primary education, to 6, second stage of tertiary education (PhD).

<sup>11</sup>Despite the fact, that estate tax and inheritance tax are only relevant for a small part, a large

- Another reason for cross-country differences in bequest might be cross-national differences in wealth distribution. As rich people make most of the wealth transfers countries with a high wealth concentration should have a higher share of wealth transfers.

Pestieau (2003) reports that studies using the same methodology for European countries and the USA generally conclude that bequests constitute a larger share of total wealth in Europe than in the United States. However, most estimates in Europe fall within the broad range of estimates for the USA.

## 9. Conclusions

This paper argues for caution in several ways. Economists studying inheritances seem to be particularly influenced by data availability in theorizing the process of inheritances. However, a theoretical reasoning has to conceptualize the complexity of social reality. We would rather suggest following a sociological approach focusing on practices and studying in particular socialisation. An empirical examination of the process of inheritance should focus on the question how people bequeath and inherit (or not) and not only study why people bequest. The *Why-question* focuses too much on intentions/decisions and not sufficiently on actual (and most times ambivalent) behaviour. As inter vivos transfers are more likely to be intentional they are more likely to be informative about wealth transfer motives.

Substantial differences of opinion remain on the effect of bequests on wealth distribution. We showed on the basis of LWS data that the situation of the heirs is better than the one of the non-heirs. Inheritance is an important factor in social inequality.

We gave a somewhat negative assessment of the empirical test of the theoretical models: while the focus of the models is on individuals and families, the focus of the survey data is mainly on households. The question which model is most consistent with the data is misguided in a way as models are rather artificial and data limitations are far reaching. The conclusion that merges from this paper is to get an adequate understanding of bequest and inheritance requires looking at the behaviour of donors, recipients and non recipients.

The idea of a complete and comparable data base on the process of bequests and inheritances is naive. However, improved data would be important in several directions: At least it would be necessary to have comparable money values of inheritances and a sharp distinction between inheritances and other transfers like lottery winnings or gifts from non-family members. Panel data would allow a comparison of inheritances over time to investigate possible changes in the importance of different wealth transmission channels (e.g. a likely rise of the importance of wealth transfers in order to support higher education for children implying a shift from inheritance to inter-vivos transfers). For economic research it is good news that most questions on inheritances are still open.

# Appendix

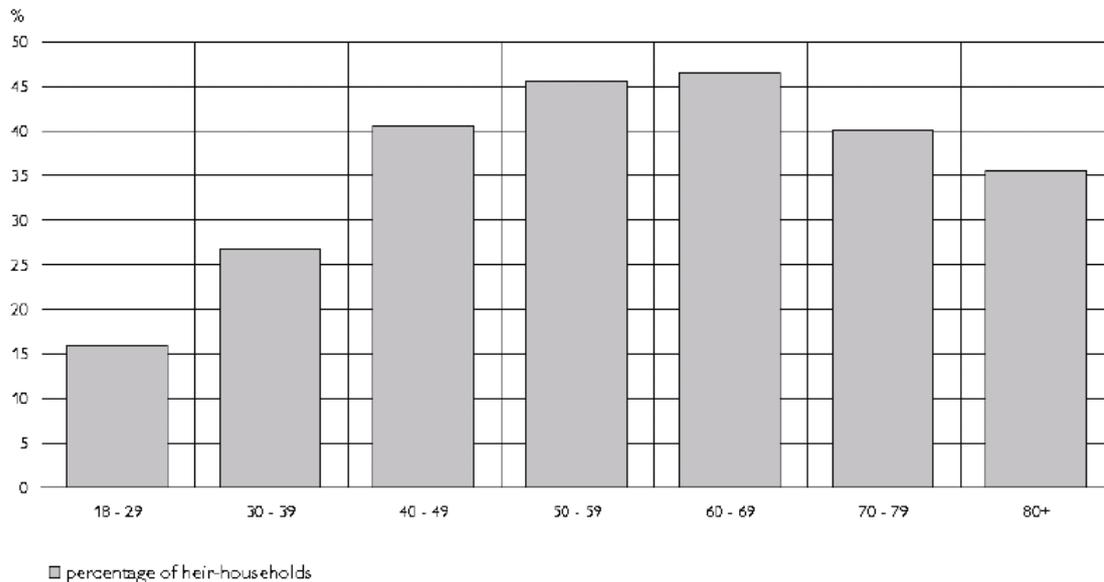
## A. Inheritance in Austria (SHFW)

In the Austrian Survey on Household Financial Wealth there is a small set of questions concerning inheritance. The main questions are the following:

- Has anyone within your household ever inherited anything?
- If so: When was the last time you made an inheritance?<sup>12</sup>
- What have you inherited?
- How high was the monetary value of this/these inheritance/s?

Therefore, it is possible to distinguish heirs from non-heirs and to gain some insight on the forms of inheritance. Interpretation of monetary values, which were allowed to be reported without lower bound, are rather problematic because present values can not be constructed. Also gender specific analysis is impossible. Hence, we have to restrict the analysis mainly to socioeconomic characteristics of the heir households. About 37% of Austrian households reported, that they inherited something. As expected the percentage of heirs is rising with age (see figure 8). The decline for the groups of households with household head aged 70 years or older may be due to a recall bias as well as the enormous accumulation of household wealth in the last decades.

**Inheritances by Age of Household Head**



**Figure 8. Age of Heirs in Austria**

Percentages of heir households rise with net income<sup>13</sup> and education with an abrupt rise for the highest classes in each case (see figure efaustab). This is especially noticeable for education which seems to be the best available indicator for parental wealth. Concerning occupation we find a considerable downward deviation from the total population percentage of heir households in the group of workers. Due to endogeneity the interpretation of the values with regard to net financial wealth and domestic circumstances is problematic. For that reason it is important to further investigate the relationship between wealth and inheritance.

Although, there exists a correlation between age and net income as well as age and education there is strong evidence that the variation of the percentage of heir households in relation to net income and education is not entirely explainable by age effects. First of all, the correlation between age and education is negative. Secondly, the proportions of heir households in the highest net income and education classes are around 50% (53% for education), whereas the highest value for age classes is around 45%. Furthermore, if we focus on households which received their inheritance in the last 10 or 5 years the socioeconomic differences persist. A comparison to LWS data shows the same phenomenon. Even in samples where the mean and/or the median age of the head(s) of the heir households is smaller than the non-heir households age, income and educational differences persist. As further indication, we conducted a logistic regression with being heir or non-heir household as dependent and

<sup>12</sup>With preset answers: Within the past five years / Within the past ten years / Longer than ten years ago.

<sup>13</sup>Endogeneity problems might exist but income due to wealth should play a minor role in the Austrian dataset.

a set of socioeconomic characteristics as independent variables (see figure 10). The fact that the explanatory power is unsatisfying in terms of Nagelkerke's  $R^2$  is not surprising because of lack of direct information on parents in the Austrian dataset.

Socioeconomic Characteristics		Non-Heir Households	Heir Households	Deviation*
Occupation	Self-employed	60.1%	39.9%	+4.9%
	Entrepreneur	61.8%	38.2%	+3.2%
	Employee	63.5%	36.5%	+1.5%
	Public servant	58.9%	41.1%	+6.1%
	Farmer	71.0%	29.0%	-6.0%
	Worker	74.7%	25.3%	-9.7%
Working Population		65.0%	35.0%	+0.0%
<hr/>				
Net Income	up to EUR 749,-	72.9%	27.1%	-10.6%
	EUR 750,- to EUR 1349,-	68.7%	31.3%	-6.4%
	EUR 1.350,- to EUR 2.249,-	66.2%	33.8%	-3.9%
	EUR 2.250,- to EUR 2.999,-	57.5%	42.5%	+4.8%
	EUR 3.000,- or more	50.5%	49.5%	+11.8%
Total Population		62.3%	37.7%	+0.0%
<hr/>				
Net Wealth	Net Wealth <= Median	72.0%	28.0%	-9.7%
	Net Wealth > Median	61.3%	38.7%	+1.0%
	Net Wealth > doubled Median	51.5%	48.5%	+10.8%
	Net Wealth > 5-times Median	37.2%	62.8%	+25.1%
Total Population		62.3%	37.7%	+0.0%
<hr/>				
Domestic Circumstances	Detached/semi-detached house	53.2%	46.8%	+9.1%
	Owner-occupied apartment	61.9%	38.1%	+0.4%
	Cooperative apartment	70.3%	29.7%	-8.0%
	Rental apartment	71.4%	28.6%	-9.1%
	Subsidized apartment	75.4%	24.6%	-13.1%
	Company housing	62.7%	37.3%	-0.4%
Total Population		62.3%	37.7%	+0.0%
<hr/>				
Education	Compulsory education at most	69.0%	31.0%	-6.7%
	Apprenticeship, vocational/technical school	65.6%	34.4%	-3.3%
	Academic secondary school, higher-level technical and vocational school	59.3%	40.7%	+3.0%
	Fachhochschule, university	47.0%	53.0%	+15.3%
Total Population		62.3%	37.7%	+0.0%

\*deviation to the total-population-proportion of heir-households in percentage-points

**Figure 9. Socioeconomic Characteristics of Heirs in Austria**

Logit	Dependent Variable: Heir-Household			
	Var. Nr.	Independent Variable	EXP(B)	Sig.
Net Income Classes ref. Class: up to EUR 749,--	1	EUR 750,-- to EUR 1349,--	0.162	**
	2	EUR 1.350,-- to EUR 2.249,--	0.204	*
	3	EUR 2.250,-- to EUR 2.999,--	0.172	*
	4	EUR 3.000,-- or more	0.218	
Net Income X Age of HH ref. Class: up to EUR 749,--	5	(1) X Age	1.038	**
	6	(2) X Age	1.034	**
	7	(3) X Age	1.044	**
	8	(4) X Age	1.041	**
Education ref. Class: Compulsory Education at Most	9	Apprenticeship, Vocational/Technical School	1.100	
	10	Academic Secondary School, Higher-Level Technical and Vocational School	1.404	*
	11	Fachhochschule, University	2.163	***
Age of Household Head	12	Age	1.099	***
Squared Age	13	Age <sup>2</sup>	0.999	***
Constant	14	Constant	0.520	***
Nagelkerkes R <sup>2</sup>	0.092			

\*sig. at 10% level;\*\*sig. at 5% level;\*\*\*sig. at 1% level

**Figure 10. Logistic Regression on Heir/Non-heir**

Controlling for age the significant coefficients of education and net income classes provide at least some evidence for their validity as measures for parental wealth and the intergenerational transfer of economic status. Parents who are able to support a higher education of their offspring are also accumulating enough wealth to bequest their children. The fact that we also find additionally significant values for net income classes and the interaction terms (age X net income classes) support the hypothesis that there are further channels which tend to influence the transmission of economic status, which is also stated in recent studies (e.g. Bowles and Gintis, 2002).

## B. Gifts: Financial Support for Household Founding

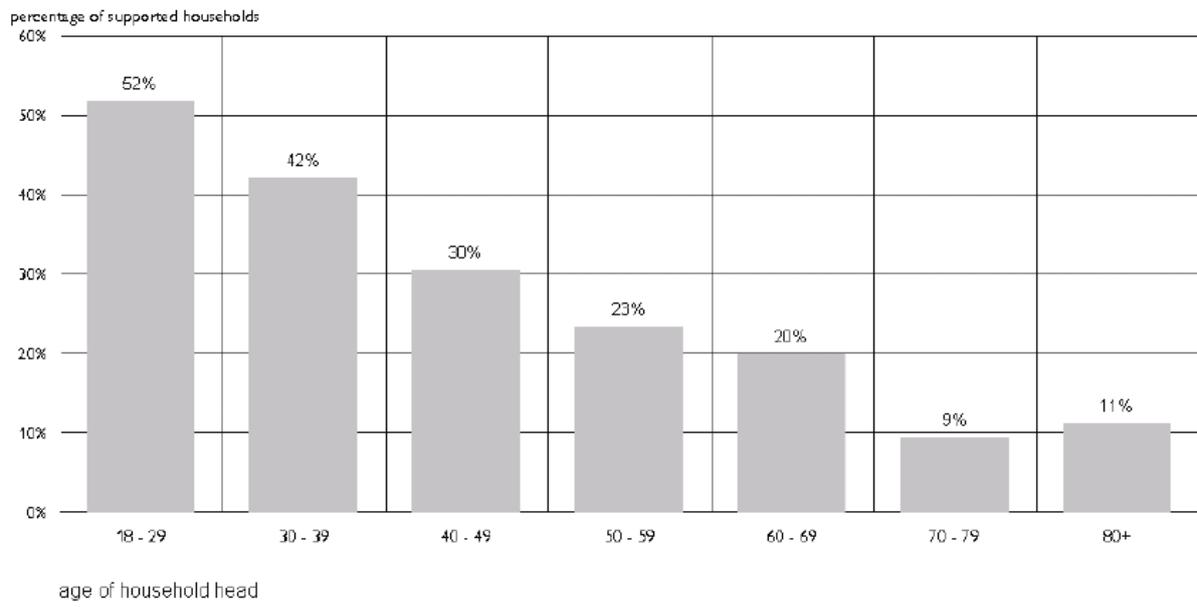
The Austrian dataset provides additional data on intergenerational transfers, which is related to the first household founding. The corresponding question is the following: *Did anybody support you financially the first time you founded a household of your own?*<sup>14</sup>

Around 28% reported that they received financial support, 94% of them from their parents. While the effect may be overstated by a recall bias receiving support for the first household founding seems to get quite important in recent decades (see figure refsuppge).

Whereas only 21% within the "compulsory school at most" class received financial support the value rises up to 42% within the highest "Fachhochschule, University" class. Especially, Young Viennese Households received financial support (more than 55%), which is likely due to the fact that Vienna hosts a high percentage of Austrian students. Therefore, quite an amount of the support for the first household foundings seems to be an investment in university (Fachhochschule) education.

<sup>14</sup>With preset answers: Parents (specify amount) / Grandparents (specify amount) / Other Persons, i.e.: / No financial support.

### Did Anybody Support You Financially the First Time You Founded a Household of Your Own?



**Figure 11. Age of heads of supported households in Austria**

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