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# Intergenerational Homeownership in France over the 20th Century<sup>1</sup>

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## Intergenerational Homeownership in France over the 20<sup>th</sup> Century<sup>1</sup>

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#### **Abstract**

We estimate the intergenerational correlation in homeownership status between two generations for cohorts covering the 20th century. First, we find higher intergenerational correlation in France compared to previous results obtained for the U.K. for similar cohorts. Second, the intergenerational correlation is increasing across cohorts, with a relatively stable probability of being a homeowner for children of homeowners over time, and a decreasing probability for children whose parents were not homeowners. Third, the effect of parents' tenure status is persistent over the children's life cycle. Fourth, when isolating two subpopulations based on the receipt of intergenerational transfers, we find significant intergenerational correlation in tenure status for children who did not receive any gift or inheritance, as well as for children who received intergenerational transfers, suggesting that other factors such as intergenerational income correlation or the transmission of preferences might also explain this intergenerational correlation.

**Keywords**: housing, intergenerational wealth mobility, cohorts

**JEL Codes:** G51, J62, R21

<sup>&</sup>lt;sup>1</sup>This chapter has been prepared for the NBER book *Measuring Distribution and Mobility of Income and Wealth*, Raj Chetty, John N. Friedman, Janet C. Gornick, Barry Johnson & Arthur Kennickell , editors. A companion paper (Garbinti and Savignac, 2020) studies more broadly intergenerational wealth correlation in France. We thank Arthur Kennickell as well as the participants at the CRIW/NBER 2020 conference on Measuring and Understanding the Distribution and Intra/Inter-Generational Mobility of Income for fruitful discussions. We also thank Salomé Fofana, Thomas Lloyd and Sylvie Tarrieu for their excellent research assistance and Barbara Castillo Rico for her great help harmonizing the first waves of the French Wealth Survey at an early stage of this project. This work is supported by a public grant overseen by the French National Research Agency (ANR) as part of the "Investissements d'Avenir" program (LabEx Ecodec/ANR-11-LABX-0047). This paper reflects the opinions of the authors and does not necessarily express the views of their institution. In particular, this paper does not necessarily reflect the position of the Banque de France or the Eurosystem.

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In a global context of rising inequality in many developed countries, social mobility is a crucial issue. A rising correlation in the homeownership status of parents and their children, and more broadly, between the income and wealth of two generations may be viewed as a threat to social mobility and is therefore of primary interest from a policy standpoint. Homeownership plays a crucial role in personal wealth accumulation behavior as well as in the design of public policies in many countries (OECD, 2011), including France (Gobillon et al., 2020). However, recent studies have shown that the homeownership rate is declining for younger generations compared to older ones at the same age (see Choi et al. (2018) for the U.S.<sup>2</sup>; Cribb et al. (2016) for the U.K.). For France, Bonnet et al. (2018) show that the apparent stable homeownership rate for young households hides a diverging pattern between low-income and high-income households. Such a pattern may be viewed as an obstacle to upward social mobility for younger cohorts. Indeed, at the macro level, housing assets account for a large share of household wealth.<sup>3</sup> Moreover, in many developed countries being a homeowner typically means being wealthier than renters, since it reflects a higher position in the wealth distribution (see the companion paper Garbinti and Savignac (2020)).

There are many reasons why people may benefit from becoming a homeowner. First, it is seen as a way to be insured against negative income shocks due to illness, unemployment or retirement (Angelini et al., 2013), or to hedge against inflation (Malmendier and Steiny, 2017) or against increases in house prices (Agarwal et al., 2016). Second, the empirical literature highlights the positive externalities associated with the homeownership status, with children who grew up in owner-occupied homes typically achieving higher educational attainment or having better cognitive and behavioral outcomes (Haurin et al.,2002; Green and White, 1997; Spilerman and Wolff, 2012). Third, for many families it can be perceived as a symbol of social success and family stability (Bourdieu, 2000; Henretta, 1984). Becoming a homeowner has been put forward as a key stepping stone to achieving the American Dream (Kulkarni and Malmendier, 2015; Goodman and Mayer, 2018).

This paper studies the evolution of the intergenerational correlation in housing tenure status in France. It relies on cohorts covering a large part of the 20<sup>th</sup> century. We provide new insights on the evolution of this correlation across children cohorts born from 1933 to 1992.

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<sup>&</sup>lt;sup>2</sup> For the U.S., Fritsch and Heimer (2020) document a correlation between the homeownership rates of young adults and the mortgage experiences of their parents, especially during the financial crisis, which could explain part of this decline.

<sup>&</sup>lt;sup>3</sup> In the case of France, the share of housing (net of debt) increased from about 30% to 50% in total personal wealth over the period 1970-2014 (Garbinti et al., 2020).

Based on the French Wealth Survey (Insee), we study the homeownership status of the second generation for various age categories, which provides an insight on the persistence of the intergenerational correlation over the life-cycle of the different cohorts. More precisely, we estimate the intergenerational correlation in tenure status at the family level.<sup>4</sup> We use the information provided by the survey respondent (both for the household reference person and his/her partner - if any) regarding the asset holdings of the parents when she/he was 14 years old. In order to have a precise estimate, we define cohort groups, and consider 5-year cohorts and 10-year cohorts. We estimate the probability of being a homeowner at three life-cycle stages (between 25 and 34 years old, 35 and 44 years old, and 45 and 54 years old), accounting for year cohort specific effects.

Most papers studying the intergenerational correlation in homeownership status are not able to compare the evolution of the intergenerational correlation over time. Moreover, they focus on the homeownership status of the children at a fixed age, or controlling for age (e.g. Charles and Hurst (2003) or Choi et al. (2018) for the U.S., Mulder et al. (2015) for several European countries including France, or Helderman and Mulder (2007) for the Netherlands). Blanden and Machin (2017) is one exception: they study the intergenerational correlation in the U.K. for two children cohorts (born in 1958 and 1970) and find evidence of an increasing intergenerational correlation in tenure status over time.<sup>5</sup>

#### We document four main results.

First, we find a significant correlation between the homeownership status of parents and that of their children. For instance, children born between 1973 and 1977, whose parents were homeowners, are about 38 percentage points more likely to be homeowners when aged between 34 and 45 years old, compared to children whose parents were not homeowners. We compare our estimates with those obtained by Blanden and Machin (2017) for the U.K. We find higher intergenerational correlation in France: at about 0.24 to 0.25 for the 1958 cohort, while their estimate for the U.K. lies between 0.13 and 0.14. Such a correlation for France is close to the results obtained by Charles and Hurst (2003) for the U.S. for similar cohorts. For the cohort born in 1970, Blanden and Machin (2017) find that the intergenerational correlation lies between 0.20 and 0.23 for the U.K., while we obtain an estimate of 0.28 to 0.29 for France.

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<sup>&</sup>lt;sup>4</sup> As robustness tests, we also estimate individual level regressions.

<sup>&</sup>lt;sup>5</sup> The homeownership status of the children is however looked at a fixed age (42 years old).

<sup>&</sup>lt;sup>6</sup> See also Castillo-Rico (2020) for another approach based on the date of purchase of the main residence.

Second, the intergenerational correlation is increasing over time when we consider children's homeownership status at 35-44 or at 45-54 years old. We find significant negative and decreasing cohort specific effects compared to the 1973-1977 reference cohort. For instance, the probability of being a homeowner between 35 and 44 years old decreases from about 45% for the 1943-1952 cohort to about 30% for the 1973-1982 cohort, for children whose parents were not homeowners; while it remains quite stable for children whose parents were homeowners (around 65%). In other words, our results show that the increasing intergenerational correlation over cohorts offsets the decline in the probability of being a homeowner when parents are non-homeowners.

Third, the effect of parents' tenure status is persistent over the children's life cycle. The estimated intergenerational correlation in homeownership status is statistically significant for all three age groups and seems to follow an inverted U-shape pattern.

Fourth, we investigate the potential sources of the intergenerational correlation. We find significant intergenerational correlation in tenure status for children who did not receive any gift or inheritance. For children who received intergenerational transfers, the parental tenure status still plays a role in the homeownership rate. It suggests that other factors such as the intergenerational income correlation or the transmission of preferences might also explain this intergenerational correlation.

We conduct various robustness tests (considering several cohort grouping, household level versus individual level estimates, linear probability model versus logistic regressions, etc.) which lead to similar conclusions.

This paper is organized as follows. In Section 2, we provide an overview of the evolution of the homeownership rate in France. Section 3 presents the data we use. Our empirical design is detailed in Section 4. Our estimates of the intergenerational correlation in tenure status are presented in Section 5. Section 6 discusses the sources of the intergenerational correlation. Section 7 concludes.

#### 2. Homeownership rate in France

After World War II, the homeownership rate rose considerably in France, like in other OECD countries. In 1955, 35% of households were homeowners. This rate increases over the 60s and 70s due to the various housing policies implemented by governments (Bonvalet and Bringé,

2013). In the early 80s more than half of the households (55%) were homeowners. Since then, the homeownership rate slightly increased over the 2000s and levelled off at 58% in 2019. In particular, the homeownership rate did not decrease after the financial crisis in France, in contrast with the sharp decline observed in the U.S.<sup>7</sup> In line with these trends, the French National Statistical Institute (Insee, 2017) documents that half of the households with a reference person from the 1924 cohort were homeowners at 47 years old while about half of those from the cohorts born in 1964 and afterwards were homeowners at 35-39 years old.

However, inequalities have increased in first-time home-ownership over the past 40 years. Bonnet et al. (2018) find that homeownership increases among wealthier households and decreases among the most modest: 32% of young low-income households were homeowners in 1973, as compared to only 16% in 2013. In contrast, the share of owners among young well-off households increased over the period: in 2013, 66% of them were owners, as compared to 45% in 1973. These authors argue that these trends are both driven by macroeconomic and institutional factors (real estate prices, interest rates, term of loans granted) as well as by changes in family structure and by the role of family support (such as gift assistance, inheritance and other forms of aid) which played an important part in the 2000s.<sup>8</sup>

This paper aims at studying the role of parental tenure status as a determinant of children's tenure status and at investigating possible changes over time.

#### 3. Data and definitions

#### 3.1. Data source

This chapter is based on the data and sample selection, which are extensively presented in the companion paper Garbinti and Savignac (2020). We use all waves (i.e. 1986, 1992, 1998, 2004, 2009, 2014, and 2017) of the French Wealth Survey (Enquête Patrimoine) conducted by the French National Statistical Institute (Insee). This survey enables us to link the homeownership status of two generations for several cohorts.

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<sup>&</sup>lt;sup>7</sup> The U.S. homeownership rate leveled at 69% in 2006, and then continuously dropped to about 63% in 2016. In 2020, it was back to about 67%. Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>8</sup> See also Arrondel et al. (2014) for an investigation of the impact of gift and inheritance on the probability to become homeowner over the life-cycle.

Similarly to the Survey of Consumer Finances (SCF) for the U.S., this survey aims at measuring household wealth and its components (housing and financial assets, debt) and collects detailed information on the household composition and background history. It also collects information on whether the parents of the household (i.e. for both the reference person and her/his partner – if any) were owners of their main residence when she/he was 14 years old, and if they were owners of other real estate assets. More precisely, the information regarding the real estate assets of the parents during childhood is elicited with the following question: "During the childhood of [the reference person], were the parents [of the reference person] owners of:

- their main residence (Yes/No)
- any other real estate property (Yes/No)".

A similar question is also asked for the partner of the reference person.

#### 3.2. Sample definition

We adopt the same sample definition as in Garbinti and Savignac (2020). We restrict the sample to cohorts born before 1993 (i.e. which are at least 25 years old in the last wave of the survey, in 2017) and exclude cohorts born before 1933 with only a few observations. In order to keep precise estimates given our sample size, we then define cohort groups based on the year of birth of the household's reference person that we group into two alternative ways: 5-year cohorts and 10-year cohorts for robustness tests. When considering 5-year cohorts, we need to drop the cohorts born before 1943 due to a limited number of observations for these 5-year cohorts. Considering 10-year cohorts reduces the overall number of cohorts but allows us to include cohorts born between 1933 and 1942 (see Table 1 for sample statistics at the household level by 5-year cohorts).

#### 3.3. Housing tenure status

In our baseline analysis, we define children's and parents' tenure status at the family level. For children, the available information regarding asset holdings is at the household level. As explained above, the information regarding the asset holdings of the parents is collected both for the reference person and his/her partner. For couples, we define the homeownership status of the parents in the following way: parents are considered to be homeowners if at least one of

<sup>&</sup>lt;sup>9</sup> In Section 5.4 we conduct individual level analysis in order to account for changes in family structure over time.

the members of the couple reports that their parents were homeowners during his/her childhood. 10

Based on the survey questions about parents' asset holdings during childhood, four categories of parental tenure status can be defined. They are reported by cohorts in Table 1, with the percentage of households in each category. Parents with no real estate amount to about 27% to 55% of the sample, while 42% to 70% of the 5-year cohorts have parents that were owners of their main residence. About 9% to 16% of them were also owners of other real estate properties. A residual category of parents (3% to 4% of each 5-year cohort) were owners of other real estate properties while renting their main residence. We add them<sup>11</sup> to the parents that did not have any real estate property, and define this category as "non-homeowner parents".

#### 3.3. Life-cycle positions

Charles and Hurst (2003) and Boserup et al. (2017a) point out the importance of the life-cycle positions of both parents and children when measuring intergenerational wealth correlations. In our case, we observe the homeownership status of the household at the time of the survey, covering thus several cohorts and age categories, while the homeownership status of the parents is measured at a fixed age. In order to provide some insights on the possible differences in homeownership correlation across the children life-cycle position, we define three age categories: 25-34, 35-44, and 45-54 years old, at which we observe the homeownership status of the children. Regarding the life-cycle position of the parents, in Garbinti and Savignac (2020), we argue that the reported information regarding their real estate holdings refers to their mid-life cycle period, and more precisely when the mothers were on average from 40 to 43 years old, given the average age of women at childbirth over the period. Thus, the 35-44 age category of the second generation allows us to measure parents and children's homeownership status at the same life-cycle period.

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<sup>&</sup>lt;sup>10</sup> Compared to Charles and Hurst (2003) who consider correlation between fathers' and sons' family, we account for the fact that part of the asset ownership of couple may come from intergenerational correlation coming from the family of each member of the couple.

<sup>&</sup>lt;sup>11</sup> When excluding this category of parents, our main results are not affected.

#### 4. Empirical design

#### 4.1. Baseline specification

We estimate a linear probability model (Equation 1) for each age group: 25-34, 35-44 and 45-54 years old. We regress a dummy variable for being a homeowner in a given age group on a dummy variable for the parental homeownership status. The dummy variable is equals to zero if the parents were non-homeowners and equals to one if they owned their main residence. In the baseline specification, the "homeowner parents" category includes parents that were also holding other real estate properties in addition to their main residence.

We introduce the cohort of birth and its interaction with the parental homeownership variable to allow for differences in the intergenerational correlation across cohorts. As previously defined, we consider two alternative ways for grouping cohorts: 5-year cohorts and 10-year cohorts, and the baseline estimations are done at the household level.

Concretely, we estimate the following linear probability model<sup>12</sup>:

Prob(being a homeowner between age [a; b])

$$= \beta_0 + \beta_c cohort + \beta_{homeowner\ parents}^{intergenerational} \mathbf{1}_{homeowner\ parents}$$
$$+ \beta_{homeowner\ parents,c}^{intergenerational} \mathbf{1}_{homeowner\ parents} cohort + \epsilon$$

(Equation 1)

Where  $\mathbf{1}_{homeowner\ parents}$  is the indicator for the tenure status of the parents, *cohort* stands for the birth cohort of the household's reference person, and  $\varepsilon$  is the error term.

#### 4.2. Accounting for the ownership of other real estate

In another set of regressions, we consider three types of homeownership status for the parents: among homeowners, we distinguish those who hold other real estate properties in addition to the household's main residence.<sup>13</sup> In Garbinti and Savignac (2020) we show that the ownership

<sup>&</sup>lt;sup>12</sup> For the sake of simplicity, we abstract from the subscript i (for the household) that should appear for each variable and for the error term.

<sup>&</sup>lt;sup>13</sup> Parents who had other real estate properties without holding their main residence are considered as non-homeowner (as they are renters of their main residence). They amount only to about 3% to 4% of the sample, see Table 1. When excluding this category of parents, our main results are not affected.

of other real estate assets in addition to the main residence is associated with a higher position in the wealth distribution.

#### 5. Intergenerational correlation in homeownership status

#### 5.1. Baseline results and cross-country comparisons

Table 2 displays the baseline regression results for the homeownership correlation, for the three children age categories. We consider the 34-45 category (first column) as our benchmark category, as it allows considering the homeownership status of both generations (parents and children) at the same life-cycle period (mid-life cycle). For the 34-45 years old, we find a significant intergenerational correlation in homeownership of 0.38 for the reference cohort (1973-1977): children of this cohort whose parents were homeowners are about 38 percentage points more likely to be homeowners at age 34-45 compared to children whose parents were not homeowners. While the probability of being a homeowner for households in the reference cohort with parents who were not homeowners is 28%, the probability of being a homeowner is 66% for the households whose parents were homeowners.

We find significant differences in the intergenerational correlation across cohorts, with lower intergenerational correlation for older cohorts compared to the 1973-1977 cohort. For instance, the cohort specific effect is -0.14 for the 1943-1947 cohort, meaning that for this cohort, the advantage was 24 percentage points (i.e. 38-14) for households whose parents were homeowners (compared with renter parents). These results are robust when considering 10-year cohorts instead of 5-year cohorts. Moreover, using the grouping of 10-year cohorts, we are able to cover one additional cohort of people born between 1933 and 1942, which confirms the increasing trend in the intergenerational correlation (see the bottom half of Table 2). For people born between 1933 and 1942, the homeownership correlation is only 0.04 (as opposed to a correlation of 0.36 for the baseline cohort and thus corresponding to a cohort specific coefficient of -0.32).

In Figure 1, we report the estimated probabilities of being a homeowner between 35 and 44 years old with their confidence intervals by 10-year cohorts. Even if the probabilities are more imprecisely estimated for the cohort 1933-1942, it clearly shows a decreasing trend over cohorts for children whose parents were not homeowners (from 45% for the 1943-1952 cohort to 30% for the 1973-1982 cohort) while the probability remains quite stable for children whose parents

were homeowners (around 65%). In other words, the increasing intergenerational correlation over time offsets the decrease in the probability of being a homeowner when parents are non-homeowners.

We are able to provide some direct comparisons with papers focusing on other countries, namely the U.K. and the U.S. For the U.K., Blanden and Machin (2017) relies on cohorts born in 1958 and in 1970 at age 42. For the 1958 cohort, they find that the unconditional intergenerational correlation in tenure status lies between 0.127 (considering the parental homeownership status at 10/11 years old) and 0.140 (considering the parents' tenure status at 16 years old). As for France, we find higher correlation for similar cohorts, i.e. about 0.23-0.25 for the 1958-1962 cohort (with the 5-year cohorts) or the 1953-1962 cohort (with the 10-year cohorts). These results for France are thus close to those obtained by Charles and Hurst (2003) for the U.S. They find a children-age adjusted correlation of 0.245 for individuals aged 37.5 years old on average in 1999 (who are born around 1961-1962), based on the PSID. For the cohort born in 1970, Blanden and Machin (2017) find that the intergenerational correlation is larger (between 0.200 and 0.227), compared to 0.28 to 0.29 that we obtain for France for the cohorts 1968-1972 or 1963-1972. It leads us to conclude that even if we observe similar trends in increasing intergenerational correlation over time both for the U.K and France, the results for similar cohorts seem to indicate higher intergenerational correlation in homeownership status for France than for the U.K.

Some additional information from other papers are also useful, even if there are also some crucial methodological differences (e.g. in the age category, or because they do not account for cohort specific effects) which prevent us from doing direct comparisons. Focusing on young adults aged between 18 and 34 years old over the 1999-2015 period and based on the PSID, Choi et al. (2018) find that having parents who were homeowners increased the probability of being a homeowner by 7 to 8 percentage points. For France, for similar cohorts (i.e. born after 1965) and aged 25 to 34, we find an increased probability of 23 percentage points to be a homeowner for households whose parents were homeowners (Table 2, column 3). Based on the Survey of Health, Ageing and Retirement in Europe (SHARELIFE), Mulder et al. (2015) study the role of parental tenure status on first-time homeownership transitions for adults born between 1908 and 1963. The parental homeownership status is a retrospective information provided by the children and refers to the homeownership status of their parents when they were 10 years old. Mulder et al. (2015) cover several European countries, including France (Sweden, Denmark, the Netherlands, Germany, Switzerland, France, Belgium, Italy, Spain and

Greece). They estimate logistic regressions for the transition to homeownership with country fixed effects. They do not control for cohort fixed effects. They find that Dutch men (women) whose parents were homeowners were, on average, 1.24 (1.21) times more likely to become homeowners in a given year compared to those whose parents were not. Interestingly, while the correlation is also significant for France, they find smaller differences. The estimated coefficient for France is 0.13 point less than the estimate of the reference country (0.21 for the Netherlands) which corresponds to a hazard ratio of 1.09. In other words, for France, they find that men (women) whose parents were homeowners were 1.09 (1.21) times more likely to become homeowners in a given year compared to those whose parents were not.

In Table 3, we report the probability of being a homeowner by cohort, age category, and parental homeownership status. Our results are in line with Mulder et al. (2015). We find however larger effects of the homeownership status of the parents that vary across cohorts and age categories. We find that households born before 1963 with parents who were homeowners are about 1.2 to 2.4 times more likely to become homeowners compared to those whose parents were not homeowners.

#### 5.2. Intergenerational correlation over the life cycle

One of our contribution is to study the homeownership correlation for different periods in the children's life cycle. As expected, the probability of being a homeowner increased from 25 to 54 years old, irrespective of the parental homeownership status (Table 2). For our baseline cohort (1973-1977), the probability of being a homeowner increases from 17% at 25-34 years old to 39% at 45-54 years old without "homeowner parents", while it increases from 40% to 72% with "homeowner parents" (Table 2 columns 3, 2 and 1). We find persistent intergenerational homeownership correlation over the life cycle: the estimated intergenerational correlation in homeownership status is statistically significant for all three age groups and seems to exhibit an inverted U-shape across ages: standing at 0.23 for the 25-34 category; 0.38 for the 35-44 category and 0.33 for the 45-54 category (for the 1973-1977 cohort). These results are robust when considering the 10-year cohorts instead of the 5-year cohorts. In other words, the "advantage" provided by having parents who were homeowners does not disappear as children age.

Our results for the households aged 45 to 54 years old confirm the increasing trend in intergenerational correlation observed for the 35 to 44 years old. For instance, for the 1943-1947 cohort, the intergenerational correlation is 14 percentage points lower (i.e. the correlation is 0.19) compared to the 1973-1977 cohort. Such a trend over the same period is robust when considering the 10-year cohorts.

Regarding the probability of being a homeowner at 25-34 years old, we do not obtain robust results regarding a potential increasing trend in the intergenerational correlation. Based on the 5-year cohorts, we find that the older 1943-1947 cohort faces a lower intergenerational correlation than the 1973-1977 reference cohort (13 percentage points lower).<sup>14</sup>

#### 5.3. Accounting for the ownership of other real estate assets

Among homeowners, some of them are also owners of other real estate properties in addition to their main residence. In Garbinti and Savignac (2020), we show that the ownership of other properties in addition to the main residence reflects a higher position in the wealth distribution. In this section, we disentangle the effect of two types of parental homeownership: owners of their main residence only versus owners of other real estate properties in addition to their main residence. As expected, in most cases, we find larger correlations with the children tenure status when the parents were owners of other real estate properties than when they were only owner of their main residence (Table 4). While children born between 1973 and 1977 whose parents were homeowners are 34 percentage points more likely to be homeowners at 35-44 years old (compared to children whose parents were not homeowners), the probability is 47 percentage points higher when parents were owners of other real estate properties in addition to their main residence.

Our regression results confirm the increasing intergenerational homeownership correlation over time already observed without disentangling the ownership of other properties among parents who were homeowners. We obtain significant negative interaction terms with the previous cohorts compared to the reference one (1973-1977), for the two types of parental

<sup>&</sup>lt;sup>14</sup> The non-significant cohort specific effect obtained with the 10-year cohort (for 1943-1952) may be due to the grouping of the reference cohort (1973-1982 with the 10-year cohorts), while there was a significant negative difference of 11 percentage points between the 5 year reference cohort (1973-1977) and the younger one (1978-1982).

homeownership. For instance, children whose parents were homeowners (resp. with parents owners of other real estate properties) born between 1943 and 1952 are 14 percentage points (respectively 18 percentage points) less likely to be a homeowner between 35 and 44 years old compared to children born between 1973 and 1977. In most cases, these negative differences with the reference cohort in homeownership status at 35-44 years old are statistically significant over the 1933-1972 cohorts (i.e. both considering the 5-year cohorts and the 10-year cohorts). Moreover, they exhibit a negative trend, meaning that the intergenerational correlation is increasing over time. For instance, based on the 10-year cohorts, we find that the probability of being a homeowner between 35 and 44 years old for households whose parents were homeowners was 3 percentage points higher for the 1933-1942 cohort (i.e., 33 percentage points for the reference cohort minus 30 percentage points for the cohort interaction term with the dummy "homeowner parents"). The probability of being a homeowner for households whose parents were homeowners is 24 percentage points higher for the 1953-1962 cohort and 33 percentage points higher for the 1973-1982 reference cohort. When parents were owners of other real estate properties, this advantage amounts respectively to 5, 26 and 44 percentage points for the same cohorts.

Over cohorts, the probability of being a homeowner is increasing when parents were owners of other real estate properties (Figure 2), so that the gap widens between children whose parents were not homeowners and children whose parents were homeowners with other real estate properties, for the cohorts born after 1962.

#### 5.4. Other robustness tests

In order to test for the robustness of our results, we perform several additional tests. First, we consider individual level regressions instead of household level ones to account for changes in family structure over time. We also check that our main conclusions are robust when considering logit regressions instead of the linear probability model.

#### **Individual level based regressions**

In practice, the family homeownership status may result both from individual wealth (for instance if the family lives in a flat that was partially or fully inherited by one partner) and from joint wealth accumulation of both members of the couple. Without precise information on the property rights, it is not possible to disentangle which member(s) of the household is/are the

owner(s) of the real estate property. However, there have been major changes in family structure over the long run, due to the decline in marriage rates and the rise of single-headed households. In order to account for changes in family structure, the literature about wealth inequality over time generally relies on individualized wealth (i.e. wealth is divided by two and attributed it to each partner), see Piketty et al. (2006, 2014) or Garbinti et al. (2020) for a more recent development. In line with these papers, we attribute the ownership of all housing assets to each partner. Concerning the homeownership status of the parents, we consider two alternative definitions. First, we define the homeownership status of the parents based on the information related only to the own parents of the individual (See Table A1 in Appendix). Second, another robustness test considers the homeownership status of the parents of both individuals (as previously defined in the household level approach - see Table A2 in Appendix). As expected, the intergenerational correlation estimates are lower without accounting for the parental homeownership status of the partner (for couples). For instance, the estimate reduces to 0.18 in such a case (for the reference cohort and the 35-44 age group), as opposed to 0.38 obtained with our baseline household level estimates (Table 2, column 1). When accounting for the parental homeownership status of the partner, the estimates obtained for the intergenerational correlation are closer to those obtained at the household level (0.35 for the reference cohort and the 35-44 years old group). In all cases, we find evidence of increasing intergenerational correlation in tenure status over time for the 35-44 and the 45-50 years old groups. Overall, these results shed light on the role that mating decisions may play in explaining wealth formation and intergenerational correlation in tenure status, which is an interesting avenue for future research.

#### **Logit regressions**

Our main conclusions are also robust when considering logit regressions instead of the linear probability model (Table A3 in Appendix). First, we find significant intergenerational correlation in tenure status for the three age groups. Second, this correlation is increasing for more recent cohorts. Third, the probability of being a homeowner is larger when parents were owners of other real estate properties in addition to their main residence. For instance, the probability of being a homeowner between 35 and 44 years old (for the reference cohort) is 1.4 times as large as the one obtained when parents were only the owners of their main residence.

#### **6.** Discussion on the sources of intergenerational correlation

The intergenerational correlation in tenure status, and more broadly, the intergenerational wealth correlation may result from various sources. Obviously, it may be due to direct transfers of wealth (*inter vivos* and inheritances) from the previous to the next generation. Second, following the Backer and Tomes (1979, 1986) approach, intergenerational correlation in wealth and in tenure status may reflect intergenerational correlation in income, the latter resulting from parental investment in human capital and correlation in abilities across generations. In the case of housing tenure status, the intergenerational advantage of children of homeowners may also come from all the positive externalities associated with the homeownership status of their parents during their childhood (Haurin et al., 2002; Green and White, 1997; Spilerman and Wolff, 2012). Other factors such as the intergenerational transmission of preferences (risk attitudes, patience) may also play a role. Following Easterlin (1980), Henretta (1984) argues that the parental homeownership status might influence children's housing decisions as they form expectations regarding their appropriate standard of living according to the standard of living they had with their parents when they were adolescents.

All of these channels may interact with each other (Boserup et al., 2013), so that it remains very difficult to identify the exact role played by each potential channel. We provide here some insights on the heterogeneity in the children tenure status and on the intergenerational correlation depending on other parental characteristics based on simple descriptive statistics. First, we look at the children's tenure status by parental occupation (Figure 3). Parental occupation is defined as the occupation of the father of the household's reference person when she was 14 years old. There are differences in the homeownership rate depending on the father's occupation among children whose parents were homeowners (respectively whose parents were not homeowners). Moreover, we find larger owner occupancy rate irrespective of the father's occupation among children whose parents were homeowners, for all age groups. For instance, at the age of 35-44 years old, the gap varies from 22 percentage points for children of farmers to 27 percentage points for children of blue collars (Figure 3, panel a).

Second, we look at the differences in the tenure status depending on the receipt of gifts and inheritances. The French Wealth survey provides reliable qualitative information on whether any members of the household have received substantial gifts or inheritances (and when).

Figure 4 displays the percentage of homeowners among children, by parents' tenure status and depending on the reception of intergenerational transfers (gifts or inheritances).

Having received gifts and inheritances increases the probability of being a homeowner, both for children whose parents were homeowners and whose parents were not homeowners. The probability of being a homeowner between 35 and 44 years old is increased by about 18 to 19 percentage points when having received gifts or inheritances for both households whose parents were not homeowners (from 35.7 to 54%) and those whose parents were homeowners (from 60% to 78%). Moreover, without any gift or inheritance, children whose parents were homeowners still have a higher probability of being a homeowner than children whose parents were not homeowners (+ 24 percentage points). Such a result could be in line with the existence of other factors than direct transfers of wealth affecting the intergenerational correlation. We estimate our baseline regression on the two subsamples of children having received / not received gifts and inheritances to investigate this point further (Table 5).

We find significant intergenerational correlation in tenure status among children who did not receive gifts or inheritances. For the reference cohort, without gifts or inheritances, the probability of being a homeowner between 35 and 44 years old is 30 percentage points higher for children whose parents were homeowners (respectively 41 p.p. when parents had other real estate property in addition to their main residence). We also observe that the effect of the parental tenure status is increasing over cohorts in this subsample: the probability of being a homeowner when parents were homeowners and without having received gifts and inheritances is 13 percentage points higher for the 1973-1977 cohort compared to the 1948-1952 cohort. The gap between both cohorts in the tenure status when the parents had other real estate is even larger (20 percentage points).

As expected, the probability of being a homeowner is larger when having received gifts and inheritances, even for children whose parents were not homeowners (it levels off at 38% between 34 and 45 years old instead of 27% without any gift and inheritance). Most importantly, among children who received gifts and inheritances, the parental tenure status still affects the probability of being a homeowner, for all age groups. Among children born between 1973 and 1977 who received gifts or inheritances, the probability of being a homeowner between 35 and 44 years old is 35 percentage points (resp. 45 percentage points) higher for children whose parents were homeowners (resp. when parents had other real estate properties) compared to children whose parents were not homeowners.

Overall, these results suggest that other factors than direct intergenerational transfers of wealth explain the intergenerational correlation in tenure status. As explained above, it might also be driven by intergenerational income correlation or the transmission of preferences.

#### 7. Conclusion

We contribute to the literature on long-term trends in inequality by showing the increasing role that parental tenure status has on children's homeownership status.

Based on the French Wealth Survey, we estimate the intergenerational correlation in homeownership status for cohorts of children born throughout the 20<sup>th</sup> century. The parental tenure status is elicited in the survey by asking whether the parents of the reference person and her/his partner were the owners of their main residence when the respondent was 14 years old. We account for possible variations in the intergenerational correlation across 5-year cohorts (or 10-year cohorts). The children's homeownership status is considered at three life-cycle periods: between 25 and 34 years old, 35 and 44 years old, and between 44 and 55 years old.

First, we find a significant correlation in homeownership status of parents and children. For similar cohorts, the intergenerational correlation in France is higher compared to the results obtained by Blanden and Machin (2017) for the U.K. Second, the intergenerational correlation is increasing over time, considering the children's homeownership status at 35-44 or at 45-54 years old. The increasing intergenerational correlation over cohorts offsets the decline in the probability of being a homeowner when parents are non-homeowners. Third, the effect of parents' tenure status is persistent over the children's life cycle. Fourth, when isolating two subpopulations based on the receipt of intergenerational transfers, we find significant intergenerational correlation in tenure status for children who did not receive any gift or inheritance, as well as for children who received intergenerational transfers, suggesting that other factors such as intergenerational income correlation or the transmission of preferences might also explain this intergenerational correlation.

**Table 1. Sample statistics** 

Cohorts	1928-1932	1933-1937	1938-1942	1943-1947	1948-1952	1953-1957	1958-1962	1963-1967
Number of observations	109	455	1,042	2,103	3,284	4,103	4,695	5,909
Proportion (weighted)	2%	3%	6%	9%	12%	13%	15%	14%
Age group								
25 - 34 years old	0%	0%	0%	0%	0%	22%	31%	26%
35 - 44 years old	0%	0%	0%	33%	51%	41%	33%	28%
45 - 54 years old	100%	100%	100%	67%	49%	37%	37%	46%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Parents' real estate holding category								
Parents with no real estate	55%	53%	47%	42%	41%	37%	32%	30%
Parents with only other real estate properties	3%	3%	4%	3%	3%	4%	4%	4%
Homeowner parents with no other real estate	32%	33%	37%	43%	43%	45%	47%	51%
Homeowner parents with other real estate	9%	10%	12%	12%	13%	14%	17%	16%
Total	100%	100%	100%	100%	100%	100%	100%	100%

**Table 1. (Continued)-Sample Statistics** 

Cohorts	1968-1972	1973-1977	1978-1982	1983-1987
Number of observations	4,821	3,241	2,301	1,391
Proportion (weighted)	10%	8%	5%	3%
Age group				
25 - 34 years old	27%	33%	50%	100%
35 - 44 years old	38%	67%	50%	0%
45 - 54 years old	35%	0%	0%	0%
Total	100%	100%	100%	100%
Parents' real estate holding category				
Parents with no real estate	28%	27%	28%	32%
Parents with only other real estate properties	3%	3%	4%	3%
Homeowner parents with no other real estate	52%	55%	54%	52%
Homeowner parents with other real estate	16%	15%	15%	13%
Total	100%	100%	100%	100%

Source: French Wealth Survey (INSEE), 1986, 1992, 1998, 2004, 2009, 2014, 2017

 ${\bf Table~2.~Intergenerational~correlation~in~homeownership~status-Baseline~estimates}$ 

	Probabi	lity of being a h	omeowner
	35-44 yo	45-54 yo	25-34 yo
Benchmark: 5-year cohorts			
Constant (No homeowner parents	0.28***	0.39***	0.17***
Homeowner parents	0.38***	0.33***	0.23***
Cohort*homeowner parents			
1943-194	-0.14**	-0.14**	-0.13**
1948-195	52 -0.18***	-0.13***	-0.04
1953-195	-0.11**	-0.16***	-0.05
1958-196	62 -0.15***	-0.10**	-0.05
1963-196	-0.11**	-0.10**	-0.01
1968-197	-0.09*	-0.06	-0.02
1973-197	77 Ref.	Ref.	Ref.
1978-198	-0.05	-0.06	-0.11**
Other controls: cohorts			
Obs.	12,071	13,305	8,151
Alternative: 10-year cohorts			
Constant (No homeowner parents	0.29***	0.40***	0.16***
Homeowner parents	0.36***	0.30***	0.20***
Cohort*homeowner parents			
1933-194	-0.32***	0.16	-0.10
1943-195	52 -0.15***	-0.11***	-0.04
1953-196	62 -0.11***	-0.10***	-0.01
1963-197	72 -0.08**	-0.06*	0.03
1973-198	Ref.	Ref.	Ref.
Other controls: cohorts			
Obs.	12,166	13,411	8,281

Table 3. Probability of being a homeowner by cohort and parental homeownership status

Children's age	35-44	5-44 yo 45-54 yo		25-34 yo		
Parental homeownership status	Non-homeowner	Homeowner	Non-homeowner	Non-homeowner Homeowner		Homeowner
Children's cohorts						
1943-1947	0.43	0.67	0.57	0.76	0.36	0.47
1948-1952	0.47	0.67	0.54	0.74	0.16	0.35
1953-1957	0.37	0.64	0.58	0.75	0.13	0.31
1958-1962	0.40	0.63	0.54	0.77	0.15	0.33
1963-1967	0.34	0.61	0.51	0.74	0.11	0.34
1968-1972	0.34	0.62	0.43	0.69	0.15	0.37
1973-1977	0.28	0.66	0.39	0.72	0.17	0.40
1978-1982	0.31	0.63	0.42	0.69	0.13	0.26

Table 4. Regression results: accounting for the parental ownership of other real estate properties

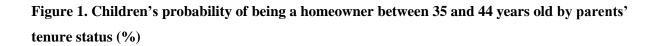
		Probability of being a homeowner			
		35-44 yo	45-54 yo	25-34 yo	
Benchmark: 5-year cohorts					
Constant (No homeowner parents)		0.28***	0.39***	0.17***	
Homeowner parents		0.34***	0.3***	0.23***	
Homeowner parents with other real est	ate	0.47***	0.4***	0.23***	
Cohort*homeowner parents					
	1943-1947	-0.12*	-0.12**	-0.11*	
	1948-1952	-0.16***	-0.09*	-0.06	
	1953-1957	-0.08*	-0.15***	-0.07	
	1958-1962	-0.13***	-0.09**	-0.07	
	1963-1967	-0.11**	-0.1**	-0.03	
	1968-1972	-0.06	-0.04	-0.03	
	1973-1977	Ref.	Ref.	Ref.	
	1978-1982	-0.04	-0.04	-0.12**	
Cohort*homeowner parents with other	real estate				
-	1943-1947	-0.19***	-0.17**	-0.17**	
	1948-1952	-0.24***	-0.22***	-0.02	
	1953-1957	-0.2***	-0.19***	-0.03	
	1958-1962	-0.22***	-0.11**	0	
	1963-1967	-0.12*	-0.09*	0.05	
	1968-1972	-0.15**	-0.11**	0.02	
	1973-1977	Ref.	Ref.	Ref.	
	1978-1982	-0.08	-0.09	-0.05	
Other controls: cohorts					
Obs.		12,071	13,305	8,151	
Alternative: 10-year cohorts					
Constant (No homeowner parents)		0.29***	0.4***	0.16***	
		0.23	0.4	0.10	
Homeowner parents  Homeowner parents with other real est	rato	0.44***	0.36***	0.22***	
Cohort*homeowner parents	ate	0.44	0.30	0.22	
Conort nomeowner parents	1933-1942	-0.30**	0.21**	-0.17	
	1943-1952	-0.30 -0.14***	-0.09**	-0.17	
	1953-1962	-0.14 -0.09**	-0.0 <i>9</i> -0.1***	-0.03	
	1963-1962	-0.09**	-0.1	0.02	
	1903-1972	Ref.	Ref.	Ref.	
Cohort*homeowner parents with other		Nei.	iter.	Nei.	
conort nomeowner parents with other	1933-1942	-0.39***	0.04	-0.01	
	1943-1952	-0.33 -0.2***	-0.17***	-0.01	
	1953-1962	-0.2	-0.17	0.07	
	1963-1962	-0.18 -0.11**	-0.12	0.05	
	1963-1972	Ref.	-0.06 Ref.	Ref.	
Oth or soutrale, selecut-	13/3-1387	nei.	nei.	nei.	
Other controls: cohorts		12 166	12 411	0 201	
Obs.		12,166	13,411	8,281	

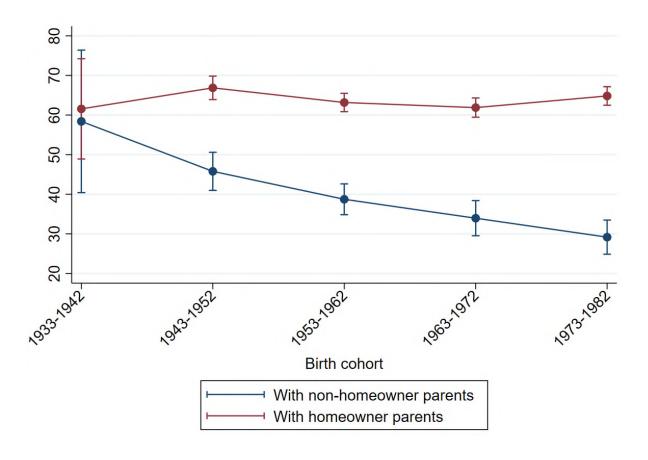
Table 5. Subsample estimates: children who received gifts or inheritances versus those who did not

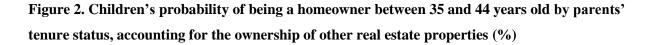
	Probability of being a homeowner					
	35-4	4 yo	45-5	4 yo	25-3	4 yo
Benchmark: 5 year-cohorts	No gift or inheritance received	With a gift or inheritance received	No gift or inheritance received	With a gift or inheritance received	No gift or inheritance received	With a gift or inheritance received
Constant (No homeowner parents)	0.27***	0.38***	0.34***	0.53***	0.15***	0.33***
Homeowner parents	0.30***	0.35***	0.29***	0.23***	0.23***	0.18
Homeowner parents with other real estate	0.41***	0.45***	0.33***	0.33***	0.17***	0.23**
Cohort*homeowner parents						
1943-1947	-0.11	-0.10	-0.09	-0.17	-0.11*	-0.02
1948-1952	-0.13**	-0.19	-0.04	-0.17*	-0.06	0
1953-1957	-0.05	-0.14	-0.13**	-0.16*	-0.07	-0.05
1958-1962	-0.11**	-0.14	-0.1*	-0.09	-0.06	-0.09
1963-1967	-0.09	-0.17	-0.14***	0.02	-0.03	0.02
1968-1972	-0.04	-0.05	-0.04	-0.08	-0.05	-0.01
1973-1977	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1978-1982	-0.02	0.03	-0.04	-0.02	-0.12**	-0.08
Cohort*homeowner parents with other real						
estate						
1943-1947	-0.16*	-0.14	-0.12	-0.18	-0.16**	-0.1
1948-1952	-0.20***	-0.25*	-0.11	-0.29***	0	0.19
1953-1957	-0.15**	-0.27**	-0.15**	-0.17*	-0.02	-0.08
1958-1962	-0.19**	-0.28**	-0.09	-0.13	0.04	-0.05
1963-1967	-0.10	-0.22*	-0.08	-0.04	0.04	0.18
1968-1972	-0.19**	-0.07	-0.07	-0.17*	-0.03	0.13
1973-1977	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
1978-1982	-0.1	-0.01	-0.09	-0.09	-0.03	0.1
Other controls: cohorts						
Obs.	8 680	3 391	7 668	5 637	6 807	1 344

Table 5 (continued). Subsample estimates: children who received gifts or inheritances versus those who did not

		Prol	bability of be	ing a homeow	ner	
	35-4	14 yo	45-	54 yo	25-3	34 yo
Alternative: 10 year-cohorts	No gift or inheritance received	With a gift or inheritance received	No gift or inheritance received	With a gift or inheritance received	No gift or inheritance received	With a gift or inheritance received
Constant (No homeowner parents)	0.28***	0.36***	0.36***	0.53***	0.14***	0.28***
Homeowner parents	0.29***	0.37***	0.28***	0.22***	0.19***	0.16*
Homeowner parents with other real estate	0.38***	0.46***	0.3***	0.29***	0.16***	0.26***
Cohort*homeowner parents						
1933-1942	-0.29**	-0.31	0.23*	0.08	-0.16	-0.56***
1943-1952	-0.12***	-0.18	-0.04	-0.16**	-0.03	-0.06
1953-1962	-0.07*	-0.16*	-0.1**	-0.11*	-0.02	-0.06
1963-1972	-0.06	-0.12	-0.07*	-0.02	0.01	0.03
1973-1982	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cohort*homeowner parents with other real						
estate						
1933-1942		-0.29	0.02	0.12	-0.01	-0.45***
1943-1952		-0.22*	-0.08	-0.22**	-0.05	-0.08
1953-1962		-0.28***	-0.09	-0.11*	0.02	-0.09
1963-1972		-0.13	-0.04	-0.07	0.01	0.1
1973-1982	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Other controls: cohorts						
Obs.	8 749	3 417	7 735	5 676	6 916	1 365







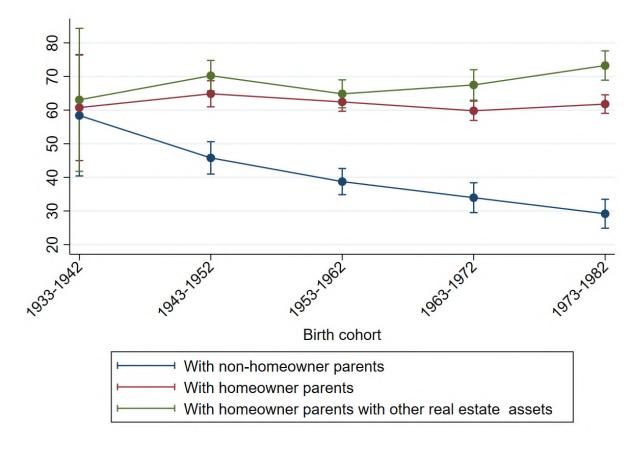
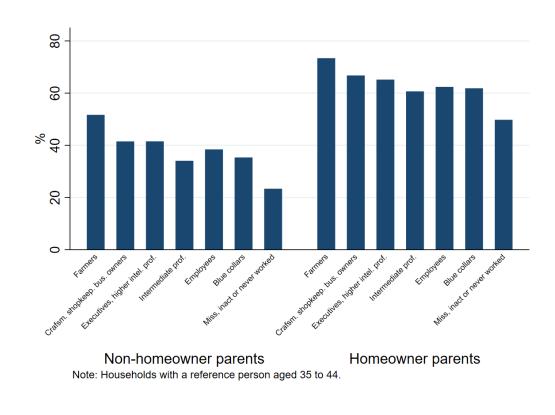
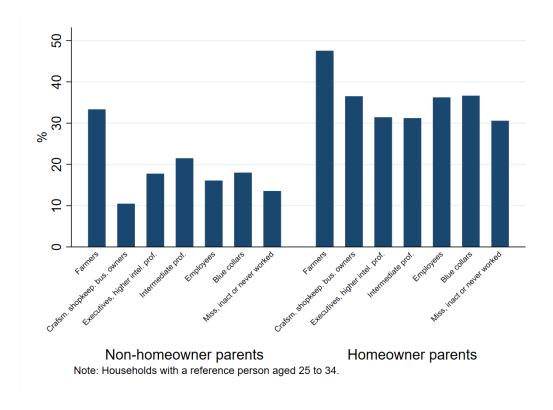


Figure 3. Percentage of homeowners among children, by parents' tenure status and occupation (%)

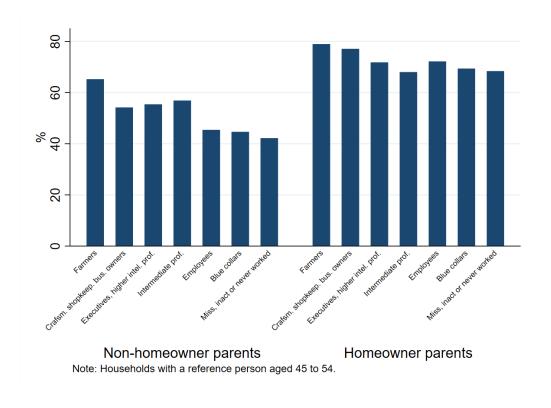
Panel (a)- Between 35 and 44 years old



Panel (b) Between 25 and 34 years old



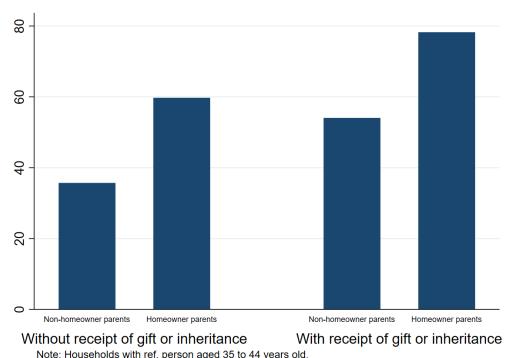
Panel (c) Between 45 and 54 years old



The parents 'occupation corresponds to the occupation of the father of the reference person.

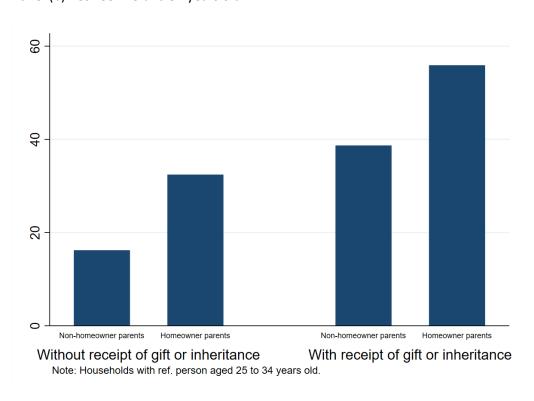
Figure 4. Percentage of homeowners among children, by parents' tenure status and depending on the receipt of gifts or inheritances

Panel (a) Between 35 and 44 years old



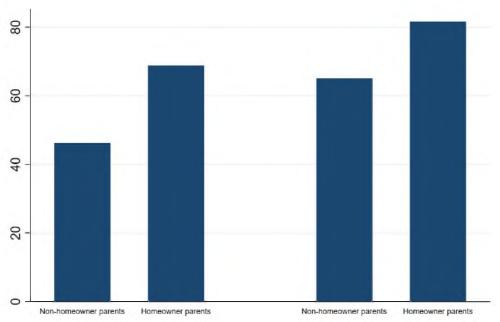
Note: Households with ref. person aged 35 to 44 years old.

Panel (b) Between 25 and 34 years old



29

Panel (c) Between 45 and 54 years old



Without receipt of gift or inheritance With receipt of gift or inheritance Note: Households with ref. person aged 45 to 54 years old.

#### References

Agarwal, S., Hu, L., Huang, X., 2015. Rushing into the American dream? House prices growth and the timing of homeownership. Review of Finance, 20(6), 2183–2218.

Angelini, V., Laferrere, A., Weber, G., 2013. Home-ownership in Europe: How did it happen? Advances in Life Course Research, 18(1), 83–90.

Arrondel, L., Garbinti, B., Masson, A., 2014. Inégalités de patrimoine entre générations: les donations aident-elles les jeunes à s'installer? (Wealth inequalities between generations: how do donations help the young generation?). Economie et statistique, 472(1), 65-100.

Bonnet, C., Garbinti, B., Grobon, S., 2018. Rising inequalities in access to home ownership among young households, in France, 1973-2013. Economics and Statistics, 500-501-502, 117–138.

Bonvalet, C., Bringé, A., 2013. Les effets de la politique de logement sur l'évolution des taux de propriétaires en France. Revue européenne des sciences sociales, 151(1), 153–177.

Boserup S. H., Kopczuk W., Kreiner C. T., 2013. Intergenerational Wealth Mobility: Evidence from Danish Wealth Records of Three Generations. Mimeo.

Bourdieu P., 2000, Les structures sociales de l'économie, Paris, Seuil.

Castillo-Rico B., 2020, Trends in intergenerational homeownership mobility in France between 1960-2015. Mimeo.

Choi J.H., Zhu J., Goodman L., 2018. Intergenerational Homeownership: The Impact of Parental Homeownership and Wealth on Young Adults' Tenure Choices, Research Report, Urban Institute.

Cribb, J., A. Hood, and R. Joyce, 2016. The Economic Circumstances of Different Generations: the Latest Picture, Institute for Fiscal Studies Briefing Note BN187.

Easterlin, R., 1980. Birth and Fortune: The Impact of Numbers on Personal Welfare. University of Chicago Press.

Fritsch N., Heimer R., 2020. Intergenerational Homeownership and Mortgage Distress. Economic Commentary, Federal Reserve Bank of Cleveland, vol. 2020(12), 1-7.

Garbinti B., Goupille-Lebret J., Piketty T., 2020. Accounting for wealth inequality dynamics: Methods, estimates and simulations for France (1800-2014). Journal of the European Economic Association.

Garbinti B., Savignac F., 2020. Accounting for Intergenerational Wealth Mobility in France over the 20th Century: Method and Estimations, CREST Working Paper n° 2020-16.

Gobillon L., Lambert A. and Pellet S., 2020. The suburbanization of poverty: Homeownership policies and spatial inequalities in France" (sociology), Population, forthcoming.

Goodman L., Mayer C., 2018. Homeownership and the American Dream, Journal of Economic Perspectives, 32 (1): 31-58.

Green, M. White, 1997. Measuring the benefits of homeownership: effects on children, Journal of Urban Economy., 41 (1997), pp. 441-461

Haurin D., Parcel R, Hauti R., 2002. Does homeownership affect child outcomes? Real Estate Economics, 30(4), 635–666.

Helderman A., Mulder C., 2007. Intergenerational Transmission of Homeownership: The Roles of Gifts and Continuities in Housing Market Characteristics, Urban Studies, Vol. 44, No. 2, 231–247.

Henretta J. C., 1984. Parental status and child's home ownership, American Sociological Review, 49, pp. 131–140.

Kulkarni N., Malmendier U., 2015. Homeownership and the American Dream -- An Analysis of Intergenerational Mobility Effects, mimeo

Malmendier U., Steiny A., 2017. Rent or Buy? The Role of Lifetime Experiences of Macroeconomic Shocks within and across Countries, mimeo.

Mulder C., Dewilde C., van Duijn M., Smits A., 2015. The Association Between Parents' and Adult Children's Homeownership: A Comparative Analysis, Eur J Population, 31,495–527.

Insee, 2017. Les conditions de logement en France.

OECD, 2011. Housing and the economy: policies for renovation. Economic Policy Reforms 2011. Going for Growth, Paris.

Piketty T., Postel-Vinay G., Rosenthal J.L., 2006. Wealth concentration in a developing economy: Paris and France, 1807-1994. American Economic Review, 96(1), 236-256.

Piketty T., Postel-Vinay G., Rosenthal J.L., 2014. Inherited vs self-made wealth: theory and evidence from a rentier society (Paris 1872-1927). Explorations in Economic History, 51(1), 21-40.

Pfeffer F. T., Schoeni R., Kennickell A., Andreski P. 2016. Measuring Wealth and Wealth Inequality Journal of Economic and Social Measurement" 41(2): 103-120.

Spilerman, S., Wolff, F.-C., 2012. Parental wealth and resource transfers: How they matter in France for home-ownership and living standards. Social Science Research, 41, 207–223.

### **APPENDIX**

Table A1. Robustness: Individual level estimates

	Probabilit	y of being a h	omeowner
	35-44 yo	45-54 yo	25-34 yo
Benchmark: 5 year-cohorts			
Constant (No homeowner parents	0.52***	0.59***	0.35***
Homeowner parents	0.18***	0.17***	0.09***
Cohort*homeowner parents			
1943-194	7 -0.06	0.01	0.00
1948-195	2 -0.08**	-0.05	0.04
1953-195	7 -0.03	-0.08***	0.06*
1958-196	2 -0.08**	-0.02	0.04
1963-196	7 -0.03	-0.03	0.08**
1968-197	2 0	-0.04	0.01
1973-197	7 Ref.	Ref.	Ref.
1978-198	2 0.02	-0.01	0.00
Other controls: cohorts			
Obs.	21 209	22 576	14 334
Alternative: 10 year-cohorts			
Constant (No homeowner parents	0.51***	0.58***	0.3***
Homeowner parents	0.19***	0.38	0.09***
Cohort*homeowner parents	0.25	0.27	0.00
1933-194	2 -0.24***	0.08	0.04
1943-195		-0.03	0.02
1953-196		-0.05**	0.05**
1963-197		-0.03	0.04
1973-198		Ref.	Ref.
Other controls: cohorts			
Obs.	21,373	22,748	14,573

Table A2. Robustness: Individual level estimates (with parental status defined at the household level)

	Probabilit	Probability of being a homeowner				
	35-44 yo	45-54 yo	25-34 yo			
Benchmark: 5 year-cohorts						
Constant (No homeowner parents	0.36***	0.47***	0.21***			
Homeowner parents	0.35***	0.29***	0.24***			
Cohort*homeowner parents						
1943-194	7 -0.14***	-0.06	-0.13**			
1948-195	2 -0.17***	-0.11**	-0.07*			
1953-195	7 -0.11***	-0.15***	-0.03			
1958-196	2 -0.17***	-0.08**	-0.05			
1963-196	7 -0.11**	-0.08**	0.01			
1968-197	2 -0.07	-0.05	0.01			
1973-197	7 Ref.	Ref.	Ref.			
1978-198	2 -0.04	-0.02	-0.08*			
Other controls: cohorts						
Obs.	21,304	22,675	14,397			
Alternative: 10 year-cohorts						
<b>Constant (No homeowner parents</b>	0.37***	0.47***	0.19***			
Homeowner parents	0.33***	0.28***	0.22***			
Cohort*homeowner parents						
1933-194	2 -0.35***	0.02	-0.09			
1943-195	2 -0.15***	-0.09**	-0.07*			
1953-196	2 -0.12***	-0.11***	-0.01			
1963-197	2 -0.07**	-0.06*	0.03			
1973-198	2 Ref.	Ref.	Ref.			
Other controls: cohorts						
Obs.	21,469	22,846	14,637			

Table A3. Robustness: Logit estimates

		Probability of being a homeowner		
		35-44 yo	45-54 yo	25-34 yo
Benchmark: 5 year-cohorts				
Constant (No homeowner parents)		-0.94***	-0.45***	-1.59***
Homeowner parents		1.44***	1.24***	1.2***
Homeowner parents with other real est	ate	2.05***	1.77***	1.19***
Cohort*homeowner parents				
	1943-1947	-0.54*	-0.46	-0.69**
	1948-1952	-0.7***	-0.31	-0.21
	1953-1957	-0.38*	-0.58***	-0.15
	1958-1962	-0.58***	-0.32*	-0.25
	1963-1967	-0.47**	-0.38*	0.09
	1968-1972	-0.3	-0.18	-0.08
	1973-1977	Ref.	Ref.	Ref.
	1978-1982	-0.17	-0.18	-0.46
Cohort*homeowner parents with other	real estate			
	1943-1947	-0.87***	-0.68*	-0.94***
	1948-1952	-1.08***	-0.98***	-0.08
	1953-1957	-0.95***	-0.8***	0.02
	1958-1962	-1***	-0.36	0.06
	1963-1967	-0.56*	-0.29	0.46
	1968-1972	-0.72**	-0.53**	0.13
	1973-1977	Ref.	Ref.	Ref.
	1978-1982	-0.4	-0.47	-0.1
Other cor	ntrols: cohorts			
Obs.		12,071	13,305	8,151
Alternative: 10 year-cohorts				
Constant (No homeowner parents)		-0.89***	-0.39***	-1.69***
Homeowner parents		1.37***	1.17***	1.05***
Homeowner parents with other real est	ate	1.89***	1.57***	1.16***
Cohort*homeowner parents				
·	1933-1942	-1.27**	1.19**	-0.98*
	1943-1952	-0.59***	-0.29	-0.3
	1953-1962	-0.4**	-0.36**	-0.05
	1963-1972	-0.31*	-0.21	0.14
	1973-1982	Ref.	Ref.	Ref.
Cohort*homeowner parents with other	real estate			
-	1933-1942	-1.7***	0.17	-0.32
	1943-1952	-0.87***	-0.72***	-0.47*
	1953-1962	-0.82***	-0.41*	0.05
	1963-1972	-0.5**	-0.24	0.3
	1973-1982	Ref.	Ref.	Ref.
Other controls: cohorts				
Obs.		12,166	13,411	8,281