Who (and why) is still afraid of Reverse Mortgages?

Results from a representative survey in Italy [1]

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Abstract

A Reverse Mortgage (RM) allows older homeowners to borrow against their home, maintaining the right to live in the same. Against its potential to cope with liquidity problems in old age, it has not been much used in practice. The literature is inconclusive about possible motivations for this, which include bequest motives, limited understanding of the product, financial education and mistrust in financial institutions. To test for barriers to the use of RM, we exploit data from an original comprehensive qualitative and quantitative research study conducted between May and September 2024 in Italy, a country with a pronounced population ageing, a high home ownership rate and a traditional family structure. In order to assess who and why is still afraid of RMs, we test four hypotheses supported by household decision models by means of regression analysis. Two are our main results. First, contrary to theoretical expectations and the previous literature, bequest motives do not hinder interest in the RM, which in contrast is higher for homeowners with the present need to support grandchildren. Second, two are the most significant factors behind the lack of interest: low levels of financial education reflecting limited understanding of the product and its potential to address liquidity needs, and distrust in financial institutions. These results have relevant implications since they highlight the need for coordinated industry and policy efforts in improving targeted financial education initiatives, product transparency and trust in financial institutions as they are crucial conditions to increase the RM unexpressed potential.

Keywords: Reverse Mortgage, Household financial choice, Bequest motive, Financial education, Bank distrust

JEL: C25, C83, D14, G51, J14

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1. Introduction and related literature

The demographic shift towards an older population is an extraordinary and unparalleled phenomenon of the 21st century, mainly due to declining birth rates and improved life expectancy. In certain countries, such as Italy, population aging is more pronounced: according to the Italian National Institute of Statistics (ISTAT) in 2024 life expectancy at birth increased by almost 5 months compared to 2023 (ISTAT, 2025) even if healthy life expectancy decreased to 59.2 years in 2023, going back to 2019 levels (ISTAT, 2024). Further, together with China, Spain, and Russia, Italy falls under the category of "ultra-low fertility", which means it has less than 1.4 live births per woman in her lifetime (United Nation, 2024).

Mitigating the challenges of population aging necessitates a combination of public and private resources, tailored to different needs and demands for protection. In this perspective, the contractual structures of financial/insurance products must be rethought using a life-cycle approach.

In this view, a Reverse Mortgage (RM), a key component of the so-called Silver Economy (Di Lorenzo et al., 2025, Merton et al., 2016, Shao et al., 2019, Hanewald et al., 2016), represents a valuable solution for older homeowners whose pensions fail to provide adequate financial stability. By means of RMs (known as Equity Release in the UK), homeowners aged 60 and over can partly unlock the value of their residential home through a line of credit provided either as a lump sum or through periodic payments. Both the loan and the accrued interests are repaid only after the death of the contractor (or of both contractors, for example if there is a cohabiting spouse). Unlike traditional bare ownership agreements, RMs allow heirs to retain the option of redeeming the property, ensuring that legal rights to the home are not permanently surrendered upon sale (Morano & Tajani, 2016). The loan the homeowner signed will be reimbursed by selling the property, unless the heirs decide to redeem it. To comply with the "non-negative equity guarantee" (NNEG) clause, the amount to be repaid must not exceed the amount obtained from the house sale. In addition, the heirs are owned any sums over the debt amount, when the house is sold.

The European Pensions and Property Asset Release Group (EPPARG) in the latest survey report estimated that the global equity release market could reach USD 50 billion by 2033, which is over twice its current size (cf. EPPARG, 2024), and that significant increases are expected also in European countries that are traditionally unfriendly to this product, such as Italy, Poland, and Germany.

Against this recently renewed interest in RMs and market potential, Italy lends itself to an empirical assessment for two main reasons.[2] First, 77% of Italian households owned their homes by the end of 2020, and one-third also owned additional properties (Banca d'Italia, 2022). Second, there is evidence of a growing number of elderly homeowners that can be defined "house rich - cash poor", since they have housing wealth but are experiencing financial hardship because of low pension income streams. According to ISTAT data, in 2024 61.9% of households in the first equivalent income quintile (i.e. lowest income) owned the home they lived in, up from 59.2% in 2023.[3] In addition, Covid-19 pandemic has significantly reshaped the financial and emotional priorities of older individuals, reinforcing concerns around economic security and the need for health protection in later life.[4]

The aim of this paper is to answer one main research question: who and why is still afraid of reverse mortgages? To this end we take the Italian case and we test four main hypotheses supported by household decision models: i) Homeowners are not interested in RM for bequest motives, i.e. they want to transfer the whole home equity to relatives in the future; ii) Homeowners are interested to use RM to draw income from the home equity in order to help relatives now; iii) Domain specific financial education helps understanding the working of RM and its usefulness to address liquidity issues thus increasing the interest in RM; iv) Homeowners are not interested in RM because they do not trust financial institutions.

We exploit data from a representative survey administered within a comprehensive qualitative and quantitative research study conducted between May and September 2024 in Italy, which explored both via web and phone three main RM macro-themes: the perceived level of confidence/concern regarding the economic sustainability of old age; the level of awareness of supplementary pension instruments, and in particular of the RM; reactions to a description of RM in terms of clarity, understanding and interest in subscribing such a product.

Two main results emerge from the regression analyses. First, contrary to expectations from theoretical models and the previous literature, lower interest in the RM is not significantly

[2] In Italy, the RM was initially introduced by Law No. 248/2005, and significantly redefined by Law No. 44/2015, which improved product transparency and supported its use; its regulatory framework was further clarified by Ministry Decree No. 226/2015.

[3] https://esploradati.istat.it/databrowser/#/it/dw/categories/IT1,HOU,1.0/HOU_HOUSING/DCCV_TITGODABIT/IT1,33_290_DF_DCCV_TITGODABIT_5,1.0. Similarly, the Italian socio-economic research institute CENSIS (CENSIS, 2022), reports that 55.1% of households in the first equivalent income quintile own the house they live in, and this compares to 65.5% in the second quintile, 72.4% in the third quintile, 77% in the fourth quintile, and 83.9% in the quintile, with the best economic condition.

[4] Within this context, the home is increasingly seen not only as a vehicle of intergenerational wealth transfer but also as a protective and emotionally meaningful asset (CENSIS, 2022). Specifically, according to CENSIS (2022), 91.9% of Italian homeowners consider their home a refuge, while 89.7% feel reassured and comforted by owning the home they live in.

associated with bequest motives; rather, homeowners with a strong attitude to support relatives, specifically grandchildren, show greater interest in the product. This evidence hints to homeowners not being afraid of the RM because of bequest motives, but considering RM as a tool for early intergenerational transfers (i.e. early bequest), allowing them to financially assist their relatives during their lifetime. Second, two are the most significant factors behind the lack of interest in the RM: low levels of domain specific financial education, proxied by self-perceived and actual understanding of RMs, and distrust in financial institutions. Overall, results highlight the need for coordinated industry and policy efforts in improving targeted financial education initiatives, product transparency and trust in financial institutions as they are crucial conditions to potentially increase RM demand.

This paper contributes to the empirical literature on RMs, which is not conclusive on the factors of interest/disinterest in the RM, by exploring RM interest among Italian households nearly two decades after its initial introduction in Italy, and in the aftermath of the Covid-19 pandemic. As far as we know, it is the second study after Fornero et al. (2016) providing a quantitative analysis for the Italian market, and the first to rely on a survey which includes key RM issues. Specifically, the analysis by Fornero et al. (2016) is based on data retrieved from the UniCredit Survey (UCS) carried out in 2007 over the bank's customers aged 20-75 and with deposits between 10,000 and 2.5 million euro. By means of an economic analysis they identify women, older individuals, singles, and those classified as house rich–cash poor as potential main beneficiaries of such an instrument, by contrast to survey responses revealing that these categories, with the exception of singles, do not express a significantly greater interest in the product. Further, bequest motives, approximated by the presence of children, disincentivize only in the subsample of respondents aged over 50, in line with the relevance of bequest motives among Italian households found by Hoekstra and Dol (2021) by means of a qualitative analysis based on focus groups. With respect to Fornero et al. (2016) we consider a more representative sample of the Italian population, a more recent period (2024 vs. 2007) and specific survey questions which allow to better explore the role of bequest motives and distrust in financial institutions as factors hindering the use of RM. Moreover, by considering a more recent period we can account for updates in the regulation of RMs and changes in the socio-economic and demographic structure of the Italian population.

Other empirical studies investigate factors behind RM demand, with a special focus on the role of bequest motives. Bartsch et al. (2021) and Olejnik et al. (2017) use descriptive analysis on interviews for the German and Polish markets respectively and identify bequest motives among deterrents to the use of the RM beside product complexity, poor product knowledge and

the lack of trust in financial institutions. Similar results about RM obstacles are stressed by Jefferson et al. (2017) for Australian households. Heo et al. (2016) find that among RM disadvantages perceived by South Korean RM non-borrowers there are bequest motives and the borrower's inability to benefit from potential increases in house prices during their lifetime. As for the U.S., Davidoff et al. (2017) show that bequest motives are negatively related to interest and earlier works by Knapp (2001) and Leviton (2002) stress the role of family and community ties in influencing homeowners' decision regarding RM. On the other hand, French et al. (2018) prove that neither emotional attachment to homes nor bequest motives play a significant role in considering RM among UK homeowners aged 55 and over. Adding further nuances, Hanewald et al. (2020) report mixed results based on two large online surveys among Chinese urban homeowners: the first of potential borrowers aged 45-69 and the second of homeowners' children aged 20-49. They find that potential borrowers willing to leave a bequest express less interest in the RM, whereas homeowners' children, when aware of this intention, are more likely to view the product favourably and suggest it to their parents. Dillingh et al. (2017) initially find that bequest motives do not have a significant effect on interest in RM over a representative sample of the Dutch-speaking population aged 45 and over. However, when respondents with a bequest wish are presented with a version of the RM framed as a way to gift money to (grand)children, interest increases significantly. Beside bequest motives, also product knowledge plays a role in the RM interest. For instance, Davidoff et al. (2017) show that US individuals with a higher knowledge of the RM or who know other people using RM are significantly more interested in the product.

Another strand of the academic literature on RMs is represented by theoretical studies on household choices, which primarily use life-cycle models to highlight borrowers' benefits in terms of welfare gains.[5] For instance, Nakajima and Telyukova (2017) by using a multiperiod structural model for retirees, identify low-income and older households as categories that benefit the most from RM. Similarly, Cocco and Lopes (2020) through a model of retirees' consumption and homeownership decisions that in each period incorporates the borrowers' choice to maintain the house, find that RM are beneficial for house-rich cash-poor individuals, with low bequest motives and with other debts. However, Chiang and Tsai (2016), based on a theoretical model for RM decision among older homeowners and with U.S. data, demonstrate that the decision to

[5] In the present review we focus on the borrower's viewpoint, which is central to our research. On the other hand, the lender's approach is to prioritize the management of risks that afflict RMs, particularly house price risk, financial risk, and longevity risk (Bartsch et al., 2021, Li and Liu, 2019, Di Lorenzo et al., 2024, Chen and Wu, 2014; Davidoff, 2015; Shao et al., 2015) and related pricing issues (cf. Thomas, 2021; Huang et al., 2021; Dowd et al., 2019; Alai et al., 2014).

take up a RM also depends on personal characteristics and circumstances and on parameters of both the RM contract and the current economic situation. The decision to contract a RM is investigated also by Di Lorenzo et al. (2025), who use a multi-period life-cycle model to study optimal saving streams for Italian retired males and find that RMs can increase liquidity, particularly in the presence of long-term care and home maintenance costs. By also considering comparable instruments, Hanewald et al. (2016) investigate the choice between RMs and home reversion plans and find higher utility gains for RMs; whereas Shao et al. (2019) highlight strong complementarities between RM and private long term care (LTC) insurance showing that their joint availability increases demand for both products.

The remainder of this paper is organized as follows. Section 2 describes the survey design and Section 3 provides descriptive statistics of the data collected. While Section 4 illustrates the hypotheses to be tested with reference to the household decision models behind them, Section 5 presents the econometric analysis to test them on the survey data and Section 6 reports robustness checks. Last section concludes. Appendix A reports the definition of the variables used in the analyses.

2. The survey design

With the specific aim to explore the role of motivation in selecting the financial product under investigation, a comprehensive qualitative and quantitative research study was conducted in Italy between May and September 2024.

2.1 Qualitative stage

The qualitative stage was designed specifically to uncover the motivational drivers underlying the customer's relationship with the product. Additionally, it played a key role in informing the development of the questionnaire items used in the subsequent quantitative phase, ensuring they effectively captured the necessary dimensions. The qualitative insights also proved valuable during the data interpretation stage, helping to clarify and resolve potential uncertainties in the survey findings. This enhanced the overall reliability and impact of the research outcomes. Specifically, four focus groups were conducted—each comprising eight participants and lasting two hours—across two cities: Milan and Naples. All participants were aged over 60 and evenly distributed between two age brackets: 60–70 and 71+. Eligibility criteria included homeownership of their primary residence and an active or shared role in managing household financial decisions. The main insights gathered during the qualitative phase and further explored in the quantitative one refer to: the perceived level of confidence (or concern) regarding the economic sustainability of old age; the level of awareness of supplementary pension instruments,

and in particular of the RM; reactions to a description of the RM, in terms of clarity and understanding, and in terms of interest in subscribing to such a product.

2.2 Quantitative stage

The quantitative stage, designed to validate the aforementioned insights, aimed to generate robust and measurable indicators by engaging a broad and representative pool of participants. Employing a large sample size enabled more reliable analysis, including the ability to draw meaningful conclusions across different subgroups within the population. Details on sample representativeness are provided in Section 3. The quantitative research was conducted between July 4th and September 6th, 2024 with a break during the month of August, on a total of 904 interviews. Two methodologies were applied: 50% of the interviews were carried out via CAWI (Computer Assisted Web Interviews) with respondents recruited from pre-profiled panels. The other 50% of the interviews were conducted via CATI/CAMI (Computer Assisted Telephone/Mobile Interviews) with respondents randomly selected from telephone directories and/or through random-digit dialing for mobile phones. The questionnaire had a semi-structured form, with predominantly closed-ended questions, it required an average of 12 minutes per interview and it was designed to harmonize the different interviews modality and to minimize the mode effect on the collected data.

The survey addressed multiple topics and the following subsections summarize the key information gathered through the survey questions for each area.

2.2.1 Demographics and attitudes/information connected to the RM

A first set of questions represents an introduction aiming to collect participants' demographics such as gender, age, living area, marital status and to understand whether participants match the survey eligibility criteria: being over 60, deciding on their own or with another family member (in equal measure) about household economic decisions and being owner or co-owner of the house in which they live. This first set of questions also explore education, job and family information about the household size, children and grandchildren. Specifically, for each child, participants are asked which of these situations applies: "He/she depends on me economically", "He/she works but I have to help him/her financially", "He/she is economically independent", "He/she helps me economically".[6] A follow-up question asks whether participants have grandchildren for whom they feel economically responsible for the future.

[6] When there are more than four children, this information was asked for the first three children and the youngest of the remaining ones.

Subsequently, a second set of questions relate to health status and concerns for the future. For instance, participants are asked whether in the home there are currently people, including themselves, who need assistance for health or memory problem. This is followed by a series of statements regarding their future financial resources. After responding to these, participants are asked to rate, on a scale from 0 (not at all secure) to 10 (completely secure), how secure they feel about their future, considering the resources they expect to rely on in old age.

Then, a third set of questions concerns the house in which participants live, in particular whether the house has been inherited or bought and whether they had to pay mortgages or loans (also requested from relatives and friends) for the purchase or renovation of the house, even recently. Moreover, there is also a question asking if the participant's children or grandchildren have expressed an interest in the home for the future.

Finally, a fourth set of questions cover future financial resources and the knowledge of financial products to supplement the pension. There is a question regarding the ownership of other real estates (e.g. holiday home) in addition to the house in which participants live and also a question quantifying the income on which they can count today. As for financial products to supplement the pension, participants are asked whether they know each of the following sources of economic support: supplementary pension plan/supplementary pension; life insurance, income from property rental, transfer of one fifth of salary/pension; reverse mortgage; others (specify); none of those.

2.2.2 RM presentation and understanding

The following are the English translation of the product presentation and of the concrete RM example delivered to survey participants, where bold parts suggest higher emphasis.

[DESCRIPTION]
The Reverse Mortgage **allows people over 60 to use their home** as a guarantee for a sum of money, **securing heirs from any debt.**
The terms of the loan are fixed at the time of subscription and **remain unchanged for the duration of the loan**.
Here's how it works:

- An **independent** appraiser assesses the value of the house to establish a maximum loan value.
- The amount of the loan is decided, and the interest rate is fixed.
- It is possible to choose whether to receive the money as a lump sum or periodically (e.g., monthly)
- The borrower **is free to spend the money in whatever way he/she considers more appropriate** (for example, to supplement his/her pension, pay medical or unforeseen expenses, make a purchase, ensure a more relaxed standard of living, etc.).

As long as the **borrower is alive:**

- **shall not repay the debt or pay interest**
- **has the right to continue living in his/her own home**
- **maintains ownership of the house.**

Both the loan and the accrued interest should be repaid only after the death of the contractor (or of both contractors, for example if there is a cohabiting spouse).
Loan and interest will be repaid through the sale of the house, **at the market value that the house will have at the time of sale.**
With the sale of the house, three cases may occur:

- Both the loan and interest are repaid and nothing else remains

Or

- Both the loan and the interest are paid back, and **an additional sum is obtained from the sale, which goes to the heirs** (e.g. if the house is revalued)

Or

- it is not possible to cover all the debt (either because the house is devalued or because the borrowers have lived so long that the loan paid out has exceeded the value of the house). In this case **the heirs remain secure** and do not have to pay anything, because the loss is borne by the institution that granted the loan.

In addition:

- **Heirs can always decide to buy back the house** (and they will have a reasonable time to decide).
- **The contractor may settle the debt before his death**.

To be noted that half of the sample, in terms of both gender and survey mode, was randomly assigned to a treatment group in which the RM description includes the following concluding statement: "Interest and/or expenses are borne by the State". This was intended to assess, ex post, whether the idea of public support influences respondents' interest in the product.

Let's consider **a concrete example of how this product works**.
Mr. Rossi is 65 years old.
His wife, who lives with him, is 60 years old.
Mr and Mrs Rossi need to have more liquid cash to supplement their pension and cannot ask for help from their son who is not yet economically independent.
Since they own the property of the house they are living in, they decide to use it for a reverse mortgage.
An independent expert valuates the house at EUR 500,000.
The lender grants a sum of 250,000 euros, at a market interest rate, say 5%, which will remain unchanged forever.
It is agreed that this sum will be paid monthly.
At this point, as long as Mr. Rossi and his wife are alive:

- They can freely spend the extra money they receive monthly;
- They do not have to reimburse anything;
- They can continue to live in their home and until death do not lose ownership of it.

The years pass. Mr. Rossi dies at 90 years old. After a few years, his wife also died at 95.
Only at this point, then after 35 years, the house is put up for sale at the current market price (800 thousand euros), to repay the loan and accrued interest (for about 700 thousand euros).
So, in the meantime, the house has been revalued and its sale covers both the debt and the interest. In addition, the son of Mr Rossi, who had no interest to redeem the house, also receives a sum for himself (about 100 thousand euros).

After the product presentation and the concrete example, participants are asked to assess their self-perceived understanding of RM by indicating how clear they find the RM mechanism, using a five-point scale ranging from "Very clear" to "Not at all clear". Further, an actual understanding of the product is assessed through the following nine statements about RM, to which participants must respond "True" or "False".

Suppose to subscribe the Reverse Mortgage. Indicate if the following statements are true or false.
[If Mode = 1 → READ instruction appears]

[Rotation]	TRUE	FALSE
As long as I'm alive, I don't lose ownership of the house	(1)	(2)
As long as I'm alive, I can continue to live in my house	(1)	(2)
The loan and interest are repaid with the sale of the house	(1)	(2)
Compared to the bare ownership, the house will be sold at market value	(1)	(2)
If the sale of the house fails to repay the loan, my heirs will have to pay it	(1)	(2)
My heirs can never redeem the house	(1)	(2)
If after paying off the loan and interest, there is still something left from the sale of the house, this extra amount will be given to my heirs	(1)	(2)

As long as I'm alive, I don't have to pay any debt or interest	(1)	(2)
If I want, I can redeem the loan even before I die	(1)	(2)

2.2.3 RM interest and disinterest

Towards the end of the survey participants are asked whether, after concretely considering their future situation (both economically and in terms of health) and on the basis of what has been described, they would consider the RM. The five possible answers are: "Definitely yes", "Probably yes", "Maybe yes maybe no", "Probably no", "Definitely no". Finally, the ones who select the neutral or negative answers about interest receive a further question asking for which reasons, mainly, they would not consider the RM. The multiple choice includes the following reasons: "My financial resources will be sufficient", "I don't want to borrow money", "I don't want to put my home at risk", "I need more information about the product", "I don't trust lending institutions", "I don't think my house will be reappraised over time", "Other (please specify)".

3. Dataset: descriptive statistics

The survey resulted in a total of 904 completed interviews, with a final sample of 887 observations (17 are excluded due to inconsistency in the replies) whose main descriptive statistics are reported in Table 1. Although the sample is identically split between the two survey modes (CAWI and CATI/CAMI), respondents who accepted each mode differ quite noticeably, consistently with the literature (Roster et al., 2004; Sarracino et al., 2017; Feng and Huang, 2024). Specifically, web respondents are mainly men, below 70 years old, with at least a high school diploma and living in the North of Italy (see Figure 1) although the final sample is almost evenly split between "Female" and "Male", with a slight majority for females (53.6%). Recalling that RM is only for individuals over 60, respondents' age ranges from 60 to 94, with a slight overrepresentation of younger participants, as the average age is just below 69. Geographic heterogeneity is guaranteed, with the majority of respondents living in the North of Italy (41.8%) followed by South and Islands (36.4%) and then Centre of Italy (21.8%). Overall, the sample refers to a representative population of Italy by age group and geographic area in relation to homeowners in Italy (latest ISTAT census, 2023, and Eu-Silc data, 2022).[7] Most of the respondents holds a high school diploma or a university degree, representing 53.6% and 32.6% of the sample respectively, whereas a minority (13.9%) hold only elementary or middle school

[7] https://www.istat.it/en/news/census-population/ and https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions.

diploma. Although there is a gender gap in education, the percentage for graduated respondents is nearly identical between genders. The majority of respondents (71%) are married or living with a partner, while lower percentages of 12.1%, 8.5% and 8.5% refer to separated or divorced, widowed, and never married/living with a partner respectively. There is a higher proportion of men among married/living with a partner and a higher proportion of women in the other categories. The household size ranges from 1 to 8 with almost 90% of respondents having a household size of maximum 3 people. Respondents have from zero to 10 children, more frequently 1 or 2 children and, among respondents with no children, women are more represented. 43.3% of the respondents are employees with medium qualifications (such as office workers or teachers), but there are some differences between genders: there a more women with a medium qualification or in a non-working condition, while there are more men with a high qualification or self-employed.

As for survey questions that reflect attitudes and information connected to the RM, it emerges that 55.9% of the respondents, on a scale from 0 to 10, feel secure (score 6-10) about the future if they consider the resources they will have in old age, 16.7% feel neutral (score 5), whereas 27.4% feel unsecure (score 0-4), making them potential applicants for RM. Just more than one third of the sample have an additional property beside the house in which they live, consistent with Italian statistics (Banca d'Italia, 2022) and 54.9% of respondents make economic decisions alone, while the remaining share decision-making equally with another household member. Independent decision-making is more common within males, aligning with evidence suggesting that men are typically responsible for financial decision-making in Italian households (Bertocchi et al., 2014).

Moving to the family context, most of the respondents (76.7%), with almost no differences between genders, do not feel financially responsible for their grandchildren's future. In a similar pattern, 68.5% have all children who are financially independent. Quite a small proportion (14.5%) of respondents, either personally or in relation to a household member, have health or memory issues to need assistance.

In most cases home was purchased (68.5%) compared to inherited, which is a little more frequent among women. Only about 10% of respondents are still paying a mortgage or loan for the purchase or the renovation of the house, which can be explained by the average age of the sample. Less than one third, regardless of gender, have children or grandchildren who have expressed an interest in the home for the future.

Relating to the description about RM provided in the survey, almost all of the respondents perceive it clear or quite clear (60.0% and 33.0% respectively), with higher clarity observed over

the CAWI and male subsamples. This evidence may be due to the fact that, while answering the survey online, people can take their time and even search for additional information if needed and that men have traditionally been more aware of and familiar with financial issues (Bottazzi and Oggero, 2023). Similarly, after reading/listening to the description of the RM, respondents have correctly answered an average of almost 8 out of 9 questions, with a slightly higher assessment among web respondents and men. Despite a good understanding of the RM, only 26.3% of the sample was already familiar with it and a quite higher knowledge is recorded among CATI/CAMI and male respondents.[8] On the other hand, almost 90% know at least two others instruments to supplement retirement income. This shows that the knowledge of the RM is limited compared to other instruments with a similar objective.

To be noted that the perfectly uniform distribution of the treatment regarding a contribution from the government in supporting RM interest and/or expense confirms the correct execution of the experiment.

Finally, 25.9% of the respondents declare they are either definitely (4.2%) or probably (21.8%) interested about the RM, with a slightly higher interest among women and CATI/CAMI ones; among the 657 indifferent (maybe yes maybe no) or non-interested (probably no, certainly no) respondents, 24.0% of them indicate the distrust in lending institutions such as banks as a reason for their disinterest.

Table 1. Descriptive statistics

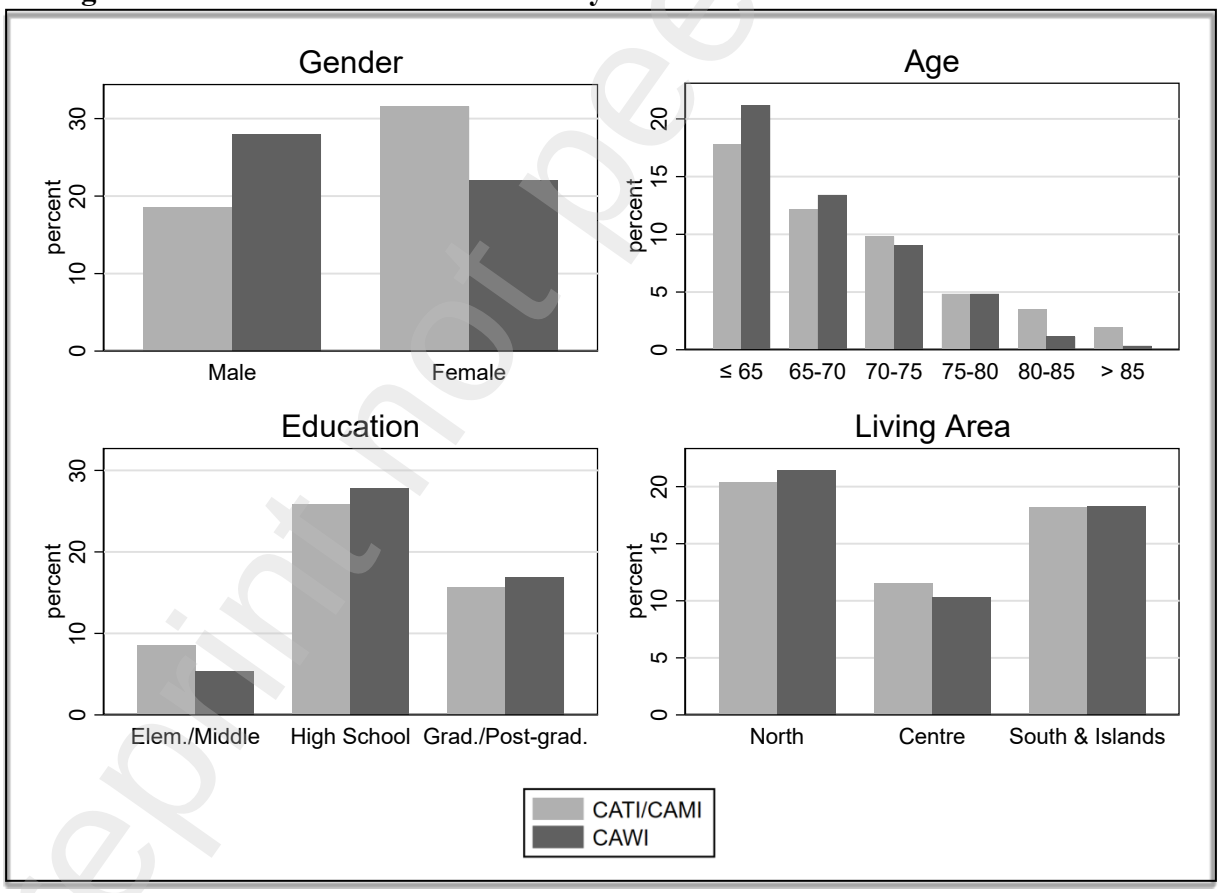
Variable	Obs	Mean	Std. dev.	Min	Max
Mode					
CATI/CAMI	887	0.501	0.500	0	1
CAWI	887	0.499	0.500	0	1
Female					
No	887	0.464	0.499	0	1
Yes	887	0.536	0.499	0	1
Age	887	68.909	6.783	60	94
Living area					
North	887	0.418	0.494	0	1
Centre	887	0.218	0.413	0	1
South and Islands	887	0.364	0.481	0	1
Education					
Elementary or Middle school	887	0.139	0.346	0	1
High school	887	0.536	0.499	0	1

[8] Empirical studies show that the knowledge of the RM varies substantially according to the sample considered. In a survey of Dutch homeowners aged 45-90, Dillingh et al. (2017) observe that only less than 10% of respondents have prior knowledge of the RM. Olejnik et al. (2017) report a 27% knowledge among households in a region of Poland. Higher percentages of 60.1% and 97% are observed by Hanewald et al. (2020) in a Chinese sample aged 45-69 and by Davidoff et al. (2017) in a US sample aged 58 and older.

Graduate or Post-graduate	887	0.326	0.469	0	1
Marital status					
Married/Living with a partner	887	0.710	0.454	0	1
Separated or Divorced	887	0.085	0.278	0	1
Widowed	887	0.121	0.326	0	1
Never married/living with a partner	887	0.085	0.278	0	1
Household size	887	2.276	0.947	1	8
Number of children	887	1.536	1.040	0	10
Job					
Employee professions low qualification	887	0.109	0.312	0	1
Employee professions mid qualification	887	0.433	0.496	0	1
Employee professions high qualification	887	0.156	0.363	0	1
Self-employed professions	887	0.161	0.368	0	1
Non-working condition or other categories	887	0.141	0.348	0	1
Future financial security					
Low (0-4)	887	0.274	0.446	0	1
Neutral (5)	887	0.167	0.373	0	1
High (6-10)	887	0.559	0.497	0	1
Additional properties					
No	887	0.635	0.482	0	1
Yes	887	0.365	0.482	0	1
Decision alone					
No	887	0.451	0.498	0	1
Yes	887	0.549	0.498	0	1
Grandchildren financial need					
No	887	0.767	0.423	0	1
Yes	887	0.233	0.423	0	1
Children/grandchildren's interest					
No	887	0.701	0.458	0	1
Yes	887	0.299	0.458	0	1
Children financially dependent					
No	887	0.685	0.465	0	1
Yes	887	0.315	0.465	0	1
Healthcare need					
No	887	0.855	0.353	0	1
Yes	887	0.145	0.353	0	1
Inherited home					
No	887	0.685	0.465	0	1
Yes	887	0.315	0.465	0	1
Mortgages					
No	887	0.891	0.312	0	1
Yes	887	0.109	0.312	0	1
Clarity					
Very clear or clear	887	0.600	0.490	0	1
Quite clear	887	0.330	0.471	0	1
Slightly clear or Not clear at all	887	0.070	0.255	0	1
RM Assessment	887	7.998	1.490	0	9
Treatment					

No	887	0.501	0.500	0	1
Yes	887	0.499	0.500	0	1
RM prior knwledge					
No	887	0.737	0.440	0	1
Yes	887	0.263	0.440	0	1
Supplementary financial instruments knowledge					
No	887	0.110	0.314	0	1
Yes	887	0.890	0.314	0	1
RM Interest					
Definitely no	887	0.214	0.411	0	1
Probably no	887	0.212	0.409	0	1
Maybe yes maybe no	887	0.315	0.465	0	1
Probably yes	887	0.218	0.413	0	1
Definitely yes	887	0.042	0.200	0	1
Bank distrust					
No	657	0.760	0.428	0	1
Yes	657	0.240	0.428	0	1

Figure 1. Main differences across survey modes



Notes: In the subfigure about Age, each interval excludes the lower bound and includes the upper bound. In the subfigure about Education the three categories are: Elementary & middle school, High school, Graduate & Post-graduate.

4. The hypotheses

This section presents the hypotheses to be tested in the econometric analysis, which are derived from both the theoretical and empirical literature. Specifically, Hypotheses 1 and 2 are supported by two models of household financial choices including RM that are recalled after the statement of each hypothesis; Hypotheses 3 and 4 rely on an empirical literature highlighting two other issues that are not captured by theoretical models, yet they proved to be very relevant in household financial choices, i.e. financial education and trust in financial intermediaries. All the hypotheses are also supported from the qualitative findings of the focus groups as discussed in Section 2.1.

Hypothesis 1: Homeowners are not interested in RM for bequest motives, i.e. they want to transfer the whole home equity to relatives in the future.

Although RMs constitute a potential financial instrument to alleviate older homeowners' needs in old age, by providing liquidity to be used for long-term care financing, consumption and intergenerational wealth transfers, they involve strong emotional impact as it clearly resulted from both the focus groups (qualitative research step) and theoretical models accounting for bequest motives in the decision-making process of borrowers. In this regard, a useful setup including the choice over RM of elderly is obtained by Chiang and Tsai (2016), who propose a dynamic economic model based on a lifetime utility function defined as:

$$U(C_0,C_1,\cdots,C_{\tilde{T}-1},W_{\tilde{T}}) = \sum_{t=0}^{\tilde{T}-1} U(C_t,t) + B(W_{\tilde{T}},\tilde{T}) \quad \#(1)$$

where:

$U(C_t,t) = \frac{\delta^t C_t^\gamma}{\gamma}, B(W_T,T) = \frac{\delta^t W_T^\gamma}{\gamma}$

C_t is the consumption at specific time t, W_T is the amount of cash available at time $\tilde{T}$, δ is the impatience parameter and γ is the relative risk aversion parameter.

To investigate the role of the bequest motive for the demand for RMs, the authors measure the intensity of house bequest motivation (HBM) as a parameter ρ affecting the value of bequest utility in the following way: if P_0 is the payment elders made to buy the house at time t_0, H_0 is the expected present value of the house bequest at time t_0 and $\Omega_0^{W_0}$ is the expected sum at t_0 of the marginal utilities with respect to current wealth W_0. The values of the house bequest utilities for participation and non-participation in the RM program can be respectively expressed as $\frac{\rho}{1-\rho} P_0\Omega_0^{W_0}$ and $\frac{\rho}{1-\rho}H_0\Omega_0^{W_0}$. Based on this specification, when ρ takes values close to zero, the elder has a low tendency to bequeath the house and will be willing to take part in the RM program;

conversely, when ρ is close to one the elder has strong HBM and will therefore prefer to bequeath the house and renounce to RM. When $\rho = \frac{1}{2}$, the elder is neutral about bequeathing the house and the decision about RM is based on elder's economic condition, as expressed in equation (1). Their analytical analysis leads to a threshold value ρ^* under which elders are not willing to apply for RM. Such a critical value of HBM strength can be influenced by numerous factors, such as the value of the house during the lifetime, the marginal rate of substitution of the elder's current wealth for future cash income (impatience) and the principal limit factor (the percentage that determines how much money a borrower can receive from the reverse mortgage).

Hypothesis 2: Homeowners are interested to use RM to draw income from the home equity in order to help relatives now.

This second hypothesis to be tested also stems from the results from the qualitative step of the survey (focus group), but it is also supported by theoretical models of household decisions. Specifically, Di Lorenzo et al. (2025) propose a life-cycle model approach to analyze the optimal saving streams of the homeowner with and without RM, modeling consumption and bequest preferences with CRRA utility functions. In particular, the authors suppose that elders may be in three different health states $s \in \{1,2,3\}$ where $s = 1$ means healthy state, $s = 2$ represents ill state and $s = 3$ means dead state. Considering health-state transition probabilities $p_{s,t}$ obtained from a three-state Markovian model (cf. Di Falco and De Angelis., 2016), the lifetime utility function has the following form:

$$E_p[C,W] = \sum_{t=0}^{\omega-x} \delta^t \cdot \left[\sum_{s=1}^{2} p_{s,t} \cdot U(C_{s,t}) + \beta \cdot p_{3,t} \cdot B(W_{3,t+1}) \right] \quad \#(2)$$

where $C_{s,t}$ is the consumption at specific time t for the health state s, $W_{3,t+1}$ is the amount of cash available at time $t+1$ when dead occurs, δ denotes the impatience parameter and β represents the bequest parameter. In particular:

$$U(C_{s,t}) = \frac{C_{s,t}^{1-\gamma}}{1-\gamma},\ B(W_{3,t}) = \frac{W_{3,t}^{1-\gamma}}{1-\gamma}.$$

Through a backward induction mechanism, the authors find that elderly decision makers may obtain relevant welfare gains by contracting a RM, either when the transition to a serious illness state occurs immediately after retirement, or when homeowner reaches extreme age in good health. In the latter case, the proceeds of the lump sum received with RM can be invested and guarantee superior liquid wealth from savings to be used for a more comfortable lifestyle during old age or to help heirs. A sensitivity analysis performed on the parameters β, γ and δ shows that

individuals personal characteristics have a strong impact on how the RM is perceived: although the utility obtained after contracting the RM is always dominant, utility decreases with respect to parameters β and δ, meaning that the stronger the bequest motive and the impatience of the elder, the lower is the utility from the RM. On the contrary, for higher values of the risk aversion parameter γ, the utility gains result to be augmented: this phenomenon can be explained considering the sources of house-related risk, i.e. more risk averse homeowners prefer to receive an immediate amount of money rather than facing house price risk.

Hypothesis 3: Domain specific financial education helps understanding the working of RM and its usefulness to address liquidity issues thus increasing the interest in RM.

This third assumption is motivated by various studies proving that more financially literate individuals are also more likely to plan their retirement (Ghafoori et al., 2021; Billari et al., 2023; Jappelli and Padula, 2013). Indeed, the substantial impact of financial education on attitudes towards financial and pension planning has been empirically demonstrated (e.g. Gallo et al., 2018; Spaenjers, 2015). Nevertheless, extensive evidence shows that financial literacy among individuals is extremely low, even in advanced economies (Lusardi et al., 2014; Post and Hanewald, 2013). The lack of knowledge about insurance and pension products in advanced countries such as Italy is surprising, especially given the demographic emergency that requires a rational approach to financial planning and retirement (cf. IVASS, 2021). A clear description of insurance knowledge, propensity and confidence regarding insurance, as well as risk literacy, is given by 2053 respondents in the report produced by the Italian Institute for Supervision of Insurance (IVASS). It follows that complex products such as RMs are not widely known: demand is affected by product knowledge and general financial literacy as shown based on survey results by Fornero et al. (2016) for Italy, Davidoff et al. (2017) for the U.S.. Choinière-Crèvecoeur and Michaud (2023) examine the relationship between financial literacy and previous knowledge of RMs when taking out these products. They present survey experimental evidence on the opinion and valuations about RMs by near-retirees and retirees in Canada. This is particularly interesting, because the analysis deals with decumulation decisions and outcomes. This paper's findings demonstrate that understanding insurance is difficult for households, because of complex risk calculations, so grasping insurance products may be more challenging for individuals with scarce financial literacy. Psychological phenomena of older adults approaching RM were also examined by Stark et a. (2014). Their analysis emphasized that elders' difficulty to process relevant information and concentrating on tasks due to cognitive aging impact on their financial decision about RM, which contractual characteristics are quite complex.

Hypothesis 4: Homeowners are not interested in RM because they do not trust financial institutions.

This fourth hypothesis to be tested is motivated by a strand of literature on trust in financial intermediaries and household financial choices. Van der Cruijsen et al. (2023) underscore the relevance of the issue for household financial decisions: they provide an extensive survey of the literature on trust measurement covering many countries including Italy. Ampudia and Palligkinis (2018) examine Italians' confidence in banks using data from the Italian Survey on Household Income and Wealth (SHIW). They observe that households have a lower level of trust in banks listed and this is especially true for those who are risk-averse, self-employed, and those in the lower income or wealth bracket. Another interesting result emerges from El-Attar and Poschke (2011) who find that Spanish households with less trust invest more in housing and less in financial assets, especially risky ones.

5. Econometric analyses

5.1. The econometric model

In order to test the hypotheses outlined in Section 4 about homeowners' interest in the RM, we use the answers to the corresponding survey question expressed using a Likert scale ranging from 1 (Definitely no) to 5 (Definitely yes). Given the logical ordinal nature of the dependent variable (y_i), we estimate the following ordered probit model:

$$y_i^* = \beta_1 Bequest\ motive_i + \boldsymbol{R_i\gamma} + \boldsymbol{E_i\delta} + \beta_2 Bank\ distrust_i + \boldsymbol{X_i\theta} + \varepsilon_i \quad \#(3)$$

$$y_i = j \text{ if } \alpha_{j-1} < y_i^* \leq \alpha_j$$

where:

- $y_i^*$is the latent (unobserved) continuous variable representing respondent i's interest in the RM. Conversely, y_i is the observed discrete level of interest that takes values j from 1 to 5 according to threshold values α_0,...,α_5, where $\alpha_0 = -\infty$ and $\alpha_5 = +\infty$.
- $Bequest\ motive_i$ is a binary variable capturing respondent i's bequest motives approximated by the children/grandchildren's interest in the house.
- $\boldsymbol{R_i}$ is a vector containing binary variables capturing respondent i's attitudes towards helping relatives now: grandchildren financial need, children financially dependent, healthcare need.

- $\boldsymbol{E_i}$ is a vector containing variables capturing respondent i's domain specific financial education: RM prior Knowledge, RM Clarity (dummy for having perceived the RM description very clear or clear), RM Assessment. In particular, the variable RM Clarity, which reflects the respondent's self-assessed understanding of the RM description, and the variable RM Assessment, which reflects an objective measure of understanding, can both serve as proxies for financial education, as they imply some knowledge of basic loan concepts and repayment plans.
- $Bank\ distrust_i$ is a binary variable capturing respondent i's distrust in financial institutions as a reason for not being interested in the RM.
- $\boldsymbol{X_i}$ is a vector containing the following control variables:
    - socio/demographic: gender (dummy for being a female), age, living area (North – the reference category), level of education (dummy for being at least graduated), marital status (dummy for being single i.e. belonging to one of the following statuses: separated or divorced, widowed, never married/living with a partner), household size;
    - economic/wealth: job (employee professions low qualification – the reference category), future security (dummy for high future security), additional properties;
    - survey mode (dummy for CAWI mode).
- ε_i is the error term, which is assumed to follow a standard Normal distribution.

A more complete description of the variables used in the model is provided in Appendix A.

We estimate equation (3) to test the four Hypotheses set forth in Section 4. Specifically:

Hypothesis 1: It is verified if the coefficient of the $Bequest\ motive_i$ is statistically significant and negative.

Hypothesis 2: It is verified if the coefficients of the variables in the $\boldsymbol{R_i}$ vector, capturing grandchildren/children and healthcare needs, are statistically significant and positive (or at least one is statistically significant and positive and the others are not significant).

Hypothesis 3: It is verified if the coefficients of the variables in the $\boldsymbol{E_i}$ vector, capturing respondent i's domain specific financial education, is statistically significant and positive (or at least one is statistically significant and positive and the others are not significant).

Hypothesis 4: The hypothesis is verified if the coefficient of $Bank\ distrust_i$ is statistically significant and negative.

Note that to test the latter hypothesis, we focus on the subsample of 657 respondents who expressed limited or no interest in RM, specifically those who answered "Maybe yes maybe no," "Probably no," or "Definitely no." This is the subset for which we have information on distrust in financial institutions, likelihood of being certainly not interested rather than uncertain.

6.2 Regression results and Hypotheses testing

Main results are reported in Table 2 and 3, where estimated coefficients from the ordered probit models are reported in the first column, while the subsequent columns report average marginal effects on different outcomes for RM interest. Results in Table 2 (on the whole sample) allows to conclude on the first three Hypotheses, while results in Table 3 (on the subsample of less interested in RM) implies conclusions on Hypothesis 4.

Hypothesis 1: It is not verified since the coefficient of the $Bequest\ motive_i$ is not statistically significant. Hence, we do not find any association between the bequest motive and the interest in RM.

Hypothesis 2: It is verified: having grandchildren needing future financial support reduces the probability that homeowners select "Definitely no" or "Probably no" by 6.33 and 2.64 percentage points (pp) respectively, whereas it increases the probability of answering "Maybe yes maybe no", "Probably yes" or "Definitely yes" by 1.07, 5.50 and 2.40 pp respectively. Even if the other two variables proxying the help to relatives (i.e. Children financially dependent and Healthcare need) are not statistically significant, homeowners appear to understand that the liquidity from RM can be used, for instance, to support grandchildren.

Hypothesis 3: It is verified: both RM Clarity and RM Assessment have a positive statistically significant coefficient, implying that homeowners who perceive the RM description clear or with a higher number of correct answers to RM-related statements are more likely to express interest in the product. In particular, these two variables reduce the probability of selecting "Definitely no" or "Probably no" by 2-5 pp and increase the probability of selecting "Maybe yes maybe no", "Probably yes" or "Definitely yes" by around 1-4 pp. Even if the coefficient of previous knowledge of RM is not significant, we can argue that it captures a weaker form of financial

education on RM, as respondents who report having heard of RM may be simply familiar with the term.[9]

Among control variables in Table 2, we do not find any association with gender and marital status, we find a significant negative association with age, living in the North, education, futures security and additional properties. The result on these latter three variables can be explained by the fact that they may act as proxies for income, which is missing in the survey since we do not have information on the respondent's personal income.[10]

Hypothesis 4: The hypothesis is verified: not trusting financial institutions is significantly associated with an increase in the probability of being definitely not interested by 9.37 pp and a decrease the probability of being uncertain ("Maybe yes maybe no") by 10.28 pp.

As for control variables in Table 3, when focusing on the subsample of less interested in RM, we do not find any role for education and future security, but we have a role for marital status with single less likely to show some interest.

6.3 Discussion

Results from Hypotheses testing offer insights into the motivations behind disinterest in RMs and help in answering our main research question: who and why is still afraid of reverse mortgages?

From results on Hypothesis 1, we can conclude that bequest motives do not appear to significantly hinder interest in the RM in line with French et al. (2018), but contrasting with Davidoff et al. (2017) and Fornero et al. (2016). As for Hypothesis 2, the preference for having liquidity in the present to support relatives is also evident in Dillingh et al. (2017), who find that respondents over 65 show greater interest in RMs when these are framed as a means of gifting to potential heirs. Thus, combined evidence from tests on Hypotheses 1 and 2 hints to homeowners not being afraid of the RM because of bequest motives, but considering it as a tool for early bequest (Merton, 2008; Wang et al., 2024), i.e. an intergenerational transfer of wealth while the

[9] Among US homeowners aged 58 and older, Davidoff et al. (2017) find a pronounced divergence between RM prior knowledge and objective knowledge based on an assessment on RM features: 97% of the respondents have already heard about RM, but the mean knowledge score is 5.91 over 13.

[10] From survey questions we cannot distinguish the respondent's income from the household's one, thus we believe that the variable future security may be more appropriate since it represents a more comprehensive measure of income reflecting also the emotional sphere.

donor is still alive, rather than after death as in traditional inheritance model.[11] This view appears to align with Dillingh et al. (2017), who find that framing the product as a way to gift money to (grand)children significantly increases interest among those with a bequest wish, and with Hanewald et al. (2020), who find that while bequest-oriented parents show less interest in RMs, their adult children may encourage uptake when they expect to benefit from lifetime transfers. As for Hypothesis 3, better proxies for financial education, reflecting self-assessed understanding and actual understanding of how the RM works and its potential to address liquidity needs, are associated with greater interest in the product, consistently with previous empirical evidence (e.g. Hanewald et al., 2020; Davidoff et al., 2017). An exception is Fornero et al. (2016) who, using a general measure of financial literacy, find the opposite and argue that individuals with higher financial literacy may have already arranged alternative retirement strategies and tend to hold a smaller share of illiquid assets in their portfolios. Finally, from test of Hypothesis 4, distrust in financial institutions emerges as a key reason behind the lack of interest in reverse mortgages. This result is consistent with previous empirical evidence by Davidoff et al. (2017), who emphasize how limited trust may stem from the inherent complexity of the product as well as from past cases of reverse mortgage-related frauds (e.g., Carswell et al., 2013; Stark et al., 2014). By contrast, Dillingh et al. (2017) do not find a statistically significant relationship between trust in banks and RM interest, although their expectations pointed in the opposite direction.

Results over control variables in Table 2 reveal, at no surprise, that homeowners who are less interested in the RM are older individuals, living in the North of Italy, graduated and with a solid economic and financial situation. In line with Fornero et al. (2016) and Davidoff et al. (2017), we do not find an association with gender, whereas Dilling et al. (2017) find a lower interest for women over a Dutch sample and Hanewald et al. (2020) find a higher interest for women over a Chinese sample. Also being single does not significantly relate to the interest in RM, in contrast to normative implication from the model of Nakajima and Telyukova (2017) and previous Italian evidence (Fornero et al., 2016). Our different finding can reflect two aspects. First, according to the Italian regulation on RM, there should be no differences between singles and couples related to bequest motives toward the partner. In fact, if both members of a couple (whether married or in a cohabiting relationship lasting at least five years) are over the age of 60, they are both required to sign the RM contract and are protected until the death of the surviving partner. Second, it is possible that the effect of marital status (i.e., greater interest in RM among

[11] In particular, Wang et al. (2024) develop a two-generation model quantifying the impact of early bequests and show that such inter vivos transfers through RM schemes allow to enhance the welfare of both generations; parents and children (or grandchildren).

singles, considered a more vulnerable group) does not emerge as statistically significant because our model controls for the variable future security, which captures both income-related and more emotional dimensions.

Finally, the probability of being interested in the RM is higher for respondents via the CAWI mode (homeowners are 4.13 pp more likely to be certainly interested). A possible explanation might be that, completing the survey online, without a phone operator recording the answers, could make the respondent more comfortable, allowing he/she to take his/her time to carefully read the RM description and look for additional information if needed.

Table 2. Interest in the RM

	(1)	(2)	(3)	(4)	(5)	(6)
	Coeff.	Y = 1 (Definitely no)	Y = 2 (Probably no)	Y=3 (Maybe yes maybe no)	Y = 4 (Probably yes)	Y = 5 (Definitely yes)
VARIABLES	b/se	b/se	b/se	b/se	b/se	b/se
Bequest motive	-0.0572	0.0147	0.0052	-0.0034	-0.0118	-0.0046
	(0.080)	(0.021)	(0.007)	(0.005)	(0.017)	(0.006)
Grandchildren financial need	0.2622***	-0.0633***	-0.0264***	0.0107***	0.0550***	0.0240***
	(0.087)	(0.020)	(0.010)	(0.003)	(0.019)	(0.009)
Children financially dependent	-0.0267	0.0068	0.0024	-0.0015	-0.0055	-0.0022
	(0.086)	(0.022)	(0.008)	(0.005)	(0.018)	(0.007)
Healthcare need	0.0082	-0.0021	-0.0008	0.0005	0.0017	0.0007
	(0.107)	(0.027)	(0.010)	(0.006)	(0.022)	(0.009)
RM prior Knowledge	0.0869	-0.0218	-0.0082	0.0045	0.0180	0.0074
	(0.086)	(0.021)	(0.008)	(0.004)	(0.018)	(0.008)
RM Clarity	0.2047***	-0.0531***	-0.0186***	0.0130**	0.0426***	0.0161***
	(0.073)	(0.019)	(0.007)	(0.005)	(0.015)	(0.006)
RM Assessment	0.1718***	-0.0437***	-0.0158***	0.0097***	0.0356***	0.0142***
	(0.028)	(0.007)	(0.003)	(0.002)	(0.006)	(0.003)
CONTROLS						
Female	-0.0209	0.0053	0.0019	-0.0012	-0.0043	-0.0017
	(0.079)	(0.020)	(0.007)	(0.004)	(0.016)	(0.007)
Age	-0.0147**	0.0037**	0.0014**	-0.0008**	-0.0031**	-0.0012**
	(0.006)	(0.002)	(0.001)	(0.000)	(0.001)	(0.001)
Living area = Centre	0.3221***	-0.0829***	-0.0294***	0.0196***	0.0669***	0.0258***
	(0.093)	(0.023)	(0.009)	(0.006)	(0.020)	(0.009)
Living area = South & Islands	0.2882***	-0.0751***	-0.0257***	0.0186***	0.0597***	0.0225***
	(0.085)	(0.022)	(0.008)	(0.006)	(0.018)	(0.007)
Graduate	-0.1891**	0.0492**	0.0169**	-0.0122*	-0.0392**	-0.0147**
	(0.083)	(0.022)	(0.007)	(0.006)	(0.017)	(0.006)
Single	-0.1190	0.0308	0.0106	-0.0075	-0.0246	-0.0094

	(0.095)	(0.025)	(0.008)	(0.007)	(0.019)	(0.007)
Future security	-0.1784**	0.0451**	0.0169**	-0.0099**	-0.0373**	-0.0148**
	(0.075)	(0.019)	(0.007)	(0.004)	(0.016)	(0.007)
Additional properties	-0.1876**	0.0485**	0.0169**	-0.0117**	-0.0389**	-0.0148**
	(0.079)	(0.021)	(0.007)	(0.006)	(0.016)	(0.006)
CAWI	0.5359***	-0.1387***	-0.0535***	0.0348***	0.1160***	0.0413***
	(0.076)	(0.020)	(0.009)	(0.008)	(0.017)	(0.008)
Observations	887					
Pseudo R-squared	0.0720					
Wald Chi	182.3					
pvalue Chi2	0					
LogLikelihood	-1224					

Notes: In columns (2) – (6) the table reports average marginal effects from ordered probit models with standard errors (reported in parentheses) robust to heteroskedasticity. ***, ** and * represent significance at 1, 5, 10% levels, respectively. Other control variables included in the regression but not reported as they had no significance: Household size, Job. The constant threshold parameters of the ordered probit model are omitted for brevity.

Table 3. No interest in the RM

	(1)	(2)	(3)	(4)
	Coeff.	Y = 1 (Definitely no)	Y = 2 (Probably no)	Y=3 (Maybe yes maybe no)
VARIABLES	b/se	b/se	b/se	b/se
Bank distrust	-0.3019***	0.0937***	0.0092***	-0.1028***
	(0.113)	(0.036)	(0.003)	(0.038)
Bequest motive	0.0161	-0.0048	-0.0008	0.0056
	(0.099)	(0.030)	(0.005)	(0.034)
Grandchildren financial need	0.1504	-0.0438	-0.0084	0.0521
	(0.116)	(0.033)	(0.008)	(0.040)
Children financially dependent	-0.0196	0.0059	0.0009	-0.0068
	(0.108)	(0.032)	(0.005)	(0.037)
Healthcare need	-0.1368	0.0418	0.0050	-0.0468
	(0.146)	(0.046)	(0.004)	(0.049)
RM prior Knowledge	0.1092	-0.0321	-0.0056	0.0378

	(0.110)	(0.032)	(0.006)	(0.038)
RM Clarity	-0.2466**	0.0727***	0.0124**	-0.0851**
	(0.098)	(0.028)	(0.006)	(0.033)
RM Assessment	0.1678***	-0.0500***	-0.0079***	0.0579***
	(0.032)	(0.009)	(0.002)	(0.011)
CONTROLS				
Female	0.0335	-0.0100	-0.0016	0.0115
	(0.105)	(0.031)	(0.005)	(0.036)
Age	-0.0173**	0.0052**	0.0008**	-0.0060**
	(0.008)	(0.002)	(0.000)	(0.003)
Living area = Centre	0.2891**	-0.0879**	-0.0117*	0.0996**
	(0.123)	(0.037)	(0.007)	(0.042)
Living area = South & Islands	0.3252***	-0.0980***	-0.0143**	0.1123***
	(0.108)	(0.032)	(0.006)	(0.037)
Graduate	-0.1698	0.0511	0.0072	-0.0584
	(0.107)	(0.032)	(0.004)	(0.036)
Single	-0.2833**	0.0873**	0.0098***	-0.0972**
	(0.117)	(0.037)	(0.004)	(0.040)
Future security	-0.1159	0.0344	0.0058	-0.0401
	(0.102)	(0.030)	(0.006)	(0.036)
Additional properties	-0.1907*	0.0575*	0.0082*	-0.0657*
	(0.100)	(0.030)	(0.004)	(0.034)
CAWI	0.5569***	-0.1683***	-0.0320***	0.2002***
	(0.098)	(0.029)	(0.009)	(0.035)
Observations	657			
Pseudo R-squared	0.0917			
Wald Chi	129.9			
pvalue Chi2	0			
LogLikelihood	-644.8			

Notes: In columns (2) – (4) the table reports average marginal effects from ordered probit models with standard errors (reported in parentheses) robust to heteroskedasticity. ***, ** and * represent significance at 1, 5, 10% levels, respectively. Other control variables included in the regression but not reported as they had no significance: Household size, Job. The constant threshold parameters of the ordered probit model are omitted for brevity.

6. Robustness checks

In this Section we perform robustness checks by considering additional variables in the ordered probit model in equation (3). Specifically, to test Hypothesis 1 we also consider the presence of children (dummy for having at least one child), as it may help capturing bequest motives (Fornero et al., 2016). Further, to test Hypothesis 3 we also consider the knowledge of supplementary financial instruments (dummy for knowing at least two supplementary financial instruments excluding the RM). Finally, we add control variables related to the economic decision context, (a dummy for making economic decisions alone), to the respondent's house (a dummy for having inherited it and a dummy for still paying mortgages or loans for the purchase or renovation of the house) and to the description of the RM (dummy for having received a RM description with reference to contribution from the government in supporting interest and/or expenses). By considering whether the house has been inherited we are able to investigate emotional attachment to the home as a potential barrier to considering a reverse mortgage. The reference to contribution from the government represents a treatment conducted to verify, ex post, whether the idea of government assistance could influence respondents' interest in the RM.[12]

Results reported in Table 4 (for Hypotheses 1-3) and in Table 5 (for Hypothesis 4) remain qualitatively invariant. In particular, the non-significant coefficient of the variable Children confirms that bequest motives do not have an association with the degree of interest in the RM. Then, the non-significant coefficient of the variable Supplementary financial instruments knowledge stresses that prior knowledge is a weaker proxy to financial education compared to RM clarity and RM assessment. Even with the inclusion of additional explanatory variables and controls, the association of interest in the RM and grandchildren financial need, RM clarity, RM assessment and Bank distrust remains qualitatively unchanged. Results on control variables in Table 4 confirm that homeowners who are less interested in the RM are older individuals, living in the North of Italy, graduated and with a solid economic and financial situation. To be noted that being single is now marginally significant suggesting that single homeowners are less likely to express strong interest in the instrument. This negative association may capture psychological attitudes, not captured by future security, such as a higher risk aversion and debt aversion for single compared to couples (Fornero et al., 2016; Bertocchi et al., 2011).

[12] The reference to government support draws inspiration from public reverse mortgage schemes backed by state guarantees such as the HECM (Home Equity Conversion Mortgage) in the US and the reverse mortgage program in South Korea, regulated by the KHFC (Korea Housing Finance Corporation) (Heo et al., 2016).

Table 4. Robustness for interest in the RM

	(1)	(2)	(3)	(4)	(5)	(6)
	Coeff.	Y = 1 (Definitely no)	Y = 2 (Probably no)	Y=3 (Maybe yes maybe no)	Y = 4 (Probably yes)	Y = 5 (Definitely yes)
VARIABLES	b/se	b/se	b/se	b/se	b/se	b/se
Bequest motive	-0.0501	0.0128	0.0045	-0.0029	-0.0103	-0.0041
	(0.083)	(0.021)	(0.007)	(0.005)	(0.017)	(0.007)
Children	-0.0122	0.0031	0.0011	-0.0007	-0.0025	-0.0010
	(0.114)	(0.029)	(0.011)	(0.006)	(0.024)	(0.010)
Grandchildren financial need	0.2667***	-0.0642***	-0.0268***	0.0107***	0.0559***	0.0244***
	(0.088)	(0.020)	(0.010)	(0.003)	(0.019)	(0.009)
Children financially dependent	-0.0228	0.0058	0.0021	-0.0013	-0.0047	-0.0019
	(0.090)	(0.023)	(0.008)	(0.005)	(0.019)	(0.007)
Healthcare need	-0.0059	0.0015	0.0005	-0.0003	-0.0012	-0.0005
	(0.107)	(0.027)	(0.010)	(0.006)	(0.022)	(0.009)
RM prior Knowledge	0.0752	-0.0188	-0.0071	0.0039	0.0156	0.0064
	(0.087)	(0.021)	(0.008)	(0.004)	(0.018)	(0.008)
RM Clarity	0.1933***	-0.0500***	-0.0176**	0.0122**	0.0402***	0.0152**
	(0.074)	(0.019)	(0.007)	(0.005)	(0.015)	(0.006)
RM Assessment	0.1690***	-0.0429***	-0.0155***	0.0095***	0.0350***	0.0140***
	(0.029)	(0.007)	(0.003)	(0.002)	(0.006)	(0.003)
Supplementary financial instruments knowledge	0.1063	-0.0278	-0.0092	0.0070	0.0218	0.0082
	(0.128)	(0.034)	(0.010)	(0.010)	(0.026)	(0.009)
CONTROLS						
Female	0.0034	-0.0009	-0.0003	0.0002	0.0007	0.0003
	(0.081)	(0.021)	(0.007)	(0.005)	(0.017)	(0.007)
Age	-0.0147**	0.0037**	0.0014**	-0.0008**	-0.0030**	-0.0012**
	(0.007)	(0.002)	(0.001)	(0.000)	(0.001)	(0.001)
Living area = Centre	0.3156***	-0.0810***	-0.0288***	0.0191***	0.0655***	0.0253***
	(0.093)	(0.024)	(0.009)	(0.006)	(0.020)	(0.008)
Living area = South & Islands	0.2828***	-0.0735***	-0.0252***	0.0181***	0.0586***	0.0220***

	(0.085)	(0.022)	(0.008)	(0.006)	(0.018)	(0.007)
Graduate	-0.1942**	0.0505**	0.0173**	-0.0125*	-0.0402**	-0.0151**
	(0.085)	(0.022)	(0.007)	(0.006)	(0.017)	(0.007)
Single	-0.1741*	0.0454	0.0152*	-0.0114	-0.0357*	-0.0135*
	(0.105)	(0.028)	(0.009)	(0.008)	(0.021)	(0.008)
Future security	-0.1837**	0.0463**	0.0174**	-0.0101**	-0.0384**	-0.0153**
	(0.076)	(0.019)	(0.008)	(0.004)	(0.016)	(0.007)
Additional properties	-0.1960**	0.0507**	0.0176**	-0.0123**	-0.0406**	-0.0154**
	(0.080)	(0.021)	(0.007)	(0.006)	(0.017)	(0.006)
Decision alone	0.1203	-0.0307	-0.0110	0.0070	0.0249	0.0098
	(0.082)	(0.021)	(0.008)	(0.005)	(0.017)	(0.007)
CAWI	0.5186***	-0.1339***	-0.0516***	0.0335***	0.1122***	0.0399***
	(0.078)	(0.021)	(0.009)	(0.008)	(0.018)	(0.007)
Inherited home	-0.0016	0.0004	0.0002	-0.0001	-0.0003	-0.0001
	(0.083)	(0.021)	(0.008)	(0.005)	(0.017)	(0.007)
Mortgages	-0.0394	0.0101	0.0035	-0.0024	-0.0081	-0.0032
	(0.112)	(0.029)	(0.010)	(0.007)	(0.023)	(0.009)
Treatment	-0.0154	0.0039	0.0014	-0.0009	-0.0032	-0.0013
	(0.072)	(0.018)	(0.007)	(0.004)	(0.015)	(0.006)
Observations	887					
Pseudo R-squared	0.0731					
Wald Chi	185.3					
pvalue Chi2	0					
LogLikelihood	-1223					

Notes: In columns (2) – (6) the table reports average marginal effects from ordered probit models with standard errors (reported in parentheses) robust to heteroskedasticity. ***, ** and * represent significance at 1, 5, 10% levels, respectively. Other control variables included in the regression but not reported: Household size (not significant), Job (coefficient of the category self-employed professions is negative and marginally significant). The constant threshold parameters of the ordered probit model are omitted for brevity.

Table 5. Robustness for no interest in the RM

	(1)	(2)	(3)	(4)
	Coeff.	Y = 1 (Definitely no)	Y = 2 (Probably no)	Y=3 (Maybe yes maybe no)
VARIABLES	b/se	b/se	b/se	b/se
Bank distrust	-0.2974***	0.0913**	0.0090***	-0.1002***
	(0.113)	(0.036)	(0.003)	(0.037)
Bequest motive	0.0576	-0.0169	-0.0028	0.0197
	(0.104)	(0.030)	(0.005)	(0.036)
Children	-0.2832**	0.0797**	0.0173	-0.0969**
	(0.142)	(0.038)	(0.011)	(0.048)
Grandchildren financial need	0.1426	-0.0411	-0.0078	0.0489
	(0.117)	(0.033)	(0.007)	(0.040)
Children financially dependent	0.0310	-0.0091	-0.0015	0.0106
	(0.114)	(0.033)	(0.006)	(0.039)
Healthcare need	-0.1547	0.0469	0.0054	-0.0523
	(0.146)	(0.046)	(0.004)	(0.049)
RM prior Knowledge	0.0683	-0.0200	-0.0033	0.0233
	(0.113)	(0.033)	(0.006)	(0.038)
RM Clarity	-0.2437**	0.0712**	0.0121**	-0.0832**
	(0.098)	(0.028)	(0.006)	(0.033)
RM Assessment	0.1695***	-0.0500***	-0.0078***	0.0578***
	(0.032)	(0.009)	(0.002)	(0.011)
Supplementary financial instruments knowledge	0.2089	-0.0642	-0.0062**	0.0703
	(0.147)	(0.047)	(0.003)	(0.049)
CONTROLS				
Female	0.0581	-0.0171	-0.0026	0.0198
	(0.108)	(0.032)	(0.005)	(0.036)
Age	-0.0131*	0.0039*	0.0006	-0.0045*
	(0.008)	(0.002)	(0.000)	(0.003)
Living area = Centre	0.3132**	-0.0940**	-0.0128*	0.1068**
	(0.126)	(0.037)	(0.007)	(0.043)

Living area = South & Islands	0.3301***	-0.0986***	-0.0141**	0.1127***
	(0.109)	(0.032)	(0.006)	(0.037)
Graduate	-0.2018*	0.0602*	0.0082*	-0.0685*
	(0.110)	(0.033)	(0.004)	(0.037)
Single	-0.3644***	0.1119***	0.0112***	-0.1231***
	(0.131)	(0.042)	(0.004)	(0.043)
Additional properties	-0.2093**	0.0624**	0.0088**	-0.0713**
	(0.102)	(0.031)	(0.004)	(0.035)
Decision alone	0.0484	-0.0143	-0.0022	0.0165
	(0.110)	(0.032)	(0.005)	(0.038)
CAWI	0.5512***	-0.1649***	-0.0312***	0.1961***
	(0.101)	(0.030)	(0.009)	(0.036)
Inherited home	-0.0328	0.0097	0.0015	-0.0112
	(0.102)	(0.030)	(0.005)	(0.035)
Mortgages	0.2482	-0.0698*	-0.0163	0.0861
	(0.155)	(0.041)	(0.013)	(0.054)
Treatment	-0.0693	0.0204	0.0032	-0.0236
	(0.093)	(0.027)	(0.004)	(0.032)
Observations	657			
Pseudo R-squared	0.0984			
Wald Chi	144.8			
pvalue Chi2	0			
LogLikelihood	-640.1			

Notes: In columns (2) – (4) the table reports average marginal effects from ordered probit models with standard errors (reported in parentheses) robust to heteroskedasticity. ***, ** and * represent significance at 1, 5, 10% levels, respectively. Other control variables included in the regression but not reported as they had no significance: Household size, Job, Future security. The constant threshold parameters of the ordered probit model are omitted for brevity.

7. Conclusions

The increase in life expectancy witnessed in the 21st century and the consequent population aging have raised liquidity concerns among older homeowners. In this context, RM represents a financing instrument that enables older homeowners to access additional liquidity from housing wealth while continuing to live in their home (i.e. age in place). Moreover, unlike traditional bare ownership agreements, RMs preserve the heirs' option to reclaim the property after the borrower's death. However, despite the potential of RMs to enhance financial security in old age, the instrument has attracted limited attention from both the supply and demand sides and it is generally little known by the population.

The theoretical literature has proved the welfare benefits of RMs, particularly for house-rich cash-poor homeowners and has also shown its higher utility compared to other equity release products such as home reversion plans. Nevertheless, the empirical evidence remains inconclusive regarding the factors that encourage or limit interest in RMs.

In order to contribute to the empirical literature, this paper investigates RM interest within the Italian context (characterized by pronounced population aging and a significant share of house-rich cash-poor homeowners) nearly two decades after its initial introduction in Italy, and in the aftermath of the Covid-19 pandemic. By exploiting an original comprehensive qualitative (focus groups) and quantitative (survey) research study conducted in Italy between May and September 2024, we test four main hypotheses motivated by both the literature and focus group findings: i) Homeowners are not interested in RM for bequest motives, i.e. they want to transfer the whole home equity to relatives in the future; ii) Homeowners are interested to use RM to draw income from the home equity in order to help relatives now; iii) Domain specific financial education helps understanding the working of RM and its usefulness to address liquidity issues thus increasing the interest in RM; iv) Homeowners are not interested in RM because they do not trust financial institutions.

By using an ordered probit regression model for RM interest, we find two main results, which are robust also to the inclusion of additional control variables. First, by testing Hypotheses 1 and 2 we find that lower interest in the RM is not significantly associated with bequest motives; rather, homeowners with a strong attitude to support relatives, particularly those who feel financially responsible for the future of their grandchildren, show greater interest in the product. This evidence hints to homeowners not being afraid of the RM because of bequest motives, but considering RM as a tool for early intergenerational transfers (i.e. early bequest), while the donor is still alive, instead of after death as in traditional inheritance model. Thus, early bequest may enhance product attractiveness, as older homeowners perceive RMs not only as means for

personal consumption smoothing, but also as mechanisms to support children or grandchildren during their lifetime. Second, by testing Hypotheses 3 and 4, we find the two most significant factors behind the lack of interest in the RM, i.e. low levels of financial education reflecting limited understanding of the product and its potential to address liquidity needs, and distrust in financial institutions.

As far as we know, it is the second study after Fornero et al. (2016) providing a quantitative analysis for the Italian market, and the first to rely on a survey which includes key RM issues. In particular, we consider a more representative sample of the Italian population, a more recent period (2024 vs. 2007) and specific survey questions which allow to better explore the role of bequest motives and distrust in financial institutions as factors hindering the use of RM. Moreover, by considering a more recent period (2024 vs. 2007 in Fornero et al., 2016) we can account for updates in the regulation of RMs and changes in the socio-economic and demographic structure of the Italian population. These differences, and specifically the sample representativeness and the specific survey questions, may explain differences in findings, whereby we do not find as in Fornero et al. (2016) a negative role of bequest motives and of financial literacy. By contrast, our results suggest that homeowners may consider the RM as a tool for early bequest and that domain specific financial education, reflecting a better understanding of the product, is associated with greater interest. Furthermore, our study introduces distrust in financial institutions as a significant barrier to RM uptake, highlighting a previously underexplored factor in the Italian context.

Overall, our results have relevant industry and policy implications. As for the financial services industry, it emerges the pivotal role of financial intermediaries in simplifying product communication and increasing product transparency, including information about costs. These actions may be considered within a broader process aiming to consolidate customers' trust. As for policymakers, it is apparent the relevance of initiatives, also developed in collaboration with financial institutions, to increase actual knowledge about RM, beside financial education in general. RM demand may potentially grow by raising awareness among older homeowners and their (grand)children that RMs can serve both as a tool for financial support in later life and as a vehicle for early intergenerational transfers. Finally, integrating RMs into broader aging and housing strategies, enables older homeowners to financially support themselves, while reducing the economic burden on both relatives and the public welfare system.

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Appendix A – Description of variables

Variable	Description
CAWI	Binary variable taking value 1 if the questionnaire was delivered through CAWI (Computer Assisted Web Interviews), 0 if the questionnaire was delivered through CATI/CAMI (Computer Assisted Telephone/Mobile Interviews)
Female	Binary variable taking value 1 if the respondent is Female, 0 otherwise
Age	Integer variable assuming values between 60 and 94
Living area	Categorical variable taking the following values: 1 = North 2 = Centre 3 = South and Islands "North", "Centre", "South and Islands" correspond to the regional divisions defined by the Italian National Institute of Statistics (ISTAT)
Graduate	Binary variable taking value 1 if the respondent is at least graduated, 0 otherwise
Single	Binary variable taking value 1 if the respondent belongs to one of the following statuses: separated or divorced, widowed, never married/living with a partner, 0 otherwise
Household size	Number of people living in the house, including the respondent, ranging from 1 to 8
Children	Binary variable taking value 1 if the respondent has at least one child, 0 otherwise
Job	Categorical variable representing the actual job of the respondent (or last job if retired), and taking the following values: 1 = Employee professions low qualification; 2 = Employee professions mid qualification; 3 = Employee professions high qualification; 4 = Self-employed professions; 5 = Non-working condition or other categories (military, ecclesiastical)
Future security	Binary variable taking value 1 if, on a scale from 0 (not at all secure) to 10 (completely secure) and considering the resources the respondent will have in old age, he/she feels secure about the future (score 6-10), 0 otherwise
Additional properties	Binary variable taking value 1 if the respondent has additional properties (besides the house in which he/she lives), 0 otherwise
Decision alone	Binary variable taking value 1 if the respondent makes economic decisions alone, 0 if he/she decides with another member of the household equally
Grandchildren financial need	Binary variable taking value 1 if the respondent has grandchildren for whom he/she feels financially responsible for the future, 0 otherwise

Bequest motive	Binary variable taking value 1 if respondent's children/ grandchildren have expressed an interest in the home for the future, 0 otherwise. It takes value 0 also for respondents without children or without grandchildren that might need financial support in the future
Children financially dependent	Binary variable taking value 1 if at least one of the children depends financially from the parent or needs financial support, 0 otherwise. It takes value 0 also for respondents without children
Healthcare need	Binary variable taking value 1 if anyone in the household, including the respondent, currently needs assistance due to health or memory issues, 0 otherwise
Inherited home	Binary variable taking value 1 if the respondent has inherited the home, 0 if he/she has inherited it
Mortgages	Binary variable taking value 1 if the respondent is currently still paying mortgages or loans (including those taken from relatives or friends) for the purchase or renovation of the house, 0 otherwise
RM Clarity	Binary variable taking value 1 if the respondent has perceived the RM description either very clear or clear, 0 otherwise
RM Assessment	Integer variable indicating how many of the 9 statements about reverse mortgage the respondent answered correctly and assuming values between 0 (no correct answers) and 9 (all correct answers)
Treatment	Binary variable assuming value 1 if the respondent has received the description of the reverse mortgage with reference to contribution from the government in supporting interest and/or expenses, 0 otherwise
RM prior knowledge	Binary variable taking value 1 if the respondent knows the reverse mortgage in Q27, 0 otherwise
Supplementary financial instruments knowledge	Binary variable taking value 1 if the respondent knows at least two financial instruments (excluding the reverse mortgage) in Q27, 0 otherwise
RM Interest	Categorical variable representing how much the respondent would consider a reverse mortgage when thinking concretely about his/her future situation, both economic and health-related, and taking the following values: 1 = Definitely no 2 = Probably no 3 = Maybe yes maybe no 4 = Probably yes 5 = Definitely yes
Bank distrust	Binary variable taking value 1 if the respondent chooses "I do not trust lending institutions" as a reason for not being interested in the reverse mortgage in question Q37, 0 otherwise