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# The timing of intergenerational transfers and household wealth: too little, too late?

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# The timing of intergenerational transfers and household wealth: too little, too late?[1]

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## Abstract

Wealth transfers between family members play an important role in explaining wealth accumulation and wealth inequalities. While part of this is accounted for by the size of the transfer, the timing of the transfer is also likely to be important, reflecting either a cumulative advantage effect or a lifecycle effect. This paper uses data from the Eurosystem Housing Finance and Consumption Survey to analyse how the age at which a transfer was received affects household net wealth and different components of household wealth. We find that the age at which a transfer is received does matter: after controlling for the total value and number of transfers received, receiving a transfer later in life has a negative impact on household net wealth, and this effect appears to operate primarily through housing wealth, and in particular non-HMR property wealth. We then explore the extent to which these effects vary across European countries.

**JEL Codes:** D31, D12
**Keywords:** Intergenerational transfers; household wealth; cumulative advantage effects; lifecycle effects

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## 1. Introduction

A key aspect of the accumulation of wealth over the life course is the transfer of money and assets between family members. While part of this is accounted for by the size of these transfers, the timing of the initial and following transfers is also likely to be important. Transfers received earlier will, if invested, have a longer period over which to accumulate interest, leading to a cumulative advantage effect (Gale and Scholz 1994). Nau and Tumin (Nau and Tumin 2012) explore this cumulative advantage effect for the US by looking at the impact of the number of years since a transfer was received on household net worth. They find that households in fact adapt to wealth transfers by either reducing savings or increasing consumption, so that the initial positive impact of a transfer on household wealth becomes weaker over time. Mathä et al. (2017) similarly find a negative relationship between net wealth and the number of years since the transfer was received for a sample of European households.

However, the timing of the transfer may also have an impact on wealth accumulation due to variations in consumption and investment behaviour over the life course – what may be termed a lifecycle effect. In other words, the age or life stage at which an individual receives a transfer will affect what they do with the transfer – whether they use it to finance consumption, pay off debts or invest -, which in turn will affect the composition and evolution of their wealth. In this context, various studies show that transfers play an important role in enabling individuals to enter homeownership earlier in life by reducing the time individuals need to save for a down payment (Engelhardt and Mayer 1998, 1994; Guiso and Jappelli 2002; Ronald and Lennartz 2018). Yet, relatively little is known about the utilisation of a transfer once initial access to homeownership has been achieved. Assessing these lifecycle effects in practice is complicated since information on how households use transfers is scarce.

This paper aims to shed light on these lifecycle effects by investigating the impact of the timing of private transfers on household net wealth and different components of household wealth, in particular housing wealth (both for main residences and additional properties) and financial assets. In contrast to the work by Nau and Tumin (2012) and Mathä et al. (2017), which use the numbers of years elapsed since a transfer was received to measure timing effects, our focus is instead on the age at which the first transfer was received. We also carry out a cross-country analysis to highlight the importance of institutional and cultural variegations in shaping these wealth trajectories.

We use data from the first wave of the Eurosystem Housing Finance and Consumption Survey, which provides detailed information on the finances and consumption decisions of over 62,000 households in 15 euro area countries, collected between the last quarter of 2008 and the last quarter of 2011. In a first stage, we focus on the impact of the age at which the first transfer was received on net household wealth and the different components of wealth using the full sample of households that reported receiving a transfer. This will allow us to assess whether there is a benefit to households from receiving a transfer earlier in life. In order to assess whether this effect varies depending on what particular stage of the life course the transfer is received, we re-estimate the model focusing on the sub-sample of households aged 60 and over, using categorical age variables to identify these lifecycle effects.

Our results suggest that the age at which a transfer is received does matter: after controlling for the total value and number of transfers received, household income and other socio-

demographic variables, receiving a transfer later in life has a negative impact on household net wealth. For each year a transfer is deferred, median net household wealth is 0.7% lower. Looking at the different components of household wealth, the impact of age at which the transfer was received appears to affect primarily property wealth, rather than financial assets, and in particular non-HMR property wealth. This suggests that transfers facilitate investment in property assets, which is consistent with findings elsewhere in the literature, and the earlier a transfer is received, the greater the potential cumulative advantage effect.

In order to assess whether the magnitude or sign of this effect varies depending on what particular stage of the life course the transfer is received, we re-estimated our models using a set of categorical age variables in place of a continuous age variable reflecting the age at which a transfer was received. These results confirm that receiving a transfer earlier in life has a positive and significant impact on household net wealth, which appears to operate primarily through non-HMR housing wealth. We argue our results here reflect both a cumulative advantage and specific lifecycle effects, with earlier transfers enabling investment in other property assets, and transfers received after age 45 being more likely to be consumed rather than invested. Our results also highlight some interesting differences in these effects across European countries.

These findings contribute to our understanding of the process of accumulation and transmission of household wealth, with potential implications for tax and savings policy, particularly in light of the growing importance of personal wealth in the context of shrinking welfare states (Ansell 2014; Semyonov and Lewin-Epstein 2013; Spilerman 2000). Understanding whether transfers received earlier in life provide an advantage is also particularly important in the context of ageing populations in most European countries, where inheritances/bequests are likely to be received later.

The next section provides an overview of the relevant literature. Section 3 reviews the data and methods, Section 4 presents some descriptive statistics, the estimation results are reported in Section 5 and Section 6 concludes.

## 2. Intergenerational transfers and household wealth

With few notable exceptions (Atkinson 1971; Kotlikoff and Summers 1981; Wolff 2006), wealth as a structural component of family finances and socioeconomic inequalities has received little attention in the social sciences until recently. Historically, this neglect can partially be explained through the lack of appropriate and reliable data on household wealth and a tradition of explaining societal inequalities predominantly through labour market income and educational attainment (Skopek, Buchholz, and Blossfeld 2014). Yet, research on wealth has become more widespread in the social sciences in recent years, arguably culminating in the works of Piketty (Piketty 2011; Piketty and Saez 2003; Piketty and Zucman 2014).While these studies have contributed tremendously to our understanding of distribution of wealth within and across Western societies, the wealth accumulation mechanisms underlying these structural patterns have been less prominent in the literature.

Wealth accumulation is a complex process that builds on two key components: life-cycle wealth and transferred wealth (Gale and Scholz 1994). The former refers to wealth that is generated through an excess of income over consumption expenditures and debt repayment, which is likely to fluctuate over the lifecycle reflecting variations in income and consumption

needs; whereas the latter refers to wealth that is generated through private transfers, in the form of inter vivos gifts and bequests or inheritances. These are most often conducted from parents to adult children, but are by no means restricted to these intra-family dyads (Gale and Scholz 1994; Kohli 2004). While there is some disagreement in the literature over the exact magnitude of the contribution of these intergenerational transfers to household wealth,[4] most studies suggest that it is an important wealth driver of wealth inequality (De Nardi 2004; Jappelli and Pistaferri 2000; Tiefensee and Westermeier 2016; Villanueva 2005).

While the value of the transfer is clearly important in this process, timing is also likely to matter. One reason for this has to do with cumulative advantage: transfers received earlier in life will, if invested, lead to larger gains in wealth due to interest compounding (Gale and Scholz 1994). And where compound interest is substantial, it allows for consumption expenditure and avoiding further debt by keeping the original asset untouched (Vissing-Jorgensen 2002). Transfers may also enable households to repay debts, or avoid getting into debt, thereby reducing the associated interest payments.

Nau and Tumin (2012) test this cumulative advantage hypothesis using data from the Survey of Consumer Finances. Counterintuitively, they find that the number of years since a transfer was received in fact has a negative impact on household net worth, after controlling for the value of the transfer, whether households received additional transfers, and a range of socio-demographic characteristics. Moreover, they find the same negative effect separately for both financial assets and home equity. They argue this suggests that in fact households adapt to these wealth transfer receipts as they would to other types of wealth windfalls, by increasing their propensity to consume and reducing their propensity to save. Mathä et al. (2017) similarly find a negative impact of the time elapsed since a transfer was received on household net worth for a sample of European countries, after controlling also for house price appreciation.

However, the timing of a transfer may also play a role due what may be called a lifecycle effect. Transfers provide additional funds which may be used to finance consumption, pay off debts, or invest in financial or non-financial assets, and how households use these funds is likely to depend on their age or at what stage in the lifecycle they receive the transfer. For example, those who are currently in the process of family formation will have different investment and consumption needs than those households who are close to retirement. So rather than seeing different wealth components as concurrent investment options, it might make more sense to understand them as sequential decisions which follow specific life-course trajectories and stages in the life cycle (e.g. labour market entry, family formation, pre- and post-retirement period, etc.). Following the logic of the life cycle savings model (see e.g. Carroll 1997) and abstracting from the receipt of intergenerational transfers, younger adults would typically save into an easily accessible financial product first, then use these

[4] One of the earliest estimates was carried out by Kotlikoff and Summers (1981), who analysed historical US data and found that intergenerational transfers accounted for at least 80% of net worth, playing a much more significant role in aggregate capital accumulation than lifecycle or hump savings. However subsequent work suggests the contribution of transfers to household wealth may be more modest than these initial estimates suggest: Modigliani (1988) finds that the share of wealth based on transfers is typically below one-fourth; Gale and Scholz (1994) distinguish between intended and unintended transfers and find that intended transfers account for at least 20% of net worth; Jappelli and Pistaferri (2000) find that transfers account for about one third of wealth accumulation in Italy. More recent studies include Fessler and Schürz (2015) and Mathä et al. (2017).

savings to invest into owner-occupied housing (i.e. to satisfy down payment requirements), and only once this has been achieved, either climb the housing ladder of buying more valuable homes or invest into other properties, businesses or financial products.

Unfortunately, information on how households use transfers is scarce, but research has shown that they play an important role in enabling individuals to enter into homeownership[5]. Guiso and Jappelli (2002) and Engelhardt and Mayer (1998) find that wealth transfers can affect the timing of homeownership, by reducing the time households need to save for a down payment, as well as increasing the value of the house purchased. This would suggest that transfers received earlier in life are more likely to be invested in owner-occupied housing, depending of course on the size of the transfer. However, if the individual is already a homeowner, then the transfer may be used to finance consumption or pay off debts, given that early in the lifecycle the gap between actual income and permanent income is likely to be greater. This is assuming there are no strong precautionary saving motives. Transfers may also enable individuals to move up the housing ladder. Transfers received later in life, when actual income is closer to permanent income, may instead be more likely to be used to pay off debts or invest in financial assets.

Since different components of wealth follow different accumulation processes, the timing of a transfer will have a variegated effect on these different wealth components. To be more precise, where financial assets are by definition debt free and can be purchased and sold with barely any constraints, property assets (both owner-occupied homes as well as other types of property assets) are for most individuals and families too expensive to be purchased outright. As a consequence, to gain initial access to the property market, households need to take up a (partial) mortgage loan, which represents a debt obligation that can have a long-lasting impact on savings and consumption behaviour. Furthermore, housing equity, financial assets, and other types of property wealth are fundamentally different in the way they are accessed to finance consumption or other types of investments. Particularly housing wealth – apart from the possibility to use equity withdrawal products – is regarded as relatively inaccessible and illiquid. Due to its dual function as a consumption and investment good, and the emotional attachment that comes with it, households are less likely to use housing assets for other consumption purposes. Meanwhile, financial assets but to a certain extent also other types of property wealth are more liquid and unburdened by emotional ties, meaning that the likelihood to keep these assets is lower (Ronald, Kadi, and Lennartz 2015).

Lifecycle effects are likely to be highly time and context dependent, as different institutional, socio-demographic structural, and cultural factors contribute to wealth inequalities more broadly, but also to the relative balance of income-generated and transferred wealth. Amongst other findings (for a good overview see Cowell et al. (2013)), it has been shown that lifecycle wealth accumulation is particularly impacted by the existence of strong welfare states, where extensive welfare programmes may crowd out the need for private savings (Semyonov and Lewin-Epstein 2013; Skopek, Buchholz, and Blossfeld 2014). Meanwhile, other studies emphasize the importance of a culture of saving – as has been documented for Germany, for instance – versus a culture of strong consumerism and debt incurrence (Tiefensee and Westermeier 2016). And finally, on the macro level, transferred wealth has been described as a function of gift and inheritance laws and taxation and, again, the

[5]Angelini et al. (2013); Engelhardt and Mayer (Engelhardt and Mayer 1998, 1994); Guiso and Jappelli (2002); Helderman and Mulder (2007).

existence of public welfare arrangements, which may potentially crowd out or necessitate private transfers (Albertini and Kohli 2013; Beckert 2007).

Focusing on housing wealth, Wind et al. (2017) show how wealth accumulation at the individual level interacts with countries' political economies of housing finance and housing systems. More specifically, countries can be categorised based on the structure and availability of rental housing - i.e. countries with regulated (e.g. Germany) versus market-orientated (e.g. the UK) approaches - and government approaches to stimulating and subsidising homeownership, which include the availability of mortgage tax deductibility, lenient loan-to-value and loan-to-income levels, tax free wealth transfers, and broad mortgage guarantee funds (see also Lennartz and Ronald (2017), and Schwartz (2012)). Taking systemic shifts into account, the authors then show that while some countries have undergone substantial shifts in their approaches to rental and owner-occupied housing in the 1980s and 1990s, others have largely retained their traditional model in that period. Good examples here are the Netherlands, which has sought to achieve higher homeownership rates through the deregulation of mortgage credit and subsidisation of mortgage debt and Italy, where the expansion of property ownership and housing wealth has primarily been accrued within and through the family (see also Angelini et al. (2013)).

## 3. Data and methods

This paper uses data from the first wave of the Eurosystem Household Finance and Consumption Survey (HFCS). The survey collects detailed information on the finances and consumption decisions of over 62,000 households in 15 Euro Area countries[6]. The data for the first wave was collected between the last quarter of 2008 and the last quarter of 2011. Our initial descriptive analysis focuses on the impact of transfers on various components of household wealth over the life course, using a sample of 36,970 observations. We then look specifically at the impact of the timing of the transfer, using the subsample of approximately 11,300 households that reported receiving a transfer, and for which information on the key variables of interest was not missing.

Intergenerational transfers are defined as transfers in the form of money or assets received from someone outside of the household; these include both gifts and inheritances, but exclude the household's main residence (HMR)[7]. For our analysis, we focus only on transfers between family members. Households are asked about the total number of transfers they have received; yet, they only provide detailed information on the type of transfer received, its value and when it was received for up to three transfers.

We are interested in analysing the impact of intergenerational transfers, and in particular the timing of transfers, on different components of household wealth. The HFCS includes detailed information on the net wealth of households and its various components. Net wealth

[6] The first wave of the survey excludes Ireland, Estonia, Latvia and Lithuania. Information on whether individuals received a gift or inheritance is not available for Finland and Italy, therefore these countries were excluded from the analysis. Cyprus, Malta and Slovenia were also excluded due to the small number of observations.

[7] The exact wording of the question is: "In addition to the household main residence, (have you/has any member of the HH) ever received an inheritance or a substantial gift, including money or any other assets (from someone who is not a part of your current household)?"

is defined as the sum of all real and financial assets (excluding public and occupational pension plans), minus total liabilities. Real assets include the value of the HMR, but also other real estate owned by the household, vehicles, other valuables, and the value of self-employment business. Financial assets include deposits, mutual funds, bonds, non-self-employment businesses, shares, managed accounts, any money owed to the household, other assets and voluntary pensions or life insurance. In our analysis, we make a distinction between total net wealth, net HMR housing wealth, net property wealth and financial assets.

In order to test whether the timing of the transfer has an impact on household wealth, we construct a variable that captures the age at which the first reported transfer was received. This is based on survey information on the year of the interview, the respondent's age and the year the transfer was received. We exclude cases where the age the transfer was received was under 16.

We begin by looking at the incidence of wealth transfers across countries and their impact on net household wealth and different components of household wealth over the life course. We then estimate models for net household wealth and different components of household wealth, using the subsample of households that received a transfer, to assess the impact of the timing of the transfer. We use wealth, income and debt data collected at the household level, and key demographic information collected for the head of household.

We estimate median regression models for total household net wealth, as well as separate regressions for net HMR housing wealth, net other property wealth, and financial assets, for the subsample of households who reported receiving a substantial gift or inheritance. Wealth data are generally characterised by extreme values, and median regressions are less sensitive to these extreme values than ordinary least squares (Pence 2006). Wealth and income are also highly skewed, therefore we transform all wealth and income variables using the inverse hyperbolic sine transformation in log form, which allows for the fact that some households may report zero wealth (Mathä, Porpiglia, and Ziegelmeyer 2017; Pence 2006).

Our main independent variable of interest is the age at which the first transfer was received. In a first stage, we focus on the impact of this continuous variable on net household wealth and the different components of wealth using the full sample of households that reported receiving a transfer. This will allow us to assess whether there is a benefit to households from receiving a transfer earlier in life. In order to assess whether this effect varies depending on the stage of the life course when the transfer is received, we then define a series of age categories at which the first transfer was received and re-estimate the models for the sub-sample of households aged 60 or over. In our sample, 90% of households received their first transfer before the age of 60, and this age cut-off allows us to focus on the impact of different age categories, reflecting different stages of the life course. We identify four age categories: households that received their first transfer before the age of 35; households that received a transfer between the ages of 35-44; households that received a transfer between the ages of 45-54; and households that received their first transfer after the age of 55. Although only an approximation, these age categories are intended to capture different stages of the life course.

Since the size of the transfer will have an impact on how households use it, we control for the value of this initial transfer and include an additional interaction term between the age the transfer was received and its value. We also control for the total number of transfers received, as well as whether the transfer received was a gift or an inheritance, since gifts are generally targeted towards specific needs (e.g. wanting to buy house) and may be expected, whereas

the timing of inheritances is unlikely to be anticipated. Inheritances are typically larger in value (McGarry 1999) and may also be used more freely and might not be invested but consumed.

One important question concerns whether the value of the transfer should be capitalised or not. Wolff and Gittleman (2013) and Tiefensee and Westermeier (2016) specify a constant rate of return to capitalise assets received from wealth transfers[8], but their focus is on assessing the contribution of transfers to wealth. Our focus is on the impact of the timing of transfers and the transfer amount is included merely as an additional control. Capitalising the value of the transfer implies an assumption that the majority of households invest these transfers, whereas some households may simply consume them. In this paper we follow the approach adopted by Mathä et al. (2017) and assume a zero rate of return; this provides conservative baseline scenario and requires no assumption regarding whether transfers were invested or consumed. However, given the importance of housing wealth for most household portfolios, we do control for house price appreciation in some specifications by deriving a house value appreciation index, following the approach adopted by Mathä et al. (2017).

In the main models, we use the nominal value of transfers, without adjusting for inflation. Adjusting for inflation is complicated by the fact that some transfers were received as far back as 1925 (bottom coded), whereas reliable inflation data is only available from the end of the 1950s, and not for all countries participating in the survey. Excluding these observations would not only impact on the sample size, but would also distort our conclusions, given that our interest is on the impact of the timing of transfers. However, as an additional test, we do re-run the regressions on the subsample of cases for which inflation data was available, using the real value of transfers.

In the estimation, we also control for a range of demographic and socio-economic characteristics which are likely to impact on household wealth. These include the age and age squared of the head of household, their gender, marital status, highest educational qualification and labour force status, a measure of household size, the number of children under 16, the number of people in employment, and total household income.

To take into account differing wealth stratification patterns across country contexts, we include country dummies in a first step of the analysis. However, in order to explore the impact of these different institutional and cultural settings in more detail, we then repeat our analysis for different country groups.[9] Here we largely follow the country classification of housing wealth accumulation regimes by Wind et al. (2017) and identify three country groups: (1) Austria and Germany, both of which have highly stratified homeownership sectors and a highly skewed distribution of housing wealth towards higher income households and large rental sectors (e.g. Lennartz and Helbrecht (2018); Mulder et al. (2015)); (2) France, Belgium and Luxembourg, all of which have mid-sized owner-occupied sectors and fairly regulated mortgage markets, yet targeted homeownership subsidy programs (Dol and Haffner 2010); (3) Spain and Portugal have more traditional family-centred housing systems and wealth accumulation regimes (Allen et al. 2008; Angelini, Laferrère, and Weber

[8] However they do test different rates of return as part of their robustness tests and find these have little impact on the overall results.

[9] Ideally we would want to carry out the analysis for each country individually; however due to the small number of observations for some countries, this is not possible.

2013). In the late 1990s, however, both Spain, and to a lesser extent Portugal, have taken a turn towards a more financialised housing system, marked by high loan-to-value ratios, large (aggregated) mortgage debt and, eventually, extreme house price volatility (Fuentes et al. 2013)[10].

## 4. Descriptive statistics

Transfers play an important role in most countries, as illustrated in Figure 1. This shows the proportion of households that received a significant gift[11] or inheritance across countries, as well as the proportion of households who reported receiving their HMR as a gift/inheritance. With the exception of Greece, the Netherlands and Portugal, over 20% of households in each country reported receiving at least one substantial transfer. Gifted and inherited properties are also relatively common in most countries, where the Netherlands, Belgium and Luxembourg are the main exceptions.

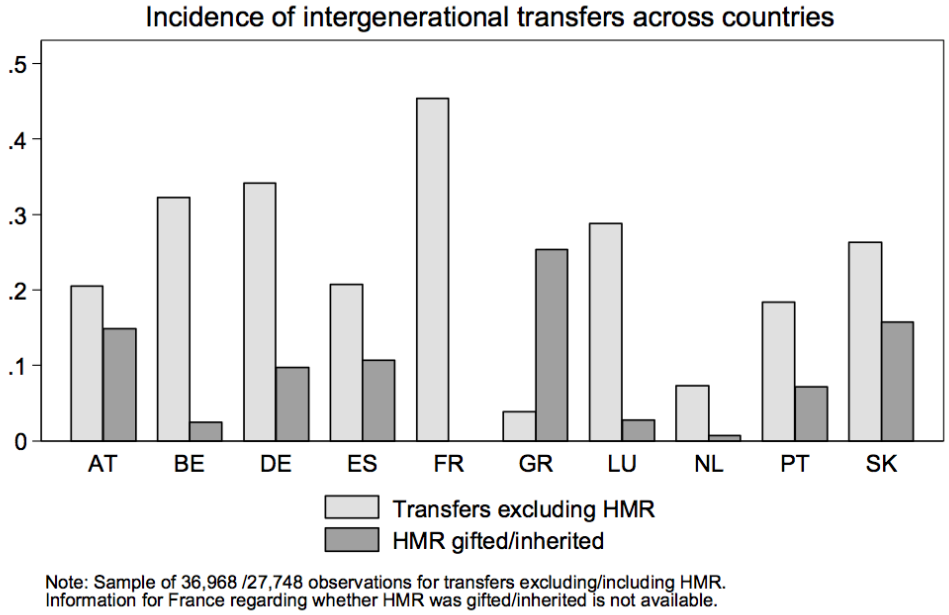


Figure 1. Incidence of intergenerational transfers across Europe

The average age at which the first transfer is received is 42 and over 70% of households have received their first transfer before the age of 50. There is some variation across countries, with the average age of first transfer receipt ranging from 33 years in Greece to 46 in the Netherlands[12]. Gifts are typically received at a younger age than inheritances: the receipt of gifts falls sharply after the age of 34, while the receipt of inheritances remains roughly

[10] Including the Netherlands would have been a valuable addition to the country-level analyses. Not only because the country has become an even more extreme case of a debt-driven housing system - in the 1990s and 2000s loan-to-value ratios of more than 100 percent were widespread - but also because family and inheritances have played a subordinate role in private wealth accumulation (Mulder et al. 2015). However this was not possible due to the relatively small number of observations.

[11] Significant has no specific definition but is a self-reported measure.

[12] Although for these two countries there is a smaller number of observations for this variable.

constant across different age bands, with the exception of the youngest age band (see Figure 2).

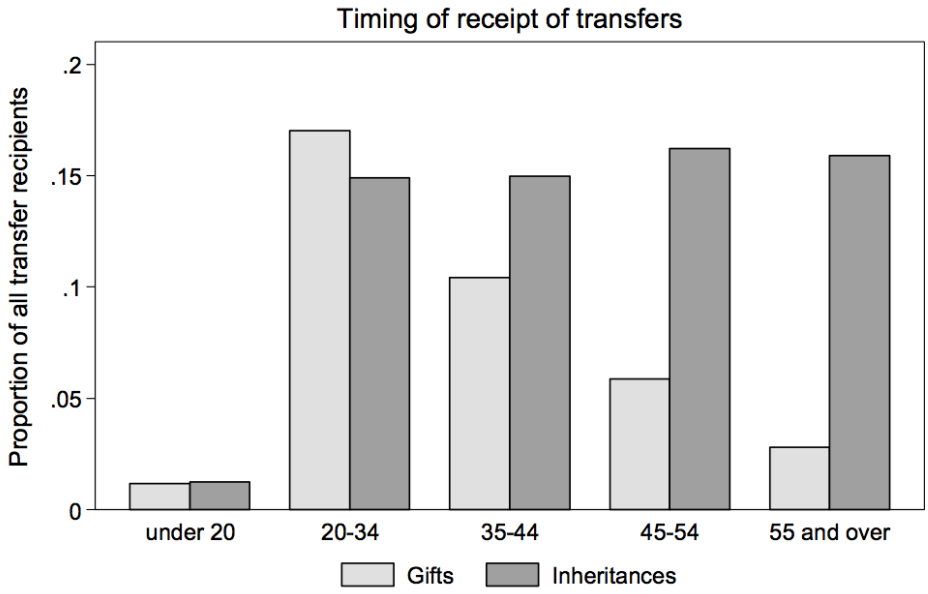


Figure 2. Timing of receipt of transfers

Transfers have a significant impact on household wealth. Figure 3 plots the average value of net household wealth and different components of household wealth over the life course, for households that received a transfer and those that did not. Unsurprisingly, households that received a transfer had higher average net wealth at all ages, which appears to be driven mainly by higher average levels of financial assets and, to a lesser extent, by higher average values of HMR net housing wealth (see Table 8 in the Appendix). While these higher average wealth levels may reflect the impact of receiving a transfer, they may also reflect the fact that wealthier households are more likely to receive a transfer in the first place.

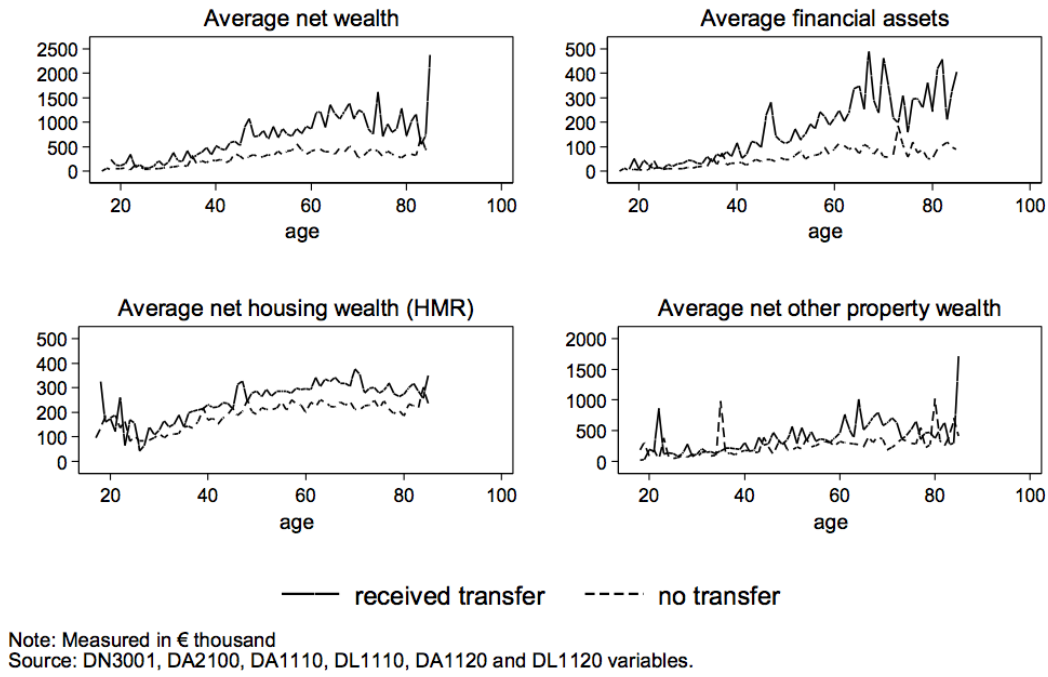


Figure 3. Transfers and household wealth

Homeownership rates were significantly higher among households that received a gift or inheritance – approximately 80%, against 63% for households that did not receive a gift or inheritance. Households that had received a substantial gift or inheritance were also more likely to own a second property – 56% of households that received a gift/inheritance owned at least one other property aside from the HMR, compared with 23% of households that did not receive a gift/inheritance.

In the top two panels of Figure 3, the gap between net wealth/assets for households that received a transfer and those that did not increases with age. This may signal a cumulative advantage effect or it may reflect a higher average value of transfers received later in life, particularly since inheritances, which are on average larger, are more likely to be received later in life. However, an analysis of the age at which the transfer was received and the value of the transfers does not appear to suggest any meaningful relationship between the two.[13]

## 5. Estimation results

### 5.1 Does the timing of transfer receipt matter?

It is clear that intergenerational transfers do have a significant impact on household wealth. However the analysis above does not take into account when or at what age the transfer was received. We therefore estimate median regression models for total household net wealth, as well as separate regressions for net HMR housing wealth, net property wealth excluding the HMR, and financial assets. This is done for the subsample of households who reported receiving a substantial gift or inheritance. We include the age at which the first transfer was

[13] There is a weak positive correlation between the real value of the first transfer and the age at which it was received, of the order of 0.0314.

received as the key explanatory variable. The results are presented in Table 1. Again, all monetary variables have been transformed using the inverse hyperbolic sine transformation in log form (Mathä, Porpiglia, and Ziegelmeyer 2017; Pence 2006).

The results suggest that the age at which a transfer is received does matter: after controlling for the total value and number of transfers received, household income and other socio-demographic variables, receiving a transfer later in life has a negative impact on household net wealth - for each year a transfer is deferred, median net household wealth is 0.7% lower. This could reflect a cumulative advantage effect, although it could also suggest that transfers received later in life are more likely to be consumed rather than invested.

Looking at the different components of household wealth, the impact of the age at which a transfer is received is only significant in the case of property wealth, and not financial assets, and the magnitude of the impact is greater in the case of non-HMR property wealth as opposed to HMR wealth. This suggests that transfers facilitate investment in property assets, which is consistent with findings elsewhere in the literature, and the earlier a transfer is received, the greater the potential cumulative advantage effect. Unlike the value of financial assets, which tend to be more volatile, residential property prices have tended to increase throughout the euro area (Mathä, Porpiglia, and Ziegelmeyer 2017).

The value of the transfer and total number of transfers received also has a positive and significant impact on median wealth. The regressions include an interaction term between the age at which the transfer was received and the value of the transfer, although this is not statistically significant. Receiving an inheritance rather than a gift has a negative and significant impact on net household wealth, and on all components except HMR property wealth. As a robustness test, we used the total value of all transfers received in place of value of first transfer and number of transfers, but this did not significantly alter the results.

The impact of the remaining control variables is consistent with the theory and the results of other empirical studies. All components of wealth follow the expected hump-shaped profile, increasing with age, but at a decreasing rate. Median net wealth is also higher for households where the head of household is male, and increases with education and income.

We also estimated the model controlling for the increases in house values, using a house value appreciation index which was derived following the same approach as Mathä et al. (2017). These results are reported in Table 9 in the Appendix. The sample size is substantially smaller since there is not enough information to compute the house value appreciation index for France, and therefore these observations have to be dropped. Somewhat counterintuitively, the sign on this index is negative, although it only has a significant impact on total net wealth, and not specifically on property wealth, and the estimates for our main variables of interest are not significantly affected.

Table 1. Median wealth regression estimation results

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** | **Financial assets** |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| age received transfer | -0.007*** | -0.001* | -0.010*** | 0.000 |
| | (0.001) | (0.001) | (0.002) | (0.002) |
| ihs(value of first transfer) | 0.168*** | 0.064*** | 0.243*** | 0.151*** |
| | (0.008) | (0.005) | (0.02) | (0.012) |
| age received*value of transfer | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| total number of transfers | 0.190*** | 0.048*** | 0.199*** | 0.301*** |
| | (0.011) | (0.01) | (0.018) | (0.02) |
| first transfer was inheritance | -0.082*** | -0.013 | -0.096** | -0.058* |
| | (0.019) | (0.018) | (0.041) | (0.035) |
| age | 0.059*** | 0.042*** | 0.041*** | 0.031*** |
| | (0.005) | (0.005) | (0.011) | (0.009) |
| age squared | -0.000*** | -0.000*** | -0.000* | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| male | 0.119*** | 0.018 | 0.206*** | 0.199*** |
| | (0.02) | (0.016) | (0.041) | (0.034) |
| single | -0.145*** | -0.146*** | -0.107* | -0.108* |
| | (0.032) | (0.026) | (0.063) | (0.057) |
| widowed | -0.025 | -0.01 | -0.062 | 0.033 |
| | (0.041) | (0.028) | (0.074) | (0.069) |
| divorced | -0.226*** | -0.081** | -0.149** | -0.421*** |
| | (0.037) | (0.033) | (0.073) | (0.075) |
| lower secondary education | 0.221*** | 0.174*** | 0.322*** | 0.364*** |
| | (0.041) | (0.035) | (0.087) | (0.08) |
| upper secondary education | 0.313*** | 0.230*** | 0.451*** | 0.564*** |
| | (0.031) | (0.026) | (0.073) | (0.055) |
| tertiary education | 0.453*** | 0.436*** | 0.553*** | 0.888*** |
| | (0.033) | (0.027) | (0.074) | (0.059) |
| unemployed | -0.303*** | -0.149*** | -0.303** | -0.486*** |
| | (0.062) | (0.056) | (0.127) | (0.151) |
| retired | -0.249*** | -0.143*** | -0.282*** | -0.143** |
| | (0.035) | (0.033) | (0.064) | (0.066) |
| not in labour force | 0.048 | 0.067* | 0.147* | 0.027 |
| | (0.05) | (0.037) | (0.077) | (0.101) |
| household size | -0.009 | 0.048*** | -0.02 | -0.129*** |
| | (0.015) | (0.014) | (0.027) | (0.026) |
| number of kids | 0.007 | -0.006 | -0.017 | -0.014 |
| | (0.02) | (0.017) | (0.04) | (0.034) |
| number in employment | -0.073*** | -0.078*** | -0.095*** | -0.029 |
| | (0.021) | (0.019) | (0.035) | (0.034) |
| homeowner | 1.504*** | | 0.038 | 0.267*** |
| | (0.041) | | (0.049) | (0.046) |
| ihs(household gross income) | 0.511*** | 0.184*** | 0.279*** | 0.879*** |
| | (0.013) | (0.012) | (0.026) | (0.028) |
| N | 11,251 | 8,999 | 6,086 | 11,251 |

Note: All regressions included a constant term and country and year dummy variables. * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Information on net HMR property wealth and other property wealth is only available for households that own or part own their home and/or other property.

### 5.2 How does timing matter?

The results above suggest that receiving a transfer later in life has a negative effect on household wealth. In order to assess whether the magnitude or sign of this effect varies depending on what particular stage of the life course the transfer is received, we re-estimate the same four models as above, but focusing on the sub-sample of households aged 60 and over and using a set of categorical age variables in place of the continuous variable measuring the age at which the first reported transfer was received. These results are reported in Table 3.

In our sample, 90% of households received their first transfer before the age of 60, and this age cut-off allows us to focus on the impact of several different age categories, reflecting different stages of the life course. We define four categorical variables depending on whether the transfer was received before age 35, between the ages of 35 and 44, between 45 and 54, or aged 55 or over. In total there were 5 442 households where the head of household was aged 60 or over. The distribution of the age at which these households received their first transfer is given in Table 2[14].

Table 2. Timing of transfer receipt for 60+ sub-sample

| **Received first transfer:** | **Frequency** | **Percent** |
|---|---|---|
| Before age 35 | 977 | 17.95 |
| Aged 35-44 | 1 071 | 19.68 |
| Aged 45-54 | 1 385 | 25.45 |
| Aged 55 or over | 1 906 | 35.02 |

The results in Table 3 confirm that receiving a transfer earlier in life has a positive and significant impact on household net wealth: transfers received before age 35 have a marginally larger impact on household net wealth than transfers received between the ages of 35 and 44, although the latter still have a positive and significant impact. Receiving a transfer after age 45 has no significantly different impact on wealth from receiving a transfer after age 55. To some extent, these results may reflect a cumulative advantage effect; however, if there were a pure cumulative advantage effect, we would expect all age categories to have a positive and significant impact. Therefore, these findings suggest that transfers received after age 45 are more likely to be consumed rather than invested.

The results for individual wealth categories are reported in columns (2) to (4) in Table 3. Whereas the value and total number of transfers have a positive and significant impact on all wealth categories, the timing of the transfer only matters for non-HMR property wealth. If the impact of the timing of transfers were due simply to a cumulative advantage effect, then we would expect to see an impact of early age categories on both types of housing wealth,

[14] The numbers reported in the table refer to the main dataset and do not include the imputed data.

given historic trends in house prices across the euro area (Mathä, Porpiglia, and Ziegelmeyer 2017).

The fact that the value and total number of transfers have a positive and significant impact on HMR property wealth is consistent with findings elsewhere in the literature (for example, Guiso and Jappelli (2002)), and the absence of a significant impact of timing may reflect the fact that HMR wealth is more easily accessible for a larger stratum of the population through mortgage debt, and households have greater flexibility to move into more expensive properties when they receive a transfer.

Unlike HMR, access to additional properties through traditional borrowing channels is often difficult, therefore it may be that earlier transfers facilitate access to one or more additional properties, allowing higher value properties to be purchased or lower debt taken on; and given historical rates of house price appreciation across the euro area, earlier transfers enable a greater cumulative advantage. This may have a further positive knock on effect to household wealth, by providing households with an additional income stream, if these additional properties are rented out.

The absence of a significant impact of the timing of the transfer on financial asset wealth may reflect fewer constraints on investing in financial assets, coupled with greater volatility in the evolution of asset prices.

Table 3. Median wealth regression estimation results - over 60 sub-sample

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** | **Financial assets** |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| agecat 1: under 35 | 0.166*** | 0.041 | 0.339*** | 0.005 |
| | (0.04) | (0.034) | (0.079) | (0.065) |
| agecat 2: 35-44 | 0.137*** | 0.016 | 0.208*** | -0.026 |
| | (0.03) | (0.029) | (0.064) | (0.061) |
| agecat 3: 45-54 | 0.035 | 0.015 | 0.043 | -0.025 |
| | (0.029) | (0.026) | (0.069) | (0.055) |
| ihs(value of first transfer) | 0.133*** | 0.057*** | 0.228*** | 0.120*** |
| | (0.01) | (0.008) | (0.025) | (0.016) |
| age received*value of transfer | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| total number of transfers | 0.158*** | 0.037** | 0.162*** | 0.273*** |
| | (0.017) | (0.014) | (0.022) | (0.02) |
| first transfer was inheritance | -0.057* | 0.019 | -0.092 | -0.001 |
| | (0.03) | (0.03) | (0.061) | (0.048) |
| age | 0.024 | 0.022 | 0.08 | -0.071 |
| | (0.033) | (0.031) | (0.076) | (0.057) |
| age squared | 0.000 | 0.000 | 0.000 | 0.001 |
| | (0.000) | (0.000) | (0.001) | (0.000) |
| male | 0.095*** | -0.015 | 0.172*** | 0.274*** |
| | (0.031) | (0.025) | (0.066) | (0.054) |
| single | -0.128** | -0.267*** | -0.343*** | -0.002 |
| | (0.056) | (0.047) | (0.097) | (0.123) |
| widowed | -0.004 | -0.047 | -0.149 | 0.114 |
| | (0.048) | (0.045) | (0.109) | (0.086) |
| divorced | -0.184*** | -0.104* | -0.357*** | -0.283** |
| | (0.055) | (0.056) | (0.129) | (0.117) |
| lower secondary ed. | 0.156*** | 0.179*** | 0.337*** | 0.364*** |
| | (0.05) | (0.046) | (0.108) | (0.092) |
| upper secondary ed. | 0.152*** | 0.201*** | 0.359*** | 0.456*** |
| | (0.035) | (0.034) | (0.089) | (0.07) |
| tertiary education | 0.328*** | 0.413*** | 0.444*** | 0.627*** |
| | (0.037) | (0.035) | (0.088) | (0.082) |
| unemployed | -0.074 | 0.036 | -0.388** | -0.241 |
| | (0.147) | (0.148) | (0.186) | (0.351) |
| retired | -0.204*** | -0.083 | -0.312*** | -0.084 |
| | (0.064) | (0.055) | (0.109) | (0.091) |
| not in labour force | 0.047 | 0.091 | 0.109 | 0.143 |
| | (0.107) | (0.075) | (0.159) | (0.12) |
| household size | -0.088*** | -0.022 | -0.183*** | -0.219*** |
| | (0.031) | (0.027) | (0.053) | (0.05) |
| number of kids | 0.137 | 0.093 | 0.249* | -0.002 |
| | (0.133) | (0.075) | (0.143) | (0.172) |
| number in employment | -0.135*** | -0.054 | -0.065 | -0.185*** |
| | (0.037) | (0.034) | (0.064) | (0.058) |
| homeowner | 1.575*** | | 0.08 | 0.293*** |
| | (0.07) | | (0.081) | (0.063) |
| ihs(household gross income) | 0.745*** | 0.262*** | 0.542*** | 1.208*** |
| | (0.016) | (0.014) | (0.04) | (0.034) |
| N | 5,401 | 4,436 | 3,109 | 5,401 |

Note: All regressions included a constant term and country and year dummy variables. * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Omitted age category is 55 and over.

In order to get a sense of the magnitude of the impact of transfers received at different stages of the life course on net wealth, Figure 4 below plots predicted net wealth, and the corresponding 95% confidence intervals, for transfers received at different stages in the life course. These predictions are based on the results reported in column (1) for an individual who is male, aged 65, retired and a homeowner, who has completed upper secondary education[15].

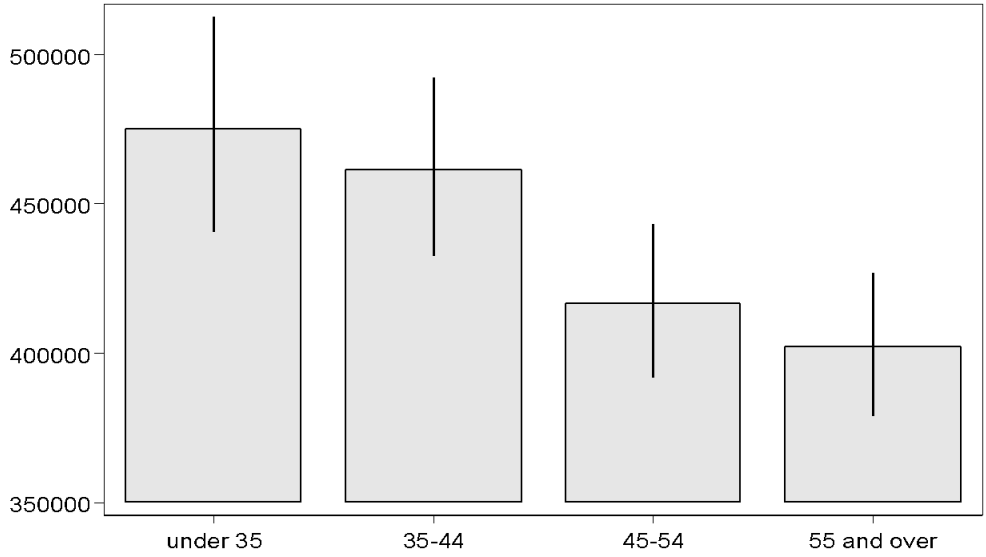


Figure 4. Impact of the timing of the transfer on net wealth (measured in euros).

### 5.3 Country-level analysis: how does the impact of the timing of transfer receipt vary across countries?

Due to an insufficient number of observations, it is not possible to carry out the analysis for each individual country so, as explained in section 3, we identify three country groups, based on the nature of their housing wealth accumulation regimes: (1) Austria and Germany; (2) France, Belgium and Luxembourg; (3) Spain and Portugal. We estimated the model from section 5.1 for each of these country groups, and for each component of household wealth[16]. These results largely mirrored those found in section 5.1, namely that the age at which the transfer was received has a negative impact on household net wealth and that this effect appears to operate mainly through holdings of other property wealth.

In order to analyse in greater depth how timing matters and to what extent this impact depends on the institutional framework in different countries, we estimated the model from section 5.2 for each country group, using the sample of households aged 60 and over. For brevity, we only report the results for the variables pertaining to transfers (see Tables 4 to 7 below); however, the full set of regressors described above were included in all estimations and the full results are available on request.

[15] All other variables in the model are assessed at their mean values.
[16] The results are not reported here for brevity, but are available on request.

In the two German-speaking countries the categorical age variables generally have a negative impact on wealth, although this is only statistically significant in two cases: receiving a transfer between the ages of 45 and 54 has a significant negative impact on household net wealth vis-a-vis the 55 to 65 years age cohort. Similarly, receiving a transfer between the ages of 35 and 44 has a negative impact on household holdings of financial assets in relation to older households (55 to 65 years). Hence, contrary to our main results, it appears that households in these countries benefit more from transfers received later in life. One potential explanation here could be that households in the reference category can rely more on large inheritances, which in these two countries tend to take place at a relatively late stage in the life course (Lennartz and Helbrecht 2018). Interestingly enough, receiving an inheritance rather than an *intra vivos* gift as a first transfer has a strong and significant impact on non-HMR property wealth. Since inheritances tend to be received later in life than gifts, this results indicates that the earlier one becomes a landlord through a (large) gift the higher the impact on later life asset wealth - the age-specific variables do not confirm this result, however.

The results for the francophone cluster, on the other hand, are largely in line with the general model presented in the previous section. Table 5 shows for both net wealth and non-HMR property wealth a decreasing, yet positive impact of earlier transfers of all 60+ year old households. In contrast to Germany and Austria, small-scale landlordism is much less widespread and less often applied as a wealth accumulation strategy of private individuals and households. As explained above, this means that those individuals who did receive a significant gift at (very) young age were in a much better position to either pay off mortgage debt on their first home quicker, to then buy secondary properties at younger age as well, or to invest into non-HMR properties directly after receipt of the (first) transfer. It seems that these cumulative advantage effects are much less pronounced (and in any case not significant) in Germany and Austria.

Finally, the Southern European cluster could be labelled as a more pronounced example of these descriptions. While the directions of the effects are identical with the francophone cluster, the magnitude of the effect of early transfers on net wealth and net non-HMR property wealth are much stronger. Most strikingly, in Southern Europe, an early-life transfer also has a positive impact on financial wealth. This might indicate that in societies where homeownership rates are high and HMR-wealth is distributed more evenly - again, in these societies homeownership has long been regarded as a societal norm and has been facilitated through the family - transfers that are received at or shortly after the crucial stages of the life course (e.g. family formation, establishing working careers) are more often being used for non-HMR investments, such as vacation homes but also life insurance and other financial assets.

Table 4. Country Group 1 (Austria, Germany): Median wealth regression (over 60 sub-sample)

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** | **Financial assets** |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| agecat 1: under 35 | 0.078 | 0.081 | -0.216 | -0.196 |
| | (0.103) | (0.094) | (0.251) | (0.135) |
| agecat 2: 35-44 | -0.031 | -0.081 | 0.384 | -0.423** |
| | (0.095) | (0.064) | (0.307) | (0.168) |
| agecat 3: 45-54 | -0.154** | -0.109 | 0.206 | -0.168 |
| | (0.074) | (0.067) | (0.295) | (0.125) |
| first transfer was inheritance | -0.053 | -0.027 | -0.718*** | -0.050 |
| | (0.087) | (0.064) | (0.212) | (0.115) |
| ihs(value of first transfer) | 0.180*** | 0.047** | 0.507*** | 0.168*** |
| | (0.032) | (0.023) | (0.141) | (0.054) |
| age received*value of transfer | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| total number of transfers | 0.152*** | 0.053 | -0.043 | 0.364*** |
| | (0.033) | (0.037) | (0.109) | (0.062) |
| N | 689 | 505 | 272 | 688 |

Note: * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Omitted age category is 55 and over.

Table 5. Country Group 2 (France, Belgium, Lux.): Median wealth regression (over 60 sub-sample)

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** | **Financial assets** |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| agecat 1: under 35 | 0.155*** | 0.045 | 0.316*** | -0.028 |
| | (0.042) | (0.036) | (0.114) | (0.085) |
| agecat 2: 35-44 | 0.138*** | 0.024 | 0.207** | 0.034 |
| | (0.036) | (0.034) | (0.081) | (0.072) |
| agecat 3: 45-54 | 0.093*** | 0.033 | 0.134* | -0.003 |
| | (0.033) | (0.03) | (0.081) | (0.063) |
| first transfer was inheritance | -0.080** | 0.05 | -0.068 | -0.027 |
| | (0.032) | (0.033) | (0.076) | (0.061) |
| ihs(value of first transfer) | 0.123*** | 0.057*** | 0.188*** | 0.089*** |
| | (0.01) | (0.009) | (0.03) | (0.021) |
| age received*value of transfer | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| total number of transfers | 0.167*** | 0.063*** | 0.133*** | 0.267*** |
| | (0.02) | (0.017) | (0.031) | (0.033) |
| N | 3 604 | 2 942 | 1 998 | 3 604 |

Note: * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Omitted age category is 55 and over.

Table 6. Country Group 3 (Spain, Portugal): Median wealth regression (over 60 sub-sample)

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** | **Financial assets** |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| agecat 1: under 35 | 0.452*** | 0.009 | 0.609*** | 0.538** |
| | (0.112) | (0.083) | (0.158) | (0.205) |
| agecat 2: 35-44 | 0.262*** | 0.021 | 0.423*** | 0.326** |
| | (0.086) | (0.073) | (0.132) | (0.162) |
| agecat 3: 45-54 | 0.007 | -0.041 | -0.075 | 0.086 |
| | (0.075) | (0.064) | (0.165) | (0.137) |
| first transfer was inheritance | -0.212 | -0.311** | -0.201 | -0.05 |
| | (0.189) | (0.138) | (0.248) | (0.428) |
| ihs(value of first transfer) | 0.157*** | 0.054** | 0.303*** | 0.115*** |
| | (0.022) | (0.021) | (0.035) | (0.032) |
| age received*value of transfer | 0.000 | 0.000 | 0.000 | 0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| total number of transfers | 0.132*** | -0.007 | 0.259*** | 0.104 |
| | (0.036) | (0.023) | (0.049) | (0.065) |
| N | 979 | 873 | 802 | 979 |

Note: * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Omitted age category is 55 and over.

## 6. Conclusions

Wealth transfers between family members play an important role in explaining wealth accumulation and wealth inequalities. While part of this is accounted for by the size of the transfer, this paper showed that the timing of the transfer is also an important variable in explaining later life wealth and unequal wealth distribution. We explored the impact of the timing of transfers by looking at how the age at which a transfer was received affects household net wealth and separate components of household wealth, in particular housing wealth (both for main residences and additional properties) and financial assets, using data from the Eurosystem Household Finance and Consumption Survey. The aim of distinguishing these wealth components was to get a better understanding of households' investment decisions and how intergenerational transfers are put to use across the life course.

The results suggest that the age at which a transfer is received does matter: after controlling for the total value and number of transfers received, household income and other socio-demographic variables, receiving a transfer later in life has a negative impact on household net wealth. For each year a transfer is deferred, median net household wealth is 0.7% lower. Looking at the different components of household wealth, the impact of age at which the transfer was received appears to affect primarily property wealth, rather than financial assets, and in particular non-HMR property wealth. This suggests that transfers facilitate investment in property assets, which is consistent with findings elsewhere in the literature, and the earlier a transfer is received, the greater the potential cumulative advantage effect.

In order to assess whether the magnitude or sign of this effect varies depending on what particular stage of the life course the transfer is received, we re-estimated our models for a sub-sample of households aged 60 and over, using a set of categorical age variables. The results confirm that receiving a transfer earlier in life has a positive and significant impact on household net wealth, although this appears to operate primarily through non-HMR housing wealth. We argue our results here reflect both a cumulative advantage and specific lifecycle effects, with earlier transfers enabling investment in other property assets, and transfers received after age 45 being more likely to be consumed rather than invested.

We also explored how the impact of the timing of transfer receipt varied across countries. In most countries, and certainly so in French-speaking and Southern Europe, housing wealth is the primary source of household wealth. At least up until the Global Financial Crisis homeownership in these countries could be regarded as some kind of societal norm, which was widely facilitated through family resources, and increasingly so though easier access to mortgage credit since the early 1990s. In such a context, an early transfer would mean that younger adults would either benefit from early-life transfers by being able to pay off remaining debt quicker, thus being able to move on to other investments earlier; or, alternatively, if the home is owned outright, households could directly invest into secondary properties. The case of Germany and Austria illuminates the opposite case. While access to homeownership was more limited throughout the 20th and 21st centuries in these two countries, rental property ownership was much more widespread. Intra-vivos gifts and inheritances have a large impact on becoming (multiple) property owners as such; yet, the nature of the rental housing market means that early property ownership is seemingly not essential for the level of asset wealth in the first place.

The retrospective nature of the data means that this paper can only provide limited insights into how transfers are used exactly at different stages of and individual's or family's life. How and under which circumstances people decide to invest unforeseen and expected transfers is a fruitful avenue for further research, which would, however, require new data sources to be able to do so. Notwithstanding these limitations, we would argue that this paper still makes a major contribution in explaining the links between (asset) wealth accumulation across the life course, the different institutional and cultural contexts in which these paths are being taken, and the role financial transfers play herein.

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# Appendix

Table 7. Summary statistics

| | Received gift/inheritance | Did not receive gift/inheritance |
|---|---|---|
| **Net wealth** | | |
| Average | 865 506 | 303 294 |
| Std. error | 43938.99 | 8806.176 |
| **Real assets** | | |
| Average | 701 200 | 296 230 |
| Std. deviation | 41345.533 | 9387.576 |
| **Value of HMR** | | |
| Average | 301 140 | 232 528 |
| Std. deviation | 3165.59 | 2416.374 |
| **Value of other real estate** | | |
| Average | 496 918 | 305 388 |
| Std. deviation | 35571.69 | 14122.51 |
| **Financial assets** | | |
| Average | 212 885 | 59 013 |
| Std. deviation | 11473.31 | 3385.299 |
| **Total liabilities** | | |
| Average | 85 757 | 67 335 |
| Std. deviation | 3047.097 | 1610.959 |
| **Mortgage debt (HMR)** | | |
| Average | 18 429 | 28 057 |
| Std. deviation | 633.152 | 681.5414 |
| **Mortgage debt (other properties)** | | |
| Average | 100 807 | 106 586 |
| Std. deviation | 5504.335 | 5244.985 |
| **Non-mortgage debt** | | |
| Average | 35 929 | 18 725 |
| Std. deviation | 3521.6 | 1789.491 |

Note: Includes multiply imputed data. Number of observations varies across asset/liability category.

Table 8. Median wealth regression estimation results - including HVA index

| | **Net wealth** | **Net HMR housing wealth** | **Net other property wealth** |
|---|---|---|---|
| | (1) | (2) | (3) |
| age received first transfer | -0.008*** | -0.003*** | -0.016*** |
| | (-5.729) | (-3.052) | (-5.903) |
| ihs(value of first transfer) | 0.164*** | 0.066*** | 0.332*** |
| | (13.040) | (7.730) | (11.003) |
| age received*value of transfer | 0.000* | 0.000 | 0.000 |
| | (1.894) | (1.299) | (0.361) |
| total number of transfers | 0.198*** | 0.031* | 0.288*** |
| | (10.055) | (1.830) | (8.056) |
| hva index | -0.201*** | -0.003 | 0.099 |
| | (-2.940) | (-0.044) | (0.716) |
| first transfer was inheritance | -0.019 | -0.046 | -0.141* |
| | (-0.574) | (-1.598) | (-1.883) |
| age | 0.042*** | 0.029*** | -0.006 |
| | (6.140) | (4.529) | (-0.415) |
| age squared | -0.000*** | -0.000** | 0.000** |
| | (-2.902) | (-2.055) | (2.295) |
| male | 0.075*** | -0.014 | 0.091 |
| | (2.650) | (-0.557) | (1.489) |
| single | -0.133*** | -0.134*** | 0.001 |
| | (-2.718) | (-3.093) | (0.014) |
| widowed | -0.096* | -0.051 | -0.000 |
| | (-1.653) | (-1.175) | (-0.000) |
| divorced | -0.204*** | -0.119*** | -0.097 |
| | (-3.816) | (-2.643) | (-1.056) |
| lower secondary educ. | 0.122* | 0.151*** | 0.294** |
| | (1.708) | (2.774) | (2.357) |
| upper secondary educ. | 0.329*** | 0.330*** | 0.563*** |
| | (5.788) | (7.001) | (5.382) |
| tertiary education | 0.494*** | 0.461*** | 0.624*** |
| | (8.403) | (9.592) | (6.166) |
| unemployed | -0.141* | -0.108 | -0.234 |
| | (-1.850) | (-1.280) | (-1.029) |
| retired | -0.210*** | -0.157*** | -0.258* |
| | (-3.943) | (-3.586) | (-2.027) |
| not in labour force | 0.057 | 0.064 | 0.161 |
| | (0.975) | (1.423) | (1.206) |
| household size | -0.005 | 0.023 | -0.017 |
| | (-0.271) | (1.335) | (-0.452) |
| number of kids | -0.010 | -0.010 | -0.134** |
| | (-0.361) | (-0.338) | (-2.021) |
| number in employment | -0.071** | -0.046* | -0.168** |
| | (-2.594) | (-1.943) | (-2.586) |
| homeowner | 1.526*** | | -0.119 |
| | (24.272) | | (-1.477) |
| ihs(household gross income) | 0.467*** | 0.198*** | 0.497*** |
| | (25.267) | (11.338) | (12.456) |
| N | 4 882 | 3 935 | 2 468 |

Note: All regressions included a constant term and country and year dummy variables. * p<0.10; ** p<0.05; *** p<0.01. Robust standard errors are given in parentheses. Information on net HMR property wealth and other property wealth is only available for households that own or part own their home and/or other property.