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Do Reverse Mortgages Reduce Poverty Rates Among Older Adults Living Alone in Spain? Analysing Their Overall and Gender-Specific Effects

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Abstract
This paper investigates the potential of reverse mortgages (RMs) to alleviate poverty among older adults living alone in Spain, focusing on both general effects and gender-specific disparities. Using a combined income-wealth approach, the analysis highlights the role of housing equity, which is often the primary asset for older homeowners. While previous research has examined the impact of RMs on poverty rates among the broader population aged 65 and over, this work narrows its scope to single-person households, a growing and particularly vulnerable subgroup facing significant economic and social challenges. The findings reveal that RMs can reduce poverty rates, improve the financial well-being of these households and decrease gender disparities. Thus, the work shows RMs as a policy tool to improve the economic situation and quality of life for older adults living alone and underscores the need for targeted strategies to address gender-specific vulnerabilities.

Keywords Reverse mortgage · Poverty threshold · Poverty rate · Gender gap · Spanish survey of household finances · Living conditions survey

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1 Introduction

The population is increasingly ageing. According to United Nations Department of Economic and Social Affairs (2022), the global population aged 65 years and above was 10% in 2022 and is estimated to increase to 16% by 2050. Additionally, by then, the number of people aged 65 years and over worldwide is expected to be more than twice the number of children under 5 years of age and approximately equal to the number of children under 12. This significant demographic shift is mainly attributed to declining mortality and fertility rates.

Challenges derived from an ageing population have been extensively studied from various perspectives, including cultural, medical, social, public health, public policy and economic (Christensen et al., 2009; Rechel et al., 2013; Kulik et al., 2014; Beard & Bloom, 2015; Bloom et al., 2015; Sander et al., 2014). One of these challenges, which is raising significant concern, is the high rate of poverty among older adults. According to OECD (2023), on average across OECD countries, 14.2% of individuals aged 65 or older live in relative income poverty, defined as having an income below 50% of the national median equivalised disposable household income.

The OECD standard for calculating the poverty rate among older adults is similar to the one used by the European Union, except that the European Union sets the poverty threshold at 60% of the median equivalised disposable household income. Notably, this disposable income includes only readily available income for consumption and does not account for the value of assets, i.e., wealth. Wealth refers to accumulated assets, such as homeownership, shares, and bonds, which represent financial resources but remain static unless liquidated. Income, in contrast, is a flow of funds used to cover daily expenses, such as wages or pensions.

Several authors argue that poverty rates among older adults based on the standard set by the OECD and the European Union may not fully reflect reality. For instance, Weisbrod and Hansen (1968) point out that relying on a one-dimensional money-income measure for assessing economic welfare is inadequate. They propose a more practical and comprehensive approach that incorporates both current income and net worth. Other authors have similarly highlighted that poverty rates and other related variables, such as economic well-being, should be measured by taking both household assets and cash income into account (Van den Bosch, 1998; Caner & Wolff, 2004; Short & Ruggles, 2005; Headey, 2008). This idea is also reflected in more recent papers, such as those by Rank and Williams (2010), Brandolini et al. (2010), Azpitarte (2011), Kuypers and Marx (2018) and Choi et al. (2022) who affirm that if the composition of wealth, such as home equity or housing assets, is not considered, the extent of poverty might be overestimated. The literature review about old age poverty in Kwan and Walsh (2018) justifies that using an approach that includes both disposable income and net worth is essential for measuring poverty among the population aged 65 and older. Many older adults rely not only on their income, primarily derived from pensions, but also on savings accumulated throughout their lives. Therefore, considering net worth allows for a better assessment of their ability to maintain an adequate standard of living, even if their income is limited. Moreover, this group often faces expenses related to healthcare, and those with assets can better manage these situations without falling into poverty, something that is not captured when only analysing income. In summary, combining income and net worth provides a more comprehensive view of poverty among older adults,

helping to identify their needs and design more effective policies. A deeper discussion on why to include wealth in poverty measurement can be found on Kuypers and Marx (2018).

In examining the financial security of older adults, it is essential to consider key theoretical perspectives that link homeownership with pension systems. Kemeny (1981) posits that in certain countries, homeownership plays a central role in the welfare system, acting as a form of financial security, especially in the absence of robust public pension systems. Societies with high levels of homeownership tend to rely more on private assets (like housing wealth) to provide economic security in old age. Castles (1998) reinforces this idea, suggesting a trade-off between state-provided welfare (e.g., pensions) and private assets (like homeownership). In countries where homeownership is widespread, individuals may be less dependent on state pensions, as they can utilize the wealth accumulated in their homes to support themselves in retirement. The concepts of Asset-Based Welfare (ABW) and Housing Asset-Based Welfare (HABW) (see e.g., Doling & Ronald, 2010) further illustrate how personal and housing assets contribute to financial security. ABW emphasizes the importance of personal assets in providing economic well-being, while HABW specifically focuses on housing wealth as a key resource. This is particularly important for older adults who are "asset-rich, cash-poor," owning valuable property but lacking regular income. In this context, financial instruments that allow homeowners to unlock their housing wealth without selling their homes play a crucial role in ensuring financial stability in later life.

Building on the ideas outlined in the previous paragraphs, our work uses the concept of poverty rate based on a combined income-wealth approach. Among the various forms that wealth can take, we restrict our study to housing wealth, specifically focusing on the primary residence of the demographic group under study. The main reason for this selection is that this residence makes up the largest proportion of households' wealth, i.e., a high percentage of older adults own the homes in which they live. For example, according to the Spanish National Statistics Institute (Instituto Nacional de Estadística, 2024), the rate of homeownership among individuals aged 65 years or older in Spain was 89.1% in 2023.

There are several ways to monetize housing wealth (see Sect. 2), with reverse mortgages (RMs) being the most widely studied in relation to the poverty rate among seniors. Many older adults may have substantial wealth in the form of home equity but still struggle financially due to insufficient regular income, meaning they are "asset-rich, cash-poor". By converting housing wealth into income, RMs bridge the gap between asset ownership and financial liquidity. This mechanism is particularly relevant for those who own their homes outright but lack steady income, helping them improve their financial situation and achieve greater security in retirement. Several studies have analysed the effect of RMs on the poverty rate of adults aged 65 or older. For instance, for the US, Mayer and Simons (1994) analyse the potential of RMs to increase the income and liquid wealth of older adults by identifying households with relatively high levels of housing equity. Morgan et al. (1996) investigate the effect of RMs on the economic status of older women, while Kutty (1998) examines the potential for poverty alleviation among older homeowners. Similarly, Ong (2008) explores the extent to which RMs can improve the economic well-being of older Australian homeowners, and Moscarola et al. (2015) argue that RMs could be a powerful tool against income vulnerability in old age. By analysing data from nine European countries, their work shows that RMs could play a significant role in protecting older households from consumption shortfalls without displacing them from their homes, thereby contributing to social inclusion. For South Korea, where the poverty rate among older adults is particularly high, Heo

et al. (2016) and Choi et al. (2022) estimate how much poverty rates would decrease if older adults' households participated in the national RM program, which was introduced in 2007.

This article also focuses on the effect of RMs on the poverty rate of seniors. However, unlike all previously published studies, our focus is not on the general population of individuals aged 65 and older but rather on a subset of this group: those who live alone. In recent years, the number of individuals aged 65 and older living alone has increased significantly, making them a relevant collective in the discussion about poverty (Ortiz-Ospina, 2020). This group is particularly vulnerable, as older adults living alone face greater economic and social challenges compared to their peers who do not live alone (Rasmussen et al., 1997; Noviarini et al., 2024). As age advances, their situation may deteriorate, especially concerning health, which places them at a disadvantage compared to other age groups, such as young people, who, although they may find themselves at the same poverty level, possess greater potential for improvement in their economic situation. In this context, the study of the impact of RMs on this subgroup is particularly relevant, as it expands the understanding of poverty in old age. While analyses have been conducted on RMs and the poverty rate of those aged 65 and older, this work focuses on single-person households. By exploring how RMs can benefit older adults living alone, it allows a deeper analysis of how to improve their quality of life and reduce their poverty rate. Additionally, centring on single-person households allows for studying the gender gap between older men and women, highlighting the importance of implementing specific policies that cater to their particular needs (Kwan & Walsh, 2018). Although previous studies have focused on the impact of RMs on the poverty rate among older adults, as far as we are aware, no research has specifically analysed their potential to reduce the gender gap in poverty among single-person households aged 65 and older. This paper aims to address this gap by not only assessing the overall effect of RMs on poverty reduction in this group, but also by examining how RMs can specifically help mitigate the gender disparities in poverty. Given that older women are more likely to experience financial vulnerability due to factors like lower lifetime earnings, pension gaps, and longer life expectancy, this aspect of the study is crucial for understanding how RM can support economic security for older women. By analysing the gender-specific impact of RMs, this article contributes two novel perspectives to the existing literature. Focusing on the case of Spain, the main contribution of our work is twofold, since it addresses two research questions (RQs):

- RQ1: To what extent do reverse mortgages reduce the poverty rate of older adults living alone in Spain?
- RQ2: Do reverse mortgages reduce the gender gap in poverty rates among older adults living alone in Spain?

The remainder of the paper is organized as follows. Section 2 explores various options for housing monetization, focusing on RMs in the specific context of Spain. Section 3 describes the data and methodology used in our study. Section 4 presents the results on poverty thresholds, poverty rates and the gender gap in poverty rates in the two scenarios analysed: one in which older adults living alone do not have an RM, and another in which all these individuals take out this financial product. Section 5 discusses the results and answers the research questions this article seeks to address. The manuscript concludes with a section summarizing the main findings and considering potential extensions for future research.

2 Housing Monetization Through Reverse Mortgages

The life-cycle hypothesis, first introduced by Modigliani and Brumber (1954), explains how individuals plan their consumption and savings behaviour over the course of their lifetime. The theory suggests that people aim to smooth their consumption over time, meaning that they save during their working years and spend their savings during retirement. A person's income is not constant throughout their life. It tends to be lower during early adulthood, peaks during middle age and declines after retirement. To maintain a stable standard of living, individuals save a portion of their income during high-earning years and use those savings in periods when income is lower, such as retirement. As a result, individuals accumulate wealth during their working years, which is gradually depleted after retirement as they begin to rely on those savings for consumption. While the theory assumes people generally plan to consume all their savings by the end of their life, it does not exclude the possibility of leaving a bequest, although that is seen as secondary to their primary goal of consumption smoothing.

Monetizing housing wealth fits the life-cycle hypothesis by allowing retirees to convert home equity into liquid assets, supporting consumption in retirement when income declines. This aligns with the theory's goal of consumption smoothing, where individuals use their wealth to maintain a stable standard of living throughout life. It also reflects the idea that people primarily aim to use their resources for personal consumption rather than preserving them for bequests, helping retirees manage their finances more effectively during retirement. Monetizing home equity has become an increasingly relevant option for senior citizens worldwide, as a way of hedging longevity risk (outliving their savings) that can be worsen by potential dependency as they age. Homeownership, one of the most significant assets for many older adults, can be leveraged in various ways to provide a steady income or financial security without selling the property outright. Several alternatives exist for monetizing a home, each with distinct features and suitability depending on the homeowner's financial needs, health status and local market conditions. These alternatives are, among others (Serrano & Lafuente, 2022):

- Property downsizing. Property downsizing involves selling a large or expensive home and purchasing a smaller, more manageable and less costly property. This approach is common among seniors seeking to reduce living expenses, free up equity and lower maintenance needs. It is a straightforward way to unlock the value tied to real estate, but it requires leaving a potentially long-term family home and adapting to a new environment.
- Real estate life annuity. In this case the homeowner sells to a provider (usually a financial institution) the ownership of the house in exchange for receiving lifelong payments and maintains the right to continue using their home as long as they live. Upon their death, the provider takes possession of the house, profiting from any property appreciation. This option can be advantageous for those looking to unlock a larger amount of equity upfront without taking on debt, though the homeowner is giving up ownership.
- Bare property sale. With the sale of the bare property, the owner of a home transfers ownership of the house in exchange for a single payment when formalizing the operation and maintains the right to continue using and enjoying their home for life. After their death, the buyer (often an investor) takes possession of the house.

- Reverse mortgages. RMs allow homeowners, typically aged 60 or older, to convert part of their home equity into cash through a lump sum, line of credit, or regular payments, without needing to repay the loan while living in the home. Repayment occurs when the homeowner or the last RM beneficiary moves, sells the property, or passes away (in this last case by their heirs). This product is particularly useful for seniors who want to supplement their retirement income while continuing to live in their home without losing the ownership. The amount that can be borrowed depends on factors like the homeowner's age, home value, interest rates and any existing mortgage balance. While RMs provide flexibility and can offer tax-free income, they have drawbacks, such as high upfront costs and accumulating interest. Because repayment of the interest, along with all amounts received by the borrowers/beneficiaries, must be covered by the future sale price of the home, there is a risk that the total amount due, i.e., the loan balance, might exceed the property's value. This can occur due to factors such as a decline in housing market prices, the borrower living longer than expected (causing interest to compound over a longer period), or high interest rates increasing the loan balance over time. To address this risk, the No Negative Equity Guarantee (NNEG) is a crucial feature in RMs. It ensures that borrowers (or their heirs) will never owe more than the value of the home when the loan balance is repaid, even if property values decline over time (Fuente et al., 2023). As a result, NNEG protects borrowers and their heirs by capping the repayment amount at the home's sale price, meaning any financial shortfall is absorbed by the lender.

This paper focuses only on RMs as a tool for home equity release to alleviate poverty among seniors living alone. It is beyond the scope of our study to provide a detailed explanation of how this financial product works, the main risks involved for both parties (i.e., the lender and the borrower), or its presence in various international markets. These topics have been extensively covered in several articles, such as, e.g., Boehm and Ehrhardt (1994), Chinloy and Megbolugbe (1994), Rasmussen et al. (1997), Leviton (2002), Nakajima and Telyukova (2014) and Knaack et al. (2020). However, to better understand our approach, a brief overview of RMs in Spain may be useful.

In Spain, the regulatory framework for RMs was introduced in 2007 under Law 41/2007 (Jefatura del Estado, 2007). According to this Law, applicants and any named beneficiaries must meet at least one of the following criteria to qualify for an RM and enjoy tax benefits: be aged 65 or older, be officially classified as severely dependent, or have a certified disability of over 33%. Additionally, the property must be the applicant's primary residence and it must be appraised and insured against potential damage. In Spain, only licensed credit institutions or insurance companies are permitted to offer RMs. As noted by Knaack et al. (2020), the uptake of RMs in Spain has been much lower compared to countries like the US or the UK. This underuse is partially due to cultural factors, as there is a strong attachment to homeownership in Spain, and many seniors prefer to pass down their homes to their heirs. It is important to note that in Spain the NNEG is neither a common contractual clause nor a legal requirement. However, according to Fuente et al. (2021), this guarantee is considered unnecessary in the Spanish context for several reasons. First, borrowers are allowed to move permanently to an assisted living facility without being required to repay the RM. Second, if the loan balance surpasses the property's value, heirs have the option to decline the inheritance. Finally, Spanish RM regulations ensure that even if heirs accept the inheritance, their

liability is limited to the inherited assets, meaning their personal wealth remains protected from any outstanding debt.

This study considers RMs with an initial single drawdown followed by level periodic payments, referred to as C. These payments continue for the term of the borrowers' or beneficiaries' life expectancy. Additionally, as per the performance standards established for RM marketing in Europe outlined by the European Pensions and Property Asset Release Group (2024), RMs include a life annuity designed to provide a steady income of C to support the family if the specified life expectancy is reached. Focusing on single-person households, our research is limited to cases where there are no additional RM beneficiaries. Thus, the life annuity ends with the death of the RM borrower.

To determine the principal of the RM, denoted as P_{RM}, it must be considered that the accumulated debt from this principal over a term equal to the RM borrower's life expectancy equals a percentage, known as the loan-to-value ratio, of the property's appraised value at the time the RM is contracted. Thus, denoting by i the annual interest rate of the RM, by $[e_x]$ the integer part of the life expectancy of the RM borrower, aged x at the moment of contracting the RM, by p the loan-to-value and by V the appraised value of the property at that moment, the relationship that allows obtaining P_{RM} can be expressed as:

$$P_{RM} \cdot (1+i)^{[e_x]} = p \cdot V \tag{1}$$

The initial single drawdown, SDr, is used to cover the borrower's initial expenses related to the RM, including the payment for a single premium of the life annuity and any outstanding debt if the property is already mortgaged. If Π represents the single premium for a unitary life annuity deferred $[e_x]$ years whose payments begin to be received by the RM borrower if they are alive after $[e_x]$ and until their death, ERM_0 are initial expenses of the RM and OLB is the outstanding loan balance of the property:

$$SDr = ERM_0 + C \cdot \Pi + OLB \tag{2}$$

being:

$$\Pi = \sum_{t=[e_x]+1}^{\omega - x} {}_tp_{x,g} \cdot (1+I)^{-t} \tag{3}$$

and:

${}_tp_{x,g}$: probability of survival, within *t* years, for a person aged *x* from generation *g*, in a given life table.

ω: last attainable age in a given life table.

I: Annual interest rate used to price the life annuity.

For simplicity, it is assumed there are no additional management fees related to the life annuity.

The RM design must consider the initial single drawdown and the amount C, which we assume is paid annually, to be received throughout the term $[e_x]$. Thus, we can express:

$$P_{RM} = SDr + C \cdot \ddot{a}_{\overline{[e_x]+1|}i} \tag{4}$$

Considering (1) and (2) and solving for C, it turns out:

$$C = \frac{p \cdot V \cdot (1+i)^{-[e_x]} - (ERM_0 + OLB)}{\Pi + \ddot{a}_{\overline{[e_x]+1}|i}} \tag{5}$$

Obviously, the principal of the loan must be greater than the sum of initial expenses and the outstanding loan balance of the property, i.e., $P_{RM} > ERM_0 + OLB$. Consequently, households with financial data that do not meet this condition have been intentionally excluded from our study. For our analysis, we have used the parameter values collected below, reflecting the Spanish practice in 2019, which corresponds to the year of our household economic data (see Sect. 3).

- Initial Expenses:
  - Independent Advisor's Fee: 1.25% of the appraised value (maximum of €6,000).
  - Initial Expenses: 0.65% of the RM principal.
- Appraisal Fees:
  - For properties valued up to €180,000: €229.90.
  - For properties valued between €180,000 and €300,000: €266.20.
  - For properties over €300,000: €266.20 plus 0.07% of the amount exceeding €300,000.
- Loan-to-Value Ratio: 65%.
- Annual Interest Rate of the RM: 6%.
- Annual Interest Rate of the Life Annuity: 1.5%.
- Life Table: PERM/F 2020 (Ministerio de Asuntos Económicos y Transformación Digital, 2020).

3 Data Source and Methodology

3.1 Data Source

The data sources used in this study come from three national-level surveys conducted in Spain. First, the *Encuesta Financiera de las Familias 2020* from Banco de España (2022a) is utilized. Second, the *Encuesta de Condiciones de Vida* (hereinafter ECV) from Instituto Nacional de Estadística (2020) is considered. Finally, the report *Observatorio sobre el reparto de los impuestos y las prestaciones entre los hogares españoles* by López Laborda et al. (2023a) is taken into account.

Since 2002, the National Bank of Spain (Banco de España) has issued the *Encuesta Financiera de las Familias* (hereinafter EFF), referred to in English as the Survey of household finances, every three years. This survey provides detailed information on income (including both labour and non-labour income), expenses, assets and debts of Spanish households. The most recent survey with available microdata at the moment of conducting

this study is the 2020 wave. Specifically, the EFF-2020 wave (Banco de España, 2022b) is the seventh edition of the survey. For household income, this report uses total gross income, i.e., before taxes and social security contributions, corresponding to the full calendar year prior to the survey, which for the EFF-2020 is 2019. The 2020 wave had an effective sample size of 6,313 households. The EFF relies on a randomly selected sample, ensuring representativeness through collaboration with the Instituto Nacional de Estadística. Moreover, it incorporates a longitudinal component, as some households from previous waves are re-interviewed. This design allows for the examination of changes in variables such as income, wealth, and consumption over time (Alvargonzález et al., 2024).

The *Encuesta de Condiciones de Vida*, referred to in English as the Statistics on Income and Living Conditions, is conducted by the Instituto Nacional de Estadística. This survey is included in the set of harmonized statistical operations for the member countries of the European Union. The main aim of the ECV is to serve as a reference source for comparative statistics regarding income distribution and social exclusion within the European context. During the fourth quarter of each year, the ECV surveys a sample of households and collects information about their living conditions at the time of the interview, as well as their income from the previous year. The effective sample size of the 2020 survey, which is used in this paper to compare its data with that obtained from the EFF-2020, was 15,043 households (Instituto Nacional de Estadística, 2021).

The report *Observatorio sobre el reparto de los impuestos y las prestaciones entre los hogares españoles* has been issued by the Fundación de Estudios de Economía Aplicada (Foundation for Applied Economic Studies) since 2016. This report periodically analyses the distribution of taxes, social security contributions and public sector benefits among Spanish households. As with the other two data sources, the report used in this article refers to the year 2019 (López Laborda et al., 2023a).

3.2 Methodology

According with the ECV, in Spain, the poverty threshold is calculated as 60% of the median equivalised disposable household income. The disposable income is the total income received by all household members after deducting income tax, wealth taxes and social security contributions, and including transfers received. The equivalised disposable household income is calculated by dividing that total disposable income of the household by the number of consumption units it comprises (OECD, 2024) and it is equally assigned to all members of the household. Based on the poverty threshold, the poverty rate is defined as the percentage of the population whose income is at or below the poverty threshold. In the ECV 2020, the poverty rate for the general population was 21%, while for the population over 65 years old it was 18.8%.

Since this paper aims to analyse the effect of RMs on the poverty rates of single-person households of individuals aged 65 or older and to determine whether this financial product mortgage reduces the gender gap among this demographic group, the poverty threshold for these individuals will be compared both without and with an RM. To calculate the additional income that an RM provides for these households, it is essential to know the property value. This value is not available in the ECV but is included in the EFF-2020. Consequently, this study uses the EFF-2020 data source and follows the steps outlined below.

Step 1. The three-sigma criterion is applied to eliminate outliers from the dataset.

Step 2. The income that the RM provides will be calculated only for single-person households of individuals aged 65 or older who own 100% of the property where they reside and have the financial capacity to apply for this product (see Sect. 2). Therefore, households not satisfying this condition are eliminated from the EFF-2020 dataset. Initial number of surveys is reduced from 6,313 to 6,009.

Step 3. To determine the poverty threshold and the poverty rate based on the EFF-2020 data, it is necessary to obtain the equivalised disposable household income. Since the income reported in the EFF-2020 is gross household income, this gross income is transformed into equivalised gross income by accounting for the consumption units within each household.

Step 4. The result from Step 3 must be converted into equivalised disposable income using effective tax rates and social security contributions for Spanish households in 2019, as provided in López Laborda et al. (2023b), Tables A.2.4 and A.5.4. The resulting database, hereinafter referred to as DB[1], includes all relevant socioeconomic characteristics of each household: property value, number of consumption units, applicable tax rates and social security contributions, and equivalised disposable household income.

Step 5. From database DB, we create DB65, which encompasses single-person households of individuals aged 65 or older who own 100% of the property where they live and meet the financial conditions to apply for an RM. DB65 is then divided into DB65M for men and DB65W for women.

Step 6. To measure the effect of RMs on the poverty rate of older adults aged 65 and over living alone and on the gender gap in this poverty rate, the income of C in Eq. (5) is calculated. This income is added to the disposable income of individuals in DB65 and a new poverty threshold for DB is calculated.

To avoid misinterpretation of our results, in addition to using the notations DB, DB65, DB65M and DB65W as previously defined, we use PB, PB65, PB65M and PB65W, respectively, to denote the populations represented by those databases, where the weight assigned to each survey in the sample has been applied.

4 Results

This section presents relevant information for the population under study and results from the steps described in Sect. 3.2. The estimation of population size is carried out to ensure that the results from the sample are representative of the broader population. An important aspect of this process is the application of survey weights, which are provided in the EFF-2020 dataset. The weights assigned to each household in the sample adjust for factors such as selection probability, oversampling, geographic stratification, and missing data.

Table 1 includes the number of surveys for each database we created and the estimated total number of households in the population.

Tables 2 and 3 contain information about the marital status and age of households in PB65, respectively.

The data reveals distinct differences in marital status among households in PB65, with notable variations between men and women. A significant proportion of these individuals are widowed, representing 60.62% of the total group, with widows making up 66.44%

[1] The database can be obtained freely in the OPENICPSR repository, which is free with prior registration, with DOI reference https://doi.org/10.3886/E215701V1.

Table 1 Number of surveys and households

	DB	DB65	DB65M	DB65W
Number of surveys	6,009	462	178	284
	PB	**PB65**	**PB65M**	**PB65W**
Number of households	18,611,478.53	1,527,345.827	457,061.0838	1,070,284.743

Note: DB65 refers to single-person households of individuals aged 65 and older in our database (DB), with DB65M and DB65W representing men and women, respectively. PB, PB65, PB65M, and PB65W denote the populations corresponding to these databases, respectively

Source: Own elaboration

Table 2 Distribution (%) of PB65 by marital status

Marital Status	PB65	PB65M	PB65W
Single	25.30	36.65	20.45
Married	0.51	1.73	0.00
Domestic Partner	0.01	0.02	0.00
Separated	4.10	10.04	1.56
Divorced	9.46	4.58	11.55
Widowed	60.62	46.98	66.44
	100.00	100.00	100.00

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively

Source: Own elaboration

Table 3 Distribution (%) of PB65 by age

Age (years)	PB65	PB65M	PB65W
65–69	20.64	26.23	18.25
70–74	20.52	19.48	20.97
75–79	18.31	22.89	16.35
80 and over	40.53	31.40	44.43
	100.00	100.00	100.00

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively

Source: Own elaboration

among women and widowers comprising 46.98% among men. Single status is also prevalent, especially among men, where 36.65% are single compared to 20.45% of women, leading to a total single rate of 25.30%. Married individuals are extremely rare, with only 0.51% overall, represented solely by men at 1.73% and no married women. Domestic partnerships are almost absent within these surveys. Separation rates differ significantly between genders, with 10.04% of men being separated compared to only 1.56% of women, resulting in a total of 4.10%. Divorce is relatively common, with 9.46% of individuals divorced overall; however, it is more frequent among women at 11.55% than among men, who represent only 4.58%. These figures highlight a strong prevalence of widowhood, particularly among women, possibly reflecting higher longevity and the tendency for women to outlive their spouses.

The age distribution in PB65 reveals varying proportions between men and women across different age ranges. The largest age group within this population is 80 years or over, representing 40.53% of the total, with a significant difference between women (44.43%) and men (31.40%). Individuals aged 65–69 form the next largest group, accounting for 20.64% overall; this age range is more common among men (26.23%) than women (18.25%). Those aged 70–74 are fairly evenly represented, making up 20.52% of the total, with a similar distribution between men (19.48%) and women (20.97%). The 75–79 age group constitutes 18.31% of the total, showing a higher prevalence among men (22.89%) compared to women (16.35%). This distribution suggests that, although the older segment (80 and over) forms the largest group overall, there are more men in the younger age brackets (65–69 and 75–79), while women have a higher representation in the oldest age group, potentially indicating differences in longevity and health trends between genders within this population.

Table 4 classifies PB65 according to equivalized disposable income and net property values. Column totals indicate the distribution of equivalized disposable income among individuals in PB65, with income categories related to the 2019 poverty threshold, as outlined in Table 5. Six income categories have been considered: <= PT; (PT, 1.5 PT]; (1.5 PT, 2 PT]; (2 PT, 2.5 PT]; (2.5 PT, 3 PT L]; and >3 PT. Row totals display the distribution of net property values within the same population. The table also provides this information separately for men and women.

In the general population table (PB65), households with lower property values (up to €80,000) tend to have higher concentrations in the lower income categories, with about half of these households below 1.5 times the poverty threshold. As property values increase, there is a shift towards higher income categories, with a substantial portion of those with properties valued above €240,000 achieving income levels above 3 times the poverty threshold. For men (PB65M), the data similarly reveals a concentration in lower income brackets for households with property values up to €80,000, although the distribution is more balanced across income categories. Notably, men with properties above €240,000 show a pronounced presence in the highest income bracket (>3 PT), reflecting the stronger association between high property value and high income. For women (PB65W), there is a marked vulnerability in lower income categories, particularly for property values under €80,000, where a majority fall below 1.5 times the PT. While higher property values reduce this disparity somewhat, the proportion of women in the >3 PT category is lower than that of men, even among those with properties above €240,000. This suggests that the financial advantages of property ownership are less pronounced for women compared to men, possibly due to underlying economic inequalities, such as lower retirement income or asset accumulation disparities. Overall, men exhibit a more balanced distribution across income brackets as property values increase, with a significant representation in the highest income category (>3 PT), particularly for properties over €240,000. Women, by contrast, tend to cluster in the lower income brackets, reflecting a persistent gender disparity in the economic wellbeing among older adults living alone in Spain.

The results obtained for the poverty threshold, the corresponding poverty rates in PB, PB65, PB65M and PB65W, as well as the gender gap, can be found in Table 5.

When comparing the poverty threshold derived from the ECV (Instituto Nacional de Estadística, 2021) with those recalculated from the EFF, we find that they are quite similar. The poverty threshold published by the Instituto Nacional de Estadística is €9,626, corre-

Table 4 Distribution (%) of PB65, PB65M and PB65M by equivalised disposable income (€) and net property values (€)

	PB65						
	Equivalised disposable income						
Net Property Value	<=PT	(PT, 1.5 PT]	(1.5 PT, 2 PT]	(2 PT, 2.5 PT]	(2,5 PT, 3 PT]	>3 PT	Row total
≤40,000	2.10	6.81	1.37	1.11	0.56	0.79	12.74
(40,000, 80,000]	2.26	12.19	3.88	3.20	0.84	1.04	23.41
(80,000, 120,000]	7.66	7.96	1.74	1.09	0.79	1.78	21.02
(120,000, 160,000]	1.19	4.16	1.40	0.19	0.68	1.22	8.84
(160,000, 200,000]	0.84	2.73	1.38	1.77	0.59	0.61	7.92
(200,000, 240,000]	1.19	0.77	1.00	0.87	0.88	2.06	6.77
>240,000	1.03	2.88	2.16	2.01	3.19	8.03	19.30
Column total	16.27	37.50	12.93	10.24	7.53	15.53	100.00
	PB65M						
	Equivalised disposable income						
Net Property Value	**<=PT**	**(PT, 1.5 PT]**	**(1.5 PT, 2 PT]**	**(2 PT, 2.5 PT]**	**(2,5 PT, 3 PT]**	**>3 PT**	**Row total**
≤40,000	3.55	2.33	0.86	3.71	0.00	0.79	11.24
(40,000, 80,000]	0.09	8.48	5.56	3.34	0.61	3.45	21.53
(80,000, 120,000]	6.83	7.51	3.98	2.52	0.65	5.68	27.17
(120,000, 160,000]	0.00	0.00	3.01	0.58	0.97	1.90	6.46
(160,000, 200,000]	0.00	1.24	0.00	2.74	1.47	0.64	6.09
(200,000, 240,000]	0.00	0.82	1.65	0.68	1.06	4.69	8.90
>240,000	2.45	1.84	0.00	2.86	2.27	9.19	18.61
Column total	12.92	22.22	15.06	16.43	7.03	26.34	100.00
	PB65W						
	Equivalised disposable income						
Net Property Value	**<=PT**	**(PT, 1.5 PT]**	**(1.5 PT, 2 PT]**	**(2 PT, 2.5 PT]**	**(2,5 PT, 3 PT]**	**>3 PT**	**Row total**
≤40,000	1.48	8.73	1.59	0.79	0.01	0.78	13.38
(40,000, 80,000]	3.19	13.18	3.75	3.73	0.34	0.01	24.20
(80,000, 120,000]	8.01	7.84	0.78	0.78	0.36	0.60	18.37
(120,000, 160,000]	1.70	5.93	0.71	0.01	0.56	0.92	9.83
(160,000, 200,000]	1.20	3.88	1.44	1.37	0.00	0.81	8.70
(200,000, 240,000]	1.70	0.74	0.73	0.95	0.00	1.73	5.85
>240,000	0.42	3.32	3.04	3.13	2.17	7.59	19.67
Column total	17.70	43.62	12.04	10.76	3.44	12.44	100.00

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively. PT stands for the poverty threshold

Source: Own elaboration

sponding to a poverty rate of 21%, and the poverty rate for individuals aged 65 and older is 18.8%.

According to (Munoz et al., 2018), the gender gap in the poverty rate, denoted by GG, is defined as the percentage point difference between the poverty rate for women and the poverty rate for men. Specifically, we analyse the gender gap in households within PB65. The results reveal a gender gap of 4.77% in poverty rates, reflecting a significant inequality between men and women. This disparity can be attributed to various structural and socio-

Table 5 Poverty threshold, poverty rate (%) and gender gap (%)

Poverty threshold	8,956.37€				
	PB	PB65	PB65M	PB65W	*GG*
Poverty rate	19.89	16.26	12.92	17.69	4.77

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively. *GG* stands for the gender gap

Source: Own elaboration

economic factors that affect women throughout their working lives and into retirement. Firstly, many women in PB65 do not have long or continuous careers (OECD, 2021). This is often due to family responsibilities, such as child-rearing or caregiving for dependent relatives, which lead to career interruptions and limit their contributions to social security systems. Additionally, women continue to face a persistent gender wage gap (Arulampalam et al., 2007), which impacts their lifetime earnings and savings. Furthermore, women have a longer life expectancy than men (Atance et al., 2024), resulting in a higher likelihood of relying on widow's pensions, which are generally lower than contributory retirement pensions. Since women are more likely to outlive their spouses, they frequently depend on these pensions, which typically do not fully compensate for the loss of the deceased spouse's income, placing them in a state of economic vulnerability.

As described in Step 6, to analyse the effect of taking out an RM on the economic well-being of individuals aged 65 and over living alone, we recalculate the poverty threshold in PB by adding the extra income represented by this financial product, C, to the equivalised disposable income of the households in DB65. Table 6 includes some descriptive values of C, whereas, Table 7 presents the new poverty rates and the gender gap calculated based on the revised poverty threshold.

The data in Table 6 provide a detailed insight into the amounts C obtained from RMs among seniors in Spain aged 65 or older who live alone, own 100% of their property, and meet the necessary financial requirements. Column totals indicate the values of the minimum, maximum, median, mean, standard deviation (SD), 1st quartile (1Q), and 3rd quartile (3Q) of C among individuals in PB65. The analysis considers the same property value ranges as in Table 4, revealing interesting patterns in RM income distribution. As expected, RM income increases as the net property value rises. Seniors with properties valued at €40,000 or less receive an average of €788.22, whereas those with properties over €240,000 obtain an average of €8,161.47. The variability of RM income, measured by SD, also increases with property value, reaching its highest level of €6,429.12 for the highest property value range. Men generally obtain higher RM incomes than women across all property value ranges. The overall mean for men is €4,013.57, compared to €3,014.89 for women. The gap is particularly pronounced in high-value properties above €240,000, where men receive an average of €10,659.01, significantly more than the €7,152.13 received by women. Additionally, men exhibit greater variability in RM income, as indicated by their higher SD in most property categories. For lower property values up to €80,000, the mean and median RM income remain relatively similar between genders, although men still have slightly higher values. In the mid-range property segment, between €80,000 and €200,000, the gap begins to widen, with men consistently obtaining higher median and mean RM incomes. The difference becomes striking for high-value properties above €240,000, where the maximum amount received by men reaches €56,206.72, significantly surpassing the

Table 6 Values of C (€)

	PB65						
	Values of *C*						
Net Property Value	Minimum	Maximum	Median	Mean	SD	1Q	3Q
≤40,000	87.03	1,816.26	707.93	788.22	518.65	362.05	1,260.54
(40,000, 80,000]	47.63	3,658,87	1,106.65	1,338.40	860.79	613.37	1,810.71
(80,000, 120,000]	93.23	4,540.37	2,016.66	2,234.05	974.93	1,726.52	2,884.24
(120,000, 160,000]	1,074.27	6,935,20	2,333.61	3,118.12	1,658.29	1,654.26	5,001.62
(160,000, 200,000]	1,490.43	9,182.52	2,595.28	3,113.25	1,446.91	2,195.57	3,651.58
(200,000, 240,000]	1,751.14	9,093.45	4,737.62	4,905.19	2,316.91	2,934.59	7,127.99
>240,000	1,410.09	56.206,72	6,495.74	8,161.47	6,429.12	3,204.23	10,976.54
Column total	47.63	56,206.72	2,018.82	3,313.75	3,981.63	1,132.78	3,741.47
	PB65M						
	Values of *C*						
Net Property Value	**Minimum**	**Maximum**	**Median**	**Mean**	**SD**	**1Q**	**3Q**
≤40,000	362.05	1,816.26	1,178.08	1,033.77	635.96	362.05	1,816.26
(40,000, 80,000]	47.63	3,658.87	1,103.20	1,447.97	1,099.29	543.54	2,737.56
(80,000, 120,000]	93.23	4,540.37	2,330.70	2,431.50	1,137.53	1,732.09	3,619.73
(120,000, 160,000]	1,272,47	6,935.20	2,606.60	3,109,49	1,472.50	1,908.00	3,706.94
(160,000, 200,000]	2,306.18	9,182.52	3,203.53	3,746.66	1,585.25	2,306.18	4,325.21
(200,000, 240,000]	1,933.70	9,093.45	5,110.15	5,782.99	2,538.77	3,621.22	8,375.79
>240,000	2,466.14	56,206.72	6,023.99	10,659.01	9,269.45	4,042.43	17,294.65
Column total	47.63	56,206.72	2,466.14	4,013.57	5,396.95	1,356.99	4,119.52
	PB65W						
	Values of *C*						
Net Property Value	**Minimum**	**Maximum**	**Median**	**Mean**	**SD**	**1Q**	**3Q**
≤40,000	87.03	1,443.93	707.93	700.05	436.99	294.33	1,077.15
(40,000, 80,000]	403.69	2,911.05	1,132.78	1,296.77	746.36	682.12	1,627.32
(80,000, 120,000]	560.85	4,378.17	2,016.66	2,109.49	832.89	1,726.52	2,884.24
(120,000, 160,000]	1,074.27	5,845.29	2,048.36	3,120.54	1.,706.80	1,654.26	5,001.62
(160,000, 200,000]	1,490.43	6,675.42	2,595.28	2,923.51	1,346.00	2,156.26	2,885.72
(200,000, 240,000]	1,751.14	8,042.30	3,151.23	4,335.39	1,960.62	2,934.59	6,064.59
>240,000	1,410.09	37,257.30	6,669.34	7,152.13	4,446.83	3,056.35	10,976.54
Column total	87.03	37,257.30	2,016.66	3,014.89	3,144.28	1,106.65	3,277.83

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively. SD stands for standard deviation, 1Q for 1st quartile, and 3Q for 3rd quartile

Source: Own elaboration

Table 7 Poverty threshold, poverty rates (%) and gender gap (%) with RMs

Poverty threshold	9,025.67€				
	PB	PB65	PB65M	PB65W	*GG*
Poverty rate	19.34	5.56	5.17	5.73	0.56

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively. *GG* stands for the gender gap

Source: Own elaboration

Table 8 Poverty rates (%) with and without RMs and gender gap reduction (%)

	PB65	PB65M	PB65W	*GG*
Poverty rate without RM (1)	16.26	12.92	17.69	4.77
Poverty rate with RM (2)	5.56	5.17	5.73	0.56
(1)–(2)	10.70	7.75	11.96	4.21

Note: PB65 refers to single-person households of individuals aged 65 and older in the population under study (PB), with PB65M and PB65W representing men and women, respectively. *GG* stands for the gender gap

Source: Own elaboration

€37,257.30 observed for women. These findings point to a gender gap in RM income, with men often receiving larger sums than women.

In Table 7 it is observed that the increase in disposable income of households belonging to DB65, as a consequence of incorporating the amount C from the RM, raises the poverty threshold for the whole population represented by PB. Thus, the poverty threshold changes from €8,956.37 to €9,025.67.

When analysing the effect of this new threshold on poverty rates, it can be observed that the taking out of an RM reduces them (compare Tables 5 and 7), both when examining all households belonging to PB65 and when considering men (PB65M) and women (PB65W) separately.

The taking out of the RM reduces the poverty rate of households in the PB65 by 10.70% points, the poverty rate for men in that database by 7.75% points and the rate for women by 11.96% points. Regarding GG, assuming all individuals of PB65 take out an RM, by comparing Tables 5 and 7, it can be seen that under this assumption the gender gap in the poverty rate decreases by 4.21% points.

5 Discussion

This study aimed to address two research questions.

RQ1 examines the extent to which RMs reduce the poverty rate among older adults living alone in Spain. Results in Sect. 4 show that, after performing Steps 1 to 4 described in Sect. 3, the poverty threshold for the entire Spanish population (represented in PB) is €8,956.37 (Table 5). Under the assumption that all Spanish adults aged 65 or older who live alone, own 100% of their residence and meet the financial criteria to apply for an RM (individuals in PB65) take out this financial product, the poverty threshold for the entire population is, as collected in Table 7, €9,025.67, meaning an increment of approximately 0.77% respect to the previous poverty threshold. The increase in the poverty threshold affects the poverty rate differently among the entire population, being especially significant for households in PB65. Notably, there is an important reduction in the poverty rate of individuals in this group, as seen in Table 8. Thus, if all households in PB65 were to take out an RM, the poverty rate for this group would change from 16.26 to 5.56%, a decrease of 65.81%. The decrease is somewhat lower for men than for women, at 59.98% and 67.61%, respectively.

Several authors have investigated the role of RMs in poverty reduction among older adults. Morgan et al. (1996), focusing on older women living alone in the US, conclude that supplementary income from an RM reduces the percentage of them living at or below the poverty line by 13.70% points. In Spain, our study similarly reveals a poverty rate reduc-

tion of 11.96% points for this demographic. Other papers do not specifically focus on older adults living alone or differentiate between men and women regarding the effect of RMs on the reduction of poverty rates. However, our finding that RMs reduce the poverty rate in PB65 by 10.70% points (a 65.81% decrease) aligns with their conclusions. In the US context, Kutty (1998) shows substantial potential for RMs to alleviate poverty among older adult homeowners, highlighting the ability of this tool to reduce poverty rates among this group. Similarly, based on a related measure called the economic vulnerability index, Moscarola et al. (2015) demonstrate that RMs could help reduce the vulnerability of adults aged 65 or over in nine European countries. Heo et al. (2016) demonstrate that if more older adult homeowners in Korea used RMs, poverty rates could decrease substantially, with a particularly strong impact on single-person households compared to couple-based households. More recently, Choi et al. (2022) argue that the poverty rate for South Koreans aged 65 and over would decrease if all individuals in this age group were to take out an RM.

As far as RQ2 is concern, i.e., whether RMs reduce the gender gap in poverty rates among older adults living alone in Spain, our results reveal (Table 5) that if individuals in PB65 do not have an RM the gender gap in poverty rates for this group equals 4.77%. After considering that all individuals in this demographic group take out an RM and recalculating the new poverty threshold for the entire population, this gender gap decreases to 0.56%. Therefore, as illustrated in Table 8., RMs could reduce the gender gap in poverty rates among Spanish older adults living alone by 4.21% points, representing a reduction of 91.82%.

Although, to the best of our knowledge, there is no prior research specifically addressing the gender gap in poverty rates among older adults living alone, our results are consistent with related studies. Kutty (1999) suggests that marketing RMs as a poverty alleviation tool should prioritize households headed by poor women living alone, rather than households with couples, as the former benefit more significantly from RMs. The author argues that, since the poverty rate among older women is higher than that among men, the substantial gains that women-headed households experience from RMs position this financial product as a tool that benefits the segment of the older adult population most affected by poverty, namely, women. Similarly, Ong (2008) points out that those most likely to receive the greatest gains from RMs are homeowners who are older, live alone and are female. Our results also show that the impact of RMs on poverty reduction is greater for women than for men, demonstrating a significant reduction in the gender gap in poverty rates.

6 Conclusions

The number of individuals aged 65 and older living alone has increased significantly over the last decades (Ortiz-Ospina, 2020), making this demographic particularly relevant in discussions about poverty. Older adults living alone are especially vulnerable, as they face greater economic and social challenges compared to their peers who live with others (Rasmussen et al., 1997; Noviarini et al., 2024). This study focuses the significant challenge of high poverty rates (OECD, 2023) among the increasingly aging global population. Based on existing literature, which emphasizes that measuring poverty in this demographic requires combining both disposable income and net worth (see, e.g., Rank & Williams, 2010; Brandolini et al., 2010; Azpitarte, 2011; Kuypers & Marx, 2018; and Choi et al., 2022), this article employs the poverty rate income-wealth approach to provide a comprehensive poverty

assessment. Of the various forms of wealth, the analysis is restricted to housing wealth, particularly primary residences, as a high percentage of older adults own the homes in which they live. While multiple options exist to monetize housing wealth, we only consider RMs as a potential tool for poverty alleviation. Our study limits itself to older adults aged 65 and over who live alone and, more particularly, to Spain. The literature has documented a substantial potential market for RMs among older adults living alone (Mayer & Simons, 1994; Merrill et al., 1994; Rasmussen et al., 1995), suggesting that RMs offer additional income that can improve poverty rates, with single-person households having the most to benefit from this financial product. Considering older adults aged 65 or over who own 100% of the dwelling they live in and meet the financial conditions to apply for an RMs, our approach allows for an in-depth examination of RMs' impact on the poverty rate of these adults and investigates the role of RMs in reducing the gender gap in poverty rates, ultimately offering essential insights for targeted policy interventions for this vulnerable group.

The main conclusions of this research are twofold. First, based on the data used, RMs reduce the poverty rate of older adults aged 65 or over living alone in Spain by 65.81%. When examining men and women separately, the reduction is 59.98% for men and 67.61% for women, indicating a slightly greater impact for women. Second, RMs narrow the gender gap in poverty rates among these older adults by 4.21% points, which represents a reduction of 91.82%. In our opinion, these conclusions may have significant implications both at the individual and societal levels, which are derived from the combined income-wealth approach used to assess poverty. By incorporating housing wealth alongside disposable income, our study provides a more accurate assessment of older adults' financial situation, demonstrating that RMs can reduce poverty rates significantly.

On the one hand, demonstrating that RMs can reduce poverty rates among older adults living alone highlights this financial product as a valuable tool for this demographic. This finding can empower individuals aged 65 and over to consider RMs as a viable means of financial support, which can improve their standard of living and reduce financial stress in later life. On the other hand, since RMs have a greater poverty reduction impact for women than for men, our results can be particularly relevant for older women who, on average, may have lower income and savings due to historical income disparities. Furthermore, the fact that RMs narrow the gender gap in poverty rates is significant for promoting economic equity among older adults.

By accurately reflecting the financial reality of older adults living alone, our approach reinforces the need for targeted policy interventions that consider both income and wealth. Moreover, with the reduction of poverty rates and the narrowing of the gender gap through RMs in this demographic, the societal economic burden associated with supporting older adults in poverty can be alleviated. This can free up public funds for other social services, creating a more balanced allocation of resources that benefits society as a whole.

Our findings lead to several recommendations. First, entities offering RMs should actively promote this financial product in Spain, where the market remains largely undeveloped. Expanding awareness and encouraging uptake could help RMs become a more accepted tool for alleviating poverty among older adults. Second, policymakers could focus on improving public understanding of RMs, which are often viewed negatively. Educational programs clarifying RM benefits and functionality could help to dissipate misconceptions. Additionally, programs designed to make RMs more accessible, such as partnerships with financial institutions or a government-backed RM program similar to the US Home Equity

Conversion Mortgage or the UK Equity Release Council Scheme, could be introduced. Such public support would not only enhance confidence in RMs but also offer a safer, standardized option for seniors, effectively addressing the unique financial needs of older adults living alone. Finally, promoting financial literacy around RMs can help future retirees make informed decisions about their long-term financial security.

We acknowledge that our study has certain limitations and could be expanded in some aspects. This manuscript focuses only on Spain. Nevertheless, the approach it presents can be easily replicated in other countries, provided the necessary data is available. In this regard, comparing Spain's results with those of other countries could be a valuable direction for further research. Additionally, other housing monetization products could be considered, similar to the work of Kutty (1999), and the monetization of other assets within household wealth could also be taken into account. Other possible extensions of this article include analysing the evolution of the results over time or accounting for expenses that homeowners may incur as a consequence of becoming dependent with age. The incorporation of these extraordinary expenses into the finances of older adults has already been considered in the works by Boj et al. (2020, 2022, 2024). The paper by Noviarini et al. (2024) addresses home equity release and its financial adequacy for divorced and widowed retirees in New Zealand. Within the PB65 group, our research only differentiates between men and women in terms of the effect of RMs on poverty rate reduction. Following the focus of Noviarini et al. (2024), an expanded version of our research could include results segmented by marital status or age, providing a more detailed analysis of RM impacts across different demographic subgroups.

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Declarations

Conflict of Interest The authors have no competing interests to declare that are relevant to the content of this article

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