Cognitive Decline and Mental Health: The Effect on Household Finances

Greta Pesaresi*†

University of Padova

Abstract

Building on the findings of Mazzonna and Peracchi (2024), which indicate that American respondents experiencing a severe cognitive decline, but unaware of it, are more likely to suffer wealth losses, this study examines whether similar effects are present in Europe using SHARE data. Our analysis reveals that European respondents with severe memory loss experience higher net wealth losses, irrespective of their awareness. We also find that severe cognitive decline significantly reduces the ability to pay for unexpected expenses. Additionally, individuals with a pessimistic view of their cognitive health are more likely to encounter difficulties in making ends meet and to receive informal financial support. We further explore the mental health component, discovering that depression exacerbates these outcomes. These findings highlight the complex relationship between cognitive decline, mental health, and financial stability, emphasizing the need for specialized support for cognitively and mentally fragile individuals.

*Email: greta.pesaresi@phd.unipd.it. ORCID: 0000-0002-4970-1102

†This work is part of my Ph.D. dissertation, under the supervision of prof. Guglielmo Weber and prof. Chiara Dal Bianco.

Introduction

As developed economies witness a rising proportion of older adults within their populations, the incidence of cognitive impairments, including dementia, is expected to rise significantly. These cognitive impairments severely affect individuals' ability to perform daily activities and make sound decisions, leading to substantial economic consequences for both the individuals affected and their families. The increasing prevalence of cognitive decline among the elderly not only poses a public health challenge but it also raises important questions about financial stability and economic well-being. Investigating the impact of cognitive impairments on financial outcomes is therefore crucial, as it can inform policymakers to develop targeted interventions and support systems to help individuals maintain financial stability despite cognitive decline, with the aim to mitigate the economic risks associated with aging populations and cognitive health issues.

Building on Mazzonna and Peracchi (2024), which focuses on American respondents using data from the Health and Retirement Study (HRS) and a two-year time horizon, in this study we examine the financial implications of cognitive decline in a European context. Our analysis introduces three key extensions. First, we use data from the Survey on Health, Ageing and Retirement in Europe (SHARE), a representative panel of the European population aged 50 and above, covering 28 countries. This survey collects harmonized information on demographics, physical and mental health, cognitive abilities, employment, income, and wealth. Second, we consider a longer time horizon, employing an eight-year time framework. Specifically, we analyze a balanced panel of respondents who participated in wave 5 (2013) and wave 9 (2021–2022). Lastly, we adopt a refined definition of severe memory loss, defining it as a decline of 30% or more in the memory test score over this longer period, instead of the 20% threshold used for two-year intervals (Celidoni et al., 2017; Mazzonna and Peracchi, 2024).

Our study reveals that European respondents with severe cognitive decline face higher net wealth losses and a reduced ability to pay unexpected expenses over eight years, regardless of their awareness of the decline. This finding contrasts with the results of Mazzonna and Peracchi (2024), who found that, over a two-year time framework, individuals unaware of their cognitive decline experienced greater wealth losses than those who were aware. While bad financial decisions or financial fraud remain potential explanations, another plausible explanation that we cannot rule out is rational disinvestment, where family members may strategically adjust finances to mitigate potential losses. Next, we extend our framework to address two additional questions: how cognition and its awareness affect the perception of money management, and whether cognitively frail individuals receive informal financial support from relatives or friends. We find that individuals pessimistic about their cognitive health are more likely to report difficulties with making ends meet and to receive

informal financial support. This suggests that a negative attitude towards one's mental abilities negatively impacts the perception of financial stability and may lead individuals to complain more to their family or explicitly ask for financial help. Investigating these results further, we analyze the role played by the mental health component, using depression as a proxy for a negative attitude. We find that depression exacerbates the financial difficulties associated with cognitive decline, creating a compounded negative effect when combined with objective memory loss. Finally, we conduct a comparative analysis of Europeans and Americans using data from the Health and Retirement Study (HRS) to better understand whether our findings are due to regional differences or differences in time horizons. We first replicate Mazzonna and Peracchi's work using SHARE data over a two-year period, and then we apply our extended framework to HRS data. In the short term, respondents with severe cognitive decline who are unaware of it suffer higher wealth losses compared to those who are aware. Conversely, over the long term, respondents with severe cognitive decline exhibit significant wealth reductions, regardless of awareness. These findings hold consistently for both European and American respondents, suggesting that Europeans and Americans exhibit similar patterns over the same time horizons.

Our paper contributes to the extensive literature on the economic aspects of cognitive deterioration. Given the wide spectrum of cognitive decline, from normal age-related decline to severe impairments that affect basic daily activities, it is increasingly important to assess its consequences on financial decision-making and well-being. Over the past decades, numerous studies have investigated the relationship between cognitive decline and retirement, with mixed findings. While Coe and Zamarro (2011) did not find significant negative correlations, Bonsang et al. (2012), Mazzonna and Peracchi (2012), and Celidoni et al. (2017) concluded that retirement has a detrimental effect on cognitive abilities, particularly in the long run. Other studies have examined the relationship between cognitive abilities and financial decision-making. Christelis, Jappelli, and Padula (2010) show that higher cognitive abilities are associated with riskier portfolio choices, while Bonsang and Dohmen (2015) found a negative relationship between cognitive aging and risk aversion. Additionally, research has explored cognitive abilities in relation to household dynamics. Hsu and Willis (2013) found that individuals who are aware of their cognitive decline tend to transfer financial responsibilities to a cognitively intact spouse, and Angrisani and Lee (2019) studied how changes in cognitive health over time affect an individual's financial responsibility within the couple and the household's wealth trajectory.

The remainder of this paper is organized as follows. Section 1 presents the data and some descriptive statistics. Section 2 describes the empirical strategy and our results. Section 3 compares European and American respondents over the short and long term period. Section 4 presents robustness analysis. Section 5 concludes.

1 Data

This study uses data from the Survey of Health, Aging, and Retirement in Europe (SHARE). SHARE started in 2004 with eleven countries, representing different regions of continental Europe, from Scandinavia (Denmark, Sweden) through Central Europe (Austria, Belgium, France, Germany, the Netherlands, and Switzerland) to Mediterranean countries (Greece, Italy, and Spain). Over the years, several countries have joined, and now the SHARE dataset includes 27 European countries, plus Israel. Data are collected every two years by Computer-Assisted Personal Interviewing (CAPI) questionnaires that are ex-ante harmonized and allow cross-country comparisons of respondents' answers.

The survey gathers information regarding the health, wealth, working situation, retirement, and socioeconomic status of individuals aged 50 and above and of their partners, regardless of age. There are currently nine waves available. Among these, waves 3 and 7 are retrospective and focus on an individual's life history, in contrast with regular waves that collect information about an individual's current situation. In addition to these nine waves, during the COVID-19 pandemic, one additional survey, the SHARE Corona Survey, was fielded in two rounds to follow SHARE respondents during the pandemic. Finally, in 2022, SHARE administered a sub-study to a subsample of respondents in five SHARE countries: the SHARE-HCAP study. This project focuses on cognition and the detection of mild-to-severe cognitive impairment.

1.1 Sample selection

We focus on respondents who participated in wave 5 and wave 9, collected in 2013 and 2021/2022, respectively. Our working sample is composed of individuals aged 50-80 in the baseline year (wave 5) from twelve countries: Austria, Germany, Sweden, Spain, Italy, France, Denmark, Switzerland, Belgium, the Czech Republic, Slovenia, and Estonia. We excluded respondents who were in nursing homes or had proxy interviews in either period because these respondents do not complete the Cognitive Function module. Moreover, since we are primarily interested in the effect of cognition and awareness on wealth dynamics, we included only individuals living in households with no changes in composition — i.e. those who stayed single or with their partners throughout the period of interest. Finally, since wealth and other outcome variables in this analysis are measured at the household level, we included only individuals who declared themselves as the financial respondent of the household in wave 5, i.e., the most informed about household finances. Our final sample consists of 15,686 financial respondents.

1.2 Subjective and objective memory

The SHARE survey contains a module dedicated to cognitive functioning. In this module, SHARE asks a series of questions and tests aimed at assessing the cognitive health of the respondents. Participants are first asked to self-rate their memory and its change compared to their last interview. Since we are interested in this variation, we use the question that specifically asks, *"Compared to your last interview in [Month Year], would you say your memory is better now, about the same, or worse than it was then?"*.[1] Given that less than 1% of respondents in our sample report their memory as better compared to their previous interview, we define our subjective variable for the perceived worsening in memory as a binary indicator which takes value 1 if the respondent perceives their memory as worsened, and 0 otherwise (*worse self-rated memory*).

Next, SHARE asks the respondent to perform the Ten-Word List Learning Test. In this test, the interviewer reads out loud ten words from their laptop display. The respondent must memorize as many words as possible and then recall them to the interviewer in two phases: immediately after (immediate recall) and after about ten minutes (delayed recall). As commonly done in the literature, we obtain the total score as the sum of the immediate and delayed scores, ranging between 0 and 20. We define our objective measure of *severe memory decline* by constructing a binary variable that takes the value 1 if the respondent's test score exhibits a decline equal or greater than 30% between wave 5 and wave 9. This threshold is higher than the 20% used in the economic literature (Celidoni et al., 2017; Mazzonna and Peracchi, 2024) to account for a longer period, namely 8 years, instead of the two-year span for which the 20% threshold has been used.

After constructing the subjective and objective variables for the respondent's variation in memory, we follow Mazzonna and Peracchi (2024) in defining our measures of awareness. We interact the *worse self-rated memory* indicator with the *severe memory loss* indicator, obtaining four different types of respondents. A respondent is *aware* of their memory decline if they exhibit severe memory loss and perceive their memory as worsened; a respondent is *unaware* if they exhibit severe memory loss but perceive their memory as about the same or better; a respondent is *pessimist* if they do not exhibit severe memory loss but perceive their memory as worsened; the remaining type is a respondent who has no severe memory decline and perceives their memory as about the same or better (*no loss*).

[1] Self-assessed change in memory was introduced in wave 8 and is asked only to panel respondents older than 59.

1.3 Outcome variables

Among other modules, SHARE collects detailed self-reported information on assets, financial transfers, and household consumption, all at the household level. The first two modules are answered by the financial respondent, while the latter is answered by the household respondent, i.e., the first interviewed member of the family.

In the Asset module, SHARE asks respondents whether they own a specific asset and, if so, its value. Following Mazzonna and Peracchi (2024), we focus on total gross financial wealth (GFW) and total net household wealth (W).[2] The first variable is the sum of bank accounts, bonds, stocks, mutual funds, and savings for long-term investments. The second variable is the gross financial wealth plus real assets (i.e., the value of the main residence, other residences, own business, and transport wealth) net of mortgages and other liabilities.

Given the high percentage of item non-response in the Asset module, we partially use imputations. Specifically, we include only respondents for whom no more than 30% of the value of all assets and debts composing our two variables is imputed. Moreover, to limit the impact of outliers, we trim observations below the 1st or above the 99th percentile of the country and wave specific distributions of total net wealth and total gross financial wealth.

Finally, we compute the absolute variation of non-missing values in either wave 5 or wave 9, resulting in a working sample of 7,339 financial respondents for total net wealth and 5,907 financial respondents for total gross financial wealth.

We are also interested in understanding how cognitive deterioration and its awareness affect other financial outcomes. In particular, we ask: how does cognition and its awareness affect the perception of money management and financial stability? To answer this question, we use information from the Consumption module, which asks respondents: *"Thinking of your household's total monthly income, would you say that your household is able to make ends meet fairly easily, easily, with some difficulties, or with great difficulties?"* and *"Could your household afford to pay for an unexpected expense of [country-specific amount] without borrowing any money?"* From the first question, we construct a binary indicator for difficulties in Making-Ends-Meet (MeM), which takes value 1 if the respondent answers that they are able to make ends meet with some or great difficulties.

Finally, we also explore whether cognitively fragile respondents are more likely to receive informal financial support from their relatives or close friends. To this end, we use data from the Financial Transfers module, which includes the following questions: *"Please think of the last twelve months, [...] have you received any financial or material gift or support from anyone inside or outside this*

[2] To account for inflation, we convert the total gross financial wealth and the total net household wealth to 2015 euros using the Consumer Price Index (CPI) as deflator.

household amounting to 250€ or more?" and *"Since your last interview, have you received a gift or inherited money, goods, or property worth more than 5,000€?"*. We generate two binary indicators for having received at least one financial gift of 250€ or more, and 5,000€ or more.

1.4 Descriptive statistics

Table 1 presents descriptive statistics for our working samples. While we use imputations for our control variables, we do not use them for our outcome variables, except for the two wealth variables as described in section 1.3.[3] Moreover, we are interested in the variation in wealth and in negative variations in the other outcome variables. Thus, we estimate our model on the subsample of respondents without difficulties in making ends meet, those able to pay for an unexpected expense, and those who did not receive a gift of 250€ or 5,000€ in our baseline period, i.e., wave 5. For this reason, the sample size varies in each specification, depending on the outcome of interest considered (the exact number of observations in Table 1).

As shown in Table 1, on average both wealth variables have increased over the eight-year period. Additionally, 11% of our respondents experienced a deterioration in their financial situation as they declared difficulties in making ends meet, and almost 87% were still able to pay for an unexpected expense. Finally, on average, 6% of our respondents received informal help amounting to either 250€ or 5,000€.

Regarding the cognitive status of our respondents, their average memory test score was 10 words in the baseline period, and almost one out of four respondents exhibited a severe memory decline over the eight years. Additionally, more than one-third perceived their memory as worsened. Our sample is composed by 10.3% of *aware* respondents, 12.8% of *unaware* respondents and 24.3% of *pessimist* respondents. Finally, Table 1 shows the mean and standard deviation (SD) of the covariates used in our analysis. As we can see, 60% of our sample is female, 55% live in a couple, and one-third have tertiary education. The average financial respondent was 64 years old in wave 5 and reported an annual household income of 43 thousand euros. Finally, 10% of the sample had low grip strength, and 54% were already retired at baseline.[4]

[3] Specifically, we use the average of five imputations in our analysis, as SHARE provides five imputed values for each item.

[4] *Low Grip Strength (t-1)* is a binary indicator defined according to the gender-specific thresholds used for the diagnosis of sarcopenia among senior Europeans: 20 kg for females and 30 kg for males (Bertoni et al. 2018, EUWGSOP).

Table 1: Descriptive statistics

	Mean	SD	N
Outcome variables			
Δ Wealth	21,069.452	257,607.519	7,339
Δ Gross Financial Wealth	8,718.633	98,379.091	5,907
Has Difficulties in Making Ends Meet	0.110	0.313	10,277
Able to Pay Unexpected Expense	0.868	0.338	11,419
Received financial gift of 250€	0.054	0.227	14,142
Received financial gift of 5k€	0.059	0.236	13,662
Cognition			
Severe memory loss	0.231	0.422	15,686
Worse memory	0.346	0.476	15,686
Aware	0.103	0.304	15,686
Unaware	0.128	0.334	15,686
Pessimist	0.243	0.429	15,686
Memory score (t-1)	10.348	3.359	15,686
Other controls			
Female	0.598	0.490	15,686
Age (t-1)	64.010	7.488	15,686
In a couple	0.553	0.497	15,686
Primary education	0.138	0.345	15,686
Lower secondary education	0.166	0.372	15,686
Upper secondary education	0.361	0.480	15,686
Tertiary education	0.335	0.472	15,686
Low Gripth Strength (t-1)	0.098	0.298	15,686
Employed (t-1)	0.321	0.467	15,686
Retired (t-1)	0.545	0.498	15,686
Annual Household Income (t-1)	43,381.903	75,605.428	15,686

Notes: This table presents descriptive statistics for the variables used in our analysis. Due to the varying number of observations for the six outcome variables, Table A1 reports the means and standard deviations of the cognitive and control variables for each subsample, defined by the related outcome variable.

2 Empirical strategy and results

To address the impact of cognitive decline and awareness on our financial outcomes, we estimate the following models:

$$\Delta y_{i,t} = \beta_0 + \beta_1 SevereMemoryLoss_{i,t} + \mathbf{X}_{i,t-1}^T \gamma + \mathbf{Z}_i^T \delta + \varepsilon_{i,t} \tag{1}$$

$$\Delta y_{i,t} = \beta_0 + \beta_1 Aware_{i,t} + \beta_2 Unaware_{i,t} + \beta_3 Pessimist_{i,t} + \mathbf{X}_{i,t-1}^T \gamma + \mathbf{Z}_i^T \delta + \varepsilon_{i,t} \tag{2}$$

where $\Delta y_{i,t}$ is the expected change in our financial outcomes across eight years as a function of the change-in-memory status, either objective (equation 1) or objective and subjective (equation 2). We include a vector of time-invariant characteristics ($\mathbf{Z}_i^T$) which includes gender, being in a couple, the level of education, and the country of residence. Additionally, we include a vector of time-varying regressors employed at wave 5 ($\mathbf{X}_{i,t-1}^T$), including age categories, employment status, memory score, and grip strength above or below a certain threshold. Finally, $\varepsilon_{i,t}$ is an unobservable error term assumed to be mean independent of all included regressors.[5]
Since we are interested not only in the effect of being aware or unaware of memory loss per se but also in their comparison, the coefficient of primary interest is $\beta_2 - \beta_1$ in equation 2.

2.1 Results

Table 2 presents the estimates of our models for the expected change in total wealth (ΔW) and gross financial wealth (ΔGFW). Columns (1) and (3) relate to equation (1), which includes the objective indicator for experiencing a severe memory loss (*Severe memory loss*). In these models, we control for lagged total net wealth (total gross financial wealth) to account for initial wealth levels. As we can see from column (1), the negative coefficient on this indicator is statistically significant at the 1% level and corresponds to an expected loss of 7.5% of mean wealth over eight years. This result indicates that respondents with severe memory loss, on average, reduce their wealth. Columns (2) and (4) relate to equation (2), which also includes the subjective component, namely awareness in cognition. Column (2) shows that both *aware* and *unaware* respondents suffer a reduction in their total wealth, but their difference (i.e.,$\beta_2 - \beta_1$) is not statistically significant. This suggests that the critical factor driving the results is the objective drop in cognition. This result contrasts with what Mazzonna and Peracchi (2024) found using American respondents in a two-year framework, where individuals unaware of their cognitive decline experienced greater wealth losses with respect to

[5]We remind the reader that all the individual-level characteristics refer to the respondent who was the financial respondent in our baseline period.

those aware.

Regarding the change in gross financial wealth, although we observe a similar pattern in terms of sign and magnitude, our estimates are not statistically significant. This is likely due to noisy data and the smaller sample size.

Table 3 reports the results for the other four outcome variables. When estimating these models with these outcome variables, we also control for lagged household income in logarithmic term. As before, odd-numbered columns refer to equation (1) while even-numbered columns refer to equation (2). Focusing on the full model, we see that the results for the ability to pay for an unexpected expense align with those in Table 2 for the change in total net wealth. Among respondents who were able to afford such an unexpected expense at time t-1, those with severe memory loss reduce their probability of still being able to do so, regardless of their awareness. In contrast, when we look at the probability of being in financial difficulties among those who did not report difficulties in making ends meet at baseline, respondents that are pessimistic about their memory exhibit a higher probability of declaring financial difficulties. This result indicates that a negative attitude is a key driver in perceiving financial instability, while an objective drop in memory seems relevant only for more objective indicators of financial strain, such as the ability to handle an unexpected expense.

Finally, Table 3 also shows the results for informal financial help that our respondents may have received in period t (i.e., wave 9). We estimate our models on the subsample of respondents who did not receive financial gifts in our baseline period (wave 5). Respondents who are pessimistic about their memory status have a higher probability of receiving financial gifts of either 250€ or 5,000€. This result suggests that relatives tend to financially assist those who express concerns about their memory or directly request help, rather than those who are cognitively frail.

Table 2: Changes in Total Net Wealth and Gross Financial Wealth

	(1)	(2)	(3)	(4)
VARIABLES	Δ W	Δ W	Δ GFW	Δ GFW
Severe memory loss	-20.882***		-3.118	
	(6.331)		(2.985)	
Aware		-22.162***		-3.870
		(8.357)		(4.003)
Unaware		-16.130*		0.137
		(8.250)		(3.846)
Pessimist		7.528		4.522
		(7.138)		(3.060)
β_2 - β_1		6.032		4.007
p-value		0.552		0.390
Observations	7,339	7,339	5,907	5,907
R-squared	0.134	0.135	0.098	0.098
Country FE	✓	✓	✓	✓
Mean Δ W	21.07	21.07		
Mean W	277.2	277.2		
Mean Δ GFW			8.719	8.719
Mean GFW			57.74	57.74

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices). Both models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, and total wealth (gross financial wealth) in baseline. Table A2 reports the entire table.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3: Difficulties in Making Ends Meet, Unexpected expense, Financial gift

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€	(7) Received 5k€	(8) Received 5k€
Severe memory loss	0.011		-0.036***		-0.009**		-0.010**	
	(0.008)		(0.008)		(0.004)		(0.004)	
Aware		0.020*		-0.035***		-0.001		0.005
		(0.012)		(0.012)		(0.006)		(0.006)
Unaware		0.014		-0.032***		-0.005		-0.012**
		(0.010)		(0.010)		(0.005)		(0.005)
Pessimist		0.017**		0.009		0.016***		0.015***
		(0.008)		(0.008)		(0.005)		(0.005)
β_2 - β_1		-0.00581		0.00372		-0.00361		-0.0170
p-value		0.675		0.798		0.619		0.0140
Observations	10,277	10,277	11,419	11,419	14,142	14,142	13,662	13,662
R-squared	0.069	0.070	0.048	0.048	0.023	0.024	0.043	0.044
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Mean dep var	0.110	0.110	0.868	0.868	0.0544	0.0544	0.0592	0.0592

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 5). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of Respondents who reported to manage to pay for an unexpected expense in wave 5.

Received 250€ (5k€) is a binary variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ (5k€) in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ (5k€) in wave 5.

All models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, and annual household income in baseline. Table A3 reports the entire table.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

2.2 The role of depression

Given the results presented in section 2.1, we aimed to formalize the impact of a negative attitude toward life using depression as a proxy. Depressive symptoms in SHARE are assessed through the Mental Health module, which includes a battery of 12 questions that compose the EURO-D scale. The EURO-D items are derived from the Geriatric Mental State examination and cover 12 symptom domains: depressed mood, pessimism, suicidality, guilt, sleep, interest, irritability, appetite, fatigue, concentration, enjoyment, and tearfulness. Each item is scored 0 (symptom not present) or 1 (symptom present), and the scores are summed to produce a scale ranging from zero to 12 (Castro-Costa et al. 2007). According to this scale, an individual can be considered depressed if their score is equal to or above 4. We therefore define a binary variable for being *Depressed* based on this definition for each period. Next, we interact the *Depressed* indicator at time t (used as a proxy for a general pessimistic view, meaning the individual is not only pessimistic about their memory status)

with the objective memory loss indicator. Using non-missing information for depression in either period, our sample reduces to 15,383 respondents.

Table 4 reports the mean and standard deviation of our new variable and the new composition of our sample. As we can see, the percentage of respondents definable as depressed according to the EURO-D definition increased from 23.7% in wave 5 to 27.4% in wave 9. Our sample now comprises almost 8% of respondents who are both depressed and have a severe memory loss, 15% who have a severe memory loss but are not depressed, and almost 20% who are depressed but do not have a severe memory loss. The remaining 57.6% of the sample consists of those without severe memory loss and without depression, serving as our reference group.

Table 4: Depression - descriptive statistics

	Mean	SD	N
Depressed	0.274	0.446	15,383
Depressed (t-1)	0.237	0.425	15,383
Severe memory loss & Depressed	0.077	0.267	15,383
Severe memory loss & Not Depressed	0.151	0.358	15,383
No severe memory loss & Depressed	0.196	0.397	15,383

Notes: This table reports descriptive statistics for depression and its interaction with the *severe memory loss* indicator.

We estimate the following new model:

$$\begin{aligned} \Delta y_{i,t} =& \beta_0 + \beta_1 SevereMemoryLoss_{i,t} \& Depressed_{i,t} \\ &+ \beta_2 SevereMemoryLoss_{i,t} \& NotDepressed_{i,t} \\ &+ \beta_3 NoSevereMemoryLoss_{i,t} \& Depressed_{i,t} \\ &+ \mathbf{X}_{i,t-1}^T \gamma + \mathbf{Z}_i^T \delta + \varepsilon_{i,t} \end{aligned} \tag{3}$$

In addition to the controls already mentioned for our main specification in section 2.1, we include an indicator for being depressed at time t-1 (*Depressed t-1*), and our subjective indicator of perceived

worsening in memory (*Worse self-rated memory*).

Tables 5 and 6 present estimates for equation (2) (odd-numbered columns in both tables) and our new equation (3) (even-numbered columns in both tables) for the expected change in total and gross financial wealth, as well as for the other four financial outcomes, respectively.

From Table 5, we observe that respondents with both severe memory loss and depression, as well as those with severe memory loss only, experience a reduction in wealth. However, the difference $\beta_2 - \beta_1$ in column 2 is not statistically significant, suggesting that the result is primarily driven by objective memory loss, as also shown in Table 2.

Column 4 of Table 6 reveals that both severe memory loss and depression individually have a detrimental effect on the probability of being able to pay for an unexpected expense among those who were able to do so in wave 5. However, the combination of both conditions results in a much higher significant negative effect, decreasing the probability by 7.7 percentage points.

When estimating model (3) for the probability of reporting difficulties in making ends meet among those who were not experiencing difficulties in wave 5, depression emerges as the sole significant factor, aligning with the result in column 1 and supporting the hypothesis that a negative attitude toward life negatively affects the perception of financial stability. This finding highlights the importance of psychological factors in shaping financial outcomes.

Finally, Table 6 reports estimate of model (3) for the probability of receiving a financial gift worth 250€ on the subsample of respondents who did not received financial gift in wave 5. We report in Table 6 only estimates for "Received 250€", as results are the same for "Received 5,000€". Table 6 shows a complementary result in column 6 with respect to column 5, confirming that mentally fragile respondents are less likely to receive financial help from relatives or friends.

Table 5: Mental health - Changes in Total Wealth and Gross Financial Wealth

	(1)	(2)	(3)	(4)
VARIABLES	Δ W	Δ W	Δ GFW	Δ GFW
Aware	-19.745**		-4.158	
	(8.400)		(4.100)	
Unaware	-16.740**		-0.029	
	(8.322)		(3.890)	
Pessimist	7.327		4.722	
	(7.210)		(3.093)	
Severe mem. loss & Depressed		-24.203***		-4.713
		(9.046)		(3.494)
Severe mem. loss & Not Depressed		-21.356***		-2.370
		(8.129)		(3.972)
No Severe mem. loss & Depressed		-6.167		1.943
		(6.747)		(3.260)
β_2 - β_1	3.005	2.847	4.129	2.344
p-value	0.769	0.782	0.386	0.581
Observations	7,255	7,255	5,830	5,830
R-squared	0.134	0.134	0.097	0.097
Country FE	✓	✓	✓	✓
Mean dep var	21.63	21.63	8.857	8.857

Notes: The table reports OLS estimates for model (3) for the changes in Total Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices). Both models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, being depressed in baseline, *worse memory*, and total wealth (gross financial wealth) in baseline. Table A4 reports the entire table.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: Mental health - Difficulties in Making Ends Meet, Unexpected expense and Financial gifts

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€
Aware	0.019		-0.035***		-0.004	
	(0.012)		(0.012)		(0.006)	
Unaware	0.013		-0.029***		-0.005	
	(0.010)		(0.010)		(0.006)	
Pessimist	0.018**		0.007		0.015***	
	(0.008)		(0.008)		(0.005)	
Severe mem. loss & Depressed		0.058***		-0.077***		-0.003
		(0.017)		(0.016)		(0.008)
Severe mem. loss & Not Depressed		0.005		-0.023**		-0.013***
		(0.008)		(0.009)		(0.005)
No Severe mem. loss & Depressed		0.045***		-0.018*		0.004
		(0.010)		(0.009)		(0.006)
β_2 - β_1	-0.00522	-0.0531	0.00549	0.0540	-0.00166	-0.0103
p-value	0.709	0.002	0.708	0.002	0.821	0.213
Observations	10,125	10,125	11,236	11,236	13,865	13,865
R-squared	0.071	0.076	0.047	0.049	0.024	0.025
Country FE	✓	✓	✓	✓	✓	✓
Mean dep var	0.110	0.110	0.869	0.869	0.0542	0.0542

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 5). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of Respondents who reported to manage to pay for an unexpected expense in wave 5.
Received 250€ (5k€) is a binary variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ in wave 5.
All models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, being depressed in baseline, *worse memory*, and annual household income in baseline. Table A5 reports the entire table.
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

3 Comparing European and American respondents

In this section, we extend our analysis by comparing the financial implications of cognitive decline and its awareness between European and American households, to assess whether the observed effects hold in different socio-economic and institutional environments. To this end, we investigate whether the patterns observed for European respondents over an eight-year period also apply for American respondents, using data from the Health and Retirement Study (HRS), a comparable dataset focusing on the U.S. population aged 50 and above. We begin by replicating Mazzonna and Peracchi's (2024) analysis using SHARE data over a two-year period to determine whether our

findings are consistent with theirs (Section 3.1). Then, we apply our extended eight-year framework to HRS data, enabling a direct comparison between European and American households over the long term (Section 3.2).

3.1 Over the short term

We begin our comparison by replicating the analysis conducted by Mazzonna and Peracchi (2024) using SHARE data over a two-year period, adhering closely to their original methodology. For this purpose, we utilize wave 8 and wave 9 of SHARE, selecting individuals who participated in both waves, were not in nursing homes during either period, and did not do proxy interviews. Following the sample selection criteria described in Section 1.1, our final sample consists of 11,869 financial respondents with no missing values on key regressors.[6]

For the severe memory loss indicator, we adopt the original definition used in the literature and by Mazzonna and Peracchi (2014): a 20% decrease in the memory test score between wave 8 and wave 9. For the subjective component, we rely on responses from wave 9 comparing perceived memory with the previous interview (wave 8). Table 7 presents descriptive statistics for our outcome variables, as well as for the subjective and objective measures of cognitive status. It also provides the distribution of respondents across the categories of *aware*, *unaware*, and *pessimist*, as defined in Section 1.2. Compared to Table 1, we observe a higher proportion of respondents identified with a severe memory loss (27% vs. 23%), and a lower proportion perceiving their memory as worsened (29% vs. 35%). This results in a greater share of *unaware* respondents (17%) and a smaller share of *pessimist* respondents (20%). Regarding our outcome variables, we note, on average, a smaller but still positive change in total net wealth and gross financial wealth over the two-year period. Additionally, respondents report a generally better financial situation compared to the eight-year analysis: a lower percentage indicate a deterioration in the ability to make ends meet, or receipt of gifts of €250 or €5k, while a higher fraction report being able to pay an unexpected expense among those who were able in the previous period.

Table 8 presents the estimates of models (1) and (2) outlined in Section 2, for the expected changes in total net wealth (ΔW) and gross financial wealth (ΔGFW) over a two-year period. Focusing on changes in total net wealth (ΔW), when estimating model (1), we find a negative but statistically insignificant coefficient for severe memory loss (column 1). However, in model (2), we observe that unaware respondents experience a significantly larger reduction in total net wealth compared to aware respondents, as both the coefficient for *unaware* (β_2) and the difference $\beta_2 - \beta_1$ are statistically

[6]The question regarding perceived memory change was introduced in wave 8 and is only asked to respondents aged 60 and above. For this reason, the baseline age range of our sample is 57 to 80, instead of 50 to 80.

significant at the 10% level. This finding aligns with the results of Mazzonna and Peracchi (2024), highlighting the comparability between European and American respondents. Table A6 in the Appendix extends the analysis to the remaining outcome variables: *Difficulties in Making Ends Meet*, *Unexpected Expense*, and *Receipt of Gifts of €250 (€5k)*. As before, we estimate negative changes in these outcomes by restricting the sample to respondents who, at baseline (wave 8), could make ends meet, pay unexpected expenses, or had not received financial gifts. The conclusions drawn from these shorter-term estimates are mostly consistent with those observed over a longer time period. If anything, we find no significant effects of either the objective or subjective components of memory decline on the likelihood of receiving a financial gift.

Table 7: Means and Standard Deviations (SDs) of Key Variables - Over 2 years period

	Mean	SD	N
Outcome variables			
Δ Wealth	11.857	189.775	6,196
Δ Gross Financial Wealth	2.948	70.971	5,415
Has Difficulties in Making Ends Meet	0.099	0.298	8,592
Able to Pay Unexpected Expense	0.879	0.326	9,000
Received financial gift of 250€	0.048	0.214	10,897
Received financial gift of 5k€	0.043	0.204	10,526
Cognition			
Severe memory loss	0.270	0.444	11,869
Worse memory	0.291	0.454	11,869
Aware	0.091	0.288	11,869
Unaware	0.179	0.384	11,869
Pessimist	0.200	0.400	11,869
Memory score (t-1)	10.266	3.320	11,869

Notes: This table reports descriptive statistics for our outcome variables and cognition variables, over two-years period (i.e. between wave 8 and wave 9).

Table 8: Changes in Total Net Wealth and Gross Financial Wealth - Over 2 years period

	(1)	(2)	(3)	(4)
VARIABLES	Δ W	Δ W	Δ GFW	Δ GFW
Severe memory loss	-4.876		1.807	
	(5.291)		(2.121)	
Aware		3.954		6.310*
		(8.242)		(3.408)
Unaware		-11.444*		0.981
		(6.270)		(2.554)
Pessimist		-5.449		3.841
		(6.504)		(2.550)
β_2 - β_1		-15.40		-5.329
p-value		0.093		0.160
Observations	6,196	6,196	5,415	5,415
R-squared	0.061	0.062	0.046	0.046
Country FE	✓	✓	✓	✓
Mean Δ W	11.86	11.86		
Mean W	282.1	282.1		
Mean Δ GFW			2.948	2.948
Mean GFW			59.50	59.50

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices). Both models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, and total wealth (gross financial wealth) in baseline.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

3.2 Over the long term

To complement our comparative analysis, we analyze the financial implications of cognitive decline and its awareness across eight-year periods for American respondents, using HRS data. The HRS is a sister survey of SHARE. It is a biennial panel survey that collects longitudinal information on labor supply, family structure, health, income, and assets of U.S. respondents aged 50 and above.[7] For this analysis, we use eight waves from 2000 to 2014 and we select our sample following the same criteria outlined in our main analysis (Section 1.1). This results in an unbalanced sample of 9,204 financial respondents (20,308 observations) with non-missing values in all key variables.
Table 9 presents descriptive statistics for this new working sample. Comparing American respondents over these fourteen years with European respondents (Table 1), we observe that Americans are wealthier on average but experience a decline in wealth over eight-year periods. Additionally, the proportion of respondents with severe objective memory loss (23.3%) and those perceiving a worsening in memory (23.9%) are nearly identical among Americans, while Europeans show a higher disparity (23% and 35%, respectively). However, when splitting the sample in our four groups, we obtain that the proportion of *unaware* respondents in the U.S. is two and a half times that of *aware* respondents (16.7% vs 6.6%), while 17% are defined as *pessimist*. This indicates a smaller share of *aware* and *pessimist* respondents among Americans compared to Europeans, and a larger share of *unaware* respondents. Finally, the average baseline memory test scores are similar between Americans and Europeans.

Table 9: HRS - Means and Standard Deviations (SDs) of Key Variables

	Mean	SD	N
Δ Wealth	-19.791	402.918	20,308
Wealth (t)	412.086	597.086	20,308
Severe memory loss	0.233	0.423	20,308
Worse memory	0.239	0.427	20,308
Aware	0.066	0.249	20,308
Unaware	0.167	0.373	20,308
Pessimist	0.173	0.378	20,308
Memory score (t-1)	10.666	3.193	20,308

Notes: This table reports descriptive statistics for wealth and cognition variables using HRS data.

[7]The HRS (Health and Retirement Study) is sponsored by the National Institute on Aging (grant numbers NIA U01AG009740 and NIA R01AG073289) and is conducted by the University of Michigan.

We proceed to estimate models (1) and (2) presented in Section 2 for the expected change in total net wealth (ΔW) across eight-years periods.[8] Unlike our main analysis, the vector of time-invariant characteristics ($\mathbf{Z}_i^T$) includes gender, being in a couple, years of education, and race. While the vector for time-varying characteristics employed at baseline waves ($\mathbf{X}_{i,t-1}^T$) includes age categories, employment status, memory score, and total net wealth. Additionally, we include an indicator (ψ_t) to capture the survey-wave effects common across individuals.[9]

Table 10 reports the OLS estimates of models (1) and (2) for American respondents (columns 3 and 4). For convenience, we also include the corresponding estimates for European respondents from Table 2 (column 1 and 2). As shown in Table 10, the conclusions derived from U.S. data follow a similar pattern to those observed in our main analysis for Europeans: over the long term, experiencing severe memory loss has a negative effect on wealth, regardless of awareness. If anything, the expected reduction in mean wealth over an eight-year period is slightly greater for Europeans (-7.5%) compared to Americans (-6.5%).

[8]The total net wealth is defined as the sum of all assets owned by the household minus all liabilities, converted to 2014 U.S. dollars using the Consumer Price Index (CPI) as deflator.

[9]Since we are using waves spanning from 2000 to 2014 and calculating eight-years differences, we have a maximum of four pairs of baseline and follow-up years: e.g. 2006 as the baseline for 2014, 2004 for 2012, 2002 for 2010, and 2000 for 2008.

Table 10: HRS - Changes in Total Net Wealth

VARIABLES	(1) Δ W (SHARE)	(2) Δ W (SHARE)	(3) Δ W (HRS)	(4) Δ W (HRS)
Severe memory loss	-20.882***		-27.140***	
	(6.331)		(6.186)	
Aware		-22.162***		-25.215**
		(8.357)		(11.828)
Unaware		-16.130*		-29.634***
		(8.250)		(6.816)
Pessimist		7.528		-5.426
		(7.138)		(7.816)
β_2 - β_1		6.032		-4.419
p-value		0.552		0.723
Observations	7,339	7,339	20,308	20,308
R-squared	0.134	0.135	0.174	0.174
Controls	✓	✓	✓	✓
Country FE	✓	✓		
Mean Δ W	21.07	21.07	-19.79	-19.79
Mean W	277.2	277.2	412.1	412.1

Notes: The table reports OLS estimates for model (1) and model (2) for changes in Total Net Wealth (ΔW) expressed in thousands of Euros at 2015 prices for SHARE (columns 1 and 2), and in thousands of Dollars at 2014 prices for HRS (columns 3 and 4). Estimates for SHARE in column (1) and (2) are the same reported in Table 2. For HRS data, the models include indicators for baseline age categories, being in a couple, years of education, race, employment status, memory score, total wealth, and survey-wave pairs. Robust standard errors are clustered at the household level.
Significance levels: *** p $<$ 0.01, ** p $<$ 0.05, * p $<$ 0.1.

4 Robustness check

In this section, we address potential limitations in the subjective memory deterioration variable (*worse self-rated memory*). Given the wording of the question which asks respondents whether they perceive their memory as worsened, improved, or unchanged compared to their last interview, this variable does not perfectly align with our objective measure of severe memory loss, i.e. a

reduction of more than 30% in memory test scores between wave 5 (2013) and wave 9 (2022), as the respondent reference is not their memory in wave 5.

To account for this mismatch, we first examine the persistence of perceived memory deterioration over time. From the initial sample of 15,686 financial respondents, we restrict the analysis to those who participated in all intermediate waves and have non-missing values for both the memory test and the *worse self-rated memory* variable, resulting in a sample of 9,520 respondents. We construct two binary indicators of memory loss between adjacent waves, which are set to 1 if the respondent's memory test score drops by more than 20% between wave 8 (t-1) and wave 9 (t) or between wave 7 (t-2) and wave 8 (t-1), respectively *Memory drop*$_{t,t-1}$ and *Memory drop*$_{t-1,t-2}$.

Table 11 presents the estimated marginal effects from probit models predicting the likelihood of perceiving a worsening in self-rated memory in wave 9 (*Worse memory*$_t$). All specifications include controls for baseline characteristics, such as age class, couple status, education, grip strength, employment status, and country of residence. Table 11 highlights the high persistence of perceived memory deterioration, as reporting a worse memory in wave 8 significantly increases the likelihood of reporting it again in wave 9. This result is robust throughout all the specifications. Interestingly, the effect of *Memory drop*$_{t,t-1}$ is significant only in models that do not control for the eight-year severe memory loss variable (*Severe memory loss*), columns (1) and (3). Indeed, when we include this indicator, the more recent memory drop (*Memory drop*$_{t,t-1}$) loses significance. Furthermore, even when controlling for a drop in memory between wave 7 and wave 8 (*Memory drop*$_{t-1,t-2}$), the results remain robust: the perception of worsening memory shows a "sticky" effect, persisting once it is formed.

In a second analysis, we redefine the *worse memory* variable to address its temporal limitations. From the original sample, we retain 10,401 respondents who participated also in wave 8, and have non-missing values in all the variables of interest. The *worse memory* variable is now defined as 1 if the respondent reported a perceived worsening in memory at least once during the period of interest, i.e. either in wave 8 or wave 9, and 0 otherwise. Using this new definition, we redefine the four respondent groups (*aware*, *unaware*, *pessimist*, and *no loss*) and re-estimate models (1) and (2) for the six outcome variables. As shown in Tables A7, and A8, the conclusions remain unchanged with respect to those obtained using our main specification (section 2.1). If anything, *unaware* respondents have a lower probability of receiving a 250€ gift, while the coefficient for *pessimist* is no longer significant for receiving a 5k€ gift, although it goes in the same direction.

To further ensure robustness, we replicate this analysis using HRS data as well. Starting from the working sample used in Section 3.2, we focus on respondents who participated in wave 8 (2006) and wave 12 (2014), including all intermediate waves, obtaining 4,765 financial respondents with no missing values on our variables of interest. The alternative *worse memory* variable is now defined as

1 if the respondent reported a perceived memory worsening at least once between wave 9 and wave 12, and 0 otherwise. Redefining the respondent groups and re-estimating models (1) and (2), we find that the conclusions mirror those presented in Section 3.2, namely having a severe memory loss negatively affects household wealth regardless of awareness.[10]

This robustness check confirms that our findings are not substantially influenced by the temporal mismatch in the subjective memory measure, validating the reliability of our results.

Table 11: Probit estimates of the probability of perceiving a worsening in memory

	(1)	(2)	(3)	(4)
	Worse memory$_t$	Worse memory$_t$	Worse memory$_t$	Worse memory$_t$
Worse memory$_{t-1}$	0.306***	0.303***	0.304***	0.302***
	(0.007)	(0.007)	(0.007)	(0.007)
Memory drop $_{t,t-1}$	0.040***	0.010	0.047***	0.017
	(0.010)	(0.011)	(0.010)	(0.011)
Severe memory loss		0.070***		0.065***
		(0.011)		(0.012)
Memory drop$_{t-1,t-2}$			0.039***	0.028***
			(0.010)	(0.011)
Controls	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Observations	9520	9520	9520	9520
Mean	0.318	0.318	0.318	0.318

Notes: This table shows the marginal effects from probit models for the probability of perceiving a worsening in memory. All the specifications include indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, and country of residence.

Significance levels: *** p $<$ 0.01, ** p $<$ 0.05, * p $<$ 0.1

[10]Results are reported in Table A9. The coefficient for *severe memory loss* in column (1) goes in the same direction as in Table 10, but loses significance (although the p-value is 0.104).

5 Conclusion

In this paper, we investigate how cognitive decline and its awareness influence changes in wealth and financial stability among European respondents, using data from the SHARE survey on individuals aged 50–80 from twelve European countries. Our study extends the analysis of Mazzonna and Peracchi (2024) by focusing on a European context and employing a longer time horizon.

Our findings diverge from those of Mazzonna and Peracchi, who reported significant wealth losses among American respondents experiencing severe cognitive decline over a two-year period, but were not aware of it, compared to those also experienced a decline but were aware it. We compare two SHARE waves which are eight years apart and we find that awareness of cognitive decline does not significantly impact wealth losses. Instead, the primary factor driving wealth reduction is the presence of objective memory loss, regardless of the individual's awareness. This suggests that the effects documented by Mazzonna and Peracchi may be short-term. Indeed, when performing a comparative analysis between Europeans and American respondents over the short and long term periods, we find that they exhibit similar patterns when compared using equivalent time horizon. These results could indicate that rational disinvestment strategies may play a role in our findings. Family members may be proactively adjusting financial holdings to mitigate potential losses, thereby minimizing the impact of cognitive decline on wealth.

Extending our analysis, we find that severe cognitive decline impairs the ability to manage unexpected expenses. Additionally, respondents with a negative perception of their cognitive health are more likely to face financial difficulties and to receive informal financial support, indicating that a negative attitude towards life may compromise the perception of financial stability. When examining the mental health component, we find that related issues further exacerbate the financial difficulties associated with cognitive decline. These results highlight the complex relationship between cognitive decline, mental health and financial stability, and the need for support for elderly individuals that might be cognitively compromised.

While this paper presents several interesting findings, further research is necessary to strengthen our results. We plan to further analyze the mechanisms behind the differences in results over the short and long term periods. Moreover, we plan to conduct heterogeneity analyses to better characterize these cognitively fragile respondents and to perform sensitivity analyses on the threshold that defines our objective memory loss.

References

Angrisani, M., Lee, J., 2019. Cognitive decline and household financial decisions at older ages. The Journal of the Economics of Ageing. 13, 86-101

Bertoni, M., Maggi, S., Manzanato, E., Veronese, N., Weber, G., 2018. Depressive symptoms and muscle weakness: A two-way relation? Experimental gerontology. 108, 87-91.

Bonsang, E., Adam, S., Perelman, S., 2012. Does retirement affect cognitive functioning? J. Health Econ. 31, 490–501

Bonsang, E., Dohmen, T., 2015. Risk attitude and cognitive aging. J. Econ. Behav. Organ. 112, 112-126

Börsch-Supan, A., M. Brandt, C. Hunkler, T. Kneip, J. Korbmacher, F. Malter, B. Schaan, S. Stuck, S. Zuber (2013). Data Resource Profile: The Survey of Health, Ageing and Retirement in Europe (SHARE). International Journal of Epidemiology. DOI: 10.1093/ije/dyt088

Castro-Costa, E., Dewey, M., Stewart, R., Banerjee, S., Huppert, F., Mendonca-Lima, C., et al., 2007. Prevalence of depressive symptoms and syndromes in later life in ten European countries: the SHARE study. Br. J. Psychiatry J. Ment. Sci. 191, 393–401

Celidoni, M., Dal Bianco, C., Weber, G., 2017. Retirement and cognitive decline. A longitudinal analysis using SHARE data. J. Health Econ. 56, 113–125

Coe, N.B., Zamarro, G., 2011. Retirement effects on health in Europe. J. Health Econ. 30, 77–86

Christelis, D., Jappelli, T., Padula, M., 2010. Cognitive abilities and portfolio choice. Eur. Eco. Rev. 54 (1), 18–39

Health and Retirement Study, (RAND HRS Longitudinal File 2020 (V2)) public use dataset. Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant numbers NIA U01AG009740 and NIA R01AG073289). Ann Arbor, MI, (May 2024).

Hsu, J., Willis, R., 2013. Dementia risk and financial decision making by older households: the impact of information. J. Human Capital 7 (4), 340-377.

Mazzonna, F., Peracchi, F., 2012. Ageing, cognitive abilities and retirement. Eur. Econ. Rev. 56, 691–710

Mazzonna, F., Peracchi, F., 2024. Are Older People Aware of Their Cognitive Decline? Misperception and Financial Decision Making. J. of Political Economy. 132 (6)

RAND HRS Longitudinal File 2020 (V2). Produced by the RAND Center for the Study of Aging, with funding from the National Institute on Aging and the Social Security Administration. Santa Monica, CA (May 2024).

SHARE-ERIC (2024). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 5. Release version: 9.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w5.900

SHARE-ERIC (2024). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 7. Release version: 9.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w7.900

SHARE-ERIC (2024). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 8. Release version: 9.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w8.900

SHARE-ERIC (2024). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave 9. Release version: 9.0.0. SHARE-ERIC. Data set. DOI: 10.6103/SHARE.w9.900

Funding/Acknowledgement

The SHARE data collection has been funded by the European Commission, DG RTD through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812), FP7 (SHARE-PREP: GA N°211909, SHARE-LEAP: GA N°227822, SHARE M4: GA N°261982, DASISH: GA N°283646) and Horizon 2020 (SHARE-DEV3: GA N°676536, SHARE-COHESION: GA N°870628, SERISS: GA N°654221, SSHOC: GA N°823782, SHARE-COVID19: GA N°101015924) and by DG Employment, Social Affairs & Inclusion through VS 2015/0195, VS 2016/0135, VS 2018/0285, VS 2019/0332, VS 2020/0313 and SHARE-EUCOV: GA N°101052589 and EUCOVII: GA N°101102412. Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01_AG09740-13S2, P01_AG005842, P01_AG08291, P30_AG12815, R21_AG025169, Y1-AG-4553-01, IAG_BSR06-11, OGHA_04-064, BSR12-04, R01_AG052527-02, HHSN271201300071C, RAG052527A) and from various national funding sources is gratefully acknowledged (see www.share-eric.eu).

Conflict of interest statement

There are no financial or other conflicts of interest to disclose.

A Appendix

Table A1: Descriptive statistics for each subsamples defined by the related outcome variable

	All	Δ W	Δ GFW	Diff. in MeM	Un. Expense	Received 250€	Received 5k€
Severe memory loss	0.231	0.216	0.232	0.215	0.222	0.234	0.236
	(0.422)	(0.412)	(0.422)	(0.411)	(0.416)	(0.423)	(0.424)
Worse memory	0.346	0.324	0.346	0.326	0.333	0.345	0.351
	(0.476)	(0.468)	(0.476)	(0.469)	(0.471)	(0.475)	(0.477)
Aware	0.103	0.0876	0.103	0.0884	0.0944	0.105	0.107
	(0.304)	(0.283)	(0.305)	(0.284)	(0.292)	(0.306)	(0.309)
Unaware	0.128	0.129	0.128	0.126	0.128	0.129	0.129
	(0.334)	(0.335)	(0.334)	(0.332)	(0.334)	(0.335)	(0.335)
Pessimist	0.243	0.237	0.243	0.237	0.238	0.240	0.244
	(0.429)	(0.425)	(0.429)	(0.425)	(0.426)	(0.427)	(0.430)
Memory score (t-1)	10.35	10.38	10.23	10.76	10.68	10.26	10.24
	(3.359)	(3.292)	(3.334)	(3.218)	(3.247)	(3.354)	(3.374)
Female	0.598	0.565	0.579	0.560	0.568	0.589	0.609
	(0.490)	(0.496)	(0.494)	(0.496)	(0.495)	(0.492)	(0.488)
Age (t-1)	64.01	64.08	64.87	63.99	64.03	64.13	64.27
	(7.488)	(7.312)	(7.430)	(7.350)	(7.362)	(7.497)	(7.524)
In a couple	0.553	0.588	0.557	0.609	0.600	0.556	0.535
	(0.497)	(0.492)	(0.497)	(0.488)	(0.490)	(0.497)	(0.499)
Primary education	0.138	0.137	0.143	0.103	0.117	0.145	0.151
	(0.345)	(0.344)	(0.350)	(0.304)	(0.321)	(0.353)	(0.358)
Lower secondary education	0.166	0.166	0.171	0.133	0.147	0.169	0.173
	(0.372)	(0.372)	(0.377)	(0.340)	(0.354)	(0.375)	(0.379)
Upper secondary education	0.361	0.376	0.371	0.364	0.363	0.361	0.362
	(0.480)	(0.484)	(0.483)	(0.481)	(0.481)	(0.480)	(0.480)
Tertiary education	0.335	0.321	0.314	0.400	0.374	0.324	0.314
	(0.472)	(0.467)	(0.464)	(0.490)	(0.484)	(0.468)	(0.464)
Low Gripth Strength (t-1)	0.0982	0.0833	0.0982	0.0716	0.0731	0.100	0.104
	(0.298)	(0.276)	(0.298)	(0.258)	(0.260)	(0.300)	(0.305)
Employed (t-1)	0.321	0.299	0.274	0.365	0.351	0.313	0.304
	(0.467)	(0.458)	(0.446)	(0.482)	(0.477)	(0.464)	(0.460)
Retired (t-1)	0.545	0.568	0.591	0.543	0.552	0.552	0.559
	(0.498)	(0.495)	(0.492)	(0.498)	(0.497)	(0.497)	(0.496)
Annual Household Income (t-1)	43,381.9	43,982.7	43,088.5	51,914.4	48,223.4	43,770.2	41,726.3
	(75,605.4)	(74,645.3)	(77,139.6)	(84,723.2)	(80,466.2)	(77,069.5)	(75,638.1)
N	15,686	7,339	5,907	10,277	11,419	14,142	13,662

Notes: This table presents the means and standard deviations (in parentheses) for the cognitive and control variables used in our analysis, for each subsample defined by the related outcome variable.

Table A2: Changes in Total Net Wealth and Gross Financial Wealth

VARIABLES	(1) Δ W	(2) Δ W	(3) Δ GFW	(4) Δ GFW
Severe memory loss	-20.882***		-3.118	
	(6.331)		(2.985)	
Aware		-22.162***		-3.870
		(8.357)		(4.003)
Unaware		-16.130*		0.137
		(8.250)		(3.846)
Pessimist		7.528		4.522
		(7.138)		(3.060)
Test score (t-1)	3.432***	3.465***	1.106***	1.127***
	(0.934)	(0.936)	(0.403)	(0.404)
Gross Fin Wealth (t-1)			-0.270***	-0.270***
			(0.041)	(0.041)
Tot. Wealth (t-1)	-0.219***	-0.219***		
	(0.038)	(0.038)		
Low Grip Strength (t-1)	11.444	11.368	2.422	2.393
	(8.360)	(8.370)	(2.397)	(2.427)
Age groups(t-1) = 2, 60-64	-2.188	-2.185	-5.167	-5.259
	(9.301)	(9.297)	(4.344)	(4.335)
Age groups(t-1) = 3, 65-69	-14.792	-15.002	-2.639	-2.833
	(10.836)	(10.808)	(4.806)	(4.782)
Age groups(t-1) = 4, >70	-9.933	-10.281	-1.055	-1.335
	(11.220)	(11.210)	(4.327)	(4.301)
Female	-23.980***	-23.966***	-8.454***	-8.452***
	(6.153)	(6.153)	(2.781)	(2.778)
Couple	35.724***	35.713***	11.320***	11.295***
	(6.678)	(6.680)	(2.538)	(2.538)
CJS (t-1) = 2, Retired (t-1)	-38.923***	-38.979***	-13.663***	-13.669***
	(9.875)	(9.870)	(4.338)	(4.338)
CJS (t-1) = 3, Not Employed (t-1)	-30.639***	-30.764***	-12.206**	-12.273***
	(9.512)	(9.512)	(4.756)	(4.753)
Education = 2, Lower Secondary	6.748	6.932	1.431	1.448
	(7.509)	(7.527)	(3.205)	(3.211)
Education = 3, Upper Secondary	13.412*	13.441*	1.763	1.703
	(7.950)	(7.961)	(3.146)	(3.142)
Education = 4, Tertiary	54.424***	54.423***	11.305***	11.263***
	(9.707)	(9.710)	(3.782)	(3.784)
Observations	7,339	7,339	5,907	5,907
R-squared	0.134	0.135	0.098	0.098
Country FE	✓	✓	✓	✓
Mean Δ W	21.07	21.07		
Mean W	277.2	277.2		
β_2 - β_1		6.032		4.007
p-value		0.552		0.390
Mean Δ GFW			8.719	8.719
Mean GFW			57.74	57.74

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Net Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices).
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A3: Difficulties in Making Ends Meet, Unexpected expense, Financial gift

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€	(7) Received 5k€	(8) Received 5k€
Severe memory loss	0.011		-0.036***		-0.009**		-0.010**	
	(0.008)		(0.008)		(0.004)		(0.004)	
Aware		0.020*		-0.035***		-0.001		0.005
		(0.012)		(0.012)		(0.006)		(0.006)
Unaware		0.014		-0.032***		-0.005		-0.012**
		(0.010)		(0.010)		(0.005)		(0.005)
Pessimist		0.017**		0.009		0.016***		0.015***
		(0.008)		(0.008)		(0.005)		(0.005)
Test score (t-1)	-0.003***	-0.003***	0.005***	0.005***	0.001	0.001	0.002***	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ln(income (t-1))	-0.020***	-0.020***	0.022***	0.022***	0.003	0.003	0.010***	0.010***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.003)	(0.003)	(0.003)	(0.003)
Low Grip Strength (t-1)	0.027*	0.027*	-0.027**	-0.027**	-0.003	-0.004	-0.007	-0.008
	(0.014)	(0.014)	(0.014)	(0.014)	(0.006)	(0.006)	(0.005)	(0.005)
Age groups(t-1) = 2, 60-64	0.007	0.007	-0.008	-0.009	-0.012**	-0.012**	-0.028***	-0.028***
	(0.009)	(0.009)	(0.010)	(0.010)	(0.006)	(0.006)	(0.007)	(0.007)
Age groups(t-1) = 3, 65-69	-0.000	-0.001	0.015	0.015	-0.015**	-0.016**	-0.045***	-0.046***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.007)	(0.007)	(0.007)	(0.007)
Age groups(t-1) = 4, >70	-0.035***	-0.037***	0.040***	0.039***	-0.022***	-0.024***	-0.041***	-0.043***
	(0.012)	(0.012)	(0.013)	(0.013)	(0.007)	(0.007)	(0.007)	(0.007)
Female	0.023***	0.023***	-0.003	-0.003	0.014***	0.014***	-0.001	-0.001
	(0.006)	(0.006)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
Couple	-0.059***	-0.060***	0.047***	0.047***	-0.010**	-0.011**	0.008*	0.008*
	(0.007)	(0.007)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
CJS (t-1) = 2, Retired (t-1)	-0.003	-0.003	-0.003	-0.003	-0.006	-0.006	-0.021***	-0.021***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.006)	(0.006)	(0.007)	(0.007)
CJS (t-1) = 3, Not Employed (t-1)	0.065***	0.065***	-0.051***	-0.052***	0.002	0.001	-0.011	-0.011
	(0.014)	(0.014)	(0.013)	(0.014)	(0.007)	(0.007)	(0.008)	(0.008)
Education = 2, Lower Secondary	-0.031**	-0.031**	0.035**	0.035**	0.002	0.002	0.012**	0.012**
	(0.015)	(0.015)	(0.014)	(0.014)	(0.006)	(0.006)	(0.006)	(0.006)
Education = 3, Upper Secondary	-0.044***	-0.045***	0.050***	0.050***	0.004	0.004	0.024***	0.025***
	(0.014)	(0.014)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)
Education = 4, Tertiary	-0.073***	-0.073***	0.053***	0.053***	0.014**	0.014**	0.035***	0.035***
	(0.014)	(0.014)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)
Different Hou. and Fin. R (t-1)	0.012	0.012	-0.008	-0.008				
	(0.011)	(0.011)	(0.012)	(0.012)				
Observations	10,277	10,277	11,419	11,419	14,142	14,142	13,662	13,662
R-squared	0.069	0.070	0.048	0.048	0.023	0.024	0.043	0.044
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Mean dep var	0.110	0.110	0.868	0.868	0.0544	0.0544	0.0592	0.0592
β_2 - β_1		-0.00581		0.00372		-0.00361		-0.0170
p-value		0.675		0.798		0.619		0.0140

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 5). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of respondents who reported to manage to pay for an unexpected expense in wave 5. *Received 250€ (5k€)* is a dummy variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ (5k€) in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ (5k€) in wave 5.
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A4: Depression - Changes in Total Wealth and Gross Financial Wealth

VARIABLES	(1) Δ W	(2) Δ W	(3) Δ GFW	(4) Δ GFW
Aware	-19.745**		-4.158	
	(8.400)		(4.100)	
Unaware	-16.740**		-0.029	
	(8.322)		(3.890)	
Pessimist	7.327		4.722	
	(7.210)		(3.093)	
Severe memory loss & Depressed (t)		-24.203***		-4.713
		(9.046)		(3.494)
Severe memory loss & Not Depressed (t)		-21.356***		-2.370
		(8.129)		(3.972)
No Severe memory loss & Depressed (t)		-6.167		1.943
		(6.747)		(3.260)
Test score (t-1)	3.444***	3.398***	1.142***	1.100***
	(0.946)	(0.941)	(0.411)	(0.412)
Tot. Wealth (t-1)	-0.217***	-0.217***		
	(0.038)	(0.038)		
Gross Fin Wealth (t-1)			-0.268***	-0.268***
			(0.042)	(0.042)
Worse memory		6.025		2.749
		(6.327)		(2.779)
Depressed (t-1)		-0.983		-4.594*
		(5.992)		(2.543)
Low Grip Strength (t-1)	12.250	12.907	2.464	3.058
	(8.519)	(8.568)	(2.481)	(2.507)
Age groups(t-1) = 2, 60-64	-2.941	-3.128	-5.494	-5.604
	(9.367)	(9.354)	(4.371)	(4.370)
Age groups(t-1) = 3, 65-69	-15.902	-16.284	-2.921	-3.296
	(10.883)	(10.863)	(4.824)	(4.839)
Age groups(t-1) = 4, >70	-9.525	-9.890	-1.233	-1.657
	(11.293)	(11.259)	(4.341)	(4.340)
Female	-24.299***	-23.683***	-8.605***	-8.148***
	(6.217)	(6.290)	(2.820)	(2.876)
Couple	36.368***	36.092***	11.334***	11.173***
	(6.739)	(6.734)	(2.571)	(2.572)
CJS (t-1) = 2, Retired (t-1)	-38.520***	-38.201***	-13.506***	-13.371***
	(9.932)	(9.954)	(4.367)	(4.389)
CJS (t-1) = 3, Not Employed (t-1)	-30.980***	-30.446***	-12.285**	-11.873**
	(9.605)	(9.673)	(4.811)	(4.883)
Education = 2, Lower Secondary	8.751	8.601	1.717	1.721
	(7.576)	(7.563)	(3.268)	(3.260)
Education = 3, Upper Secondary	14.436*	14.156*	1.834	1.789
	(8.045)	(8.042)	(3.184)	(3.173)
Education = 4, Tertiary	55.794***	55.316***	11.535***	11.343***
	(9.793)	(9.774)	(3.824)	(3.812)
Observations	7,255	7,255	5,830	5,830
R-squared	0.134	0.134	0.097	0.097
Country FE	✓	✓	✓	✓
Mean dep var	21.63	21.63	8.857	8.857
β_2 - β_1	3.005	2.847	4.129	2.344
p-value	0.769	0.782	0.386	0.581

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Net Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices).
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A5: Depression - Difficulties in Making Ends Meet, Unexpected expense and Financial gifts

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€	(7) Received 5k€	(8) Received 5k€
Aware	0.019		-0.035***		-0.004		0.005	
	(0.012)		(0.012)		(0.006)		(0.006)	
Unaware	0.013		-0.029***		-0.005		-0.012**	
	(0.010)		(0.010)		(0.006)		(0.006)	
Pessimist	0.018**		0.007		0.015***		0.015***	
	(0.008)		(0.008)		(0.005)		(0.005)	
Severe memory loss & Depressed (t)		0.058***		-0.077***		-0.003		0.001
		(0.017)		(0.016)		(0.008)		(0.007)
Severe memory loss & Not Depressed (t)		0.005		-0.023**		-0.013***		-0.014***
		(0.008)		(0.009)		(0.005)		(0.005)
No Severe memory loss & Depressed (t)		0.045***		-0.018*		0.004		0.008
		(0.010)		(0.009)		(0.006)		(0.006)
Test score (t-1)	-0.003***	-0.003**	0.005***	0.005***	0.001	0.001	0.002***	0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ln(income (t-1))	-0.021***	-0.022***	0.022***	0.022***	0.002	0.002	0.011***	0.011***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.003)	(0.003)	(0.003)	(0.003)
Worse memory		0.004		0.010		0.010**		0.013***
		(0.007)		(0.007)		(0.004)		(0.005)
Depressed (t-1)		0.024**		-0.011		0.009*		-0.002
		(0.010)		(0.009)		(0.005)		(0.005)
Different Hou. and Fin. R (t-1)	0.013	0.012						
	(0.011)	(0.011)						
Low Grip Strength (t-1)	0.031**	0.025*	-0.024*	-0.020	-0.004	-0.006	-0.007	-0.008
	(0.014)	(0.014)	(0.014)	(0.014)	(0.006)	(0.006)	(0.005)	(0.005)
Age groups(t-1) = 2, 60-64	0.007	0.009	-0.009	-0.009	-0.013**	-0.013**	-0.028***	-0.028***
	(0.009)	(0.009)	(0.010)	(0.010)	(0.006)	(0.006)	(0.007)	(0.007)
Age groups(t-1) = 3, 65-69	0.001	0.002	0.015	0.014	-0.017**	-0.016**	-0.046***	-0.046***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.007)	(0.007)	(0.007)	(0.007)
Age groups(t-1) = 4, >70	-0.035***	-0.036***	0.037***	0.037***	-0.025***	-0.024***	-0.042***	-0.042***
	(0.012)	(0.012)	(0.013)	(0.013)	(0.007)	(0.007)	(0.007)	(0.007)
Female	0.022***	0.015**	-0.003	0.001	0.015***	0.013***	-0.001	-0.002
	(0.006)	(0.006)	(0.007)	(0.007)	(0.004)	(0.004)	(0.005)	(0.005)
Couple	-0.061***	-0.059***	0.046***	0.045***	-0.011***	-0.010**	0.008*	0.008*
	(0.007)	(0.007)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
CJS (t-1) = 2, Retired (t-1)	-0.006	-0.007	-0.002	-0.002	-0.006	-0.006	-0.021***	-0.021***
	(0.010)	(0.010)	(0.011)	(0.011)	(0.006)	(0.006)	(0.007)	(0.007)
CJS (t-1) = 3, Not Employed (t-1)	0.064***	0.060***	-0.049***	-0.046***	-0.001	-0.002	-0.012	-0.012
	(0.014)	(0.014)	(0.014)	(0.014)	(0.007)	(0.007)	(0.008)	(0.008)
Education = 2, Lower Secondary	-0.033**	-0.031**	0.035**	0.034**	0.001	0.001	0.012**	0.013**
	(0.016)	(0.016)	(0.014)	(0.014)	(0.006)	(0.006)	(0.006)	(0.006)
Education = 3, Upper Secondary	-0.047***	-0.044***	0.051***	0.049***	0.003	0.004	0.024***	0.025***
	(0.014)	(0.014)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)
Education = 4, Tertiary	-0.076***	-0.073***	0.053***	0.051***	0.012*	0.013**	0.035***	0.036***
	(0.014)	(0.014)	(0.013)	(0.013)	(0.006)	(0.006)	(0.006)	(0.006)
Observations	10,125	10,125	11,236	11,236	13,865	13,865	13,384	13,384
R-squared	0.071	0.076	0.047	0.049	0.024	0.025	0.043	0.044
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Mean dep var	0.110	0.110	0.869	0.869	0.0542	0.0542	0.0597	0.0597
β_2 - β_1	-0.00522	-0.0531	0.00549	0.0540	-0.00166	-0.0103	-0.0167	-0.0154
p-value	0.709	0.00200	0.708	0.00200	0.821	0.213	0.0190	0.0460

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 5). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of respondents who reported to manage to pay for an unexpected expense in wave 5.
Received 250€ (5k€) is a dummy variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ (5k€) in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ (5k€) in wave 5.
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A6: Difficulties in Making Ends Meet, Unexpected expense, Financial gift over 2 years-period

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€	(7) Received 5k€	(8) Received 5k€
Severe memory loss	0.008		-0.040***		-0.004		-0.006	
	(0.008)		(0.008)		(0.005)		(0.004)	
Aware		0.018		-0.047***		0.004		0.003
		(0.012)		(0.014)		(0.008)		(0.007)
Unaware		0.009		-0.035***		-0.006		-0.008
		(0.009)		(0.010)		(0.005)		(0.005)
Pessimist		0.015*		0.003		0.003		0.008
		(0.008)		(0.009)		(0.005)		(0.006)
Test score (t-1)	-0.001	-0.001	0.004***	0.004***	0.001	0.001*	0.001*	0.001**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
ln(income (t-1))	-0.057***	-0.057***	0.013*	0.013*	-0.004	-0.004	0.013***	0.013***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.003)	(0.003)	(0.003)	(0.003)
Low Grip Strength (t-1)	0.019	0.019	-0.016	-0.016	0.001	0.000	-0.003	-0.004
	(0.012)	(0.012)	(0.013)	(0.013)	(0.006)	(0.006)	(0.005)	(0.005)
Age groups(t-1) = 2, 65-75	-0.018*	-0.019*	0.004	0.004	0.002	0.002	-0.021***	-0.022***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.006)	(0.006)	(0.006)	(0.006)
Age groups(t-1) = 3, >75	-0.048***	-0.050***	0.030**	0.030**	-0.001	-0.001	-0.027***	-0.028***
	(0.011)	(0.012)	(0.012)	(0.012)	(0.007)	(0.007)	(0.006)	(0.007)
Female	-0.002	-0.002	-0.003	-0.003	0.012***	0.012***	0.005	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)	(0.004)
Couple	-0.027***	-0.027***	0.037***	0.037***	-0.009**	-0.009**	0.005	0.005
	(0.008)	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.004)	(0.004)
CJS (t-1) = 2, Retired (t-1)	0.015	0.015	-0.017	-0.017	-0.032***	-0.032***	-0.015*	-0.015*
	(0.010)	(0.010)	(0.011)	(0.011)	(0.008)	(0.008)	(0.008)	(0.008)
CJS (t-1) = 3, Not Employed (t-1)	0.097***	0.096***	-0.067***	-0.067***	-0.021**	-0.021**	-0.010	-0.011
	(0.020)	(0.020)	(0.018)	(0.018)	(0.010)	(0.010)	(0.010)	(0.010)
Education = 2, Lower Secondary	-0.002	-0.002	0.050***	0.050***	0.010	0.010	0.008	0.008
	(0.018)	(0.018)	(0.017)	(0.017)	(0.007)	(0.007)	(0.006)	(0.006)
Education = 3, Upper Secondary	-0.031**	-0.031**	0.052***	0.051***	0.007	0.006	0.022***	0.022***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.006)	(0.006)	(0.006)	(0.006)
Education = 4, Tertiary	-0.061***	-0.061***	0.048***	0.048***	0.021***	0.021***	0.032***	0.032***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.007)	(0.007)	(0.006)	(0.006)
Different Hou. and Fin. R (t-1)	0.006	0.007	0.004	0.004				
	(0.008)	(0.008)	(0.010)	(0.010)				
Observations	8,592	8,592	9,000	9,000	10,897	10,897	10,526	10,526
R-squared	0.069	0.069	0.039	0.039	0.028	0.028	0.026	0.026
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Mean dep var	0.0986	0.0986	0.879	0.879	0.0480	0.0480	0.0433	0.0433
β_2 - β_1		-0.00825		0.0120		-0.0104		-0.0107
p-value		0.550		0.441		0.217		0.144

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 8). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of Respondents who reported to manage to pay for an unexpected expense in wave 8. *Received 250€ (5k€)* is a binary variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ (5k€) in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ (5k€) in wave 8.
Significance levels: *** p < 0.01, ** p < 0.05, * p < 0.1.

Table A7: Changes in Total Wealth and Gross Financial Wealth using an alternative definition for *worse memory*

	(1)	(2)	(3)	(4)
VARIABLES	Δ W	Δ W	Δ GFW	Δ GFW
Severe memory loss	-22.162***		-4.240	
	(7.916)		(3.714)	
Aware		-23.032**		-2.272
		(9.590)		(5.304)
Unaware		-12.619		-2.391
		(12.134)		(4.535)
Pessimist		9.185		4.128
		(8.715)		(3.714)
β_2 - β_1		10.41		-0.118
p-value		0.418		0.984
Observations	4,913	4,913	4,023	4,023
R-squared	0.107	0.107	0.090	0.090
Country FE	✓	✓	✓	✓
Mean Δ W	29.34	29.34		
Mean W	290.5	290.5		
Mean Δ GFW			9.638	9.638
Mean GFW			63.55	63.55

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Net Wealth (ΔW) and Gross Financial Wealth (ΔGFW) (in thousands Euros at 2015 prices). *Aware*, *Unaware*, and *Pessimist* are defined using the alternative specification for *Worse memory*, i.e. the respondent reports to perceive their memory as worsened either in wave 8 or wave 9. All models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, and total wealth (gross financial wealth) in baseline. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A8: Difficulties in Making Ends Meet, Unexpected expense, Financial gift using an alternative definition for *worse memory*

VARIABLES	(1) Difficulties in MeM	(2) Difficulties in MeM	(3) Unexpected expense	(4) Unexpected expense	(5) Received 250€	(6) Received 250€	(7) Received 5k€	(8) Received 5k€
Severe memory loss	0.001		-0.041***		-0.009*		-0.011**	
	(0.009)		(0.010)		(0.005)		(0.004)	
Aware		0.015		-0.053***		0.004		-0.005
		(0.012)		(0.013)		(0.007)		(0.006)
Unaware		0.015		-0.031**		-0.015**		-0.011*
		(0.013)		(0.014)		(0.006)		(0.007)
Pessimist		0.034***		-0.005		0.009*		0.008
		(0.008)		(0.009)		(0.005)		(0.005)
β_2 - β_1		0.000300		0.0219		-0.0184		-0.00581
p-value		0.985		0.210		0.0260		0.423
Observations	6,971	6,971	7,730	7,730	9,391	9,391	9,031	9,031
R-squared	0.065	0.067	0.051	0.052	0.025	0.025	0.030	0.030
Country FE	✓	✓	✓	✓	✓	✓	✓	✓
Mean dep var	0.102	0.102	0.866	0.866	0.0491	0.0491	0.0441	0.0441

Notes: *Difficulties in Making ends Meet (MeM)* takes value 1 if the respondent reports to have some or great difficulties. We estimate the models over the subsample of respondents who had no difficulties in making ends meet in t-1 (i.e. wave 8). *Unexpected expense* takes value 1 if the respondent reports to manage to afford an unexpected expense and 0 otherwise. We estimate the models on the subsample of Respondents who reported to manage to pay for an unexpected expense in wave 8.

Received 250€ (5k€) is a binary variable that takes value 1 if the respondent reports to have received any financial gift worth 250€ (5k€) in wave 9. We estimate the models on the subsample of respondents who had no financial gift worth 250€ (5k€) in wave 8.

Aware, *Unaware*, and *Pessimist* are defined using the alternative specification for *Worse memory*, i.e. the respondent reports to perceive their memory as worsened either in wave 8 or wave 9.

All models control for indicators for age classes in baseline, being in a couple, education, low grip strength in baseline, employment status in baseline, country of residence, and annual household income in baseline.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A9: HRS - Changes in Total Net Wealth using an alternative definition for *worse memory*

	(1)	(2)
	Δ W	Δ W
VARIABLES	(HRS)	(HRS)
Severe memory loss	-20.445	
	(12.560)	
Aware		-19.979
		(17.921)
Unaware		-32.801**
		(16.318)
Pessimist		-13.290
		(11.678)
β_2 - β_1		-12.82
p-value		0.537
Observations	4,765	4,765
R-squared	0.279	0.279
Controls	✓	✓
Mean Δ W	-85.05	-85.05
Mean W	399.1	399.1

Notes: The table reports OLS estimates for model (1) and model (2) for the changes in Total Net Wealth (ΔW) (in thousands dollars at 2014 prices). *Aware*, *Unaware*, and *Pessimist* are defined using the alternative specification for *Worse memory*.

All models include indicators for baseline age categories, being in a couple, years of education, race, employment status, memory score, and total wealth.

Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.