Consumption responses to inheritances: The role of durable goods

Ignacio Belloc^{1,2,*}, José Alberto Molina^{1,2,3}, Jorge Velilla^{1,2}

¹ University of Zaragoza and IEDIS, Spain ² GLO, The Netherlands ³ IZA, Germany March 2024

Abstract

This paper studies the impact of inheritances, a key component in household wealth accumulation, on consumption. Specifically, we investigate how inheritances influence household consumption growth, distinguishing durable and nondurable goods. In doing so, we use data from the Panel Study of Income Dynamics spanning 2005-2019. The results reveal a positive effect of inheritances on household consumption of durable goods. Such an effect occurs immediately after receiving the inheritance and its average magnitude is about 15%. Estimates also reveal that large inheritances significantly impact the consumption growth of durables, but also of non-durables, while small inheritances show no effects. Results concentrate among liquidity constrained households, aligning with life-cycle models of consumption behavior. Insights inform planners by highlighting varied effects of inheritances size.

Keywords: household consumption, inheritances, wealth, PSID.

JEL classification: D12, D15, E21, G51.

Declarations of interest: none.

^{*} Correspondence to: I. Belloc. Department of Economic Analysis, University of Zaragoza. C/ Gran Vía 2, 50005 Zaragoza, Spain. (ibelloc@unizar.es; https://orcid.org/0000-0003-1081-4107)

Funding: This research is supported by the Government of Aragón [Project S32_23R]; and the Spanish Ministry of Science, Innovation and Universities [FPU grant Ref. FPU20/03564].

Acknowledgements: We thank Alexandros Theloudis (Tilburg University, The Netherlands) for his valuable comments and suggestions. The data used in the article stem from the *Panel Study of Income Dynamics*, public use dataset. Produced and distributed by the Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI (final data downloaded in 2023).

1. Introduction

Household consumption is a key component of economic development and well-being. According to economic theory, household consumption decisions and budget constraints are tightly linked. Consequently, understanding whether changes in wealth affect consumption is crucial for evaluating how policies that modify household budget constraints transmit to household consumption and savings behaviors, such as specific fiscal and monetary policies on pension systems, taxes, transfer policies or assets returns.

The effect of economic resources on consumer decisions has been explained by two different hypotheses: the Life-Cycle Hypothesis (LCH) and the Permanent Income Hypothesis (PIH). The LCH predicts that households make their consumption choices based on the expected evolution of lifetime earnings and smooth their consumption over their lifetime, saving (borrowing) during periods of high (low) earnings (Modigliani and Brumberg, 1954). On the other hand, the PIH states that individuals spend their income consistently with their long-term average income throughout their lifetime and that, therefore, anticipated income changes should have negligible effects on consumption plans, whereas unanticipated persistent changes in income should drive an immediate change of consumption patterns (Friedman, 1957). This paper is built on the PIH and studies household consumption responses to changes in wealth.

The literature on consumption has mainly focused on income effects, either through household income (Blundell et al., 2008; Kukk et al., 2016; Hryshko and Manovskii, 2022; Arellano et al., 2024), wages (Blundell et al., 2016; Theloudis, 2021), lottery wins (Imbens et al., 2001; Kuhn et al., 2011; Fagereng et al., 2021) or specific cash transfers (De Rock et al., 2022; Angelucci et al., 2024). These studies shed light on important issues regarding consumption responses to income shocks. However, the analysis of how changes in household wealth—a significant component of household budget constraints—impact on household consumption behavior remains relatively understudied (Christelis et al., 2021).

Inheritances constitute one of the crucial components of intergenerational transmission and accumulation of wealth (Boserup et al., 2016; Adermon et al., 2018; Elinder et al., 2018; Druedahl and Marinello, 2022; Salas-Rojo and Rodríguez, 2022; Wei and Yang, 2022; Nekoei and Seim, 2023) and they may stimulate household consumption decisions through either pure wealth effects or relaxed credit constraints channels. On the one hand, the first wealth effect refers to an increase in the lifetime/permanent wealth after inheriting, which may lead heirs to increase their consumption accordingly. On the other, the inheritance may relax liquidity constraints for certain recipients who faced financial difficulties prior to inheriting, thus leading to immediate changes in their consumption plans. However, the literature has not effectively addressed the question of how inheritances may impact household consumption, due to the relative lack of data on consumption in household surveys (Li et al., 2010; Pistaferri, 2015; Attanasio and Pistaferri, 2016).

To our knowledge, only Joulfaian and Wilhelm (1994), Suari-Andreu (2023) and Belloc et al. (2023a) have partially examined the impact of inheritance receipt on household consumption. Joulfaian and Wilhelm (1994) use data from the PSID and test the impact of inheritances on household food consumption, showing that inheritances have a small positive effect on food consumption. Suari-Andreu (2023) and Belloc et al. (2023a) use a sample of older European individuals from the Survey of Health, Ageing and Retirement in Europe (SHARE), and show mixed results regarding the impact of inheritances on household food consumption. While Suari-Andreu (2023) does not obtain any change in household food expenditure, Belloc et al. (2023a) show a positive effect of inheritances on food consumption outside the home. Consequently, the existing research suffers from a common limitation: it solely focuses on food expenditure.

Within this context, this paper examines the impact of wealth shocks driven by the receipt of inheritances on household consumption. We use data from the Panel Study of Income Dynamics (PSID), a large nationally representative household panel survey collecting information on households in the United States since 1968. Specifically, we use eight survey waves conducted from 2005 to 2019, when the survey dataset recorded the most comprehensive information regarding household consumption (Andreski et al., 2014). Our results indicate that the receipt of an inheritance relates to an immediate increase in household consumption on durables of about 15 percent, which represents an increase of about \$7,075. The results suggest that this increase is driven by large inheritances, which increase the consumption of durables by 20.4%, and additionally increase the consumption of nondurables by 4.1%. Furthermore, these effects are concentrated among households who faced liquidity constraints prior to inheriting, while no effect is found for households who did not have any financial difficulty, in line with the predictions of the PIH.

Our contribution is threefold. First, we study the impact of inheritances on household consumption, analyzing various consumption categories for the first time in the literature. Household food consumption is commonly used in the literature as a proxy for total consumption. Nevertheless, this consumption category is less likely to be affected by wealth shocks, in comparison to other household expenditures. Against this, our panel dataset includes detailed information on both durable and nondurable household consumption expenditures, which allows us to study household consumption responses beyond food expenditure. Second, we explore the amount inherited, and study whether the magnitude of the wealth shock matters, and if there is any asymmetry in the estimates.¹ None of the previous studies have considered the possibility of asymmetric inheritance effects, due to data constraints. Finally, we test whether the main estimates are heterogeneous depending on certain household characteristics. Specifically, we pay attention to the role played by liquidity constraints prior to inheriting. According to the PIH, liquidity constrained households could be more sensitive to a change in household wealth relative to other households, as they are forced to delay consumption behavior changes until financial improvements actually occur.

The rest of the paper is organized as follows. Section 2 surveys the related literature. Section 3 introduces the data, the sample selection, and the construction of the variables. Section 4 presents the econometric strategy, while Section 5 describes the results. Section 6 concludes.

2. Literature review

This paper relates to research studying household consumption and its response to changes in the household economic environment. Several authors have analyzed how shocks to income relate to consumption (e.g., Blundell et al., 2008, 2016; Arellano et al., 2017, 2024).² However, the literature has not paid so much attention to the relationship between wealth and consumption, mainly due to the lack of household data on wealth and consumption.

¹ The literature on consumption insurance has found asymmetric responses to good versus bad income and wealth shocks using hypothetical scenarios (Christelis et al., 2019, 2021; Fuster et al., 2021). We thus exploit the information regarding inheritance amount and distinguish between small and large shocks, to test for any asymmetric consumption response to wealth shocks of different sizes.

² Meghir and Pistaferri (2011) provide a review of this literature.

Most of the literature regarding consumption responses to wealth focuses on house prices and have shown that it is a significant driver of household consumption (Disney et al., 2010; Browning et al., 2013; Cristini and Sevilla, 2014; Christelis et al., 2015; Aladangady, 2017; Paiella and Pistaferri, 2017; Burrows, 2018; Berger et al., 2018; Suari-Andreu, 2021; Graham and Makridis, 2023; Lee, 2023). For instance, Disney et al. (2010) use data from the British Household Panel Survey to find that house prices positively relate to consumption, while Browning et al. (2013) find similar results using Danish administrative data. Several authors explored the Great Recession of 2008, and its impact on household consumption behaviors. For instance, Christelis et al. (2015) use the Health and Retirement Study and find that increased house prices positively impact the marginal propensity to consume. Paiella and Pistaferri (2017) report similar results using the Italian Survey of Household Income and Wealth, focusing on nondurable consumption and (expected and unexpected) increases in wealth driven by house prices.³

In recent years, other authors have focused on the relationship between household consumption and savings, and inheritance expectations (Basiglio et al., 2023; Malo and Sciulli, 2023). Basiglio et al. (2023) show that expecting a large inheritance is negatively related to savings in the Netherlands, but positively correlated to the intention to leave an inheritance, in line with Stark and Nicinska (2015) and Niimi and Horioka (2018). Similarly, Malo and Sciulli (2023) use data from the European Household Finance and Consumption Survey and find that households expecting a wealth transfer in the future consume as if they were in a higher wealth decile, while liquidity constrained households do not experience such correlation. These results fit the life-cycle model, since non-liquidity constrained households adapt their consumption behavior once they expect to receive an inheritance, while households with financial constraints cannot modify their consumption decisions.

We contribute to this strand of the literature by analyzing consumption responses to inheritance receipt. Nevertheless, we are not the first to explore inheritances and consumption. First, Joulfaian and Wilhelm (1994) study household food consumption responses to inheritances using the PSID, and find that receiving an inheritance shows a positive but small correlation with household food consumption. On the other hand,

³ Other authors have estimated the marginal propensity to consume using specific survey questions about how much respondents would change their consumption in response to alternative scenarios involving unexpected, transitory, income changes (Jappelli and Pistaferri, 2014, 2020; Christelis et al., 2019; Fuster et al., 2021; Cherchye et al., 2023) or housing wealth changes (Christelis et al., 2021).

Suari-Andreu (2023) uses data from the SHARE and finds that the fact that a household receives an inheritance does not change its household food consumption. However, Belloc et al. (2023a) show that inheritances have a positive effect on the amount spent on food consumption outside the home, while no effect appears for the amount spent on food inside the home.

3. Data and variables

3.1. Data and sample selection

We use public data from the Panel Study of Income Dynamics (PSID), a survey conducted by the University of Michigan.⁴ The PSID is the world's longest running nationally representative longitudinal household study and collects a rich set of information about socioeconomic characteristics, labor market experiences, income, wealth, health status, family structure, and consumption expenditures through in-person, telephone, and computer-assisted interviewing methods. It began in 1968 with interviews of over 18,000 individuals living in approximately 5,000 US families and has continued to interview both the original families and their descendants since then, regardless of where they live. Specific boost samples have been incorporated through time to account for changes in the population and ensure the study is representative of the whole US population, enhancing the sample sizes of these groups.⁵

The original PSID sample consists of two different sub-samples: a nationally representative sample of roughly 3,000 families designed from the Survey Research Center (SRC) at University of Michigan, and an oversample of roughly 2,000 low-income families from the Survey of Economic Opportunity of the Census Bureau to facilitate research of poverty-related issues (PSID, 2021). We focus only on the initially representative SRC sample. Besides that, the PSID became a biennial survey in 1997, and since then it has undergone some changes. Specifically, we use survey waves from 2005 to 2019 to deal with consistent consumption information, as the consumption expenditure data of the PSID was enhanced in 2005 after a first impulse in 1999 (Arellano et al.,

⁴ Detailed information on the PSID is available at <u>https://psidonline.isr.umich.edu/</u>.

⁵ This includes a Latino sample in 1990/1992 and an immigrant sample in 1997/1999 and 2017/2019.

2024).⁶ See Andreski et al. (2014) for a summary regarding information about consumption expenditures in the PSID from 1968 to 2009.⁷

Our sample restrictions are minimal. First, we limit the sample to married couples formed by a male and a female (Blundell et al., 2016; Arellano et al., 2017, 2024; Theloudis, 2021), aged between 21 and 65 years (Mazzocco, 2007). We also keep working couples only (Arellano et al., 2017, 2024; Theloudis, 2021), who are observed for at least two consecutive waves during the sample period, since we will use first-difference models, and have no missing data on the key variables, and non-zero consumption data. We also follow existing research using the PSID and other household panel surveys, and focus on stable households (same head and wife; if any of them change, so they split off, we reinstate the household as a new one if the household head marries again).⁸ The resulting sample is an unbalanced panel of 12,272 household-year observations from 2,796 households over the 2005-2019 period (eight survey years).⁹

3.2. Variables

The PSID provides data on household consumption for a wide range of items, and we use consumption spending information for a total of 48 consumption expenditure items. We aggregate these expenditures for each household into three different annual spending categories: total consumption, nondurable consumption, and durable consumption. Nondurable consumption consists of food (defined as the sum of spending on food at home, food away from home, food delivered to home, plus the spending on food using food stamps), vehicle gasoline expenses, parking and car pool expenses, car insurance, bus and train fares, taxi fares, other transportation costs, school expenses, child care, health insurance, nursing home and hospital bills, doctor bills, prescriptions, electricity expense, heating fuel, water and sewage costs, other utilities such as telecommunications,

⁶ This has led authors to resort to imputation procedures (Blundell et al., 2008). Alternative datasets, such as the German Socio-Economic Panel, only have information regarding household expenditures on utilities, rent, household furnishings, property taxes or loan payments, while the UK Household Longitudinal Study has information on loans, rent, utilities, and food and alcohol consumption.

⁷ Since 2005, the PSID gathers information regarding five additional consumption categories: household furnishings, household repairs, clothes, trips, and recreation. Before 2005 the information on housing durables only included mortgage payments associated to house and vehicles.

⁸ See, for instance, Blundell et al. (2008, 2016), Jappelli and Pistaferri (2020), Theloudis (2021), Hryshko and Manovskii (2022), Trivin (2022), Bredemeier et al. (2023), or Arellano et al. (2024).

⁹ See Appendix Table A1 for a detailed view of the sample size kept at each stage of the sample selection.

rent for renters, and rent equivalent for homeowners (imputed as 6 percent of the selfreported home value (Attanasio and Pistaferri, 2014; Blundell et al., 2016; Arellano et al., 2017; Theloudis, 2021)) or people in other housing arrangements, home insurance, property taxes, trips, recreation and clothing expenditure.¹⁰ The nondurable consumption category is largely based on previous research using the PSID consumption data from 1999 onwards (Attanasio and Pistaferri, 2014; Blundell et al., 2016; Arellano et al., 2017, 2024; Theloudis, 2021). On the other hand, durable consumption is the sum of car repair expenses, mortgage payments, other car payments, outlays on vehicles, vehicle lease payments, downpayments on vehicles, vehicle loan payments, household furnishings and household repairs (Madera, 2019; van Leeuwen et al., 2021; Kim et al., 2024). Total household consumption is the sum of expenditures on these two categories. A complete list of all consumption items contained in each category is provided in Table A2.

The other key variable in this study is inheritance receipt. This information is provided in the PSID through the question "*Did you (or anyone else in the family living there) get any other money in the prior year—like a big settlement from an insurance company, or an inheritance?*". For those who answer "*Yes*", a follow-up question is asked: "*How much of that was an inheritance?*". We harmonize the first question regarding inheritance/big settlement receipt in the past calendar year by using the amount question variable that asks *only* for the amount of the inheritance, and we assign 0 for households not providing exact inheritance amounts.¹¹ Consequently, we refrain from other income changes associated to any indemnification and focus on wealth changes through the receipt of inheritances.

The PSID allows us to define several socio-demographics, namely age, race, maximum education level attainment, hourly wages, hours of work, household income, household wealth, family size, and the number of children in the family unit.¹² All monetary variables are expressed in 2018 dollars, deflated using the consumer price index from the

¹⁰ As questions about different expenditures refer to different time horizons—weekly, monthly, or yearly— to facilitate recall (Li et al., 2010), before calculating total household consumption we convert all the figures to annual figures by scaling the reported consumption expenditure.

¹¹ We cannot distinguish the legal recipient of the inheritance within the couple, which may be a limitation (Belloc et al., 2023b). Nevertheless, this has minor implications in our empirical strategy given that the PSID only collects data on consumption at the household level, so our main unit of analysis is the household. Both issues are common shortcomings of household surveys (Frémeaux and Leturcq, 2020; Meriküll et al., 2021; Calvi et al., 2023).

¹² Hourly wages are defined as annual earnings over annual hours of work. Household income is the sum of husband and wife earnings (labor earnings plus the labor part of business income).

Bureau of Labor Statistics. An important remark is that the PSID is retrospective, so all variables refer to information over the past calendar year.

3.3. Descriptive analysis

Table 1 provides summary statistics. Average real consumption is \$108,648, while the average for nondurable and durable consumption is \$62,402 and \$46,246, respectively. Household food consumption accounts for about one-fifth of total nondurable consumption, while housing- and vehicle-related expenditures represent approximately 57 and 43 percent of household durable consumption, respectively. On average, 2.7 percent of households received an inheritance, with an average real amount of \$2,037.79 for the whole sample. Conditional on inheriting, the average inheritance was \$74.427.73.¹³ The average household income is \$128,581, and the average wealth of households is about \$429,172. For other household variables, the average household size is 3, while the average number of children in the household is 1. For individual variables, the average hourly wage rate is \$37 for men and \$27 for women. Men work on average 2,202 hours per year, while women work 1,732 hours. In terms of demographics, the average age in our sample is 42 years old for men and 41 years old for women. 71.6 percent of men have some college education (vs. 5.3 percent who have less than high school), while 78.8 percent of women have some college education (vs. 1.9 percent who have less than high school).

4. Econometric strategy

To analyze the effects of inheritances on consumption, we estimate first-difference models to account for individual unobserved heterogeneity, and to study how receiving an inheritance impacts on *changes* in consumption, rather than on the level of consumption. Consequently, we study the impact of inheritances on household consumption growth rate. Specifically, we estimate the following first-difference model using ordinary least squares (OLS), separately for total, durable and nondurable consumption:

¹³ See Appendix Figure A1 for the distribution of the worth of inheritances, conditional on receipt.

$$\Delta \log(y_{it}) = \alpha + \beta_1 inheritance_{it} + \Delta X'_{it}\gamma + Z'_{it-1}\delta + \tau_t + \eta + \varepsilon_{it}, \qquad (1)$$

where subscript *i* denotes households and *t* denotes periods (i.e., survey waves), respectively. $\Delta \log(y_{it})$ is the change in log consumption (household consumption growth rate) for household *i* between period *t* and period t - 1 (either total, durable or nondurable household consumption), and *inheritance_{it}*, the main independent variable, is a dummy variable that takes value 1 if the household *i* received an inheritance the past calendar year, 0 otherwise.¹⁴

 ΔX_{it} is a set of changes in time-varying controls between survey waves, including changes in spouses' log hourly wages, working hours, log of family income, household size and number of children. In addition, we control for some time-variant variables in levels in the period prior to inheriting through Z_{it-1} , and include the first lag for the log of spouses' hourly wages, working hours, log of household wealth, log of family income, household size and number of children.¹⁵ τ_t represents year effects, η represents region (State) fixed effects (we omit a region sub-index for the sake of simplicity), and ε_{it} is the error term. Standard errors are cluster-robust at the household level to address heteroscedasticity and serial correlation at the household level (Cameron and Trivedi, 2022).

The coefficient of interest from Eq. (1) is β_1 , which can be interpreted as the percentage change in household consumption corresponding to the receipt of an inheritance (i.e., the semi-elasticity of consumption to the receipt of an inheritance). According to the PIH, two scenarios emerge. First, if the inheritance is anticipated, it should not generate any change in household consumption (e.g., $\beta_1 = 0$). Conversely, if the inheritance is unanticipated, it should affect consumption behavior ($\beta_1 \neq 0$). Furthermore, intuition points to positive changes in wealth, as is the case of receiving an inheritance, positively affecting consumption ($\beta_1 > 0$), assuming households consume normal goods.

¹⁴ Differences are computed as the value at period t, minus the value at date t - 1, two calendar years as the PSID is biennial.

¹⁵ Given that inheritances are a component of household wealth, we opt to include household wealth prior to inheriting by using the first lag and we drop the first difference of household wealth from the empirical specification. Estimates are robust if we define wealth net of inheritances and include changes in wealth as a control variable. On the other, we avoid another bad control issue by controlling for household income through spouses' labor earnings rather than household disposable income, as the latter is likely to be affected by the receipt of inheritances. Estimates are robust if we only control for past household income (and not its change).

As an additional analysis, we replace the dummy variable *inheritance_{it}* by two dummy variables that account for the inheritance amount and estimate the following first-difference model using OLS:

$$\Delta \log(y_{it}) = \alpha + \beta_1 small_{it} + \beta_2 large_{it} + \Delta X'_{it}\gamma + Z'_{it-1}\delta + \tau_t + \eta + \varepsilon_{it}, \quad (2)$$

where we replace the dummy variable for inheritance receipt, *inheritance_{it}*, by two dummy variables, *small_{it}* and *large_{it}*. *small_{it}* is a dummy variable that takes value 1 for the receipt of small inheritances (worth between \$0-28,789.33) and *large_{it}* is a dummy variable that takes value 1 for the receipt of large inheritances (worth strictly more than \$28,798.33).¹⁶

Coefficients β_1 and β_2 represent the semi-elasticity of household consumption growth rate, for total, durable and nondurable consumption, to the receipt of a small or large inheritance, respectively. According to the PIH, the receipt of a large inheritance can be perceived as a permanent wealth shock and should therefore positively affect household consumption, while no significant effect should be found for the receipt of a small inheritance, which represents a transitory wealth shock. The rest of the specification in Eq. (2) remains identical to Eq. (1), and we also consider no inheritances receipt as the category of reference. Analogously to Eq. (1), we allow for heteroscedasticity and cluster standard errors by household. Hence, in this alternative model we regress the growth rate of household consumption on the receipt of small and large inheritances.

5. **Results**

5.1. Baseline results

Table 2 shows the results from estimating Eq. (1). Column (1) shows estimates on the growth rate of *total* household consumption, while Columns (2) and (3) show analogous results for the consumption of durables and nondurables, respectively. Estimates show that the receipt of an inheritance does not induce any statistically significant change in *total* household consumption growth.

On the other hand, estimates show a positive and statistically significant effect of inheritances on the consumption of durables. Specifically, having received an inheritance

¹⁶ The cutoff of \$28,789.33 is chosen according to the distribution of the inheritance amount, based on the median of its distribution.

increases the consumption of durables by about 15.3 percent, net of observed and unobserved heterogeneity. This represents an increase on durable consumption by \$7,075, on average terms. Regarding household nondurable consumption, Column (3) shows that it is not affected by the receipt of an inheritance.

To sum up, the main results in Table 2 show that inheritances change current consumption behavior of households, as they increase their total consumption, but such increase is driven by the increase in consumption of durable goods immediately after inheriting, while the consumption of nondurables seems unaffected. In other words, households that inherit seem to make certain investments related to vehicles or housing in the year of inheriting. However, the fact that nondurable goods do not seem to be affected by the receipt of a wealth shock fits prior results using a particular subcategory of nondurable consumption such as food (Suari-Andreu, 2023). These results reflect that household consumption of durables is more sensitive to shocks in household wealth than the consumption of nondurables.¹⁷

5.2. Amount inherited

We now estimate Eq. (2), and study if receiving a small (equal or lower than \$28,789.33) or a large (greater than \$28,789.33) inheritance generates a differential impact on household consumption behavior. Table 3 shows the estimates and suggests that the size of the inheritance matters, as it is relatively larger inheritances which significantly affect household consumption behavior, whereas smaller inheritances do not have a statistically significant impact on consumption growth rates.

Specifically, a large inheritance increases the household *total* consumption by 10.5 percent, representing an increase of about \$11,408. That is to say, households tend to spend a significant portion of the inheritance on consumption. In addition, receiving a large inheritance also produces a statistically significant increase in household consumption of durables, and of nondurables. For the consumption of durable goods, receiving an inheritance relates to an increase of about 20.4 percent, corresponding to an average increase of about \$9,434. For nondurables, this increase is about 4.1 percent, which represents an increase of \$2,558, on average. To sum up, household consumption responses depend on the size of the shock, with larger inheritances significantly

¹⁷ Results are robust to the inclusion of stable unmarried couples (Theloudis et al., 2023).

increasing current household consumption in all categories. However, estimates suggest that durables consumption increases by a larger amount, of about \$6,876.¹⁸

5.3. Additional analysis: vehicles and housing

Our results suggest that inheritances increase household consumption of durable goods. This category of household consumption consists of two different household purchases: purchases related to housing and vehicle expenses. We now focus on these two subcategories separately. Estimates of Eqs. (1) and (2) on the household consumption of these two separate categories are shown in Tables 4 and 5, respectively.

Results from Table 4 suggest that inheritance increases the growth of household consumption of durables related to housing and vehicles. Specifically, the receipt of an inheritance increases consumption growth on durables related to housing by 25 percent, while for purchases of durables related to vehicles, we obtain an increase of 37.5 percent due to the receipt of an inheritance. When we disaggregate by inheritance amount in Table 5, we obtain a dichotomy from the impact of small and large inheritances according to the durable item: large inheritances increase household expenditure on housing-related durables by 26.9 percent, while there is no heterogeneity in the consumption of vehicle-related durables according to the size of the inheritance. Consequently, households use large inheritances to make investments on their house, while both small and large inheritances are used to spend on vehicle durables.

5.4. Heterogeneity

In this subsection, we investigate whether the effect of inheritances on household consumption is heterogeneous across the sample, paying attention to the household financial situation, a characteristic that may affect the estimates reported in Tables 2 and 3. Specifically, we show that inheritances increase household consumption growth in durable goods, while large amounts significantly increase aggregate household

¹⁸ Our sample consists of working couples aged 21-65. As detailed in Table A2, this sample criteria significantly reduces our sample size (prior to the participation selection, around 91 percent of men and 80 percent of women work, similar to Blundell et al. (2016) and Theloudis (2021)). Alternatively, we do not impose that sample constraint and run Eq. (1), separately for the dummy variable for inheritances receipt and distinguishing between small and large inheritances. These results are available in Tables A3 and A4 and suggest that large inheritances have a positive effect on total household consumption growth and nondurables consumption growth.

consumption growth, as well as consumption growth for durable and nondurable goods. Nevertheless, households may respond to inheritances differently according to their financial situation.

For household financial situation, the PIH predicts that households change their consumption plans immediately after receiving an unexpected permanent shock in household resources. This economic prediction should be stressed among liquidity constrained households, who are not able to adjust their consumption behavior optimally until they have the economic resources available to spend. Thus, we split our sample into two sub-samples and estimate Eqs. (1) and (2) separately for households with liquidity constraints in the period before the inheritance (i.e., two calendar years prior to inheriting). Specifically, we define as "liquidity constrained households" those whose household aggregate earnings were below the median of the distribution in the period prior to inheriting, and as "non-liquidity constrained households" those whose household earnings were above the median, under the assumption that households with lower income levels are more likely to face liquidity constraints. This allows us to test whether there is any heterogeneity in our main estimates, and whether a specific group has driven our overall estimates.

Results are displayed in Tables 6 and 7 for the two sub-samples and suggest heterogeneity according to the household financial situation prior to inheriting. Specifically, we obtain that inheritances increase durables consumption growth for liquidity constrained households prior to inheriting, while large inheritances only have positive effects on household consumption growth and household consumption growth on durables for liquidity constrained households. Numerically, we find that the receipt of an inheritance increases consumption growth by 25.8 percent for durable goods in households who were liquidity constrained prior to inheriting, while large inheritances increase total consumption growth by 18 percent and household consumption growth on durables by 35.7 percent in liquidity constrained households. The overall result from this heterogeneity analysis is that liquidity constraints explain the consumption response to inheritances.

5.5. Discussion

All in all, our results show that households adapt their consumption plans after inheriting. Specifically, they suggest that households increase their consumption in the year of inheriting, mainly through increasing their purchases of durable goods by about \$7,075. Consequently, heirs become more impatient and make specific investments related to housing and vehicles, so they cannot smooth consumption for durable goods. To the best of our knowledge, this is a novel finding in the literature on consumption responses to wealth shocks and is in stark contrast to prior works, such as Joulfaian and Wilhelm (1994), Suari-Andreu (2023) and Belloc et al. (2023a), who examine food consumption expenditures. However, we go beyond these works by considering the whole picture of household purchases.

Furthermore, we find that the size of the inheritance matters, and recipients of large inheritances increase their consumption expenditure for the three consumption categories here considered, so they cannot be absorbed and generate substantial changes in household consumption. Specifically, we find that large inheritances increase household total expenses by \$11,408, while the consumption of durables and nondurables increases by \$9,434 and \$2,558, respectively.¹⁹ Finally, inheritances may stimulate consumption by relaxing financial constraints, and we find that these effects are mainly driven by households who faced liquidity constraints in the period prior to inheriting. All these findings are qualitatively consistent with standard life-cycle models of consumption and savings behavior, which suggest that consumption responses should be mainly driven by households who faced financial difficulties prior to the wealth shock. In this context, households may perceive large inheritances more permanent than small inheritances, so they are therefore unable to smooth them. By contrast, small wealth shocks have a negligible effect on consumption.

The above positive effects reported for inheritances on household consumption growth rate for durable goods align with prior research on consumption changes due to income shocks related to lottery wins (Kuhn et al., 2011; Fagereng et al., 2021). On the one hand, Kuhn et al. (2011) examine the effect of the Dutch Postcode Lottery and find a positive effect for lottery wins on durable expenditures. On the other, Fagereng et al. (2021) show that lottery prizes on Norway are spent on durable goods such as car or boats, mainly in the year of winning. Our findings are qualitatively similar to theirs, and suggest that ignoring household spending on durable goods, the standard practice in the empirical

¹⁹ The sum is quantitatively similar but not equal to the total increase in aggregate household consumption, since the magnitudes are derived from three different models.

consumption literature (see Kim et al., 2024), omits an important margin of household consumption and leads to biased estimates on consumption responses to shocks on household economic resources.

6. Conclusions

This paper studies the impact of wealth on household consumption behavior. To do so, we use public data from the PSID from 2005 to 2019, a period for which detailed information on household consumption is available. Understanding how consumption responds to changes in wealth is crucial for understanding the transmission of changes in fiscal and monetary policies on household behavior, but the literature so far has mostly focused on consumption responses to income changes, and limited attention has been paid to wealth and its components. Within this framework, we contribute to this literature by examining the impact of inheritances, a significant source of wealth, on household consumption decisions.

Our results suggest that inheritances immediately change household consumption behavior and households increase their consumption expenditures in the year of inheriting. Specifically, we show that inheritances increase household consumption growth in durable goods by 15.3 percent, which represents an expenditure of about \$7,075. When we differentiate among inheritances according to their size, we find that large inheritances increase household consumption growth by 10.5 percent (i.e., an increase of \$11,408). In addition, we also show that large inheritances increase household consumption growth in durable and nondurable goods by 20.4 and 4.1 percent, respectively. Consequently, consumption of durables increases by a larger amount, of about \$6,876. The prior literature regarding inheritances and nondurable goods is mixed, with some showing some effects (Joulfaian and Wilhelm, 1994; Belloc et al., 2023a) and others finding no effects (Suari-Andreu, 2023). However, against all these works that focus on a very restrictive and essential part of households' consumption, we have information from a wide range of household consumption items, beyond household food expenses, and about the size of the inheritance.

A limitation of this paper is that we cannot distinguish between anticipated and unanticipated inheritances, so we cannot provide a test for the validity of the PIH for the whole sample. Despite inheritances being a significant boost to household economic resources, individuals may anticipate their receipt and change their consumption behavior some time before actually receiving the inheritance according to standard life-cycle theories, particularly among those households who are in a strong financial situation. However, it is very hard to identify unpredictable movements in wealth and we cannot address this limitation. The consumption response to inheritances should be larger for households who did not expect the inheritance, and this suggests that our estimated coefficients may be biased downwards.

Future research must use information regarding subjective inheritance expectations to check whether households are forward-looking when making their consumption decisions, preferably through the use of panel datasets, given that the evidence so far is descriptive and based on conditional correlations (Basiglio et al., 2023; Malo and Sciulli, 2023).²⁰ We also suggest for future research to replicate our findings in a long-term setting, to gain additional insights about any persistence behind our estimates through consumption smoothing over time. We cannot provide such an analysis because our variable of interest for inheritance receipt only refers to the receipt of inheritances during the *past calendar year* and does not cover the receipt of inheritances between survey interviews.

Despite these limitations, our findings have important policy implications. To the best of our knowledge, we are the first to display positive statistically significant effects regarding the impact of inheritances on household consumption, using a nationally representative panel dataset that allows us to cover many household consumption items. These results are important, as they suggest that fiscal and monetary policy interventions that target household wealth, through policy interest rates, tax reforms or other redistributive policies, may lead to immediate changes in household consumption behavior. Moreover, these results are important for current policy debates on the design of inheritance taxes, as inheritances can have a large impact on consumption and flow through to the real economy via changes in household wealth, thereby boosting GDP in the short run. Finally, the size of the shock matters and large shocks to wealth are more likely to impact household consumption decisions than small ones.

²⁰ The PSID had information about inheritance expectation in the 1984 survey wave ("*What about future inheritances—are you fairly sure that you (or someone in your family living there) will inherit some money or property in the next ten years?*") but follow-up waves suppressed this question.

References

- Adermon, A., Lindahl, M., & Waldenström, D. (2018). Intergenerational wealth mobility and the role of inheritance: Evidence from multiple generations. *The Economic Journal*, 128(612), F482-F513. <u>https://doi.org/10.1111/ecoj.12535</u>
- Aladangady, A. (2017). Housing wealth and consumption: evidence from geographically linked microdata. *American Economic Review*, 107(11), 3415-3446. <u>https://doi.org/10.1257/aer.20150491</u>
- Andreski, P., Li, G., Samancioglu, M. Z., & Schoeni, R. (2014). Estimates of annual consumption expenditures and its major components in the PSID in comparison to the CE. American Economic Review: Papers & Proceedings, 104(5), 132-135. https://doi.org/10.1257/aer.104.5.132
- Angelucci, M., Chiapa, C., Prina, S., & Rojas, I. (2024). Transitory income changes and consumption smoothing: Evidence from Mexico. *Journal of Public Economics*, 230, 105013. <u>https://doi.org/10.1016/j.jpubeco.2023.105013</u>
- Arellano, M., Blundell, R., & Bonhomme, S. (2017). Earnings and consumption dynamics: a nonlinear panel data framework. *Econometrica*, 85(3), 693-734. <u>https://doi.org/10.3982/ECTA13795</u>
- Arellano, M., Blundell, R., Bonhomme, S., & Light, J. (2024). Heterogeneity of consumption responses to income shocks in the presence of nonlinear persistence.
 Journal of Econometrics, 240(2), 105449.
 <u>https://doi.org/10.1016/j.jeconom.2023.04.001</u>
- Attanasio, O., & Pistaferri, L. (2014). Consumption inequality over the last half century: some evidence using the new PSID consumption measure. *American Economic Review: Papers & Proceedings*, 104(5), 122-126. https://doi.org/10.1257/aer.104.5.122
- Attanasio, O. P., & Pistaferri, L. (2016). Consumption inequality. *Journal of Economic Perspectives*, 30(2), 3-28. <u>https://doi.org/10.1257/jep.30.2.3</u>
- Basiglio, S., Rossi, M. C., & van Soest, A. (2023). Subjective inheritance expectations and economic outcomes. *Review of Income and Wealth*, 69(4), 1088-1113. <u>https://doi.org/10.1111/roiw.12621</u>

- Belloc, I., Molina, J. A., & Velilla, J. (2023a). Household Wealth and Body Mass Index: Towards a Healthy Ageing?. GLO Discussion Paper No. 1354.
- Belloc, I., Molina, J. A., & Velilla, J. (2023b). Unexpected Inheritances and Household Labor Supply: Does the Identity of the Recipient Matter?. IZA DP No. 16620.
- Berger, D., Guerrieri, V., Lorenzoni, G., & Vavra, J. (2018). House prices and consumer spending. *The Review of Economic Studies*, 85(3), 1502-1542. https://doi.org/10.1093/restud/rdx060
- Blundell, R., Pistaferri, L., & Preston, I. (2008). Consumption inequality and partial insurance. *American Economic Review*, 98(5), 1887-1921. https://doi.org/10.1257/aer.98.5.1887
- Blundell, R., Pistaferri, L., & Saporta-Eksten, I. (2016). Consumption inequality and family labor supply. *American Economic Review*, 106(2), 387-435. <u>https://doi.org/10.1257/aer.20121549</u>
- Boserup, S. H., Kopczuk, W., & Kreiner, C. T. (2016). The role of bequests in shaping wealth inequality: evidence from Danish wealth records. *American Economic Review*, 106(5), 656-661. <u>https://doi.org/10.1257/aer.p20161036</u>
- Bredemeier, C., Gravert, J., & Juessen, F. (2023). Accounting for limited commitment between spouses when estimating labor-supply elasticities. *Review of Economic Dynamics*, 51, 547-578. <u>https://doi.org/10.1016/j.red.2023.06.002</u>
- Browning, M., Gørtz, M., & Leth- Petersen, S. (2013). Housing wealth and consumption: a micro panel study. *The Economic Journal*, 123(568), 401-428. <u>https://doi.org/10.1111/ecoj.12017</u>
- Burrows, V. (2018). The impact of house prices on consumption in the UK: A new perspective. *Economica*, 85(337), 92-123. <u>https://doi.org/10.1111/ecca.12237</u>
- Calvi, R., Penglase, J., Tommasi, D., & Wolf, A. (2023). The more the poorer? Resource sharing and scale economies in large families. *Journal of Development Economics*, 160, 102986. <u>https://doi.org/10.1016/j.jdeveco.2022.102986</u>
- Cameron, A.C., & Trivedi, P.K. (2022). Microeconometrics using Stata. Stata press. College Station, Texas.

- Cherchye, L., Demuynck, T., De Rock, B., Kovaleva, M., Minne, G., Perea, M. D. S., & Vermeulen, F. (2023). Poor and wealthy hand-to-mouth households in Belgium. *Review of Economics of the Household*, 1-26. <u>https://doi.org/10.1007/s11150-023-09689-z</u>
- Christelis, D., Georgarakos, D., & Jappelli, T. (2015). Wealth shocks, unemployment shocks and consumption in the wake of the Great Recession. *Journal of Monetary Economics*, 72, 21-41. <u>https://doi.org/10.1016/j.jmoneco.2015.01.003</u>
- Christelis, D., Georgarakos, D., Jappelli, T., Pistaferri, L., & Van Rooij, M. (2019). Asymmetric consumption effects of transitory income shocks. *The Economic Journal*, 129(622), 2322-2341. <u>https://doi.org/10.1093/ej/uez013</u>
- Christelis, D., Georgarakos, D., Jappelli, T., Pistaferri, L., & Van Rooij, M. (2021). Heterogeneous wealth effects. *European Economic Review*, 137, 103805. https://doi.org/10.1016/j.euroecorev.2021.103805
- Cristini, A., & Sevilla, A. (2014). Do House Prices Affect Consumption? A Reassessment of the Wealth Hypothesis. *Economica*, 81(324), 601-625. https://doi.org/10.1111/ecca.12098
- De Rock, B., Potoms, T., & Tommasi, D. (2022). Household responses to cash transfers. *Economic Development and Cultural Change*, 70(2), 625-652. <u>https://doi.org/10.1086/713539</u>
- Disney, R., Gathergood, J., & Henley, A. (2010). House price shocks, negative equity, and household consumption in the United Kingdom. *Journal of the European Economic Association*, 8(6), 1179-1207. <u>https://doi.org/10.1111/j.1542-</u> 4774.2010.tb00552.x
- Druedahl, J., & Martinello, A. (2022). Long-run saving dynamics: Evidence from unexpected inheritances. *Review of Economics and Statistics*, 104(5), 1079-1095. <u>https://doi.org/10.1162/rest_a_01004</u>
- Elinder, M., Erixson, O., & Waldenström, D. (2018). Inheritance and wealth inequality: Evidence from population registers. *Journal of Public Economics*, 165, 17-30. <u>https://doi.org/10.1016/j.jpubeco.2018.06.012</u>

- Fagereng, A., Holm, M. B., & Natvik, G. J. (2021). MPC heterogeneity and household balance sheets. *American Economic Journal: Macroeconomics*, 13(4), 1-54. https://doi.org/10.1257/mac.20190211
- Frémeaux, N., & Leturcq, M. (2020). Inequalities and the individualization of wealth. *Journal of Public Economics*, 184, 104145. <u>https://doi.org/10.1016/j.jpubeco.2020.104145</u>
- Friedman, M. (1957). The permanent income hypothesis. A Theory of the Consumption Function. Princeton University Press, 20-37.
- Fuster, A., Kaplan, G., & Zafar, B. (2021). What would you do with \$500? Spending responses to gains, losses, news, and loans. *The Review of Economic Studies*, 88(4), 1760-1795. https://doi.org/10.1093/restud/rdaa076
- Graham, J., & Makridis, C. A. (2023). House prices and consumption: a new instrumental variables approach. *American Economic Journal: Macroeconomics*, 15(1), 411-443. <u>https://doi.org/10.1257/mac.20200246</u>
- Hryshko, D., & Manovskii, I. (2022). How much consumption insurance in the US?. *Journal of Monetary Economics*, 130, 17-33. https://doi.org/10.1016/j.jmoneco.2022.05.003
- Imbens, G. W., Rubin, D. B., & Sacerdote, B. I. (2001). Estimating the effect of unearned income on labor earnings, savings, and consumption: Evidence from a survey of lottery players. *American Economic Review*, 91(4), 778-794. <u>https://doi.org/10.1257/aer.91.4.778</u>
- Jappelli, T., & Pistaferri, L. (2014). Fiscal policy and MPC heterogeneity. American Economic Journal: Macroeconomics, 6(4), 107-136. https://doi.org/10.1257/mac.6.4.107
- Jappelli, T., & Pistaferri, L. (2020). Reported MPC and unobserved heterogeneity. *American Economic Journal: Economic Policy*, 12(4), 275-297. https://doi.org/10.1257/pol.20180420
- Joulfaian, D., & Wilhelm, M. O. (1994). Inheritance and labor supply. *Journal of Human Resources*, 1205-1234. <u>https://doi.org/10.2307/146138</u>

- Kim, H. Y., Molina, J. A., & Wong, K. G. (2024). Durable goods and consumer behavior with liquidity constraints. *The Scandinavian Journal of Economics*, 126(1), 155-193. https://doi.org/10.1111/sjoe.12546
- Kuhn, P., Kooreman, P., Soetevent, A., & Kapteyn, A. (2011). The effects of lottery prizes on winners and their neighbors: Evidence from the Dutch postcode lottery. *American Economic Review*, 101(5), 2226-2247. https://doi.org/10.1257/aer.101.5.2226
- Kukk, M., Kulikov, D., & Staehr, K. (2016). Estimating consumption responses to income shocks of different persistence using self- reported income measures. *Review* of Income and Wealth, 62(2), 311-333. <u>https://doi.org/10.1111/roiw.12163</u>
- Lee, S. (2023). House prices, homeownership, and household consumption: Evidence from household panel data in Korea. *Economic Modelling*, 126, 106355. https://doi.org/10.1016/j.econmod.2023.106355
- Li, G., Schoeni, R. F., Danziger, S., & Charles, K. K. (2010). New Expenditure Data in the PSID: Comparisons with the CE. *Monthly Lab. Rev.*, 133, 29.
- Madera, R. (2019). The Consumption Response to Tail Earnings Shocks. *Job Market Paper*.
- Malo, M. A., & Sciulli, D. (2023). Expected wealth transfers and consumption across the wealth distribution in Europe. *Economic Modelling*, 126, 106416. <u>https://doi.org/10.1016/j.econmod.2023.106416</u>
- Mazzocco, M. (2007). Household intertemporal behaviour: A collective characterization and a test of commitment. *The Review of Economic Studies*, 74(3), 857-895. https://doi.org/10.1111/j.1467-937X.2007.00447.x
- Meghir, C., & Pistaferri (2011). Earnings, Consumption and Life Cycle Choices. Handbook of Labor Economics, 4(B), 773-854. <u>https://doi.org/10.1016/S0169-</u> <u>7218(11)02407-5</u>
- Meriküll, J., Kukk, M., & Rõõm, T. (2021). What explains the gender gap in wealth? Evidence from administrative data. *Review of Economics of the Household*, 19, 501-547. <u>https://doi.org/10.1007/s11150-020-09522-x</u>

- Modigliani, F., & Brumberg, R. H. (1954). Utility analysis and the consumption function: an interpretation of cross-sectional data. In: Post Keynesian Economics, Kurihara, K. K. (ed). New Brunswick, NJ: Rutgers University Press, 388–436.
- Nekoei, A., & Seim, D. (2023). How do inheritances shape wealth inequality? Theory and evidence from Sweden. *The Review of Economic Studies*, 90(1), 463-498. https://doi.org/10.1093/restud/rdac016
- Niimi, Y., & Horioka, C. Y. (2018). The impact of intergenerational transfers on wealth inequality in Japan and the United States. *The World Economy*, 41(8), 2042-2066. <u>https://doi.org/10.1111/twec.12544</u>
- Paiella, M., & Pistaferri, L. (2017). Decomposing the wealth effect on consumption. *Review of Economics and Statistics*, 99(4), 710-721. <u>https://doi.org/10.1162/REST a 00629</u>
- Pistaferri, L. (2015). Household consumption: Research questions, measurement issues, and data collection strategies. *Journal of Economic and Social Measurement*, 40(1-4), 123-149. <u>https://doi.org/10.3233/JEM-150401</u>
- PSID (2021). Main Interview User Manual: Release 2023. Institute for Social Research, University of Michigan, June, 2023. https://psidonline.isr.umich.edu/data/Documentation/UserGuide2021.pdf
- Salas-Rojo, P., & Rodríguez, J. G. (2022). Inheritances and wealth inequality: a machine learning approach. *The Journal of Economic Inequality*, 20(1), 27-51. https://doi.org/10.1007/s10888-022-09528-8
- Stark, O., & Nicinska, A. (2015). How inheriting affects bequest plans. *Economica*, 82, 1126-1152. <u>https://doi.org/10.1111/ecca.12164</u>
- Suari-Andreu, E. (2021). Housing and household consumption: An investigation of the wealth and collateral effects. *Journal of Housing Economics*, 54, 101786. <u>https://doi.org/10.1016/j.jhe.2021.101786</u>
- Suari-Andreu, E. (2023). Labour supply, retirement, and consumption responses of older Europeans to inheritance receipt. *Empirical Economics*, 64(1), 33-75. https://doi.org/10.1007/s00181-022-02242-4
- Theloudis, A. (2021). Consumption inequality across heterogeneous families. *European Economic Review*, 136, 103765. <u>https://doi.org/10.1016/j.euroecorev.2021.103765</u>

- Theloudis, A., Velilla, J., Chiappori, P. A., Gimenez-Nadal, J. I., & Molina, J. A. (2023). Commitment and the Dynamics of Household Labor Supply. arXiv preprint arxiv:2307.10983. <u>https://doi.org/10.48550/arXiv.2307.10983</u>
- Trivin, P. (2022). The wealth-consumption channel: evidence from a panel of Spanish households. *Review of Economics of the Household*, 20(4), 1377-1428. https://doi.org/10.1007/s11150-021-09586-3
- van Leeuwen, B., Alessie, R., & de Bresser, J. (2021). Household composition and preferences: A collective approach to household consumption. *Review of Income and Wealth*, 67(3), 591-615. <u>https://doi.org/10.1111/roiw.12483</u>
- Wei, H., & Yang, Z. (2022). The impact of inheritance on the distribution of wealth: evidence from China. *Review of Income and Wealth*, 68(1), 234-262. https://doi.org/10.1111/roiw.12513

| Table 1. Su | nmary statis | stics | | |
|--|--------------|------------|-------------|-----------|
| | | Mean | Std. Dev. | |
| Consumption | | | | |
| Total consumption (/1,000) | | 108.648 | 141.318 | |
| Nondurable consumption (/1,000) | | 62.402 | 34.146 | |
| - % food | | 0.197 | 0.079 | |
| Durable consumption (1,000) | | 46.246 | 134.115 | |
| - % housing consumption | | 0.570 | 0.304 | |
| - % vehicle consumption | | 0.430 | 0.304 | |
| Inheritances | | | | |
| Inheritance receipt | | 0.027 | 0.163 | |
| Value of inheritance | | 2,037.786 | 26,762.730 | |
| Value of inheritance, conditional on receipt | | 74,427.730 | 144,332.900 | |
| Household income, assets and composition | | | | |
| Household income (/1,000) | | 128.581 | 129.982 | |
| Household wealth (/1,000) | | 429.172 | 1,454.506 | |
| Household size | | 3.256 | 1.198 | |
| Number of children | | 1.051 | 1.158 | |
| | | Male | Fem | ale |
| | Mean | Std. Dev. | Mean | Std. Dev. |
| Individual demographics | | | | |
| Hourly wage rate | 37.604 | 69.772 | 27.826 | 30.045 |
| Hours of work (/1,000) | 2.202 | 0.637 | 1.732 | 0.680 |
| Age | 42.692 | 10.861 | 41.055 | 10.703 |
| Less than high school | 0.053 | 0.223 | 0.019 | 0.137 |
| High school | 0.231 | 0.422 | 0.193 | 0.395 |
| Some college | 0.716 | 0.451 | 0.788 | 0.409 |
| White | 0.886 | 0.318 | 0.903 | 0.296 |
| Black | 0.041 | 0.198 | 0.035 | 0.183 |
| Other ethnicity | 0.074 | 0.261 | 0.062 | 0.242 |
| Total observations (households X years) | 12,272 | | | |
| Number of households | 2,796 | | | |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. All monetary values are converted to 2018 US dollars. Differences in individual characteristics between males and females are statistically significant at standard levels of significance based on a *t*-test for the comparison of sample means.

| Table 2. Household consumption first-difference estimates, inheritance receipt | | | | |
|--|---|---|---|--|
| Dependent variable: | $\Delta \log(\text{total consumption})$ | $\Delta \log(\text{durable consumption})$ | $\Delta \log(nondurable \ consumption)$ | |
| | | | | |
| Inheritance receipt | 0.040 | 0.153** | 0.012 | |
| | (0.036) | (0.073) | (0.016) | |
| Δ (male hourly wage) | -0.003 | 0.007 | -0.010 | |
| | (0.015) | (0.045) | (0.010) | |
| Past male hourly wage | -0.003 | 0.056 | 0.001 | |
| | (0.015) | (0.044) | (0.008) | |
| Δ (female hourly wage) | 0.016 | 0.049 | 0.002 | |
| | (0.015) | (0.034) | (0.008) | |
| Past female hourly wage | 0.014 | 0.040 | 0.003 | |
| | (0.012) | (0.028) | (0.006) | |
| Δ (male work hours) | 0.014 | 0.027 | -0.001 | |
| | (0.018) | (0.048) | (0.010) | |
| Past male work hours | 0.012 | 0.032 | 0.006 | |
| | (0.016) | (0.036) | (0.008) | |
| Δ (female work hours) | 0.019 | 0.018 | 0.005 | |
| | (0.013) | (0.029) | (0.006) | |
| Past female work hours | 0.005 | 0.020 | 0.001 | |
| | (0.011) | (0.023) | (0.005) | |
| Δ (household income) | 0.087** | 0.099 | 0.076*** | |
| | (0.034) | (0.086) | (0.019) | |
| Past household income | -0.007 | -0.090 | -0.007 | |
| | (0.023) | (0.065) | (0.012) | |
| Past household wealth | -0.003*** | -0.009*** | -0.001* | |
| | (0.001) | (0.002) | (0.000) | |
| Δ (household size) | 0.104*** | 0.164*** | 0.061*** | |
| | (0.015) | (0.028) | (0.007) | |
| Past household size | -0.001 | 0.001 | -0.009** | |
| | (0.010) | (0.019) | (0.005) | |
| Δ (number of children) | -0.048*** | -0.065** | -0.025*** | |
| | (0.013) | (0.027) | (0.007) | |
| Past number of children | 0.007 | -0.007 | 0.023*** | |
| | (0.010) | (0.019) | (0.005) | |
| Constant | 0.029 | 0.423 | 0.163 | |
| | (0.180) | (0.418) | (0.129) | |
| State fixed effects | Yes | Yes | Yes | |
| Year fixed effects | Yes | Yes | Yes | |
| Observations | 9,322 | 9,322 | 9,322 | |
| Households | 2,796 | 2,796 | 2,796 | |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

| Table 3. Household consumption first-difference estimates, inheritance amount | | | | |
|---|---|---|--|--|
| Dependent variable: | $\Delta \log(\text{total consumption})$ | $\Delta \log(\text{durable consumption})$ | $\Delta \log(\text{nondurable consumption})$ | |
| | | | | |
| Small inheritance | -0.034 | 0.094 | -0.020 | |
| | (0.048) | (0.103) | (0.025) | |
| Large inheritance | 0.105** | 0.204** | 0.041** | |
| | (0.051) | (0.103) | (0.020) | |
| Δ (male hourly wage) | -0.003 | 0.007 | -0.010 | |
| | (0.015) | (0.045) | (0.010) | |
| Past male hourly wage | -0.003 | 0.056 | 0.001 | |
| | (0.015) | (0.044) | (0.008) | |
| Δ (female hourly wage) | 0.016 | 0.049 | 0.001 | |
| | (0.015) | (0.034) | (0.008) | |
| Past female hourly wage | 0.014 | 0.040 | 0.003 | |
| | (0.012) | (0.028) | (0.006) | |
| Δ (male work hours) | 0.014 | 0.027 | -0.001 | |
| | (0.018) | (0.048) | (0.010) | |
| Past male work hours | 0.012 | 0.032 | 0.006 | |
| | (0.016) | (0.036) | (0.008) | |
| Δ (female work hours) | 0.019 | 0.018 | 0.005 | |
| | (0.013) | (0.029) | (0.006) | |
| Past female work hours | 0.005 | 0.020 | 0.001 | |
| | (0.011) | (0.023) | (0.005) | |
| Δ (household income) | 0.088** | 0.099 | 0.076*** | |
| | (0.034) | (0.086) | (0.019) | |
| Past household income | -0.007 | -0.090 | -0.007 | |
| | (0.023) | (0.065) | (0.012) | |
| Past household wealth | -0.003*** | -0.010*** | -0.001* | |
| | (0.001) | (0.002) | (0.000) | |
| Δ (household size) | 0.104*** | 0.164*** | 0.061*** | |
| | (0.015) | (0.028) | (0.007) | |
| Past household size | -0.001 | 0.000 | -0.010** | |
| | (0.010) | (0.019) | (0.005) | |
| Δ (number of children) | -0.048*** | -0.065** | -0.025*** | |
| | (0.013) | (0.027) | (0.007) | |
| Past number of children | 0.007 | -0.006 | 0.023*** | |
| | (0.010) | (0.019) | (0.005) | |
| Constant | 0.035 | 0.428 | 0.166 | |
| | (0.180) | (0.418) | (0.129) | |
| State fixed effects | Yes | Yes | Yes | |
| Year fixed effects | Yes | Yes | Yes | |
| Observations | 9,322 | 9,322 | 9,322 | |
| Households | 2,796 | 2,796 | 2,796 | |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

| Dependent variable: | $\Delta \log(housing durable)$ | $\Delta \log(\text{vehicle durable})$ |
|-------------------------------|--------------------------------|---------------------------------------|
| * | | |
| Inheritance receipt | 0.250*** | 0.375*** |
| - | (0.096) | (0.122) |
| Δ (male hourly wage) | -0.039 | 0.045 |
| | (0.050) | (0.055) |
| Past male hourly wage | 0.015 | 0.000 |
| | (0.050) | (0.052) |
| Δ (female hourly wage) | 0.010 | 0.096** |
| | (0.044) | (0.046) |
| Past female hourly wage | -0.004 | 0.051 |
| | (0.033) | (0.039) |
| Δ (male work hours) | 0.023 | 0.086 |
| | (0.052) | (0.071) |
| Past male work hours | 0.069 | 0.071 |
| | (0.045) | (0.060) |
| Δ (female work hours) | -0.013 | 0.067* |
| | (0.037) | (0.038) |
| Past female work hours | 0.031 | 0.021 |
| | (0.028) | (0.035) |
| Δ (household income) | 0.201** | -0.014 |
| | (0.088) | (0.101) |
| Past household income | -0.072 | -0.044 |
| | (0.073) | (0.081) |
| Past household wealth | -0.010*** | -0.003 |
| | (0.003) | (0.002) |
| Δ (household size) | 0.036 | 0.215*** |
| | (0.029) | (0.045) |
| Past household size | -0.046** | 0.007 |
| | (0.021) | (0.028) |
| Δ (number of children) | -0.006 | -0.117*** |
| | (0.031) | (0.042) |
| Past number of children | 0.021 | 0.009 |
| | (0.021) | (0.028) |
| Constant | -0.243 | 0.442 |
| | (0.657) | (1.073) |
| State fixed effects | Yes | Yes |
| Year fixed effects | Yes | Yes |
| Observations | 7,220 | 7,220 |
| Households | 2,485 | 2,485 |

Table 4. Durable household consumption first-difference estimates, inheritance receipt

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. The different sample size is due to missing and zero expenses on housing and vehicles. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

| Table 5. Durable household consumption first-difference estimates, inheritance amount | | | | |
|---|---------------------------------------|---------------------------------------|--|--|
| Dependent variable: | $\Delta \log(\text{housing durable})$ | $\Delta \log(\text{vehicle durable})$ | | |
| | | | | |
| Small inheritance | 0.228 | 0.431** | | |
| | (0.148) | (0.172) | | |
| Large inheritance | 0.269** | 0.328** | | |
| | (0.133) | (0.167) | | |
| Δ (male hourly wage) | -0.039 | 0.045 | | |
| | (0.050) | (0.055) | | |
| Past male hourly wage | 0.015 | 0.001 | | |
| | (0.050) | (0.052) | | |
| Δ (female hourly wage) | 0.010 | 0.096** | | |
| | (0.044) | (0.046) | | |
| Past female hourly wage | -0.004 | 0.051 | | |
| | (0.033) | (0.039) | | |
| Δ (male work hours) | 0.023 | 0.086 | | |
| | (0.052) | (0.071) | | |
| Past male work hours | 0.069 | 0.071 | | |
| | (0.045) | (0.060) | | |
| Δ (female work hours) | -0.013 | 0.067* | | |
| | (0.037) | (0.038) | | |
| Past female work hours | 0.031 | 0.021 | | |
| | (0.028) | (0.035) | | |
| Δ (household income) | 0.201** | -0.014 | | |
| | (0.088) | (0.101) | | |
| Past household income | -0.072 | -0.044 | | |
| | (0.073) | (0.081) | | |
| Past household wealth | -0.010*** | -0.003 | | |
| | (0.003) | (0.002) | | |
| Δ (household size) | 0.036 | 0.215*** | | |
| | (0.029) | (0.045) | | |
| Past household size | -0.046** | 0.007 | | |
| | (0.021) | (0.028) | | |
| Δ (number of children) | -0.006 | -0.118*** | | |
| | (0.031) | (0.042) | | |
| Past number of children | 0.021 | 0.008 | | |
| | (0.021) | (0.028) | | |
| Constant | -0.242 | 0.441 | | |
| | (0.657) | (1.073) | | |
| State fixed effects | Yes | Yes | | |
| Year fixed effects | Yes | Yes | | |
| Observations | 7,220 | 7,220 | | |
| Households | 2,485 | 2.485 | | |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. The different sample size is due to missing and zero expenses on housing and vehicles. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

| | Household liquidity constrained prior to inheriting | | Household | Household non-liquidity constrained prior to inheriting | | |
|---------------------|---|-----------------------|---------------------------|---|-----------------------|---------------------------|
| _ | $\Delta \log(total$ | $\Delta \log(durable$ | $\Delta \log(nondurable)$ | $\Delta \log(total$ | $\Delta \log(durable$ | $\Delta \log(nondurable)$ |
| Dependent variable: | consumption) | consumption) | consumption) | consumption) | consumption) | consumption) |
| | | | | | | |
| Inheritance receipt | 0.030 | 0.258** | -0.003 | 0.042 | 0.060 | 0.024 |
| - | (0.061) | (0.125) | (0.027) | (0.042) | (0.088) | (0.020) |
| | | | | | | |
| Observations | 4,661 | 4,661 | 4,661 | 4,661 | 4,661 | 4,661 |
| Households | 1,843 | 1,843 | 1,843 | 1,618 | 1,618 | 1,618 |

Table 6. Heterogeneity analysis by household financial situation prior to inheriting: Household consumption first-difference estimates, inheritance receipt

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. Estimates also include first-difference in time-varying controls, the first lag of time-varying controls (including household wealth), and state and year fixed effects, but are not shown for brevity. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

| | Household liquidity constrained prior to inheriting | | Household | Household non-liquidity constrained prior to inheriting | | |
|---------------------|---|------------------------|--------------------------|---|------------------------|---------------------------|
| _ | $\Delta \log(total$ | $\Delta \log(durable)$ | $\Delta \log(nondurable$ | $\Delta \log(total$ | $\Delta \log(durable)$ | $\Delta \log(nondurable)$ |
| Dependent variable: | consumption) | consumption) | consumption) | consumption) | consumption) | consumption) |
| | | | | | | |
| Small inheritance | -0.123 | 0.158 | -0.051 | 0.044 | 0.048 | 0.007 |
| | (0.091) | (0.175) | (0.040) | (0.035) | (0.120) | (0.030) |
| Large inheritance | 0.180** | 0.357** | 0.044 | 0.040 | 0.070 | 0.039 |
| | (0.074) | (0.173) | (0.035) | (0.068) | (0.127) | (0.024) |
| Observations | 4,661 | 4,661 | 4,661 | 4,661 | 4,661 | 4,661 |
| Households | 1,843 | 1,843 | 1,843 | 1,618 | 1,618 | 1,618 |

Table 7. Heterogeneity analysis by financial situation prior to inheriting: Household consumption first-difference estimates, inheritance amount

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods. Estimates also include first-difference in time-varying controls, the first lag of time-varying controls (including household wealth), and state and year fixed effects, but are not shown for brevity. Robust standard errors, clustered at the household level, are reported in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01.

SUPPLEMENTARY MATERIAL

| | Observations remaining |
|--|------------------------|
| Starting with | 93,400 |
| No SEO, immigrant sample | 57,657 |
| Married couples headed by a male | 31,573 |
| Stable couples (i.e., no composition changes in head or head's spouse) | 30,978 |
| Spouses aged 21-65 | 26,330 |
| Missing data and zero consumption categories | 18,085 |
| Working couples | 13,539 |
| Two consecutive periods per household | 12,272 |
| Notes: Table lists the number of household-year observations. | |

Table A1. Sample selection

| | Table A2. Summary of consumption categories and items considered |
|------------|---|
| Category | Consumption items |
| Nondurable | Cost of food at home (with or without food stamps), cost of delivered food (with or without food stamps), cost of food eaten out (with or without food stamps), cost of clothing, cost of trips and vacations, cost of other recreation and entertainment, property taxes, home insurance, rent for renters, rent equivalent for homeowners and people in other housing arrangements, heating fuel expense, electricity expense, water and sewer expense, telephone expense, other utility expenses, health insurance premiums, hospital bills, doctor bills, prescriptions, car insurance expense, gasoline expenses, parking expenses, bus and train fares, taxicabs, other transportation costs, total school expenses, child care costs |
| Durable | Cost of home repairs, household furnishings, mortgage payments, vehicle loan payments, cash downpayments, outlays for leases, lease payments, other car payments, car repairs expenses |



Figure A1. Distribution of the worth of inheritances, 2005-2019

Note: The figure shows the distribution of the worth of inheritances, conditional on receipt, denoted in thousands 2018 US dollars. Each bin is 10,000 US dollars wide. Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) working couples aged 21-65 followed for at least two consecutive periods.

Table A3. Robustness check including non-working households: Household consumption first-difference estimates, inheritance

| | | receipt | |
|-------------------------------|---|---|---|
| Dependent variable: | $\Delta \log(\text{total consumption})$ | $\Delta \log(\text{durable consumption})$ | $\Delta \log(nondurable \ consumption)$ |
| | | | |
| Inheritance receipt | 0.025 | 0.064 | 0.017 |
| | (0.030) | (0.066) | (0.013) |
| Δ (male hourly wage) | 0.028*** | 0.043** | 0.016*** |
| | (0.009) | (0.022) | (0.005) |
| Past male hourly wage | 0.006 | 0.028* | 0.000 |
| | (0.006) | (0.015) | (0.003) |
| Δ (female hourly wage) | 0.008 | 0.031 | 0.003 |
| | (0.010) | (0.022) | (0.005) |
| Past female hourly wage | 0.012* | 0.009 | 0.004 |
| | (0.007) | (0.015) | (0.004) |
| Δ (male work hours) | -0.005 | 0.005 | -0.001 |
| | (0.005) | (0.011) | (0.003) |
| Past male work hours | 0.004 | 0.007 | 0.001 |
| | (0.004) | (0.008) | (0.002) |
| Δ (female work hours) | 0.008* | 0.012 | 0.002 |
| | (0.004) | (0.010) | (0.002) |
| Past female work hours | -0.003 | 0.006 | -0.001 |
| | (0.003) | (0.007) | (0.002) |
| Δ (household income) | -0.004 | -0.018 | 0.001 |
| | (0.005) | (0.014) | (0.003) |
| Past household income | -0.006* | -0.020** | -0.000 |
| | (0.003) | (0.008) | (0.002) |
| Past household wealth | -0.002*** | -0.008*** | -0.001** |
| | (0.001) | (0.002) | (0.000) |
| Δ (household size) | 0.084*** | 0.127*** | 0.054*** |
| | (0.013) | (0.026) | (0.006) |
| Past household size | -0.008 | -0.005 | -0.013*** |
| | (0.009) | (0.018) | (0.004) |
| Δ (number of children) | -0.031*** | -0.027 | -0.017** |
| | (0.012) | (0.026) | (0.007) |
| Past number of children | 0.016* | 0.007 | 0.027*** |
| | (0.009) | (0.018) | (0.004) |
| Constant | -0.930 | -2.230** | 0.295** |
| | (0.841) | (0.971) | (0.118) |
| State fixed effects | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes |
| Observations | 13,604 | 13,604 | 13,604 |
| Households | 3,478 | 3,478 | 3,478 |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) couples aged 21-65 followed for at least two consecutive periods. Robust standard errors, clustered at the household level, are reported in parentheses. We assign value 0 for the log of spouses' hourly wage rates, working hours and household income for those who do not declare positive amounts. * p < 0.1, ** p < 0.05, *** p < 0.01.

Table A4. Robustness check including non-working households: Household consumption first-difference estimates, inheritance

| | | amount | |
|-------------------------------|---|---|---|
| Dependent variable: | $\Delta \log(\text{total consumption})$ | $\Delta \log(\text{durable consumption})$ | $\Delta \log(nondurable \ consumption)$ |
| | 0.045 | 0.005 | 0.007 |
| Small inheritance | -0.045 | -0.005 | -0.006 |
| | (0.039) | (0.093) | (0.019) |
| Large inheritance | 0.087** | 0.125 | 0.038** |
| | (0.044) | (0.092) | (0.017) |
| Δ (male hourly wage) | 0.028*** | 0.042* | 0.016*** |
| | (0.009) | (0.022) | (0.005) |
| Past male hourly wage | 0.006 | 0.028* | 0.000 |
| | (0.006) | (0.015) | (0.003) |
| Δ (female hourly wage) | 0.008 | 0.031 | 0.003 |
| | (0.010) | (0.022) | (0.005) |
| Past female hourly wage | 0.012 | 0.009 | 0.004 |
| | (0.007) | (0.015) | (0.004) |
| Δ (male work hours) | -0.005 | 0.005 | -0.001 |
| | (0.005) | (0.011) | (0.003) |
| Past male work hours | 0.004 | 0.007 | 0.001 |
| | (0.004) | (0.008) | (0.002) |
| Δ (female work hours) | 0.007* | 0.011 | 0.002 |
| | (0.004) | (0.010) | (0.002) |
| Past female work hours | -0.003 | 0.006 | -0.001 |
| | (0.003) | (0.007) | (0.002) |
| Δ (household income) | -0.004 | -0.018 | 0.001 |
| | (0.005) | (0.014) | (0.003) |
| Past household income | -0.007* | -0.020** | -0.000 |
| | (0.003) | (0.008) | (0.002) |
| Past household wealth | -0.002*** | -0.008*** | -0.001** |
| | (0.001) | (0.002) | (0.000) |
| Δ (household size) | 0.084*** | 0.127*** | 0.054*** |
| | (0.013) | (0.026) | (0.007) |
| Past household size | -0.008 | -0.006 | -0.013*** |
| | (0.009) | (0.018) | (0.004) |
| Δ (number of children) | -0.031*** | -0.027 | -0.017** |
| (| (0.012) | (0.026) | (0.007) |
| Past number of children | 0.017* | 0.008 | 0.027*** |
| | (0.009) | (0.018) | (0.004) |
| Constant | -0.928 | -2.228** | 0.295** |
| | (0.842) | (0.971) | (0.118) |
| State fixed effects | Yes | Yes | Yes |
| Year fixed effects | Yes | Yes | Yes |
| Observations | 13,604 | 13,604 | 13,604 |
| Households | 3,478 | 3,478 | 3,478 |

Notes: Data come from the Panel Study of Income Dynamics (PSID), 2005-2019. Sample is restricted to married (heterosexual) couples aged 21-65 followed for at least two consecutive periods. Robust standard errors, clustered at the household level, are reported in parentheses. We assign value 0 for the log of spouses' hourly wage rates, working hours and household income for those who do not declare positive amounts. * p < 0.1, ** p < 0.05, *** p < 0.01.